WHO APPLIES FOR HOUSING ALLOWANCES?
EARLY LESSONS FROM THE
HOUSING ASSISTANCE SUPPLY EXPERIMENT

PHYLLIS L. ELLICKSON

R-2632-HUD

AUGUST 1981

HOUSING ASSISTANCE SUPPLY EXPERIMENT

Sponsored by
The Office of Policy Development and Research
U.S. Department of Housing and Urban Development

Rand
SANTA MONICA, CA. 90406
The research reported here was performed pursuant to Contract No. H-1789 with the Office of Policy Development and Research, U.S. Department of Housing and Urban Development. Statements and conclusions in this report are those of Rand's research staff and do not necessarily reflect the views of the sponsoring agency.

The Rand Publications Series: The Report is the principal publication documenting and transmitting Rand's major research findings and final research results. The Rand Note reports other outputs of sponsored research for general distribution. Publications of The Rand Corporation do not necessarily reflect the opinions or policies of the sponsors of Rand research.
WHO APPLIES FOR HOUSING ALLOWANCES?
EARLY LESSONS FROM THE
HOUSING ASSISTANCE SUPPLY EXPERIMENT

PHYLLIS L. ELLICKSON

R-2632-HUD

AUGUST 1981

HOUSING ASSISTANCE SUPPLY EXPERIMENT

Sponsored by
The Office of Policy Development and Research
U.S. Department of Housing and Urban Development

Rand
SANTA MONICA, CA. 90406
PREFACE

This report was prepared for the Office of Policy Development and Research, U.S. Department of Housing and Urban Development (HUD). As part of the Housing Assistance Supply Experiment's examination of who participated in the allowance program and why, this study examines the factors affecting an eligible household's decision to apply for a housing allowance during the first year of program operations. Using data on such households in St. Joseph County, Indiana, it tests a two-stage model of the enrollment choice. The first stage analyzes how people learned about the program; the second analyzes factors affecting the decision to apply for those who knew about the program.

The analysis should be useful to policymakers concerned about underutilization of government assistance programs, and to administrators of such programs. It points toward several strategies for increasing participation—particularly among potential applicants with the greatest need for assistance.

The research reported here draws on data collected by Rand as part of the Housing Assistance Supply Experiment (HASE). The author wishes to thank the many individuals on the HASE staff who contributed directly or indirectly to the collection and processing of the data used in this report. Special acknowledgments are due to Grace Carter and Daniel A. Relles, who provided consistently sound advice on statistical issues, and to Rand reviewers Jacqueline Goodchilds and Anthony H. Pascal, whose many constructive comments substantially improved the manuscript. Marilyn Timm and Melodie Ericson prepared the draft typescript and tables; Dolores Davis was production typist. Jane Abelson edited the report and supervised its final production.

This report was prepared pursuant to HUD Contract H-1789, Task 2.16.6. As noted, it is based on data for the first year of program operations in one of two experimental sites. Subsequent reports in this series will cover later years of program operations in both sites.
SUMMARY

The Housing Assistance Supply Experiment (HASE) was designed to study market and community response to a full-scale housing allowance program—one that is open to nearly all low-income renters and homeowners in the housing market. Despite an extensive outreach campaign, less than 40 percent of the eligible households in either of the two experimental sites have enrolled. The allowance experiment’s low enrollment rates are not unusual; widespread nonparticipation occurs in many government-assistance programs. Nevertheless, one might have expected a more favorable response to a program so well-publicized.

This report asks what the HASE experience can tell us about why so many people fail to apply for government assistance. Using data on households eligible for an allowance in St. Joseph County, Indiana, it tests a two-stage model of the decision to apply during the first year of program operations. The first stage looks at how people learned about the program; the second asks what factors affect the decision to apply for those who knew that the program existed.

The analysis indicates that there are two groups of nonparticipants: the "most needy" and the "least needy." Many of the neediest households failed to enroll. They slipped through the cracks for several reasons: (1) Some had not heard of the program; (2) others had heard but could not accurately judge its relevance to them; (3) still others lacked the social support so important for overcoming negative attitudes toward government aid. Efforts to increase enrollment among this group need to combat the negative effects of information costs and aversion to assistance on the decision to apply.

Our results suggest that outreach campaigns based on radio and word-of-mouth communication have the most potential for reducing nonparticipation among the neediest eligibles. Among the major media, radio is particularly relevant for informing elderly singles, who constitute a high proportion of the radio audience. But personal contact is the key to identifying isolated eligibles, helping them understand what the program offers, and convincing them to apply. Enlisting the cooperation of personnel from other social service agencies and community groups could help meet the need for face-to-face communication.

The summary below presents a more detailed description of the study’s findings and implications.

OBTAINING PROGRAM INFORMATION

- Fully 13 percent of those eligible for a housing allowance were prevented from applying by lack of information about its existence. If everyone in this group found out about the program and applied at the rate of those who already knew, enrollment would increase by at least 15 percent.
- The neediest eligibles are often the least likely to learn about a new social program. With the exception of black households, those who qualify for the highest payments and spend the most on housing are the least likely to have heard of the allowance program. The bulk of this group consists of elderly singles and single parents.
- Among the major media, only radio usage affects the acquisition of basic program information. Neither television nor newspaper exposure has a significant impact on learning about the program.
- Word-of-mouth communication—particularly from program knowledgeable—in-
creases both the likelihood that eligibles will hear about the program and the probability that they will acquire and remember substantive program details. Thus, outreach campaigns that emphasize personal contact have considerable potential for spreading the word to the uninformed and clearing up confusion among those who know the program exists.

DECIDING TO APPLY

- The housing assistance aspects of the allowance program both enhance and impede participation among those who are aware of its existence. Eligibles who share crowded quarters and those who have demonstrated a strong preference for space are more likely to apply. These people appear to view the allowance as something more than a back-door negative income tax. They seem to believe that the payments are for housing, and apply just because they need housing assistance. Some of them might be less inclined to apply for other, possibly less acceptable, forms of government aid. On the other hand, the anticipated cost of repairs appears to impede enrollment. Owners who live in poorer quality homes are less likely to apply. The latter act as though they anticipate being required to repair their units and view the benefits of applying as not worth the price.

- Eligible households do apply more frequently the lower their incomes and thus the higher their expected benefits. But they calculate their benefits based on a rough assessment of their financial situation during the preceding year, an assessment that typically underestimates their actual entitlement. In the absence of extensive efforts to help them assess their actual allowance, eligible households are unlikely to respond to higher allowance entitlements by enrolling more heavily.

- Aversion to government assistance significantly depresses enrollment. Eligibles who oppose government housing aid are much less likely to apply than those who favor it. Although this factor affects participation among both young and old eligibles, elderly people more frequently experience doubts about the legitimacy of government assistance programs, doubts that may reflect pride in their independence or fear of stigmatization. Publicity distinguishing the program from “welfare” should help reduce elderly nonparticipation.

- Among aware eligibles, talking about local affairs with a friend, neighbor, or relative enhances the likelihood of applying. Thus, word-of-mouth communication has a triple role to play in increasing participation: It enhances simple program awareness, spurs people to acquire the substantive details that help them judge the program’s relevance to them, and provides the support required to transform the thought of applying into the action.

- The marginal benefit/high-cost explanation of nonparticipation applies mainly to owners. As a group, they qualify for lower benefits, anticipate higher repair costs, and more frequently oppose government housing aid. Nonparticipation among this group has conflicting effects on program goals: It probably enhances the targeting of funds to the neediest eligibles but limits the program’s effectiveness as a stimulant for improving the housing stock.
POLICY IMPLICATIONS

- Information costs act as the most important barrier to participation: Lack of information prevents a substantial proportion of the neediest eligibles from applying; inadequate information hampers their ability to correctly assess their own eligibility and benefits. Despite an extensive outreach campaign, the housing allowance program failed to adequately inform many of the neediest eligibles during its first program year. This finding suggests that how outreach is conducted has a substantial effect on an assistance program's ability to enroll its target population.

- Successful outreach campaigns need to emphasize word-of-mouth communication. Talking about the program with other people spreads program awareness, enables eligibles to understand their benefits, and helps them overcome any initial hesitancy about applying. Enlisting the cooperation of other assistance agencies, community groups, and volunteer canvassers could help identify needy eligibles and convince them to apply. However, such efforts require careful outreach targeting, as well as a commitment to the notion that informing and convincing needy eligibles to apply is a legitimate and important route to achieving program goals.

- A substantial proportion of the target population cannot make accurate assessments of their eligibility and benefits. Increasing overall benefit levels is unlikely to enhance participation rates unless an active and successful campaign to communicate the new rules is undertaken.

- Owners tend to be marginal eligibles who are easily dissuaded from applying by the thought that they might incur repair costs. Policymakers need to consider whether discouraging homeowners from applying is a desirable or undesirable feature of the housing standard requirement.
CONTENTS

PREFACE .................................................................................................................. iii
SUMMARY ................................................................................................................. v
TABLES ....................................................................................................................... xi

Section

I. INTRODUCTION ..................................................................................................... 1
   Key Features of the Allowance Program ............................................................ 2
   Cash Payments ................................................................................................... 2
   Eligibility for Assistance .................................................................................. 2
   Meeting Requirements To Receive Payments ................................................. 3
   Program Outreach .............................................................................................. 3
   Modeling the Decision To Apply: An Overview .............................................. 4
   Data Sources ....................................................................................................... 5
   Limitations Imposed by the Data ..................................................................... 6
   Organization of the Report ................................................................................ 6

II. FACTORS AFFECTING THE ACQUISITION OF PROGRAM INFORMATION .... 7
    Measuring Program Awareness ...................................................................... 7
    Information Levels and Participation ............................................................. 8
    Program Information among Eligible Households ........................................ 10
    How Program Information Is Acquired: The Logit Model ......................... 12
       Specific Hypotheses ..................................................................................... 12
       Specific Variables ....................................................................................... 13
    How Program Information Is Acquired: Empirical Results ....................... 14
       Information and Level of Need ................................................................ 18
       Information and the Media ...................................................................... 18
       Information and Word-of-Mouth Communication ..................................... 19
       Information and Attitudes ........................................................................ 20
       Information and Demographic Characteristics ....................................... 20
    Acquiring Program Details ............................................................................ 21
    Summary ......................................................................................................... 22

III. FACTORS AFFECTING THE DECISION TO APPLY ..................................... 24
    Under- and Overenrollment among Eligible Groups .................................... 24
    Deciding To Apply: The Logit Model ............................................................... 24
       Specific Hypotheses ..................................................................................... 26
    Measuring Monetary Benefits ...................................................................... 27
    Deciding To Apply: Empirical Results ........................................................... 28
       Enrollment and Expected Monetary Benefits ......................................... 28
       Enrollment and Expected Housing Benefits ............................................. 32
       Enrollment and Out-of-Pocket Costs ......................................................... 33
       Travel Costs ............................................................................................... 33
Psychic Costs ................................................................. 34
Enrollment and Demographic Characteristics ......................... 34
Summary ........................................................................... 35

IV. POLICY IMPLICATIONS ....................................................... 37

Appendix: SUPPLEMENTARY TABLES ................................. 39

REFERENCES ......................................................................... 45
TABLES

2.1. Level of Information among Eligible Households: St. Joseph County, Wave 2 ........................................ 8
2.2. Enrollment by Level of Information: Eligible Households, St. Joseph County, Wave 2 ........................................ 9
2.3. Level of Information among Eligible Groups: St. Joseph County, Wave 2 .................................................. 11
2.4. Definitions of Variables Included in Program-Awareness Equation ......................................................... 15
2.5. Acquisition of Program Information: Logit Results for All Eligible Households, St. Joseph County, Wave 2 .................................................. 16
2.6. Acquisition of Program Details: Logit Results for Eligible Households (Levels 2 and 3), St. Joseph County, Wave 2 .................................................. 17
3.1. Enrollment among Eligible Households: St. Joseph County, Wave 2 .................................................. 25
3.2. Definitions of Variables Included in Decision-To-Apply Equation .................................................. 29
3.3. The Decision To Apply: Logit Results for Eligible and Aware (Levels 2 and 3) Households, St. Joseph County, Wave 2 .................................................. 30
3.4. Effect of Selected Independent Variables on Median Eligible Household’s Probability of Applying, St. Joseph County, Wave 2 .................................................. 31
A.2. Means and Standard Deviations of Variables Used To Predict Acquisition of Information .................................................. 41
A.3. Means and Standard Deviations of Variables Used To Predict Acquisition of Program Details .................................................. 42
A.4. Means and Standard Deviations of Variables Used To Predict Decision To Apply .................................................. 43
I. INTRODUCTION

The Housing Assistance Supply Experiment (HASE) is designed to study market and community response to a full-scale housing allowance program—one that is open to nearly all low-income renters and homeowners. It entails operating a ten-year program in two north-central housing markets: St. Joseph County, Indiana, and Brown County, Wisconsin. In both counties, eligible households include all families and most single persons who would have to spend more than a fourth of their adjusted gross incomes to afford the standard cost of housing in the local market. Enrolled households receive monthly cash payments equal to the "housing gap" thus calculated, provided that their dwellings meet minimum standards for space, domestic facilities, safety, and sanitation.

Despite extensive publicity about the program's existence and benefits, less than 40 percent of the households eligible for a housing allowance had enrolled during the program's first three years. In one sense, this low enrollment rate is not surprising. Nonparticipation has surfaced as a problem common to a wide variety of government assistance programs. It shows up in nationwide analyses of the food stamp program, supplemental social security, and the Unemployed Fathers component of AFDC.¹ Low participation rates are also documented by case studies of school lunch and general assistance participation in specific cities.² Indeed, a recent survey of 26 participation estimates for nine different public assistance programs concluded that "in half of the cases, fewer than half of the persons eligible for benefits were receiving them" (Bendick, 1979, p. 2).

In another sense, the lukewarm response to housing allowances is surprising. Compared with many government assistance programs, HASE received broader coverage in the local news media; moreover, program administrators conducted an unusually extensive outreach campaign to inform eligible households about their potential benefits. That campaign also strove to disassociate the allowance program from the image of welfare. Program publicity stressed the legitimacy of getting housing assistance, and the staff endeavored to create a comfortable and nonthreatening office environment for clients.

Why, under such favorable circumstances, have the bulk of eligible households failed to apply for help? This report addresses that question for the experimental housing allowance program operated in St. Joseph County, Indiana. It analyzes the eligible households' decision to apply for an allowance, identifies key variables that affect that decision, and describes their effects on participation. In so doing, it illuminates the following questions:

- Who fails to participate—the least needy, the most needy, or both?
- How important is lack of information as a barrier to applying?
- Do eligible households correctly calculate their benefits?
- Do negative attitudes toward government assistance dissuade potential applicants from enrolling?
- Does the program’s focus on housing assistance impede or enhance enrollment?

Because the most significant barriers to participation in the housing allowance program

¹Nationalwide estimates of participation in the food stamp program vary between 38 percent (McDonald, 1977) and 55 percent (Hoagland, 1977). Participation in AFDC-UF is considerably lower—ranging between 15 and 30 percent (Hosek, 1979), while at 60 percent the estimated rate for SSI is somewhat higher (Comptroller General, 1976).
²Wyers (1975) puts the nonparticipation rate at 47 percent for the free school lunch program and 56 percent for public assistance in Jackson County, Oregon. Fisher and Purnell (1973) suggest that 94 percent of the Chicago households eligible for general assistance in 1964 failed to participate; estimates of nonutilization of public assistance in New York City range around 44 percent (Leeds, 1973).
reflect problems common to a wide range of public programs, the results should be useful to administrators of many different government assistance programs. They point toward several strategies for increasing participation—particularly among potential applicants with the greatest need for assistance. These strategies should be especially relevant to policymakers concerned with reducing underutilization among needy eligibles.

The rest of this section discusses specific features of the allowance program that might affect enrollment. It then outlines the general approach to modeling the decision to apply, and describes the data sources used in the analysis.

KEY FEATURES OF THE ALLOWANCE PROGRAM

To apply for a housing allowance, an applicant first completes a preliminary application—typically by calling the local housing allowance office (HAO), less frequently by mailing in the form or visiting the office. He is later contacted to schedule a date for an enrollment interview, during which a trained HAO employee asks questions designed to obtain the information required for computing eligibility (place of residence, age, household composition, assets, income, income deductions, and housing expenses). When the enrollment form is complete, the enrollee determines whether the applicant is eligible and, if so, the household's allowance entitlement.

At this point, the eligible applicant who wishes to participate signs the program’s participation agreement and is officially enrolled in the program. But he does not automatically begin receiving monthly checks. Before he can receive payments, his housing must be certified as meeting the program’s standards (by an on-site evaluation of the dwelling). If the unit fails the housing inspection, he has three choices: to repair the deficiencies himself (or, in the case of renters, to ask the landlord to make the required repairs), to move to a qualified dwelling, or to do nothing and forgo the allowance. Payments are not authorized until the repaired or new dwelling has been certified as meeting the HAO housing standards.

This brief description of the enrollment process touches upon several features of the allowance program that might affect the participation decision. They include the cash payment, the eligibility/allowance formula, and the housing inspection. Each of these is discussed in more detail below.

Cash Payments

The housing allowance approach differs from most other forms of federal housing assistance. Unlike the typical housing subsidy, allowance payments go directly to participants rather than to housing suppliers (landlords, private developers, mortgage lenders, or local housing authorities). Recipients can use their increased resources to buy additional services in the local housing market or to supplement their overall budget.

Theoretically, allowance recipients can treat their monthly payments as an unrestricted cash transfer. In practice, however, program advertising stresses the allowance's potential for helping recipients maintain or improve their housing. Thus, one question we wish to address is whether eligible households evaluate the benefits in monetary terms alone or whether they also view allowance benefits as a means for improving their housing.

Eligibility for Assistance

The formula for calculating a household’s eligibility for assistance, as well as its benefits, is not simple. During the period analyzed, eligible households were restricted to those consist-
ing of (1) one person who is elderly, handicapped, disabled, or displaced by public action; or (2) two or more related persons of any age.\footnote{In August 1977, program rules were changed to permit enrollment of most single persons under 62.} Ascertaining eligibility then involved balancing the family’s income and assets against the standard cost of housing for a household of the same size.\footnote{Adjustments to gross income generally follow those of the federal public housing program, with deductions for work-related expenses and for dependents and elderly persons. Transfer income (e.g., public assistance and social security) is included in gross income. The net asset limit is $32,500 for households headed by elderly persons and $20,000 for others.}

Periodic market studies conducted by Rand in each site provide estimates of the standard cost of adequate housing for each size of household.\footnote{Appendix Table A.1 presents the standard cost of housing ($R^*$) used by the St. Joseph County housing allowance office during the first program year.} Allowance payments fill the gap between that amount and one-fourth of the household’s adjusted gross income, with the constraint that the amount of assistance cannot exceed the actual cost of the housing services consumed by a participant. When adjusted gross income exceeds four times the standard cost of adequate housing for a given household size, the allowance entitlement drops to zero.

For example, during St. Joseph County’s first program year, the standard cost of housing for a family of five amounted to $160 per month or $1,920 per year. With an adjusted gross income of $4,600, such a family was eligible for monthly payments of $64 (or the $770 annual difference between $1,920 and a fourth of $4,600). However, a similar household with an adjusted gross income of $7,680 or more would receive nothing. Thus, to calculate their eligibility and likely benefits, prospective applicants who meet the age criteria have to ascertain two basic facts—the applicable standard cost of housing for a household of their size and their own adjusted gross income.

The complexity of the allowance formula raises the issue of whether households can judge if they are eligible for an allowance and, if so, how much they might receive. We address this question by asking if eligibles with relatively large entitlements participate more heavily than those who qualify for small benefits. A negative or nonsignificant relationship between allowance entitlement and applying would then suggest that confusion about one’s eligibility and benefits acts as a barrier to participation.

**Meeting Requirements To Receive Payments**

In order to receive monthly payments, a participating household must occupy a housing unit that meets standards of adequacy. If the unit fails the housing inspection, the household has three options: to move, to repair, or to forgo the allowance payments. Studies of participation among households invited to enroll in a housing allowance program suggest that the housing standard restriction does not affect acceptance of the offer but does diminish the proportion who actually receive payments (Kennedy and MacMillan, 1979). We are interested in whether eligible households that have to initiate the application process themselves anticipate being required to move or repair and treat those possibilities as expected costs when deciding whether or not to apply.

**Program Outreach**

Even before the allowance program began in St. Joseph County, public controversy and publicity over participation in it were considerable. Although the city of South Bend voted for
participation, both the smaller adjoining city of Mishawaka and the county at first voted against it.6

The area’s main newspaper regularly reported the controversy surrounding Mishawaka’s and the county’s participation, as well as other program concerns. Between the date of the funding agreement (6 September 1974) and the opening of enrollment (2 April 1975), The Tribune mentioned the allowance program in more than 50 stories or editorials. Many were based on press releases covering HAO presentations to community organizations, or other HAO events such as staff hirings or branch office openings. Those news items typically repeated the information presented by program managers: that the program would provide monthly allowance checks to help low-income homeowners and renters pay their housing expenses and upgrade their homes.

To minimize nonparticipation attributable to lack of program information, the housing allowance office itself initiated numerous outreach activities. HAO staff gave more than 100 presentations to community organizations and also made use of newspaper advertisements, mailings, and brochures. When the backlog of unprocessed applications dwindled three months after the program started, a four-week outreach campaign was undertaken. This intensive campaign used paid advertising in the local media, with more than half of it going to television and the rest to radio and newspapers. Throughout the rest of 1975, advertising was reduced to a “maintenance” level.

The HAO’s outreach efforts were considerably more intensive than those usually undertaken by government assistance programs. Consequently, we would expect lack of information to have a limited effect as a barrier to participation. In this analysis, we ask how many eligibles failed to apply during the first program year because they did not know of the program’s existence. That proportion should represent the lower bound of the information effect for less well-publicized social programs.

MODELING THE DECISION TO APPLY: AN OVERVIEW

Although numerous studies cite information costs as an important barrier to participation in public transfer programs, many analyses of the decision to apply fail to incorporate those costs in an analytical model, or they use proxies that are far removed from the concept. We are fortunate in having an information measure calculated directly from potential participants, that is, whether the eligible household has heard about the allowance program. Accordingly, we incorporate program information into our analysis by viewing the overall decision to apply as including two stages:

1. \[ P_{I,E} \] = probability of acquiring information about the program’s existence, given eligibility; and

2. \[ P_{A,I,E} \] = probability of applying, given knowledge and eligibility.

We treat the first stage—acquiring minimal program information—as a function of the household’s likely exposure and attentiveness to program information. Because logically, people who are unaware of the program’s existence cannot apply for assistance, we exclude

---

6To mount a countywide allowance program, approvals were needed from numerous units of local government: the county, the city of South Bend, the adjoining but much smaller city of Mishawaka, and several other incorporated municipalities. South Bend approved participation in 1975, and the program jurisdiction was extended to unincorporated territory within five miles of South Bend two months after the beginning of open enrollment.
the uninformed from the second stage of the analysis. We then treat the decision to apply as one in which the aware eligible household weighs the expected costs of enrolling against the expected benefits. Sections II and III present each model in detail.

Because each model has a binary dependent variable, we use the logistic formulation:

\[ \log \frac{p}{1-p} = a + b_1 x_1 + b_2 x_2 + \ldots + b_n x_n \]

The estimated coefficients \((b_1, \ldots, b_n)\) then give the variable’s effect on the log odds of (1) acquiring information, or (2) applying. For ease of exposition, we discuss each variable’s general effect by using phrases such as “those who have contacts with program knowledgeable are more likely to acquire information” or “being old and alone decreases the probability of applying.” When we present estimates of the variable’s precise effect, we use the partial derivative

\[ \frac{\partial p}{\partial x_i} = p(1 - p) b_i, \]

which can be interpreted as the effect of a one-unit change in the variable on the probability of applying. However, from a policy perspective, a one-unit change in a variable like income may be too small to be relevant. For continuous variables, therefore, we also calculate the effect of a substantial change in the variable—from the 25th to the 75th percentile—on the probability of enrolling, holding all other variables constant at their median value. The difference between the two statistics can then be interpreted as the effect of moving from the 25th to the 75th percentile of, for example, the income distribution on the median eligible household’s probability of enrolling.

DATA SOURCES

The data come from Rand’s second annual survey (wave 2) of more than 2,000 households in St. Joseph County. The survey was administered between January and July of 1976. We include all tenant and homeowner households that were eligible for one or more months between the start of open enrollment (1 April 1975) and the date the household was surveyed. We exclude households that were eligible on income, asset, and family-size criteria but resided in areas of the county that had not officially joined the program by December 1975. (The excluded localities include Mishawaka and most of St. Joseph County five miles beyond the city of South Bend.) Of the 329 households that met our eligibility criteria, 301 provided complete information on the independent variables required for the information acquisition model.7

Among these 301 households, 276 had heard of the program and 25 had not. The stage 1 model is thus restricted to explaining why 8 percent of the unweighted eligible sample failed to learn of the program’s existence. The fact that so many households became aware of the allowance program within a year after it started might suggest there is little left to explain; as we shall see, however, the results yield fruitful insights into the most effective means of reaching the target population of eligibles.

7Of 25 missing cases, 16 lack values for housing expenditures, an additional 8 lack data on equity, 3 lack information on persons per bedroom, and 1 lacks data on mobility.
For the stage 2 analysis, we have a sample of 275 households that had heard of the program and provided complete information on the relevant independent variables. Of those, 152 applied, 144 went to the enrollment interview, and 122 signed the participation agreement. Of the 8 households that applied but had not gone to an interview, 7 were waiting for an interview and 1 had decided it no longer needed assistance. Thus, the survey data suggest that applying and going to an interview constitute the same decision for eligibles.

Data from the HAO files on all program applicants indicate that attending the interview and enrolling also constitute a single decision. The survey data, with 22 eligibles who failed to enroll, appear to suggest otherwise. Of those 22, however, 3 say they plan to sign; 1 is undecided; 1 was not asked the question; and 17 appear to have answered incorrectly (to have confused failing the housing inspection with being ineligible and therefore not enrolled). We interpret this information as supporting the HAO data on the near simultaneity of going to an interview and signing a participation agreement. Thus, all three steps in the enrollment process (applying, having an interview, and enrolling) constitute the same decision for the typical eligible household.

Because attending the interview usually involves the physical step of traveling to the HAO and because our survey data on signing the agreement are incomplete, we have chosen to act as representing the decision to enroll. Throughout this report, we use the terms apply, enroll, and participate interchangeably. The reader should remember, however, that enrollees do not automatically receive allowance payments. To qualify for cash payments, they must also reside in or move to a unit that passes the housing inspection.

LIMITATIONS IMPOSED BY THE DATA

This study analyzes the early program response of eligible households residing in only one of the experimental sites. While we believe that the same calculus underlies both early and late participation decisions, we do not yet know whether the key barriers to participation take on more or less importance in different locations or time periods. The HASE agenda thus includes additional analyses of participation as it unfolds over time in both experimental sites. We expect that the final analysis will elaborate and clarify the findings reported here; taken together, this exploratory study and its companion reports will present a comprehensive picture of why eligible households seek or forgo housing allowance assistance.

ORGANIZATION OF THE REPORT

Section II presents descriptive data on program information among eligible households, outlines the information acquisition model, and discusses the model's results. Section III focuses on the decision to apply: It provides an overview of enrollment among policy relevant groups of eligibles, explains how we conceptualize the enrollment choice, and discusses the model's results. Section IV examines the policy implications of our findings on how eligibles learn about the program and what factors affect the enrollment decision.

---

8Less than 5 percent of the eligibles who go to the interview do not sign the participation agreement.
II. FACTORS AFFECTING THE ACQUISITION OF PROGRAM INFORMATION

Why do so many public assistance programs experience low participation rates? One frequently identified barrier to applying for government help is lack of information (Strauss, 1977; Welch, Steinman, and Comer, 1973; Wyers, 1976). Clearly, eligible households are unlikely to apply to a program they know nothing about. But even those who claim to have heard of the program may be impeded from applying by inadequate information. In order to judge the program’s relevance to their own situation, they also need to know such basic details as whom the program helps and how. This section explores how information affects participation in the allowance program: It describes those eligible households that have little or no information about the allowance program; compares their participation rates with those of households with some substantive program knowledge; and examines how program information is acquired.

MEASURING PROGRAM AWARENESS

To facilitate our analysis of information acquisition as a prerequisite for participation, we have distinguished three levels of awareness:

- Level 1  Respondent says he has not heard of the program (not informed)
- Level 2  Respondent says he has heard of the program but cannot supply any accurate program details (partially informed)
- Level 3  Respondent can supply some accurate program details (informed)

Level 1 constitutes lack of program information, applicable to persons who said they had not heard of the allowance program or did not know whether they had heard about it. It also includes persons who said they had heard of the program but then went on to describe some other government program, such as AFDC or a public housing project. Logically, any household in this category would be unlikely to apply on its own.¹

Levels 2 and 3 include all those we refer to as aware. Level 2 (partial information) applies to those who said they had heard of the allowance program but could not supply any details about it. Level 3 includes only respondents who could provide some accurate details about the program—such as whom it helps, what it helps them do, or how it might affect households. Included among level 3 respondents are those who can supply only one program detail (such as that it helps pay the rent) and those who can describe unique aspects of the allowance program, for example, that it provides cash payments to renters and homeowners, or that it is an experiment. We have labeled level 3 respondents as informed.

It is important to note that our data on program information came from the same interview in which respondents were asked whether they had filled out a preliminary application, gone to an enrollment interview, or signed a participation agreement. The awareness level of households that applied could, therefore, reflect information obtained from the housing allowance office after applying. For this reason, we cannot state that having partial information

¹In fact, one such household did fill out a preliminary application and attend a (partial) enrollment interview. The elderly respondent, whose daughter had sent in the original application, said he did not know whether he had heard of the allowance program, a response that may reflect actual confusion or a desire to avoid further questioning at the end of a long (typically 1 1/4 hours) interview.
(level 2) constitutes an absolute barrier to program participation. Some households that we have classified as informed (level 3) could actually have had no more than partial program information (level 2) at the time they applied. Nevertheless, the figures we present below should provide evidence on the minimum and maximum percent of eligible households for whom lack of or inadequate information was a potential barrier to applying during the period analyzed.

INFORMATION LEVELS AND PARTICIPATION

Ignorance of the program’s existence precluded about one out of every eight eligible households from applying during the allowance program’s first year. As Table 2.1 shows, 13 percent of the eligible population had not heard of the allowance program by at least one year after the first applicants were enrolled (level 1). ² Considering that the overall enrollment rate during this period was only 37 percent, losing 13 percent because of lack of information is even more noteworthy.

Table 2.1

LEVEL OF INFORMATION AMONG ELIGIBLE HOUSEHOLDS:
ST. JOSEPH COUNTY, WAVE 2

<table>
<thead>
<tr>
<th>Information</th>
<th>Eligible Households</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Level 1: Had not heard of program</td>
<td>1,498</td>
</tr>
<tr>
<td>Level 2: Heard, unable to give program details</td>
<td>2,902</td>
</tr>
<tr>
<td>Level 3: Heard, gave some appropriate details</td>
<td>6,750</td>
</tr>
<tr>
<td>Total</td>
<td>11,150</td>
</tr>
</tbody>
</table>

SOURCE: Tabulated by HASE staff from records of the survey of households, St. Joseph County, wave 2.
NOTE: Estimates are based on the weighted survey responses of 329 eligible households residing in those parts of St. Joseph County that had joined the allowance program by December 1975. Excluded localities include Mishawaka (the city adjoining South Bend) and most of St. Joseph County five miles beyond the city of South Bend.

²The housing allowance office initiated a trial enrollment period for selected homeowner households in December 1975. Open enrollment commenced four months later on 2 April 1976. Since these data come from the household survey administered between January and July of 1976, some of these unaware households had had a maximum of 19 months to learn about the program after trial enrollment and 14 months after open enrollment.
Other assistance programs have yielded similar estimates of the uninformed group after longer periods of operation: About 13 percent of those eligible for food stamps in three Nebraska counties had not heard of the food stamp program many years after it was initiated (Welch et al., 1973); one in seven of urban low-income residents of Baltimore did not know "where to get welfare money" in 1964 (Moles, Hess, and Fascione, 1968). Thus, in only one year the degree of program awareness achieved in the housing allowance program approaches that registered for less well-publicized programs after several years.

Information gaps other than ignorance of the program's existence may also explain failure to enroll. Many eligibles who have heard of the program may fail to participate because they do not realize they are eligible. Others may have an inaccurate notion of what their benefits might be. We do not have a precise measure of these kinds of information gaps. However, we can pinpoint the number of eligibles who have heard of the program but cannot supply any details about it (level 2). Twenty-six percent fall into this category, which suggests that an additional fourth of the eligible population may lack enough details to judge the program's relevance to them. Among those eligible for food stamps, the proportion was similar: 30 percent did not know whether or not they were eligible (Welch et al., 1973).

Not all of those whom we label partially informed fail to enroll, however. As Table 2.2 shows, 8 percent of the level 2 group applied. Thus, insufficient information may impede, but does not necessarily prevent, enrollment among that portion of the eligible population that knows only that an assistance program exists.

| Table 2.2 |
| Enrollment by Level of Information: Eligible Households, St. Joseph County, Wave 2 |

<table>
<thead>
<tr>
<th>Information</th>
<th>Attended Enrollment Interview (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Level 1: had not heard of program</td>
<td>100.0</td>
</tr>
<tr>
<td>Level 2: heard, unable to give program details</td>
<td>91.6</td>
</tr>
<tr>
<td>Level 3: heard, gave some appropriate details</td>
<td>42.7</td>
</tr>
<tr>
<td>Total</td>
<td>63.1</td>
</tr>
</tbody>
</table>

Source: Tabulated by HASE staff from records of the survey of households, St. Joseph County, wave 2.

Note: Estimates are based on the weighted survey responses of 329 eligible households residing in those parts of St. Joseph County that had joined the allowance program by December 1975. Excluded localities include Mishawaka (the city adjoining South Bend) and most of St. Joseph County five miles beyond the city of South Bend.
What would happen to enrollment if everyone in the eligible population knew the program existed? A simple, if extreme, example will shed some light. If all those who had never heard of the program acquired enough information to be classified as aware (level 2 or 3) and then applied at the same rate as level 2 and 3 households, the enrollment rate could go up by 6 percentage points, from 37 to 43 percent. This represents an increase in enrollment of 16 percent. If this uninformed group applied at the same rate as level 3 households, the enrollment rate could go up by 7.7 percentage points (representing an enrollment increase of 21 percent). Improving the information level of only the uninformed group could increase enrollment by 16 to 21 percent.

Raising the information levels of both level 1 and 2 groups could have a maximum impact on enrollment of more than 50 percent. If both groups acquired level 3 awareness and then applied as did level 3 households—an admittedly extreme assumption—the rate could go up by 20 percentage points, representing an increase in enrollment of 54 percent.

These estimates probably overstate the effect that improved information could have on enrollment. Level 1 and 2 households could have other characteristics, such as apathy, that might dissuade them from applying. However, compared with both level 2 and level 3 households, the uninformed qualify for higher benefits, pay more for their housing, and are more tolerant of government aid programs. As we shall see later, each of these characteristics enhances the probability of applying. The partially informed, on the other hand, exhibit characteristics more likely to dampen enrollment rates: They qualify for lower benefits, pay less for their housing, and are less tolerant of government aid programs. Thus, our best estimate of the potential impact of improved information on enrollment lies somewhere between 16 and 55 percent.

PROGRAM INFORMATION AMONG ELIGIBLE HOUSEHOLDS

Precisely who cannot apply because they do not know the program exists? Lack of information is clearly not a barrier to participation for black households. They account for less than 1 percent of the uninformed and only about 12 percent of the partially informed (Table 2.3). Thus, part of the explanation for higher participation rates among eligible black households appears to be their greater facility for acquiring program information.

Among eligibles with little or no program information, the elderly and owners clearly predominate. Older households constitute 57 percent of those eligibles who had never heard of the program (level 1) and they make up 58 percent of those with partial information (level 2). In other words, by the second year more than half of the eligible elderly population still had not heard of the program or could not supply any details about it.

Like the elderly, owners are also less likely to acquire program information: They make up 77 percent of the uninformed and 81 percent of the partially informed group. This tenure distinction is largely attributable to the overrepresentation of elderly households among level 1 and 2 homeowners: Almost three-fourths of these households are elderly.

Within the elderly group, information levels vary sharply by type of household. Elderly singles are much more likely than elderly couples to have never heard of the program; elderly couples are more likely to fall into the partially informed category. The implication is that the elderly in general are more difficult to inform than other eligible groups but that the single elderly constitute a particularly isolated segment of society.

However, ignorance of the program's existence is not confined to the old and alone: Another single group, single parents, accounts for just over a third of the uninformed. These parents without partners display an interesting bi-modal information profile: They either know nothing about the program or know a lot. As Table 2.3 shows, 21 percent of the single parents do not know the program exists, while 75 percent know it exists and can provide substantive details about it. None of those who have never heard of the program are black. Thus, non-
Table 2.3

LEVEL OF INFORMATION AMONG ELIGIBLE GROUPS: ST. JOSEPH COUNTY, WAVE 2

<table>
<thead>
<tr>
<th>Eligible Group(^a)</th>
<th>Level 1 (Had not heard of program)</th>
<th>Level 2 (Heard; unable to give program details)</th>
<th>Level 3 (Heard; gave some appropriate details)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blacks</td>
<td>.7</td>
<td>11.8</td>
<td>21.2</td>
</tr>
<tr>
<td>Elderly</td>
<td>57.4</td>
<td>58.4</td>
<td>26.8</td>
</tr>
<tr>
<td>Owners</td>
<td>77.2</td>
<td>80.9</td>
<td>53.0</td>
</tr>
<tr>
<td>Single parents</td>
<td>34.0</td>
<td>3.7</td>
<td>27.3</td>
</tr>
</tbody>
</table>

Percent of Information Level Comprised of Different Eligible Groups

<table>
<thead>
<tr>
<th>Eligible Group</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blacks</td>
<td>.6</td>
<td>19.3</td>
<td>80.1</td>
</tr>
<tr>
<td>Elderly:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singles</td>
<td>24.6</td>
<td>36.6</td>
<td>38.9</td>
</tr>
<tr>
<td>Couples</td>
<td>1.1</td>
<td>47.6</td>
<td>51.2</td>
</tr>
<tr>
<td>Owners</td>
<td>16.3</td>
<td>33.1</td>
<td>50.5</td>
</tr>
<tr>
<td>Single parents</td>
<td>20.7</td>
<td>4.4</td>
<td>74.9</td>
</tr>
</tbody>
</table>

Source: Tabulated by HASE staff from records of the survey of households, St. Joseph County, wave 2.

Note: Of the groups shown in the table, only the elderly and single-parent categories are mutually exclusive. Estimates are based on the weighted survey responses of 329 eligible households residing in those parts of St. Joseph County that had joined the allowance program by December 1975. Excluded localities include Mishawaka (the city adjoining South Bend) and most of St. Joseph County five miles beyond the city of South Bend. Percentages may not add to 100.0 because of rounding.

\(^a\) Weighted Ns are as follows: blacks, N = 1,786; elderly singles, N = 3,458; elderly couples, N = 905; owners, N = 7,081; single parents, N = 2,461.

\(^b\) Weighted Ns are as follows: level 1, N = 1,498; level 2, N = 2,902; level 3, N = 6,750.

Black single parents approach the isolation of elderly singles. Blocked by their lack of information from enrolling, these two groups depress the overall enrollment rate among eligible households.

Clearly, an outreach program directed at elderly singles and nonblack single parents would improve enrollment rates. Continuing our simplified example, the enrollment rate for elderly singles could go up by 8 percentage points if all those who had never heard of the program applied at the same rate as level 2 and 3 elderly singles. For single parents, the effects are even more striking: If uninformed single parents obtained information about the program's existence and applied at the rate of level 2 and 3 single parents, their enrollment rate would jump by 27 percentage points.

But what type of outreach program would be most effective at reaching these households? The following discussion sheds light on this question.
HOW PROGRAM INFORMATION IS ACQUIRED: THE LOGIT MODEL

To gain a better understanding of how program information is acquired, we have developed and estimated a model of information acquisition. This section sets forth the theoretical reasoning that underlies the model.

One approach to how information is acquired assumes that those who learn of a program's existence are those most likely to be exposed to relevant information through the media or word-of-mouth contacts. A second approach stresses selective attention and assumes that those with a greater incentive to know about the program (i.e., those who anticipate greater potential gains because of its existence) are more likely to learn of it (Weiss, 1969).

Our earlier work on information acquisition among the general (i.e., eligible and noneligible) population of households in St. Joseph County suggested that both principles are at work: Persons who were more likely to be exposed to program information by virtue of their higher education and occupational status were more knowledgeable. Similarly, groups with a greater incentive to know—because of their greater eligibility for assistance—were also more knowledgeable (Ellickson, 1978).

Accordingly, we have incorporated both approaches into a single logistic model of information acquisition:

\[
\log \frac{p}{1-p} = \alpha_0 + \beta'x + \alpha'z,
\]

where \( p \) = probability of hearing about the program given that the household is eligible,

\( x \) = a vector of variables measuring exposure to program information, and

\( z \) = a vector of variables measuring selective attention to program information.

Specific Hypotheses

The specific formulation of the model differs from that presented in our earlier work because eligible households differ from ineligible households. Unlike the general population, eligible households all have a reason (or incentive) to know about the allowance program. Compared with ineligible households, they are also more likely to be exposed to specific information channels (such as contacts with welfare workers).

Attention Hypotheses. Here we focus on attention variables that distinguish eligible households with less "need" for assistance from those whose need is greater, i.e., households that are eligible for higher allowances, spend relatively more on housing, or live in more crowded quarters. Are the "neediest" households more likely to learn about the allowance program (as we expect) or are they more likely to remain uninformed?

We also include two variables that might counteract the "objective" incentives indexed by allowance entitlement and housing conditions. They are (1) negative attitudes toward government aid, and (2) attitudes toward integrated neighborhoods.

Opposing government aid may reflect one or both of the following subjective characteristics: fear of being stigmatized by others, and disinclination to be dependent on outside help. Other studies have shown that the stigma factor significantly depresses participation in public assistance programs (Welch et al., 1973; Wyers, 1976). We are interested in determining whether such subjective disincentives also inhibit attention to information about these programs.

In our earlier study of program knowledge among the general population, we found that people who opposed integration were less likely to be aware of the allowance program (Ellickson, 1978). We hypothesized that those who oppose racially mixed neighborhoods block out
information about a program that may foster integration while those who favor integration pay attention to news about a program that could help them move to a mixed neighborhood. We expect such an effect to be even stronger for eligible households.

**Exposure Hypotheses.** The exposure variables focus on two major channels of information, the mass media and word of mouth. We expect radio and television to outperform newspapers as program information channels for eligible households, primarily because lower income households read newspapers less frequently and thoroughly than do persons with higher incomes (Schramm, 1954).

But we also expect word-of-mouth contacts to have a significant impact on information acquisition (Welch et al., 1973; Bendick, 1979). The greater the breadth and diversity of a household’s word-of-mouth communication network, the more likely it should be to hear of the allowance program. Similarly, people who talk about local affairs with friends and relatives and those who are exposed to potential program knowledgeable (such as welfare workers or other allowance recipients) should be more likely to learn about the program’s existence.³

**Specific Variables**

To measure need for assistance, we used three variables: current allowance entitlement (averaged over periods eligible between the date of open enrollment and the survey date); current housing expenditures; and crowding (more than one person or married couple per bedroom). If the household moved after applying, the latter two variables reflect conditions associated with the pre-move unit.

Attitudes toward government aid and integration were measured as follows. Respondents were asked whether the “national government ought to help low- and moderate-income people get housing at low cost.” If they answered “no,” they received a score of one; if “yes,” “don’t know,” or “it depends,” they received a score of zero. Attitudes toward integration range from 1 to 7, where 1 indicates the respondent strongly favors white and blacks living in separate neighborhoods and 7 indicates a strong preference for mixed neighborhoods.

To measure media exposure, we have three binary variables indicating the household’s most important source of information about local affairs—newspapers, television, and radio. Word-of-mouth communication is also represented by three variables: Two indicate the type of contact (contacts with friends and relatives, potential contacts with government workers and recipients); and one is a proxy for breadth and diversity of the household’s word-of-mouth network. Word-of-mouth communication through contacts with friends and relatives is measured by a binary variable that indicates the household gets most of its information about local affairs from friends, neighbors, or relatives. Contact with program knowledgeable—government workers and/or other recipients of government aid—is measured by a binary variable that indicates whether the household currently receives government assistance (SSI, unemployment benefits, AFDC, general assistance, food stamps, or other public assistance). Our proxy for breadth and diversity of the household’s communication network is whether the household has moved in the past three years. We hypothesize that people who move more frequently than others should expand their contacts (with new neighbors, shopkeepers, school personnel) and, therefore, the likelihood that they might hear of the program by word of mouth.

We also tested for the effects of demographic characteristics that we have already shown to be positively or negatively correlated with program information: being black, elderly, a single

---

³See Greenston and MacRae (1974) for a model that forecasts changes in AFDC participation by focusing on the implicit diffusion of information about the program from participants to nonparticipant eligibles.
parent, or an owner. Only those household characteristics that remained significant after controlling for the exposure and attention variables remain in the final equation. Thus, the specific model of information acquisition among eligible households takes the following form:

\[
\log \frac{P}{1-P} = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 z_1 \\
+ \beta_8 z_1 y_1 + \beta_9 z_2 + \beta_{10} z_3 + \beta_{11} z_4 - \beta_{12} z_5 - \beta_{13} y_2 - \beta_{14} y_3 .
\]

where \( x_1 = \) radio exposure
\( x_2 = \) television exposure
\( x_3 = \) newspaper exposure
\( x_4 = \) contacts with friends and relatives
\( x_5 = \) contacts with “knowledgeables”
\( x_6 = \) breadth and diversity of communication network
\( x_7 = \) allowance entitlement
\( z_2 = \) housing expenditures
\( z_3 = \) need for space
\( z_4 = \) attitudes toward desegregation
\( z_5 = \) attitudes toward government aid
\( y_1 = \) black
\( y_2 = \) elderly single
\( y_3 = \) owner

Table 2.4 gives a description of the dependent and independent variables.

**HOW PROGRAM INFORMATION IS ACQUIRED: EMPIRICAL RESULTS**

Tables 2.5 and 2.6 present the results of the logit regressions for two dependent variables: (1) having heard of the program (for all eligibles), and (2) being able to provide appropriate details (for those who have heard). We focus particularly on the first variable because ignorance of the program’s existence is a clear barrier to applying, whereas some eligibles who have heard of the program but cannot describe it do manage to apply.

Table 2.5 contains three key findings:

- With the exception of blacks, those most in need of housing assistance are least likely to learn of the program.
- Radio, despite its smaller audience, appears to surpass television and the printed word as an effective means of conveying program information.
- Word-of-mouth communication—particularly talking with program knowledgeables—significantly increases the spread of program information.
Table 2.4
Definitions of Variables Included in Program-Awareness Equation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Range of Values</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heard of program</td>
<td>Respondent has heard of program.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td><strong>Independent</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allowance entitlement</td>
<td>Household's yearly allowance entitlement ($).</td>
<td>120–2,040</td>
</tr>
<tr>
<td>Housing expenses</td>
<td>Household's monthly housing expenses ($): includes rent and utilities for tenants; mortgage payments, utilities, insurance, taxes, repairs, and forgone interest on equity for homeowners.</td>
<td>0–375</td>
</tr>
<tr>
<td>Need for space</td>
<td>Unit has less than one bedroom per person or married couple.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Radio exposure</td>
<td>Household gets most of its information about local affairs from radio.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Television exposure</td>
<td>Household gets most of its information about local affairs from television.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Newspaper exposure</td>
<td>Household gets most of its information about local affairs from newspapers.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Contacts with government workers, assistance recipients</td>
<td>Household receives any of the following: AFDC, SSI, General Assistance, other welfare assistance, unemployment benefits, food stamps.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Contacts with friends and relatives</td>
<td>Household gets most of its information about local affairs from friends, relatives, or acquaintances.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Contact breadth and diversity</td>
<td>Household has moved at least once in three years.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Attitude toward desegregation</td>
<td>Scale ranging from very unfavorable to very favorable attitude toward desegregated neighborhoods.</td>
<td>1 (negative)–7 (positive)</td>
</tr>
<tr>
<td>Attitude toward government housing aid</td>
<td>Household thinks federal government should not help low- and moderate-income people get low-cost housing.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Elderly single</td>
<td>An unmarried person who is 62 or older.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Owner</td>
<td>Household owns the unit.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Black</td>
<td>One or more of the household heads is black.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
</tbody>
</table>

SOURCE: Compiled by the author.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Range of Values</th>
<th>Coefficient</th>
<th>t-value</th>
<th>Partial Derivative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heard of program</td>
<td>1 if yes; 0 otherwise</td>
<td>1.64&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.30</td>
<td>--</td>
</tr>
<tr>
<td><strong>Independent</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yearly allowance entitlement ($)</td>
<td>120-2,040</td>
<td>-.0020</td>
<td>-2.44&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.0002</td>
</tr>
<tr>
<td>Yearly allowance entitlement ($) : Black</td>
<td>120-2,040</td>
<td>.0046</td>
<td>2.76&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.0003</td>
</tr>
<tr>
<td>Monthly housing expenses ($)</td>
<td>0-375</td>
<td>-.0117</td>
<td>-2.31&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.0009</td>
</tr>
<tr>
<td>Need for space (more than 1 person or married couple/bedroom)</td>
<td>1 if yes; 0 otherwise</td>
<td>.85</td>
<td>1.14</td>
<td>.06</td>
</tr>
<tr>
<td>Media exposure:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio</td>
<td>1 if yes; 0 otherwise</td>
<td>1.63</td>
<td>2.35&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.12</td>
</tr>
<tr>
<td>Television</td>
<td>1 if yes; 0 otherwise</td>
<td>.55</td>
<td>.89</td>
<td>.04</td>
</tr>
<tr>
<td>Newspaper</td>
<td>1 if yes; 0 otherwise</td>
<td>.35</td>
<td>.61</td>
<td>.03</td>
</tr>
<tr>
<td>Word of mouth exposure:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contacts with government workers,</td>
<td>1 if yes; 0 otherwise</td>
<td>1.69</td>
<td>2.26&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.13</td>
</tr>
<tr>
<td>assistance recipients</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contacts with friends and relatives</td>
<td>1 if yes; 0 otherwise</td>
<td>-.11</td>
<td>-.15</td>
<td>-.01</td>
</tr>
<tr>
<td>Contact breadth and diversity</td>
<td>1 if yes; 0 otherwise</td>
<td>2.20</td>
<td>2.91&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.17</td>
</tr>
<tr>
<td>Attitude toward desegregation</td>
<td>Scale: 1 (negative)-7 (positive)</td>
<td>.45</td>
<td>3.01&lt;sup&gt;b&lt;/sup&gt;</td>
<td>.03</td>
</tr>
<tr>
<td>Negative attitude toward government housing aid</td>
<td>1 if yes; 0 otherwise</td>
<td>-.19</td>
<td>-.28</td>
<td>-.01</td>
</tr>
<tr>
<td>Elderly single</td>
<td>1 if yes; 0 otherwise</td>
<td>-2.16</td>
<td>-3.10&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.16</td>
</tr>
<tr>
<td>Owner</td>
<td>1 if yes; 0 otherwise</td>
<td>1.41</td>
<td>1.90&lt;sup&gt;d&lt;/sup&gt;</td>
<td>.12</td>
</tr>
</tbody>
</table>

SOURCE: Analysis by HASE staff of records from the survey of households, St. Joseph County, wave 2.

NOTE: Logit analysis was performed on records of 301 eligible households that supplied information on all the independent variables. $\chi^2 = 86.09$ with 286 degrees of freedom.

<sup>a</sup>Constant.
<sup>b</sup>Significant at .01 level, two-tailed test.
<sup>c</sup>Significant at .05 level, two-tailed test.
<sup>d</sup>Significant at .1 level, two-tailed test.
Table 2.6
ACQUISITION OF PROGRAM DETAILS: LOGIT RESULTS FOR ELIGIBLE
HOUSEHOLDS (LEVELS 2 AND 3), ST. JOSEPH COUNTY, WAVE 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Range of Values</th>
<th>Statistics</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Coefficient</td>
<td>t-value</td>
<td>Partial</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Derivative</td>
</tr>
<tr>
<td>Dependent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heard of program and gave appropriate program details</td>
<td>1 if yes; 0 otherwise</td>
<td>.42(^a)</td>
<td>.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yearly allowance entitlement ($)</td>
<td>120–2,040</td>
<td>.0003</td>
<td>.51</td>
<td>.00005</td>
</tr>
<tr>
<td>Yearly allowance entitlement ($): Black</td>
<td>120–2,040</td>
<td>-.0004</td>
<td>-.75</td>
<td>-.00006</td>
</tr>
<tr>
<td>Monthly housing expenses ($)</td>
<td>0–375</td>
<td>.0053</td>
<td>1.34</td>
<td>.0008</td>
</tr>
<tr>
<td>Need for space (more than 1 person or married couple/bedroom)</td>
<td>1 if yes; 0 otherwise</td>
<td>-.51</td>
<td>-1.25</td>
<td>-.08</td>
</tr>
<tr>
<td>Media exposure:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio</td>
<td>1 if yes; 0 otherwise</td>
<td>.04</td>
<td>.11</td>
<td>.01</td>
</tr>
<tr>
<td>Television</td>
<td>1 if yes; 0 otherwise</td>
<td>.27</td>
<td>.64</td>
<td>.04</td>
</tr>
<tr>
<td>Newspaper</td>
<td>1 if yes; 0 otherwise</td>
<td>-.12</td>
<td>-.32</td>
<td>-.05</td>
</tr>
<tr>
<td>Word of mouth exposure:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contacts with government workers, assistance recipients</td>
<td>1 if yes; 0 otherwise</td>
<td>1.15</td>
<td>2.68(^b)</td>
<td>.18</td>
</tr>
<tr>
<td>Contacts with friends and relatives</td>
<td>1 if yes; 0 otherwise</td>
<td>.63</td>
<td>1.37</td>
<td>.10</td>
</tr>
<tr>
<td>Contact breadth and diversity</td>
<td>1 if yes; 0 otherwise</td>
<td>.80</td>
<td>2.03(^c)</td>
<td>.12</td>
</tr>
<tr>
<td>Attitude toward desegregation</td>
<td>Scale: 1 (negative)–7 (positive)</td>
<td>-.15</td>
<td>-1.63</td>
<td>-.25</td>
</tr>
<tr>
<td>Negative attitude toward government housing aid</td>
<td>1 if yes; 0 otherwise</td>
<td>-1.19</td>
<td>-2.44(^c)</td>
<td>-.18</td>
</tr>
<tr>
<td>Elderly single</td>
<td>1 if yes; 0 otherwise</td>
<td>-.37</td>
<td>-.87</td>
<td>-.06</td>
</tr>
<tr>
<td>Owner</td>
<td>1 if yes; 0 otherwise</td>
<td>.30</td>
<td>.61</td>
<td>.05</td>
</tr>
</tbody>
</table>

SOURCE: Analysis by HASE staff of records from the survey of households, St. Joseph County, wave 2.
NOTE: Logit analysis was performed on records of 276 eligible households that had heard of the program and supplied information on all the independent variables. \(\chi^2 = 44.41\) with 261 degrees of freedom.

\(^a\)Constant.
\(^b\)Significant at .01 level, two-tailed test.
\(^c\)Significant at .05 level, two-tailed test.
Information and Level of Need

Except for black households, eligibles who need the housing assistance most—those who qualify for higher benefit levels and spend more on housing—are least likely to learn of the program's existence. These results are surprising. We expected higher entitlements and housing expenses to have a positive effect on information acquisition, inferring that if a household is eligible for more benefits, it has more reason to know about the program and thus will be more attentive to information about it. Instead, we found just the opposite.4

Black households are the exception. The more needy a black household is (measured by allowance entitlement), the more likely it is to hear of the allowance program. In fact, the informational advantage of black households disappears entirely once we interact race with benefit level. Blacks learn of the program more frequently than whites just because they both qualify for higher benefits and pay more attention to program information as their need for assistance increases. It is only among nonblacks that greater need and lack of information go together.

These results are particularly illuminating. Other studies of participation in government programs have suggested that low rates cannot be accounted for solely by "marginal" eligibles, e.g., those who are near the eligibility cut-off and therefore qualify for minimal benefits. Accordingly, they postulate two groups of nonparticipators—the "least needy" and the "most needy." Bendick (1979) argues that the "most needy" experience distinct barriers to participation that derive from their very poverty—inability to afford transportation, to pay for child care, or to lose work time while visiting the agency.

Our findings suggest that information costs also constitute a significant barrier to participation for this group—that nonblacks who are most in need (measured by benefit level) and all eligibles who pay relatively more for housing are the least successful at finding out about programs that could assist them.

Information and the Media

Among the major media, only radio significantly affects the acquisition of program information. People who cite television or the newspaper as an important source of information about local affairs are not more likely to hear about the allowance program—even though simple crosstabs show that television or newspaper exposure produces a 7 to 8 percentage point decrease in the proportion of uninformed eligibles. Clearly, those differences fail to attain significance when other variables are included in the analysis.

How can we account for the impact of radio? It did not account for the lion's share of the housing allowance office's paid advertising.5 Nor is it the most common source of local information: Only 27 percent of the eligibles chose radio as an important source of local information as opposed to 80 percent who cited television and 64 percent who mentioned newspapers. Nevertheless, the smaller radio audience appears to be more attentive to program messages than are television watchers or newspaper readers.

As a channel for spreading information about a particular program, radio has advantages that help explain these results. Radio programs cater to specialized audiences, facilitating the targeting of spot advertisements to specific groups. Radio news programs also occur repeatedly during the day, regularly "interrupt" music programs, and last only a few minutes.

---

4We tested for the effect of current benefits multiplied by an estimate of the household's duration of eligibility, e.g., cumulative benefits. The results were similar and significant, but the goodness of fit dropped (from $\chi^2 = 86.1$ to $\chi^2 = 82.3$). Therefore, we report the equation using current benefits, while noting that taking into account how long the allowance might continue yields substantially the same results.

5In Sec. I, we noted that television accounted for more than 50 percent of the HAO's advertising budget during the first program year.
In contrast, television news programs are infrequent, longer, and scheduled for specific hours. Radio news stories thus have a better chance of reaching the radio audience; television news stories reach only the small audience segment that does not switch the channel when the news comes on. Newspaper spots or features have similar problems: They, too, lack a captive audience, spreading the word only to those people who read the advertisements or turn beyond page one.

**Information and Word-of-Mouth Communication**

Nevertheless, mass media campaigns are by no means the most important channel for informing potential recipients of a social program’s benefits. The data suggest that word-of-mouth communication outranks radio, television, and newspapers as a means for spreading program information. People who get some other form of government assistance are 13 percent more likely to know of the program than nonrecipients (see Table 2.5, column 3) and constitute 40 percent of the eligible population. Those who have moved at least once in the past three years edge out stayers by 17 percent (and make up 32 percent of the eligible group). Radio, with an audience of just over a fourth of the eligibles, lags behind at 12 percent.

We interpret the government assistance and mobility variables as proxies for word-of-mouth contacts—the first measuring potential exposure to program knowledgables, the second tapping the breadth and diversity of the household’s communication network. Visits to the welfare or unemployment office can yield program information from two potential sources: (1) a social worker with information about both the eligible household’s circumstances and the availability of other assistance programs; and (2) other applicants who may also receive a housing allowance or know someone who does. People who do not get government assistance are less likely to have access to this source of program information.6

People who move make new friends and patronize different stores, thereby increasing the size of their communication network and their opportunities to learn about the program through encounters with friends, neighbors, and shopkeepers. Movers may also have greater incentives to acquire housing-related information than stayers. Before they move, they need information that facilitates choosing a new dwelling; after moving, they may seek information that bolsters their decision.7 Thus, eligible movers may be more likely to engage in conversations during which the allowance program would be mentioned, and more attentive to information about housing matters. Viewed in this context, the mobility variable may tap both the breadth and diversity of the household’s communication network and its propensity to engage in and pay attention to housing-related communication.

Additional support for the importance of word-of-mouth communication as a key source of program information comes from eligibles’ self-reports about where they got most of their program information (as opposed to where they first heard of the program). The data could reflect information obtained after applying and are not complete; more than a third of those who had heard of the allowance program were not asked the question. Nevertheless, of those naming a source, 72 percent cited some form of word-of-mouth contact—friends and relatives, program recipients, people in government or community organizations, and housing allowance staff.8 Forty percent of these citations were accorded to people who qualify as program

---

6Among government assistance workers, detailed knowledge about the allowance program was probably enhanced by several HAO presentations explaining the program’s features to welfare workers and employees of other agencies dealing with potential clients.

7See Brown (1965) for a discussion of the role bolstering plays in rationalizing prior decisions.

8Respondents could name more than one “most important” source of program information. Many of the 72 percent who cited some form of word-of-mouth contact listed more than one type.
knowledgeable—allowance recipients, government and community organization representatives, plus HAO staff.\footnote{We note, however, that citing one’s friends and relatives as an important source of information about local affairs has no significant effect on learning about the program. It may be that many eligibles who have talked about the program with friends or relatives fail to view them as a general source of local news. Only 26 percent of all eligibles cite friends and relatives as a general local news source as opposed to the large percentage (almost three-fourths) who name personal contacts when specifically asked where they got most of their program information. Or eligible households may first learn of the program from program knowledgeable or the media and subsequently acquire additional substantive details from friends and relatives. See Table 2.6, which shows that talking with friends and relatives has a positive, though not significant, effect on level 3 awareness ($t = 1.37$).}

Other studies have also noted the role of word-of-mouth communication—particularly with program knowledgeable—in informing potential recipients of government aid. In Baltimore, people living in areas with a greater concentration of public assistance recipients were somewhat more likely to know where to obtain aid than those living in recipient-short neighborhoods (Moles et al., 1968). An analysis of the Special Supplemental Food Program for Women, Infants, and Children found that the "largest numbers of enrollees came from referrals by social workers and other professionals" (Bendick, Campbell, Bawden, and Jones, 1976). In Nebraska, food stamp recipients who were also on welfare often heard about the program through the welfare office; those not on welfare were more likely to hear about it from friends and neighbors (Welch et al., 1973).

These findings suggest that personal contact is the most effective channel for reaching uninformed households. Thus, outreach programs that enlist the active efforts of government and community organization representatives may be one way of reducing nonparticipation.

Information and Attitudes

As in the general population, eligibles who oppose mixed neighborhoods are significantly less likely to learn of the program’s existence. Looking at the partial derivative column of Table 2.5, we see that each step up the scale from 1 (strongly opposed) to 7 (strongly for) increases an eligible household’s probability of learning about the program by 3 percent. Interestingly, this effect is not stronger for blacks than for whites: When we tested for an interaction effect between race and integration attitudes, we found that blacks and whites who oppose mixed neighborhoods are equally likely to block out information about a program that might foster integration. If they favor integrated neighborhoods, both are equally likely to attend to such information.

However, believing that the government should stay out of programs to help low- and moderate-income people get low-cost housing does not affect information acquisition. Just as nuclear energy opponents are no less informed about nuclear power than are nuclear energy proponents (Hensler and Hensler, 1979), eligibles who oppose government housing aid are just as likely to learn about the allowance program as those who favor government assistance.

Information and Demographic Characteristics

Elderly singles remain less likely to hear of the program even when we control for level of benefit and housing costs. Compared with other eligibles, their chances of acquiring program information are 16 percent lower. These results support our earlier suggestion that those who are old and alone are particularly cut off from information about social programs that might help them.

Elderly singles are also among the neediest eligibles. Although their current allowance entitlements are lower than those of other eligibles, their cumulative benefits (i.e., their
yearly entitlement multiplied by the expected number of years eligible) are higher. Despite the fact that they account for only 31 percent of the eligible households, the old and alone make up 43 percent of those with cumulative benefits of $4,000 or more. Put another way, 44 percent of the elderly singles, but only 27 percent of the rest, stand to receive more than $4,000 in benefits over time.

We thought the effect of being old and alone might disappear if we entered cumulative (as opposed to current) benefits in the equation. But controlling for their higher cumulative benefits does not erase the elderly singles' information deficit. Clearly, this group's lack of program information reflects something more than their economic status and isolation from other contacts as we have measured them.

The story is just the opposite for single parents. Although single parents account for one-third of the uninformed, the negative relationship between their status and having heard becomes insignificant when we control for allowance entitlement and other variables. The single-parent effect appears to be totally accounted for by the fact that uninformed single parents are also among the neediest eligibles (97 percent of them are entitled to $120 per month or more).

In contrast to single parents, owners now show up as more likely to acquire information. Earlier, we noted that almost three-fourths of the uninformed owners in the eligible population are elderly. When we take age plus level of need and exposure variables into account, the negative relation between ownership and lack of information shown in Table 2.3 disappears.

Thus, the logit results clarify the relationships shown in the crosstabs in Table 2.3. They indicate that blacks react to their greater need by acquiring information and that the apparent single-parent effect that emerges from the crosstabs actually reflects the lack of information common among nonblacks with high benefit entitlements. The isolation of elderly singles, however, appears to be deep rooted: Even when we control for exposure to the media and personal contacts, elderly singles remain significantly less likely to hear of the program's existence. The implication is that the uninformed include those who need the allowance program most—elderly singles and nonblack single parents who qualify for high benefits. Outreach planners need to find a way to reach these isolated groups.

**Acquiring Program Details**

Table 2.6 presents the logit results for all those eligibles who have heard of the program. Here, we are trying to understand what distinguishes aware eligibles who can describe some aspect of the program (level 3) from those who cannot (level 2).

The main message of Table 2.6 is that the process of acquiring substantive details differs from that of merely finding out that the program exists. Most of the variables that distinguish the uninformed from those who have heard of the program tell us nothing about who acquires sufficient detail to judge the program's relevance to them.

Word-of-mouth communication does, however, make a difference. People who receive other government assistance, and therefore come into contact with potential program knowledgeable, are more likely to be able to describe the program. So are the movers, those whose change of residence enhances the breadth and diversity of their communication network and their propensity to seek out housing-related information. Citing friends, neighbors, or relatives as a local news source now has a positive, although not significant, coefficient.

Being against government aid also makes a difference. Eligibles who think the government should not help low- and moderate-income people get low-cost housing are significantly less likely to acquire program details. But they are also less likely to apply for an allowance. As we noted earlier, some of those in the level 3 group may have acquired program details as a consequence of applying; thus, we cannot determine whether being against government aid
depresses program information because such opponents screen out additional details or because they apply less frequently.

Because we cannot determine who acquired level 3 knowledge before applying and who acquired it after applying, these results lack the clear-cut interpretation of the information acquisition model. Nevertheless, the word-of-mouth effects are reasonable. Talking with other people about the allowance program should both add to an eligible household's store of program information and increase attention to the communication, thereby reinforcing the retention of program details. Taken together, the information models suggest that acquiring minimal program information may be accomplished either through exposure to the mass media or through word-of-mouth communication. But acquiring substantive program details seems to be facilitated if the initial exposure is reinforced by personal contact.

**SUMMARY**

Fully 13 percent of those eligible for a housing allowance did not apply because they lacked information about its existence. If this group learned about the program and applied at the rate of those who had heard, the enrollment rate could rise by at least 6 percentage points. Given the low enrollment rate achieved after the program had been operating for at least nine months (37 percent), this figure represents a substantial increase in overall enrollment of 16 percent.

Transforming the uninformed into aware eligibles has even greater significance than is implied by such overall estimates. Among the uninformed are the neediest eligible households, in particular, poor single parents (who are not black) and the unmarried (widowed, divorced, or never wed) elderly. Carefully tailored information campaigns not only could raise overall participation rates but also could raise them among the specific groups most in need of assistance.

From a policy perspective, nonparticipating eligibles who need assistance most symbolize a program failure considerably more serious than inability to serve the marginal eligibles. Because lack of information prevents enrollment particularly among the neediest eligibles, outreach programs take on additional significance. But if these "holdouts" are precisely those who are isolated from other people, how can they be reached?

Of the mass media, radio appears to be the most effective for spreading program information to particular groups. Creative use of radio's possibilities for reaching special audiences, particularly the old and alone (whose radio exposure exceeds that of other groups), could increase program awareness. However, because the radio audience is small, this strategy has limited potential. Moreover, our results suggest that personal contact may be a more effective means for reaching isolated eligibles.

One way to capitalize on the effectiveness of word-of-mouth communication is to involve other social service agencies in outreach for new assistance programs like the housing allowance. Of particular significance for the isolated elderly is social security. It seems reasonable to surmise that caseworkers frequently advise their AFDC clients about other forms of assistance. But elderly people can receive social security without ever going down to the office. Informing social security personnel about the program and enlisting their cooperation in spreading the word when they talk to clients on the telephone would target information to a group that is both needy and outside mainstream communication networks. Another option is to make use of programs and organizations—such as Meals on Wheels, churches, and synagogues—that come into contact with older persons who may not otherwise be "joiners." A third is to engage neighborhood organizations in an active effort to inform elderly residents about the program.
Reaching nonelderly needy households poses similar challenges for targeting communication. Earlier, we noted that nonblack single parents account for one-third of the uninformed. However, when we control for allowance entitlement and housing expenditures, the effect of being a single parent on information acquisition becomes insignificant. This suggests that single parents who have remained ignorant of the allowance program's existence after nearly a year of program operations are among the neediest in their group. A more active referral program by AFDC, food stamp, and other public assistance social workers might reach some of them. Other channels include child-care centers and schools located in low-income neighborhoods.

Each of these options seeks to capitalize on the organization's comparative advantage in identifying where the neediest uninformed people are. Each also involves considerably more time and effort, if not necessarily more monetary expenditures, than outreach methods based on the mass media. If successful, however, such outreach strategies should alleviate the most serious consequence of low participation rates—the underparticipation of the most needy households.
III. FACTORS AFFECTING THE DECISION TO APPLY

Once eligible households become aware of the program’s existence, they face the decision of whether or not to apply. This section provides an overview of enrollment rates among specific groups, notes to what extent their relative under- or overparticipation is associated with access to program information, and develops and tests a model of the decision to apply among aware eligibles. The results clarify the considerations that impede eligible households from applying and those that motivate them to seek help.

UNDER- AND OVERENROLLMENT AMONG ELIGIBLE GROUPS

Table 3.1 presents enrollment data for the following groups of eligibles: blacks, owners, elderly singles, elderly couples, single parents, and nonelderly singles (without children) and couples.\(^1\) Compared with the enrollment rate for all eligibles, blacks and single parents overenrolled in the allowance program, whereas elderly couples and singles, as well as owners, underenrolled. Nonelderly eligibles who were single (and without children) or married participated at close to the overall enrollment rate.

We have already seen that lack of information partially explains the lower enrollment rate of elderly singles and owners. Conversely, greater awareness contributes to the higher rate for eligible black households. But we also noted that nonblack single parents are less likely to hear of the program. Despite that fact, the enrollment rate for single parents as a whole exceeds that of all eligibles by 16 percent. Clearly, those single parents who do know about the program must be particularly prone to apply. What other factors explain their enrollment behavior? The following sections address this question for all eligible and aware households.

DECIDING TO APPLY: THE LOGIT MODEL

We view the decision to apply as one in which the eligible household weighs the expected benefits of enrolling against the expected costs of applying for assistance. If its expected benefits exceed the expected costs, the household will apply. Using the logistic formulation yields the following general model:

\[
\log \frac{p}{1-p} = \alpha_0 + \beta' x + \alpha' z,
\]

where

- \(p\) = the probability of applying given that the household is eligible and has heard of the program,
- \(x\) = a vector of expected benefits, and
- \(z\) = a vector of expected costs.

\(^1\)These data include only those households that were eligible under the program rules in effect as of January 1976. Therefore, they differ somewhat from other Rand reports that include eligibles living in areas that had not yet joined the program, or that compute eligibility based on a smoothed standard cost of housing rather than on the actual cost used by the allowance program.
Table 3.1

ENROLLMENT AMONG ELIGIBLE HOUSEHOLDS:
ST. JOSEPH COUNTY, WAVE 2

<table>
<thead>
<tr>
<th>Eligible Group</th>
<th>Attended Enrollment Interview</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
</tr>
<tr>
<td>Blacks</td>
<td>1,002</td>
</tr>
<tr>
<td>Owners</td>
<td>2,066</td>
</tr>
<tr>
<td>Elderly singles</td>
<td>863</td>
</tr>
<tr>
<td>Elderly couples</td>
<td>265</td>
</tr>
<tr>
<td>Single parents</td>
<td>1,296</td>
</tr>
<tr>
<td>Others(^a)</td>
<td>1,689</td>
</tr>
<tr>
<td><strong>All eligibles</strong></td>
<td>4,112</td>
</tr>
</tbody>
</table>

SOURCE: Tabulated by HASE staff from records of the survey of households, St. Joseph County, wave 2.

NOTE: Estimates are based on the weighted survey responses of 329 eligible households residing in those parts of St. Joseph County that had joined the allowance program by December 1975. Excluded localities include Mishawaka (the city adjoining South Bend) and most of St. Joseph County five miles beyond the city of South Bend. Of the groups shown in the table, blacks and owners overlap with the other four (mutually exclusive) categories.

\(^a\)Includes nonelderly singles (without children) and couples.

On the benefit side, enrollees can expect monetary payments that help provide relief from overall budget constraints and the opportunity to improve their housing. Counterbalancing these benefits are three categories of expected costs: (1) the opportunity costs of time spent in traveling to the HAO and complying with administrative regulations; (2) the psychic costs of applying for and accepting government assistance (overcoming inertia and possible stigma or loss of pride); and (3) the out-of-pocket and time costs of moving or repairing one’s unit if it fails the housing inspection. Holding other factors constant, we would expect the probability of applying to rise with increases in the benefits offered and to fall with increases in opportunity, psychic, or out-of-pocket costs.

Translating this general discussion into a more specific model yields the following equation:
\[
\log \frac{D}{1-p} = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 - \beta_4 z_1 - \beta_5 z_2 - \beta_6 z_3 - \beta_7 z_4 - \beta_8 y_1 - \beta_9 y_2
\]

where

- \( x_1 \) = monetary benefits
- \( x_2 \) = need for space
- \( x_3 \) = taste for housing
- \( z_1 \) = psychic costs
- \( z_2 \) = travel costs
- \( z_3 \) = repair costs
- \( z_4 \) = moving costs
- \( y_1 \) = owner
- \( y_2 \) = elderly single

\{ \text{benefit-related variables}\}

\{ \text{cost-related variables}\}

\{ \text{household characteristics}\}

Specific Hypotheses

We expect households to be more likely to apply the higher their monetary benefits \((x_1)\). But because the allowance program is advertised as a housing assistance program, eligible households may also view potential improvements in their housing as benefits that are not wholly encompassed by the monetary payment. Such housing benefits should be particularly salient to those who need additional bedrooms and those who exhibit a strong taste for housing (represented by \(x_2\) and \(x_3\) in the equation).

Our measure of the need for space—crowding—is binary: It equals 1 if there is more than one person per bedroom; 0 otherwise (married couples are counted as one person). The taste measure is number of rooms other than bedrooms. This represents the household's demonstrated preference for extra space, e.g., rooms above and beyond those required for sleeping. Together with rent per room (discussed below), the crowding and taste variables represent the two major components of housing costs—space and quality. We note here that all variables related to the housing unit (persons per bedroom, number of other rooms, and rent per room) pertain to the unit lived in when the decision to apply was (or could have been) made. Thus, if a household moved after applying, we used data pertinent to the pre-move unit.

On the cost side, we expect some people to be more reluctant to apply for government aid than others \((z_1)\). Our primary indicator of this reluctance—opposition to government housing aid for low- and moderate-income people—taps attitudes that conflict with the act of applying for assistance oneself, thereby raising the psychic costs of applying. Such attitudes may also reflect a fear of losing one's self-respect or enduring indignities and loss of social acceptance because of being "on the dole." We have labeled these costs "aversion to assistance," using the term broadly to represent the costs of losing pride or face as a result of contravening one's beliefs, being dependent on outside help, or being ill-treated by others.

We also expect some households to be more reluctant to undertake a new activity than others. While overcoming this kind of inertia also represents a psychic cost of applying, we have no direct or indirect measure of the concept. Instead, we have sought to tap factors that mitigate the very human tendency to delay taking action, in this case, the action of going to the HAO for an enrollment interview. Our proxy for such mitigating factors is personal communication with one's friends and neighbors. Just as many people finally get a leak fixed
after a friend has told them about a reliable handyman, we expect eligible households to gain additional reinforcement for applying by talking about the program with their neighbors. Such reinforcement, in the form of social support or additional information about the process or benefits of applying, should help counteract the psychic costs of overcoming inertia or aversion. Our (imperfect) measure of this kind of communication is whether or not they talk about local affairs with friends, neighbors, or relatives.

We represent the opportunity costs of traveling to the HAO (z₂) by distance from the household’s neighborhood center to the allowance office. Those who live further from the HAO should experience greater time (and out-of-pocket) costs when they visit the office than those who live relatively near it. But we do not have a measure of “administrative burden”—the opportunity and psychic costs associated with being interviewed, submitting personal records for examination, and having one’s unit inspected.

Expected repair (z₃) and moving (z₄) costs are difficult to identify. We reason that the higher the quality of the unit—measured by rent per room—the fewer the expected repairs. Because owners do not have the option of asking a landlord to make required repairs, we expect lower quality to have a stronger depressant effect on applying for those who own their homes than for renters. Similarly, if expected moving costs decrease the probability of applying, they should be more severe for stayers than movers. The former should weigh the costs of moving—seeking out information, hiring a mover or doing it themselves, making new friends and moving away from old ones—more heavily than those who have faced and overcome these costs in the recent past. We define households that have not moved in three years as stayers.

Finally, we include two demographic characteristics—being an elderly single and being an owner—in the model. As in the information model, we tested other characteristics (e.g., race, single parenthood) for independent effects, but report only those that have a t greater than 1.

Measuring Monetary Benefits

Having outlined the specific hypotheses underlying our model of applying, we have yet to explore precisely how we are measuring expected benefits. Two approaches appear plausible: The first equates benefits with the actual stream of monthly cash payments that can be expected over the duration of eligibility; the second assumes that eligible households roughly relate expected benefits to their own recent financial condition and future expectations.

To approximate the first measure, we calculated the household’s yearly allowance entitlement based on current program rules (averaged over the periods eligible from the opening of enrollment to the date surveyed) and multiplied it by an estimated duration of eligibility (estimated for five groups—elderly singles, elderly couples, single parents, other eligibles with children, other eligibles without children). ² To approximate the second, we used total household income over the past year and entered estimated duration of eligibility separately.

However, because the program formula for calculating allowance entitlement is complicated, we suspected that eligible households might not know what their allowance is. In that case, an expected benefit measure based on actual entitlement would not capture their calculations. Such proved to be the case.

²To compute the estimated duration of eligibility, we used the following identity for turnover (T) in the eligible population:

\[ E(T) = \frac{1}{\lambda} \]

The rate of transition out of eligibility = \( \lambda \). If \( N_e \) = the number eligible at wave 2, then \( N_e(\lambda) \) = the number not eligible at wave 3. Dividing the number eligible at wave 2 by the number who had dropped out by wave 3 gives us
Benefit measures based on allowance entitlement added no explanatory power to the model. We entered the variables in various forms: (1) current benefits (yearly allowance entitlement) plus estimated duration of eligibility; (2) current benefits, estimated duration, and the product of the two; (3) cumulative benefits (current benefits multiplied by estimated duration); and (4) various log and spline functions of the above. Only the third measure was significant (at the 0.1 level) but the equation yielded a significantly poorer fit than that using income, and it was clear that the estimated duration component was carrying all the weight. Moreover, when income is included in the equation, cumulative benefits add no explanatory power.\(^3\)

Our finding that benefit measures based on allowance entitlement fail to predict enrollment is not unprecedented. In his analysis of the food stamp program during 1974, Coe (1977) found that the bonus value of the food stamps to which a family is entitled had no significant effect on participation. He concluded that participation in the food stamp program is determined primarily by noneconomic factors; however, he did not look at alternative measures of expected benefits.

We conclude that income acts as a better measure of expected benefits than the actual allowance entitlement or cumulative allowance payments. The information costs of estimating one's allowance precisely are severe. Eligible households appear to be either unaware that their entitlement depends on the relationship between income and officially determined standard housing costs or unable to obtain the relevant information and make the appropriate calculation. Instead, they find it easier to assess how much assistance they might get by using their income alone as the basis for their calculations.

**DECIDING TO APPLY: EMPIRICAL RESULTS**

Table 3.2 describes the dependent and independent variables in the decision-to-apply model. Table 3.3, which presents the logit results, yields five principal interpretations:

- Eligible households respond to the higher benefits they associate with lower incomes by applying more frequently.
- People also apply for an allowance because they expect it to improve their housing situation.
- Expected repair costs dissuade owners, but not renters, from applying.
- Antigovernment attitudes significantly depress enrollment rates.
- Word-of-mouth communication enhances the probability of applying.

**Enrollment and Expected Monetary Benefits**

The less income an eligible household has received in the past year, and thus the greater its (subjectively) anticipated benefits, the more likely it is to apply. As Table 3.4 shows, the reciprocal of \(A\) (or the estimated duration of eligibility). We performed this operation for all the life-cycle groups and then collapsed the estimates for the groups that comprise: (1) nonelderly, nonsingle parents with children; and (2) nonelderly, nonsingle parents without children. This equation assumes no returns to state (i.e., that households eligible at both wave 2 and wave 3 did not become ineligible in the interim), and the estimates are based on data for nonmovers.

\(^3\)\(X^2 = 67.3\) for the equation entering income and estimated duration separately; adding cumulative benefits makes no change \((X^2 = 67.9)\) and entering cumulative benefits without income yields a significantly poorer fit \((X^2 = 55.2)\).
## Table 3.2

**Definitions of Variables Included in Decision-To-Apply Equation**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Range of Values</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applied</td>
<td>Attended enrollment interview.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td><strong>Independent</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>Total yearly household income ($).</td>
<td>200-17,400</td>
</tr>
<tr>
<td>Estimated duration of eligibility</td>
<td>Estimated years eligible.</td>
<td>1.41-6.18*</td>
</tr>
<tr>
<td>Assets</td>
<td>Includes real estate property and other assets such as stocks, bonds, and savings. Property is valued at three times the assessed value minus debt ($).</td>
<td>0-26,200</td>
</tr>
<tr>
<td>Taste for space&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Number of rooms minus bedrooms.</td>
<td>.5-6</td>
</tr>
<tr>
<td>Need for space&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Unit has less than one bedroom per person or married couple.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Housing quality&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Rent per room ($). For tenants, rent includes payments to landlord plus utilities. For homeowners, it includes mortgage payments, utilities, insurance, taxes, repairs, and forgone interest on equity.</td>
<td>0-80</td>
</tr>
<tr>
<td>Stayer&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Household has not moved in three years.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Distance to office&lt;sup&gt;c&lt;/sup&gt;</td>
<td>Distance from center of household's neighborhood to housing allowance office (in tenths of a mile).</td>
<td>.5-7.8</td>
</tr>
<tr>
<td>Attitude toward government housing aid</td>
<td>Household thinks federal government should not help low- and moderate-income people get low-cost housing.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Communication with friends and relatives</td>
<td>Household gets most of its information about local affairs from friends, relatives, or acquaintances.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Elderly single</td>
<td>An unmarried person 62 years of age or older.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
<tr>
<td>Owner</td>
<td>Household owns the unit.</td>
<td>1 if yes; 0 otherwise</td>
</tr>
</tbody>
</table>

*All variables associated with the household's residence pertain to the unit lived in when the decision to apply was made (or could have been made).

*Individual values for the eligible groups are: elderly singles, 6.18; elderly couples, 2.45; single parents, 3.82; other eligibles with children, 2.28; other eligibles without children, 1.41.*
Table 3.3
THE DECISION TO APPLY: LOGIT RESULTS FOR ELIGIBLE AND AWARE
(LEVELS 2 AND 3) HOUSEHOLDS, ST. JOSEPH COUNTY, WAVE 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Range of Values</th>
<th>Statistics</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>t-value</td>
<td>Partial</td>
<td>Derivative</td>
</tr>
<tr>
<td><strong>Dependent</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attended enrollment interview</td>
<td>1 if yes; 0 otherwise</td>
<td>-1.88 (^b)</td>
<td>-1.87 (^e)</td>
<td>--</td>
</tr>
<tr>
<td><strong>Independent</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Income ($)</td>
<td>200-17,400</td>
<td>-.0002</td>
<td>-3.09 (^a)</td>
<td>-.00004</td>
</tr>
<tr>
<td>Estimated duration of eligibility (yrs.)</td>
<td>1.41-6.18 (^a)</td>
<td>.11</td>
<td>1.27</td>
<td>.03</td>
</tr>
<tr>
<td>Assets ($)</td>
<td>0-26,200</td>
<td>-.0009</td>
<td>-1.63</td>
<td>-.0002</td>
</tr>
<tr>
<td>Assets ($) age 40 or older</td>
<td>0-26,200</td>
<td>.0009</td>
<td>1.62</td>
<td>.0002</td>
</tr>
<tr>
<td>Taste for space (number of rooms minus bedrooms)</td>
<td>.5-6</td>
<td>.59</td>
<td>2.71 (^a)</td>
<td>.15</td>
</tr>
<tr>
<td>Need for space (more than 1 person or married couple/bedroom)</td>
<td>1 if yes; 0 otherwise</td>
<td>.59</td>
<td>1.81 (^e)</td>
<td>.15</td>
</tr>
<tr>
<td>Housing quality ($)/room)</td>
<td>0-80</td>
<td>.02</td>
<td>1.13</td>
<td>.005</td>
</tr>
<tr>
<td>Housing quality ($)/room: owner</td>
<td>0-80</td>
<td>.06</td>
<td>1.80 (^a)</td>
<td>.015</td>
</tr>
<tr>
<td>Stayer (has not moved in 3 years)</td>
<td>1 if yes; 0 otherwise</td>
<td>-.50</td>
<td>-1.54</td>
<td>-.12</td>
</tr>
<tr>
<td>Distance to office (10ths of mile)</td>
<td>.5-7.8</td>
<td>.06</td>
<td>.59</td>
<td>.015</td>
</tr>
<tr>
<td>Negative attitude toward government housing aid</td>
<td>1 if yes; 0 otherwise</td>
<td>-.99</td>
<td>-2.08 (^d)</td>
<td>-.25</td>
</tr>
<tr>
<td>Communication with friends and relatives</td>
<td>1 if yes; 0 otherwise</td>
<td>.58</td>
<td>1.65 (^a)</td>
<td>.14</td>
</tr>
<tr>
<td>Elderly single</td>
<td>1 if yes; 0 otherwise</td>
<td>-.97</td>
<td>-2.16 (^d)</td>
<td>-.24</td>
</tr>
<tr>
<td>Owner</td>
<td>1 if yes; 0 otherwise</td>
<td>-1.07</td>
<td>-1.02</td>
<td>-.27</td>
</tr>
</tbody>
</table>

SOURCE: Analysis by HASE staff of records from the survey of households, St. Joseph County, wave 2.

NOTE: Logit analysis was performed on records of 275 eligible and aware households that supplied information on all the independent variables. \(\chi^2 = 87.28\) with 260 degrees of freedom.

\(^a\) Individual values for the eligible groups are: elderly singles, 6.18; elderly couples, 2.45; single parents, 5.82; other eligibles with children, 2.28; other eligibles without children, 1.41.

\(^b\) Constant.

\(^c\) Significant at .01 level, two-tailed test.

\(^d\) Significant at .05 level, two-tailed test.

\(^e\) Significant at .1 level, two-tailed test.
Table 3.4

Effect of Selected Independent Variables on Median Eligible Household’s Probability of Applying, St. Joseph County, Wave 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Effect at:</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25th Percentile</td>
<td>75th Percentile</td>
<td>Difference</td>
<td>5th Percentile</td>
<td>95th Percentile</td>
<td>Difference</td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>.634</td>
<td>.466</td>
<td>-.168</td>
<td>.692</td>
<td>.279</td>
<td>-.412</td>
<td></td>
</tr>
<tr>
<td>Housing quality (rent/room)</td>
<td>.535</td>
<td>.592</td>
<td>.057</td>
<td>.487</td>
<td>.660</td>
<td>.173</td>
<td></td>
</tr>
<tr>
<td>Housing quality: owner</td>
<td>.559</td>
<td>.559</td>
<td>.000</td>
<td>.559</td>
<td>.876</td>
<td>.317</td>
<td></td>
</tr>
<tr>
<td>Assets</td>
<td>.564</td>
<td>.414</td>
<td>-.150</td>
<td>.564</td>
<td>.000</td>
<td>-.564</td>
<td></td>
</tr>
<tr>
<td>Assets: age 40 or older</td>
<td>.559</td>
<td>.572</td>
<td>.013</td>
<td>.559</td>
<td>1.000</td>
<td>.441</td>
<td></td>
</tr>
<tr>
<td>Number of other rooms</td>
<td>.559</td>
<td>.695</td>
<td>.136</td>
<td>.559</td>
<td>.804</td>
<td>.246</td>
<td></td>
</tr>
</tbody>
</table>

SOURCE: Analysis by HASE staff of records from the survey of households, St. Joseph County, wave 2.

aThe table gives the effect on the median household’s probability of applying if its income (rent/room, assets, etc.) were to change (1) from the 25th to the 75th percentile, or (2) from the 5th to the 95th percentile.
moving from the 75th to the 25th percentile of income increases the median eligible household's probability of applying by 17 percent. Moving from the 95th to the 5th percentile has an even greater effect, increasing the probability of applying by 41 percent.

People do calculate their benefits by roughly relating them to their recent financial situation (income over the past year), but the decision to apply does not appear to be influenced by how long they might expect to receive payments. This latter finding may reflect an understandable inability to foretell future eligibility or the crudeness of the measure (which applies to groups of households rather than to individuals). Perhaps a more refined measure of eligibility duration would yield a significant result.

That eligible households relate expected benefits to their income rather than to their actual entitlement has important policy implications. Eligibles defined by Congress as the most needy may fail to apply partly because they cannot accurately assess their benefits, i.e., the relationship between their current financial status and what they can expect to receive in monthly cash payments. Among those who have heard of the program, 49 percent with entitlements greater than $120 per month had not applied at least nine months after the program opened. Thus, the benefit formula itself may act as a barrier to participation, weeding out potential applicants from among those of the neediest eligibles who lack the information or ability to figure out their entitlement.

Increased assets appear to dampen the motivation for assistance only for younger households (under 40). This result just fails to attain significance at the 0.1 level but is provocative enough to merit comment. It suggests that younger eligibles take savings and homeownership into account when they assess their need—and are willing to use these assets to tide them over a rough spot rather than apply for assistance. That older households do not treat their assets as a cushion is consistent with their expectations of fewer working years ahead, and thus with the likelihood that they consider their assets an income source to be saved for retirement.

**Enrollment and Expected Housing Benefits**

Eligible households do seem to view the allowance program as a housing assistance program. Households that occupy large units and thereby exhibit a strong preference for space are more likely to apply. They also pay relatively more per month for their unit. Getting an allowance may help them lessen the strain that high housing expenditures put on a family budget while maintaining their ability to satisfy their taste for additional (nonsleeping) rooms.

Similarly, those who need space appear to view the allowance as a way to relieve their crowded living conditions. Eligibles living in crowded quarters (units lacking one bedroom per person or married couple) are 15 percent more likely to apply than those who do not. But people who live in poorer quality units are not more likely to apply. These results are consistent with studies that show that people spend their housing dollars on space first and quality second (Kain and Quigley, 1975; King, 1975; Barnett and Noland, 1981).

That eligibles apply for an allowance because they expect it to improve their housing situation suggests that they do not view the allowance program simply as a back-door negative income tax. Some eligibles, at least, believe the payments are for housing and apply just because they need housing assistance. Because allowance enrollees exhibit a strong tendency to disassociate themselves from welfare recipients,4 we suspect that some of these applicants

---

4Eighty-one percent of the program's enrollees register approval of allowance recipients but only 24 percent have favorable attitudes toward welfare clients (Ellickson and Kanouse, 1979).
may also be people who would not apply for other kinds of government aid that they deem less acceptable.

Enrollment and Out-of-Pocket Costs

To receive an allowance, eligible households must live in housing that meets certain standards. If their units do not pass the housing inspection, households have three choices—repair, move, or forfeit the allowance. Kennedy and MacMillan (1979) argue that this feature substantially depresses participation, finding that participation in experimental housing assistance programs that do not link payments to unit quality is substantially higher. Their findings pertain to people who have "accepted" an enrollment offer and then discover that their unit has failed the inspection. We wish to determine whether expected repair or moving costs act as a deterrent to participation before the household actually faces the choice of repairing, moving, or terminating. Do eligible households take such possibilities into account when they decide whether or not to apply?

The answer is a qualified yes. Owners who live in lower quality houses (those likely to need more repairs) are less likely to apply than those in higher quality houses, a result that is significant at the 0.1 level. But renters do not appear to include housing quality (or expected repairs) in their decision calculus.5

These results make eminent sense. Owners cannot ask a landlord to make the necessary repairs; renters can. If the unit fails the housing inspection and is repaired, the owner has to foot the bill. Thus, owners who live in poor quality units act as though they expect their unit to fail the inspection and weigh the expected costs of repairing more heavily than the expected benefits from applying.

In contrast, expected moving costs do not have a significant effect on applying. Following Kennedy and MacMillan, we expected households that had not moved in the recent past to anticipate higher moving costs (both psychic and monetary) and be less likely to apply. But stayers are not less likely to apply than those who have moved at least once in the past three years. Clearly, owners are unlikely to consider potential moving costs when applying, because they are unlikely to move to obtain an allowance. Renters, who are more likely to move, appear to discount potential moving costs when deciding to apply—to consider them only after they have enrolled and are actually faced with the choice of moving, repairing, or forfeiting the allowance.

Travel Costs

Living further away from the HAO and, therefore, incurring greater time and out-of-pocket costs in visiting the office does not impede enrollment. These results are consistent with Coe’s (1977) finding that the availability of transportation was not a significant predictor of the decision to participate in the food stamp program. However, our analysis does not include households residing in more rural areas of St. Joseph County, since they did not qualify for an allowance during the relevant period. If travel costs do impede enrollment, the effects should show up when these more rural households enter the eligible pool.

---

5In theory, poor housing quality (or low rent per room) could represent either the expected cost of repairs or the need for better quarters. The former should act as a deterrent to applying; the latter as a stimulant. The positive and significant coefficient for housing quality among owners suggests that they accord greater weight to the possibility of having to make repairs before receiving an allowance than to the opportunity to use the payments for upgrading. The lack of a significant relationship for renters could mean that the two effects cancel each other out.
Psychic Costs

Several studies have cited the aversion factor (variously indexed as anti-welfare attitudes, fears of losing self-esteem, or loss of social approval) as a determinant of low participation rates in social programs. But none has explicitly tested its effect in an overall model of the decision to apply. Our results show that such subjective costs—represented by attitudes against government assistance—inhibit enrollment even when expected benefits are taken into account.

People who oppose government housing aid for low- and moderate-income families are 25 percent less likely to apply than those who favor it. These attitudes, expressed against housing assistance rather than the more commonly disliked concept of welfare, represent something more than principled opposition to government aid programs. As the data show, they translate into a reluctance to apply for such help—a reluctance that we view as rooted in the potential psychological costs of losing or damaging one’s self-esteem. Such a loss may stem from several distinct causes: the psychic costs of admitting an inability to take care of oneself, of contradicting one’s beliefs about the legitimacy of government assistance, or of suffering disrespectful or humiliating treatment from others.

The data also suggest that the aversion factor affects participation among eligibles whether they are young or old. Although older people are more likely to have such predispositions, they do not react to them any differently than do younger people. The interaction of age with opposition to government assistance had no significant effect.

Nevertheless, the aversion factor has a relatively greater effect on elderly participation just because the elderly more frequently experience doubts about the legitimacy of receiving government aid. From a policy perspective, efforts to legitimize applying for housing allowances among older persons in particular could mitigate this barrier to participation.

Word-of-mouth communication appears to be one way of mitigating the reluctance to apply. People who talk about local affairs with friends, neighbors, or relatives are 14 percent more likely to apply than those who do not (Table 3.3). Such conversations, when they center on the allowance program or government assistance in general, may provide additional support for becoming an enrollee—by prodding the hesitant to act now rather than putting off a decision, eliciting social support for accepting government aid, or providing further details about the benefits of applying. Thus, word-of-mouth communication has a double role to play in facilitating participation among eligibles: It improves their likelihood of learning about the program and can also provide support for applying once they know the program exists.

Enrollment and Demographic Characteristics

Elderly singles are less likely to know the allowance program exists; they are also less likely to apply (by 24 percent) when they have heard about it. This reluctance remains significant even when we control for expected benefits and costs.

What else might account for the older single’s hesitance to apply for a housing allowance? We suspect that inertia and administrative burden may enter in. Although talking with

---

6Wyers (1976) found that between 22 and 28 percent of eligible nonparticipants in Jackson County, Oregon, cited the aversion effect as a deterrent to applying for public assistance and food stamps. Welch et al. (1973) found that both personal and community attitudes toward welfare affected participation in the food stamp program in three Nebraska counties. Both of these studies rely on crosstabular data rather than on developing a model of the decision. Coe’s (1977) analysis of the Panel Study of Income Dynamics data explicitly models the decision to apply for food stamps and finds aversion to be a significant predictor of nonparticipation. But he uses status as a single (nonelderly) male as a proxy for stigma rather than a direct measure of attitudes toward government aid.

7Sixty-three percent of those who oppose government housing aid are elderly.
friends and relatives about local affairs may dampen the inertia effect, very few elderly singles have access to this source of support.\(^8\) In addition, their inertia may be physically as well as socially motivated: Elderly singles may be discouraged from applying because they are physically unable or afraid to travel alone. Finally, our measures of costs do not include administrative burden—the time and psychic costs entailed in filling out forms and having one’s income checked. These unmeasured costs may also impede enrollment among elderly singles.

Such is not the case for elderly couples. Although they also apply less frequently than other eligibles, their behavior is accounted for by our measures of expected costs and benefits. In their case, the social and physical support of a spouse may be enough to counteract inertia and anxieties about administrative burden.

The disproportionately high enrollment levels of aware blacks and single parents stem from the fact that their expected benefits outweigh expected costs. Only 2 percent of the black households in this group are owners and only 1 percent oppose government aid; therefore, they are rarely affected by expected repair costs or fears of being stigmatized. Blacks also appear to anticipate greater monetary and housing benefits from applying than do whites. Only 5 percent have incomes of $7,500 or more, and only 10 percent qualify for $40 per month or less. But 52 percent do not have one bedroom per person or married couple. On all dimensions, therefore, blacks as a group expect greater benefits and fewer costs than do whites.\(^9\)

Aware single parents have a similar profile: 2 percent are owners and slightly more, 5 percent, oppose government aid. All have incomes of $7,500 or less; only 10 percent qualify for $40 per month or less; and 68 percent have to share bedrooms. As a group, aware single parents also expect their benefits to exceed their costs and act accordingly when considering whether or not to apply.

Expected repair costs explain much of the lower enrollment rate among owners. But owners also have a lower benefit, higher cost profile in other respects. They anticipate lower benefits: Only 10 percent have yearly incomes of less than $2,500, only 7 percent actually qualify for benefits greater than $100 per month, and less than a fifth experience crowding (compared with 45 percent for renters). Furthermore, they anticipate greater psychic, as well as out-of-pocket costs: Three times as many owners oppose government aid than do renters. Only on taste for space and communication with friends, neighbors, and relatives do owners as a group exhibit characteristics that enhance the probability of applying. More than any other group, owners tend to be marginal eligibles. Their enrollment rates reflect that fact.

**SUMMARY**

What do our results tell us about why more than half of the eligible households fail to apply for an allowance? Several factors play a role—among them, inadequate information, aversion to government assistance, and expected repair costs. Lack of knowledge that the program exists prevents 13 percent of the eligible population from applying; inadequate information about allowance benefits impedes participation among those who have heard of the program. For aware eligibles, the psychic costs of overcoming the aversion factor pose a significant barrier to participation, while expected repair costs deter eligible owners, but not renters, from applying.

If the majority of nonparticipants were eligible for low (marginal) benefits, low enrollment rates would cause relatively little concern. However, our results suggest that the marginal

\(^{8}\)Less than one-fifth (19 percent), compared with 36 percent of the other eligibles.

\(^{9}\)The numbers in this and the following two paragraphs are based on sample counts.
benefit explanation of underenrollment is limited to aware owners. As a group, owners qualify for lower benefits, anticipate higher repair costs, and include those costs in their decision calculus. A substantially greater proportion of owners than renters also deem the aversion factor important. This high-cost/low-benefit profile explains homeowner underparticipation.

But it does not explain the underenrollment of elderly singles, who qualify for relatively high cumulative benefits. Their enrollment behavior is partially accounted for by their disproportionate representation among the uninformed, coupled with a slightly greater susceptibility to the aversion factor and an apparent inability to accurately assess their cumulative benefits. The costs of overcoming inertia and meeting administrative requirements may also play a role.

The marginal benefit explanation also does not explain why more than half of those eligible for more than $120 per month do not apply. What appears to keep these needy eligibles from enrolling is lack of program information and, if they know the program exists, aversion to government assistance, ignorance of their actual entitlement, or a belief that their current financial plight is temporary. We have no data on individual expectations of how long the household might be eligible. But our estimates of eligibility duration for the life-cycle groups all exceed a year. Thus, we think that the "calculated allowance gap"—ignorance of the difference between the household's rough calculation of benefits and its actual entitlement—plays a more important role in impeding participation among needy eligibles than duration of eligibility.

The fact that many of the neediest eligibles fail to apply—either because they remain unaware of the program's existence or, if aware, fail to appreciate the size of their allowance payment—flags a program deficiency considerably more serious than failure to reach the marginal households. In the following section, we consider how nonparticipation among this group might be mitigated.
IV. POLICY IMPLICATIONS

Our results suggest that the housing assistance aspects of the allowance program both enhance and impede participation. People do react to the housing allowance as a source of specific housing, as well as monetary, benefits. Eligibles who live in crowded units and those with a strong preference for space are more likely to apply. To the degree that this response facilitates disassociation from the welfare image of many transfer programs, it may increase the allowance program's relative acceptability. If those living in crowded units use the allowance to move to more spacious quarters, this "housing response" may also further the program's effectiveness in helping people overcome space deficiencies.

In contrast, the program's requirement that households live in housing of standard quality impedes enrollment—at least among owners living in poorer quality homes. Nonparticipation among this group functions as a two-edged sword. Because owners tend to be marginal eligibles, it probably enhances the targeting of funds to the most needy eligibles. But it also limits the program's effectiveness in encouraging the upgrading of lower quality homes. Policymakers need to consider whether discouraging owner participation is a desirable or undesirable feature of the housing standard requirement.

The data also show that information costs play a central role in impeding participation among the neediest eligibles. These people fall through the cracks for several reasons: (1) Many do not even know the program exists; (2) others have difficulty evaluating their own eligibility and likely benefits; and (3) still others lack the social support network that might overcome their aversion to government aid or their tendency to delay making the decision to apply.

Thirteen percent of the eligible population were precluded from applying because they did not know the program existed. Elderly singles and single parents whose very poverty contributes to their greater social isolation make up most of this uninformed group. Transforming these people into participants would substantially increase the enrollment rate among the least well-off.

Forty-nine percent of those who knew about the program and were eligible for more than $120 per year also failed to enroll. Their nonparticipation reflects inadequate information, rather than a total lack of it. In trying to assess their benefits, eligible households appear simply to use a rough assessment of their financial situation during the preceding year. But these "back-of-the-envelope" calculations are biased downward, producing a calculated allowance gap well below the actual entitlement. Eligible households do apply more frequently the lower their incomes and thus the higher their expected benefits. The problem lies in their inability to approximate the results of a benefit formula based on the relationship between income, household size, and the standard cost of housing. Improving the eligible population's information about both eligibility and benefits could also substantially increase participation among the least well-off.

How information is imparted has additional effects on participation. People who talk with others about public affairs and, presumably, the program, are more likely to apply—perhaps because such word-of-mouth communication helps them overcome an aversion to applying for government assistance or the tendency to delay going to the HAO. Such personal contacts may also help overcome other psychic costs of applying.

Efforts to reduce the aversion associated with receiving assistance have had considerable success in England (Karn, 1976). Indirect evidence that they might also work in the United States comes from an earlier analysis of client attitudes toward the allowance program. There we found that clients in both sites tended to disassociate themselves from the welfare
image common to many income-transfer payment programs (Ellickson and Kanouse, 1979, p. 72). To the extent that this finding indicates receptiveness to the idea that getting help from some assistance programs is less demeaning than getting help from others, it suggests that efforts to increase the distinguishability and legitimacy of housing allowances may be feasible.

All of these findings suggest that carefully designed outreach strategies can significantly decrease nonparticipation among the most needy. But what strategies might be most effective?

The data point to two communication channels—radio and personal contact. Creative use of radio’s potential for targeting information to specific groups could reduce nonparticipation attributable to lack of information. Outreach programs that emphasize face-to-face communication have a triple benefit potential—spreading the word to the uninformed, reducing misperceptions about one’s eligibility and benefit status, and persuading the reluctant eligible to apply.

These strategies are particularly relevant for reaching elderly singles, who are both less likely to hear about the program and less likely to apply even when they do hear it. Elderly singles use radio as a source of information about local affairs more than other eligible groups; they are also more susceptible to the aversion factor and less likely to have access to an adequate social support network that might counteract their fears (Dunlop, 1973). Enlisting the cooperation of service organizations for the elderly, such as social security and Meals on Wheels, could help identify aged persons eligible for assistance. Their personnel could also explain the program’s benefits during routine contacts with clients. Private organizations—such as churches, neighborhood groups, and senior citizen groups—have important resources as well. Their more informal and neighborly character provide reassurance to the elderly person who is reluctant to apply for help. Follow-up door-to-door canvassing using neighborhood volunteers has the same advantages.

Targeting information to uninformed single parents requires similar innovative campaigns that emphasize word-of-mouth communication. Child-care centers and schools located in low-income neighborhoods could help both in identifying potential eligibles and explaining the program’s benefits.

None of these strategies is cost-free. They require substantial inputs of time and money and rely heavily on the goodwill of agency personnel and local community groups. But neither are they unprecedented. In 1974, for example, the Social Security Agency launched “SSI-Alert,” a large-scale outreach project that enlisted the help of the American Red Cross, the Administration on Aging, and 50,000 volunteers in “canvassing neighborhoods, conducting interviews, finding local eligible persons and convincing them to sign up for SSI” (Harter, 1977). Such efforts require a belief that informing needy eligibles is a legitimate and important route to increasing an assistance program’s effectiveness. They also require a conviction that effective outreach is not just a matter of making people aware that a program exists, but also one of helping needy households determine their eligibility and benefits and persuading reluctant eligibles that seeking government help is legitimate.

The results of this study provide strong evidence for the notion that nonparticipation occurs among both the least and the most needy eligibles. They also indicate that information costs and the aversion factor act as significant barriers to participation—particularly among the least well-off. These barriers are not specific to the allowance program: They are potential depressants of participation in all new transfer programs and most of the existing ones. The single exception may be social security, which enjoys the informational advantage of longevity, the legitimacy associated with universality, and a relatively simple eligibility formula. Efforts to target government assistance to the neediest households need to take into account the negative effects of aversion to government assistance and inadequate information on the decision to apply for aid.
Appendix

SUPPLEMENTARY TABLES
## Table A.1

**Standard Cost of Adequate Housing in St. Joseph County: April 1975-August 1976**

<table>
<thead>
<tr>
<th>Occupancy Standard</th>
<th>Number of Persons</th>
<th>Number of Rooms(^2)</th>
<th>Standard Monthly Cost ($)(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1-2</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1-3</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>3-4</td>
<td>4</td>
<td>145</td>
</tr>
<tr>
<td></td>
<td>5-6</td>
<td>5</td>
<td>160</td>
</tr>
<tr>
<td></td>
<td>7-8</td>
<td>6</td>
<td>170</td>
</tr>
<tr>
<td></td>
<td>9+</td>
<td>6</td>
<td>170</td>
</tr>
</tbody>
</table>

**Source:** Analysis by HASE staff of records from the screening survey of households, St. Joseph County.

\(^2\)Minimum number of rooms for household of indicated size.

\(^b\)Estimated monthly cost of shelter and utilities for a dwelling of the indicated size that also meets other quality standards.
Table A.2

**Means and Standard Deviations of Variables Used to Predict Acquisition of Information**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Range of Values</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yearly allowance entitlement ($)</td>
<td>120-2,040</td>
<td>Mean: 850.82</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard Deviation: 471.99</td>
</tr>
<tr>
<td>Yearly allowance entitlement ($) Black</td>
<td>120-2,040</td>
<td>Mean: 309.07</td>
</tr>
<tr>
<td>Monthly housing expenses ($)</td>
<td>0-375</td>
<td>Mean: 142.72</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard Deviation: 55.06</td>
</tr>
<tr>
<td>Need for space (more than one person or married couple/bedroom)</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .395</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard Deviation: .489</td>
</tr>
<tr>
<td>Media exposure:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .302</td>
</tr>
<tr>
<td>Television</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .791</td>
</tr>
<tr>
<td>Newspaper</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .658</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard Deviation: .460</td>
</tr>
<tr>
<td>Word of mouth exposure:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contacts with government workers, assistance recipients</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .552</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard Deviation: .498</td>
</tr>
<tr>
<td>Contacts with friends and relatives</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .216</td>
</tr>
<tr>
<td>Contact breadth and diversity</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .575</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard Deviation: .412</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard Deviation: .495</td>
</tr>
<tr>
<td>Attitude toward desegregation</td>
<td>Scale: 1 (negative)-7 (positive)</td>
<td>Mean: 3.511</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard Deviation: 2.136</td>
</tr>
<tr>
<td>Negative attitude toward government housing aid</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .129</td>
</tr>
<tr>
<td>Elderly single</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .236</td>
</tr>
<tr>
<td>Owner</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .149</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard Deviation: .336</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard Deviation: .425</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Standard Deviation: .357</td>
</tr>
</tbody>
</table>

**Source:** Analysis by HASE staff of records from the survey of households, St. Joseph County, wave 2.

**Note:** Means and standard deviations are based on records of 301 eligible households.
Table A.3

MEANS AND STANDARD DEVIATIONS OF VARIABLES USED TO PREDICT ACQUISITION OF PROGRAM DETAILS

<table>
<thead>
<tr>
<th>Variable</th>
<th>Range of Values</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yearly allowance entitlement ($)</td>
<td>120-2,040</td>
<td>Mean: 859.83</td>
</tr>
<tr>
<td>Yearly allowance entitlement ($): Black</td>
<td>120-2,040</td>
<td>Standard Deviation: 478.61</td>
</tr>
<tr>
<td>Monthly housing expenses ($)</td>
<td>0-375</td>
<td>Mean: 334.87</td>
</tr>
<tr>
<td>Need for space (more than 1 person or married couple/bedroom)</td>
<td>1 if yes; 0 otherwise</td>
<td>Standard Deviation: 550.00</td>
</tr>
<tr>
<td>Media exposure:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radio</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .417</td>
</tr>
<tr>
<td>Television</td>
<td>1 if yes; 0 otherwise</td>
<td>Standard Deviation: .494</td>
</tr>
<tr>
<td>Newspaper</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .417</td>
</tr>
<tr>
<td>Standard Deviation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>World of mouth exposure:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contacts with government workers,</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .315</td>
</tr>
<tr>
<td>assistance recipients</td>
<td></td>
<td>Standard Deviation: .465</td>
</tr>
<tr>
<td>Contacts with friends and relatives</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .804</td>
</tr>
<tr>
<td>Contact breadth and diversity</td>
<td>1 if yes; 0 otherwise</td>
<td>Standard Deviation: .397</td>
</tr>
<tr>
<td>Attitude toward desegregation</td>
<td>Scale: 1 (negative)-7 (positive)</td>
<td>Mean: 3.536</td>
</tr>
<tr>
<td>Negative attitude toward government housing aid</td>
<td>1 if yes; 0 otherwise</td>
<td>Standard Deviation: 2.127</td>
</tr>
<tr>
<td>Elderly single</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .123</td>
</tr>
<tr>
<td>Owner</td>
<td>1 if yes; 0 otherwise</td>
<td>Standard Deviation: .329</td>
</tr>
</tbody>
</table>

SOURCE: Analysis by HASE staff of records from the survey of households, St. Joseph County, wave 2.

NOTE: Means and standard deviations are based on records of 276 eligible and aware households.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Range of Values</th>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Income ($ )</td>
<td>200-17,400</td>
<td>Mean: 4,359, Standard Deviation: 2,681</td>
</tr>
<tr>
<td>Estimated duration of eligibility (yrs.)</td>
<td>1.41-6.18&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Mean: .229, Standard Deviation: 1.975</td>
</tr>
<tr>
<td>Assets ($)</td>
<td>0-26,200</td>
<td>Mean: 1,686, Standard Deviation: 3,959</td>
</tr>
<tr>
<td>Assets ($) : age 40 or older</td>
<td>0-26,200</td>
<td>Mean: 1,531, Standard Deviation: 3,945</td>
</tr>
<tr>
<td>Taste for space (number of rooms minus bedrooms)</td>
<td>.5-6</td>
<td>Mean: 2.518, Standard Deviation: .709</td>
</tr>
<tr>
<td>Need for space (more than 1 person or married couple/bedroom)</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .418, Standard Deviation: .494</td>
</tr>
<tr>
<td>Housing quality ($/room)</td>
<td>0-80</td>
<td>Mean: 32.084, Standard Deviation: 12.012</td>
</tr>
<tr>
<td>Housing quality ($/room) : owner</td>
<td>0-80</td>
<td>Mean: 38.285, Standard Deviation: 10.564</td>
</tr>
<tr>
<td>Stayer (has not moved in 3 years)</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .400, Standard Deviation: .491</td>
</tr>
<tr>
<td>Distance to office (10ths of mile)</td>
<td>.5-7.8</td>
<td>Mean: 2.019, Standard Deviation: 1.562</td>
</tr>
<tr>
<td>Negative attitude toward government housing aid</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .124, Standard Deviation: .330</td>
</tr>
<tr>
<td>Communication with friends and relatives</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .222, Standard Deviation: .416</td>
</tr>
<tr>
<td>Elderly single</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .204, Standard Deviation: .403</td>
</tr>
<tr>
<td>Owner</td>
<td>1 if yes; 0 otherwise</td>
<td>Mean: .149, Standard Deviation: .357</td>
</tr>
</tbody>
</table>

**Source:** Analysis by HASE staff of records from the survey of households, St. Joseph County, wave 2.

**Note:** Means and standard deviations are based on records of 275 eligible and aware households.

<sup>Individual values for the eligible groups are: elderly singles, 6.18; elderly couples, 2.45; single parents, 5.82; other eligibles with children, 2.28; other eligibles without children, 1.41.**
REFERENCES


Greenston, Peter, and C. Duncan MacRae, *A Diffusion Analysis of Participation in the Aid to Families with Dependent Children Program by States*, The Urban Institute, Washington, D.C., 1974.


Kennedy, Stephen D., and Jean MacMillan, *Draft Report on Participation under Alternative...


