FOURTH ANNUAL REPORT

of the

HOUSING ASSISTANCE SUPPLY EXPERIMENT

Sponsored by

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

October 1976 — September 1977

R-2302-HUD
May 1978

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.

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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). It describes the progress of the Housing Assistance Supply Experiment (HASE) during its fourth year of field operations, October 1976 through September 1977, and summarizes experimental findings to date.

The experiment is conducted by The Rand Corporation under a contract with HUD. A fullscale housing allowance program has been mounted under Rand's supervision in each of two midwestern metropolitan areas in order to learn about the effects of such a program on local housing markets. At the end of September 1977, the allowance program had been operating for 39 months in Brown County, Wisconsin, and 33 months in St. Joseph County, Indiana.

This report continues the history of the Supply Experiment presented in prior annual reports,[1] summarizing the progress of the allowance programs and the research activities conducted in conjunction with them. Part of the research is an annual cycle of field surveys addressed to the owners and occupants of a market-wide sample of residential properties in each site.

In addition to project history, the report presents interim research findings. They are summarized under three topical headings: how the program affects participants, how it affects housing markets, and how its administrative features work. The findings are based primarily on program records for the first two years of enrollment and on data from the first two cycles of field surveys in each site.

Conducting the Supply Experiment during the past year has required close cooperation among a number of institutions and dedicated efforts by their staffs. It is appropriate here to acknowledge the support, advice, and technical contributions we have received from them. The institutions are HUD's Office of Policy Development and Research, the sponsoring agency; The Urban Institute, which has general responsibility for integrating findings from HUD's different housing allowance experiments; Westat, Inc., and the National Opinion Research Center, both field survey subcontractors for the experiment; local governments in Brown County and St. Joseph County, where the experiment is being conducted; the housing allowance offices established in those places to administer the experimental programs; and HUD's Area V office (Chicago), which administers the annual contributions contracts under which the two allowance programs operate. We regret that the individuals at those institutions who have earned our respect and gratitude are too numerous to name here.

This report draws directly or indirectly on material prepared by Rand's staff for the Supply Experiment over a period of nearly six years. A research project of this type requires a great deal of technical documentation, the external audience for which is limited to those who wish to probe deeply into research methods. For the Supply Experiment, that documentation exists in the form of working notes,

[1] *First Annual Report of the Housing Assistance Supply Experiment*, R-1659-HUD, October 1974; *Second Annual Report of the Housing Assistance Supply Experiment*, R-1959-HUD, May 1976; *Third Annual Report of the Housing Assistance Supply Experiment*, R-2151-HUD, Feburary 1977. All were published by The Rand Corporation.

copies of which are permanently on file at Rand, HUD, and the National Technical Information Service (NTIS). Some of those notes will in time be revised and published as reports; others, because of their limited audiences, will not be published for general distribution, but can be made available by Rand, HUD, or NTIS to requestors on a case-by-case basis. To assist the reader who needs such additional documentation, we have cited the relevant working notes in the text of this report and in Appendix A.

Ira S. Lowry, manager of the HASE Design and Analysis Group, planned and edited this report. Many others helped organize the material and draft the text.

The account of program developments in Sec. II is based on data supplied by the housing allowance offices in each site and collated by Iao Katagiri and Sally Rich of Rand; and on material prepared by Daniel J. Alesch and Thomas W. Weeks, Rand's site managers in Brown County and St. Joseph County, respectively. Ira S. Lowry prepared the first draft.

The account of research activities in Sec. III is based on materials supplied by HASE group managers: Douglas Scott for the Survey Group, Donald P. Trees for the Survey Data Processing Group, Carol A. Medine for the Data Systems Group, Ira S. Lowry for the Design and Analysis Group, and G. Thomas Kingsley for the Field and Program Operations Group. The first draft of Sec. III was prepared by Stanley C. Abraham.

Section IV summarizes recent research on program participants by Phyllis L. Ellickson, David E. Kanouse, Lawrence W. Kozimor, Bruce W. Lamar, Adele P. Masssell, and James L. McDowell. Kanouse, Kozimor, and McDowell prepared the first draft.

Section V summarizes research on the program's market and community effects by John E. Bala, C. Lance Barnett, Therman P. Britt, Phyllis L. Ellickson, Lawrence Helbers, David E. Kanouse, Kevin F. McCarthy, Mark David Menchik, Charles W. Noland, C. Peter Rydell, James P. Stucker, and Sammis B. White. Ira S. Lowry prepared the first draft.

Section VI summarizes administrative research by Daniel J. Alesch, Deborah R. Both, Stacey W. Gamble, Iao Katagiri, G. Thomas Kingsley, Sheila Kirby, and Paul E. Tebbets of Rand. The senior staffs of both housing allowance offices (listed in Appendix C) also contributed substantially to that research. Kingsley prepared the first draft of the section.

The entire professional staff of HASE, all of whom contributed indirectly, is listed in Appendix D. A special acknowledgment is due Ann Wang, who worked long hours to resolve problems with allowance program records that did not surface until the report was being drafted.

The draft report was reviewed by Charles E. Nelson, Rand's program director for HASE; Gene H. Fisher, head of Rand's Management Sciences Department; Thomas K. Glennan, Domestic Program Division of Rand's Washington Office; and David Novick, Rand consultant. In HUD's Office of Policy Development and Research, the draft was reviewed by Howard W. Hammerman, government project manager, Division of Housing Research. All made helpful comments.

Rachel Kuntz, Ned Harcum, and Judy Bartulski prepared the draft typescript and tables. Charlotte Cox edited the typescript and supervised production of the report. Dwight Williams prepared the graphics.

This report was prepared pursuant to HUD contract H-1789 and fulfills the requirements of Task 2.13 of that contract.

SUMMARY

The Housing Assistance Supply Experiment (HASE) is one among several elements of the Experimental Housing Allowance Program (EHAP) begun in 1972 by the Office of Policy Development and Research, U.S. Department of Housing and Urban Development (HUD). Specifically authorized by Congress, EHAP was undertaken to learn whether direct cash assistance to low-income households is a feasible and desirable way to help them secure decent housing in a suitable living environment; and if so, to help determine the best terms and conditions for such assistance and the most efficient and appropriate methods for its administration.

As part of EHAP, the Supply Experiment primarily addresses issues of market and community response to housing allowances, but it also shows how participants are affected and how such a program might be administered. It entails operating a fullscale allowance program in each of two metropolitan areas, chosen for strong contrasts in their housing markets, for ten years; and monitoring both program operations and market responses for about five years. The communities selected for the experiment are Brown County, Wisconsin (whose central city is Green Bay), and St. Joseph County, Indiana (whose central city is South Bend).

This report summarizes findings mainly from the first two program years. Because the sites differ so sharply in population characteristics, housing quality, and market conditions, there was reason to expect more divergent program outcomes than have occurred. Levels of enrollment (about 8 percent of all households) and the characteristics of enrollees (mostly elderly persons or single parents) are similar, as are their responses to the program's incentives.

- Housing allowances averaging $900 annually ease the typically severe budgetary problems of participants. Because payments are made only to those occupying acceptable housing, many enrollees have repaired their dwellings and some have moved in order to qualify.
- In neither site have participants' attempts to secure better housing noticeably disturbed the housing market or destabilized neighborhoods. The program is generally approved by nonparticipants as well as participants.
- Administrative costs are lower than or equal to those of similar housing or cash transfer programs. Efficient and reliable methods have been developed for measuring clients' incomes and evaluating the quality of their housing.

The following pages describe the experiment in more detail and expand on the findings briefly noted above.

THE HOUSING ALLOWANCE PROGRAM

The allowance program is open to all families and most single persons in the

two counties who are unable to afford the standard cost of adequate housing on the local market without spending more than a fourth of their adjusted gross incomes. Each enrolled household receives monthly cash payments equal to the "housing gap" thus calculated, provided that the housing unit it occupies meets minimum standards of decency, safety, and sanitation.

Both renters and homeowners may participate in the program, and participants may change tenure or place of residence (within the program's jurisdiction) without loss of benefits. Participating renters are responsible for locating suitable housing, negotiating with landlords over rent and conditions of occupancy, paying the rent, and seeing that their dwellings are maintained to program standards. Participating owners are entirely responsible for negotiating purchases and mortgage financing, meeting their obligations to lenders, and maintaining their properties.

In short, the experimental allowance program provides cash assistance that enables each participant to afford decent, safe, and sanitary housing, on condition that he find such housing in the private market and see that its quality is maintained during his occupancy. The program thus relies heavily on the participant's initiative and on normal market processes. The amount of the allowance is usually much less than, and does not vary with, actual housing expenses. Since the marginal dollar spent ordinarily comes out of the participant's nonallowance resources, he has a motive to seek the best bargain he can find on the local market.

The program is funded by a ten-year annual contributions contract between HUD and a local housing authority at each site. That authority in turn delegates program operations to a nonprofit corporation established by Rand, the housing allowance office (HAO). The HAO enrolls eligible applicants, evaluates their housing, and disburses payments.

THE RESEARCH PROGRAM

To learn about the program's effects on participants, Rand analyzes the client records maintained by each HAO. To learn about effects on the local housing market and the community, Rand conducts an annual cycle of field surveys addressed to a marketwide sample of residential properties, once before the program begins and for about five years thereafter. To learn about program administration, Rand works with HAO staffs to analyze procedures, their effectiveness, and their costs.

Although the HAO record system was designed primarily for administrative efficiency, it was also planned so that Rand could construct a complete and reliable history of all transactions with each client from the time of his application until he left the program. Those records include periodically updated information on the client's household characteristics, financial circumstances, and housing expenses; detailed reports on the physical characteristics of each dwelling he occupies while in the program and any repairs and improvements he makes to those dwellings; and a complete record of changes in program status, allowance entitlements, and payments received.

The field surveys include annual interviews with both the owners and occupants of sampled properties and less frequent field observations of the properties and the neighborhoods where they are located. From the landlords of rental properties, the interviewers seek (among other items) a detailed account of each property's financing, income, expenses, repairs, and improvements for the preceding year. Renters and homeowners are queried at length about their housing, its cost, and how they feel about it and the neighborhood. They are also asked about previous changes of residence. Landlords, renters, and homeowners are all asked for their views on the experimental allowance program and its local effects. (Those interviewed include program participants and nonparticipants, the latter predominating.)

Gathering data on both the program and the market in which it operates enables us to relate the program to market and community responses. We address issues of supply responsiveness (housing price and quantity changes induced by the program), the behavior of market intermediaries and indirect suppliers of housing services, residential mobility and neighborhood change, and effects on nonparticipants and their attitudes toward the program.

Administrative research includes detailed cost accounting for program functions, analyses of the reliability of client submissions and HAO records, checks on the consistency of case-by-case administrative decisions, studies of procedural efficiency, and analyses of factors influencing clients' success or failure in meeting program requirements.

PROGRESS THROUGH SEPTEMBER 1977

Formal planning for the Supply Experiment began in April 1972. The next two years were spent in selecting sites, working out program details, surmounting various legal obstacles, and designing research methods. The allowance program was inaugurated in Brown County in June 1974 and in St. Joseph County early in 1975. Thus at the end of September 1977, the program had been fully operative for 39 months in Brown County and 30 months in St. Joseph County. The number of applicant households and their statuses then were as follows:

	Brown County	St. Joseph County	Total
Applications	12,745	21,943	34,688
Total ever enrolled	6,782	10,026	16,808
Terminations	3,107	3,686	6,793
Currently enrolled	3,675	6,340	10,015
Currently receiving payments	3,148	4,913	8,061

The larger numbers for St. Joseph County mostly reflect its larger population of eligible households. Terminations, mostly due to increased income, now offset new enrollments in both sites, so program size has stabilized. Those currently receiving payments are about 7 percent of all households in Brown County and 8 percent in St. Joseph County.

Through September 1977, the Brown County HAO had disbursed $6.1 million in allowance payments; and the HAO in St. Joseph County, $6.4 million. At the September rate of disbursement, the annual outlay would be $2.8 million in Brown

County and $4.5 million in St. Joseph County, an overall average of $903 per year for each of 8,061 households.

As of September 1977, four annual cycles of field surveys had been completed in Brown County and three in St. Joseph County. In the two sites combined, interviews were completed in 1977 with about 1,900 landlords, 3,500 renters, and 1,200 homeowners. The records of those and prior surveys are in various stages of coding, transcription to machine-readable form, cleaning, auditing, and analysis. HAO administrative records for the first two years of program operations in each site have been organized into research files and analyzed.

During the year covered by this report, research focused on the allowance program and its effects on participants. Those findings are summarized below, along with interim findings of continuing studies of market and community effects. For the first time, we also report on administrative costs and procedures.

THE EXPERIMENTAL SITES

The two experimental sites were selected from among all metropolitan areas whose populations in 1970 were under 250,000, the size limit reflecting the resources available for the experiment. We sought contrasts that were especially likely to influence the results of a housing allowance program: on the one hand, between a "tight" and a "loose" housing market; and on the other, between a market undivided by racial segregation and one with a segregated minority population.

In 1974, Brown County had about 170,000 inhabitants (48,000 households). Because of rapid growth in employment and population, the county has had a persistently tight housing market despite considerable new construction (see the table). Because nearly 60 percent of the dwellings were built after 1944, the housing stock is in relatively good condition; even in the urban core there are no seriously blighted neighborhoods. And because the county's population is racially homogeneous, the housing market is unsegregated.

In 1975, St. Joseph County had about 240,000 inhabitants (76,000 households). Manufacturing employment has declined sharply since World War II, resulting in population losses first from South Bend and now from the county as a whole. The central city has a large surplus of deteriorating housing, and suburban vacancy rates are rising. About 21,000 blacks and 2,000 Latins live in the county. Nearly all the blacks live in South Bend, where they constitute 18 percent of all households. The central South Bend neighborhoods with the largest black populations are generally also those in which housing conditions are poorest and property values are lowest.

HOW HOUSING ALLOWANCES AFFECT PROGRAM PARTICIPANTS

Although the first two years of housing allowances cannot reveal the full story of the program's effects on participants, findings for that period greatly narrow the uncertainties that prompted the experiment. Here, we summarize what we have learned and discuss the implications for federal housing policy.

- **Experimental Sites Were Chosen for Differences in Market Conditions . . . .**

Area	Market Conditions at Baseline[a]			
	Number of Habitable Units	Average Vacancy Rate (%)	Annual Turnover per 100 Units	Average Vacancy Duration (weeks)
Regular Rental Housing[b]				
Brown County	14,700	5.1	65.6	4.0
St. Joseph County	16,400	10.6	57.4	9.6
Central South Bend	8,000	12.3	59.5	10.7
Rest of county	8,400	8.9	55.3	8.4
Homeowner Housing[c]				
Brown County	31,700	.8	7.4	5.6
St. Joseph County	57,000	2.4	9.9	12.6
Central South Bend	13,600	4.2	8.5	25.7
Rest of county	43,400	1.9	10.2	9.7

SOURCE: Estimated by HASE staff from records of the baseline surveys of landlords and homeowners in each site.

[a] 1973 in Brown County and 1974 in St. Joseph County.

[b] Excludes mobile home parks, rooming houses, farmhouses, and federally subsidized dwellings.

[c] Excludes mobile homes.

Because the two communities from which our data are drawn differ so sharply in population characteristics, housing market conditions, and political style, there was reason to expect different program outcomes. Yet in most respects that bear on national policy, the outcomes are much alike in Brown and St. Joseph counties. That fact strengthens our confidence that local findings point the way to general conclusions, just as the occasional differences underline the locally varying results to be expected of a national program.

Who the Program Helps

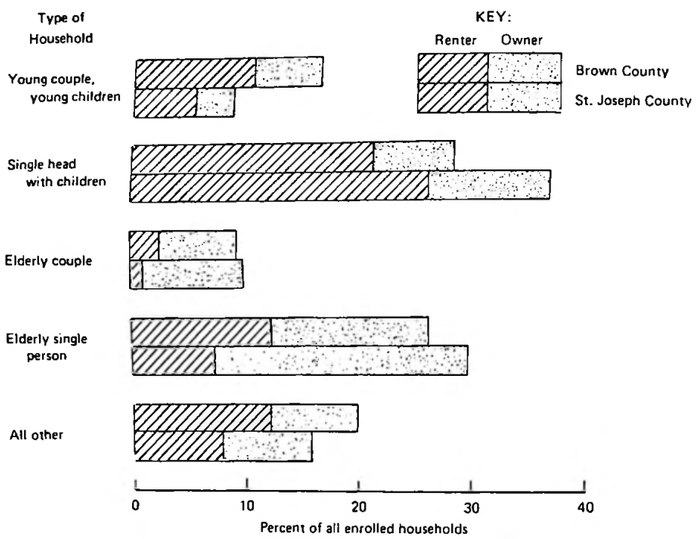
With the exception (until recently) of most single persons under 62, the allowance programs have been open to all those who cannot afford the market price of adequate housing. The evidence from both sites is converging toward the conclusion that about half of those who are eligible will choose to enroll in such a program and that those with the lowest incomes are readiest to participate.[1] The near absence of categorical restrictions or incentives to select only those who are easy to serve yields a degree of horizontal equity[2] that is unparalleled in other federal housing programs.

[1] Participation rates in other federal transfer programs fall in the same general range. One national study estimates that only 38 percent of those eligible for food stamps are enrolled in that program; a study of New York City's poor indicates that only 52 percent of all households eligible for public assistance actually drew benefits in March 1970.

[2] Equal treatment of all whose needs are equal.

Four types of households predominate among both eligibles and enrollees: young couples with young children, single parents with children, elderly couples, and elderly single persons. Among enrollees, single parents and elderly single persons together account for over half the total (see the figure). Among the elderly, homeowners predominate; most of the young couples and single parents are renters.

- Elderly Persons and Single Parents Compose More Than Half of All Enrollees . . . .



SOURCE: HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

The sources of nonallowance income are important in explaining patterns of participation. For nonelderly couples, housing allowances are most often a kind of supplemental unemployment insurance, tiding the family over a few months of hard times. For elderly persons and single parents, the program is a longterm source of aid. While budgetary relief is welcomed by both groups and may forestall mortgage foreclosure for some young homeowners, more lasting effects on housing conditions are naturally associated with longterm participation.

Half of those eligible in Brown County and 70 percent in St. Joseph County are homeowners, a group generally neglected in federal housing programs.[3] However, renters have been readier than homeowners to participate; they account for two-thirds of all enrollees in Brown County and half in St. Joseph County. We attribute

[3] The larger proportion of homeowners among the eligibles in St. Joseph County partly reflects the fact that about a fourth of the otherwise eligible renters there live in federally subsidized housing and are thus ineligible for housing allowances.

renters' higher participation rates in part to their lower incomes and in part to their youth and their less conservative views on seeking aid.

Housing Improvement

About 8 out of 10 enrollees manage to meet the program's housing standards and thus qualify for payments, even though half start in substandard dwellings. Although the option of moving may bolster renters in their dealings with landlords, it is only occasionally exercised as a means of securing certifiable housing. Those in substandard dwellings who qualify for payments usually do so by repairing (or persuading their landlords to repair) their homes.

The HAOs fail a dwelling for any defect judged to endanger health, safety, or decency, finding one or more such defects in at least half the enrollees' dwellings. Except for overcrowding and the occasional absence of essential equipment, the defects can usually be remedied by amateur labor and a few dollars' worth of materials. Professional contractors did only 12 percent of all initial repairs in our two sites; the others were done by homeowners, landlords, tenants, or their friends. The median cash outlay for repaired dwellings was only $10; three out of four substandard dwellings were repaired for less than $25 in Brown County and less than $30 in St. Joseph County.

Evidence is accumulating that lack of money is seldom the direct explanation for substandard housing conditions. More often, occupants are either unaware of or do not attach importance to the defects found by the HAOs. Given the incentive of allowance payments, most enrollees promptly repair their homes, but one-time attention is not enough. Subsequent annual evaluations show that 20 to 40 percent of recipients' dwellings again need repairs.

We find that homeowner participants do more maintenance after their dwellings have been certified and payments begin. The repairs and improvements that they make voluntarily between annual housing evaluations concentrate on structural features and utility systems to a greater extent than do initial repairs. In St. Joseph County, the average cash outlay for such repairs is $347 annually, as compared with $268 for low-income homeowners not in the program and $555 for all homeowners.[4] We also have anecdotal evidence that homeowners in the program often earmark their allowances for major repairs.

Vigorous enforcement of local housing codes would probably achieve about the same amount of housing improvement as the allowance program. The latter's advantage lies in its positive incentives. Few communities find it practical to enforce their housing codes systematically; most respond mainly to third-party complaints and face the hostility of both owners and occupants of dwellings in which violations are found.

A potentially important effect of the program is the apparent cooperation it induces between renters and landlords. Our surveys of renters not in the program reveal very little effort on their part to maintain their dwellings; those in the program do a substantial share of both initial and annual repairs and often pay for small repairs rather than billing their landlords. The record indicates that landlords only rarely take program-induced repairs as appropriate reasons for raising rents.

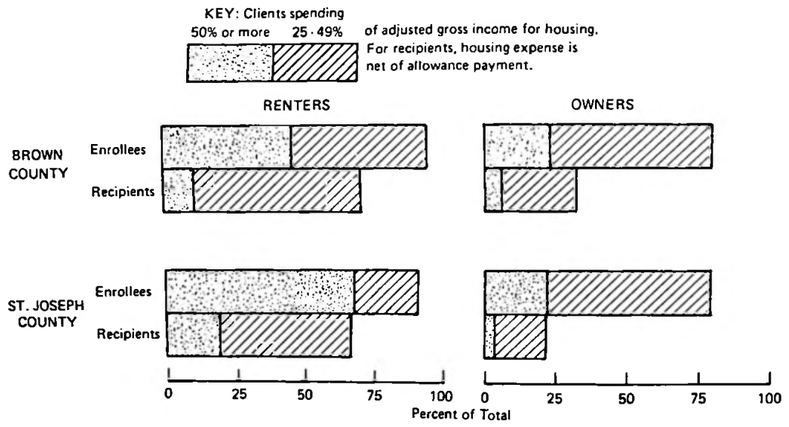
[4] Brown County figures are similar in pattern but smaller in amounts.

Certainly, the prospects for good maintenance of rental housing are greatly enhanced if both parties share the responsibility.

Housing Expenses and Budgetary Relief

Housing expenses constitute a large share of the typical low-income budget. Among enrollees, 90 percent of the renters and at least 75 percent of the homeowners spend more than a fourth of their adjusted gross incomes for shelter and utilities (see the figure). About 40 percent of the enrolled renters in Brown County and 60 percent in St. Joseph County spend at least half their incomes for housing.

- **Allowances Reduce but Do Not Eliminate Excessive Housing Expenditures . . . .**



SOURCE: HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

Under the HASE allowance formula, benefits averaging $75 a month offset a third to two-thirds of actual housing expenses for most recipients. Because most renters spend more than our surveys indicate is needed to secure adequate housing, their allowances fully close the "housing gap" only for a minority.[5] If all homeowners' expenses were counted, the outcome would be similar.[6]

Understandably, most clients are more interested in budgetary relief than housing improvement. Only a minority respond immediately to the receipt of an allowance by moving or by markedly increasing their housing outlays. Most do what is required to meet the program's housing standards and treat the allowance

[5] The "housing gap" is the difference between actual housing expenses and a fourth of adjusted gross income, the latter figure being the policy standard for the housing expenses of low-income families. Housing allowance payments cover the difference between a locally estimated standard cost of adequate housing and a fourth of income, without regard to actual housing expenses.

[6] The allowance program does not count as a housing expense the opportunity cost to homeowners of holding their savings in the form of home equity. Such equities range from near-zero for a recently mortgaged property to 100 percent of property value for a home that is free of debt.

as a budgetary supplement. Consequently, the program's housing requirements are needed to achieve its housing objectives. If allowances were unrestricted cash transfers, we are reasonably sure that few recipients would voluntarily repair their homes to HAO standards or increase their housing expenditures much beyond what was needed to counter inflation.

Those who substantially increase their housing expenditures are nearly all renters who move. During the first two program years, a third of all participating renters in Brown County and two-fifths in St. Joseph County changed their residences. Their new contract rents were typically 23 percent larger than at enrollment; those who began in unacceptable dwellings typically spent 30 percent more after moving, whereas those who began in acceptable dwellings spent 13 percent more after moving. We cannot yet say for sure whether that minority of movers is the advance guard of a much larger number or whether nearly all who are likely to move have already done so.[7]

Home Purchase

During the first two program years, 28 enrolled renters in Brown County and 82 in St. Joseph County bought homes. In Brown County, where property values are high, the buyers were mostly young couples who enrolled because of temporary unemployment; they bought homes and dropped out of the program when reemployed. In St. Joseph County, where property values are low, the typical buyer was a single parent whose main income was AFDC (Aid to Families with Dependent Children) or child-support payments, and the typical home value was $10,000. The transactions were financed either by FHA-insured mortgages or by land contracts (personal credit from the seller).

Compared with renting, buying a low-priced home in St. Joseph County is economical. Whereas the median gross rent paid by program participants is about $1,800 annually, an annual outlay of $1,500 to $1,700 will support ownership of a modest ($10,000) home. However, access to credit for such purchases depends critically on FHA policies—currently quite generous to low-income buyers with good credit histories.

Participants' Morale

Although only half of those eligible seem ever likely to enroll, nearly all those in the program approve both its concept and its implementation. Very few have been disgruntled by program rules or their dealings with the staff. Like others in the community, participants favorably distinguish allowance recipients from people on welfare.

Enrollees generally understand and approve both the dependence of allowance entitlement on income and the housing requirements that must be met to qualify for payments. Few complain about the means test or invasion of their privacy; some even advocate more checking to prevent fraud. Their main concern is whether the amount of assistance is adequate, given their housing expenses.

[7] Over half of the moves by renters occurred in the typically brief period between enrollment and first certification.

Program Effectiveness

During the first two years, the experimental housing allowance program succeeded in delivering cash assistance to a large number of low-income households that were either categorically ineligible (e.g., homeowners) or could not be accommodated by other housing assistance programs in their communities. For participants, the program has provided needed budgetary relief and has caused them to remedy thousands of housing defects that would otherwise have gone uncorrected and perhaps unnoticed. In that connection, allowance payments operate more as incentives than as means to housing improvement. Provided the incentive, those in substandard housing have usually been able to find inexpensive remedies for defects reported by the HAOs.

The allowance program is unusual among federal transfer programs in demanding something definite of its participants in return for their benefits, and in leaving them to find ways to comply. So far, the evidence indicates that the strategy works very well. What remains to be judged is whether the program's housing achievements are worth the additional cost of earmarking the cash transfer. Some observers have been disappointed by the small cash cost of repairing substandard dwellings, believing that such inexpensive improvements must have little social value. However, housing improvements need not be expensive to contribute significantly to the occupants' welfare. The program's housing standards closely reflect model housing codes devised by public health professionals; despite the scarcity of scientific evidence, most students of housing believe these features are important for health, safety, and decent family life.

Another question is whether the same results could be otherwise achieved, perhaps at less public cost. We think it is fairly clear that public management of low-income housing is not needed to obtain comparable improvements; that while unrestricted cash transfers would provide budgetary relief, perhaps more equitably and at less administrative expense, they would have little effect on the recipients' housing; and that local code enforcement, if its negative incentives were politically acceptable, could achieve nearly the same housing improvements. All things considered, housing allowances remain a plausible instrument of national policy, worth continued investigation.

HOW HOUSING ALLOWANCES AFFECT HOUSING MARKETS

The major motivation for the Supply Experiment was to learn how a fullscale housing allowance program would affect local housing markets. When the experiment was planned, speculation about the effects of a national program emphasized a number of possibly adverse outcomes, and these were reiterated by some of HUD's advisors as objections to the experiment itself:

- The attempts of participants to spend their allowances for better housing would drive rents and home prices sharply up, dissipating the allowances in price inflation.
- Even in return for more rent, landlords would be unwilling to supply low-income families with well-maintained housing, so few enrollees would ever qualify for payments.

- Since benefits are inadequate to pay for new homes, the program would not increase the supply of housing, only intensify competition for better dwellings in the existing stock.
- Without stronger earmarking, allowances would be treated by their recipients as general income supplements, in which case the program would have little effect on housing consumption.
- Homeowners seeking to repair their dwellings and thus qualify for payments would be unable to obtain home improvement loans; unscrupulous contractors would defraud those who succeeded in financing home repairs but lacked the technical knowledge to oversee them.
- The portability of benefits would destabilize neighborhoods, especially in segregated housing markets. Participants were likely to use their benefits to rent or buy into better neighborhoods rather than to repair their homes.
- Because housing choices were left to participants operating through normal market channels, existing patterns of residential segregation would be maintained by market intermediaries.
- Those ineligible to participate would deeply resent the program's benefits to low-income families, especially if their own housing costs or neighborhoods were adversely affected.

Those scenarios, not all mutually consistent, were at odds with the one that prompted interest in housing allowances as a tool of federal policy: that a housing allowance program would create effective demand for better housing and that the market would quietly supply that demand without construction subsidies, price controls, or other government intermediation between producers and consumers of housing services. Under that scenario, the main issues were to find the appropriate balance between benefits and housing standards; and also between self-enforcing incentives and administrative monitoring of clients' actions. Those features would in turn determine who could be offered assistance at what national cost and how the costs of an allowance program would compare with alternative ways of meeting national housing needs.

The Supply Experiment was designed to address those issues as well as to test the more or less calamitous scenarios of adverse market effects. It provides for virtually open enrollment of eligible households within sites that encompass entire metropolitan housing markets. It provides assistance to homeowners as well as renters. Its allowance program is committed to run for a long enough time—ten years—to have longrun as well as shortrun consequences. And it provides for systematically monitoring local markets as well as program participants.

Here, we offer a preliminary assessment of the interaction between the program and the two communities. It draws on HAO records for the first two program years, the first two cycles of interviews with household heads and landlords, special surveys of intermediary industries, background data on the sites themselves, and reports of community events submitted by resident observers.

Supply Responsiveness

The market's response to the increased housing demand created by the allowance program might come in the form of higher prices or increased output, or both. The evidence to date indicates that the attempts of program participants to secure

acceptable housing have had virtually no effect on rents or home prices in either site, but have resulted in a modest improvement in the quality of existing housing.

The allowance programs began during the most rapid general price inflation that our nation has experienced in many years. We therefore expected rents in our experimental sites to increase. We find, however, that even in Brown County's tight housing market rents increased less rapidly than national or regional averages (see the table). Moreover, virtually the entire increase is attributable to higher prices for residential fuels and utility services, which are wholly exogenous influences on housing costs.

- **Rent Increases During the First Program Years Were Below National and Regional Averages . . . .**

Area	Average Annual Increase in Contract Rent[a] (%)				
	1973	1974	1975	1976	1977[b]
All U.S. cities	4.9	5.2	5.3	5.5	6.3
North central cities, by size:					
Over 1,400,000	6.8	4.8	3.7	3.9	5.7
250,000-1,400,000	2.4	3.6	4.5	4.2	6.4
50,000-250,000	2.8	4.6	5.0	7.1	5.3
2,500-50,000	4.1	5.0	5.0	4.4	7.2
Brown County		3.7	4.4	4.8	
St. Joseph County			3.1		

SOURCE: U.S. Bureau of Labor Statistics, *Monthly Labor Review*, various issues, and special tabulations for north central cities; Brown and St. Joseph county entries are averages of rent changes for each dwelling in a marketwide sample, periodically resurveyed in each site.

[a]Entries for the U.S. and north central region are based on the BLS index of "residential rent," definitionally equivalent to contract rent. Changes are calculated from December to December.

[b]Increase for December 1976 to September 1977, annualized.

Our evidence covers the period of most rapid enrollment during which price effects were most likely to occur, as new enrollees got "hunting licenses" for better housing. It is unlikely that such effects will occur now that enrollment is leveling off.

Price effects seem most probable in submarkets where enrollment is high. Central South Bend is a good example. About 37 percent of its dwellings are rental units and about 27 percent of all renters living there enrolled during the first two program years. However, our measurements indicate that between January 1975 and June 1976, rents in central South Bend increased by no more than for comparable dwellings elsewhere in the county. For most types of housing, central South Bend rents increased by less than those elsewhere.

As noted earlier, few participants in Brown County purchased homes. In St. Joseph County, nearly all the 82 homes purchased during the first two program years were in central South Bend, but they accounted for less than one percent of all owner-occupied homes there. So far, we find no indication that participant purchases have measurably influenced property values. Participants who are already homeowners may be spending more on maintenance that increases the values of their homes, but such increased value is not what is meant by price inflation.

The lack of price effects has surprised many observers, who either misperceived the nature of the program's market stimulus or misunderstood housing market dynamics. Some expected larger enrollment or greater increases in housing expenditures. Few realized how easily existing dwellings could be improved to meet program standards.

Price increases are one type of "supply response" to increased housing demand. Housing construction or improvement is another and usually more desirable response. Has the allowance program increased the supply of decent, safe, and sanitary housing in the two experimental sites?

We do not think the allowance program has been responsible for any new construction; but it is directly responsible for improvements to participants' homes. Through September 1977, over 2,400 dwellings in Brown County and 4,000 in St. Joseph County were repaired by or at the instance of enrollees seeking to qualify for payments. Another 900 and 1,200 dwellings, respectively, were repaired following annual reevaluations of recipients' dwellings.

Yet, because many of the defects—especially the health and safety hazards—were easily remedied and because homeowners, landlords, tenants, and their friends provided most of the labor, cash outlays for program-mandated repairs were usually small. Voluntary repairs by homeowners occupying certified dwellings entailed larger cash outlays, well above those of low-income homeowners not in the program.[8]

We have yet to observe that the examples set by those in the program have incited others not in the program to repair or improve their homes. However, the quality of the housing stock may in time be affected by the minority of program participants who move from worse to better homes. Although the moves per se have no effect on housing quality, they shift vacancies from better to worse dwellings. The latter may then be repaired by landlords anxious to rent them, offered at lower rents without repairs, or withdrawn from the market altogether.

Market Intermediaries and Indirect Suppliers

Landlords, tenants, and homeowners are the actors most directly deciding the outcome of housing market transactions, but their choices are often constrained by their dependence on services provided by market intermediaries and indirect suppliers of housing services. Among the former we count real estate brokers, property management firms, rental agents, mortgage lenders, and insurance underwriters. Among the latter we include home repair and improvement contractors and firms offering maintenance services.

The policies of intermediaries and suppliers and their responses to program-generated demands for additional services could affect experimental outcomes. Conversely, experience with the program could alter existing policies or ways of doing business. In our experimental sites, only four of the above groups are impor-

[8] See above, p. 7.

tantly involved in transactions with program participants: real estate brokers, mortgage lenders, home improvement lenders, and home repair contractors.

So far, even those groups have been little affected. Though aware of the program's existence and in specific cases tailoring their dealings with participants to take account of allowance benefits or HAO requirements, members of those industries have mostly conducted their business as usual.

Real estate brokers in St. Joseph County have helped most of the program participants who have bought homes, while screening out others who were poor prospects for mortgage credit. Among institutional lenders, only mortgage banks have been willing to write loans on inexpensive properties, usually seeking the protection of FHA insurance. The FHA's standards are quite liberal as to property characteristics and borrower's income, but it will not insure loans to borrowers with poor credit histories. Allowance income gets especially favorable treatment from the FHA.

Few enrollees need or seek home improvement loans to bring their dwellings up to program standards and thus qualify for payments. The more expensive repairs undertaken by those already receiving payments are more likely to require credit than initial repairs undertaken in order to qualify. For HAO clients, home improvement loans are more easily obtained in St. Joseph County than in Brown County, both because institutional lenders are more active and because South Bend has allocated more federal community development funds to home repair loans and grants.

We estimate that program participants and their landlords paid about $500,000 to home repair contractors during the first program year in St. Joseph County and perhaps $1.0 million during the second year (when more were enrolled). However, those amounts are small relative to the $22.7 million spent by all residents for contract repairs, and we find no evidence of strain on the industry's resources.

Of the intermediary and supplier industries we have examined, only mortgage lenders are strategically placed to affect experimental outcomes. Provided that home prices are within reach of HAO clients (as in central South Bend), the availability of credit may well regulate the frequency of their home purchases. Although neither commercial banks nor savings and loan associations in St. Joseph County are interested in lending on inexpensive homes, we judge that most of those for whom purchase is advisable (and some for whom it is not) have been able to obtain credit either from a mortgage bank or from the seller of the property.

In Brown County, the relationship between rents and home prices is such that the advantages of homeownership for a low-income family are questionable. The rarity of purchase there by program participants does not reflect unreasonable restrictions by lenders, but sensible calculations of buyers' abilities to carry loans. That outcome could be changed only by a change in market conditions or an added subsidy to homebuyers.

Residential Mobility and Neighborhood Change

Participants in the housing allowance program may move about and rent or buy homes as they prefer without affecting their allowance entitlements. One purpose of the Supply Experiment was to learn how often participants would move, what they would gain by moving, and how the neighborhoods of origin and destination would be affected.

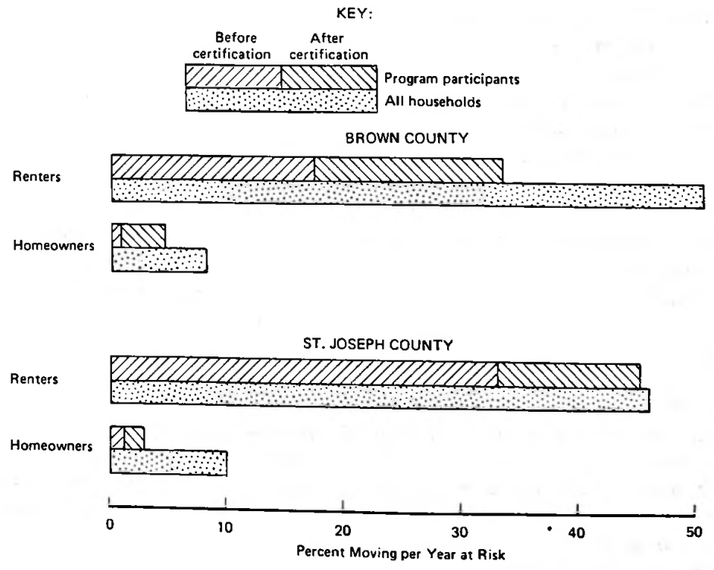
Those issues were thought important for several reasons. First, there was considerable uncertainty as to whether renters in substandard housing could negotiate effectively with landlords for repairs. Some thought that most such renters would have to move to already acceptable dwellings in order to qualify for payments, intensifying competition for acceptable housing without increasing its supply.

Others thought that whatever the defects of their preenrollment homes, many participants would want to move to better neighborhoods. If so, neighborhoods generally regarded as undesirable might experience an exodus that would hasten their deterioration and adversely affect those left behind. At the same time, more desirable neighborhoods would feel the social and economic pressure of allowance-assisted movers seeking new homes.

The program's possible effects on residential segregation are a special aspect of neighborhood effects. Advocates of integration doubted that segregated racial minorities, acting as individuals, would seek or find housing outside the ghettos, even when aided by allowances. Others worried that program-stimulated moves by minority participants would upset the social balance of the neighborhoods to which they moved, causing racial friction and neighborhood turnover. Some speculated that whites living in neighborhoods with growing minority populations would use housing allowances to finance an escape to some area free of black residents.

We find that about a fifth of all participants moved during the first two program years (see the figure). Nearly all the movers were renters, but their annualized

- **Although Renters Tend To Move Just After Enrolling, Annual Mobility Rates Are Relatively Low . . . .**



SOURCE: HAO records through Year 2 and baseline surveys of households.

mobility rates are no greater than those of renters not in the program. Movers nearly always increased their housing consumption, but moving did not much alter the neighborhood distribution of participants. The pattern of residential segregation in St. Joseph County was not significantly affected.

About half of the participant moves in Brown County and three-fourths in St. Joseph County occurred in the brief interval between enrollment and first housing certification, indicating that the movers were either dissatisfied with their preenrollment homes or unable to arrange repairs for homes failing initial evaluations. After certification, the rate of moving seemed to drop below that of the general population; however, the appropriate comparisons are complex, requiring as yet incomplete analytic modeling.

As explained earlier, about three-fourths of all renters who move pay more for their new than their former homes; the median increase in contract rent in both sites is 23 percent. Since inflation and the loss of price advantages accruing with duration of occupancy account for at most a 5 percent increase, most of the larger expenditure must represent increased housing consumption.

Although three out of four moves cross neighborhood boundaries, the net effect on neighborhoods is small. Only a handful in each site gained or lost 10 or more households because of moves by program participants. The largest changes were a gain of 29 households in one neighborhood of Brown County and a loss of 31 from one neighborhood of St. Joseph County; in both cases, the changes were less than 2 percent of the neighborhood's population.

In central South Bend, program-related moves resulted in small net shifts of blacks from neighborhoods that are heavily black to those with a more even racial mixture, and a small net outflow of whites from the core of the area to its fringes. On balance, neither black nor white participants moved out of central South Bend.

Those findings indicate that the freedom to move is an important feature of the experimental allowance program, permitting consumption changes that could not readily be achieved otherwise. The similarity of mobility rates and expenditure changes by movers in the two sites, combined with the generally random geography of moves, suggests that they are more often motivated by housing than by neighborhood considerations. Only the worst neighborhoods in each site lost program participants who moved, on balance, to better neighborhoods.

Moves by program participants have not been numerous enough or selective enough as to origin or destination that they could much disturb the social order or housing market of any specific neighborhood. In South Bend's segregated housing market, the program may have speeded the normal process of black dispersion, but not dramatically. White retreat may have been facilitated, but not by much.

Community Attitudes

The allowance program gives financial aid to low-income households and encourages them to seek better housing in the private market. Those not receiving allowances could view the program in various lights, depending on what they know about it, their ideological commitments, their roles in the housing market (e.g., as landlords, renters, homeowners, or real estate brokers), and their experiences with participants or HAO staff.

Planners of the experiment were most concerned about organized opposition to the program among those who thought (correctly or not) that attempts by partici-

pants to obtain better housing had driven up housing prices for nonparticipants; or that moves by participants (especially those belonging to racial minorities) had upset the social balance of nonparticipants' neighborhoods. Another possibility was that landlords might view a prospective tenant's receipt of a housing allowance as a mark of unreliability.

There were also positive possibilities. The public might view the program as a way of helping the deserving poor lead decent lives; improving the community's housing stock; stabilizing neighborhoods; or adding to the general prosperity. Landlords might see the benefits to them of a more prosperous tenantry even though the program offered no guarantees to any particular landlord.

Our data on the formation of public attitudes toward the program are drawn mostly from surveys of households and landlords conducted just before the program began and again a year later. The survey data are supplemented by reports of resident observers in each site and records of telephone calls to each HAO.

We find that the allowance program has become an accepted institution in both sites. Early controversies among community leaders about local participation have receded and never gained the attention of the general public. Knowledge of the program spread rapidly once it was under way and most of the public view it favorably. Although landlords are less enthusiastic than the general public, more favor than oppose it.

Cultural differences between Brown and St. Joseph counties are sharply reflected in program histories. From the beginning of the negotiations that led to Brown County's selection as an experimental site, local officials and civic leaders throughout the county supported it, and its implementation has never been impeded by factional dissent. In St. Joseph County, some local leaders vigorously supported the program, but others denounced it or sought major changes in its purposes, methods, or management. Initially, only South Bend accepted the program; other jurisdictions refused to join until it was well under way. Local organizations have watched it carefully and several have been openly critical.

Yet our surveys indicate that the public paid little attention to the negotiations that led to program acceptance or to subsequent controversies aired in the press. Until the HAOs began outreach publicity, few had heard of the program and fewer still understood it. Within a year, however, 80 percent of the household heads in Brown County and 87 percent in St. Joseph County had at least heard of the program. Their expectations of it were positive but modest: that it would help elderly and low-income families pay their housing expenses and fix up their homes, or move to better housing or neighborhoods. Few were concerned about adverse market or neighborhood effects and issues of local control that preoccupied civic leaders.

At the end of the first program year, six out of ten household heads in each site who had heard of the program viewed it positively, and most of the others were either neutral or undecided (see the table). Only 11 to 15 percent held negative views. Landlords were less positive than the general public: 22 to 31 percent had negative opinions. Among those with definite opinions, Brown County respondents (both household heads and landlords) viewed the program more favorably than those in St. Joseph County.

As do participants, the public favorably distinguished allowance recipients from welfare clients. We believe that result reflects two widely held (and accurate)

- **Most Local Residents either Favor the Program or Feel Neutral . . . .**

Program Evaluation[a]	Brown County, Wave 2	St. Joseph County	
		Baseline	Wave 2
Household Heads (Percent of All Informed Households)			
Positive (1-3)	58	53	64
Neutral (4) or no opinion	31	30	21
Negative (5-7)	11	17	15
Total	100	100	100
Landlords (Percent of All Informed Respondents)			
Positive (1-3)	40	48	44
Neutral (4) or no opinion	39	30	25
Negative (5-7)	22	22	31
Total	100	100	100

SOURCE: Tabulated by HASE staff from records of the indicated surveys of households and landlords.

[a]Respondents with opinions selected values on a scale from 1 (good idea) to 7 (bad idea).

perceptions of the allowance program. One is that many participants are elderly homeowners, generally regarded as valued citizens whose need for help does not reflect improvidence so much as physical disability and price inflation. The other is that, unlike welfare, the allowance program requires something in return for benefits: that recipients keep up their homes.

As overseers of program operations, we are naturally gratified but somewhat surprised by the amount of public approval the program has gained. The evidence speaks well for the program's objectives (modest housing improvements and eased expense burdens), its methods (operating through instead of apart from the private market and leaving to clients the management of their own affairs), and, not least, the skill and dedication of the HAO personnel in the two sites.

Undesirable side effects of the program, had they occurred, could have soured public opinion in either site. The possibility of such effects was properly a matter of great concern both to the planners of the experiment and the civic leaders of Brown and St. Joseph counties; but, in retrospect, the likelihood of calamities seems much exaggerated. In any event, ordinary citizens did not expect them, but took more practical and realistic views of what the program might accomplish than did either most civic leaders or outside observers. By and large, public expectations have been fulfilled, and the allowance program has come to be regarded as an undramatic but useful way to help low-income families with their housing.

Conclusions

During the first two years of program operations, market and community effects have been slight. We find no evidence of program-generated price increases in either the rental or ownership markets, no strains on the community's resources for financing home purchase or improvement, no overload on the construction or

home repair industries, no problems arising from interneighborhood moves by program participants, and a general climate of public approval.

On the other hand, neither do we find widespread housing or neighborhood improvement, more favorable attitudes of lenders toward low-income borrowers or low-valued properties, more rapid residential desegregation, or any general reconciliation of the often conflicting interests of landlords and tenants, lenders and borrowers, poor and prosperous citizens, blacks and whites, or cities and suburbs.

In terms of their market and community effects, housing allowances have so far been neither the disaster that some predicted nor the cure-all expected by others. At this point in the experiment, we judge that the main effects of the program are on its participants and their housing. Nonparticipants have been so mildly affected that it hardly matters whether the indirect consequences of the program are deemed favorable or unfavorable.

Some market and community effects may be slow to begin but cumulative in their significance, so final judgments must await analysis of a longer span of program history. However, if the longrun effects are no greater than those so far observed, the issues to be considered by federal policymakers are much simplified: The merits of a housing allowance program can be judged primarily in terms of its effects on those who participate, and on its costs relative to alternatives. A final assessment in those terms must also await additional evidence and analysis; but the reader is invited to consider the interim findings reported above (effects on participants) and below (administrative costs).

ADMINISTERING THE HOUSING ALLOWANCE PROGRAM

The experimental allowance program's full scale and guaranteed 10-year life made it both possible and necessary to design an administering institution and detailed procedures that could serve as models for a permanent program. As a corollary, the HAOs' administrative experience is more pertinent to operating programs than is usual for an experiment. Running the same program under the same rules in two quite different environments greatly enriches our analysis and interpretation of the effectiveness and efficiency of specific procedures.

Administrative procedures were designed by Rand and the senior staffs of the two HAOs, with three major objectives. First, it was important that daily decisions about eligibility, allowance entitlement, housing acceptability, and payment amounts conformed to program rules and reflected accurate information. Second, we sought procedures that were considerate of clients' time, dignity, and privacy. Third, we tried to organize the flow of work efficiently and automate routine operations, focusing as much staff attention as feasible on steps requiring human judgment.

Although there was reason to expect that emphasis on the first two objectives would lead to relatively high administrative costs, the result is otherwise. In retrospect, we see that extra care with data used in case decisions and extra consideration for clients' feelings are cost-effective.

Administrative Costs

To administer the allowance program during 1976, the Brown County HAO

spent $1.0 million and the St. Joseph County HAO spent $1.6 million. However, to interpret or compare those figures, they must be referred to units of work performed or services rendered. Working with HAO managers, we designed an accounting system that enables us to estimate annual costs per client served. The estimates below are based on cost reports for April through December 1976, when both programs were well established but neither had reached its maximum size.

The HAOs maintain direct cost accounts for each of a large number of detailed administrative functions, such as conducting enrollment interviews or preparing and mailing allowance checks. Overhead costs such as office rent and the director's salary are allocated among functions in proportion to their direct costs. Certain costs incurred in support of program research rather than program administration are excluded from the analysis reported here, as are the costs to Rand and HUD of overseeing HAO operations.[9]

When normalized by workload units, costs in the two sites are about the same. Averaging across sites, we estimate that enrolling an applicant and qualifying him for payments costs about $249—including outreach expenses (24 percent of the total), enrollment processing (49 percent), and housing certification (27 percent). In this calculation, the costs of informing those who do not apply, of dealing with applicants who are found to be ineligible, and of enrolling those who never qualify for payments are divided among those who do finally receive allowances.

The annual cost of subsequent services to a recipient is about $133. That figure includes semiannual and annual eligibility recertification (58 percent of the total), housing recertification (26 percent), and operations in support of monthly allowance payments (16 percent).[10]

Amortizing the expenses of client intake over a postulated average enrollment duration of three years, we estimate that the total administrative cost per recipient year is $216. We divide that total into $146 for income transfer functions and $70 for administering housing requirements.[11]

The figure of $146 for income transfer administration may be compared with 1976 costs of $295 per case served by the national program of Aid to Families with Dependent Children (AFDC). The latter costs vary greatly by state because of differences in procedures, but only 6 of the 50 states reported costs per case under the HAOs' average.

Both client intake and annual maintenance costs for the Supply Experiment are below the median values reported by the housing allowance programs operated in eight communities as part of EHAP's Administrative Agency Experiment (AAE); and are close to the cost ceilings established for the HUD Sec. 8 existing housing program. The AAE allowance programs were smaller than those of the Supply

[9] During the nine-month study period, direct costs accounted for 42 percent, overhead for 45 percent, and research support for 13 percent of the HAOs' combined expenses. Only clearly separable research support costs are counted in the last category. The work of Rand's and HUD's staffs is not covered by HAO budgets.

[10] The semiannual eligibility recertification is transacted by mail; the annual recertification is like an enrollment interview. In addition to periodic eligibility and housing recertifications, events such as losing a job or moving to a new home trigger special recertifications and often changes in payments.

[11] Without more program history, we cannot reliably estimate average enrollment duration. Data for the first two years assure us that it is at least 18 months, and 36 months is a reasonable but unconfirmed guess. The division between transfer and housing functions loads onto the latter the enrollment costs of households who never qualify for payments because they fail to meet housing requirements.

Experiment but had the advantage of sharing overhead expenses with an existing agency.[12]

In short, the HAO's administrative system is at least as efficient as prominent alternatives engaged in income transfer programs, whether or not the transfers are earmarked for housing. However, it may be questioned whether the efficiencies achieved under experimental conditions could be replicated in a permanent program. The evidence on that score is necessarily inconclusive, but we think a permanent program could be operated at lower cost per client than has been achieved by the experimental program. That judgment balances staffing considerations, outreach costs, and procedural simplifications that would be possible in a nonexperimental setting.

Administrative Functions

The significance of the administrative costs reported above can be better appreciated in light of salient administrative procedures. Below, we briefly discuss five particularly important functions.

Outreach. Because housing allowances were unknown in our experimental sites, a major effort was needed to inform those who might be eligible about the program. Through September 1977, the Brown County HAO made 168 presentations to community groups, issued 42 press releases about program events, distributed thousands of brochures, and spent $62,000 on media advertising. Efforts in St. Joseph County were similar, except that nearly $210,000 was spent for media advertising during the first 30 months.[13]

In both sites, advertising was critical for program growth, the number of applications rising sharply with each media campaign during the first year and trailing off when advertising was reduced. The two HAOs spent an average of $10.58 per eligible household during the first 30 months of program operations, and succeeded in disseminating the basic message throughout the program jurisdictions. The number of applicants per $100 of media advertising fell sharply over time in Brown County but slowly in St. Joseph County. In retrospect, we judge that about the same participation rates could have been achieved with less outreach cost during the second year.

Enrollment. Both HAOs screened inquiries by telephone before formal applications were submitted. Because of the screening and voluntary dropouts, only about 45 percent of all those who inquired were actually interviewed; and after the interview eliminated those who were ineligible, only 33 percent of initial inquiries resulted in enrollment. Most of the attrition thus occurred early in the enrollment process before much cost had been incurred by either the HAO or the client. Although comparable data from other programs are sparse, both the AFDC and SSI

[12] The AAE programs, operated by local agencies under broad guidelines from HUD, each enrolled between 500 and 1,500 renter households for up to two years; the median intake cost was $290 and the median annual maintenance cost was $235. The Sec. 8 program, administered by local public housing authorities, provides payments to private landlords on behalf of enrolled tenants. It authorizes up to $275 for enrolling a renter and his landlord and up to 8.5 percent of the official two-bedroom fair market rent to cover subsequent administration. Actual costs have not yet been published by HUD.

[13] The greater advertising expense in St. Joseph County is partly attributable to the larger audience (16,000 eligibles vs. 8,000 in Brown County); partly to a more relaxed community attitude toward advertising; and partly to greater use of the most expensive medium, television.

(Supplemental Security Income) programs seem to have about the same prepayment attrition as the HAOs.

An important feature of HAO enrollment is the effort made to treat clients considerately. Interview appointments are individually scheduled (even though "no-shows" are common) and are conducted in private rooms. Staff members are trained to treat clients with respect and help them keep their dignity while imparting information about their personal and financial affairs. The confidentiality of that information is meticulously guarded and third-party inquiries are made only with an applicant's written permission. Those measures have contributed substantially to clients' positive views of the program, but we judge that they have also been cost-effective, reducing time-consuming friction with clients and raising staff morale and productivity.

Error Control. The HAOs have the double obligation of making responsible payment determinations and supplying accurate data for research. Error-avoidance measures are embodied in a carefully organized interview protocol, supplemented by third-party verification of undocumented income and both manual and computer reviews of completed forms. Each step is sampled for internal audit and an independent accounting firm audits both internal procedures and a sample of client submissions.

Applicants know that the HAO may verify undocumented submissions. Only about 5 percent substantially misreport their incomes and most of their errors are inadvertent. Staff errors in transcribing entries, calculating entitlements, or interpreting program rules occur in 14 to 23 percent of all interviews, but are nearly all corrected by routine review of completed forms. We estimate that errors affecting payments persist in only 2 to 9 percent of all enrollments. The net overpayment is under $5 per recipient year in both counties, or less than 1 percent of the average annual payment.

Housing Evaluation. The program's housing standards are based on model housing codes promulgated by national organizations, with due consideration given to the peculiarities of corresponding local codes. Each enrollee's dwelling is visited by a well-trained evaluator who reports on each of 38 items bearing on the dwelling's habitable space, facilities, and condition. The average cost of a housing evaluation in 1976 was $27; office procedures related to housing certification, when applicable, added another $6.

The procedures and standards for housing evaluation yield highly consistent results. Independent reevaluations differ from originals as to the overall pass/fail recommendation in only 1.6 percent of all cases tested.

Services to Enrollees. In designing the experimental allowance program, services to enrollees were purposely kept to a minimum in order to facilitate later judgments about the need for them. Enrollees were invited to attend any or all of three information sessions dealing with leases, landlord-tenant relationships, housing discrimination, local housing alternatives, home purchase, HAO housing standards, and home improvement methods. Legal services are offered to clients who encounter housing discrimination.

Considerable effort was spent on making the information sessions inviting and informative, but only 9 persons in Brown County and 178 in St. Joseph County have ever attended. Most clients clearly do not think they need advice as well as money. However, a listing of currently available rental units compiled by another agency

but distributed by the St. Joseph County HAO has been popular with clients planning to move.

Although housing discrimination complaints are virtually unknown in Brown County, 35 have been filed by clients of the St. Joseph County HAO, nearly all by black households headed by women. Of those cases, 26 were closed because the client lost interest or for lack of evidence, two were resolved out of court, four resulted in legal action, and three are still under investigation. Considering that the HAO has enrolled over 2,000 black, Latin, or other minority households (including 1,300 renters), the volume of complaints seems small.

About 20 percent of those who enroll never qualify for payments, because of their unwillingness or inability to meet the program's housing standards. The HAOs are currently investigating whether special services would shift many of those cases to recipient status.

Conclusions

Experience with fullscale program operations in two communities shows that a federal transfer program need not be expensive to administer even though it entails both a means test and the enforcement of housing standards. We believe the key features that lead to low costs are the relatively large scale of the program (3,000 to 6,000 participants), avoiding large expenditures on ineligible applicants, treating clients considerately, maintaining accurate program records, basing benefits on verifiable (and verified) client submissions, and leaving to clients the means by which they meet the program's housing standards.

The main challenge for administrative improvement is to understand why about a fifth of those who enroll never resolve their housing problems well enough to qualify for payments; and in the light of that knowledge, to devise inexpensive ways to help them.

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I. INTRODUCTION AND OVERVIEW

The Housing Assistance Supply Experiment (HASE) is one among several elements of the Experimental Housing Allowance Program (EHAP) undertaken by the Office of Policy Development and Research, U.S. Department of Housing and Urban Development (HUD). The program is intended to help HUD decide whether direct cash assistance to low-income households is a feasible and desirable way to help them secure decent housing in a suitable living environment; and if so, to help determine the best terms and conditions for such assistance and the most efficient and appropriate methods for administering such a program.[1]

ELEMENTS OF THE EXPERIMENTAL HOUSING ALLOWANCE PROGRAM

Most federal programs of housing assistance for low-income families channel public funds directly to a local housing authority, a private landlord or developer, or a mortgage lender, to help support specific housing units to be occupied by low-income tenants. A contractual agreement between the federal agency and the supplier of housing services usually regulates both the services to be provided to the tenants and the prices the tenants may be required to pay for them.

A housing allowance program would operate differently. Public funds would be granted directly to low-income families, who would then use their increased resources to buy services in the local housing market. The intent of such a program would be to enable recipient families to afford an adequate level of housing consumption without depriving themselves of a reasonable standard of living in other respects. It is thus important to anticipate how recipients would respond to the opportunity afforded them by a housing allowance. For most, the allowances would function as rent supplements, the recipients also contributing toward the cost of their housing. Depending on the form of the allowance (cash grant, rent certificate) and its terms (percent of actual rent, percent of income), and on the restrictions placed on the housing a recipient may occupy (rent level, quality level), the public contribution could be made nonfungible, partially fungible, or entirely fungible with the remainder of the recipient's resources, and he would be given more or less discretion in choosing his level of housing expenditure.

To learn how recipients respond to alternative amounts and forms of assistance, HUD sponsored a Housing Assistance Demand Experiment. Briefly, this experiment entailed selecting a sample of 1,250 low-income families in each of two large metropolitan areas[2] for enrollment in a housing allowance program. Subsamples of the enrollees received allowances on different terms, as suggested above. Another 550 families who did not receive allowances served as "controls" for the

[1] Office of Policy Development and Research, U.S. Department of Housing and Urban Development, *First Annual Report of the Experimental Housing Allowance Program*, Washington, D.C., May 1973, pp. i-ii.

[2] Pittsburgh, Pennsylvania, and Phoenix, Arizona.

treated families. The housing choices and budgetary decisions of both groups were monitored for three years.

Because the number of allowance recipients was small relative to the total population—or even to the total low-income population—of the housing markets in which the Demand Experiment operated, those markets were not noticeably perturbed by the allowance program. Neither suppliers of housing services, nor market intermediaries, nor nonrecipient families were likely to be aware of, or significantly affected by, the efforts of allowance recipients as a group to obtain better housing. Although those circumstances served the specific purposes of the Demand Experiment, they also made it different from a fullscale program of housing allowances, which would enroll all low-income families who chose to participate.

The Supply Experiment is designed to test the market's response to a fullscale allowance program. Such a program has been mounted in each of two metropolitan housing markets[3], selected for their contrasting market characteristics. In each case, housing allowances have been offered for a ten-year period to most of the low-income families who would probably be eligible under a fullscale housing allowance program—some 15 to 20 percent of all households in each market.[4] Program and survey data combine to reveal how many of those who are eligible choose to enroll. The two local housing markets are being monitored to see what happens when program participants try to turn their augmented resources into higher levels of housing consumption.

The third element of HUD's experimental program is the Administrative Agency Experiment, which was designed to explore the advantages and disadvantages of alternative institutional and administrative arrangements for delivering allowances to low-income households. For that purpose, HUD contracted with eight different agencies—local housing authorities, metropolitan governments, state housing agencies, and welfare agencies—to plan and operate two-year allowance programs for renters within their jurisdictions.[5] Within a basic framework of program definition, each agency had wide latitude in designing and administering its own program. The agencies' experiences and operating costs were monitored to guide HUD on issues of program design.

RESEARCH OBJECTIVES OF THE SUPPLY EXPERIMENT

All the EHAP experiments are intended to provide information bearing both on the best design of a housing allowance program and on the merits and demerits of such a program as a means of improving the housing conditions of low-income families. HUD's decision to mount separate Demand, Supply, and Administrative Agency experiments was motivated by considerations of efficiency. Each experiment was designed to answer specific questions and to capture specific kinds of information; the various findings are to be integrated analytically. HUD has assigned the integrative role to the Urban Institute, which participated in the design of all three experiments and has access to the data they produce.

[3] Brown County, Wisconsin, whose central city is Green Bay; and St. Joseph County, Indiana, whose central city is South Bend.

[4] Naturally, the results of both the Demand and Supply experiments are likely to modify a priori judgments as to who should be eligible for housing allowances under a fullscale program. The point is simply that those eligible in the Supply Experiment will constitute a substantial fraction of the metropolitan population and will include most of those who, under any reasonable standard, would be eligible under a fullscale program.

[5] The jurisdictions are Salem, Oregon; Tulsa, Oklahoma; Jacksonville, Florida; San Bernardino County, California; Springfield, Massachusetts; Peoria, Illinois; Burleigh, Stutsman, Morton, and Stark counties, North Dakota; and Durham County, North Carolina.

The mission assigned to the Supply Experiment is to provide reliable and credible answers to four clusters of questions about the effects of a national housing allowance program:

1. *Supply responsiveness.* How will the suppliers of housing services—landlords, developers, and homeowners—react when allowance recipients attempt to increase their housing consumption? Specifically, what mix of price increases and housing improvements will result? How long will those responses take to work themselves out to a steady state? How will the responses differ by market sector?
2. *Behavior of market intermediaries and indirect suppliers.* How will mortgage lenders, insurance companies, and real estate brokers respond to an allowance program? Will their policies help or hinder the attempts of allowance recipients to obtain better housing and those of landlords to improve their properties? What happens to the availability, price, and quality of building services or repair and remodeling services? What seem to be the reasons for changes in institutional or industrial policies?
3. *Residential mobility and neighborhood change.* In their attempts to find better housing (or better neighborhoods), will many allowance recipients relocate within the metropolitan area? What factors influence their decisions to move or to stay? What types of neighborhoods will the movers seek and succeed in entering? Do moves by allowance recipients set in motion a chain of moves by nonrecipients—either into neighborhoods vacated by recipients or out of neighborhoods into which recipients have moved?
4. *Effects on nonparticipants.* How will households not receiving housing allowances—particularly those whose incomes are within or just above the limit of eligibility—be affected by the program? Specifically, will the increased housing demands of allowance recipients cause an increase in housing prices for nonrecipients? Whether or not such price increases occur, will nonrecipients perceive personal hardships or benefits from the program? How will they perceive and react to allowance-stimulated neighborhood changes?

The answers to these questions are interdependent. Whether a landlord chooses to raise rents, and whether he also chooses to offer his tenants improved housing, depends on his perceptions of changes in market demand and of the alternatives available to his tenants. To undertake capital improvements, he usually must seek mortgage financing. The mortgage lender must judge that the future stream of revenues will be adequate for debt service, that foreclosure would not result in capital loss, and that the property is and will continue to be insurable against damage or destruction. The extent to which their landlords raise rents or improve facilities and services will affect whether allowance recipients decide to stay, or seek other quarters better suited to their augmented budgets and housing preferences. If they seek better housing elsewhwere, they are likely to be competing with nonrecipients for housing that was previously beyond their means.

Furthermore, the answers to the questions are likely to change over time. Those initially enrolled in a housing allowance program are unlikely to react immediately or simultaneously to their augmented housing budgets, so that the demand signals to landlords and developers will be delayed and at first unclear. The landlords will also need time to respond—whether with rent increases or housing improvements—and as market signals clarify, their responses may change. The actions of landlords and developers may, in turn, modify the perceptions and policies of market intermediaries and financial institutions. All those events, in time, may perceptibly change the alternatives open to allowance recipients and the consequences of their choices for others (e.g., nonrecipients).

Finally, different groups within the relevant populations of landlords, financial institutions, allowance recipients, and nonrecipients are likely to respond differently to a given stimulus, so that an "average" response may conceal important information. The structure and initial condition of the local housing market may also influence response patterns. The incidence of rental tenure (or of ethnic minorities) may condition responses by both renters and owners (or by blacks and whites). A market initially characterized by excess demand may respond differently from one characterized by excess supply.

Thus, though the questions can be phrased simply, the answers are likely to be both complex and highly dependent on local circumstances. No feasible set of experiments can embrace all plausible variations in circumstances or trace out all consequences. Yet if a national program of housing allowances is a serious possibility, some information about its probable consequences is manifestly better than none, and limited empirical evidence can be extended analytically to predict the unobserved. Sites for the Supply Experiment were carefully selected for contrast in market structure; and data from those two sites will be supplemented in the integrated analysis by data from the ten sites in which the Demand and Administrative Agency experiments are being conducted.

ORGANIZATION OF THE EXPERIMENT

Under contract to HUD's Office of Policy Development and Research, The Rand Corporation worked with HUD to design both an experimental allowance program and an agenda of research for the Supply Experiment. The allowance program will operate for ten years in each experimental site. During (approximately) the first five years, Rand will monitor and supervise its operations; over this same period, Rand will also gather and analyze data concerning the effects of the allowance program on the local housing market. Generally, program and research activities are jointly planned but separately administered.

Appendix C summarizes the administrative organization of the Supply Experiment, for both its program and research functions. Below, we describe the substance of each.

THE EXPERIMENTAL SITES

The Supply Experiment is being conducted in two contrasting metropolitan housing markets. Site I is Brown County, Wisconsin—a Standard Metropolitan Statistical Area (SMSA) whose central city is Green Bay. Site II is St. Joseph

County, Indiana, a portion of an SMSA whose central city is South Bend.[6] Both are self-contained housing markets in that their boundaries are drawn through thinly populated territory at some distance both from their own central cities and from other population centers.

Those places were selected from among all the nation's SMSAs by a multistage screening process reflecting basic requirements of experimental design and constraints on program funding. Design considerations led us to search for housing markets that were likely to respond differently to the experimental allowance program yet were each typical in certain respects of a substantial portion of all metropolitan housing markets. Available program funding limited the choices to markets with populations of under 250,000 persons (about 75,000 households) in 1970, the potential size and cost of the experimental allowance program depending on the number of eligible households within the program's jurisdiction.

Brown County was selected as representative of metropolitan housing markets with rapidly growing urban centers (hence with relatively tight housing markets) and without large racial minorities (hence with minimal problems of residential segregation or housing discrimination). St. Joseph County was selected as representative of another group, metropolitan housing markets that have declining urban centers which contain large, growing populations of blacks or other disadvantaged minorities. That combination characteristically leaves low-income minority households concentrated in deteriorating central-city neighborhoods that have an excess supply of older housing, while new housing is built mostly in surrounding all-white suburbs.[7]

Although no two metropolitan areas can reflect all the important combinations of housing-market features, we believe these two offer powerfully contrasting environments for the experimental housing allowance program. By observing and analyzing similarities and differences between the sites in market responses to the program, we expect to be able to judge the pertinence of the housing allowance concept to housing problems in other metropolitan markets.[8]

THE ALLOWANCE PROGRAM

The Demand Experiment is testing a carefully designed range of program features, and the Administrative Agency Experiment provides broad latitude to local agencies in program design. The Supply Experiment, in contrast, operates identical experimental allowance programs at each of its two sites; and within each site, housing allowances are available to all eligibles on essentially the same terms and conditions.

Features to be tested in the Supply Experiment were chosen as a first approximation to those of a national program with fullscale participation. By selecting sites

[6] The remainder of the SMSA is Marshall County, which contains no large cities.

[7] The population and housing characteristics of the two experimental sites are detailed in *Third Annual Report of the Housing Assistance Supply Experiment*, The Rand Corporation, R-2151-HUD, February 1977, pp. 47-75.

[8] To assist in the application of experimental results to larger SMSAs, we suggested that HUD consider a third experimental site, consisting of a low-income neighborhood in a large metropolitan area, with enrollment in the allowance program restricted to that neighborhood. However, we were advised that funding for any such addition would be difficult to obtain. As noted above, data from the Demand and Administrative Agency experiments should help with problems of generalization.

with contrasting market characteristics, we hope to learn how different housing markets will respond to the same general program. The key features of our experimental program are summarized below.

Program Administration

The experimental allowance program is administered in each site by a housing allowance office (HAO), a nonprofit corporation whose trustees include members of The Rand Corporation and local residents. At the end of the five-year monitoring period, it is expected that the HAO will operate entirely under local control.

Funds for the program come from a ten-year annual contributions contract between HUD and a local housing authority, pursuant to Sec. 23 of the U.S. Housing Act of 1937, as amended. The local housing authority in turn delegates operating authority for the program to the HAO.

Assistance Formula

The amount of assistance offered to an eligible household is intended to enable that household to afford well-maintained existing housing with suitable space and facilities for family life, free of hazards to health or safety. Periodic market studies conducted by Rand in each site provide estimates of the "standard cost of adequate housing" for each size of household. 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.

Eligibility for Assistance

A household is eligible to participate in the allowance program if it consists of (a) one person, either elderly (62 or over), handicapped, disabled, or displaced by public action,[9] or (b) two or more related persons of any age; provided also that current income and assets are within specified limits and that the household does not already receive equivalent assistance under another federal housing program. The income limit is set by the assistance formula itself: When adjusted gross income exceeds four times the standard cost of adequate housing for a given household size, allowance entitlement drops to zero. The net asset limit is $32,500 for households headed by elderly persons and $20,000 for others.

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. An unusual feature of the program is that the asset ceiling has been set relatively high, so as to include homeowners whose current incomes are low. However, gross income is calculated to include imputed income

[9] Beginning 1 August 1977, the HAOs were authorized to enroll *any* single person under 62 who lived alone and met other program requirements. However, such persons may not constitute more than 10 percent of the number of households authorized for assistance by the annual contribution contract in each site. Eligibility was thus broadened pursuant to a provision of the Housing Authorization Act of 1976 (Public Law 94-378), which applies specifically to public housing and Sec. 8 housing assistance. The HAOs will give priority to single persons aged 40 and over.

from home equity and other real property that does not yield a cash flow, so that allowance entitlement decreases for larger holdings of such assets.

Housing Choices

Program participants may be either renters or homeowners, and they may change their tenure or place of residence (within the boundaries of the experimental site) without affecting their eligibility for assistance. Participants are encouraged to seek the best bargains they can find on the private market, negotiating terms and conditions of occupancy with the landlord or seller. They are provided with market information (if they request it) and with equal opportunity assistance (if needed); but they are not directed to particular neighborhoods or types of housing nor required to spend specific amounts, except as noted below.

The use of allowance payments by program participants is constrained in two ways. First, in order to receive monthly payments, a participating household must occupy a housing unit that meets certain standards of adequacy, a requirement enforced by periodic evaluations conducted by the HAO. Second, the participant must spend at least the amount of his allowance for housing services (contract rent and utilities for renters; mortgage interest, property taxes, insurance, maintenance and repairs, and utilities for homeowners).

Since the allowance entitlement for all but the poorest households is less than the estimated standard cost of adequate housing, the first provision is the most significant. A participant who finds certifiable housing at less than standard cost will not need to contribute a full 25 percent of his nonallowance income to cover his housing costs. On the other hand, if he chooses a unit with costs that are above standard, he will not receive any additional payment but must bear the excess cost from nonallowance income. Thus, the allowance formula provides an incentive to seek housing bargains, while the minimum standards provision ensures that the program's housing objectives will be met by all recipients.

Assistance to Renters

A renter household enrolling in the allowance program must submit evidence of income and household size, on which the amount of its allowance entitlement is based. The household may continue to reside in the unit it occupies at the time of enrollment or it may seek another unit, as long as the unit meets program standards. Once the HAO has certified the housing unit and has received a copy of the lease agreement between the tenant and landlord, it begins issuing monthly allowance checks to the head of the household. It reviews income and household size every six months, adjusting allowance payments accordingly, and it reevaluates the housing unit annually, suspending payments if the unit falls below program standards.

The amount of contract rent and the responsibility for utility costs are matters between the landlord and tenant, as are the enforcement of lease provisions and the resolution of disputes. The HAO has no contractual relationship with the landlord. In the event that a housing unit becomes uncertifiable while it is occupied by a program participant, it is the participant's responsibility to work with the landlord to correct the defects or else to find other quarters that meet program standards.

Assistance to Homeowners

Homeowners are assisted on nearly the same terms as renters.[10] As with renters, allowance entitlement depends on income and household size, the amount reflecting the same schedule of standard housing costs that applies to renters; however, a homeowner's income includes an annual amount equal to 5.0 percent of the value of his equity in his home. The home is evaluated immediately after enrollment; to qualify for payments, the enrollee either must remedy any defects noted or move to an acceptable dwelling. As with renters, income, household size, and allowance entitlement are reviewed every six months and the dwelling is reevaluated annually.

The owner-enrollee is entirely responsible for maintaining his property and for its insurance, property taxes, and outstanding mortgage obligations. The HAO has no lien on the property and no responsibility for debts contracted by the homeowner.

Assistance to Home Purchasers

Although home purchase is an option open to those enrolled in the allowance program, we do not expect it to be exercised often, because of financial constraints. Even with program assistance, eligible households will not ordinarily be able to afford new single-family homes; their ability to purchase older homes will depend on their liquid assets and on the availability of mortgage credit on terms they can afford.

The experiment will test whether lenders will consider ten years of allowance entitlement a sufficient income supplement and stabilizer to warrant extending mortgage credit to households for whom it is not now usually available. In addition, local or state assistance to low-income home purchasers may be used to supplement the housing allowance.

RESEARCH DESIGN

The experimental housing allowance program described above is designed to enable low-income households to afford adequate housing in the private market and to encourage housing improvements by both landlords and homeowners. The attempts of program particpants to obtain better housing with their augmented resources should act as a market stimulus whose consequences—good or bad—are being measured and analyzed.

As indicated earlier, the research charter of the Supply Experiment focuses on four interrelated clusters of questions concerning supply responsiveness, the

[10] Prior to October 1975, a nominal landlord-tenant relationship between the HAO and the homeowner was created by means of a lease-leaseback agreement. That agreement was designed so that homeowners could be assisted under the provisions of Sec. 23 of the U.S. Housing Act of 1937, as amended prior to the beginning of the program. However, the Housing and Community Development Act of 1974 amended Sec. 23 in a way that allows direct assistance to homeowners in the experimental program. In October 1975, the lease-leaseback arrangement was accordingly terminated and homeowners now receive monthly allowance payments without that formality. The lease-leaseback agreement did not alter the locus of title to the property and could be terminated by the homeowner at any time. While it was in effect, the homeowner received monthly assistance checks subject to the same conditions that applied to renters, but he was wholly responsible for the maintenance and financing of his property.

behavior of market intermediaries, residential mobility and neighborhood change, and effects on nonparticipants. We have designed a six-year agenda[11] of data collection and analysis that we believe will provide reliable answers for each experimental site. Supplemented by data from the Demand and Administrative Agency experiments, those data will also provide a basis for extending and generalizing the site-specific findings.

Our plans require both operating data from the experimental allowance program and concurrent data on events in the local housing market. Though gathered by different means, the two kinds of data will be analyzed jointly.

Monitoring the Allowance Program

We follow the experimental housing allowance program primarily through periodic analyses of administrative records provided to Rand by the HAO at each site. Those records, which are purged of personal identification, include enrollment applications, certifications and periodic recertifications, histories of allowance payments and other administrative actions, and housing evaluations for units occupied or nominated for occupancy by program participants.

Although administrative procedures have been designed, with few exceptions, to obtain only information needed for program administration, the various records provide considerable information on the characteristics of applicants and enrollees, their housing conditions and expenditures at the time of enrollment, and subsequent changes in income, household composition, housing characteristics, and housing expenditures. They also provide useful data on applicants who were declared ineligible (e.g., reasons for ineligibility) and on those who were declared eligible but finally declined to participate.

Monitoring the Housing Market

Although administrative records of the allowance program provide measures of its market stimulus, data on the market response come primarily from an annual cycle of field surveys addressed to the owners and occupants of a marketwide sample of residential properties.

The sample design provides for probability sampling in each of eighteen strata of residential properties distinguished by location (urban vs. rural), tenure (rental vs. ownership), size (number of housing units), and cost (gross rent or estimated market value). Altogether, we have empaneled approximately 2,000 properties in each site, collecting data for each property at baseline (before the beginning of the allowance program) and annually thereafter during the experimental period. Each year, the panel will be augmented by a sample of properties that have been newly converted to residential use. Within the limits of sampling reliability, the data will support generalizations about the entire population of residential properties in each site.

[11] Five years after baseline was our best a priori estimate of the time needed for market processes set in motion by the introduction of the allowance program to approach some new equilibrium. However, evidence gathered along the way (see Sec. V) led us to recommend that market monitoring be terminated in Brown County at the end of the fourth cycle of surveys. HUD concurred, so beginning in October 1977, only the allowance program there will be monitored. Surveys continue in St. Joseph County, but their productivity in the light of market behavior will be reevaluated annually.

The annual cycle of field surveys is thorough and complex. Its main elements are the following:

Survey of Residential Buildings. Each property in the sample is examined in the field to record the physical characteristics of its residential buildings and the general characteristics of the immediate neighborhood. The survey instrument is designed to enable us to detect alterations or improvements, changes in the physical condition or use of the property, and changes in the neighborhood.[12]

Survey of Landlords. For each rental property in the sample, we seek an annual interview with the landlord. That interview, running about 90 minutes, is designed to obtain a record of his rental revenues and outlays for building maintenance and operation during the preceding year, including a detailed account of repairs and improvements and their costs. It also seeks data on mortgage financing, property ownership and management, property and tenant characteristics, landlord-tenant relationships, and plans for the property. Finally, it elicits the landlord's impressions of the program and how it affects him.

Survey of Tenants and Homeowners. For rental properties in the sample, we also seek annual interviews with the current occupants of each property, sampling the housing units on large properties. Each household head is asked to describe the interior features and condition of his housing unit and to report his contract rent and other housing expenses. He is also asked his views on his housing and neighborhood. As background for analysis of housing-related responses, we also obtain information on household composition and family characteristics, income, education, and occupation. An important element of the first interview for each household head is a five-year residential and employment history, which includes data on household, housing, and employment characteristics at the time of each move.

The interview for homeowners covers similar ground but also includes detailed questions on mortgage financing and housing expenses similar to those addressed to landlords.

The annual interviews for tenants and homeowners update information obtained at baseline and also elicit the respondent's perceptions of the allowance program and its effects on his housing and neighborhood. Inasmuch as the sample includes both program participants and nonparticipants, both views are represented.

Finally, a subsample of urban renter households that are eligible to enroll in the allowance program is followed if they move from empaneled housing units. They are interviewed at their new addresses to obtain information more directly comparable with that gathered in the Demand Experiment.

Survey of Neighborhoods. In addition to observing the immediate environs of each property in the sample (see "Survey of Residential Buildings," above), we gather data on larger neighborhoods within each site. We divided Brown County into 108 neighborhoods and St. Joseph County into 86. Detailed information on land use, access to public facilities, amenities, and the condition of housing and streets or other public areas in each neighborhood was gathered at baseline and will be updated at thirty and sixty months thereafter. Those data should help explain

[12] *Review of baseline data from this survey led to a decision to conduct it biennially rather than annually.*

differences in the views and behavior of the landlords and tenants of sampled properties within each neighborhood.

Survey of Market Intermediaries. Independently of the surveys addressed to the panel of residential properties, we have undertaken annual surveys of the activities and policies of market intermediaries in each site—specifically, mortgage lenders, real estate brokers, insurance firms, and home improvement contractors. The formality of the surveys varies, with the most systematic data being collected from mortgage lenders.

Resident Observer. The systematic surveys are supplemented at each site by a resident observer, who gathers informal information about community events, activities, and attitudes that may bear on the housing allowance program. The observer's reports help us interpret survey findings and flag issues that warrant additional research by Rand staff or that need attention from the HAO.

Background Data on Housing Costs and Links to Other Surveys

To supplement the data collected in each experimental site, we draw on existing statistical systems for regional and national background data with which local data may be compared. Specifically, we compile an annual regional price index for factors used in the production of housing services against which changes in local prices can be compared; and we plan to link our data on housing-market trends to those collected by the U.S. Bureau of the Census in its Annual Housing Survey.

Analysis Plan

The techniques for analyzing the data described above are too complex to be detailed here. We should note, however, that the agenda of data collection, including both the design of the sample of residential properties and the contents of the survey instruments, reflects well-specified analytic requirements relating to the four clusters of research issues described earlier.[13]

Perhaps the most difficult technical problem of the Supply Experiment has been to develop instruments and analytic techniques for measuring changes in the real flow of housing services from individual properties (and for the market as a whole) after the introduction of the housing allowance program; to disentangle those changes from concurrent changes in the prices of housing services; and to determine to what extent changes of both types are attributable to the allowance program as distinguished from other local, regional, or national events.

The fruitfulness of our complex analysis plans necessarily depends in part on the cooperation of survey respondents and on as-yet-uncertain characteristics of the data. Experience with the first two waves of surveys indicates that the data we seek are indeed both obtainable and analyzable. Moreover, some of the questions posed for the experiment are proving easier to answer than we anticipated (see Sec. V).

Reporting Experimental Findings

The duration of the Supply Experiment is extremely important, whether ex-

[13] See Ira S. Lowry (ed.), *General Design Report: First Draft*, The Rand Corporation, WN-8198-HUD, May 1973, Secs. V through X and Appendixes A through F.

pressed in terms of the experimental allowance program (ten years) or in terms of the scheduled monitoring program (projected for five years).

The ten-year allowance program stabilizes the expectations of market participants, enabling them to behave nearly as they might under a permanent national program. Thus a landlord contemplating improvements to his property will know that allowance-assisted tenants will be able to afford the higher rents needed to amortize improvements over their useful life, up to ten years. An eligible homeowner can similarly plan on program support for a period long enough to amortize improvements. An eligible tenant contemplating a move to better and more expensive housing will know that his allowance-augmented resources will support the higher level of housing expenditures for more than a brief interval.

The projected monitoring period of five years enables us to follow an allowance-stimulated housing market long enough to comprehend its dynamics. With up to six annual observations, we can observe more than the market's immediate response or lack of response to program-provided stimuli.

A corollary of those propositions, however, is that the final returns from the Supply Experiment will not be available before 1981. It is reasonable to wonder whether findings so long delayed will really influence federal policy on housing allowances.

The pace of federal action on the issue is hard to predict. However, experience with other major policy initiatives in the field of social welfare suggests that the legislative process could easily occupy two to five years. If a national program were to be passed by Congress, another year or two of administrative planning would surely be needed to turn the statute into an operating program.

In the meantime, each year brings a new increment of information bearing on the merits of the general proposal and on specific problems of program design and implementation. Moreover, the data on housing-market dynamics gathered by the Supply Experiment are pertinent to a broad range of federal policy options, not just to housing allowances. Indeed, we believe that the data files of the Supply Experiment will be a permanent national resource for housing policy analysis.

In any event, we have planned the research agenda so that useful information will be available to HUD and others each year. Even the baseline surveys, conducted in each site before the experimental allowance program began, have provided programmatically valuable information about the ownership, management, financing, and cost of rental housing. The first two years of program data, combined with returns from the second wave of surveys, have resolved many uncertainties about the startup problems of a national program and about the initial market response to it (as reflected in rents and housing improvements). Henceforth, the scope and power of experimental evidence bearing on policy issues increases annually.

Because of the volume of survey data to be processed and analyzed, there is a lag of at least a year between the completion of each cycle of fieldwork and the publication of the first analytic reports based on the new data. As we proceed through annual cycles, we expect to become more proficient at our tasks, but the tasks themselves become in many respects more difficult as time series accumulate.

Preparation of this fourth annual report on the experiment comes as we are completing the analysis of HAO records for the second program year in both sites. Analysis of data from the second wave of surveys in each site is under way.

HISTORICAL BACKGROUND FOR THIS REPORT

The Housing Assistance Supply Experiment may be conveniently dated from October 1971, when HUD invited Rand to prepare a design study to complement work done by the Urban Institute on what later became the Demand Experiment. Our report[14] was submitted in December 1971; in April 1972, HUD contracted with Rand for Phase I (the planning phase) of the Supply Experiment. The following eighteen months were spent principally on site selection, elaborating the research design, and planning the experimental housing allowance program.

Brown County, Wisconsin, was designated as the first of two experimental sites on 22 December 1972; selection of the second site, St. Joseph County, Indiana, was delayed until 8 April 1974, for reasons discussed in the first annual report.

A draft of the research design[15] was submitted to HUD in May 1973; it was reviewed by HUD and by an outside committee of experts during the summer of 1973 and, with revisions, was accepted by HUD and Rand as the basis for the Supply Experiment on 17 October 1973.

A draft of the program design[16] was submitted to HUD in August 1973 and was also accepted by HUD and Rand on 17 October 1973, subject to the resolution of legal difficulties relating to the use of Sec. 23 funds to assist homeowners. Those difficulties were not finally resolved until 6 February 1974.

Phase II of the Supply Experiment (the operating phase) may be conveniently dated from 5 March 1973, when Rand opened its site office in Brown County. It thus overlapped the planning phase by some months.

The first annual report[17] described the two experimental sites and their housing markets, drawing on the 1970 Census of Population and Housing and on local sources of data other than our surveys. It also described in considerable detail the processes of site selection, program implementation, and survey fieldwork in each site through September 1974.

The second annual report[18] continued the account of program implementation and survey fieldwork in the two sites through September 1975. In addition, it reported findings from our analysis of baseline survey and first-year program records in Site I. Since events in Site II lag those in Site I by about a year, we then had few firm analytical findings for Site II.

The third annual report[19] described program operations and research activities through September 1976. It also analyzed the market structures and baseline market conditions in each site, explaining how intersite differences were affecting the allowance programs. Finally, it drew on HAO records for the first two years in Site I and the first year in Site II to describe the enrollees, their housing, and their experiences with the program.

[14] Ira S. Lowry, C. Peter Rydell, and David M. de Ferranti, *Testing the Supply Response to Housing Allowances: An Experimental Design*, The Rand Corporation, WN-7711-UI, December 1971.

[15] Lowry, *General Design Report: First Draft.* Related working notes detailing various aspects of the research design are listed in Appendix A to the present report.

[16] Robert Dubinsky (ed.), *The Housing Allowance Program for the Supply Experiment: First Draft*, The Rand Corporation, WN-8350-HUD, August 1973.

[17] *First Annual Report of the Housing Assistance Supply Experiment*, The Rand Corporation, R-1659-HUD, October 1974.

[18] *Second Annual Report of the Housing Assistance Supply Experiment*, The Rand Corporation, R-1959-HUD, May 1976.

[19] *Third Annual Report of the Housing Assistance Supply Experiment.*

This fourth annual report carries the historical account of program operations (Sec. II) and research activities (Sec. III) through September 1977.[20] Having thus accounted for our conduct of the experiment, we devote the remainder of the report to research findings and their implications for federal housing policy.

Thus, Sec. IV explains how the program affects its participants and Sec. V explains how it affects local housing markets. In both sections, we systematically compare the two sites, look for trends in the data, and try to relate effects to causes. The specific findings are integrated into more general though still tentative conclusions.

Section VI summarizes research on program administration that began in 1976. We report for the first time on workload and costs per assisted household, and assess the effectiveness and efficiency of the administrative procedures that were adopted for the experiment. Where possible, comparable data for other housing or transfer programs are cited.

The findings reported in Secs. IV through VI are based primarily on data drawn from the first two years of program operations and the first two survey cycles in each site. Although we expect to learn more about trends over time from subsequent data and to explore all issues in greater depth, this fourth annual report is a major milestone in the Supply Experiment. We believe it provides its readers with a solid basis for judging the main strengths and weaknesses of housing allowances as a tool of federal policy.

[20] A chronology of major events in each site is provided in Appendix B.

II. THE HOUSING ALLOWANCE PROGRAMS

At the end of September 1977, the experimental housing allowance program had operated for 39 months in Brown County and 33 months in St. Joseph County.[1] Altogether, 16,800 households had been enrolled in the two sites and over 13,000 had received one or more allowance payments. Currently, about 10,000 households are enrolled and over 8,000 are receiving monthly payments. In each site, current enrollees constitute 40 to 50 percent of all eligible households and about 8 percent of all households.

Overall, the program has provided financial assistance to 6,700 renters and 6,300 homeowners. Currently, the average payment is about $75 monthly and amounts to 20 percent of the recipient's nonallowance gross income. The annual equivalent of all payments made in September 1977 is $7.3 million.

Nearly half of all enrollees join the program while living in dwellings that meet program standards, so that their allowances mainly help them meet existing housing expenses (which usually greatly exceed the legislative norm of one-fourth of adjusted gross income). But nearly 6,500 dwellings have been repaired or improved to meet program standards and about 3,100 households have improved their housing circumstances by moving. Some 234 renters purchased homes after enrolling in the program.

In the following pages, we review key program statistics for the two sites, noting trends and major developments.

ENROLLMENT AND PAYMENT AUTHORIZATIONS

Table 2.1 summarizes the status of all applications for assistance received by the HAO in each site through 30 September 1977. From the data shown, it can be calculated that about 28 percent of all households in each site have applied for assistance, about 14 percent have been enrolled, and about 10 percent have received one or more payments.[2]

"Success rates" for both applicants and enrollees have been slightly higher in Brown County, where over 53 percent of all applicants are eventually enrolled and 82 percent of those enrolled eventually meet the program's housing standards and thereby qualify for payments. In St. Joseph County, the corresponding success rates are 46 and 75 percent.

About 15 percent of those who have enrolled in each site have dropped out voluntarily before receiving any allowance payments. Involuntary terminations (usually because of changes in income) result primarily from the semiannual recertifications of eligibility. Combining voluntary and involuntary terminations, about 46 percent of all enrollees in Brown County left the program during its first 39

[1] During the first three months of the program in St. Joseph County, applications were invited from 750 homeowners, of whom 103 were enrolled. There have been only 30 months of open enrollment.

[2] Brown County has about 48,000 households; St. Joseph County has about 76,000. The participation rates cited do not take account of population turnover since the program began.

Table 2.1

SELECTED ENROLLMENT AND PAYMENT AUTHORIZATION STATISTICS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH 30 SEPTEMBER 1977

Item	Brown County		St. Joseph County	
	Number of Cases	Percent of Total	Number of Cases	Percent of Total
Enrollment				
All applicants	12,745	100.0	21,943	100.0
Screened out before interview[a]	3,268	25.6	5,788	26.4
Screened out by interview[b]	2,189	17.2	4,447	20.3
Awaiting interview or processing	506	4.0	1,682	7.7
Eligible and enrolled	6,782	53.2	10,026	45.6
Payment Authorization				
All enrollees	6,782	100.0	10,026	100.0
Authorized for payments	5,562	82.0	7,490	74.7
Currently receiving payments	3,148	46.4	4,913	49.0
Payments suspended[c]	269	4.0	554	5.5
Enrollment terminated[d]	2,145	31.6	2,023	20.2
Never authorized for payments	1,220	18.0	2,536	25.3
Authorization pending[e]	258	3.8	873	8.7
Enrollment terminated[d]	962	14.2	1,663	16.6

SOURCE: HAO management information system, monthly program reports for September 1977.

NOTE: Payments are not authorized until the housing unit chosen by an enrollee has been evaluated by the HAO and certified for occupancy; and for a rental unit, until an executed copy of an acceptable lease agreement has been filed with the HAO. Percentages may not add exactly to totals or subtotals because of rounding.

[a] Applicant ineligible or declined interview.

[b] Applicant ineligible, declined to complete interview, or declined enrollment.

[c] Current housing is not certified or enrollee has violated reporting requirements or other program rules.

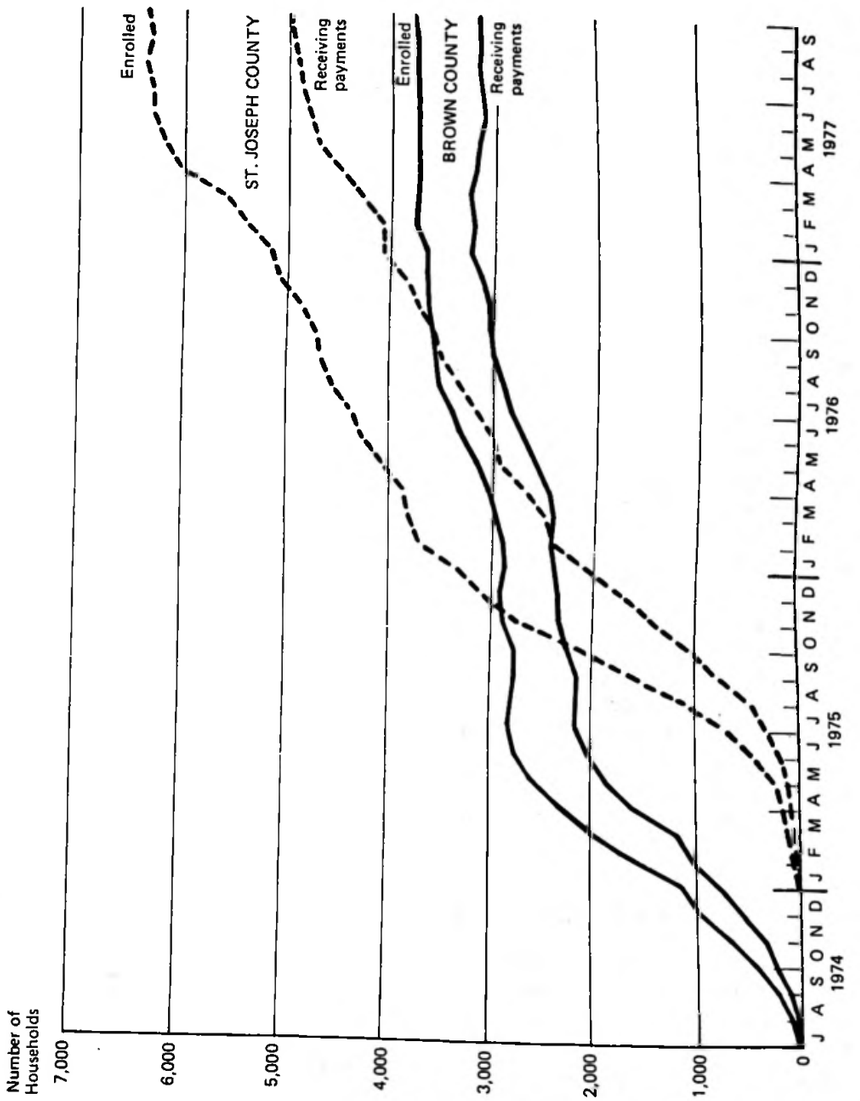
[d] Voluntary or involuntary. Involuntary terminations usually result from change in income or family circumstances that affects eligibility.

[e] Awaiting housing certification or lease agreement. See Note above.

months. In St. Joseph County, about 37 percent left the program during its first 33 months.

Because some enrollees in each site have yet to be authorized for payments and many have left the program, the number currently receiving payments is just under half of those ever enrolled. Although the number of households ever assisted will continue to increase, the current caseload is unlikely to grow very much. Figure 2.1 compares the trends in current caseload—both those enrolled and those receiving payments—for each site. In both cases, the initial rapid growth has tapered off, but the patterns and the reasons for them differ.

In Brown County, recovery from the recession of 1973-74 reduced the number of eligible households by nearly 20 percent during the first program year. Early enrollees in the program included a substantial number of unemployed or fur-



SOURCE: HAO management information system, monthly program reports through September 1977.

Fig. 2.1—Current enrollment and participation status: housing allowance programs in Brown and St. Joseph counties

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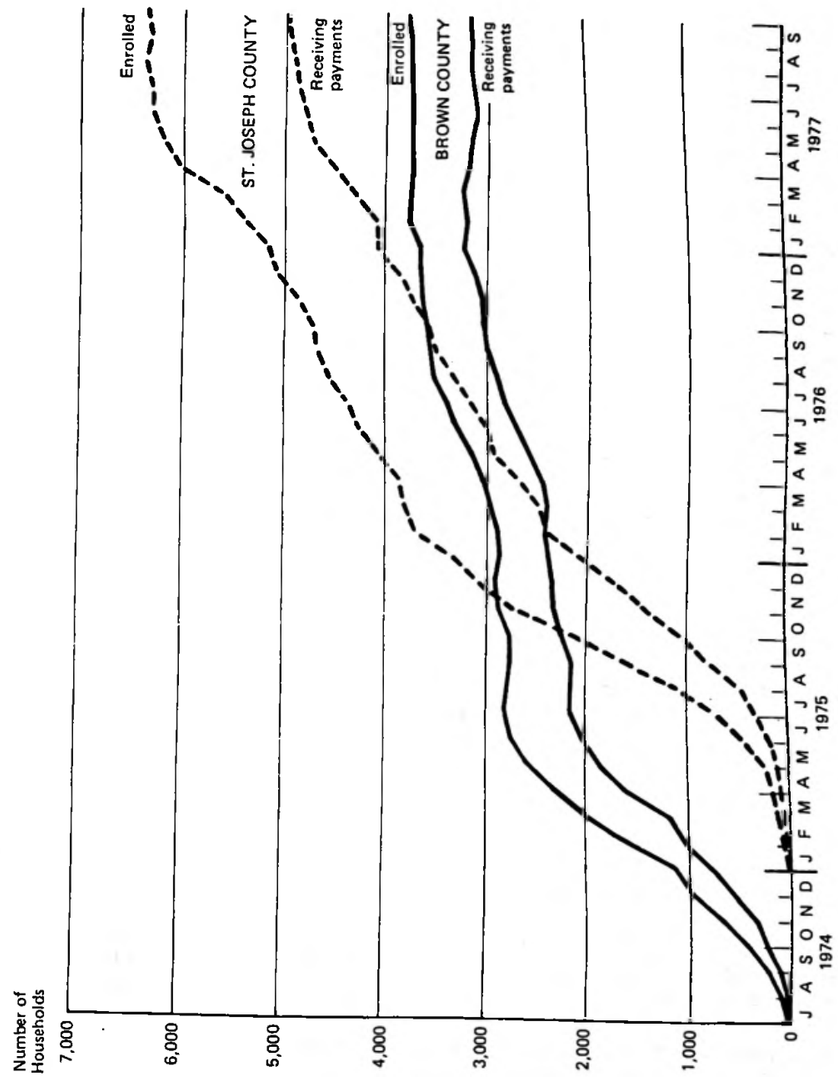


SOURCE: HAO management information system, monthly program reports through September 1977.

Fig. 2.1—Current enrollment and participation status: housing allowance programs in Brown and St. Joseph counties

loughed workers who terminated their participation (either voluntarily or upon semiannual recertification) when they went back to work. During the second half of 1975, terminations thus nearly offset new enrollment.

With those cases out of the program, the termination rate dropped during 1976 and current enrollment climbed to a plateau of 3,600 households, assisted by an increase in income limits and benefit levels effective in April 1976.[3] Despite a second increase in May 1977, enrollments exceeded terminations by only 80 cases during the year ending September 1977.

The program did not begin in St. Joseph County until early 1975, and so avoided much of the temporary enrollment associated in Brown County with the 1973-74 recession. Current enrollment grew rapidly even after semiannual recertification cycles began to weed out those no longer eligible, reaching its first plateau in May 1977. As in Brown County, income limits and benefits were increased twice (in September 1976 and September 1977) without marked effects on the rate of program growth.

Throughout, the pace of new enrollment in St. Joseph County has been constrained by the size of the HAO's staff, so the effects of external events are less clear than in Brown County. Thus, in September 1977, some 1,682 applicants were awaiting interviews or enrollment processing, more than three times the number in Brown County.[4]

Since our household surveys indicate that knowledge of the program's existence and benefits is now widespread in both sites, prospects for further program growth depend primarily on local economic conditions and changes in eligibility standards. National inflation reflects unevenly in local incomes and the standard cost of adequate housing, the relationship between which determines who is eligible. In August 1977, new HUD regulations authorized the HAOs to enroll previously ineligible single persons under 62 years of age, up to a limit of 609 households in Brown County and 963 in St. Joseph County.[5]

Assuming a stable local economy, moderate price inflation, and no additional changes in eligibility standards, we judge that the program in Brown County is unlikely to grow beyond 4,000 enrollees. In St. Joseph County, the large backlog of applicants (including newly eligible single persons under 62) at the end of September suggests that enrollment will increase by several hundred during the next few months and could reach 7,000 during 1978.

CHARACTERISTICS OF ENROLLEES

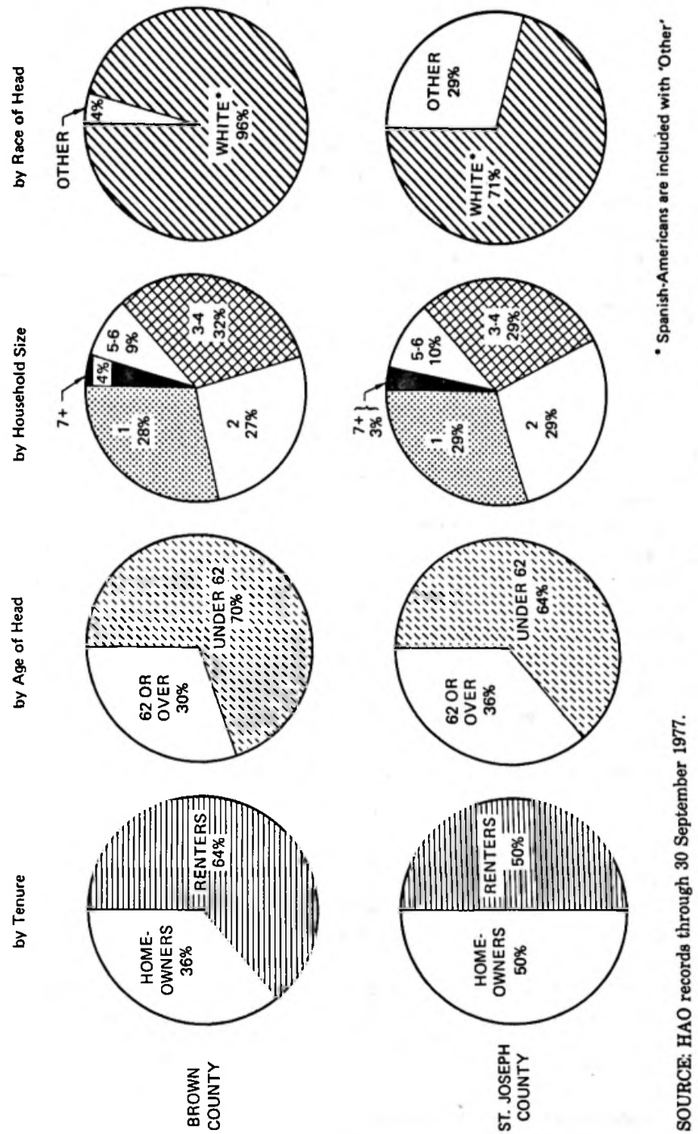
Figure 2.2 shows how those ever enrolled in each site are distributed by housing tenure, age of head, size of household, and race of head. In general, differences between enrollees in the two sites reflect differences in the low-income populations of Brown and St. Joseph counties.

One notable difference is in tenure. In Brown County's program, about 64 percent of the enrollees are renters and 36 percent are homeowners. In St. Joseph

[3] See below, "Benefit Standards and Payments."

[4] See below, "Program Administration."

[5] By the end of September 1977, applications had been received from 234 such individuals in Brown County and 679 in St. Joseph County.



SOURCE: HAO records through 30 September 1977.

Fig. 2.2—Selected characteristics of households ever enrolled: housing allowance programs in Brown and St. Joseph counties

County, where home prices are much lower than in Brown County, more low-income families own their homes; enrollment is evenly split between renters and homeowners.

Another notable difference is in race. Brown County has enrolled only 256 households headed by persons belonging to racial minorities, but they make up about a third of all such households in the county. St. Joseph County has enrolled 2,931 minority households, drawing on a much larger minority population. About 2,700 of the minority enrollees are blacks, nearly all living in South Bend.

The composition of enrollment has changed very little over the past year in either site. In St. Joseph County, the program was at first limited to South Bend, but during 1976 the county's remaining jurisdictions joined. As they did so, increasing shares of enrollment were drawn from Mishawaka and from suburban or rural areas where few minority households live. Consequently, the minority share of those ever enrolled dropped from 34 percent in September 1976 to 29 percent in September 1977.

BENEFIT STANDARDS AND PAYMENTS

As explained in Sec. I, each enrollee's allowance entitlement is scaled to his income and to the standard cost of adequate housing (called R^*) in his community. If he is able to find certifiable housing whose cost exactly equals R^*, his housing expenses will amount to the sum of his allowance payment and 25 percent of his adjusted gross income. If he spends more than R^* for housing, the excess comes from nonallowance income; if he spends less, a larger fraction of nonallowance income is available for other consumption.

The standard cost of adequate housing for households of different sizes was estimated for each site before program operations began. The figure includes the full costs of shelter and utilities and is the same for renters and homeowners. Table 2.2 shows the initial R^* schedules, based on field surveys conducted in September 1973 in Brown County and August 1974 in St. Joseph County. Although the costs of small units were estimated to be the same in both sites, the larger units—mostly single-family houses—were less expensive in St. Joseph County.

Subsequent inflation in fuel and utility prices led to decisions to increase the scheduled values of R^*, thus increasing benefit levels.[6] Table 2.2 shows the amounts and effective dates of the increases, which cumulate to about 20 percent in Brown County and 17 percent in St. Joseph County.[7]

Increasing R^* also increases the upper limit of income for enrollment. Higher income limits in turn would increase the number of eligible households if incomes were fixed. Since incomes have in fact been rising in both sites, the number of eligible households has probably changed very little during the past year. For the same reason, benefits have not increased by as much as the indicated changes in R^*.

[6] Section V analyzes the pattern and causes of rent inflation in each site.

[7] These are unweighted averages of percentage increases for each size of dwelling. Because the smaller dwellings got larger percentage increases, and because over half of all participants throughout the periods covered were households of one or two persons, client-weighted averages would be several percentage points higher.

Table 2.2

STANDARD COST OF ADEQUATE HOUSING BY SIZE OF HOUSEHOLD: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES, 1974-77

Number of Persons	Number of Rooms[a]	Standard Monthly Cost ($)[b]					
		Brown County			St. Joseph County		
		June 1974	April 1976	May 1977	December 1974	September 1976	September 1977
1	1-2	100	125	130	100	115	120
2	1-3	125	145	155	125	140	150
3-4	4	155	175	185	145	160	175
5-6	5	170	195	205	160	175	185
7-8	6	190	210	220	170	185	190
9+	6	220	230	245	170	185	190

SOURCE: FPOG policy clarification memoranda Nos. 141, 158, 186, and 193.

NOTE: Standard costs were initially estimated from preprogram field surveys of rental dwellings in each site; they were subsequently increased to reflect measured inflation in fuel and utility prices. The effective date of each schedule is shown in the table; the measurement dates were several months earlier: September 1973, January 1976, and January 1977 for Brown County; and August 1974, July 1976, and August 1977 for St. Joseph County.

[a] Minimum number of rooms for household of indicated size. For one and two persons, rooming units are acceptable.

[b] Estimated monthly cost of shelter and utilities for a dwelling of the indicated size that meets specified quality standards.

Table 2.3 shows average incomes and allowance payments for participants in each site during September of 1976 and 1977. The gross income shown includes transfer payments such as Aid to Families with Dependent Children (AFDC) and unemployment compensation. Adjustments required by law generally reduce gross income by $300 to $3,000, the amount increasing with household size and age of head. Annual benefits are calculated by subtracting a fourth of adjusted gross income from the appropriate annualized value of R^*; the monthly payment is one-twelfth of this amount.

In both sites, the distribution of participants by size of household, age of head, and tenure changed very little during the year ending September 1977. Yet the average gross income of participants increased by about 5 percent in Brown County and about 8 percent in St. Joseph County, reflecting mostly rising wages and higher benefits from other transfer programs. Average allowance payments consequently rose only slightly in Brown County and decreased slightly in St. Joseph County, despite the intervening increases in R^* shown in Table 2.2.

Table 2.3 also shows distinct differences in the incomes of participants in the two sites, especially for renters. In September 1977, the average income for Brown County's participating renters was 35 percent above the average for their counterparts in St. Joseph County. For participating homeowners, the differential was 17 percent, again in favor of Brown County. But housing costs are higher in Brown

Table 2.3

PARTICIPANTS' INCOMES AND ALLOWANCE PAYMENTS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES, SEPTEMBER 1976 AND 1977

Item, by Tenure of Participant	Average Amount ($)[a]			
	Brown County		St. Joseph County	
	1976	1977	1976	1977
Homeowners				
Annual gross income	4,973	5,245	4,209	4,496
After adjustment	3,885	4,197	3,277	3,587
Monthly allowance payment	67	66	67	64
Annual equivalent	804	792	804	778
Renters				
Annual gross income	4,348	4,570	3,152	3,396
After adjustment	3,586	3,783	2,386	2,642
Monthly allowance payment	77	78	93	94
Annual equivalent	924	936	1,116	1,128
All Participants				
Annual gross income	4,612	4,830	3,782	4,082
After adjustment	3,712	3,943	2,917	3,232
Monthly allowance payment	72	74	78	76
Annual equivalent	864	888	936	912

SOURCE: HAO management information system, monthly program reports for September 1976 and September 1977.

NOTE: Gross income for a homeowner includes an imputed income equal to 5.0 percent of his equity in his home. Adjustments are those required by law and vary with age of head, number of dependents, and number of secondary wage earners. The monthly allowance payment is based on adjusted gross income and the standard cost of adequate housing (see Table 2.2).

[a]Average for all those receiving payments during September of the indicated year.

County, so the differences in allowance payments are much less than the differences in incomes. The average allowance payment is about the same for homeowners in the two sites; for renters, the average is 20 percent greater in St. Joseph County.

Because few participants have zero income, the average allowance payment is well below the standard cost of adequate housing. But in relation to gross income, the average payment is substantial, ranging from 15 percent for Brown County homeowners to 33 percent for St. Joseph County renters. Overall, payments average 20 percent of gross income and 28 percent of adjusted gross income.

Through September 1977, the Brown County HAO had disbursed $6.1 million in allowance payments, and the HAO in St. Joseph County had disbursed $6.4 million. At the September rate of disbursement, the annual outlay would be $2.8 million in Brown County and $4.5 million in St. Joseph County, an overall average of $903 per year for each of 8,061 households.

ENFORCING HOUSING STANDARDS

Shortly after a household enrolls in the program, the HAO evaluates its dwelling against program standards for living space, essential facilities, and health or safety hazards. To date, about half of all preenrollment dwellings in Brown County and more than half in St. Joseph County have been deficient.

The occupant of a defective dwelling must take one of two actions to qualify for payments—either arrange for the dwelling's repair[8] or move to another that meets program standards. In the former case, he requests a reevaluation when repairs are completed. In the latter, he is supposed to request an evaluation of the prospective residence before he commits himself to it; but some clients move, then call for a housing evaluation.

Table 2.4 shows the outcome of the housing evaluations and reevaluations in each site that are associated with an enrollee's attempts to qualify for payment. (It does not include the annual evaluations for those whose housing qualified initially, or any evaluations related to subsequent moves.) In every category, the failure rate is higher in St. Joseph County, reflecting the generally worse condition of housing there.

About 10 percent of all enrollees—nearly all of them renters—explore alternatives to their preenrollment dwellings, often calling for the evaluation of two or more potential residences. In Brown County, failure rates on those evaluations are lower than for preenrollment dwellings, but they are higher in St. Joseph County.

About 70 percent of all failed dwellings (preenrollment or prospective residences) are repaired by the occupant or his landlord and then reevaluated. Nearly all pass the second evaluation, indicating that the enrollee has understood the nature of the defects first reported and how to remedy them. During the past year, the cumulative proportion of failed dwellings that were repaired and reevaluated increased in both sites (from 60 to 70 percent), as did the proportion failing reevaluation (from 3.8 to 5.0 percent in Brown County and from 7.8 to 9.5 percent in St. Joseph County).

During the 39 months the program has operated in Brown County, over 2,400 dwellings have been repaired at the instance of enrollees seeking to qualify for payments, and over 900 enrollees have moved to certifiable housing. During the program's 33 months in St. Joseph County, about 4,000 dwellings have been thus repaired and over 1,000 enrollees have moved.[9]

For those whose housing is initially certifiable, neither repairing nor moving is required in order to qualify for allowance payments. In such cases, the payments alleviate the budgetary stresses likely to lead to nonpayment of rent or utility bills or to undermaintenance of homes. Also, about 700 recipients in Brown County and over 300 in St. Joseph County have moved *after* qualifying for payments, presumably having reconsidered their housing alternatives in the light of their increased resources.

The repairs needed to bring a dwelling up to program standards are rarely expensive, even though serious hazards are often remedied. Most repairs are done

[8] A renter may either persuade his landlord to make the necessary repairs or undertake them himself. Both are common practices.

[9] The management information system on which this section is based does not directly report numbers of moves. The estimates in this and the following paragraph are extrapolated from the first two years of program data for each site.

Table 2.4

RESULTS OF HOUSING EVALUATIONS FOR NEWLY ENROLLED AND REINSTATED HOUSEHOLDS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH 30 SEPTEMBER 1977

Evaluation Result by Type of Evaluation	Brown County		St. Joseph County	
	Number of Cases	Percent of Total	Number of Cases	Percent of Total
Initial Evaluation of Preenrollment Residence				
Acceptable	3,161	50.8	3,705	42.8
Not acceptable	3,059	49.2	4,943	57.2
Total	6,220	100.0	8,648	100.0
Initial Evaluation of Other Enrollee-Nominated Dwelling				
Acceptable	792	56.8	596	31.5
Not acceptable	603	43.2	1,294	68.5
Total	1,395	100.0	1,890	100.0
Evaluation for Reinstated Household				
Acceptable	227	64.7	183	48.8
Not acceptable	124	35.3	192	51.2
Total	351	100.0	375	100.0
Reevaluation of Failed Dwelling				
Acceptable	2,448	95.0	4,018	90.5
Not acceptable	130	5.0	424	9.5
Total	2,578	100.0	4,442	100.0

SOURCE: HAO management information system, monthly program reports for September 1977.

NOTE: If feasible, each enrollee's preenrollment residence is evaluated even though the enrollee may plan to move. Prospective residences are evaluated only at the enrollee's request; often, several such evaluations are conducted on behalf of the same enrollee. Households reinstated after an earlier termination of enrollment must have their dwellings evaluated as though they were new enrollees. Failed units are reevaluated (presumably after being repaired) at the enrollee's request.

by the occupant himself or by his landlord; out-of-pocket expenses for materials and hired labor have seldom exceeded $100 and the median cost was about $10.[10]

Each dwelling occupied by an allowance recipient is evaluated annually to ensure that it still meets program standards. Table 2.5 reports the results of all such annual evaluations so far conducted, about 4,500 in each site. About one-fifth of the dwellings occupied by Brown County recipients and two-fifths of those occupied by St. Joseph County recipients drifted below standard during the year preceding their evaluations. Most of those whose dwellings failed promptly repaired the new defects, some subsequently moved, and payments were suspended for those who did neither.[11]

[10] See Sec. IV for details of housing defects and repairs.

[11] The management information system does not distinguish corrective actions following annual reevaluations from repairs to dwellings into which current recipients plan to move. Thus, the last section of the table ("Reevaluation of Failed Dwelling") indicates only that in Brown County, 973 reevaluations were requested for the combined total of 1,019 failed annual and 448 failed premove evaluations; and similarly for St. Joseph County.

Table 2.5

RESULTS OF HOUSING EVALUATIONS FOR RECIPIENT HOUSEHOLDS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH 30 SEPTEMBER 1977

Evaluation Result by Type of Evaluation	Brown County		St. Joseph County	
	Number of Cases	Percent of Total	Number of Cases	Percent of Total
Annual Evaluations of Recipient's Dwelling				
Acceptable	3,550	77.7	2,713	61.0
Not acceptable	1,019	22.3	1,735	39.0
Total	4,569[a]	100.0	4,448[b]	100.0
Evaluation of Other Recipient-Nominated Dwelling				
Acceptable	595	57.0	193	32.3
Not acceptable	448	43.0	405	67.7
Total	1,043	100.0	598	100.0
Reevaluation of Failed Dwelling				
Acceptable	917	94.2	1,154	87.1
Not acceptable	56	5.8	171	12.9
Total	973	100.0	1,325	100.0

SOURCE: HAO management information system, monthly program reports for September 1977.

NOTE: Recipients' dwellings are reevaluated annually; if defects found by those evaluations are not promptly remedied, allowance payments are suspended. When a recipient moves, his new dwelling must be evaluated and certified for occupancy to avoid payment suspension. Failed units are reevaluated (presumably after being repaired) at the enrollee's request.

[a] Includes an estimated 25 annual evaluations of dwellings occupied by enrollees who have never qualified for payments. Evaluation results for those cases are not separately available.

[b] Includes 240 annual evaluations of dwellings occupied by enrollees who have never qualified for payments; of those, 111 passed and 124 failed.

It is thus clear that the program's housing objectives would not be met solely by initial evaluations. Periodic rechecks of the condition of recipients' dwellings are needed to ensure that they remain free of hazards to health, safety, and decency.

The housing standards on which both initial and annual evaluations are based have been amended from time to time as field experience has revealed weaknesses of specification or inequities in enforcement. The most important change, prompted by federal legislation, pertains to lead-based paint hazards. The HAOs have always failed dwellings in which the hazard was unmistakable, but a more stringent standard was adopted in January 1977. Now the existence of any cracking, scaling, chipping, peeling, or loose paint, whether it contains lead or not, is grounds for failure if children under seven years old are residents or frequent visitors.

The new standard has significantly affected evaluation results. From January through September 1977, 21 percent of all dwellings evaluated in Brown County

and 24 percent in St. Joseph County failed the lead-based paint standard; 9 and 7 percent, respectively, failed solely because of paint defects.[12]

Since the new standard has been in effect, failure rates for nearly all types of housing evaluation have risen (see Table 2.6). The monthly program reports are not detailed enough to show conclusively that paint defects are solely responsible, but the inference is strong. The increases are largest for reinstatement evaluations, those related to moves, and reevaluations of failed dwellings. We do not fully understand that pattern, but it clearly deserves close attention.

Table 2.6

RESULTS OF HOUSING EVALUATIONS CONDUCTED BEFORE AND AFTER ADOPTION OF STRINGENT LEAD-BASED PAINT STANDARD: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES

	Failed Dwellings as Percent of Total Evaluated			
	Brown County		St. Joseph County	
	Pre-1977	1977[a]	Pre-1977	1977[a]
Evaluations for Newly Enrolled and Reinstated Households				
Initial evaluation of preenrollment residence	49.2	48.8	56.5	59.0
Initial evaluation of other enrollee-nominated residence	40.6	48.6	64.9	76.7
Evaluation for reinstated household	29.2	40.1	36.3	59.6
Reevaluation of failed dwelling	3.8	9.2	8.1	12.2
Evaluations for Recipient Households				
Annual evaluation of recipient's dwelling	20.7	24.8	37.7	39.9
Evaluation of other recipient-nominated dwelling	40.7	49.1	62.0	72.7
Reevaluation of failed dwelling	3.2	10.6	9.5	14.8

SOURCE: HAO management information system, monthly program reports for December 1976 and September 1977.

NOTE: The new lead-based paint standard was adopted 1 January 1977.

[a]Through September.

PROGRAM ADMINISTRATION

As explained in Sec. I, the housing allowance program in each site is administered by a state-chartered nonprofit corporation, the housing allowance office. A majority of the trustees of each HAO are members of The Rand Corporation, the remainder being local residents. Rand's site manager for the experiment is chairman of the board.[13]

[12] During the winter season, dwellings that fail only because of exterior paint defects are conditionally approved; the defects must be remedied as soon as weather permits.

[13] Appendix C contains organization charts for each HAO and shows its relationship to The Rand Corporation.

HUD provides financial support for the program through an annual contributions contract with a local housing authority (LHA) in each site, which delegates program administration to the HAO and passes to it funds from HUD. Annual budgets prepared by the HAO are approved by its trustees and reviewed by the LHA before they are submitted to HUD.

Operating Policies

The program in each site is staffed and operated pursuant to policies approved by both the trustees and HUD and documented in the *HAO Handbook*. The director and other senior HAO officers are appointed by the trustees and answerable to them. The HASE Field and Program Operations Group (FPOG) provides technical assistance to the HAOs and monitors their performance, attending both to operating efficiency and conformity with experimental design. Proposals for policy changes may originate with any of the parties to the program, but are formally submitted by FPOG for trustee approval, LHA review, and HUD approval.

An advisory committee of local residents was formed in each site to review program developments and prospects. The committee includes city and county officials, citizens, and allowance program participants. In St. Joseph County, the HAO staff meets regularly with the advisory committee; in Brown County, the committee is less active.

Though elaborate, the system for policy formulation, review, and approval has worked smoothly to accommodate local concerns while preserving the experiment's integrity. Policies and procedures that bear on experimental issues are virtually identical in the two sites, while local solutions to site-specific problems are regularly devised and implemented.

Program Functions

HAO activities are allocated between two major program functions, client intake and client maintenance.

Client intake entails outreach to encourage applications; interviewing applicants, verifying their submissions, and determining their eligibility status and allowance entitlement; evaluating enrollees' current and prospective residences and authorizing payments to those whose housing meets program standards; and counseling enrollees about program requirements, housing problems, and their rights under equal opportunity laws.

Client maintenance comprises administrative procedures relating to those who qualify for payments: disbursing monthly checks; reviewing eligibility and allowance entitlement semiannually (by mail) and annually (by reinterview), or at shorter intervals under special circumstances; evaluating recipients' dwellings annually and when they move, to ensure continued compliance with housing standards; suspending clients whose housing falls below standard or who violate program regulations; and terminating the enrollment of those no longer eligible.

Workload and Staffing

When the program began, the HAOs naturally addressed themselves almost wholly to intake. Over time, intake workloads have diminished and transactions

with recipients have increased. Because the program has operated longer in Brown County, that workload has shifted more than St. Joseph County's and appears to have reached a steady state dominated by maintenance functions. In St. Joseph County, the workload is still in transition; the intake workload in the year ending September 1977 was about 90 percent of that in the first year, while the maintenance workload increased greatly.

Most intake activities have maintenance counterparts (e.g., annual recertification resembles initial enrollment, and annual housing evaluation resembles initial evaluation). Table 2.7 combines comparable intake and maintenance activities to show how the overall workload of each HAO increased from its first year of operation to the year ending in September 1977.

Table 2.7

ADMINISTRATIVE WORKLOAD TRENDS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES

Site and Workload Measure	Monthly Average: First Year[a]	Monthly Average: Current Year[b]	Percentage Increase
Brown County			
Clients interviewed	358	394	10
Dwellings evaluated	362	511	41
Payments issued	939	3,247	246
St. Joseph County			
Clients interviewed	602	801	33
Dwellings evaluated	580	959	65
Payments issued	1,255	4,621	268

SOURCE: HAO management information system, selected monthly program reports.

NOTE: Workload measures were selected from among many possibilities, each generally reflecting the volume of other related activities.

[a]July 1974–June 1975 for Brown County and April 1975–March 1976 for St. Joseph County.

[b]October 1976–September 1977 for both counties.

Despite increasing workloads, both HAOs have reduced their staffs. In Brown County, the number of fulltime equivalent (FTE) employees has been cut from 61 at the end of the first year to 46 in September 1977. In St. Joseph County, the staff increased along with the workload during the first two years, peaking at 87 FTEs in March 1977; by September, only 79 FTEs were employed.

Staff reductions were possible primarily because operating efficiency increased sharply as routines were developed for handling recurring administrative tasks, manual operations were automated, and employees gained experience. However, in St. Joseph County the pace of enrollment has been constrained by administrative capacity virtually throughout the program's history. Thus, nearly 1,400 applicants were awaiting enrollment interviews at the end of September 1976; special efforts

and additional staff enabled the HAO to reduce the backlog to 351 in June 1977, but it rose again to 1,000 in September 1977. At that time, another 682 applicants were in later stages of enrollment processing.

Outreach Objectives and Methods

The HAOs have tried to match workload with processing capacity, primarily by modulating outreach. During the first two years the program was vigorously publicized. In addition to seeking news coverage, addressing civic organizations, and conferring with potential referral agencies, both HAOs advertised extensively on local radio and television stations and in local newspapers.

At first each advertising campaign produced a surge of applicants and was ended when an undesirable backlog developed. As knowledge of the program spread, general publicity and advertising became less effective, and the HAOs shifted their attention to special groups that were underrepresented among enrollees (the elderly, residents of rural areas, certain ethnic minorities). Those were contacted primarily through direct mailings and easily accessible, temporary enrollment offices.

For the past year in Brown County, outreach has been curtailed to only maintain community awareness of the program and publicize major changes, such as the opening of the program to single persons under 62. A similar curtailment is planned for St. Joseph County during the coming year.

Enrollee Services

Important in the housing allowance concept is its presumption that enrollees and participants are capable of dealing with other actors in the housing market to obtain adequate, economical housing. Consequently, services to enrollees are limited to voluntary group counseling, response to individual inquiries, and legal support for equal opportunity actions. Problems between landlords and tenants or between homeowners and remodeling contractors are not mediated by the HAOs, nor do the HAOs help clients find suitable housing.

Voluntary group counseling sessions on four topics have been offered to applicants, enrollees, and participants:

- How the allowance program works: the rights and obligations of participants, administrative procedures.
- Dealing with landlords: leases, tenant rights and obligations, housing discrimination laws.
- Buying or owning a home: legal and financial issues, housing choice, home maintenance.
- HAO housing evaluation standards.

All four programs have been offered in St. Joseph County; for lack of client interest, sessions of the last two types have never been convened in Brown County. In fact, only the program information sessions have attracted enough clients to justify their continuation. They have been attended by over 1,700 persons in Brown County and over 2,600 in St. Joseph County. In St. Joseph County, a total of 54 sessions of the last three types, spaced over 33 months and enlivened by visual aids and other devices, have attracted a combined audience of 178 persons.

On the other hand, both potential applicants and current clients often call the HAOs for program information or help with specific problems, the latter including inquiries about undelivered checks, administrative rulings affecting the clients, or disagreements with landlords. The Brown County HAO has logged nearly 26,000 such inquiries, about 80 percent from potential applicants and 20 percent from clients. In St. Joseph County, nearly 50,000 inquiries have been logged, about 60 percent from potential applicants and 40 percent from clients.

Enrollees are encouraged to report problems of housing discrimination to the HAO, which reviews them and assists with negotiations or legal action if appropriate. Only two such complaints have ever been filed in Brown County. In St. Joseph County, 35 complaints have been filed and investigated. The evidence in four cases was strong enough to warrant legal action, which so far has resulted in a judgment against one plaintiff. One case was settled out of court and two have yet to be adjudicated..

Quality Control and Accountability

Both HAOs have systems for training employees and monitoring their performances, checking the accuracy of applicants' submissions, auditing transactions with clients, and checking the accuracy of machine-readable records. In nearly every section of the HAO, a sample of transactions is regularly audited or independently validated and the findings are reported to the trustees, FPOG, and HUD.

In addition, a firm of certified public accountants annually reviews office procedures and audits administrative expenditures and allowance payments. Beginning in 1975 in Brown County and 1977 in St. Joseph County, the same firm has also conducted "end-use" audits, independently checking the eligibility and allowance entitlements of a sample of households receiving payments and validating the results of a sample of housing evaluations. To date, the audits have revealed few errors and no evidence of improper actions by HAO staff.

Each HAO has a staff team to investigate possible applicant or client misreporting of information that might affect eligibility or allowance entitlement. Cases are referred to the teams by HAO staff who suspect clients' submissions or pursuant to complaints from clients' landlords or neighbors.

Only 43 cases of possible misreporting have ever been investigated in Brown County; three led simply to a change in allowance payments or termination of enrollment, and eight were referred to HUD for possible prosecution. Six cases were closed without action and ten are still being investigated.

In St. Joseph County, 241 cases of possible misreporting have been investigated. Forty-one were settled by payment adjustments or enrollment termination and 20 were referred to HUD for possible prosecution. The HAO closed 162 cases without action and 18 are still being investigated.

Under certain circumstances, an enrollee can obtain an advance on his allowance to cover utility or security deposits. In other cases, a client may be overpaid either because he delayed reporting a change in entitlement or because of client or administrative error. Normally, advances and overpayments are deducted from subsequent checks over a period of some months, but some clients leave the program still owing the HAO. In those cases, collection is difficult.

Outstanding balances in both sites are small relative to annual disbursements. In Brown County, combined advance and overpayment balances amount to $31,500, and another $13,000 has been written off as uncollectable. In St. Joseph County, the corresponding balances amount to $60,900, and an additional $16,100 has been written off. The amounts so far written off as uncollectable are less than 0.3 percent of the cumulative disbursements in each site.

Research Support Activities

HAO administrative procedures were designed for efficiency, fairness, and accountability in disbursing federal funds to qualified recipients. However, the allowance program is also the "treatment" aspect of a social experiment. The HAOs have consequently been charged with certain obligations that might be inappropriate for longterm operation of an established program.

The most fundamental obligation is an unusually high standard for internal records. Every transaction with a client or potential client is carefully documented, and most of the information is coded into machine-readable records. The latter are transmitted quarterly to Rand, which reorganizes some six administrative files into research files. Record errors or ambiguities detected by Rand through systematic audits are referred back to the HAOs for resolution, adding another layer to the internal HAO audits.

Research interests have also influenced the amount of data collected on clients and their housing, although care has been taken to avoid undue burdens on program participants. The preenrollment dwellings of enrollees are thus evaluated by the HAO even though the enrollee may plan to move before applying for payments. Housing evaluators also collect information about repairs and repair costs that are not needed for program administration. Telephone calls to the HAOs are logged, and their contents are described for the use of HASE analysts. Client interviews seek a few items of information that are not needed by the HAO but are useful to researchers.

Outreach has also been governed partly by experimental interests. In order to test public response to the program within a limited time, it was important to quickly inform those who were potentially eligible about the program and its benefits. Paid advertising has been used for that purpose much more extensively than would be appropriate for an established and well-known program.

Finally, considerable attention has been given to the detailed cost accounting necessary to distinguish experimental from normal operating costs and to estimate longrun costs for an established program.

Findings about the program's effects on its participants, based on analysis by Rand staff of HAO records, are reported in Sec. IV. Marketwide effects of the program are discussed in Sec. V, which draws principally on the annual field surveys rather than on HAO records. Section VI reports findings about program administration that bear on the feasibility and efficiency of a national program relative to other means of delivering housing assistance to low-income families.

III. IMPLEMENTING THE RESEARCH PROGRAM

The research mission of the Supply Experiment is to determine the effects of the experimental housing allowance program on the communities in which it operates as well as on those who participate. Participants get cash payments to assist them with housing costs, provided they occupy dwellings that meet size, quality, and condition standards. They find their housing through normal market channels and make their own arrangements with landlords, sellers, mortgage lenders, and home repair contractors. The responses of housing suppliers and market intermediaries to participants' initiatives will therefore affect the outcome of the program as it bears on both participants and nonparticipants competing for housing in the same market.

Further, because participants are free to move within the program jurisdiction, their movements could affect the neighborhoods they leave or enter. The attitudes of other community members will reflect general perceptions of benefit or detriment, as well as their direct experiences as landlords, neighbors, or relatives of participants.

To learn about program effects, we draw on several sources. One is the administrative records maintained by each HAO, which cover the characteristics of clients and their housing and record all client transactions. Another is an annual cycle of interview surveys directed to the owners and occupants of a marketwide sample of residential properties, plus less frequent field observations of the buildings on those properties and the neighborhoods where they are located. Finally, a resident observer in each site follows local political developments, discusses the program informally with local citizens, and regularly reports his observations.

During the year ending 30 September 1977, HAO records for the third program year in Brown County (ending in June 1977) and the second program year in St. Joseph County (ending December 1976) were assembled into research files. Survey subcontractors conducted the fourth (and final) annual cycle of interviews and field observations in Brown County and the third in St. Joseph County. Questionnaires and field reports are now being edited and put into machine-readable form. Resident observers and analytic staff jointly raised and investigated issues not adequately covered by the HAO records and formal surveys.

The most ambitious and expensive part of our monitoring plan is surveying the landlords, tenants, and homeowners associated with approximately 2,100 residential properties in each site. Each interview runs about 90 minutes and covers a wide range of topics related to housing costs and characteristics and the allowance program. In the two sites combined, interviews were completed last year with 1,911 landlords, 3,485 tenants, and 1,226 homeowners. In addition, fieldworkers evaluated the exteriors and environs of 3,207 residential buildings; and, in Brown County, reported the land uses and other features along 9,311 street segments and compiled data on the public facilities and characteristics of 108 neighborhoods.

The survey instruments are designed by Rand, which also maintains the sampling records, chooses the samples, and produces field materials. Two subcontractors did last year's fieldwork: the National Opinion Research Center (NORC) in Brown County, and Westat, Inc., in St. Joseph County. Hardcopy questionnaires

and other field reports are delivered to Rand for transcription and editing. The records are then organized into research files, which are audited for completeness, quality, and sampling bias. Usable records are then weighted to represent the appropriate populations.

Finally HAO, interview, and field observation records are analyzed pursuant to research objectives. During the year covered by this report, we completed a comprehensive analysis of the first two years of program data from each site and a number of topical analyses based on interviews and field observation records. Most of the latter were cross-site comparisons and some compared responses across survey waves. HAO administrative procedures were also analyzed. Findings were presented in briefings, working notes, and articles in professional journals.

Below, we provide more detail about the activities, accomplishments, and problems of each phase of data collection, preparation, and analysis. The general record is one of smooth performance of now-routine tasks, minor methodological improvements, and reduction of backlogs. Although report production increased, timely publication of research results continues as our major problem.

THE SURVEY AGENDA

Each site's annual survey cycle is now addressed to a "permanent" panel of residential properties selected from a larger set surveyed at baseline. As shown in Table 3.1, the wave 2 panel in Brown County comprised 1,945 of the 4,415 properties surveyed at baseline; in St. Joseph County, we empaneled 1,987 out of 4,333. Each year, the panels are enlarged by about 40 properties newly converted to residential use, so that each panel's representation of the county's housing stock is kept current.[1] In 1977, a total of 2,140 residential properties were scheduled for surveying in Brown County (wave 4) and 2,211 in St. Joseph County (wave 3).

In addition to the two HASE panels, we survey a panel of urban renter households in each site, selected according to Urban Institute (UI) specifications and called the UI comparability panel. Whereas the HASE interviews are directed to the current owners and occupants of empaneled properties, the UI interviews are directed to the empaneled households, which are followed as they move within the experimental sites. Some households in the UI panel live on properties in the HASE panel, so their interview records serve two purposes.

Although we initially contemplated six annual survey cycles in each site, we terminated the surveys after the fourth cycle in Brown County on the grounds that additional cycles in that placid housing market would not yield enough new information to warrant the cost.[2] Fieldwork continues in St. Joseph County, subject to annual reviews of its productivity.

Although the survey schedules are similar for each site, they are timed differently. Baseline surveys were conducted in 1974 in Brown County and 1975 in St.

[1] In St. Joseph County, field problems prevented panel augmentation during wave 2, so the new-construction samples for 1975 and 1976 were first surveyed during wave 3. New-construction samples range from 60 to 70 properties annually in each site, of which 40 are empaneled. About 50 properties with subsidized housing were added to the Brown County panel after being surveyed in wave 3, and three rooming houses were added to the St. Joseph County panel after being surveyed in wave 2.

[2] See Ira S. Lowry, *Are Further Survey Cycles Needed in Site I?* The Rand Corporation, WN-9541-HUD, July 1976. HUD approved our recommendation 19 September 1977.

Table 3.1

COMPOSITION OF PERMANENT PANELS OF RESIDENTIAL PROPERTIES CHOSEN FOR FIELD SURVEYS IN BROWN AND ST. JOSEPH COUNTIES

Sampling Stratum		Brown County			St. Joseph County		
		Number of Properties	Number of Housing Units		Number of Properties	Number of Housing Units	
Number	Description		Total on Property	Empaneled		Total on Property	Empaneled
	Urban Rental						
	Single-family:						
1	Low rent	117	117	117	111	111	111
4	Medium rent	242	242	242	294	294	294
7	High rent	93	93	93	177	177	177
	2-4 units:						
2	Low rent	186	444	444	210	520	520
5	Medium rent	241	536	535	225	522	522
8	High rent	76	155	155	65	139	139
	5+ units:						
3	Low rent	32	290	128	63	1,763	332
6	Medium rent	100	1,130	408	35	1,859	218
9	High rent	32	635	135	28	2,742	238
	Rural Rental						
10	Low or medium rent	139	243	236	136	233	189
11	High rent	36	68	68	61	66	66
	Urban Owner						
12	Low value	159	160	160	151	630[a]	173[a]
13	Medium value	201	201	201	184	592[a]	211[a]
14	High value	103	103	103	82	82	82
	Rural Owner						
15	Low or medium value	100	100	100	90	91	91
16	High value	50	50	50	60	60	60
	Other Residential						
17	Rooming house	18	150	72	2	13	8
18	Mobile home property[b]	20	746	41	13	1,291	122
	All strata	1,945	5,463	3,288	1,987	11,185	3,553

SOURCE: Tabulation by HASE staff of sample selection records for both sites.

NOTE: For surveys of landlords and homeowners, the property is the unit of observation, except in the case of condominiums or cooperatives. For surveys of tenants, the housing unit is the unit of observation; on large properties only a sample of housing units was empaneled. For surveys of residential buildings, buildings are the units of observation and are sampled on large properties. In Brown County, empaneled properties had 2,823 buildings, of which 2,074 were empaneled. In St. Joseph County, empaneled properties had 4,216 buildings, of which 2,457 were empaneled.

Rent categories are based on the distribution of rents for all rental units in each site, and value categories are based on the distribution of market values for owner-occupied homes. The rent distributions are divided approximately into thirds; the value distributions are divided into fourths, the "high value" category encompassing the upper two quartiles.

[a] Includes owner-occupied units on multiunit properties, such as coops or condominiums.

[b] Properties on which 75 percent or more of all dwellings are mobile homes. Most are mobile home parks that rent spaces to vehicle owners.

Joseph County, in each case just before the allowance program began. Thus, in 1977 the fourth wave was conducted in Brown County concurrently with the third wave in St. Joseph County.

The surveys of landlords, tenants, and homeowners are conducted annually. We originally planned annual surveys of residential buildings, street segments, and neighborhoods as well; but we later concluded that changes would be too slow to warrant annual data collection and so restricted the surveys to baseline, wave 4, and wave 6.[3] During 1977, those surveys were planned for Brown but not for St. Joseph County, except for surveying residential buildings newly added to the HASE permanent panel or newly occupied by households in the UI comparability panel.

PREPARING FOR FIELD SURVEYS

Each year's survey fieldwork requires lengthy preparation: revising and printing survey instruments and field manuals, updating lists of persons to be interviewed and properties and streets to be observed, and compiling field information sheets and directories for the survey subcontractors. Preparation for the 1977 surveys began in April 1976 and continued until September 1977, when fieldwork for the last survey began.

Beginning in April 1976, the experiment's Survey Group (SG) and Design and Analysis Group (DAG) reviewed the household (tenant and homeowner) survey instruments and revised them to meet new analytical requirements, resolve minor field problems, and reduce respondent burden. The revised (and significantly shorter) instruments were pretested during the summer and submitted in September to HUD and the federal Office of Management and Budget (OMB) for approval.[4] The subcontractors subsequently modified their field manuals to reflect the instrument changes.

The landlord survey instrument was reviewed in January 1977 and was also revised slightly; because the changes were minor, neither pretesting nor OMB review was required. In April, the instrument for the survey of residential buildings was extensively revised to help observers consistently rate the condition of buildings and their environs. The new instrument was tested during the summer; since the survey does not entail interviews, OMB clearance was not required.

On another track, we updated the sampling records maintained in our computer-based record management system (HAMISH[5]). New information about permanent panel properties was obtained from field reports of the prior wave of surveys and from field checks our subcontractors conducted during the fall of 1976. By early December, sampling records for the wave 4 survey of households in Brown County and the wave 3 survey in St. Joseph County had been updated and loaded into HAMISH. The Data Systems Group (DSG) then generated the field materials (questionnaire labels, respondent information sheets, directories, locator cards) used to

[3] The survey of residential buildings was repeated in Brown County's wave 2 before that decision was reached.

[4] OMB's approval is required for instruments used in federally sponsored surveys. They review both the information sought and the respondent burden.

[5] HASE Management of Information for the Survey of Housing.

assign fieldwork and find respondents and properties. DSG produced landlord survey field materials at the end of February 1977.

Preparation for the residential building surveys had to wait until the landlord and household surveys were completed, so that changes reported in those surveys, such as altered property types or new addresses (for comparability panel households), could be incorporated. Field materials for the full survey in Brown County were ready in August; those for the partial survey in St. Joseph County were ready late in September.

The Brown County neighborhood street observation survey required updating the baseline street segment maps. New or obsolete streets were identified from more current maps, the changes verified in the field, and the segment maps corrected accordingly.

FIELDWORK

Fieldwork began in each site early in January 1977 and continued to mid-October in Brown County and mid-November in St. Joseph County.[6] The surveys in each site were sequential, the cleanup of one overlapping the beginning of the next. At least 90 percent of the field reports for each survey were completed within four consecutive months.[7]

Each survey was preceded by a public explanation of its purpose and expressions of support from prominent citizens and newspapers. Respondents to the household surveys in both sites and the landlord survey in St. Joseph County were given a four-page brochure reporting findings from earlier surveys. In St. Joseph County, Rand staff briefed community leaders and landlords on the findings.

Both NORC and Westat used locally hired interviewers and observers, trained and supervised by their professional staffs. For the complex interview surveys, up to 40 hours of training were required to qualify an interviewer for fieldwork. Fieldworkers were assigned cases in batches. At least eight attempts were made over several months to contact a respondent before closing a case. Interview refusals were documented and reviewed for possible "conversion." A research unit tracked hard-to-find respondents.

Each contractor undertook about 5,000 interview assignments. In Brown County, there were also nearly 2,600 residential buildings and over 9,300 street segments to be observed. In St. Joseph County, only 630 residential buildings were scheduled for observation, the full surveys of residential buildings and street segments being next scheduled for 1978.

As completed questionnaires, refusal forms, and other reports were returned by the interviewers, they were reviewed in the contractors' field offices for errors and omissions. A sample was chosen for validation, which consists either of a brief telephone reinterview with the original respondent or an independent field observation. The questionnaires were then assembled with their related field reports and shipped to Rand's Santa Monica offices.

The Brown County neighborhood survey was conducted from October 1976 to

[6] An unusually severe winter in St. Joseph County disrupted the first month of interviewer training and fieldwork, causing the entire survey schedule to slip by about a month.

[7] Chronologies are given in Appendix B.

June 1977. Staff in Rand's Green Bay office abstracted such data as location of public facilities and miles of roadways from maps and records, while NORC rated the condition of individual street segments from field observations.

Excepting the delays due to adverse weather in St. Joseph County, the 1977 fieldwork went smoothly in both sites. Rand, NORC, and Westat's experience from prior survey cycles bore the fruit of well-designed survey instruments, efficient office and field procedures, comprehensive interviewer training, and careful documentation of anomalies.

Following completion of its 1977 schedule, NORC began closing down its Brown County site office and preparing to transfer its records to Rand. It is appropriate here to acknowledge that organization's thoroughly professional performance during three survey cycles. Their efforts have contributed greatly to the success of the HASE research program.

FIELD RESULTS

Table 3.2 shows survey field results for each site. The survey of residential buildings is not included because virtually all field assignments were completed, no cooperation of a property owner or occupant ordinarily being required.[8] For much the same reason, we do not include the street segment survey conducted in Brown County: Except for some omissions owing to map errors, all street segments were observed.

Out of 4,930 interviews scheduled for the HASE panel in Brown County, field-complete questionnaires were returned in 3,396 cases—an overall sample completion rate of 69 percent. However, some cases were retired because circumstances such as vacancies or changes in property status made interviews inappropriate. Based on the 4,558 cases for which interviews were desired, the field completion rate was 75 percent. Finally, excluding cases in which no respondent was ever contacted, the field response rate was 79 percent. The corresponding statistics for St. Joseph County were 64 percent, 72 percent, and 81 percent.

Comparing classes of respondents reveals striking contrasts between results in the sites. In Brown County, the field completion rate of 76 percent for tenants was substantially higher than that for landlords or homeowners. In St. Joseph County, the reverse was true; only two-thirds of the desired tenant interviews were actually carried out.[9]

As well as we can judge from published studies and discussions with other survey professionals, the field results for all surveys in Brown County and for landlords and homeowners in St. Joseph County are above average for personal interviews conducted in recent years. In St. Joseph County, the response rate among tenants is about average for urban populations.

Table 3.3 shows field results for households that were scheduled for UI panel interviews. Some of those households occupied dwellings that are part of the HASE panel, so their interviews served two purposes. The remaining interviews required

[8] Even when refused access to a property, an observer could obtain much of the desired data from an off-site vantage point, a procedure followed in 15 percent of the cases. Only in one percent of all cases was data collection impossible.

[9] The results are further analyzed below in Table 3.4.

Table 3.2

FIELD RESULTS OF HASE INTERVIEW SURVEYS: BROWN COUNTY (WAVE 4) AND ST. JOSEPH COUNTY (WAVE 3)

Survey	Interview Attempts, by Final Status					Not Attempted, by Reason			Total Sample	Summary Statistics		
	Field Complete	Refusal	No Contact	Total	Vacant	Retired[a]	Total		Sample Completion Rate[b]	Field Completion Rate[c]	Field Response Rate[d]
Brown County, Wave 4											
Survey of landlords	932	285	52	1,269	(e)	28	28	1,297	.72	.73	.77
Survey of tenants	1,877	397	184	2,458	69	263	332	2,790	.67	.76	.83
Survey of homeowners	587	231	13	831	8	4	12	843	.70	.71	.72
All surveys	3,396	913	249	4,558	77	295	372	4,930	.69	.75	.79
St. Joseph County, Wave 3											
Survey of landlords	979	195	92	1,266	(e)	84	84	1,350	.73	.77	.83
Survey of tenants	1,608	409	399	2,416	246	178	424	2,840	.57	.67	.80
Survey of homeowners	639	164	26	829	30	2	32	861	.74	.77	.80
All surveys	3,226	768	517	4,511	276	264	540	5,051	.64	.72	.81

SOURCE: Tabulation by HASE staff of field final status reports for each survey as of 30 September 1977.

NOTE: HASE interviews are directed to the current owners and occupants of empaneled properties or housing units. The table does not include interviews of households in the UI comparability panels unless they live in HASE-empaneled dwellings.

[a] Properties or housing units for which the scheduled survey was inappropriate because of a change in property use or occupant tenure. In the event of a tenure change, the case was added to the sample for the appropriate survey.

[b] Field completions/total sample.

[c] Field completions/total interview attempts.

[d] Field completions/total contacts.

[e] Not applicable to the survey of landlords.

Table 3.3

FIELD RESULTS OF UI INTERVIEW SURVEYS: BROWN COUNTY (WAVE 4) AND ST. JOSEPH COUNTY (WAVE 3)

Item	Brown County, Wave 4		St. Joseph County, Wave 3	
	Number of Cases	Percentage Distribution	Number of Cases	Percentage Distribution
Sample Account				
Located at prefield residence	377	71	931	67
Located elsewhere in county	94	18	154	11
Total located and interviewable	471	89	1,084	78
Not located in county[a]	46	9	258	19
Located but not interviewable[b]	11	2	29	2
Unresolved record or field errors	--	--	12	1
Total deleted from interview schedule	57	11	299	22
Total sample list[c]	528	100	1,384	100
Interview Status Account				
Field complete	419	89	967	89
Refusal	42	9	80	7
Contact failure	10	2	38	4
Total located and interviewable	471	100	1,085	100
Relation to HASE Panel				
Occupants of dwellings in HASE Panel	130	28	167	15
Occupants of other dwellings	341	72	918	85
Total located and interviewable	471	100	1,085	100

SOURCE: Tabulation by HASE staff of field final status reports for the surveys of tenants and homeowners in each site as of 30 September 1977.

NOTE: The surveys described here pertain to a panel of urban renter households in each site interviewed on behalf of the Urban Institute. While the HASE surveys interview the current owners and occupants of empaneled dwellings, the UI surveys follow specific households. Percentage distributions may not add exactly to subtotals or totals because of rounding.

[a] Includes scheduled respondents who could not be located, had moved out of the county, or were deceased.

[b] Includes scheduled respondents who were no longer heads of households, who were living in custodial institutions, or who were scheduled for interviews as landlords.

[c] Includes changes made during fieldwork to account for household splits and mergers.

special efforts, inasmuch as those who had moved since the last survey were traced (if possible) to a new local address. If household members had separated, each new household thus formed was also traced.

Out of a total of 528 interviews scheduled for the UI panel in Brown County, field-complete questionnaires were returned in 419 cases, for an overall sample completion rate of 79 percent. However, some interviews were impossible because respondents had relocated outside the county, been institutionalized, or died. Based on the 471 cases for which interviews were possible, the field completion rate was 89 percent. Excluding the cases in which no respondent was ever contacted or tracked gives a field response rate of 91 percent. The corresponding statistics for the UI panel in St. Joseph County were 70 percent, 89 percent, and 92 percent.

TRENDS IN FIELD COMPLETIONS

A major uncertainty in the HASE research design was how much cooperation we would obtain from respondents to our ambitious series of surveys. The length of the typical interview, the detailed questions on property and household finances, and the long question sequences all were cause for concern about the willingness of landlords, tenants, and homeowners to respond to as many as six annual interviews. Survey professionals throughout the nation were noting a general decrease in response rates that added to our specific concerns.

Considering all those factors, we estimated response rates for different classes of respondents and for initial and annual reinterviews. We also estimated respondent turnover in the panel of residential properties due to ownership or occupancy changes.[10] Then we designed a baseline sample for each site that we thought would yield 1,000 property records with complete information for six annual survey cycles.[11] Budgetary constraints later reduced those targets to 900 six-year complete property records.[12]

Table 3.4 summarizes field experience to date. During baseline, both contact failures and refusals were frequent, the latter especially in St. Joseph County. In Brown County, contact failures had been virtually eliminated by wave 2 because of better information about scheduled respondents and longer field periods. Although wave 2 in St. Joseph County had the same advantages over baseline, contact failure persisted as a significant problem, especially for the tenant survey.

The wave 2 surveys were directed only to the owners and occupants of properties for which complete baseline records had been obtained, thus weeding out many of those who had refused baseline interviews. We were therefore not surprised to see the wave 2 refusal rates drop in Brown County. We expected the same result in St. Joseph County, but as the table shows, the rate dropped only for homeowners.

In wave 2 and thereafter we returned to empaneled properties and dwelling units regardless of the outcome of the previous interview attempts. Again, experience in the two sites has differed. Both refusal and contact failure rates rose sharply from wave 2 to wave 3 for all three classes of respondents in Brown County. In St. Joseph County, only the rates for landlords changed much, the refusal rate dropping and the contact failure rate rising.[13]

As nearly as we can judge, the different field results in the two sites reflect differences in the respondent populations rather than in the skill or exertions of the survey subcontractors. An exception may be the steady increase in landlord field completions in St. Joseph County, where response problems were anticipated and special efforts made to demonstrate the value of the surveys to the community. The persistently high rate of contact failure for the St. Joseph County tenant surveys

[10] See Timothy M. Corcoran, *The Effects of Nonresponse on Record Completion in a Panel of Residential Properties*, The Rand Corporation, WN-8174-HUD, April 1973.

[11] A six-year complete record is defined for a rental property as consisting of a field-complete landlord interview, at least one field-complete tenant interview, and a residential building report for each year; and for a homeowner property, as a field-complete homeowner interview and residential building report for each year. When empaneled dwellings on a property are vacant, vacancy reports are acceptable substitutes for complete tenant or homeowner interviews.

[12] See *First Annual Report*, pp. 59-60.

[13] Especially for a reinterview, the difference between a refusal and a contact failure is not always clear. Some of those who do not wish to be interviewed are evasive rather than bluntly negative.

Table 3.4

DISTRIBUTION OF INTERVIEW ATTEMPTS BY FINAL STATUS FOR EACH COMPLETED SURVEY: BROWN COUNTY (WAVES 1-4) AND ST. JOSEPH COUNTY (WAVES 1-3)

Survey	Percentage of Interview Attempts,[a] by Final Status							
	Brown County				St. Joseph County			
	Field Complete	Refusal	No Contact	Total	Field Complete	Refusal	No Contact	Total
Baseline								
Survey of landlords	72	19	9	100	65	25	9	100
Survey of tenants	77	10	13	100	68	18	14	100
Survey of homeowners	72	18	10	100	63	29	8	100
Wave 2								
Survey of landlords	87	12	1	100	72	24	4	100
Survey of tenants	89	11	1	100	68	18	14	100
Survey of homeowners	88	12	(b)	100	76	19	4	100
Wave 3								
Survey of landlords	75	21	4	100	77	15	8	100
Survey of tenants	78	17	5	100	67	17	16	100
Survey of homeowners	76	22	2	100	77	20	3	100
Wave 4								
Survey of landlords	73	23	4	100	--	--	--	--
Survey of tenants	76	16	8	100	--	--	--	--
Survey of homeowners	71	28	1	100	--	--	--	--

SOURCE: Tabulation by HASE staff of field final status reports for each survey.

NOTE: The table accounts only for interviews undertaken for the HASE panel of residential properties.

[a] Excludes cases retired from fieldwork because property characteristics or current occupancy status made scheduled interviews inappropriate.

[b] Less than 0.5 percent.

probably reflects the area's many tenant households with only one adult member, which lessens the chances of finding a respondent at home.[14]

Wave 4 field results in Brown County are close to our expectations and we expect them to pose few analytic problems. In St. Joseph County, wave 3 results are substantially better than expected. If we do as well in wave 4, the survey effort will have been well rewarded. Westat's skill and dedication through the first three survey cycles augurs well for the fourth.

SURVEY DATA PREPARATION

Completed questionnaires and related field reports are sent by the survey subcontractors to the HASE Survey Data Preparation Group (SDPG) in Santa Monica. There, each document is logged and manually edited, and fields with verbatim responses are coded. Machine-readable records are created from the

[14] Interviews are addressed to the self-nominated head of a household. For households headed by married couples, both are invited to participate but one is acceptable.

documents, then cleansed of errors and ambiguities by a man-machine system. The cleaned records are assembled into an "edited field reports file" for each survey, and the file is forwarded to DSG and reorganized into the standard research file format.

SDPG begins work on a survey wave as soon as the survey instruments are in final form. The group prepares editing specifications, listing all permissible entries in each response field and devising logical checks for consistency with related entries. Completed specifications are loaded into a standard computer program that checks each questionnaire against them.

The first questionnaires arrive from the field in February or March, the flow continuing throughout the spring and summer. Because surveys are fielded in parallel in the two sites and hence arrive from each at about the same time, they must be queued for coding, transcribing, and editing. During the year covered by this report, the SDPG workload consisted mainly of field reports from the 1976 survey cycle: wave 3 in Brown County and wave 2 in St. Joseph County. Reports from St. Joseph County were given priority. Procedures differed from the previous year mainly in that coding verbatim responses to attitudinal questions was integrated into the regular file preparation sequence.[15]

Wave 2 surveys for St. Joseph County were mostly processed between October 1976 and February 1977, although cleaning of the small off-year survey of residential buildings was not completed until August. Wave 3 surveys from Brown County were processed mainly between March and September 1977, during which time the backlog of attitudinal coding for wave 2 in Brown County was also completed and a file of tax record abstracts processed.

Table 3.5 gives an overview of SDPG's annual workload by accounting for all field reports from the 1976 surveys, even though some data were processed before this reporting year and work had begun on 1977 survey documents well before the end of the year. Altogether, the 1976 surveys generated over 93,000 documents containing nearly 32 million response fields. About 346,000 response fields contained verbatim responses (concerning occupation, industry of employment, reasons for moving, opinions of the allowance program, etc.) that had to be manually coded to machine-readable categories.

Each response field of the machine-readable records was checked against the specifications described above, resulting in 276,000 error messages. Those had to be resolved by editors, who usually checked the hardcopy to clarify ambiguous entries or consulted editing guides for policy decisions on recurring problems. The subcontractors' field offices, the HASE instrument designers, and the analysts who would later use the data periodically reviewed decisions and helped resolve problems that lacked clear precedent. If an error was resolved, the record was corrected; otherwise the troublesome entry was flagged as "suspicious data." The record was then recycled through the cleaning program to make sure the changes did not trigger new error messages.

When all records for a survey had passed the cleaning program without error messages, the edited field reports file was sent to DSG, along with a copy of the initially transcribed file, the cleaning specifications, the suspicious data file, and a machine-readable log of all changes made during cleaning. Those records together

[15] Formerly, that work was delayed by the need to analyze the verbatim responses before devising a coding scheme. Once a satisfactory coding scheme was devised, the preliminary analysis was no longer needed.

Table 3.5

SURVEY DATA PREPARATION WORKLOADS FOR RECENTLY COMPLETED CYCLES: BROWN COUNTY (WAVE 3) AND ST. JOSEPH COUNTY (WAVE 2)

Workload Measure	Thousands of Items		
	Brown County Wave 3	St. Joseph County Wave 2	Total
Survey Questionnaires			
Documents processed	7[a]	4	11
Response fields coded	182	164	346
Response fields checked	13,329	11,509	24,838
Error messages resolved	121	126	247
Related Field Reports			
Documents processed[b]	36	46	82
Response fields checked	2,346	4,334	6,680
Error messages resolved	13	16	29
Total Workload			
Documents processed[b]	43	50	93
Response fields coded	182	164	346
Response fields checked	15,675	15,843	31,518
Error messages resolved	134	142	276

SOURCE: Records of the HASE Survey Data Preparation Group.

NOTE: The table accounts for all field reports associated with the wave 3 surveys in Brown County and the wave 2 surveys in St. Joseph County; and for certain other data collected in the sites, such as tax record abstracts and HAO call reports. Nearly all the work described here was done between 1 October 1976 and 30 September 1977.

[a] Includes 2,500 tax record abstracts with about 420,000 response fields.

[b] Includes logging, keyboard editing, and keyboarding. The entries include 13,100 related field reports that did not require coding or cleaning.

completely document the cleaning process and provide an audit trail for each response field on every record.

The 1977 workload of SDPG did not change much from the year before (see Table 3.6), despite the fact that 1976 had included the larger baseline surveys in St. Joseph County. The number of questionnaires decreased by two-thirds,[16] but related field reports increased by a third as backlogs were processed and new responsibilities assumed. A third of the coding completed in 1977 pertained to community attitude questions in field reports that had otherwise been processed in 1976. A new system for recording telephone calls and complaints to the housing allowance offices added to the 1977 workload, as did a new responsibility for processing HAMISH update forms.

One notable change is the decrease by half in error messages, despite an increase in the number of response fields checked. The lowered error rate is mostly

[16] Including tax record abstracts for sampled properties.

Table 3.6

TRENDS IN SURVEY DATA PREPARATION WORKLOAD

Workload Measure	Thousands of Items: 1975–1976[a]	Thousands of Items: 1976–1977[a]	Percentage Change
Survey Questionnaires			
Documents processed	33	11	-67
Response fields coded	262	346	+32
Response fields checked	20,045	24,838	+24
Error messages resolved	339	247	-27
Related Field Reports			
Documents processed	62	82	+32
Response fields checked	4,862	6,680	+37
Error messages resolved	76	29	-62
Total Workload			
Documents processed	95	93	- 2
Response fields coded	262	346	+32
Response fields checked	24,907	31,518	+27
Error messages resolved	415	276	-33

SOURCE: Records of the HASE Survey Data Preparation Group.

NOTE: Each year's workload consists of all field reports pertaining to the preceding year's surveys plus miscellaneous items processed during the year ending 30 September.

[a]October through September.

due to changes in the mix of documents processed, but also reflects better instruments, better cleaning specifications (hence fewer false error messages), and better field performance.

Three years' experience with complex but repetitive tasks has reduced nearly all SDPG activities to reliable and efficient routines. Although office procedures and software were modified during the past year, no major changes were undertaken. The main uncertainty for SDPG is the delivery schedule for new field reports, on which its own fluctuating workload is premised.

During the coming year, SDPG will process field reports from the fourth survey wave in Brown County and the third in St. Joseph County. The total workload will be about the same as this year's except for coding, which this year included backlogged work. We anticipate no major problems.

MANAGING THE DATA

Nearly all HASE data are stored and processed by machine. DSG performs those operations for three major classes of data: survey field reports, HAO administrative records, and survey sampling records.

DSG receives the edited field reports file for each survey from SDPG, reformats individual records, and reorganizes the file into standard format. DAG then audits

the files to ensure that all field assignments are accounted for and that all reports pertain to cases on the sample list. Corrected files are archived as preliminary master files, which are documented by a codebook interpreting every entry in each response field and showing response distributions for each field.[17] DSG provides programming and processing support for DAG's further file auditing and data analysis. Administrative records compiled by the housing allowance offices are processed in the same fashion, the main difference being that they are delivered in machine-readable form, thus bypassing SDPG.

The third element of the DSG workload is maintaining and operating the survey record management system. That system records the history and current status of every sampled property, building, and dwelling, and identifies the appropriate respondent for each interview. The files are updated every year to reflect new information that will affect fieldwork: e.g., physical changes to a property, changes in its ownership or occupants, outcomes of prior surveys. The updated records are used to select survey samples and produce field materials.

During the year covered by this report, DSG compiled and reformatted the edited field report files for wave 2 in St. Joseph County and created eight preliminary master files, five with full documentation. In its survey support role, the group produced field materials for wave 4 in Brown County and wave 3 in St. Joseph County. The record management system that produced those materials was updated 177 times, primarily with new information from the field.

Overall, 28,646 jobs (separate computer runs) were executed for HASE by Rand's IBM system 370/158, accounting for 11 percent of all machine usage by Rand during the year and constituting almost 3,000 more jobs than last year. DSG wrote 1,020 computer programs to assist DAG's audit and analysis, almost twice as many as last year. Preparing field materials for the survey subcontractors required long production runs; they accounted for more than half of HASE's 46 million lines of printed output, 10 million over last year's total.

The software and system documentation needed for the remainder of the experiment is now complete. From now on, DSG's tasks are to maintain the software, modify it to meet changing analytic requirements, and operate it in response to programming requests and survey operation needs.

AUDITING THE DATA

When a new file is submitted to DAG, that group audits it for completeness and reliability and in some respects improves it. Audit findings are formally reported, and the audited file is returned to DSG for archiving as a permanent master file.

The audit entails sample accounting (described earlier); checking field management records for evidence of interviewer persistence in getting information or errors in recording it; testing and correcting for nonresponse bias; accounting for missing data; seeking evidence of implausible responses; and weighting records. A subset of records suitable for each major analysis is also defined, flagged, and weighted.

Although the main function of the audit is appraisal, auditors work to rescue incomplete or incoherent records by consulting hardcopy questionnaires or records

[17] The codebooks are prepared jointly by SG, DSG, and DAG.

of related surveys and, in some cases, by estimating missing values. Some of the most important audit tests are run on transformed or derived variables, such as aggregated accounts of landlords' rental revenues and expenses. Those variables are included in the permanent master file, along with documentation of all changes that were made in the data.

Two especially critical tasks for the survey auditors are testing the file for nonresponse bias and weighting the individual records of each survey. Every element (property, building, unit) of the sample list for each survey has a well-documented history from which its sampling weight can be calculated. However, the number of complete survey records is nearly always less than the full sample, because of respondents that cannot be contacted or refuse to be interviewed, and (occasionally) errors in survey administration or data preparation. Hence, sampling history weights must be modified so that the complete records collectively represent the population.

To date, field-complete records have been obtained for as much as 89 percent of all interview attempts in one survey, but as little as 63 percent in another (as Table 3.3 shows). If respondents differ from nonrespondents in ways that are pertinent to our analyses, inferences from data in completed interviews may be biased.

Fortunately, our data-gathering plan ensures us considerable information about each property and its owner and occupants, even if the designated respondent cannot be interviewed. The auditor compares the known characteristics of responding and nonresponding cases in each sampling stratum to test whether they differ significantly. The results of that test enter a weighting algorithm that corrects for nonresponse bias with little loss of precision in parameter estimates.[18]

During the year covered by this report, DAG completed its audit of the St. Joseph County baseline surveys, although two reports have yet to be published. In St. Joseph as in Brown County, we found that those who responded at all nearly always gave full and frank answers to our questions. Their answers were nearly always properly recorded and correctly transcribed to machine-readable records.

Sample accounting on wave 2 surveys from both sites is nearly complete, and several of the files have been exercised by DAG analysts while derived variables and weights were under construction. At the end of the year, DAG was reviewing its postbaseline audit plans to determine what procedures beyond sample accounting will be needed to assess the completeness and quality of the data.

HAO data for the first two years of the program were audited in the course of creating research files from the administrative files submitted quarterly to Rand. The past year's analysis led us to restructure the research files so that all data pertaining to a given client are chronologically organized in a single record. At the end of September 1977, the first such file, encompassing three years of program data from Brown County, was under construction. Building it raised new auditing issues that were being resolved between DAG and the HAO staff.

ANALYZING THE DATA

DAG's analysis plans, outlined in the experimental design,[19] have become increasingly specific and reflective of new research issues, new analytic ideas, and emerging characteristics of the data. After the experiment began, both Rand and HUD became increasingly interested in issues of program design and administration (income accounting and verification, housing standards and their enforcement, controls on disbursement, administrative costs, and relationships with other transfer programs) and in the structure and dynamics of local housing markets (how rents and housing prices respond to different market conditions, how demographic and social changes affect housing demand, and how and why housing deteriorates). As our research has progressed, studies of those matters have been added to the agenda.

Because of the size and complexity of the data base, there is a considerable lag between field events and the availability of data for analysis. Each survey usually requires four to six months. Data preparation requires another four to six months, but to even out the annual workload, not all field reports are processed as soon as they are received. Preparing and auditing each preliminary master file requires at least four to six months, and there are also queuing delays at this stage. Finally, analysis itself takes time in proportion to its subtlety, and often encounters unexpected technical difficulties or produces surprising results that must be checked or confirmed.

In the third annual report, we compared the baseline housing markets of the two experimental sites and showed how market conditions had influenced the first year of program development. During the year ending in September 1977, our research concentrated on HAO records for the first two years of the program, seeking to measure the program's effects on participants and their housing. We also began longitudinal analysis of survey data, linking housing unit records across survey waves to measure rent inflation and comparing community attitudes toward the allowance program at baseline and wave 2. Finally, we continued cross-site analysis of the rental and homeownership housing markets.

The nature and quality of the analyses so far completed speak for themselves through the examples presented later in this report.[20] During the coming year, our research will deal increasingly with changes over time, as survey data from waves 2 and 3 become available.

ANALYZING PROGRAM ADMINISTRATION

Under its contract with HUD, Rand was responsible for setting the organizational structure and administrative procedures for the HAOs, and has continuing responsibility for giving the offices technical guidance and monitoring their performance. In 1976, HUD and Rand agreed to add a new element to the HASE research agenda, an analysis of HAO procedures from an administrative perspective. Conducted jointly by the Field and Program Operations Group (FPOG) and the HAO staffs, the studies stress administrative effectiveness, efficiency, and cost. The findings may be used by HUD in planning the administrative features of a national allowance program (if one is proposed) and in modifying the administration of other

[18] The weighting procedures and the theory behind them are described in Daniel A. Relles, *Using Weights To Estimate Population Parameters From Survey Records*, The Rand Corporation, WN-10095-HUD, forthcoming.

[19] See the *General Design Report: First Draft*, Secs. VI through X and Appendixes A through E.

[20] Findings about the effects of the allowance program on participants are summarized in Sec. IV. Findings about the program's effects on each local housing market and community are summarized in Sec. V.

HUD programs (such as Sec. 8 housing assistance) that share certain features with the experimental allowance program.

The first studies, ranging from outreach methods to income verification, are nearing completion. They include a functional analysis of administrative costs that promises to be especially valuable both for predicting the longrun costs of a housing allowance program and comparing it with other income transfer programs.[21]

REPORTING THE FINDINGS

The last task in the long series described above is reporting the findings. So far, reporting has taken five forms, to serve different audiences: briefings and lectures, illustrated pamphlets, papers for professional conferences, technical monographs, and annual reports. Table 3.7 summarizes the output since the beginning of the experiment.

Briefings and lectures have been delivered to HUD officials, Rand trustees, audiences in the experimental sites, and academic and professional groups. The illustrated pamphlets are four-page reports of survey findings. They are distributed to survey respondents to show how the data they provide are used and thus to enlist their further cooperation. Papers for professional conferences are byproducts of the technical monographs prepared for HUD. They invite criticism from scholars unconnected with the experiment and publicize findings in a way likely to stimulate further research.

We communicate our research plans and findings to HUD principally in technical monographs called working notes. We have submitted well over a hundred, some of which have been incorporated into larger documents or superseded in other ways; Appendix A lists the 89 current titles by topic. Though all document either plans, problems, methods, or findings, many are of limited interest to the public at large or even to the research community, dealing as they do with technical details that are important mainly to users of the data. Although HUD deposits copies with the National Technical Information Service, we ourselves have not sought wider distribution.

Annual reports such as this one serve the important function of informing the public about the experiment. In each such report, we combine a history of the Supply Experiment's most recent year with a summary of salient research findings. While such summaries will suffice for many readers, they should be backed up by readily available reports of the underlying details, especially as the Supply Experiment moves to weightier analyses of the growing data base. During the coming year, we plan to publish a number of recently completed studies as Rand reports for general distribution. Some are already available to HUD as working notes; others are still in draft.

Although the 19 working notes published during the past year exceeds the record of any previous year (see Table 3.7), we aimed to produce as many more. At the year's end, first drafts of five cross-site analysis reports, six site-monitor reports, and two audit reports had been completed and were awaiting review, revision, or final editing. Three more analytical reports were close to completion.

[21] Findings of the administrative studies are summarized in Sec. VI.

Findings still to be published have nearly all been communicated to HUD in formal briefings, ranging from 20 to 50 minutes in duration. Eleven such briefings were delivered in August and September alone. Nonetheless, the timely production of well-written informative reports continues as a matter of great concern to HASE.

Table 3.7

NUMBER OF ORAL AND WRITTEN REPORTS PRODUCED BY HASE: OCTOBER 1971 THROUGH SEPTEMBER 1977

Type of Report	Oct 1971 -Sep 1974	Oct 1974 -Sep 1975	Oct 1975 -Sep 1976	Oct 1976 -Sep 1977	Total
Lectures and briefings:					
Federal officials[a]	10	3	4	15	32
Other audiences[b]	5	1	6	7	19
Illustrated pamphlets[c]	--	2	4	3	9
Professional papers	1	1	3	2	7
Working notes[d]	38	15	12	19	84
Annual reports	--	1	1	1	3

SOURCE: HASE administrative records.

NOTE: Entries include only reports prepared and delivered by employees of The Rand Corporation. In addition, the housing allowance offices in each site have made many speeches to local audiences, published numerous brochures containing program information, and prepared both monthly and annual reports on program operations.

[a] Primarily officers and staff of the U.S. Department of Housing and Urban Development. Other federal agencies have either been represented at such briefings or were separately briefed, including the General Accounting Office, the Office of Science and Technology, and the Office of Management and Budget. Also includes peer review panels organized by Rand and HUD and testimony invited by congressional committees.

[b] Seminars for academic audiences and professional associations and briefings to Rand trustees.

[c] Summaries of survey findings.

[d] Excludes notes later republished as parts of more comprehensive reports.

IV. HOW HOUSING ALLOWANCES AFFECT PROGRAM PARTICIPANTS

The experimental housing allowance program is designed to enable its participants to afford decent, safe, and sanitary dwellings, large enough for their families, without having to spend more than a fourth of their nonallowance incomes for housing. Its effectiveness can thus be measured by how well it meets those goals. This section reports our first systematic assessment of program effectiveness, based on two years of program experience in each experimental site.[1]

An effective program is not necessarily efficient. Efficiency depends also on the direct and indirect costs of meeting program goals. Although later sections of this report describe preliminary findings about costs to the government and the communities in which the program operates, we are not yet prepared to assess program efficiency overall.

In any event, we doubt that the final assessment could be properly cast merely as a cost-benefit ratio. The social processes set in motion by a housing allowance program may be as important as measurable housing improvement or reduction in housing cost burdens.

Section I of this report describes the formal structure of the experimental program. It offers cash assistance to nearly all low-income households in the experimental sites, subject to the requirement that they find and occupy housing that meets specific standards for spaciousness, equipment, and condition. Since we have now operated the program for about three years in two communities whose housing markets and social environments contrast sharply, we have a considerable basis for assessing the outcomes.

In the following pages, we explain in some detail who among the eligibles choose to enroll in the program, how they obtain certified housing and thus qualify for payments, how they improve their housing, how their budgets are affected, and how they feel about the program. Following each major topic, its bearing on program effectiveness is discussed; at the end of the section, we integrate the topical conclusions into a general assessment of program effectiveness.

Most of the data are drawn from analyses of the first two years of HAO administrative records, through June 1976 in Brown County and December 1976 in St. Joseph County. By those dates, each allowance program was operating smoothly, the composition of the enrolled populations had stabilized, and the average duration of enrollment for those still in the program was about 11 months. Although enrollment and participation have since grown in both sites,[2] we have no reason to think that subsequent events have altered the picture we present, except in the obvious sense that more households have been involved.

In addition to program data, our account draws on data from household interview surveys conducted at the beginning of the program and again a year later. The

[1] *The findings summarized here were presented to HUD in a day-long seminar convened at Rand's Washington, D.C., office on 28 September 1977. They are now being documented and amplified in a series of working notes to be published early in 1978.*

[2] *See Sec. II for program statistics through September 1977.*

surveys tell who was eligible for the program and, in wave 2, how they viewed it. Together with surveys of landlords, residential buildings, and neighborhoods, the household surveys also provide descriptions of the housing market and social environment within which the programs operate that help us interpret what we learn about program participants from HAO data.[3]

ELIGIBILITY AND ENROLLMENT

When the experimental program was planned, we crudely estimated from census data how many households in Brown and St. Joseph counties would be eligible for assistance but had little basis for judging how many of those who were eligible would choose to enroll. The experiment was designed to provide that information.

The household surveys collect nearly all the data needed to determine each respondent's elgibility status and, if eligible, his allowance entitlement.[4] By statistical inference from the survey samples, we can estimate the number and characteristics of the eligible population in each site. From program records, we know the number and characteristics of those who have enrolled. Combining the data from the two sources, we have calculated enrollment rates for various groups of eligibles. We have also examined turnover in both the eligible population and the allowance program.

Key Findings

Based on two years of program experience in each site and two waves of survey data for Brown County (but only one for St. Joseph County), we conclude that

- About 20 percent of all households in our two experimental sites are eligible for assistance, but turnover is rapid and the number of eligibles fluctuates with local economic conditions.
- As the allowance programs mature, close to half of those who are eligible will be enrolled at any given time, though only about 80 percent of the enrollees will be receiving payments. Turnover among enrollees is also rapid, about a third leaving the program each year.
- Over 80 percent of the enrollees belong to one of four household types: single parents (33 percent), elderly single persons (28 percent), elderly couples (10 percent), or young couples with children (12 percent). Childless couples under 62 and those with older children are seldom eligible (their incomes are usually too high) and therefore account for only a small percentage of those enrolled.
- Among those who are eligible, enrollment rates vary considerably with household type but are consistently higher for renters than owners. The highest rates are for single parents who rent their homes, many of them also being AFDC recipients.

[3] See the *Third Annual Report*, Sec. IV, for a systematic comparison of Brown and St. Joseph counties' housing markets and household populations.

[4] Of course, survey data on household incomes and assets are not verified from documents or third-party sources. Also, since the surveys do not ask about handicaps, disabilities, or residential displacement by public action, they cannot identify single eligibles under 62 years of age.

- Turnover in the pool of eligibles (and among enrollees) is mostly due to abrupt income changes, often associated with other changes in family circumstances. Young couples with young children are especially likely to become eligible or ineligible as one or both parents lose or find jobs.

The Eligible Population

Excluding those already assisted by other federal housing programs,[5] our surveys indicate nearly 8,000 households in Brown County and 16,000 in St. Joseph County were eligible for enrollment when the program began. Those households constituted 18 and 21 percent, respectively, of all households in the experimental sites.

Figure 4.1 illustrates the composition of the eligible population at baseline in each site. The four household types shown jointly account for more than four-fifths of those who were eligible. Elderly singles comprise the largest group in each site: 25 percent in Brown County and 34 percent in St. Joseph County. Twenty-three percent in Brown County were young couples with young children, many of them eligible because the breadwinner was out of work during the 1973-74 recession.

Although homeownership was most common among eligible elderly couples, owners account for at least 29 percent of each household group shown in the figure and over half of all eligibles in each site. In St. Joseph County, 70 percent of all eligibles were homeowners, the higher proportion there reflecting both lower home prices (hence more low-income homeowners) and a larger program of federally subsidized rental housing (whose occupants are not counted here).

Enrollment at the End of Year 2

At the end of the second year of enrollment, nearly 3,400 households were enrolled in Brown County and nearly 5,300 in St. Joseph County. Comparing those figures with the eligible populations at baseline yields enrollment rates of 42 and 34 percent. However, because the comparison bridges an interval during which both household incomes and program income limits increased, the size of the eligible population may have changed by the end of year 2. In any case, enrollment was still growing (especially in St. Joseph County), so the enrollment rates are not final.[6]

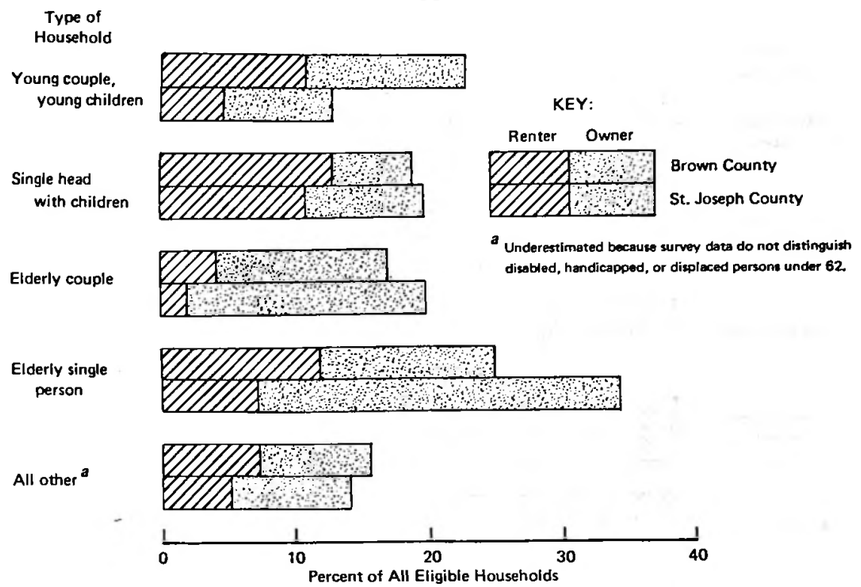
As shown in Table 4.1, enrollment rates vary with both household type and tenure. In each site, renters were considerably more likely to enroll than homeowners, regardless of household type. Among household types, single parents had the highest enrollment rates and elderly couples the lowest.

Because of differential enrollment, the enrolled population differs in composition from the eligible population (see Fig. 4.2). The two largest groups of enrollees in both sites are single parents (many of whom also receive welfare assistance) and elderly single persons (many of whom also receive pensions or social security benefits).[7]

[5] About 600 eligible households in Brown County and 1,700 in St. Joseph County.

[6] By September 1977, enrollment had grown to 3,675 in Brown County and 6,340 in St. Joseph County. Comparing those figures with the eligible populations at baseline yields enrollment rates of 46 and 41 percent, respectively.

[7] Transfer payments are counted as income in determining allowance entitlement, but housing allowances are not counted as income in determining entitlement to AFDC or social security benefits.



SOURCE: Baseline surveys of households in Brown County (1974) and St. Joseph County (1975).

Fig. 4.1—Composition of eligible population by tenure and type of household: Brown and St. Joseph counties at baseline

Table 4.1

ENROLLMENT RATES BY TENURE AND TYPE OF HOUSEHOLD: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES, YEAR 2

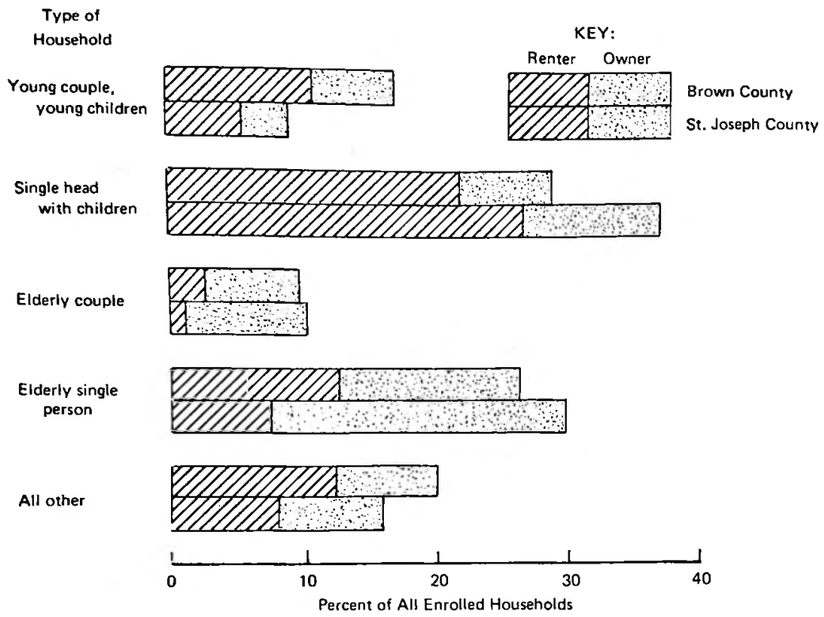
Type of Household[a]	Percent Enrolled at End of Year 2[b]					
	Brown County			St. Joseph County		
	Renter	Owner	Total	Renter	Owner	Total
Young couple, young children	40	22	31	33	16	23
Single head with children	69	52	64	81	42	64
Elderly couple	30	22	24	22	16	16
Elderly single person	46	43	44	37	27	29
All other[c]	70	35	51	54	30	38
All types	53	33	42	54	25	34

SOURCE: Estimated by HASE staff from HAO records for year 2 and household survey records for baseline in each site.

[a] Selected stages of household life cycle. Young couples are under 46 years of age; young children include at least one child under six; elderly couples and singles are at least 62 years old; "all other" comprises young couples with older children, older couples (46 to 61 years of age) with children of any age, and childless couples under 62.

[b] Number enrolled at the end of year 2 as a percentage of the number eligible when the program began in each site. Year 2 ended in June 1976 in Brown County, December 1976 in St. Joseph County.

[c] Numerator includes disabled, handicapped, and displaced single persons under 62, not counted in the denominator because the surveys did not identify those circumstances. Thus, the enrollment rates for "all other" are overestimates.



SOURCE: HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

Fig. 4.2—Composition of enrolled population by tenure and type of household: Brown and St. Joseph counties, end of year 2

Turnover Among Eligibles

For Brown County, we applied eligibility tests to records from the second wave of household surveys, conducted in the spring of 1975. Although the income limit for enrollment had not then been increased, our eligibility test on wave 2 records prorated the subsequent increase as though income limits had been continuously adjusted as housing costs rose. Linking baseline and wave 2 records for individual households, we are able to note changes in their eligibility.[8] Comparing totals from the two surveys, we learn how the pool changed in size and composition during the intervening year.

Among the households whose records could be linked, 10 percent changed eligibility status between baseline and wave 2. As shown in Table 4.2, about a fourth of those who were eligible at baseline became ineligible; of them, 76 percent reported earnings as their main income source in the calendar year preceding the baseline survey. Of those ineligible at baseline, only 4 percent became eligible the following year. Again, most (68 percent) were earners at baseline. Finding or losing a job thus seems to be the principal reason for changes in eligibility.

[8] The turnover analysis, being dependent on linked records, fails to account for households interviewed at baseline but not at wave 2, or the reverse. Households who moved during the intervening year—mainly younger renters—are virtually excluded from the file of linked records. We consequently do not estimate populations from the linked records.

Table 4.2

CHANGES IN ELIGIBILITY STATUS BY INCOME SOURCE: BROWN COUNTY HOUSEHOLDS INTERVIEWED AT BASELINE AND WAVE 2

Major Income Source at Baseline[a]	Number of Linked Records	Number of Records by Wave 2 Status[b]		Percent Changing Status
		Eligible	Ineligible	
Households Eligible at Baseline				
Earnings or unemployment compensation[c]	164	93	71	43
Pension or social security	117	105	12	10
AFDC[d]	47	46	1	2
Other or no major source	31	21	10	32
All sources	359	266	93	26
Households Ineligible at Baseline				
Earnings or unemployment compensation[c]	864	26	838	3
Pensions or social security	40	12	28	30
Other or no major source	36	5	31	14
All sources	940	38	902	4

SOURCE: Comparison of baseline and wave 2 records for households interviewed in both surveys.

NOTE: Because some households were interviewed only at baseline or only at wave 2, the data shown here are based on only 39 percent of all baseline interviews and 60 percent of all wave 2 interviews. Because the sample of linked records is strongly biased in favor of nonmovers, the table reports only record counts, not population estimates.

[a] Source of at least 50 percent of household income in 1973.

[b] Baseline income limits were increased by about 7 percent for the wave 2 eligibility test; see accompanying text for explanation.

[c] Only two households reported unemployment compensation as their major income source in 1973.

[d] Aid to Families with Dependent Children. All AFDC recipients were eligible at baseline.

Much of the turnover is explained by changes in local economic conditions. During the recession of 1973-74, factories in Brown County furloughed many workers, and jobs were hard to find. Those whose earnings were interrupted became eligible for housing allowances. As economic conditions improved during 1974, they went back to work, and by the year's end had earned enough to terminate their eligibility.

For those not in the labor force at baseline, the only ready explanation for the increased incidence of eligibility is that housing costs increased faster than pensions or social security benefits. As real incomes fell, more became eligible for housing allowances.[9] Notably, every household whose major income source at

[9] Actually, program limits were not increased until April 1976, whereas the wave 2 eligibility test reported here prorates the increases for each size of household. The prorated increases range from 10 percent for single persons to 2 percent for nine or more persons.

baseline was AFDC payments was also eligible for assistance then, and only one lost its eligibility during the following year.[10]

The net effect of turnover during the first program year was to decrease the number of eligibles in Brown County by 11 percent—from about 8,000 to about 7,100 households. Table 4.3 shows how the different groups of eligible households were affected. Eligibility decreased sharply among intact nonelderly households but increased substantially among single-parent and elderly households.[11]

Table 4.3

CHANGES IN SIZE AND COMPOSITION OF ELIGIBLE POPULATION: BROWN COUNTY, BASELINE AND WAVE 2

Type of Household[a]	Number of Eligible Households		Percent Change, Baseline to Wave 2	Percentage Distribution of Eligible Households	
	Baseline	Wave 2		Baseline	Wave 2
Young couple, young children	1,810	950	-47	23	13
Single head with children	1,500	1,830	+22	19	26
Elderly couple	1,350	1,480	+10	17	21
Elderly single person	2,000	2,280	+14	25	32
All other	1,300	560	-58	16	8
All types	7,960	7,100	-11	100	100

SOURCE: Estimated by HASE staff from records of the household surveys in Brown County, baseline and wave 2.

NOTE: Estimates exclude households occupying federally subsidized dwellings but otherwise eligible for housing allowances; and disabled, handicapped, or displaced single persons under 62. Estimates are based on records for 900 eligible households at baseline and 531 at wave 2. Baseline income limits were increased by about 7 percent for the wave 2 eligibility test; see accompanying text for explanation.

[a] Selected stages of household life cycle. See Table 4.1, note *a*.

Earlier, we noted that comparing year 2 enrollment with the eligible population at baseline yielded a participation rate of 42 percent for Brown County. Substituting the smaller eligible population of wave 2 increases the participation rate to 48 percent.

When comparable data for St. Joseph County become available, we should not expect to find the same pattern of turnover because the general level of employment there did not change as much from 1974 (baseline income year) to 1975 (wave 2 income year) as it did from 1973 to 1974 in Brown County. However, we do expect to find that young labor force participants often move into and out of eligibility as they lose or find jobs; and as shown in Fig. 4.3, below, their crude rate of termination from the program is about the same as in Brown County.

Turnover Among Enrollees

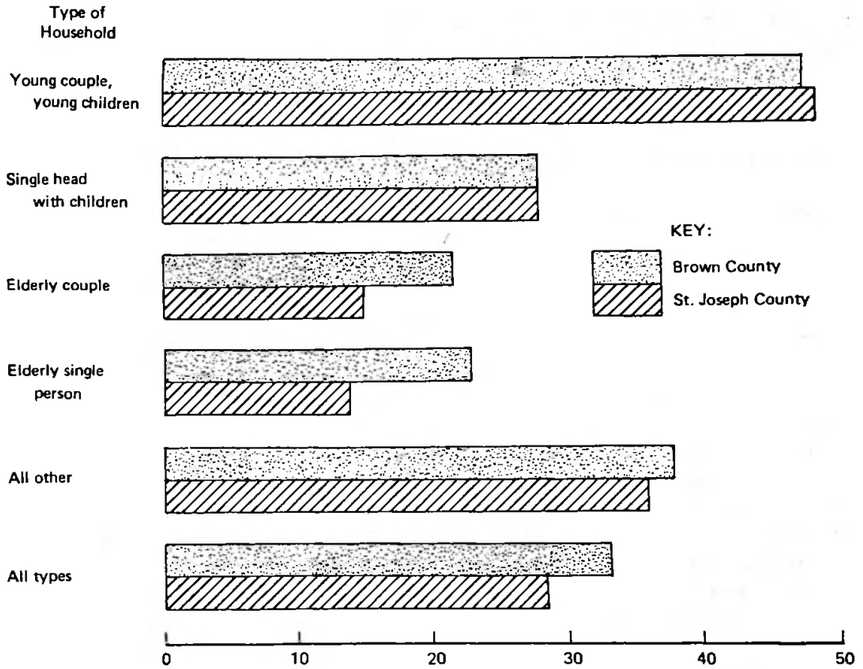
During the allowance program's first year, enrollment grew rapidly as eligible households learned about the program and decided to participate. During the second year, enrollment continued but the number currently enrolled grew less rapidly because others were leaving the program. By the end of year 2, nearly 30 percent of all those ever enrolled had terminated, either voluntarily or involuntarily.

The major reason for termination is loss of eligibility, usually discovered at the time of semiannual recertification; but some enrollees who have never qualified for payments and others whose payments are small drop out despite continued eligibility. In other cases, we are unsure of eligibility status because the enrolled household simply does not respond to its recertification notice. About 7 percent of those terminating later reenroll.

Figure 4.3 shows crude termination rates by type of household. The rates shown are simply the number terminating during the first two program years divided by the number enrolling during the same period, unadjusted for varying durations of enrollment. As might be expected, the highest termination rates are for young couples with young children whose eligibility statuses change as the breadwinners find or lose jobs. The elderly, among the slowest to enroll, are least likely to leave.

[10] Others who relied on AFDC for less than half their baseline income did become eligible during the following year. They are counted in Table 4.2 under their major income sources.

[11] Wave 2 records were weighted by a different method than baseline records, and detailed comparisons of the estimated populations imply some changes that are implausible for a one-year interval. Pending further analysis of cross-cycle weighting procedures, the figures in Table 4.3 should be regarded as rough estimates only. The 22 percent increase indicated in the number of eligible single heads with children is particularly suspect.



SOURCE: HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

Fig. 4.3—Enrollees terminating by end of year 2: Brown and St. Joseph counties

Two years of program history during a period of rapidly growing enrollment do not provide a basis for predicting the longrun turnover among enrollees. At this juncture, we can only note that the life expectancy of an enrollment is at least 18 months in both sites.[12] Since about 90 percent of those who survive two semiannual recertification cycles also survive the third, we expect the estimate of enrollment life expectancy to increase substantially as our time series lengthen.

Indications of Program Effectiveness

Unlike most federal programs of housing assistance for low-income households, the experimental allowance program is open to homeowners as well as renters; and enrollment is open to all who are eligible rather than being constrained by the number of "places" available.[13] Consequently, it does a much better job of distributing assistance.

For example, St. Joseph County has a large public housing program and a small rent-supplement program. Private developers have made extensive use of federal interest subsidies offered to rental projects under Sec. 221(d)(3) and Sec. 236 of the National Housing Act. Altogether, about 2,500 units of rental housing in the county are federally subsidized, though not all occupants have incomes low enough to qualify for public housing or housing allowances. Less than 300 homeowners receive interest subsidies under Sec. 235 of the National Housing Act, and about 600 cooperatively owned dwellings are subsidized under Sec. 221(d)(3).

By our calculations, those programs jointly serve about 26 percent of the renters and 2 percent of the owners whose low incomes make them eligible for housing allowances. At the end of its second year, the allowance program was assisting over half of the remaining eligible renters and a fourth of the remaining eligible homeowners, all under a single program with uniform standards. Clearly, the program scores high, both in terms of horizontal equity and administrative simplicity.

In Brown County, there was very little federally subsidized housing when the allowance program began, so results there suggest what might happen if an open-enrollment allowance program were the principal or only vehicle of federal housing assistance to low-income families.[14] Barring another recession, and assuming that income limits are regularly adjusted to compensate for inflation, we judge that over the long run about half of those who are eligible will be enrolled and about 80 percent of those enrolled will be drawing benefits at any given time.

Some readers may be surprised that only half of those eligible choose to enroll. However, such is the general experience in this country even for long-established cash transfer programs. One recent study set participation in the federal food stamp program at 38 percent of those eligible. A study of New York City's poor

[12] We can calculate termination rates for enrollees with varying durations of enrollment up to two years, but we cannot now observe the full term of enrollment for those still in the program at the cutoff date for our analysis. Applying duration-specific termination rates to a hypothetical cohort of enrollees, and assuming that none participates for longer than two years, we obtain an average (i.e., expected) enrollment duration of about 18 months.

[13] The annual contributions contracts stipulate participation ceilings, but they were purposely set high enough to accommodate all who were expected to enroll and have not in fact constrained enrollment.

[14] This inference is not meant as a recommendation. There are persuasive arguments for an assortment of housing assistance programs to meet special objectives, not all of which are served by housing allowances.

indicates that only 52 percent of all households and 60 percent of all persons eligible for public assistance actually drew benefits in March 1970.[15]

Some of those who are eligible for housing allowances feel no urgent need for assistance and prefer not to accept it. Others expect their low incomes to increase soon, so do not find enrolling worth the trouble. Some, especially among the elderly, are so intimidated by official proceedings that they may suffer serious deprivation rather than apply for assistance. And some may still not know about the program or realize that they are eligible.

In both sites the housing allowance program is serving two distinct groups of low-income households. One comprises those whose need for assistance is due to temporary loss of earnings; for them, housing allowances are virtually equivalent to unemployment compensation, enabling them to keep up mortgage or rent payments for a few months of adversity. Others are more durably poor, because of age, infirmity, child-care responsibilities that prevent working, or lack of marketable skills. For them, housing allowances serve as a longterm income supplement, differing from "welfare" in that benefits are conditioned on the consumption of adequate housing. In the following pages, we show how participation in the program affects such consumption.

HOW ENROLLEES GET CERTIFIED HOUSING

The HAO tells each newly enrolled household the amount of its allowance entitlement, based on its recent income and current household size. Allowance payments do not begin, however, until the HAO has determined that the enrollee's dwelling conforms to program standards for habitable space, presence of essential facilities, and absence of hazards to health or safety. The HAO only evaluates housing; the enrollee is entirely responsible for repairing an inadequate dwelling or finding an alternative.

The HAO records each transaction with an enrollee who is searching for suitable housing, beginning usually with an evaluation of the preenrollment residence. From such records, we have traced the housing evaluation and certification histories of 4,213 enrollees in Brown County and 5,782 in St. Joseph County—85 and 80 percent, respectively, of all those enrolling during the first two program years.[16] For some parts of our study, we excluded those who had been enrolled for less than six months, because recent enrollees were often still repairing their dwellings or looking for alternatives. The reduced files contain records for 3,573 enrollees in Brown County and 4,904 in St. Joseph County.

Key Findings

Combining the data for Brown and St. Joseph counties, we find that

[15] Maurice MacDonald, *Food Stamps and Income Maintenance*, Academic Press, forthcoming; C. Peter Rydell and others, *Welfare Caseload Dynamics in New York City*, The Rand Corpration, R-1441-NYC, October 1974, Table 3.5; and David M. de Ferranti and others, *The Welfare and Nonwelfare Poor in New York City*, The New York City-Rand Institute, R-1381-NYC, June 1974, p. 59. The latter two reports were published jointly by The Rand Corporation and The New York City Human Resources Administration.

[16] The remainder were households whose preenrollment dwellings had not yet been or could not be evaluated, and others whose records contained ambiguous or confused chronologies of housing evaluations and certifications.

- About half of all enrollees were occupying acceptable dwellings when they enrolled. Those households were able to draw housing allowances without altering their housing circumstances, except that renters had to enter into lease agreements with their landlords.
- Of the preenrollment dwellings that failed their initial evaluations, 32 percent lacked adequate space or privacy, 29 percent lacked adequate kitchens or bathrooms, and 83 percent had one or more hazardous conditions.
- Among the enrollees whose preenrollment dwellings failed, 68 percent repaired them, usually within three months; 10 percent moved, usually within five months; and 22 percent terminated their enrollments, usually at their first semiannual certifications.
- About 80 percent of all enrollees eventually obtain certification on their preenrollment or some other dwelling and thus begin receiving monthly allowance payments.
- Preenrollment dwellings in St. Joseph County were more likely to fail, and those that failed had more defects, than their counterparts in Brown County. However, enrollees' responses to failure (repair, move, terminate) were about the same in both sites.

Evaluating Preenrollment Dwellings

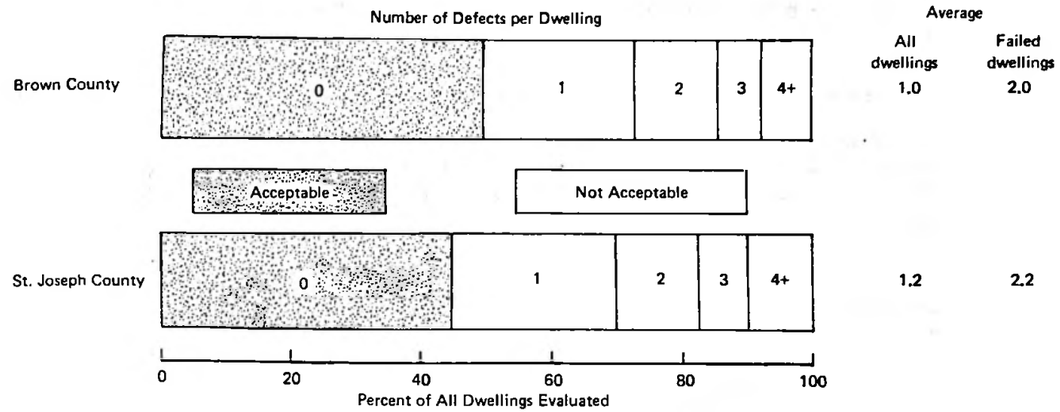
When enrollment formalities are complete, the HAO dispatches a trained housing evaluator to the enrollee's home to determine whether the dwelling meets program standards. The standards have been translated into a checklist of 38 items; failing any one renders a dwelling unacceptable. The number and habitability of rooms is determined and compared with the size of the enrollee's household, the kitchen and bathroom equipment is checked for completeness and operability, and the entire property is searched for hazardous conditions.

Figure 4.4 summarizes the results of evaluations completed during the first two years of program operations in each site. Overall, 49 percent of 4,213 evaluated dwellings in Brown County and 55 percent of 5,782 in St. Joseph County had one or more defects and were therefore rated unacceptable for occupancy by program participants. Not only were more of the dwellings in St. Joseph County defective, but those with defects had a larger number per dwelling.

Table 4.4 describes the nature of those defects. About a sixth of the dwellings in each site were too small for the enrollees' families, although in some cases rooms were available but not adequately equipped for habitation.[17] Inadequate kitchen or bathroom facilities were also common; the defects included not only inoperable cooking and plumbing appliances but inadequate lighting, electrical installations, ventilation, and heating.

The most common of hazardous conditions was an interior stairway without a handrail, occurring in a fourth of the Brown County dwellings and a third of those in St. Joseph County. Problems with electrical, plumbing, or heating systems were also common: inadequate or unsafe wiring, leaky pipes, poorly vented furnaces, etc.

[17] Program standards require an adequately illuminated and heated bedroom of at least minimum size for every two persons and a general-purpose room for households of three or more persons. Bedrooms and bathrooms must have closable doors or privacy curtains.



SOURCE: HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

Fig. 4.4—Results of initial evaluations of preenrollment dwellings: housing allowance programs in Brown and St. Joseph counties through year 2

Table 4.4

SPECIFIC DEFECTS IN ENROLLEES' DWELLINGS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH YEAR 2

Type of Defect	Number of Defects		Defects per 100 Dwellings[a]	
	Brown County	St. Joseph County	Brown County	St. Joseph County
Inadequate Living Space				
Too few habitable rooms or bedrooms	708	951	17	16
Inadequate Facilities				
Kitchen (lacking any of 7 items)	177	484	4	8
Bathroom (lacking any of 8 items)	453	862	11	15
Hazardous Conditions				
Exterior property area (4 items)	130	138	3	2
Building exterior:				
Stairs, porches, railings	262	177	6	3
Windows	349	887	8	15
Other (4 items)	155	262	4	5
Building interior:				
Stairs, railings	1,128	1,911	27	33
Other (7 items)	278	517	7	9
Utility systems (4 items)	461	614	11	11
All defects	4,101	6,803	97	118

SOURCE: Tabulated by HASE staff from HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

NOTE: Data base consists of initial evaluation records for 4,213 preenrollment dwellings in Brown County and 5,782 in St. Joseph County. The presence of any defect tabulated here caused the dwelling to be rated not acceptable.

[a] Because some entries cover more than one item on the evaluation form, "defects per 100 dwellings" is not necessarily equivalent to "percent of dwellings with indicated defect."

Window problems included broken panes and unopenable sashes where ventilation was needed.

Client Characteristics Associated with Inadequate Housing

As noted, enrollees in St. Joseph County generally were worse housed than those in Brown County. However, within each county, the incidence of housing defects also varied with household characteristics. Table 4.5 summarizes our findings.

The patterns apparent in the table trace back mostly to the space standard. Large households tend to be overcrowded, and households headed by younger persons or nonwhites tend to be larger than those headed by elderly persons or whites. Other causes for failure—inadequate facilities or hazardous conditions—do not vary much with the household characteristics listed. Tenure is an exception; renters are more likely to be overcrowded (especially in St. Joseph County) and are also less likely to have adequate kitchen and bathroom facilities.

Table 4.5

RESULTS OF INITIAL EVALUATIONS OF PREENROLLMENT DWELLINGS BY SELECTED CLIENT CHARACTERISTIC: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH YEAR 2

Client Characteristic	Number of Dwellings Evaluated		Percent Rated Not Acceptable	
	Brown County	St. Joseph County	Brown County	St. Joseph County
Household Size				
1 person	1,139	1,690	39	50
2 persons	1,071	1,537	43	48
3 persons	868	1,058	52	55
4-5 persons	791	1,090	56	61
6+ persons	341	401	80	77
Housing Tenure				
Renter	2,382	2,461	48	59
Owner	1,779	3,231	50	51
Age of Head				
Under 62 years	2,857	3,588	68	58
62+ years	1,355	2,192	39	48
Race of Head				
White non-Spanish	4,061	4,117	49	51
Other	149	1,659	67	63

SOURCE: Tabulated by HASE staff from HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

NOTE: Data base consists of initial evaluation records for 4,213 preenrollment dwellings in Brown County and 5,782 in St. Joseph County. Distributions by household characteristic do not sum to those totals because a few records lack usable data on each characteristic.

Client Response to Initial Evaluation Failure

An enrollee whose dwelling fails its initial evaluation has three options: He can arrange for repairs to the dwelling, move to another dwelling (which must also be evaluated), or do neither. The first two options usually lead to housing certification and payment authorization. The third usually leads to voluntary termination of enrollment, inasmuch as no benefits are realized by an enrollee living in an uncertified dwelling. However, the HAO imposes no time limit on action to secure certifiable housing, and some enrollees have stayed in the program over a year without drawing allowances.

Although evaluation failures were more frequent in St. Joseph County, the responses during the first two years were similar in the two sites. Excluding those who had yet to act, about two thirds of the enrollees whose dwellings failed their initial evaluation repaired them successfully; about a tenth moved to an acceptable dwelling; and about a fifth left the program without ever qualifying for payments.

As shown in Table 4.6, responses were strongly influenced by the number of reported defects, all of which had to be remedied to make a dwelling acceptable. Single defects were usually repaired; the occupants of dwellings with four or more defects usually either dropped out or moved.

Table 4.6

CLIENT RESPONSES TO INITIAL EVALUATION FAILURES BY NUMBER OF HOUSING DEFECTS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH YEAR 2

Number of Defects	Number of Clients	Percent of Clients by Action Taken after Initial Failure			
		Repair	Move	Terminate	Total
Brown County					
One	937	76	9	15	100
Two	493	69	9	22	100
Three	237	56	12	32	100
Four or more	202	38	23	39	100
All failures	1,869	67	11	22	100
St. Joseph County					
One	1,376	82	5	14	100
Two	620	67	8	25	100
Three	343	59	10	31	100
Four or more	397	36	20	44	100
All failures	2,736	69	8	23	100

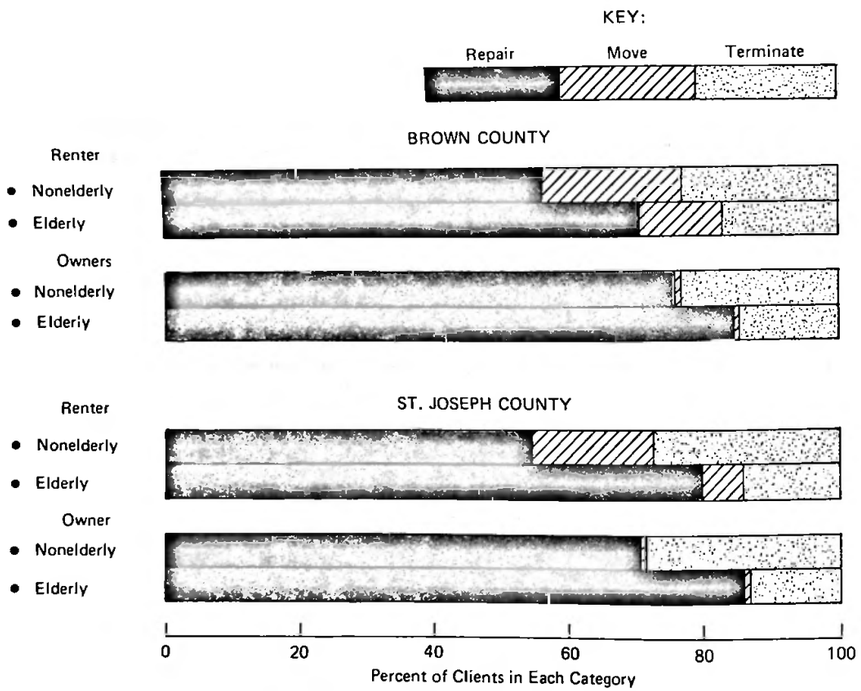
SOURCE: Tabulated by HASE staff from HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

NOTE: The table excludes 192 clients in Brown County and 408 in St. Joseph County whose records at the end of year 2 indicated that they were still enrolled but had neither repaired nor moved from a failed dwelling; and 12 and 4 clients, respectively, whose records lacked usable counts of housing defects.

The different responses between renters and owners and between younger and older clients, shown in Fig. 4.5, are also striking. Not surprisingly, homeowners whose dwellings fail are rarely prompted to move; they either repair or drop out. The elderly, whether renters or homeowners, are more likely to repair their preenrollment homes than are younger clients. Only nonelderly renters often solve their housing problems by moving.

We have also classified clients whose dwellings failed by the amount of their allowance entitlement. We find that those with entitlements under $30 monthly are least likely to move (4 percent) and most likely to drop out (34 percent). The proportion moving increases over the full range of entitlements, but the proportion terminating levels off at about 18 percent for entitlements above $50 per month. Those with entitlements of $50 to $70 are the most likely to repair (76 percent).

Most clients who repair their dwellings do so within three months of the failed evaluation. Movers take up to five months to find an acceptable alternative, about 10 percent in Brown County and 25 percent in St. Joseph County calling for evaluations on two or more dwellings before moving. Of those who drop out of the



SOURCE: HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

Fig. 4.5—Client responses to initial evaluation failures by tenure and age of head: housing allowance programs in Brown and St. Joseph counties through year 2

program, only about 5 percent request the HAO to evaluate an alternative dwelling. Nearly all continue their enrollment until the first semiannual certification, at which point they simply fail to return a mailed-out recertification form and are consequently terminated from the program.

Major Paths to First Certification

Table 4.7 summarizes the findings discussed above. Some details differ because the table is based on the housing certification history of those who had enrolled at least six months before the end of year 2 and thus had time to act on the results of their initial housing evaluation. We find that 84 percent of the enrollees in Brown County and 79 percent in St. Joseph County succeeded in obtaining certifiable housing and thus began to draw allowance payments. The largest numbers—47 and 40 percent, respectively, were already in acceptable dwellings when they enrolled, so encountered no obstacles (except possibly lease agreements) to payment authorization. About 30 percent in each site repaired failed dwellings in order to qualify for payments, and about 8 percent moved before qualifying.

Indications of Program Effectiveness

The major hypothesis to be tested by the experimental housing allowance program is that, given modest financial aid, low-income families can secure decent,

Table 4.7

MAJOR PATHS TO FIRST HOUSING CERTIFICATION: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH YEAR 2

Outcome	Percent of Enrollees[a]					
	Brown County			St. Joseph County		
	Owner	Renter	Total	Owner	Renter	Total
Preenrollment dwelling certified:						
Without repair	49	46	47	48	31	40
After repair	36	25	29	35	23	30
Moved before certification:						
From an acceptable dwelling	--	1	1	(b)	2	1
From an unacceptable dwelling	2	10	7	3	14	8
No dwelling ever certified:						
Enrollment terminated	11	14	13	11	22	16
Still enrolled	2	4	3	3	8	5
All outcomes	100	100	100	100	100	100
Number of cases	1,488	2,085	3,573	2,678	2,226	4,904

SOURCE: Tabulated by HASE staff from HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

NOTE: Data base includes only records for households enrolling at least six months before the end of year 2, so as to exclude most of those still repairing their dwellings or looking for alternatives.

[a]Households enrolled through December 1975 in Brown County and June 1976 in St. Joseph County.

[b]Less than 0.5 percent.

safe, and sanitary housing in the private market. Data from the first two years of program operations in two contrasting housing markets confirm this hypothesis for about 80 percent of those who enroll. The other 20 percent are unable or unwilling to take the steps necessary to improve their housing.

When the program was planned, we had only a general idea of the extent of housing defects among the low-income residents of our experimental sites. Under the standards adopted by the program,[18] we find that about half of those who enroll already occupy acceptable dwellings—homes large enough for their families, equipped with essential facilities, and free from health or safety hazards. They were either fortunate in their choices of landlords, willing to spend large shares of their income for housing, or themselves attentive to home repair and maintenance.

Although homeowners were more likely than renters to repair defective dwellings in order to qualify for payments, in both sites about 60 percent of the renters whose dwellings failed initial evaluations were able to arrange for repairs.[19] Elderly renters, often supposed to be disadvantaged in dealing with their landlords, were more likely to repair than younger renters; the latter more often chose to move from failed dwellings or drop out of the program. In both sites, 85 percent of the elderly homeowners whose dwellings failed the initial evaluation managed prompt repairs.

Those who drop out of the program tend to share three characteristics: Their homes are seriously defective, their allowance entitlements are small, and they are under 62 years of age. The HAOs are currently investigating the problems of all those who enroll but fail to qualify for payments, but the findings just noted suggest that lack of motivation is more salient than lack of means. Almost none look for alternative dwellings.

Considered as an incentive for housing improvement, the allowance seems generally effective, motivating action (repairs or a move) by nearly 80 percent of those in initially unacceptable dwellings. Its importance as a financial means to housing improvement is less clear, as will be shown in the following pages.

HOUSING REPAIRS AND IMPROVEMENTS

Each client's housing is evaluated when he enrolls, when he moves, and annually during his occupancy of any given dwelling. If the dwelling fails an evaluation, the enrollee must arrange for its repair, move to an acceptable dwelling, or forego allowance payments. Here, we examine the first and predominant alternative, chosen by over two-thirds of all whose preeenrollment dwellings fail and by about three-fourths of those whose dwellings fail the annual evaluation. We have data both on repairs undertaken specifically to qualify a failed dwelling for initial or continued occupancy and on those made voluntarily between annual evaluations.

We began gathering repair data in January 1976, after 18 months of program operations in Brown County and 12 in St. Joseph County. While he is on the

[18] Of course, people may disagree about the importance of specific housing standards. Those adopted by the allowance program were based primarily on model housing codes promulgated by national organizations.

[19] See below for an analysis of repair actions and the division of labor and expense between tenants and landlords.

premises, the HAO housing evaluator asks the client about every repair completed since the last evaluation of that dwelling. When the visit is for a deficiency reevaluation, the repairs reported cover the usually brief interval since the dwelling failed a regular evaluation. When the occasion is a regular annual evaluation, the repairs reported cover all those completed during the preceding year.

We call the first type *initial repairs* because they usually occur at the onset of an enrollee's participation in the program, although they include some deficiency repairs following annual evaluations; virtually all are meant to correct housing defects that would otherwise forestall allowance payments. We call the second type *annual repairs* for the interval they cover. They are voluntary actions, although some may be made in anticipation of a forthcoming annual evaluation.[20]

We report here on 18 months (January 1976 through June 1977) of repair data for each site, covering 18,379 repair actions on client dwellings. Because the allowance programs were in different stages of development when we began collecting data, those for Brown County mainly concern annual repairs and those for St. Joseph County, initial repairs; but each site has reported abundant cases of both types.

Key Findings

- Initial repairs usually remedy health and safety hazards, whereas voluntary annual repairs usually correct major structural defects or deterioration.
- Clients and their friends do about 80 percent of the initial repairs to owner-occupied homes, calling in professional contractors for the remainder. Landlords, tenants, and tenants' friends divide the work on repairs to rented dwellings; contractors are called for only about 10 percent of such repairs.
- Because of both the nature of the repairs and the extensive use of unpaid nonprofessional labor, initial repairs rarely require cash outlays large enough to impede program participation.
- Except that contractors are used more often for annual repairs, the division of labor is similar to that for initial repairs. Contractors are used most often by elderly homeowners.
- Homeowners in the program typically spend $80 to $140 more on annual repairs than do unenrolled homeowners in the same broad income bracket.

Initial Repair

Those who repaired failed dwellings completed an average of 1.8 separate repair actions. Few undertook more than five; as noted earlier, the occupants of dwellings with many defects tended either to move or drop out of the program.

Table 4.8 shows the frequency with which different items were repaired by renters and owners in each site. Repairing windows and installing handrails were the most common actions, but structural components of the building and its plumbing and heating systems also got considerable attention. Clients in St. Joseph

[20] We use "repair" broadly to cover repair, replacement, or improvement.

Table 4.8

INITIAL REPAIRS TO ENROLLEES' DWELLINGS BY ITEM REPAIRED: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES, 1976-77

Item Repaired[a]	Percent of All Repairs			
	Brown County		St. Joseph County	
	Renter	Owner	Renter	Owner
Handrail or steps	19	32	20	33
Window, door, or partition	35	29	35	30
Structural component[b]	15	13	13	13
Plumbing system	6	5	12	10
Heating system or vent	11	10	6	5
Electrical system	4	5	5	4
Refrigerator or range	2	(c)	3	1
Grounds or fence	8	6	6	4
Other	(c)	(c)	(c)	(c)
All repairs	100	100	100	100
Number of itemized repairs	1,924	918	3,593	2,535
Number of dwellings evaluated	1,095	543	1,997	1,683

SOURCE: Tabulated by HASE staff from HAO records for January 1976 through June 1977.

NOTE: Repair actions were reported during deficiency reevaluations following failure of a regular evaluation. Nearly all corrected the defects that had been noted earlier by HAO evaluators, and nearly all occurred at the outset of a client's enrollment. However, the data include repairs reported during deficiency reevaluations following failed annual or movers' evaluations.

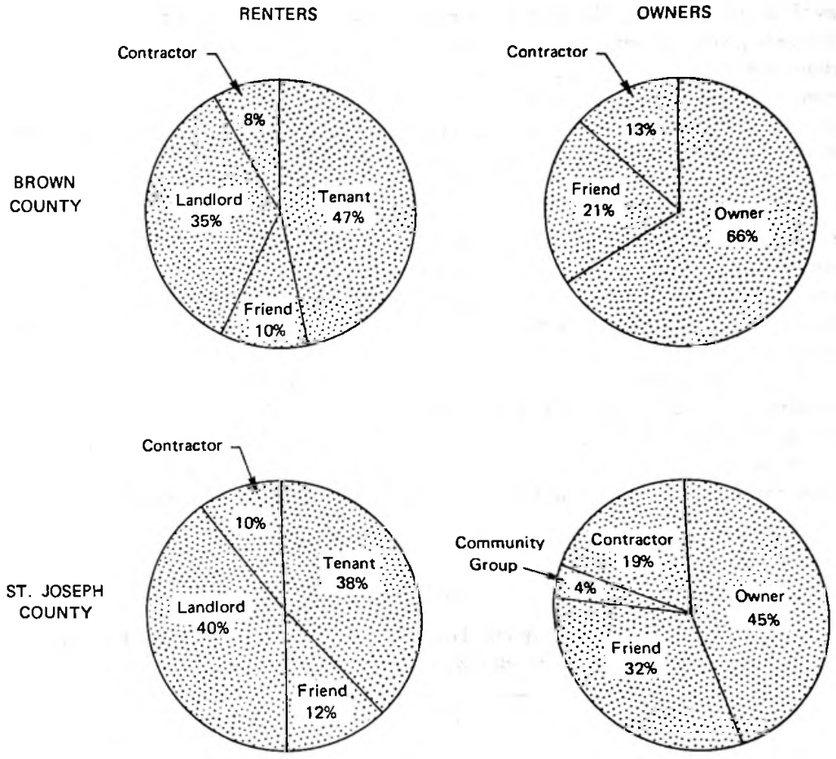
[a] Includes repairing or replacing existing items, installing new items, painting, removing hazardous materials, and connecting appliances or utility systems.

[b] Wall, floor, ceiling, roof, foundation, porch. Includes painting.

[c] Less than 0.5 percent.

County did more work on plumbing systems, whereas those in Brown County attended more to heating systems; otherwise there are few differences between the sites. Owners in both were more likely than renters to install handrails, probably because more single-family homes than apartments have two or more floors and, therefore, interior stairways.

A surprisingly large proportion of the work required by the HAO was within the competence of the property owners, occupants, or their friends (see Fig. 4.6). In Brown County, the enrollees themselves made half (renters) to two-thirds (owners) of the repairs; professional contractors were called for less than 10 percent of the work. In St. Joseph County, neither renters nor homeowners were as active as their counterparts in Brown County, but they more often got help from friends. The least active were homeowners in St. Joseph County, who relied on friends or community groups for 36 percent of all initial repairs and on contractors for 19 percent. One explanation for the differences between sites is that St. Joseph County's program has more elderly single persons and female-headed households, clients less likely to have the skills or stamina for repair work.



SOURCE: HAO records, January 1976 through June 1977.

Fig. 4.6—Division of labor on initial repairs to enrollees' dwellings: housing allowance programs in Brown and St. Joseph counties, 1976-77

Because many of the repairs were simple and much of the work was done without pay, the cash outlays for initial repairs were usually quite small. The median amount in both sites was about $10; three-fourths of the clients reported outlays of under $25 in Brown County and under $30 in St. Joseph County, and very few spent more than $100. Renters in both sites often paid for small repairs rather than billing their landlords.[21]

Annual Repairs

Between annual housing evaluations, allowance recipients (or their landlords) often repair their dwellings without prompting from the HAO. To learn about the extent of such voluntary repairs, the HAO asks about them during each annual

[21] See Table 4.10, below, for details.

evaluation. Our data for such repairs are less complete than for initial repairs, because a respondent must think back over the preceding year and the evaluator does not have a deficiency list to guide him. Moreover, a renter in a multiple dwelling may not know about repairs made by his landlord to other parts of the building; and even if he knows about a repair arranged and paid for by his landlord, he is unlikely to have exact information on its cost.

Not every dwelling is repaired each year. Apparently, both homeowners and landlords customarily wait until problems accumulate, then remedy several during the same year. Our data indicate that the dwellings of about 42 percent of the renters and 72 percent of the owners were repaired at least once during the year preceding their annual housing evaluations. Renters whose dwellings were repaired reported an average of 2.0 repair actions; for owners, the average was 2.7 actions.

Table 4.9 classifies those repairs. Structural components account for half of the repairs in St. Joseph County and over half in Brown County. Plumbing repairs follow in order of frequency, then repairs to windows, doors, and partitions.

In contrast to the initial repairs shown in Table 4.8, the annual repairs more often involve major work on the structure or its utility systems. Only part of the

Table 4.9

ANNUAL REPAIRS TO RECIPIENTS' DWELLINGS BY ITEM REPAIRED: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES, 1976-77

Item Repaired[a]	Percent of All Repairs			
	Brown County		St. Joseph County	
	Renter	Owner	Renter	Owner
Handrail or steps	3	3	3	3
Window, door, or partition	9	10	13	10
Structural component[b]	58	54	50	49
Plumbing system	12	13	22	20
Heating system or vent	3	4	3	5
Electrical system	4	3	3	3
Refrigerator or range	4	2	1	2
Grounds or fence	4	6	3	5
Other	3	5	2	3
All repairs	100	100	100	100
Number of itemized repairs	1,427	2,568	1,147	4,205
Number of dwellings evaluated	1,625	1,310	1,315	2,093

SOURCE: Tabulated by HASE staff from HAO records for January 1976 through June 1977.

NOTE: Repair actions were reported during annual evaluations of dwellings previously certified and occupied by allowance recipients. They cover voluntary repairs completed during the year preceding evaluation.

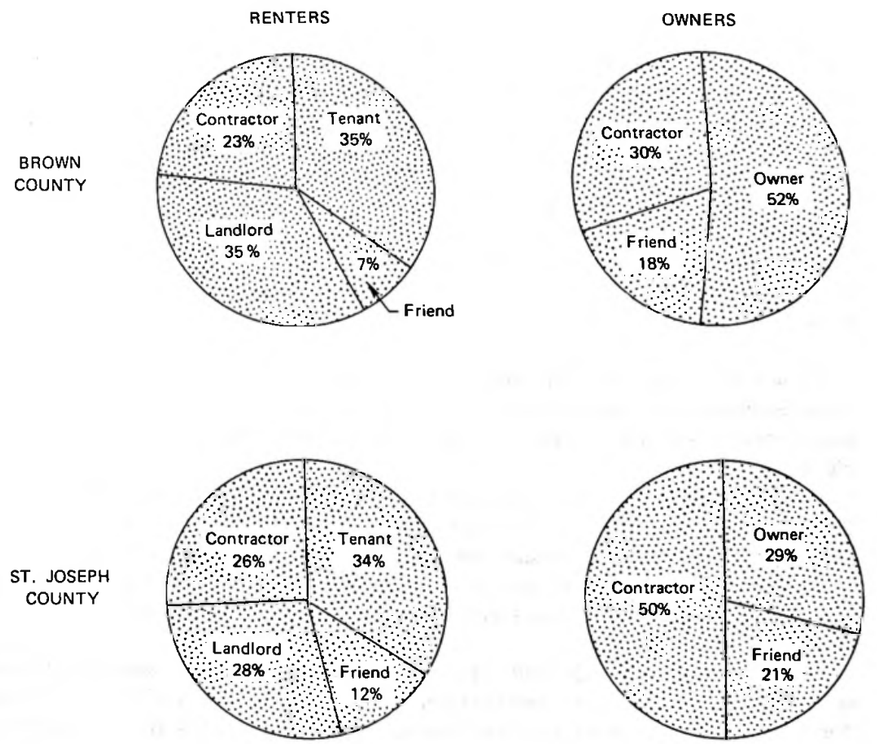
[a]Includes repairing or replacing existing items, installing new items, painting, removing hazardous materials, and connecting appliances or utility systems.

[b]Wall, floor, ceiling, roof, foundation, porch. Includes painting.

difference is reflected in the greater emphasis of annual repairs on structural components and plumbing; even when the same item (e.g., a window) is repaired, voluntary annual repairs are usually more substantial and more expensive (e.g., replacing a sash as opposed to prying open a stuck window).

Nonetheless, occupants, their friends, and their landlords did much of the work. As shown in Fig. 4.7, contractors were employed for only about fourth of the repairs to rented dwellings but up to half of those on owner-occupied homes. On rented properties, tenants and their friends together did about 45 percent of the work. As with initial repairs, owners in St. Joseph County were the least likely to do their own work.

Unlike the initial repairs, nearly all annual repairs required cash outlays. As shown in Table 4.10, the median outlay per repaired dwelling was $65 to $75 for rented homes and $210 to $250 for owner-occupied homes, the larger values being those for St. Joseph County. However, since only 44 percent of the rented homes and 74 percent of the owner-occupied homes in each site were repaired during the year in question, the medians per evaluated dwelling are considerably less. It is also



SOURCE: HAO records, January 1976 through June 1977.

Fig. 4.7—Division of labor on annual repairs to recipients' dwellings: housing allowance programs in Brown and St. Joseph counties, 1976-77

Table 4.10

CASH OUTLAYS FOR REPAIRS TO CLIENTS' DWELLINGS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES, 1976-77

Site and Housing Tenure	Cash Outlay ($) per Dwelling				Number of Dwellings	
	All Evaluated Dwellings		Repaired Dwellings Only			
	Median	Average	Median	Average	Evaluated	Repaired
Initial Repairs						
Brown County:						
Renter	7	38	8	39	1,095	1,059
Homeowner	10	55	10	55	543	536
St. Joseph County:						
Renter	10	35	10	37	1,997	1,885
Homeowner	10	78	11	81	1,683	1,620
Annual Repairs						
Brown County:						
Renter	(a)	88	65	202	1,625	714
Homeowner	105	324	210	437	1,310	971
St. Joseph County:						
Renter	(a)	116	75	269	1,315	571
Homeowner	125	347	250	467	2,093	1,557

SOURCE: Tabulated by HASE staff from HAO records for January 1976 through June 1977.

NOTE: Entries include cash outlays for labor and materials insofar as they were known to the dwelling occupant or could be estimated by the evaluator. Repairs made by landlords and their costs were not always known to tenants, so entries for renters are probably underestimates.

[a]Less than half of all renters reported any repairs during the preceding year.

notable that most of the entries for St. Joseph County are about a third higher than their Brown County counterparts. The difference partly reflects the greater use of contractors (instead of unpaid labor) and perhaps also more substantial repairs in St. Joseph County.

Cash outlays for annual repairs to rented dwellings were made by both landlords and tenants. Although we are not sure that the tenants knew about all such repairs or their cost, tenants said that they paid for 28 percent in Brown County and 45 percent in St. Joseph County. Closer examination of the data indicates that tenants tended to pay for the less expensive repairs, their landlords footing the bills for major items.

Our most comprehensive and reliable data on annual repairs come from homeowners. We have compared the HAO-collected data for each site with similar data for homeowners, gathered in our baseline surveys of households. Both the median and average cash outlays per dwelling are higher for allowance recipients than for baseline homeowners whose incomes were under $7,000, as the following shows:

	Brown County		St. Joseph County	
	Median	Mean	Median	Mean
Recipient homeowners	$105	$324	$125	$347
All low-income homeowners . .	56	182	50	268

Indications of Program Effectiveness

When the experimental allowance program was planned, it was generally assumed that those living in substandard housing could not afford the maintenance needed to keep it in good condition, and that housing allowances would enable them to do so. Our data on the initial repairs made to dwellings rated unacceptable by the HAO cast considerable doubt on this assumption. Most of the repairs remedied health or safety hazards noted by evaluators in the dwelling or on its premises. Only in a fourth of the cases did the client or his landlord spend more than $25 or $30 to bring the dwelling up to HAO standards, amounts that could usually be recovered from the first month's allowance payment.

The main reason the repairs were so inexpensive is that clients, their friends, and their landlords did most of the work, so that the cash outlays covered only purchased materials. Paid labor was used for only about 10 percent of the repairs to rented dwellings and less than 20 percent of those to owner-occupied homes.

It appears that the HAO housing evaluators usually brought to the clients' attention housing defects of which the clients were either unaware or which were unimportant to them, and the conditional offer of the housing allowance provided an effective incentive for repairing the dwelling. Local housing code enforcement might accomplish the same result, but its incentives are negative and inspections are usually made only to follow up third-party complaints.

Those findings should be qualified by noting that only two-thirds of the failed dwellings are repaired by or at the behest of their occupants, and those that are not repaired tend to be in worse condition than those that are repaired.[22] Occupants of seriously defective dwellings are more likely either to move or to drop out of the program than to repair those dwellings. In the former case, the enrollee gets better housing even if the housing stock is not improved.

Those and related findings have led us to plan further research on the circumstances and motivation of enrollees who live in failed dwellings and neither repair nor move. Equally important, however, is the inference that the health and safety hazards to which most low-income households are subject can be remedied inexpensively, given appropriate incentives. If confirmed by subsequent analysis, that conclusion is of major importance for federal housing policy.

The data so far examined do not resolve the question how allowances affect housing maintenance over the longer run. As noted in Sec. II, about a fifth of recipients' dwellings in Brown County and two-fifths in St. Joseph County fail their annual evaluations, indicating deterioration during the preceding year. Most are promptly repaired to avoid suspension of allowance payments, indicating the continuing effectiveness of program incentives. We cannot judge from a comparison of initial and annual failure rates whether program participants do more voluntary

[22] See Table 4.6, above. Close to 80 percent of those that failed because of a single defect but less than 40 percent that failed because of four or more defects were repaired.

maintenance after enrollment than before. The evidence from annual repair expenditures made by homeowners in the program is also ambiguous. They spend more than other low-income homeowners, but their expenditures could nonetheless be no higher postallowance than preallowance. We believe further analysis will clarify the issue.

One important effect of the program is the apparent cooperation it induces between tenants and landlords. Our countywide surveys of households reveal very little activity by renters in repairing their dwellings; however, renters in the program do a substantial share of both initial and annual repairs and bear a considerable share of the cash costs. Although tenants' contributions enhance the value of the landlord's property, the record of postrepair rent increases suggests that landlords rarely take such improvements as appropriate occasions for rent increases.[23] Certainly, the prospects for good maintenance of rental housing are greatly enhanced if both parties share the responsibility.

HOUSING EXPENDITURES

Housing allowances are designed to enable each recipient to afford adequate housing without spending more than a fourth of his adjusted gross income for shelter and utilities. Here, we examine how well the program meets that objective, presenting data on clients' housing expenses and how they relate to both income and housing quality.

The analysis deals first with clients' circumstances when they enrolled, as reported in records for 4,241 enrollees in Brown County and 5,785 in St. Joseph County. We then examine changes in housing expenditures between enrollment and first certification, excluding records for those whose housing was never certified and certain others whose circumstances introduce analytic complications. Finally, we consider expenditure changes for renters who were receiving payments at the end of the second program year. Even in the last case, the average duration of enrollment was under a year, so little can as yet be learned about longer run program effects on housing expenditures.

Key Findings

- Nearly 90 percent of the enrolled renters in each site and at least 75 percent of the enrolled owners were spending more than a fourth of their incomes for housing when they enrolled. Most of the renters were spending more than half their incomes for housing.
- Preenrollment housing expenses as measured by the HAOs were widely distributed about the program's standard cost of adequate housing, most renters spending more and most owners spending less. As assessed by the HAO, housing quality was only loosely linked to housing expenses.
- Housing allowances typically offset from one-third to two-thirds of a recipient's housing expenses. Because many renters spent more than the standard amount, their allowances only partly closed the gap between actual expenses and a fourth of income. Homeowners' allowances came

[23] *See below, Table 4.13.*

closer to closing that gap, but only because their housing expenses are underestimated.
- Nearly all homeowners and most renters who qualified for payments stayed in their preenrollment dwellings, repairing them as necessary to meet program standards. Their housing expenses increased very little subsequent to enrollment— for renters, no more than can be explained by general price inflation.
- Renters who moved either before or after first certification paid substantially more for their new homes. By the end of the second program year, about a third of all renter participants in each site had moved and were typically paying 35 to 50 percent more in contract rent than at enrollment.
- Among those who eventually qualified for payments, larger increases in housing expenses were reported by those whose preenrollment dwellings were substandard. The relationship holds for both movers and nonmovers, although the percentage increases were small for nonmovers whose dwellings were repaired.
- In St. Joseph County, where property values are low, 82 enrollees bought homes with aid of their allowance. They were able to secure financing (land contracts or FHA (Federal Housing Administration)-insured loans) despite their general lack of assets, their low incomes, and their dependence on transfer payments.

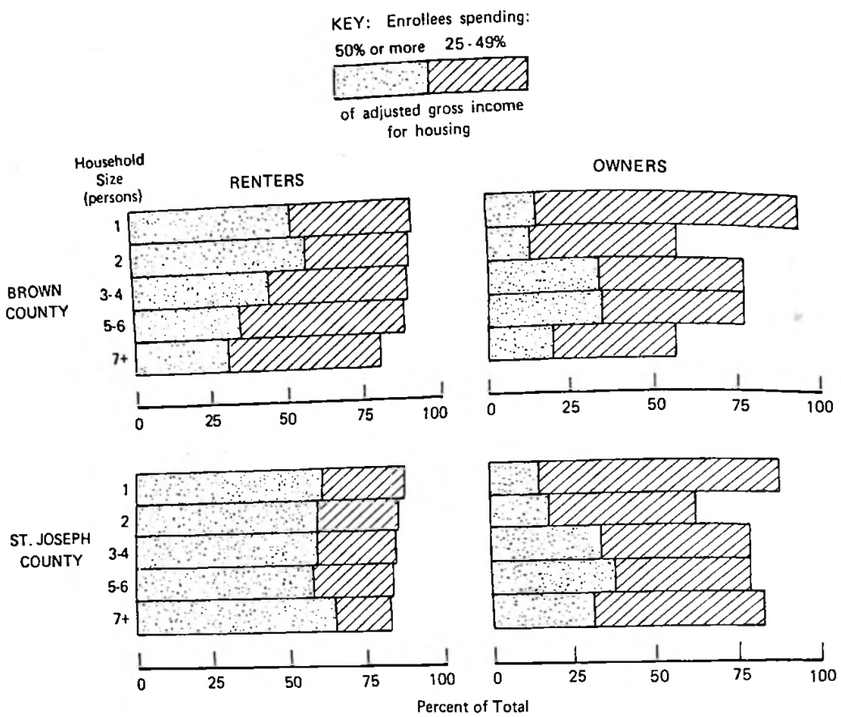
The Housing Gap at Enrollment

A household's eligibility and allowance entitlement is based on its adjusted gross income, with deductions favoring the elderly, those with large families and secondary wage earners, and those with extraordinary medical or child-care expenses. Among those enrolling during the first two program years, adjustments ranged as high as $3,000; the median was $725. After adjustment, the median gross incomes of enrollees were as follows:

	Renter	Owner
Brown County	$3,400	$3,800
St. Joseph County . .	2,500	3,300

If as Congress has repeatedly specified no more than a fourth of adjusted gross income should be spent for shelter and utilities, the median incomes reported above would support monthly housing expenditures of $52 to $79—less than the usual cost of a rented room in either Brown County or St. Joseph County. In fact, housing expenses exceeded a fourth of adjusted gross income for 90 percent of the renter enrollees and 75 percent of the homeowner enrollees (see Fig. 4.8).

As calculated by the HAO and reported here, renters' expenses consist of actual contract rent plus standard allowances for any utility costs paid directly by the tenant. Homeowner's expenses comprise actual real estate taxes and mortgage interest payments plus standard allowances for insurance, maintenance, and utility expenses. Mortgage principal payments are excluded, as is the opportunity cost of a homeowner's equity investment. Excluding amortization is appropriate, since those payments represent increases in the owner's equity, not housing expenses.



SOURCE: HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

Fig. 4.8—Enrollees spending more than a fourth of adjusted gross income for housing: housing allowance programs in Brown and St. Joseph counties through year 2

Excluding the foregone earnings on equity that might have been otherwise invested causes the HAO to underestimate most homeowners' true housing expenses by considerable amounts—for example, by about $80 monthly on a $20,000 home owned free and clear.[24]

As the figure shows, excessive housing expenses were common among both small and large households. Overall, about 40 percent of the renters in Brown County and 60 percent in St. Joseph County spent more than half their incomes for housing. The figure suggests that housing expense is a less serious problem for homeowners, but the suggestion is misleading because our data underestimate homeowners' expenses.[25]

[24] This estimate assumes that the homeowner could have invested the $20,000 at 5.0 percent had it not been tied up in his home. Inconsistently, the HAO counts 5.0 percent of ownership equity as income for program purposes. The value of the equity is estimated to be the difference between the equalized assessed value of the home and the unpaid mortgage balance, if any.

For background on these rules, see Ira S. Lowry, *Equity and Housing Objectives in Homeowner Assistance*, The Rand Corporation, WN-8715-HUD, June 1974. It should be noted that the calculated housing expense affects allowance payments only as a ceiling that is rarely binding.

[25] We are currently working on methods to estimate the omitted item—opportunity cost of equity. The problem is complicated by the fact that official equalized assessed values in both sites diverge considerably from other estimates of market value.

Housing Expense and Housing Quality

The schedule of standard housing costs (R^*) used by each HAO to determine a household's allowance entitlement (given its size and income) was based initially on a marketwide survey of rental housing. Comparing each unit's gross rent with its size, equipment, and condition, we chose values for R^* such that an enrollee searching the market could probably find a dwelling that met program standards without paying more than that amount.[26]

Those who enrolled in the program reported housing expenses that range widely around the pertinent values of R^* (see Table 4.11). Despite their low incomes, about half the renters in each site spent substantially more and only a fourth spent substantially less than the typical cost of decent, safe, and sanitary housing as indicated by our surveys. Although our data on homeowners' expenses indicate that a majority spent less than R^*, we again remind the reader that owners' expenses are systematically underestimated.

Those who paid R^* or more did not necessarily get housing that was adequate by HAO standards. The initial failure rate was about the same (75 percent) for rented dwellings whose gross rents were close to R^* as for those with lower rents. Even dwellings whose rents were at least 10 percent above R^* had only a 54 percent chance of passing their initial evaluation in Brown County and a 39 percent chance in St. Joseph County. The pattern for owner-occupied homes is similar.

The loose association between housing expense and HAO-measured housing quality implies that consumers of housing do not judge dwellings according to HAO standards. The HAO may fail a dwelling for a defect that is not perceived by or does not greatly concern the enrollee—even though the defect (in our judgment) is hazardous. The typically small cost of repairing those defects (see above, Table 4.10) confirms that most of the defects could have been repaired by enrollees even without financial aid, but they were not repaired until the program provided an incentive.

Closing the Housing Gap

In the usually short interval between enrollment and first certification of an enrollee's dwelling, his HAO-measured housing expenses rarely changed even if his dwelling was repaired. Here, we examine the effect of allowances on the budgets of the 92 percent of all recipients who reported the same expenses at enrollment and first certification.[27]

The housing allowance may be viewed as either an increment to income or a reduction in housing expense. The first view would be appropriate for an unrestrict-

[26] See Ira S. Lowry, Barbara M. Woodfill, and Tiina Repnau, *Program Standards for Site I*, The Rand Corporation, WN-8574-HUD, January 1974; and Lowry, Woodfill, and Marsha A. Dade, *Program Standards for Site II*, The Rand Corporation, WN-8974-HUD, February 1975. Table 2.2 of the present report shows each site's initial schedule and its subsequent revisions to reflect inflation in fuel and utility costs. During the first two program years, only one such revision was made in each site, 21 months after open enrollment began in Brown County and 18 months after open enrollment began in St. Joseph County.

[27] To further simplify the analysis, we exclude a few recipients who were paid less than their full entitlement or whose entitlement changed between enrollment and first certification. The former circumstance reflects actual housing expenses less than entitlement and the latter reflects a change in income or household size. After all exclusions, the population analyzed here comprises 3,117 households in Brown County and 3,893 in St. Joseph County. In the two sites combined, it amounts to 92 percent of all recipients and 70 percent of all enrollees.

Table 4.11

ENROLLEES' ACTUAL HOUSING EXPENSE RELATIVE TO STANDARD COST: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH YEAR 2

Housing Expense/ Standard Cost (R^*)	Percent of All Cases by Site and Tenure			
	Brown County		St. Joseph County	
	Renters	Owners	Renters	Owners
Less than .50	1.6	5.0	2.8	1.8
.50-.59	2.1	9.3	2.5	8.0
.60-.69	4.6	12.4	4.2	17.3
.70-.79	7.1	16.4	5.4	22.6
.80-.89	10.4	14.4	10.6	16.1
.90-.99	11.2	10.4	12.8	11.2
1.00-1.09	14.5	7.6	13.8	7.1
1.10-1.19	14.1	6.8	12.8	4.8
1.20-1.29	11.0	4.2	11.6	3.2
1.30-1.39	7.7	3.0	8.5	2.6
1.40-1.49	7.2	3.1	5.5	2.1
1.50 or more	8.5	7.4	9.5	3.2
All cases	100.0	100.0	100.0	100.0
Median ratio	1.08	.84	1.08	.80

SOURCE: Tabulated by HASE staff from HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

NOTE: Entries in the table cover 2,491 renters and 1,750 owners in Brown County and 2,666 renters and 3,119 owners in St. Joseph County who enrolled in the allowance program before the end of year 2. Housing expenses are those reported at enrollment and are compared with the value of R^* appropriate to the size of the enrolleé's household and in effect when the household enrolled. (The schedules were revised in both sites near the end of year 2.)

See accompanying text for explanation of actual housing expenses. Those for homeowners are substantially underestimated.

ed cash transfer and the second for a firmly "earmarked" transfer. In fact, the allowance falls somewhere between; it is available for any kind of expenditure but is paid only to those who meet the HAO's housing standards. The explicit budgetary aim of the program is to offset all necessary housing expenses in excess of a fourth of adjusted gross income, which the allowance formula does automatically.

At enrollment, entitlement ranges from a minimum of of $10 monthly for a household near the income limit to a maximum of R^* for a household with no income; but the distribution of entitlements clusters around a central value for each size of household in each site. The first panel of Table 4.12 shows the median amount for renter and owner households of each size; the values range from $38 for small owner households in Brown County to $116 for large renter households in St. Joseph County. The second panel of the table shows that the allowance typically augments adjusted gross income by 10 to 42 percent, the extreme values

Table 4.12

ALLOWANCE AMOUNT RELATIVE TO INCOME AND HOUSING EXPENSE: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH YEAR 2

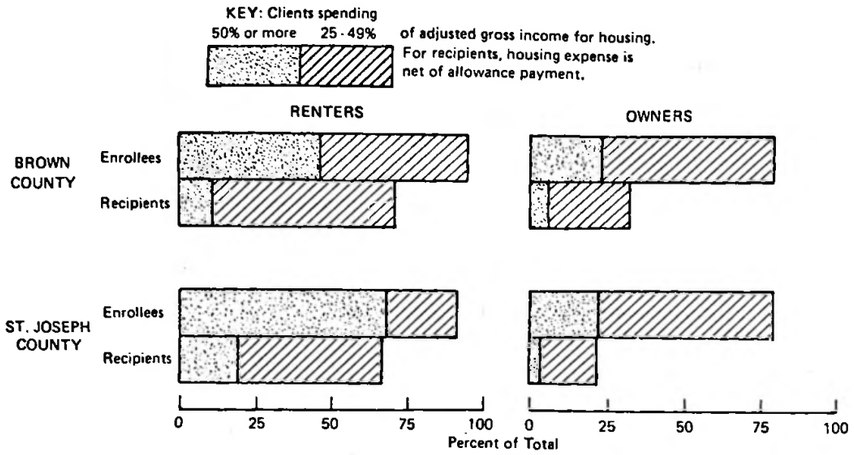
Household Size (persons)	Brown County		St. Joseph County	
	Renters	Owners	Renters	Owners
Median Monthly Allowance ($)				
1	47	39	56	43
2	61	38	80	42
3-4	76	58	100	62
5-6	78	74	108	73
7+	93	77	116	87
All sizes	61	46	80	48
Median Ratio: Allowance/Adjusted Gross Income				
1	.22	.15	.27	.18
2	.22	.10	.35	.12
3-4	.22	.13	.39	.15
5-6	.21	.18	.37	.19
7+	.24	.12	.42	.26
All sizes	.22	.14	.33	.16
Median Ratio: Allowance/Gross Housing Expense				
1	.42	.45	.47	.53
2	.38	.42	.54	.45
3-4	.44	.35	.60	.45
5-6	.46	.42	.57	.50
7+	.54	.45	.66	.59
All sizes	.42	.42	.55	.49

SOURCE: Tabulated by HASE staff from HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

NOTE: Ebtries in this table cover 3,117 recipients in Brown County and 3,893 in St. Joseph County whose first authorized payments equalled their maximum entitlement at the time they enrolled. Income and housing expense are also as reported at enrollment.

pertaining to the household types named above. Because homeowners tend to have larger incomes than renters, they tend to get smaller allowances; because incomes are smaller in St. Joseph than in Brown County, allowances tend to be larger. The third panel of the table shows that the allowance typically offsets 35 to 66 percent of the recipient's actual housing expenses. The median offset does not seem to vary systematically by tenure or household size, but is larger in St. Joseph County.

Considering the allowance strictly as an offset to housing expense, it substantially reduces the preenrollment "housing gap" described earlier. Figure 4.9 shows that a fourth of the renters and nearly two-thirds of the owners who were spending more than 25 percent of their incomes for housing at enrollment closed the gap completely. The proportion spending more than 50 percent of their incomes for housing shrank dramatically.



SOURCE: HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

Fig. 4.9—Effect of allowances on enrollees' housing gaps: housing allowance programs in Brown and St. Joseph counties through year 2

Even after deducting their allowances from their housing expenses, two-thirds of all renters and a third of all owners were spending more than 25 percent of their incomes for housing. That outcome does not indicate program failure; it results from most enrollees spending more for housing than we judged necessary to secure adequate quarters. The finding does, however, raise three issues of program design:

- Is the legislative standard for housing expenses (i.e., 25 percent of adjusted gross income) appropriate for the incomes of those eligible for housing allowances?
- Are the housing standards enforced by the HAO appropriate reflections of the public interest in housing consumption?
- Does the schedule of standard costs on which allowances are based accurately reflect supply costs for acceptable housing?

We will return to these questions after reviewing postenrollment changes in housing expense and home purchases.

Postenrollment Changes in Housing Expense

Only 5 percent of those who qualified for payments reported a change in housing expenses between enrollment and first certification. Those who did were virtually all renters who moved. After first certification, more renters (and a few homeowners) moved. Because our findings for movers before and after certification are similar, we will compare them jointly with nonmovers. Because homeowners rarely moved and because the housing expenses of nonmoving homeowners changed only as the HAO's standard allowances for utility expenses were increased, we limit the discussion to renters.

Our findings are based on records for 1,596 renters in Brown County and 1,722 in St. Joseph County who were still enrolled and receiving payments at the end of the second program year. Since they enrolled at different times, they were differently exposed during enrollment to rent increases or moves. The average duration of enrollment for movers was 15 months in Brown County and 13 in St. Joseph County; for nonmovers, 12 and 10 months.

Table 4.13 reports on the changes in contract rent[28] experienced by those households, excluding a few discussed separately below. A majority of the movers in each site but a minority of the nonmovers reported rent increases between enrollment and the end of year 2. The movers had of course changed dwellings; on the average they paid 34 percent more in Brown County and 45 percent more in St. Joseph County for their new homes. The nonmovers' landlords had raised rents an average of 4 percent in Brown and 2 percent in St. Joseph County.

Rent increases were most common, and the average increase was greatest, for movers whose enrollment dwellings failed their initial evaluation and who thereupon moved to an acceptable dwelling. However, those who moved from one acceptable dwelling to another also paid substantially more after moving.[29]

Rent increases reported by nonmovers also vary with the condition of their homes at enrollment. Those who stayed in acceptable dwellings reported increases below the general level of rent inflation in each site during the period covered. Those who stayed in failed dwellings must have arranged with their landlords for repairs, and the landlords appear to have recouped the repair expenses by raising rents slightly more than would be needed to compensate for general inflation.[30]

A small but interesting group is omitted from Table 4.13: households who at enrollment were living rent-free in dwellings owned by others, presumably relatives or friends. We have records on 44 such households in Brown County and 108 in St. Joseph County. Seventy-five and 90 percent, respectively, moved after enrolling to a dwelling for which they paid rent; the remainder stayed in the same dwelling but began paying rent. The allowance program apparently ended their dependence on private charity.

Home Purchase

During the first two program years, 28 enrolled renters in Brown County and 82 in St. Joseph County bought homes. We account for the difference mainly by the fact that homes were a third more expensive in Brown County. Most of the buyers

[28] Contract rent is the amount paid to the landlord in return for shelter and any utility services provided by him. The data thus do not rely on estimation by the HAO, but neither do they include all renter housing expenses. The omitted tenant-paid utility expenses are much more likely to change because of utility rate changes than because of changes in consumption.

[29] Not all movers paid more. Fifteen percent in Brown County and 19 percent in St. Joseph County reported lower postmove rents, most often when they moved from one acceptable dwelling to another. Also, we find that the average amount of the increase varies with duration of residence in the enrollment dwelling: Longterm tenants apparently are partly sheltered from rent inflation, paying lower rents than do new tenants in comparable quarters.

[30] We estimate the average annual increase in contract rent for all rental units to have been 4.4 percent in Brown County and 3.1 percent in St. Joseph County; see Sec. V for details. Although the average duration of enrollment for nonmovers described in Table 4.13 is exactly 12 months in Brown County, it is just under 10 months in St. Joseph County; so the average reported rent increase in the latter place is not an annual rate. However, annualizing brings the reported increase for participants in St. Joseph County to 2.8 percent, less than the countywide figure of 3.1 percent.

Table 4.13

POSTENROLLMENT CHANGES IN CONTRACT RENT FOR PARTICIPANTS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH YEAR 2

Site and Postenrollment Mobility Status	Percent with Rent Increases by Initial Evaluation Result			Average[a] Rent Change (%) by Initial Evaluation Result		
	Pass	Fail	Total[b]	Pass	Fail	Total[b]
Brown County:						
Nonmovers	30	32	31	3	7	4
Movers	69	84	78	23	42	34
St. Joseph County:						
Nonmovers	13	15	14	1	3	2
Movers	66	74	70	32	46	45

SOURCE: Tabulated by HASE staff from HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

NOTE: Entries are based on records for 1,531 renter enrollees in Brown County and 1,543 in St. Joseph County who were receiving payments at the end of year 2. Those counts exclude 65 and 179 renters, respectively, whose rent records were defective or who were living rent free when they enrolled. See Table 5.12 for added detail on movers.

[a]Excludes rent increases of 500 percent or more. Such cases are usually renters who paid less than market rents at enrollment because of special relationships with their landlords.

[b]Includes 62 cases in Brown County and 136 in St. Joseph County for which initial evaluations were not attempted because the enrollment dewllings were public housing or because the enrollee moved before an evaluation could be scheduled.

there were young couples whose eligibility for the allowance program resulted from factory layoffs during the 1973-74 recession. When they were recalled to work, they bought homes while still enrolled, but usually dropped out of the program voluntarily or when the next semiannual recertification revealed that they were no longer eligible.

Table 4.14 describes the first 82 homebuyers in St. Joseph County. Three-fourths are households headed by women and two-fifths rely on AFDC for part or all of their nonallowance incomes. Another fifth rely on social security or supplemental security income, and the others on various mixtures of earnings, recurring cash contributions, child support payments, unemployment compensation, etc. Only 32 reported any earned income.

As might be imagined, gross incomes from those sources were small, averaging $4,300. Even including the average housing allowance of about $940 annually, few households had the income ordinarily needed to buy a home. That so many were able to do so reflects three special factors, none operating strongly in Brown County.

The first is the low prices of single-family houses in central South Bend. Judging by the average indebtedness incurred to make the purchases, the purchase prices could not have averaged much over $10,000.[31] Closely related is the willingness of

[31] *In the 36 cases for which purchase price was clearly recorded, the average amount was $9,900.*

Table 4.14

SELECTED CHARACTERISTICS OF ENROLLED HOMEBUYERS: HOUSING ALLOWANCE PROGRAM IN ST. JOSEPH COUNTY THROUGH YEAR 2

Annual Gross Income Plus Allowance[a] ($000)	Number Buying Homes	Average Household Size (persons)	Percent Headed by Women	Percent Receiving AFDC[b]	Average Mortgage Amount[c] ($000)
Under 3.0	4	1.5	75	--	9.7
3.0-3.9	21	2.9	67	48	9.5
4.0-4.9	13	3.8	69	62	8.6
5.0-5.9	14	3.9	86	29	10.0
6.0-6.9	18	4.3	83	39	10.8
7.0-7.9	7	4.9	57	43	12.8
8.0-8.9	5	5.2	80	60	12.3
All cases	82	3.8	74	43	10.2

SOURCE: Tabulated by HASE staff from HAO records through December 1976 for St. Joseph County.

NOTE: Households described in this table enrolled as renters and bought homes before December 1976. All received payments as renters, as owners, or both.

[a]At time of enrollment.

[b]Aid to Families with Dependent Children.

[c]Estimated from other information in four cases.

the owners of low-priced properties to finance a sale by means of a land contract. Finally, the FHA will insure loans to borrowers who have good credit ratings but only transfer income, and treats the housing allowance favorably in estimating a borrower's ability to carry a loan. Mortgage banks are active in St. Joseph County and readily write FHA loans, whereas commercial banks and savings and loan associations there and in Brown County do not.

Compared with renting, buying a low-priced home in St. Joseph County is economical. Debt service, real estate taxes, and insurance on a $10,000 home total about $1,200 annually. Heating fuel, utility services, and normal maintenance add $400 to $500 to a homeowner's annual costs. A yearly cash outlay of $1,500 to $1,700 is thus required to support ownership of a modest home. By way of comparison, the median annual expenditure for contract rent, fuel, and utilities by those receiving allowance payments in December 1975 was just over $1,800. In short, at least half the renter enrollees could afford owning a home as easily as renting.

Indications of Program Effectiveness

Our data on enrollees show that housing expenses were a severe burden for the great majority and that about half also occupied substandard dwellings. About 80 percent of all those who enrolled obtained relief on one or both counts. Measured narrowly against its explicit objectives and standards, the program is quite effective.

A broader judgment requires considering also the appropriateness of the explicit objectives and standards, some set by law and others adopted by the HAOs, with

HUD's concurrence. The issues here are not subject to scientific resolution, though analysis can enlighten social judgments.

The rule that housing expenses should not exceed a fourth of income is manifestly a crude measure of budgetary stringency, taking account neither of differences in the amount of income nor of differences in competing consumption needs that accompany variations in household size and composition. Its crudity is considerably tempered by the prescribed adjustments to gross income, which favor the elderly, those with large families and secondary wage earners, and those with extraordinary medical or child-care expenses. However, no account is taken of the income and social security taxes imposed on earners but not on those who receive transfer payments.

In their preenrollment housing expenditures, HAO clients paid no attention to the fourth-of-income rule. The great majority spent more; indeed, two-thirds of all renters and a third of all owners spent even more than our surveys indicated was necessary to secure decent, safe, and sanitary housing under current market conditions. Thus, allowances narrowed but did not close the so-called housing gap.

The schedules of standard housing cost on which entitlements were based became increasingly obsolete as fuel and utility costs rose, but they were not updated until near the end of the second program year. By then, they lagged market prices by about 15 percent in Brown County and 10 percent in St. Joseph County. While more frequent updating would have increased allowances, a substantial housing gap would have remained.

Inflation aside, we still judge that the schedules of standard cost reasonably reflect the level of housing quality at which the program aims.[32] Although about half the enrollees who were paying substantially more than R^* lived in dwellings that failed the initial HAO evaluation, most of those dwellings were readily and inexpensively repaired to meet HAO standards. By and large, we think that housing expenditures greater than R^* reflect participants' preferences for housing features not deemed essential by the HAOs.

It does not surprise us that consumers' priorities in housing characteristics deviate from informed technical judgments, particularly as regards health and safety hazards. In a sense, the program bribes its participants to pay attention to housing defects that may not much concern them. An unrestricted cash transfer would not accomplish that objective; we also doubt that it would much affect housing expenditures.[33]

It appears that most HAO clients are reasonably satisfied with their housing. Few respond to receipt of an allowance by moving immediately or by markedly increasing their housing outlays. Instead, they do what is required to meet the program's housing standards and treat the allowance as a general budgetary supplement. Some renters moved to qualify for payments, and others moved subsequently; these movers are the only group of program participants whose housing

[32] An exception is adequate housing for one- and two-person households, the cost of which was underestimated by the initial schedule in both sites. The underestimates of $5 to $10 monthly were corrected in the first revision of each schedule.

[33] Cross-sectional analyses of housing expenditures by all renters in the two experimental sites indicate that the income elasticity of those expenditures is far below conventional estimates once life-cycle stage is taken into account. See Kevin F. McCarthy, *Housing Choices and Residential Mobility in Site II at Baseline*, The Rand Corporation, WN-9737-HUD, September 1977, pp. 38-45. For renters with incomes below $7,500, McCarthy concludes that the income elasticity of housing expenditures is zero.

expenditures increased substantially. The increased housing expenditures of nonmovers reflect only general price inflation, with a small surcharge for program-mandated repairs.

So far, we can comment only on shortrun expenditure responses to housing allowances. It may be that as participants become more accustomed to their increased resources, more of them will increase their housing expenditures beyond what is needed to meet program standards and offset inflation.

HOW CLIENTS VIEW THE PROGRAM

The experimental allowance program was designed to ameliorate the housing problems of low-income families. One test of its effectiveness is how its intended beneficiaries view the program. As in other income transfer programs, many who are eligible have not applied, either because they lack information or because, based on what they know, they choose to forego its benefits. Those who do apply and are found eligible then learn more about how the program operates and the advantages and disadvantages of participating.

Here we discuss the views of the latter group, those who have enrolled.[34] Our data came from interviews with 240 household heads in Brown County and 567 in St. Joseph County, all of whom said they had applied for assistance, had been found eligible, and had signed a participation agreement. Of them, about three-fourths in Brown County and two-thirds in St. Joseph County were receiving payments at the time of the interview. The others were either awaiting certification, had failed a housing evaluation, or else had dropped out of the program. As reported here, their responses are unweighted and, because of different survey sampling rates for renters and homeowners, greatly overrepresent the renters in the allowance program.

The interviews were part of our wave 2 survey of households, conducted by an independent survey research firm. Although it was generally known that the survey was "part of the experiment," the interviews were conducted in the respondents' homes, had no visible connection with the administration of the allowance program, and were preceded by a pledge of confidentiality. There is thus little reason to suppose that responses were tempered to protect relationships with the HAOs. However, it should be noted that those who apply to the program are self-selected; unless soured by subsequent experiences, their views of the program are surely more favorable than those of eligibles who know about it but don't apply.

Key Findings

- Nearly all clients in both sites approved of the program and felt well treated by its staff. Only 4 percent in Brown County and 10 percent in St. Joseph County were generally dissatisfied.
- In Brown County, many satisfied clients were unwilling to judge the general value of the program. In both sites, those with definite opinions were

[34] General community attitudes are discussed in Sec. V, including the views of those who were probably eligible but had not yet applied.

highly favorable and approvingly distinguished allowance recipients from welfare clients.

- Most clients understood the connection between allowance entitlement and income, but only a third clearly understood that a rent increase would not change their allowance. However, most thought their allowance was adequate.
- Only a minority of clients advocated changes in the program. In St. Joseph County, the most frequent recommendations were for larger allowances and easier housing standards. Very few complained about administrative procedures or invasion of privacy and some even favored more checking on clients.

Program Evaluation

We asked two kinds of evaluative questions. One elicited the respondent's satisfaction or dissatisfaction with the program as it affected him personally. The other suggested a broader social perspective on the program's merits.

Table 4.15 summarizes the evaluations. Nearly all clients in both sites were satisfied with the program and with the staff's attentiveness; 81 percent in Brown County and 62 percent in St. Joseph County were satisfied with the amounts of their allowances. Assuming that clients came to the HAO with high hopes, their dealings with it had disappointed very few, although some in each site were ready to suggest specific ways to improve the program. (Their recommendations are discussed below.)

Enrollees in Brown County were generally more satisfied than those in St. Joseph County, particularly as to the amount of their payments; and fewer desired program changes. We think that finding reflects cultural differences more than program differences between the two places.[35] Dealing with residents of both communities, we find those in St. Joseph County more alert to personal interests and readier to complain of real or fancied mistreatment.

Another intersite difference is reflected in the general evaluations reported in Table 4.16: Brown County respondents were more cautious in their social judgments. Although nearly all respondents in both sites thought the program was a "good idea," 37 percent in Brown County were unwilling to say whether or not it was "worth the taxes"; in St. Joseph County, only 10 percent had no opinions. Among those with definite opinions, Brown County's enrollees were, as in their personal evaluations, more positive about the program.

Another survey question elicited respondents' attitudes toward various social groups such as blacks and landlords, including both welfare and housing allowance recipients. As shown by the responses tabulated below, enrollees approvingly distinguish people like themselves from people on welfare:[36]

	Percent of Enrolled Respondents	
	Brown County	St. Joseph County
Approves of allowance recipients . . .	81	72
Approves of welfare recipients	24	48

[35] *If anything, payments in St. Joseph County were more generous (relative to housing costs) because of less rapid inflation, and procedures were smoother because the HAO there profited from earlier experience in Brown County.*

[36] *Such views are shared by the general public. See Sec. V for details.*

Table 4.15

CLIENTS' PERSONAL EVALUATIONS OF HOUSING ALLOWANCE PROGRAM: BROWN AND ST. JOSEPH COUNTIES THROUGH YEAR 1

Response	Percent of All Respondents: Brown County	Percent of All Respondents: St. Joseph County
Personal Satisfaction		
Satisfaction with program:		
Satisfied	92	80
Neutral, no opinion	4	9
Dissatisfied	4	10
Total	100	100
Would like program changes:		
No	82	62
Yes	14	31
Don't know	4	6
Total	100	100
Staff Evaluation		
Time spent with client:		
Enough	98	94
Not enough	1	6
Don't know	2	1
Total	100	100
Staff Evaluation (cont.)		
Helpfulness to client:		
All that was needed	96	94
Less than was needed	4	6
Total	100	100
Payment Evaluation		
Compared with expectations:		
More than expected	35	23
About as expected	42	42
Less than expected	14	24
Don't know	9	11
Total	100	100
Compared with need:		
Too much	1	1
About right	81	62
Not enough	17	35
Don't know	2	2
Total	100	100

SOURCE: Tabulated by HASE staff from records of the wave 2 survey of households in each site.
NOTE: Personal and staff evaluation entries are based on responses of all enrollees answering each question (236-238 in Brown County, 564-565 in St. Joseph County). Payment evaluation entries are based on responses of all recipients answering (177-178 in Brown County, 421-422 in St. Joseph County). Distributions may not add exactly to 100 because of rounding.

In so doing, they justify accepting federal assistance, an idea that is particularly troublesome in Brown County, where residents have little experience with federal housing programs and few are on welfare.

Program Understanding

Most clients seemed to understand the relationship between their income and the size of their allowance payment. Among those receiving payments, about 70 percent in each site correctly said that an increase in income would generally lead to a decrease in entitlement.

A link between income and the amount of aid received is common to most transfer programs and is easily understood as a response to a changing need for assistance. Whether allowances should vary with the recipient's housing expenditures is a more complicated issue, inasmuch as expenditures reflect both voluntary choices and market prices beyond the recipient's control.

Despite the HAO's efforts to explain to clients that their benefits are linked to the standard cost of adequate housing for their household size but are independent of their actual outlays, few clients understood. Forty-five percent in Brown County and 39 percent in St. Joseph County thought that if their housing costs went up $10 per month (e.g., if the landlord raised the rent) their allowances would increase.

Table 4.16

CLIENTS' GENERAL EVALUATIONS OF HOUSING ALLOWANCE PROGRAM: BROWN AND ST. JOSEPH COUNTIES THROUGH YEAR 1

Response	Percent of All Respondents	
	Brown County	St. Joseph County
Feelings about the program:		
Good idea	94	90
Neutral, no opinion	6	7
Bad idea	--	3
Total	100	100
How the program is run:		
The way it should be	71	81
Not the way it should be	3	12
Not sure, no opinion, depends	26	7
Total	100	100
People who run the program:		
Know what they're doing	79	82
Don't know what they're doing	2	11
Not sure, no opinion, depends	19	7
Total	100	100
Value of the program:		
Worth the taxes	60	80
Not worth the taxes	2	10
Not sure, no opinion	37	10
Total	100	100
Should government help low and moderate income people with housing?		
Yes	78	89
No	3	5
Not sure, no opinion, depends	20	6
Total	100	100

SOURCE: Tabulated by HASE staff from records of the wave 2 survey of households in each site.

NOTE: Entries are based on responses of all enrollees answering each question (238-240 in Brown County, 564-566 in St. Joseph County). Distributions may not add exactly to 100 because of rounding.

That widespread misunderstanding could have generated negative reactions among those whose expenses increased (i.e., nearly everyone, since the main inflationary factors were fuel and utility prices); but, at the end of year 1, it had not done so. Of those receiving payments, 77 percent in Brown County and 65 percent in St. Joseph County were getting at least as much as they expected, though some would have liked more (see Table 4.15).

Program Changes

As Table 4.15 noted, 14 percent of the enrollees in Brown County and 31 percent in St. Joseph County said they would like to see changes in the allowance program. We asked those respondents for specific recommendations, but have as yet tabulated only the suggestions of those in St. Joseph County (see Table 4.17). However,

Table 4.17

PROGRAM CHANGES SUGGESTED BY ENROLLEES: HOUSING ALLOWANCE PROGRAM IN ST. JOSEPH COUNTY THROUGH YEAR 1

Type of Change	Percent of All Suggestions	Number of Suggestions per Client	
		Clients Wanting Changes	All Clients
Program Standards			
Increase allowances or income limits	24	.34	.11
Ease housing standards	14	.19	.06
Pay for moving or repairs	8	.11	.03
Begin payments before repairs are made	5	.07	.02
Ease eligibility rules	5	.07	.02
Tighten eligibility rules	4	.06	.02
Don't tax other transfer payments	4	.06	.02
Other program standards	6	.08	.02
Program Administration			
Provide more information	8	.11	.03
Toughen checks on income or spending	7	.10	.03
Improve staff	5	.07	.02
Provide more services	4	.05	.02
Shorten interviews, decrease paperwork	1	.02	.01
Increase clients' privacy	1	.02	.01
Other program administration	2	.03	.01
Other Changes			
Expand program, end program, other	2	.03	.01
All suggestions	100	1.41	.44

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

NOTE: Entries are based on 248 postcoded verbatim responses from 176 enrollees who said they would like program changes, out of 565 enrollees who answered the question.

their answers closely parallel the issues raised in client calls to both HAOs, so we do not expect the Brown County responses to differ much except in frequency.

St. Joseph County clients advocated changes in program standards much more often than changes in program administration. The most common complaint was that payments were too small or income limits too low. Others thought the HAO should make special grants to help clients repair their homes and cover moving expenses; or at least should begin payments to the occupants of a substandard dwelling before repairs were made. The second most common recommendation was for easier housing standards or fewer inspections. However, only one client thought housing evaluations should be eliminated.

Suggested changes in eligibility requirements stressed higher income and asset limits rather than changing the restrictions on age, family composition, or place of residence. The number seeking liberalization of the latter restrictions was nearly balanced by the number who wanted such restrictions tightened.

The main thing clients wanted from program staff was more information, particularly clarification of program requirements and information on how to find

housing, how to get money for repairs, and how to make them. It is notable, however, that only 15 percent of all enrollees said they had attended any of the information sessions offered regularly by the HAO.

About 10 percent of those who recommended changes suggested more thorough checks on clients' incomes and how they spend their allowances. Only three respondents complained about invasion of their privacy. Clearly, enrollees generally accept the necessity of a means test for the program, and some are actively interested in preventing fraud by others.

Indicators of Program Effectiveness

The beneficiaries of a transfer program are naturally inclined to favor it, so it is no surprise that those enrolled in the housing allowance program overwhelmingly think it is a good idea. But those who think they deserve housing assistance could still be critical of assistance to others who are less deserving, or could have been soured by dealings with the HAO.

The survey responses tell us that enrollees think of themselves as belonging to a class of deserving citizens that should be distinguished from people on welfare; and they seem to understand, accept, and even encourage administrative procedures that weed out the ineligible. Moreover, enrollees approve the formal connection between financial assistance and housing requirements. Their main concern is whether the amount of assistance provides adequate help with their housing expenses, an understandable issue considering that many still spend more than a fourth of nonallowance income for housing.[37]

Those attitudes bear on the basic structure of the allowance concept and are thus especially pertinent to its possible adoption as a national program. The enrollees' high regard for program staff in both sites may be less readily transferable. The HAOs have worked hard to explain the program and to avoid intimidating, embarrassing, or inconveniencing their clients. Moreover, the ambience of both offices is a pleasant contrast to the usually "cold" and often shabby setting of other federal transactions with the poor. Whereas about 95 percent of the enrollees feel well treated by the HAO staffs, over a fourth in each site spoke unfavorably of city officials.

The HAOs achieved those results with personnel who were nearly all hired locally and were paid no more than locally prevailing wages. However, the experimental nature of the program attracted some staff who would not have accepted more routine jobs, and it helped to maintain staff motivation generally. One should expect some degradation of performance in a permanent national program.

CONCLUSIONS

Although the first two years of housing allowances cannot reveal the full story of the program's effects on those who participate, the findings reported above greatly narrow the uncertainties that prompted the experiment. Here, we summarize what we have learned and discuss its implications for federal housing policy.

Because the two communities from which our data are drawn differ so sharply

[37] *See above, Fig. 4.9.*

in population characteristics, housing market conditions, and political style, there was reason to expect different program outcomes. Yet in most respects that bear on national policy, the outcomes are much alike in Brown and St. Joseph counties. That fact strengthens our confidence that local findings point the way to general conclusions, just as the occasional differences underline the locally varying results to be expected of a national program.

Who the Program Helps

With the exception until recently of most single persons under 62, the allowance programs have been open to all those in each site who cannot afford the market price of adequate housing. The evidence from both sites is converging on the conclusion that about half of those who are eligible will choose to enroll in such a program and that those most in need (i.e., those with the largest allowance entitlements) are readiest to participate. The near absence of categorical restrictions or incentives for managers to select only those who are easy to serve yield a degree of horizontal equity unparalleled in federal housing programs.

Over half of those eligible in each site are homeowners, but renters were more likely to enroll. We think the mixture of renters and owners in the eligible population would vary considerably across the nation; but that renters everywhere would more readily participate—partly because their incomes, even among eligibles, are lower and partly because they tend to be younger than homeowners and less conservative about seeking aid.

The sources of nonallowance income are important in explaining patterns of participation. For nonelderly couples, housing allowances are most often a kind of supplemental unemployment insurance, tiding the family over a few months of hard times. For elderly persons and single parents, the program is a longterm source of aid. While the budgetary relief is welcomed by both groups, lasting effects on housing conditions are probably limited to the longterm participants.

Housing Improvement

About 8 of 10 enrollees manage to meet the program's housing standards and thus qualify for payments, even though half start out in substandard dwellings. Although the option of moving may be important for renters in their dealings with landlords, it is only occasionally exercised as the means of securing certifiable housing. Those in substandard dwellings who qualify nearly always do so by repairing (or persuading their landlords to repair) their homes.

The HAOs fail a dwelling for any defect judged to endanger health, safety, or decency, finding one or more such defects in at least half the enrollees' dwellings. Except for overcrowding and the occasional absence of essential equipment, the housing defects can usually be remedied by amateur labor and a few dollars' worth of materials. Only 12 percent of all initial repairs in our two sites were done by professional contractors; the others were done by homeowners, landlords, tenants, or their friends. The median cash outlay was only $10.

Evidence is accumulating that lack of money is only exceptionally the direct explanation for substandard housing conditions. More often, occupants are either unaware of or do not attach importance to the defects found by the HAOs. Given the incentive of allowance payments, most enrollees promptly repair their homes,

but one-time attention is not enough. Annual evaluations show that 20 to 40 percent of recipients' dwellings again need repair.

Vigorous enforcement of local housing codes would probably attain about the same amount of housing improvement as does the allowance program. The latter's advantage lies in its positive rather than punitive incentives. Few communities find it politically practical to enforce their housing codes systematically; most respond mainly to third-party complaints and face the hostility of both owners and occupants of dwellings in which violations are found.

Budgetary Relief

Housing expenses constitute a large share of the typical low-income budget. Among enrollees, 90 percent of the renters and at least 75 percent of the homeowners spend more than a fourth of adjusted gross income for shelter and utilities; about 50 percent of the renters spend at least half their incomes for housing.

Under the HASE allowance formula, benefits averaging $75 monthly offset a third to two-thirds of actual housing expense for most recipients. Because most renters spend more than our data indicate is needed to secure adequate housing, their allowances fully close the housing gap only for a minority. If all homeowners' expenses were counted, the outcome for them would be similar.

Understandably, most clients are more interested in budgetary relief than in housing improvement. Few respond to the receipt of an allowance by moving or markedly increasing their housing outlays. Instead, they do what is required to meet the program's housing standards and treat the allowance as a general budgetary supplement.

Thus, the program's housing requirements are needed to achieve its housing objectives. If allowances were unrestricted cash transfers, we are reasonably sure that recipients would neither voluntarily repair their homes to HAO standards nor increase their housing expenditures beyond what was needed to counter inflation.

Renters who move, whether to qualify for payments or subsequent to qualifying, usually pay considerably more for their new homes than for their former dwellings. The increased expenditure partly reflects price inflation and partly the loss of price advantages that accrue to longterm tenants; but mostly, it reflects housing improvement.[38]

Participant Morale

Although only half of those eligible seem ever likely to enroll, nearly all those in the program approve both its concept and its implementation. Very few have been disgruntled by program rules or their dealings with the staff. As do others in the community, participants favorably distinguish allowance recipients from people on welfare.

Enrollees generally understand and approve both the dependence of allowance entitlement on income and the housing requirements that must be met to qualify for payments. Few complain about the means test or invasion of privacy; some even advocate more checking to prevent fraud. Their main concern is whether the amount of assistance is adequate, given their housing expenses.

[38] *See Sec. V, "Moving and Housing Improvement."*

Program Effectiveness

During its first two years, the experimental housing allowance program succeeded in delivering cash assistance to a large number of low-income households who were either categorically ineligible (e.g., homeowners) or could not be accommodated by other housing assistance programs in their communities. It clearly surpasses the existing alternatives with respect to horizontal equity and, if the law's definition of vertical equity is accepted, scores well also in that dimension.[39]

For its participants, the program has provided needed budgetary relief and has caused them to remedy thousands of housing defects that would otherwise have gone uncorrected and perhaps unnoticed. In that connection, allowance payments operate more as incentives than as means to housing improvement. Provided the incentive, those in substandard housing have usually been able to find inexpensive remedies for defects reported by the HAOs.

The allowance program is unusual among federal transfer programs in demanding something definite of its participants in return for their benefits, and in leaving them to find ways to comply. So far, the evidence indicates that the strategy works very well. What remains to be judged is whether the program's housing achievements are worth the additional cost of earmarking the transfer.

Some observers have been visibly disappointed in the small cash cost of repairing substandard dwellings, apparently on the theory that something inexpensive has, ipso facto, little social value. That seems to us a superficial judgment; but it is appropriate to inquire directly into the kinds of housing improvements made by program participants and to evaluate their contributions to health, safety, and decent family life.

Scientific studies bearing on the issue are scarce, difficult, and generally inconclusive; but most students of housing believe the features required by the HAOs are important. For example, they closely reflect model housing codes devised by public health professionals. For now, the reader must draw his own conclusions.

A more answerable question is whether the same results could be otherwise achieved, perhaps at less public cost. We think it is fairly clear that public management of low-income housing is not needed to obtain comparable improvements; that while unrestricted cash transfers would provide budgetary relief (perhaps even more equitably), they would have little effect on housing; and that local code enforcement, if it were politically acceptable, could achieve the same housing improvements—but the condition is apparently contrary to fact. Thus, housing allowances remain a plausible instrument of national policy, worth continued investigation.

[39] For income transfers, "horizontal equity" means that those who are equally needy are equally benefited by the transfer program. "Vertical equity" means that benefits to those with different needs are proportional to need. However, both "need" and "benefit" may be variously defined.

V. HOW HOUSING ALLOWANCES AFFECT HOUSING MARKETS

The major motivation for the Supply Experiment was to learn how a fullscale housing allowance program would affect local housing markets. When the experiment was planned, speculation about the effects of a national housing allowance program emphasized a number of possible outcomes that were cause for concern, and they were reiterated by some of HUD's advisors as objections to the experiment itself. The scenarios summarized below were vigorously debated in at least one of the many forums in which the experiment was discussed.[1]

- Unless it was staged very carefully, enrolling a community's low-income families in a fullscale program would shock the local housing market, driving rents and home prices sharply up. Allowances would be dissipated in price inflation; landlords and speculators would capture most of the benefits without providing better housing for participants.
- Even though the allowance program provided low-income renters with greater purchasing power, landlords would not be willing to supply many of them with well-maintained housing. Landlords believe that low-income tenants lack the social values and technical knowledge to care for their homes, and the allowance program does not assume responsibility for damages or rent-skipping.
- Since benefits would not in general be adequate to support the purchase of new homes by program participants, the program would not appreciably expand the supply of decent housing. Competition for better units in the existing stock would intensify, raising rents and home prices for participants and nonparticipants alike.
- Without stronger earmarking provisions, housing allowances would be treated by their recipients as general income supplements, in which case the program would have only secondary effects on housing consumption.
- Unless the administering agency closely monitored the use of program benefits, landlords and tenants would collude to divide the benefits without meeting the program's housing improvement objectives.
- Homeowners seeking to repair their dwellings and thus qualify for payments would need home improvement loans that are not provided by the program. Lenders would be reluctant to grant such loans to elderly persons or those with low incomes. Unscrupulous home repair contractors were likely to defraud homeowners who succeeded in financing home repairs but lacked the technical knowledge to oversee them.

[1] A few of the scenarios that follow were most explicit in letters and notes on conversations, but nearly all are discussed either in the *General Design Report: First Draft*, or in one of the following documents: HASE Staff, *Supplemental Design Papers for the Housing Assistance Supply Experiment*, The Rand Corporation, WN-7982-HUD, July 1972; Ira S. Lowry, Mack Ott, and Charles Noland, *Housing Allowances and Household Behavior*, The Rand Corporation, WN-8028-HUD, January 1973; Lowry (ed.), *General Design Report: Supplement*, The Rand Corporation, WN-8364-HUD, August 1973; and *Proceedings of the General Design Review of the Housing Assistance Supply Experiment*, The Rand Corporation, WN-8396-HUD, October 1973.

- Rigid and detailed standards of housing quality for program participants would distort the market, causing property owners to make expensive improvements which were not valued by the dwellings' occupants.
- The portability of benefits would threaten neighborhood stability, especially in segregated markets. Participants were likely to use their benefits to rent or buy into better neighborhoods rather than to repair their homes. Deterioration and market collapse might be accelerated in the neighborhoods they left, and other residents of the neighborhoods into which they moved might be panicked by the apparent invasion.
- Because the program left housing choices to participants operating through normal market channels, it was unlikely to break down existing patterns of housing segregation. Brokers, mortage lenders, and rental agents would continue their informal system of support for segregation; program participants would lack the power (and perhaps the motive) to challenge the system.
- In the experimental situation, with benefits available only to those living within a small metropolitan area, large numbers of low-income families might move into the area in order to participate in the program.
- Those ineligible to participate in the program would deeply resent its benefits to low-income families, especially if their own housing costs or neighborhoods were adversely affected.

The generally negative tone of the scenarios was appropriate under the circumstances: Before proceeding with a major social experiment it is important to consider things that might go wrong. But they seemed also to reflect strongly held convictions of some professional students of housing markets and some administrators of federal housing assistance programs. The pertinence of that fact is, of course, that the scenarios of experimental outcomes were often inconsistent with each other in their implicit theories of consumer behavior and market response or in their assumptions about the market context in which the experiments would operate.

Moreover, most of these scenarios were at odds with the one that prompted interest in housing allowances as a tool of federal policy: that a housing allowance program would create effective demand for better housing and that the market would quietly supply the demand without construction subsidies, price controls, or other intermediation by government between producers and consumers of housing services. Under that scenario, the main issues were to find the appropriate balance between housing standards and the benefits needed to pay for them; and also between self-enforcing incentives and administrative monitoring of clients' actions. Those features would in turn determine who could be offered assistance at what national cost and how the costs of an allowance program would compare with alternative ways of meeting national housing needs.

The Supply Experiment was designed to address those issues as well as to test the more or less calamitous scenarios of adverse market effects. Alone among the components of HUD's Experimental Housing Allowance Program, the Supply Experiment provides for virtually open enrollment of eligible households within sites that encompass entire metropolitan housing markets. It alone provides assistance to homeowners as well as renters. Its allowance program is the only one committed to run for a long enough time—ten years—to have longrun as well as shortrun

consequences. And it alone provides for systematically monitoring local markets as well as program participants.

Here, we offer a preliminary assessment of the interaction between the program and the community in our two sites. It draws on HAO records for the first two program years, the first two waves of interviews with household heads and landlords in each site, special surveys of intermediary industries, background data on the sites themselves, and reports of pertinent community events submitted by resident observers.

The assessment is organized around the four broad topics that compose the original research charter of the Supply Experiment: the responses by landlords and other direct suppliers of housing services to the program's market stimulus, the behavior of market intermediaries and indirect suppliers, the residential mobility of program participants and consequent neighborhood changes, and the program's effects on nonparticipants (see Sec. I for details).

As can be imagined, those topics overlap and the evidence does not divide neatly among them. In particular, the last topic was poorly phrased in the original charter, in that the program's objective effects on nonparticipants were necessarily accounted for in the three preceding topics. Consequently we rephrase the fourth topic here as "community attitudes toward the allowance program," thus focusing it on subjective effects that bear on the program's acceptability to the public.

The findings presented here were foreshadowed a year ago in the third annual report. Though we now have more and better-organized evidence to test our earliest factual conclusions, they require little modification. However, our subsequent reflections on the implications of those findings add new dimensions to what was then reported and have suggested new lines of inquiry now under way. Finally, we should note that further program history and later waves of survey data may still reveal program effects that we do not now foresee. We would be remiss not to report interim findings, but readers who treat them as conclusive will be equally remiss.

SUPPLY RESPONSIVENESS

Critics of housing allowances argue that giving low-income families cash to spend for housing would cause housing prices to rise. They offer various reasons. Some view low-income renters as captives of their landlords, and believe that the landlords would raise the rents of program participants by the amounts of their allowances. Others argue that the program's housing standards would create an inflationary competition for acceptable dwellings as those living in substandard housing sought to qualify for assistance.

Because benefits would not usually be large enough to support the purchase of new houses, some critics conclude that the program would not increase the supply of acceptable dwellings. They judge that homeowners and landlords would be unwilling or unable to improve existing dwellings that do not now meet program standards, or that participants would avoid such improved dwellings because of the neighborhoods in which they were located.

Those who favor housing allowances stress the inability of poor homeowners or renters to pay for adequate maintenance, a circumstance that would be corrected by the allowance program. As a corollary, they stress the flexibility of the existing housing stock, arguing that deteriorated housing could be profitably repaired if its

occupants could afford longrun maintenance costs and that now-acceptable housing will deteriorate if occupied by those who cannot afford adequate maintenance.

Finally, supporters of allowances envision more competition among the suppliers of housing than do the critics. Since allowance recipients could move, carrying their allowances with them, landlords who were unwilling to maintain their dwellings to program standards would lose their tenants and thus be forced either to change their policies or go out of business.

These different views reflect different beliefs about both the technical and behavioral features of housing markets, based more on reasoning from postulated premises than on empirical evidence. The Supply Experiment was designed to provide evidence, both directly, in terms of market outcomes in its two sites; and indirectly, by generalizable analysis of the market processes that led to those outcomes.

With these objectives in mind, we chose experimental sites that differ in three important respects: initial market conditions, market structure (division into noncompeting submarkets), and the quality of the housing stock. Tables 5.1 and 5.2 present selected indicators of market condition and market structure in each site; Fig. 5.1 shows the age-distribution of each county's housing stock, an indicator of its quality.[2]

Briefly, Brown County has a persistently tight housing market (low vacancy rates and short vacancy durations) because of its growing urban population. Lacking segregated racial minorities, it is divided into specialized submarkets only by tenure and type of dwelling. Its housing stock is relatively new and the county has no large clusters of deteriorated or dilapidated dwellings.

St. Joseph County, on the other hand, is losing population and has a persistently loose housing market, reflected in high vacancy rates and long vacancy durations as well as property values that are low compared with those in Brown County. Central South Bend, with its segregated black population and older, deteriorated housing stock, comprises a geographical submarket distinct from the remainder of the county. Long-vacant homes there are on the market for as little as $2,500, even as new suburban dwellings sell for 10 to 20 times that amount.[3]

Key Findings

The evidence to date indicates that the attempts of program participants to secure acceptable housing have had virtually no effect on rents or home prices in either site. That evidence covers the period of rapid enrollment during which such effects were most likely to occur, as new enrollees got "hunting licenses" for better housing. It is unlikely that such effects will occur now that enrollment is leveling off.

The lack of price effects has surprised many observers who either misperceived the nature of the market stimulus that the program provides or misunderstood housing market dynamics. Some expected larger enrollments or larger increases in housing expenditures than have occurred. Few realized how easily existing dwellings could be improved to meet program standards.

[2] The indicators shown in these tables and figures were not all available when the sites were chosen, but our baseline surveys confirmed the cruder site-selection diagnostics.

[3] For detailed comparisons of the populations and housing markets of Brown and St. Joseph counties, see the *Third Annual Report of the Housing Assistance Supply Experiment*, Sec. IV.

Table 5.1

POPULATION CONTRASTS AT BASELINE: BROWN COUNTY (1974) AND ST. JOSEPH COUNTY (1975)

Area	Number of Persons	Average Annual Growth (%)		Households	
		1960–70	After 1970	Number	Percent Black or Latin
Brown County					
Green Bay	88,500	3.3	.2	28,100	1.9
Rest of county	81,900	1.2	3.0	19,800	.6
Total	170,400	2.4	1.5	47,900	1.4
St. Joseph County					
South Bend	112,500	- .5	-2.2	39,300	18.6
Rest of county	123,000	1.2	.6	36,300	1.3
Total	235,500	.3	- .8	75,600	10.4

SOURCE: U.S. Bureau of the Census, *Census of Population and Housing: 1970*; and estimates by HASE staff from records of the baseline surveys of households in each site.

Table 5.2

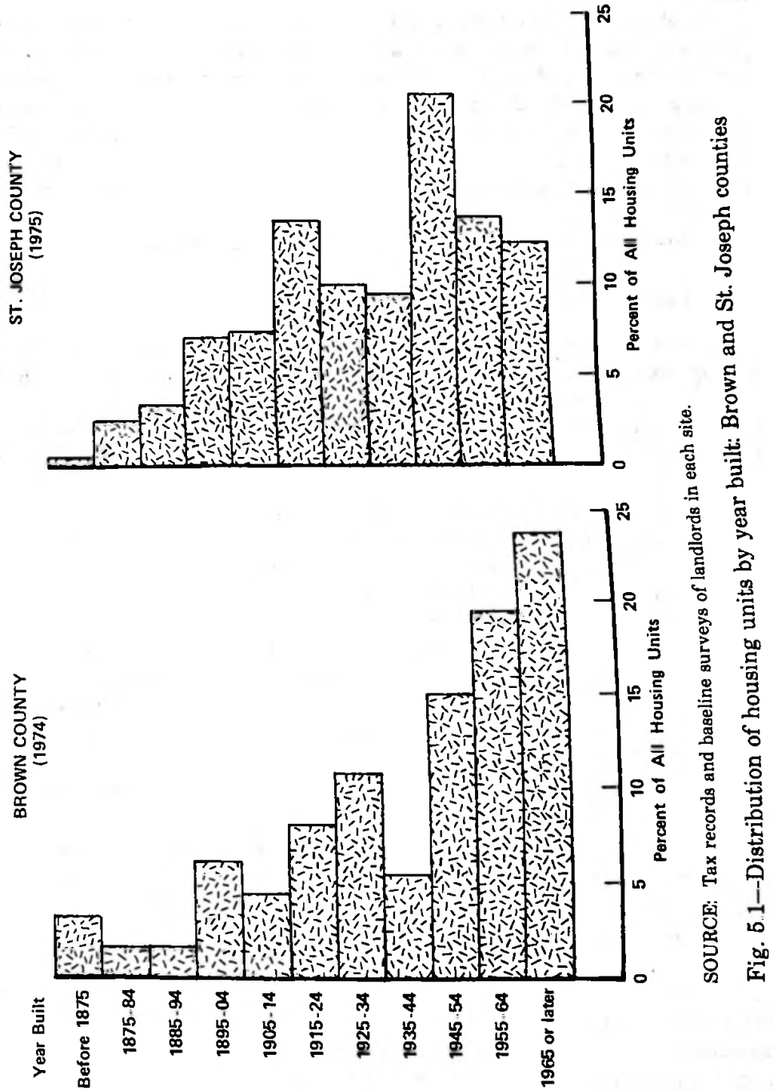
HOUSING VACANCIES AND TURNOVER AT BASELINE: BROWN COUNTY (1973) AND ST. JOSEPH COUNTY (1974)

Area	Number of Habitable Units	Average Vacancy Rate (%)	Annual Turnover per 100 Units	Average Vacancy Duration (weeks)
Regular Rental Housing[a]				
Brown County	14,700	5.1	65.6	4.0
St. Joseph County	16,400	10.6	57.4	9.6
Central South Bend	8,000	12.3	59.5	10.7
Rest of county	8,400	8.9	55.3	8.4
Homeowner Housing[b]				
Brown County	31,700	.8	7.4	5.6
St. Joseph County	57,000	2.4	9.9	12.6
Central South Bend	13,600	4.2	8.5	25.7
Rest of county	43,400	1.9	10.2	9.7

SOURCE: Estimated by HASE staff from records of the baseline surveys of landlords and homeowners in each site.

[a]Excludes mobile home parks, rooming houses, farmhouses, and federally subsidized dwellings.

[b]Excludes mobile homes.



SOURCE: Tax records and baseline surveys of landlords in each site.

Fig. 5.1—Distribution of housing units by year built: Brown and St. Joseph counties

Yet enrollment is open to about a fifth of all households in each site and nearly a tenth (generally the needier) are currently enrolled. About half of those who enrolled then lived in unacceptable housing; of that group, two-thirds have repaired their dwellings and another tenth have moved from unacceptable to acceptable homes.

In short, the market stimulus has been as much as was needed to meet the program's housing objectives for about 80 percent of all enrollees. Although a program that offered larger benefits or imposed higher standards on participants' housing might press harder on the resources of the housing market, no one has seriously challenged the appropriateness of the standards of need and housing quality that were devised for the experimental program. Moreover, there is some evidence that benefits and standards would have to be increased greatly to generate much market effect.

Below, we provide details that help explain this outcome.

Rent Inflation

The experimental allowance programs began in Brown and St. Joseph counties during the most rapid general price inflation that our nation has experienced in many years. From the beginning of 1974 to September 1977, the national consumer price index compiled by the Bureau of Labor Statistics (BLS) rose by 33 percent. Its housing cost index rose by 37 percent, and its index of residential rents rose by 22 percent.

Thus, we expected rents to increase in our experimental sites. We find, however, that rents in both sites (even in Brown County's tight housing market) increased less rapidly than national or regional averages. Moreover, over two-thirds of the increase is accountable to higher prices for residential fuels and utility services, which are wholly external influences on housing costs.

We measured changes in both contract and gross rents for a marketwide sample of dwellings in each site by linking the records for each dwelling whose occupants reported their rents in the baseline and one or more postbaseline surveys. For Brown County, the survey data span 39 months, from January 1974 (six months before open enrollment began) through March 1977. For St. Joseph County, the survey data span 21 months, from late November 1974 (four months before open enrollment began) through August 1976.[4]

Table 5.3 shows our estimates of the average annual rent increases for dwellings of different sizes; the smaller ones are mostly apartments and the larger are mostly single-family houses. Because practices vary as to which fuels and utilities are provided by the landlord, we show two measures of rent. Gross rent, which includes all fuel and utility costs (no matter who paid them), increased by 6.7 percent annually in Brown County and 5.0 percent in St. Joseph County. Contract rent—the tenant's payment to his landlord, which does not usually cover all items—increased much less rapidly, indicating that tenant-paid fuel and utility costs account for a large share of the gross rent increases.

[4] See Ira S. Lowry, *Inflation in the Standard Cost of Adequate Housing: Site I, 1973-1976*, The Rand Corporation, WN-9430-HUD, March 1976; James P. Stucker, *Rent Inflation in St. Joseph County, Indiana: 1974-77*, The Rand Corporation, WN-9734-HUD, September 1977; and Stucker, *Rent Inflation in Brown County, Wisconsin: 1973-78*, The Rand Corporation, WN-10073-HUD, forthcoming.

Table 5.3

ANNUAL PERCENTAGE RENT INCREASE BY SIZE OF DWELLING: BROWN AND ST. JOSEPH COUNTIES, 1974-77

Number of Rooms	Brown County Jan 1974–Mar 1977		St. Joseph County Nov 1974–Aug 1976	
	Contract Rent	Gross Rent	Contract Rent	Gross Rent
1 or 2	4.6	5.7	4.0	4.9
3	4.6	5.8	4.1	5.1
4	4.2	6.1	3.7	6.7
5	4.2	7.7	2.6	4.6
6 or more	4.9	9.1	1.7	3.3
All sizes	4.4	6.7	3.1	5.0

SOURCE: James P. Stucker, *Rent Inflation in Brown County, Wisconsin: 1973-78*, The Rand Corporation, WN-10073-HUD, forthcoming; and Stucker, *Rent Inflation in St. Joseph County, Indiana: 1974-77*, The Rand Corporation, WN-9734-HUD, September 1977, Table 2.7.

NOTE: Contract rent is the amount paid by a tenant to his landlord. Gross rent also includes the cost of fuel and utilities paid directly by the tenant.

In fact, Table 5.4 shows that, in Brown County, rising fuel and utility expenses accounted for 70 percent of the increase in gross rents over a 36-month period. Shelter rent—the landlord's charges for space and housing maintenance—increased by an average of 3.2 percent annually. We get similar results for St. Joseph County, where increased expenditures for fuel oil, gas, and electricity alone are estimated to account for two-thirds of the typical increase in gross rent over a 21-month period.[5]

Given that so much of the observed rent increase is directly accountable to rising fuel and utility costs and that the small increase in shelter rents must cover other sharply rising costs,[6] the allowance program's contribution to rent inflation must have been negligible. However, as a further check, we compared contract rent increases in our two experimental sites with those for cities elsewhere in the nation and in the north central region. Those comparisons, shown in Table 5.5, indicate that throughout the periods in question, rent inflation was less severe in Brown and St. Joseph counties than elsewhere.

[5] Stucker, *Rent Inflation in St. Joseph County, Indiana: 1974-77*, Table 5.4.

[6] In Brown County from mid-1973 to mid-1975, we estimate that expenditure-weighted costs for rental properties increased at the following annual rates: maintenance and replacements, 10.8 percent; management, 9.3 percent; insurance, 5.2 percent; property taxes, 1.0 percent. Comparable figures for St. Joseph County, mid-1974 to mid-1975, are 7.1, 7.2, 5.1 and −0.8 percent. See Charles W. Noland, *Indexing the Cost of Producing Housing Services: Brown County, Wisconsin, 1973-75*, and *Indexing . . . St. Joseph County, Indiana, 1974-75*, The Rand Corporation, WN-9979-HUD and WN-9980-HUD, forthcoming.

Table 5.4

COMPONENTS OF GROSS RENT INCREASE FOR TYPICAL DWELLING: BROWN COUNTY, 1974-77

Date or Period	Shelter Rent	Fuel and Utilities	Gross Rent
Typical Monthly Expense ($)			
January 1974	128.89	41.11	170.00
January 1975	131.03	49.70	180.73
January 1976	135.40	61.05	196.45
January 1977	141.44	70.69	212.13
Change in Expense (%)			
1974-75	1.7	20.9	6.3
1975-76	3.3	22.8	8.7
1976-77	4.5	15.8	8.0
Annual average	3.2	19.8	7.7

SOURCE: Adapted from James P. Stucker, *Rent Inflation in Brown County, Wisconsin: 1973-78*, The Rand Corporation, WN-10073-HUD, forthcoming.

NOTE: Estimates are for a 5-room dwelling meeting HAO standards and renting for $170 (including fuel and utilities) in January 1974. Gross rent inflation was estimated from survey data for the years indicated; inflation in fuel and utility expenses was estimated from consumption norms and local rate schedules. Shelter rent inflation was derived as a residual.

When program history is examined in its housing market context, it is not surprising that the program failed to drive rents upward. Even at the end of the second program year, renter enrollees accounted for only 15 percent of all renters in each county. Moreover, as we show in Sec. IV, most were able to secure acceptable housing without incurring rent increases even if repairs were made to their dwellings. Only those who moved paid substantially more for their new homes; their larger expenditures after enrollment partly reflected increased housing consumption in the form of larger or better dwellings and partly the temporary loss of a price advantage that typically accrues along with duration of occupancy.

Price effects seem most likely in submarkets where enrollment is high. Central South Bend is a good example. Rental units compose 37 percent of its dwellings, and about 27 percent of all renters living there enrolled during the first two program years. However, our measurements indicate that between January 1975 and June 1976, rents in central South Bend increased by no more than for comparable dwellings elsewhere in the county. For most types of housing, central South Bend rents increased by less than elsewhere.[7]

When the experiment began, we believed that the program was most likely to cause rent inflation in a tight housing market—one with a low vacancy rate. Subsequently, others have argued that rent inflation is most likely in a loose market, where landlords have been renting below cost in order to fill vacancies.[8] Now, we are beginning to doubt that current market conditions much affect the rents paid by tenants.[9]

Figure 5.2 compares the gross rents of similar dwellings in Brown County, central South Bend, and the rest of St. Joseph County, three places with quite different vacancy rates and vacancy durations.[10] We find that the average rents are nearly identical in central South Bend and the rest of St. Joseph County (about $1,730, annualized) and only slightly higher in Brown County ($1,764, annualized). At most, we think rents in central South Bend are "discounted" by about 2 percent below those in the other two places.

However, the amounts actually received by landlords in the three areas differ sharply, primarily because of the different vacancy rates. Receipts per unit average

[7] Stucker, *Rent Inflation in St. Joseph County, Indiana: 1974-77*, pp. 35-37.

[8] Sue A. Marshall, *The Urban Institute Housing Model: Application to South Bend, Indiana*, The Urban Institute, Working Paper 216-26, June 1976.

[9] See C. Peter Rydell, *Effects of Market Conditions on Prices and Profits of Rental Housing*, The Rand Corporation, P-6008, September 1977.

[10] Table 5.2, above, shows vacancy rates and durations for each place.

Table 5.5

COMPARISON OF CONTRACT RENT INCREASES: NATIONAL, REGIONAL, AND LOCAL, 1973-77

Area	Average Annual Increase in Contract Rent[a] (%)				
	1973	1974	1975	1976	1977[b]
All U.S. cities	4.9	5.2	5.3	5.5	6.3
North central cities, by size:					
Over 1,400,000	6.8	4.8	3.7	3.9	5.7
250,000-1,400,000	2.4	3.6	4.5	4.2	6.4
50,000-250,000	2.8	4.6	5.0	7.1	5.3
2,500-50,000	4.1	5.0	5.0	4.4	7.2
Brown County		3.7	4.4	4.8	
St. Joseph County			3.1		

SOURCE: U.S. Bureau of Labor Statistics, *Monthly Labor Review*, various issues, and special tabulations for north central cities; Brown and St. Joseph county entries are averages of rent changes for each dwelling in a marketwide sample, periodically resurveyed in each site.

[a] Entries for the U.S. and north central region are based on the BLS index of "residential rent," definitionally equivalent to contract rent. Changes are calculated from December to December.

[b] Increase for December 1976 to September 1977, annualized.

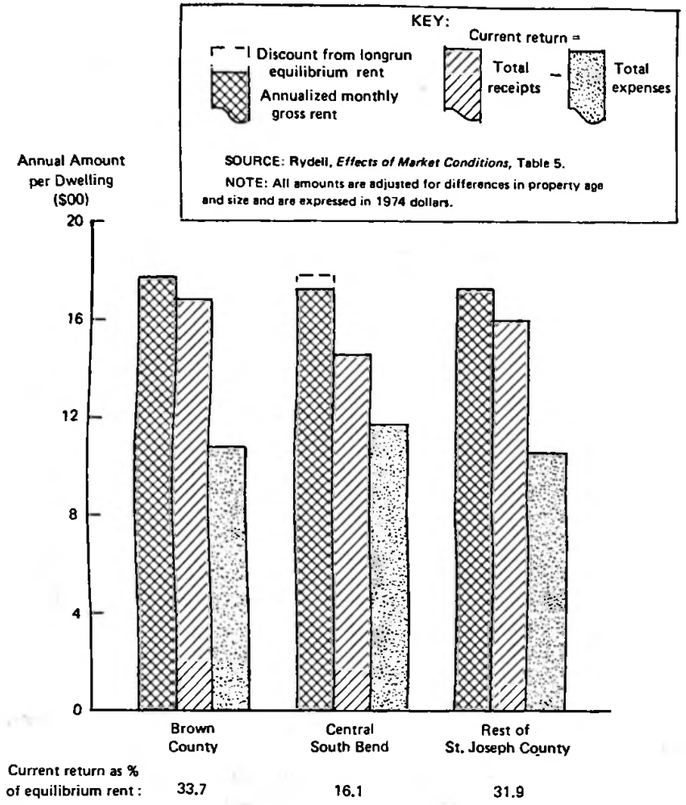


Fig. 5.2—Average annualized monthly gross rent vs. actual receipts under different market conditions: Brown County (1973) and St. Joseph County (1974)

$1,680, $1,457, and $1,606, respectively.[11] Since expenses are about the same (they are highest in central South Bend), landlords' current return varies with market condition even though the rents charged to tenants do not.

The differences in the profitability of rental properties in the three areas reflects powerfully in property values, as is shown in Fig. 5.3. The market values of rental properties have risen or fallen so that the average yield on capital value is nearly the same in the three areas: 13.7, 13.8, and 15.5 percent, respectively.

If rents paid by tenants are unaffected by these extreme differences in "natural" market conditions, it is hard to believe that they would be much affected by the added purchasing power of allowance recipients. All things considered, it now

[11] *Because our accounts are based on gross rent, receipts per unit include tenants' direct payments for utilities.*

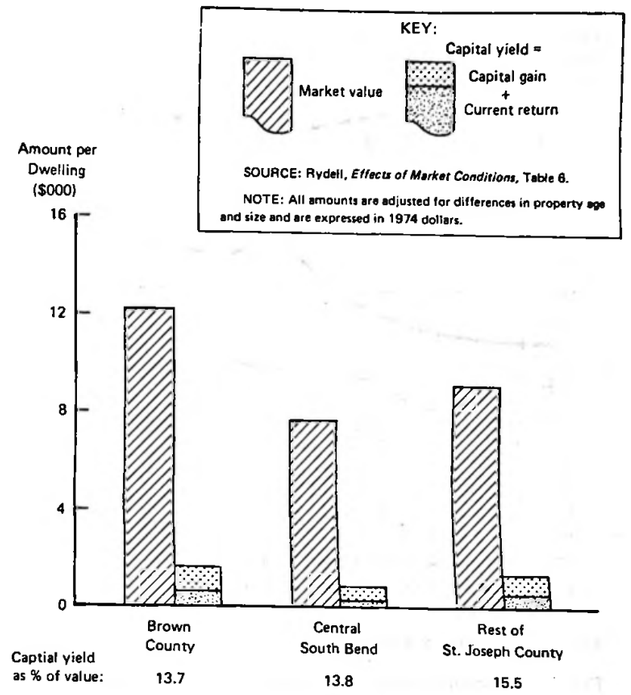


Fig. 5.3—Market value vs. capital yield under different market conditions: Brown County (1973) and St. Joseph County (1974)

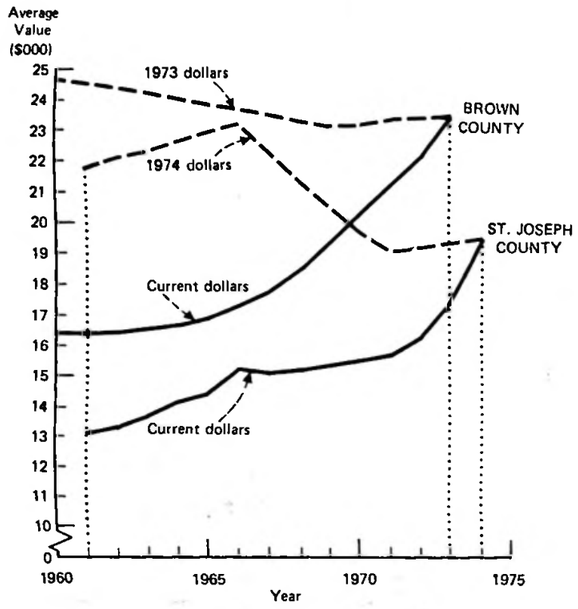
seems to us unlikely that an allowance program—even one with larger benefits and higher housing standards than were adopted for the experiment—would cause rent inflation except under quite unusual circumstances.

Homeowner Housing Expenses

About half of all eligible households in Brown County and 70 percent in St. Joseph County are homeowners; moreover, renters in the program may purchase homes without loss of benefits. It is conceivable that the allowance program might somehow drive up home prices, mortgage interest rates, or the cost of home operation and repair, but we find no evidence that it has done so nor do we see any substantial reason to expect that outcome.

We have yet to compile a postbaseline time series of homeowners' costs like the one described above for rents. We have examined the prebaseline history of home values in each site, with the results shown in Fig. 5.4.[12]

[12] These estimates are based on comparisons of purchase price with current market value for individual properties whose owners were surveyed at baseline. See Lawrence Helbers, *Measuring Homeowner Needs for Housing Assistance*, The Rand Corporation, WN-9079-HUD, forthcoming, for details.



SOURCE: Baseline surveys of homeowners.

Fig. 5.4—Recent trends in homeowner property value: Brown and St. Joseph counties

Indexed in current dollars, home values have increased steadily in both sites since about 1960, but more regularly in Brown County, where the index rose by 44 percent between 1960 and 1973. Over nearly the same period (1961-74) in St. Joseph County, the current-dollar index rose by 48 percent.

Local market conditions are better reflected in a constant-dollar index. As the figure shows, that index for Brown County fell slightly from 1960 to 1970 and has since been virtually constant. St. Joseph County's constant-dollar index shows a more erratic path. It rose through 1967, fell sharply from 1968 through 1971, then leveled off.

One reason for the erratic behavior of the St. Joseph County index is that it encompasses two submarkets that behaved differently. Home values (constant dollars) in central South Bend plummeted, while those elsewhere in the county changed very little. We lack the sample size needed to estimate annual changes for central South Bend, but the average home value there (constant dollars) dropped by 40 percent between 1961 and 1974.

In Brown County, those with incomes low enough to make them eligible for housing allowances are rarely able to afford home purchase. In 1974, less than 15 percent of all owner-occupied homes (mobile homes excluded) were valued at less than $15,000, about as much as a program participant could afford to carry under current mortgage terms. By the end of the second program year, only 28 renter

enrollees there had bought homes and most dropped out of the program soon after they reported the purchase, presumably because their incomes had risen beyond the limit for eligibility.

Circumstances are different in St. Joseph County. If the buyer is unconcerned about possible further decrease in property value, the low current prices of homes in central South Bend make home purchase an attractive alternative to renting, even for those with low incomes. (Note in Fig. 5.2, above, that rents are about the same in central South Bend as elsewhere in the county.) Eighty-two enrolled renters bought homes during the first two program years, and in September 1977 HAO records (unaudited) showed a total of 145 homebuyers. Yet in a market that averages 3,500 home sales each year, enrollees' purchases at the rate of 58 annually cannot be expected to exert much effect on home prices or mortgage interest rates.[13]

For those who already own homes, enrollment in the program could only indirectly affect housing prices. Although half of the enrolled homeowners in each site failed initial housing evaluations, only a handful subsequently moved and thus entered the housing market. About 80 percent of those whose dwellings failed repaired them and thus qualified for payments; the others mostly dropped out of the program.[14]

The repairs made by enrolled homeowners no doubt increased the market value of their homes and, if the allowances are subsequently used to pay for maintenance or improvements that would otherwise be skipped, the program will have a continuing effect on the value of 3 to 5 percent of the owner-occupied homes in each county. But higher value due to better maintenance or improvement is not what is meant by price inflation.

Housing Improvement

Price increases are one type of "supply response" to increased housing demand; housing construction or improvement is another and usually more desirable response. Has the housing allowance program increased the supply of decent, safe, and sanitary housing in our experimental sites?

In our view, the answer is unmistakeably yes; but we judge from recent discussions that some readers will be unpersuaded by the evidence. The reason for doubt is basically that the housing improvements we have observed are confined to dwellings occupied by program participants and do not entail large cash outlays. Those facts in turn help explain why the program has exerted so little pressure on housing prices.

In both sites, but especially in St. Joseph County, those who enrolled in the program often lived in substandard housing. During the first two program years, 49 percent of enrollees' dwellings in Brown County and 55 percent in St. Joseph County failed initial evaluations. In the two sites combined, 32 percent of the failed dwellings lacked adequate space or interior privacy, 29 percent lacked adequate kitchen or bathroom facilities, and 83 percent had one or more hazardous conditions.[15]

[13] Those who bought homes during the first two years paid an average of $10,000. See Table 4.14 for a description of the first 82 enrolled homebuyers in St. Joseph County.

[14] See Sec. IV, "How Enrollees Get Certified Housing," especially Fig. 4.5.

[15] See Sec. IV, "How Enrollees Get Certified Housing."

Through September 1977, over 2,400 dwellings in Brown County were repaired at the instance of enrollees seeking to qualify for payments and another 900 were repaired by participants following annual evaluations of previously certified dwellings. In St. Joseph County, the corresponding figures are 4,000 and 1,200. Thus, the program has brought about improvements in a substantial number of dwellings, probably about a fourth of those in Brown County that would fail the HAO's housing evaluation, but less than 15 percent of those in St. Joseph County, where substandard housing is more common.[16]

Yet, because many of the defects—especially the health and safety hazards—were easily remedied and because homeowners, landlords, tenants, and their friends provided most of the labor, cash outlays for program-mandated repairs were usually quite small. Voluntary repairs by homeowners occupying certified dwellings entail larger cash outlays, averaging $324 annually in Brown County and $347 in St. Joseph County. Moreover, those amounts are well above the average annual repair expenses of low-income homeowners not enrolled in the allowance program. We provisionally interpret the larger outlays by participants as program-induced housing improvement.[17]

However, we have yet to observe that the examples set by enrollees' and participants' repairs have incited others not in the program to follow suit. Nor do we see any evidence that the program has stimulated new construction, except in the indirect sense that allowance benefits and HAO payrolls add significantly to the general flow of local income.

Over time, the quality of the housing stock may be affected by the minority of program participants who move from worse to better homes. Although the moves per se have no effect on housing quality, they do shift vacancies from better to worse dwellings. The latter may then be repaired by landlords anxious to rent them, offered at lower rents without repairs, or withdrawn from the market altogether.

At the end of the program's second year, 824 participants in Brown County's program and 1,005 in St. Joseph County's had changed their residences either in order to qualify for payments or while they were receiving payments. Virtually all were renters, and they constitute about 6 percent of the renters in each county. On average, they spent 34 percent more in Brown County and 44 percent more in St. Joseph County for their new dwellings. Nearly half specifically moved from unacceptable to acceptable dwellings in order to qualify for payments.[18]

We cannot yet say how the tenants' former landlords responded to losing them. Whatever the landlords' actions, the marketwide effects will be difficult to trace. We plan to explore these matters, using both survey data and HAO records.

Conclusions

The research plan for the Supply Experiment includes elaborate methods for measuring changes over time in the price and quantity of housing services.[19] The

[16] These estimates lack precision: We have learned that the only way to tell whether a dwelling would pass or fail is by actual inspection. For estimates of the incidence of substandard housing, see Lowry, Woodfill, and Repnau, *Program Standards for Site I*, Secs. II and III; and Lowry, Woodfill, and Dade, *Program Standards for Site II*, Secs. III and IV.

[17] A firmer conclusion awaits a more carefully controlled comparison between participant and nonparticipant spending for repairs. See Sec. IV, "Housing Repairs and Improvements," for additional details.

[18] See below, Table 5.12.

[19] See Lowry, *General Design Report: First Draft*, Sec. VI and Appendixes A through D.

methods were devised because of the widespread belief that housing allowances would exert considerable pressure on housing supply, leading to substantial changes in prices. We did not share that belief, but since it bore so heavily on judgments about the efficiency of housing allowances as a means of improving housing conditions, we agreed that the experiment should be designed to permit reliable measures of supply response to the allowance program.[20]

As noted above, we so far have found no evidence of program-generated price increases in either the rental or ownership housing markets; and outcomes are about the same in the tight housing market of Brown County as in the loose housing market of St. Joseph County. We expect to pursue the measurement of both price and quantity changes in order to confirm the early findings presented here and also for what we may learn about housing market dynamics. But we believe that the Supply Experiment has already laid to rest one of the principal objections voiced against housing allowances as a means of assisting low-income families with their housing expenses.

However, the experiment has strengthened a different objection to housing allowances: They do not generate many expensive housing improvements, either by participants or others; and we judge that they would not do so even if benefits were substantially increased. Program-induced housing improvements are numerous, but participants and their landlords have shown themselves adept at meeting HAO standards without large cash outlays.

MARKET INTERMEDIARIES AND INDIRECT SUPPLIERS

Landlords, tenants, and homeowners are the actors most directly deciding the outcome of housing market transactions, but their choices are often constrained by their dependence on services provided by market intermediaries or indirect suppliers of housing services. The former include real estate brokers, property management firms, rental agents, mortgage lenders, and insurance underwriters. Among the latter are home repair and improvement contractors and firms offering maintenance services.

The policies of those intermediaries and suppliers and their responses to program-generated demands for additional services could affect experimental outcomes. Conversely, experience with the program could alter existing policies or ways of doing business. Consequently, the experimental design provides for monitoring intermediary and supplier industries and assessing their interactions with the program.

Investigations in each site quickly established that several of the intermediary and other industries named above were unimportant in either Brown County or St. Joseph County when the program began, nor did they become important subsequently. Here, we report only on those whose roles in one or both housing markets bring them into nontrivial contact with the allowance program: real estate brokers, mortgage lenders, home improvement lenders, and home repair contractors.

Key Findings

So far, even the four groups named above have been only marginally involved

[20] Lowry, *General Design Report: Supplement*, Sec. IV.

in transactions that could be influenced by the allowance program, and the program has only slightly increased their involvement. Though aware of the program's existence and in specific cases tailoring their dealings with program participants to take account of allowance benefits or HAO requirements, members of the industries have mostly conducted their businesses as usual. Some specific points of interest follow.

- In neither county are property management firms, rental agents, or maintenance firms important actors in the housing market. Nearly all properties, including large ones, are managed and maintained by their owners or with the help of employees.
- Real estate brokers usually arrange sales of single-family homes and intermediate some sales of rental properties. Few are much involved in placing or finding rental tenants.
- Institutional lenders finance over 90 percent of the residential property transactions in Brown County but only about 75 percent of those in St. Joseph County. The remaining transactions are mostly land contracts by means of which the seller extends personal credit to the buyer.
- The critical barriers to home purchase by HAO clients are high property values in Brown County and poor credit histories in St. Joseph County. In Brown County, allowances have served more to help temporarily distressed homeowners meet their mortgage payments than to enable renters to become homeowners. In St. Joseph County, about 2 percent of the renters who enrolled during the first two years purchased homes, nearly all of them buying inexpensive dwellings in central South Bend. At least as many more investigated purchasing but were discouraged by brokers or lenders.
- Among institutional lenders, only mortgage banks have shown interest in financing purchases by HAO clients. Those in St. Joseph County readily write loans on inexpensive properties provided that the FHA will insure the loan.
- The FHA's standards are quite liberal as to property characteristics and borrower's income, but they will not insure loans to borrowers with poor credit histories. Allowance income gets especially favorable treatment from the FHA.
- Few enrollees need or seek home improvement loans to bring their dwellings up to program standards and thus qualify for payments. The more expensive repairs undertaken by those already receiving payments are more likely than initial repairs to require credit. For HAO clients, home improvement loans are more easily obtained in St. Joseph than in Brown County.
- Home repair and improvement contractors have had no difficulty meeting program-generated demands for their services.

These conclusions are explained in more detail below, first those relating to finding a home and financing its purchase, then those relating to home improvement. The discussion deals mostly with home purchasers and homeowners, inasmuch as the problems discussed do not bear heavily on landlords or rental tenants.[21]

Finding a Home

In neither site do persons seeking rental housing often deal with market intermediaries. Prospective landlords and tenants connect through newspaper advertisements, signs posted on buildings, and word of mouth. Consequently, we have given little attention to the few rental agents that operate in the site markets.

Prospective homebuyers do usually seek the services of a real estate broker. As we shall see, home purchases by HAO clients are rare in Brown County for reasons that have little to do with intermediary functions. We have therefore attended most closely to brokerage in St. Joseph County. Our findings can be summarized briefly.

In 1976, we interviewed 12 brokers in St. Joseph County who specialize in sales and two who deal in rentals. Each of the 12 sales agents reported inquiries from HAO clients interested in buying homes. Ten had closed at least one sale to an HAO client and the two most active firms had each closed six. One of the latter firms actively promoted homeownership to program participants, while the other concentrated on selected "live prospects."

The brokers report that most of the 200 or more inquiries they collectively received from HAO clients came from those whose incomes, even with their allowances, were too small to carry mortgage loans. Nominally, the lender rather than the real estate broker makes that judgment, but a broker usually satisfies himself that a would-be buyer can get an adequate loan before taking the trouble to find him a suitable house.

We have no evidence that the brokers misinterpret lenders' standards or that brokers have any special reluctance to work with HAO clients who can afford to buy. However, brokers are generally unenthusiastic about arranging transactions in inexpensive properties because the commissions are correspondingly small.

There is much anecdotal evidence but little rigorous data to show that some brokers in St. Joseph County steer white and black clients towards neighborhoods whose residents are of the buyer's race. In the case of HAO clients, housing priced within their reach is mostly in central South Bend, in or near heavily black neighborhoods. For black clients, racial steering would lead to about the same result as a colorblind search for affordable housing.

Financing Residential Purchases

Buyers of residential real estate nearly always need credit to complete their transactions. Usually, they obtain mortgage loans from a financial institution such as a commercial or mortgage bank or a savings and loan association. The policies of those institutions toward various types of borrowers and properties powerfully affect the pattern of property transfers. The interest and fees charged by the

[21] The information presented below is drawn mostly from the following reports published by The Rand Corporation: William G. Grigsby, Michael G. Shanley, and Sammis B. White, *Market Intermediaries and Indirect Suppliers: Reconnaissance and Research Design for Site I* (WN-8577-HUD, February 1974), and *Reconnaissance and Research Design for Site II* (WN-9026-HUD, May 1975); White, *Market Intermediaries and Indirect Suppliers: First Year Report for Site I* (WN-9400-HUD, September 1976), and *Market ... First Year Report for Site II* (WN-9020-HUD, August 1977).

lenders are major elements of housing cost, directly for homeowners and indirectly for renters. Thus, financial intermediaries in Brown and St. Joseph counties could shape the outcome of the housing allowance programs there. Conversely, the existence of the program might change lenders' attitudes toward inexpensive properties or buyers with modest incomes.

When institutional financing is withheld, a would-be buyer has two resorts. He may be able to borrow from relatives or friends, or he may be able to persuade the seller of the property to extend credit. If the prospective purchaser is considered a poor credit risk, the owner of the property is not likely to extend credit; but if the property is hard to sell because of its location or uncertain future, its owner may be willing to extend credit even though institutions are not.

Table 5.6 shows the sources of credit used to fund residential property transactions in Brown and St. Joseph counties during the five years before the allowance program began in each place. In Brown County, over 90 percent of such transactions were financed by institutional lenders (commercial banks, savings and loans associations, and mortgage banks). The weaker market in St. Joseph County is reflected in the fact that previous owners finance nearly a fourth of the transactions there. Sometimes the seller writes a mortgage loan, but usually transactions take the form of land contracts.[22]

Because allowance recipients can rarely afford to buy or rent new homes or apartments, the main issue for us is how transactions in existing, modestly priced properties are financed. The discussion that follows deals with purchases of homes, rather than rental properties, but is generally applicable to the latter as well.

Commercial banks and savings and loan associations account for most institutional mortgages written in each site. Both the composition of their loan portfolios and our interviews with their officers confirm that they are uninterested in financing inexpensive properties. Loans on such a property are considered risky both because of the property's uncertain future and because buyers of inexpensive homes have less secure incomes and more flawed credit histories than those who seek expensive homes. Moreover, servicing a small loan costs the lender nearly as much as servicing a large one, yet the interest yield is less.

Thus, five of the largest such institutions in St. Joseph County adopted mortgage loan minimums of $10,000 in 1974 and a sixth set its minimum at $15,000. In both counties, commercial banks and savings and loan associations are extremely reluctant to insure risky loans with the FHA or to obtain guarantees from the Veterans Administration (VA) because of the extra work involved. With abundant alternatives for profitable lending, the institutions have little incentive to seek business in the sectors of the market that concern us here.

We are not sure why, but mortgage banks are more flexible. They regularly write FHA-insured loans on inexpensive properties and replenish their capital by selling the loans on the secondary market. In Brown County, mortgage banks financed over 90 percent of the homes bought with low-interest loans under Sec. 235 of the National Housing Act prior to the moratorium imposed by HUD on that

[22] A land contract is an installment purchase agreement under which the seller retains title until all or most of the purchase price has been paid. Interest on the unpaid balance is usually about the same as on a first mortgage.

Table 5.6

SOURCES OF CREDIT USED IN RECENT RESIDENTIAL PROPERTY TRANSACTIONS: BROWN AND ST. JOSEPH COUNTIES

Site, Period, and Type of Property	Number of Debt-Financed Purchases	Percentage Distribution by Source of Credit			
		Financial Institution[a]	Previous Owner	Friend or Relative	Total
Brown County, 1969-73					
Homeowner property	8,541	92	3	5	100
Rental property	2,334	87	9	4	100
St. Joseph County, 1970-74					
Homeowner property	17,860	76	23	1	100
Rental property	2,100	73	26	1	100

SOURCE: Tabulated by HASE staff from records of the baseline survey of homeowners and landlords in each site.

NOTE: Debt-financed purchases include all those with first mortgages or land contracts originated during the indicated years for which the subject property was collateral. Junior liens, unsecured home improvement loans, and debts amortized before the end of the period are excluded.

[a] May include a few direct loans from federal agencies such as the Farm Home Administration. Survey respondents do not always distinguish federally guaranteed or insured loans from federally funded loans.

program in 1973.[23] Thereafter, their share of the mortgage market declined drastically and only one such firm now maintains an office in the county. In St. Joseph County, mortgage banks are quite active; they financed 43 percent of the home purchases and 22 percent of the rental property purchases that occurred between 1970 and 1974. A substantial share of their homeowner loans were insured by the FHA or guaranteed by the VA.

The allowance program has had little effect on lenders' policies in Brown County. Few homes there, even older and smaller ones, are priced within reach of program participants, and few participants have sought loans. During the first two program years, 28 enrolled renters purchased homes; but as suggested earlier in this section, few of those buyers regarded the allowance program as a longterm source of housing assistance. However, eight of eleven lenders interviewed in 1974 said they sometimes referred delinquent borrowers to the HAO, where they might qualify for allowances that would help them meet their mortgage payments.

Circumstances differ in St. Joseph County. The low prices of homes in central South Bend encourage renters to buy, while the weakness of the market encourages sellers to be flexible as to terms. Of the 82 purchases made by renters enrolled in the allowance program during its first two years, about half were financed by local mortgage banks and a fifth by the sellers. Four purchases were financed by credit unions, two by a finance company whose main business is consumer loans, and one by a savings and loan association. Commercial banks participated marginally in three transactions but in no case on record did they write mortgages.[24]

[23] Section 235 authorizes private loans at low interest rates to low-income homebuyers; the federal government pays the lender the difference between the loan rate and the market rate of interest. The program has been revived recently with higher incomes required of borrowers and smaller federal contributions to lenders.

[24] Financial details are lacking on 10 of the 82 purchases reported by the HAO.

A critical element in at least half the mortgage loans to program participants was their insurability by the FHA. As can be judged from the description of the buyers given in Table 4.14 (Sec. IV, above), they would not generally be considered prime credit risks. Under its current policies, the FHA insists on a good credit history but will insure loans to borrowers whose incomes derive entirely from transfer payments. Moreover, the FHA treats a housing allowance quite favorably in estimating a borrower's ability to meet his payments. Rather than adding the allowance to income, the FHA deducts it from housing expense; thus only the residual housing expense (and any other obligations the borrower may have) are measured against nonallowance income.

To summarize, program participants with good credit records have been able to finance the purchase of inexpensive homes in places where such homes are available. But they have done so outside the mainstream of residential finance. Neither commercial banks nor savings and loan associations have shown much interest in writing mortgages on inexpensive properties or for low-income buyers, whether or not the buyers are allowance recipients. Those institutions are unlikely to change their policies while short of loanable funds. They have, however, recognized the allowance program as a helpful resort for delinquent borrowers, such as those who unexpectedly lose their jobs.

Financing Home Improvements

Most of those who planned the Supply Experiment expected home improvement loans to play an important role in financing program-generated repairs and improvements. However, the repairs made to qualify enrollees' dwellings for allowance payments seldom require large cash outlays. Only in a fourth of the cases reported did a client or his landlord spend more than $25 or $30 to bring a dwelling up to HAO standards, and only rarely did the costs exceed $100.[25] Cash on hand or ordinary retail credit can easily finance such repairs and their costs are usually recovered in the first allowance payment.

However, only two-thirds of the failed dwellings are repaired by or at the behest of their occupants, and those that are not repaired tend to be in worse condition than those that are repaired. Among the enrollees who do not repair failed dwellings, about a third move to acceptable dwellings and the remainder eventually drop out of the program. Homeowners, especially elderly homeowners, are more likely to repair than renters; but if they do not repair, they rarely move; instead, they drop out of the program.[26]

Among those following the experiment closely, there is a continuing controversy about the need for and availability of "front-end financing" to enable enrollees in seriously substandard dwellings to bring them up to program standards and thus qualify for payments. The need, if it exists, is clearly confined to a small fraction of all enrollees: homeowners whose dwellings would cost more to repair than could be financed by ordinary retail credit.[27] Because we are as yet unable to estimate the cost of repairs that were not made, we cannot count such cases; but

[25] See "Housing Repairs and Improvements," Sec. IV.

[26] See Fig. 4.5, Sec. IV.

[27] A renter can move if his landlord is unwilling to repair a substandard dwelling.

only 11 percent of all enrolled homeowners drop out rather than repair their dwellings or move.[28]

Given the occasional need for front-end financing, is it available when needed? A few clients in Brown County have complained about being unable to obtain home improvement loans, though lenders interviewed there in 1974 could recall only one application from an HAO client (it was refused).

In St. Joseph County, complaints from clients are rare (see Table 4.17 in Sec. IV) and other evidence indicates ready access to credit for those whose credit histories are good. Three commercial banks and one mortgage bank that make home improvement loans estimated that during the first program years they jointly received between 80 and 100 applications from HAO clients and granted loans to about half of them. Moreover, the city of South Bend allocated about $1 million of its federal Community Development Block Grant to six home improvement programs. During the first six months of 1976, 63 HAO clients obtained loans or grants for home repair from those programs.

Participants' annual repairs to their dwellings entail much larger expenditures than the initial repairs required by the HAO, and we have considerable anecdotal evidence that program participants have earmarked their allowances to pay for such work. Most borrowing from institutional lenders has probably been for annual rather than initial repairs. The city-sponsored programs in South Bend, however, have focused on the initial repairs needed to qualify homeowners for assistance payments.

Contracting for Home Repairs

Preexperimental concerns that program-generated demands for home repairs might strain the capacity of the industry, driving up contractors' prices and encouraging shoddy work, have proven wide of the mark. We are confident that in both counties, the industry can easily handle both initial and annual repairs occasioned by a fullscale housing allowance program, even in communities containing much deteriorated housing.

Below, we discuss our findings for St. Joseph County, where the program has entailed the greater amount of repair and where HAO clients have relied more heavily on professional as opposed to amateur craftsmen. The conclusions apply also to Brown County, where the program generated fewer demands on the industry relative to its size.[29]

The home repair industry in St. Joseph County, as elsewhere, is amorphous. It consists of a few general contractors who specialize in remodeling, others who take such jobs when new construction is slack, and hundreds of craftsmen who may work one year for wages and the next as independent contractors.

The size of such an industry, either in manpower or dollar volume of business, is not easily measured. Permits issued in St. Joseph County for home repairs and

[28] See Table 4.7 in Sec. IV. In St. Joseph County, 103 enrollees (including both renters and homeowners) who had not obtained acceptable housing within two to three months after enrollment were contacted by the HAO to learn why; 21 hoped to move, 78 hoped to repair their present dwellings, and only 4 planned to terminate their enrollment. Of those hoping to repair, only 18 said they could not afford the repairs—a remarkably small number, given that the circumstances of the inquiry tend to encourage such a response.

[29] See "Housing Repairs and Improvements," Sec. IV.

improvements estimated their costs at $5.5 million in 1975 and $6.2 million in 1976. But many repairs do not require permits and not all permit work is done by contractors, so those figures do not reliably measure the industry's volume. From our sample surveys of landlords, tenants, and homeowners, we estimate that cash outlays for residential repairs, replacements, and improvements totaled $37.8 million in 1974. If, as is true for repairs made to participants' dwellings, 60 percent of the dollar volume is accounted for by contractors, their billings would have been $22.7 million in 1974.

Table 5.7 shows our estimates of the amounts spent on contracted repairs undertaken to qualify a thousand enrollees' dwellings for payments (initial repairs) and annually thereafter for each thousand participants in the program. The estimates are based on the repair logs compiled by HAO housing evaluators (discussed in Sec. IV) and do not include the labor or materials entailed in repairs done without professional help. As indicated, payments to contractors account for about 60 percent of all cash outlays for repairs to participants' dwellings.

Briefly, we estimate that the cost of initial repairs undertaken by each thousand enrollees includes about $15,000 for contracted work; and that the cost of annual repairs undertaken by each thousand participants includes about $170,000 for contractors. For the year ending 31 March 1976, contractors' charges for work on clients' dwellings must have totaled about $510,000, comprising $70,000 for initial repairs and $440,000 for annual repairs.

Some of those repairs would surely have been made even without the program's housing requirements and financial assistance, so the full amount should not be considered an addition to contractors' business. But even the total, $510,000, is

Table 5.7

ESTIMATES OF INITIAL AND ANNUAL CONTRACTED REPAIR COSTS PER THOUSAND ENROLLEES OR PARTICIPANTS: ST. JOSEPH COUNTY

	Enrollees or Participants		Contracted Repairs		Cash Expense ($)	
Tenure	Assumed Number	Percentage Making Repairs	Per Repaired Dwelling	Total	Per Contracted Repair	Total
Initial Repairs by Enrollees						
Owner	496	32.3	.30	48.1	296	14,237
Renter	504	30.8	.17	26.4	47	1,241
Total	1,000	31.5	.24	74.5	208	15,478
Annual Repairs by Participants						
Owner	556	74.1	1.27	523.2	260	136,032
Renter	444	41.2	.37	67.7	495	33,512
Total	1,000	59.4	.99	590.9	286	169,544

SOURCE: Calculated by HASE staff from HAO enrollment and participation records through March 1976 and repair records for January–June 1976. Reproduced from Sammis B. White, *Market Intermediaries and Indirect Suppliers: First Year Report for Site II*, The Rand Corporation, WN-9020-HUD, August 1977, Table 3.8.

NOTE: Details may differ from related data in Sec. IV, Figs. 4.6, 4.7, and Table 4.10 because of differences in data bases. Vertical and horizontal totals for cash expenses differ slightly because of rounding.

only 2 percent of $22.7 million, our estimate from survey data of the industry's countywide billings during 1974.

It seems safe to conclude that the allowance program caused at most a very small increase in the countywide demand for contract repairs and improvements during its first year. Even in the second year, when the numbers of enrollees and participants roughly doubled, we doubt that the net increase in program-related expenditures noticeably affected the industry.

Judging by the nature of contract repairs reported by HAO clients, the work is distributed by trade roughly as follows:

Type of Work	Percent of All Repair Actions
Carpentry	30
Plumbing and heating	28
Roofing	11
Electrical	7
Other	24
Total	100

Given the diversity of the work as well as its modest volume, no single trade is likely to be taxed by inordinate demands for allowance-induced repairs. The contractors we interviewed agreed with that conclusion.

Conclusions

Of the intermediary and supplier industries we have examined, only mortgage lenders are strategically placed to affect experimental outcomes. Provided that home prices are within reach of HAO clients (as in central South Bend), the availability of credit may well regulate the frequency of their home purchases.

The configuration of market conditions in St. Joseph County makes homeownership a plausible and economical alternative to renting, even for low-income families; and the allowance helps home purchase by both increasing and stabilizing income. But even with allowances, not all renters are or should be interested in buying homes at bargain prices. Some are unable to foresee or plan their domestic and financial circumstances well enough to sensibly contract longterm obligations. Others are physically unable to care for a single-family house or have no need for such quarters.

Although the major financial institutions in St. Joseph County have not been helpful to HAO clients who want to buy homes, we think that most of those for whom purchase is advisable (and some for whom it is not) have been able to obtain credit either from a mortgage bank or from the seller of the property. A faster pace of home purchases by program participants in St. Joseph County would be more alarming than encouraging.

The availability of FHA insurance has been critical to many of the program's homebuyers. It both relieves the lender of risk and makes the mortgage marketable should the lender wish to replenish his capital. A change in FHA insurance stan-

dards as to property characteristics, buyer's income, or credit history could powerfully affect how many enrolled renters were able to buy homes.

In Brown County, the relationship between rents and home prices is such that the advantages of homeownership for a low-income family are questionable. The rarity of purchases there by program participants does not reflect unreasonable restrictions by lenders, but sensible calculations of buyers' abilities to carry loans. That outcome could be changed only by a change in market conditions or an added subsidy to homebuyers.

RESIDENTIAL MOBILITY AND NEIGHBORHOOD CHANGE

Most housing assistance programs subsidize the occupants of specified dwellings, either publicly or privately owned. Participants in the housing allowance program choose their homes in the open market and, subject to its constraints, may move about and rent or buy homes as they prefer without affecting their allowance entitlements. One purpose of the experiment was to learn how often participants would move, what they would gain by moving, and how the neighborhoods of origin and destination would be affected.

Those issues were thought to be important for several reasons. First, there was considerable uncertainty as to whether renters in substandard housing could negotiate effectively with their landlords for repairs. Some thought that most such renters would have to move to already acceptable dwellings in order to qualify for payments, intensifying competition for acceptable housing without increasing its supply.

Others thought that, whatever the defects of their preenrollment homes, many participants would want to move to better neighborhoods. If so, neighborhoods generally regarded as undesirable places to live might experience an exodus that would hasten their deterioration and adversely affect those left behind. At the same time, more desirable neighborhoods would feel the social and economic pressure of allowance-assisted movers seeking new homes.

The program's possible effects on residential segregation are a special aspect of neighborhood effects. Advocates of integration doubted that segregated racial minorities, acting as individuals, would seek or find housing outside the ghettos even when aided by allowances. Others worried that program-stimulated moves by minority participants would upset the social balance of the neighborhoods to which they moved, causing racial friction and neighborhood turnover. Some speculated that whites living in neighborhoods with growing minority populations would use housing allowances to finance their escape to areas free of black residents.

Here, we report what we have learned about participant mobility during the first two program years in each site: how much moving occurred, how it affected the movers' housing, and how it affected neighborhoods. Because St. Joseph County has a racially segregated housing market, we give it special attention.

Key Findings

- About a fifth of all participants moved during the first two program years. Nearly all the movers were renters; a third of the participating renters in Brown County and two-fifths in St. Joseph County moved during the period.
- About half the moves in Brown County and three-fourths in St. Joseph County occurred in the typically brief interval between enrollment and first housing certification, indicating that the movers were either dissatisfied with their preenrollment homes or unable to arrange repairs for homes failing initial evaluations. The latter reason could apply to more than half the precertification movers.
- After certification, the rate of moving seems to drop below that of the general population. However, the appropriate comparisons are complex, requiring analytic modeling.
- Among program participants, housing tenure, age of household head, family composition, and preenrollment length of stay are the dominant influences on postenrollment mobility. Renters move about 10 times as often as owners, and renters under 62 move about three times as often as elderly renters.
- Program requirements affect the timing if not the longrun incidence of moves by renters. They move much sooner from uncertified than from certified dwellings. The moving behavior of homeowners does not seem much affected by the program.
- About three-fourths of all renter participants who move pay more for their new homes than for their former homes; the median increase in contract rent in both sites is 23 percent, and the average is even larger. Since inflation and the loss of price advantages accruing with duration of occupancy account for at most a 5 percent increase, most of the larger expenditure must represent increased housing consumption.
- Although three out of four moves cross neighborhood boundaries, the net effect on neighborhoods is small. In both sites, only the oldest and most deteriorated neighborhoods lost residents because of moving by program participants. Moves into and out of central South Bend balanced almost exactly for both blacks and whites.
- Within central South Bend, program-related moves resulted in small net shifts of blacks from neighborhoods that are heavily black to those with a more even racial mixture, and a small net outflow of whites from the core of the area to its fringes. At most, the program may have slightly speeded black dispersion and white retreat.

Moves by Program Participants

During the first two program years, about a fifth of all enrollees ever authorized for payments moved at least once. Table 5.8 shows their distribution in each site by housing tenure and the timing of their first postenrollment moves.[30]

Over 90 percent of all movers were renters when they enrolled. As noted earlier, only a few renters in each site subsequently became homeowers, so nearly all renters' moves were from one rented dwelling to another. Only 71 homeowners

[30] About a fifth of all movers (less than 5 percent of all enrollees) moved two or more times between enrollment and the end of year 2. Here, we discuss only the first moves.

Table 5.8

MOBILITY STATUS OF ENROLLEES EVER AUTHORIZED FOR PAYMENTS BY HOUSING TENURE AND TIME OF FIRST MOVE: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH YEAR 2

Time of First Postenrollment Move[a]	Site and Housing Tenure at Enrollment					
	Brown County			St. Joseph County		
	Renter	Owner	Total	Renter	Owner	Total
Numbers of Movers						
Before first certification	392	11	403	685	27	712
After first certification	361	60	421	249	44	293
Total	753	71	824	934	71	1,005
Movers as Percent of All Enrollees Ever Authorized for Payments						
Before first certification	17	1	10	28	1	13
After first certification	15	4	11	10	1	5
Total	32	4	21	39	2	19

SOURCE: Tabulated by HASE staff from HAO records through June 1976 in Brown County and December 1976 in St. Joseph County.

NOTE: Because enrollment and authorization periods vary, enrollees were exposed to the "risk" of moving for different amounts of time. Percentage distributions may not add exactly to totals because of rounding.

[a]Relative to first certification of the enrollee's dwelling, an event that qualifies him to receive allowance payments.

in each site moved, some to rented dwellings, some to the homes of relatives or friends, and some to newly purchased homes.[31]

About half the movers in Brown County and nearly three-fourths in St. Joseph County made their first moves in the typically brief interval between enrollment and first housing certification—indicating that they were either dissatisfied with their preenrollment homes or unable to arrange repairs for homes failing initial evaluations. Our data for the renters in that group show that about half in each site moved from failed dwellings; the others were not under any pressure from program requirements, except for a few whose landlords refused to admit evaluators or sign leases.

Postcertification moves could also be triggered by program requirements—for instance, when a recipient's dwelling failed its annual evaulation—but we think that very few of those recorded in Table 5.8 were thus prompted. Rather, they reflect new choices by participants, made subject to market constraints and facilitated by allowance payments. They are spread over the varying interval between first certification and the end either of an enrollment or year 2, whichever comes first.

Because they are numerous, renters' moves are more interesting than the rare moves by homeowners. Among the renters ever authorized for payments, one out of three in Brown County and two out of five in St. Joseph County changed dwellings after enrolling. Renters in St. Joseph County were more likely to move before

[31] During the first two program years in Brown County, 28 renters became homeowners and 38 homeowners became renters; in St. Joseph County, the figures are 82 and 44. By deduction, 33 homeowners in Brown County and 27 in St. Joseph County moved to other homes that they occupied as owners.

first certification and less likely to move afterwards than their Brown County counterparts.

The more frequent precertification moves by renters in St. Joseph County seem to reflect both the higher incidence of housing evaluation failures there and greater dissatisfaction with preenrollment dwellings. From entries in Table 5.9, we calculate that 80 percent of the moves from evaluated dwellings in each site were from

Table 5.9

PRECERTIFICATION MOBILITY STATUS AND INITIAL HOUSING EVALUATION RESULT FOR RENTERS EVER AUTHORIZED FOR PAYMENTS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH YEAR 2

Site and Precertification Mobility Status	Number of Cases	Percentage Distribution by Initial Evaluation Result			
		Pass	Fail	No Result[a]	Total
Brown County					
Movers	392	14	57	29	100
Nonmovers	1,940	65	34	1	100
Total	2,332	56	38	5	100
St. Joseph County					
Movers	685	11	43	45	100
Nonmovers	1,736	53	44	2	100
Total	2,421	41	44	14	100

SOURCE: Tabulated by HASE staff from HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

NOTE: A dwelling may pass its initial evaluation but be uncertifiable for an oversized household or because its landlord will not sign a lease. A failed dwelling may be repaired by its occupant and then certified.

[a]No evaluation attempted because enrollment dwelling was public housing; or evaluation attempt was unsuccessful because of an uncooperative landlord or because the enrollee moved before the evaluation could be scheduled.

those that had failed. But 29 percent of the movers in Brown County and 45 percent in St. Joseph County avoided initial evaluations of the homes they were leaving, indicating that they planned to move regardless of the evaluation results.[32]

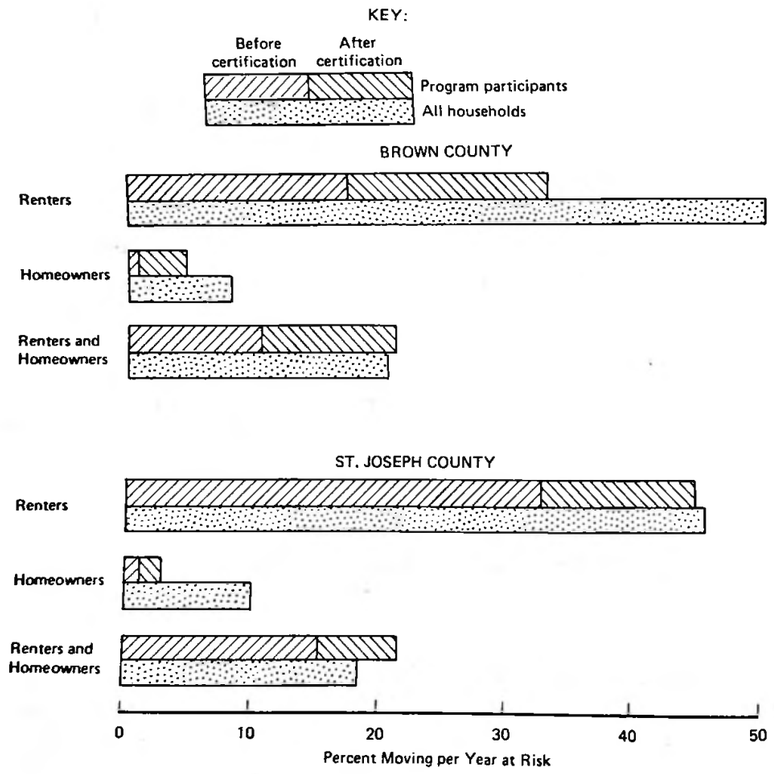
[32] For research purposes, the HAOs try to evaluate each enrollee's dwelling even if he announces his immediate intention to move; the only general exception is for enrollees living in public housing (who must move out to qualify for payment). However, enrollees planning to move sometimes stall the evaluator until the move has been completed, whereupon the evaluator's attention shifts to the enrollee's new home.

Comparison with General Mobility

Because the periods of enrollment and thus of exposure to the "risk" of moving vary between the groups of participants identified in Table 5.8, the percentages of each group that moved are not directly comparable. In Fig. 5.5, we annualize the percentages for renters and owners and compare their annual mobility rates to those for corresponding groups in each site's population.

The comparisons indicate that with the exception of renters in St. Joseph County, program participants move much less often than nonparticipants, despite the push provided by initial evaluation failures and the pull provided by allowance-augmented incomes. And among participants, renters in St. Joseph County and homeowners in Brown County have much higher mobility rates than their counterparts in the other site.

Such surprising and confusing results mostly reflect inadequate decomposition of the population compared. Renters and homeowers who enroll in the housing



SOURCE: HAO records through year 2 and baseline surveys of households.

Fig. 5.5—Annual mobility rates for program participants and all households: Brown and St. Joseph counties

allowance program differ from the general population as to age of head, family composition, and income—all factors that affect mobility. As shown in Sec. IV, enrollees in the two sites also differ in those respects. However, the pronounced differences by program status and between sites nearly disappear when renters and owners are combined: Among all participants and among all households in both Brown and St. Joseph counties, about a fifth move each year.

The comparisons shown in Fig. 5.5 are flawed for another reason. Among the population at large, there is seasonal variation in the number of moves, but annual mobility rates are nearly stable over time. However, our data for program participants show that their moving is concentrated in the brief period between enrollment and first certification. Thus, for renters in Brown County, about half of all first moves occurred in that interval, which had an average duration of 36 days. The other half were spread over an average postcertification period of 324 days. In extrapolating participants' mobility, should we ignore the precertification moves? If not, how do we take them into account?

Modeling Length of Stay

Rather than refining our analysis of annual mobility rates, we have begun work on a more versatile measure of participant mobility—postenrollment length of stay in the enrollment residence. With an average enrollment duration of only 11 months, length-of-stay data are as yet severely time-censored: We do not know how long those who have not moved will stay in their present homes. However, we can use data on both movers and nonmovers to model the probability of moving as a function of how long a household has been in its current residence, its demographic characteristics, its housing circumstances, and its program status. From the estimated parameters of that model, the probable length of stay for any given combination of characteristics can be calculated.

The technical details of our model cannot be elaborated here,[33] and its full power will not be evident until it is applied to data for nonparticipants as well as

[33] Briefly, we jointly estimated the parameters of the following equations:

$$h(l) = \frac{\alpha}{l[1+e^{-\alpha(\log l - X\beta)}]} \text{ and}$$

$$\log l = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_m X_m + \epsilon$$

where l = length of postenrollment stay in the dwelling occupied at the time of enrollment;

X_i = household or housing characteristic affecting the length of stay;

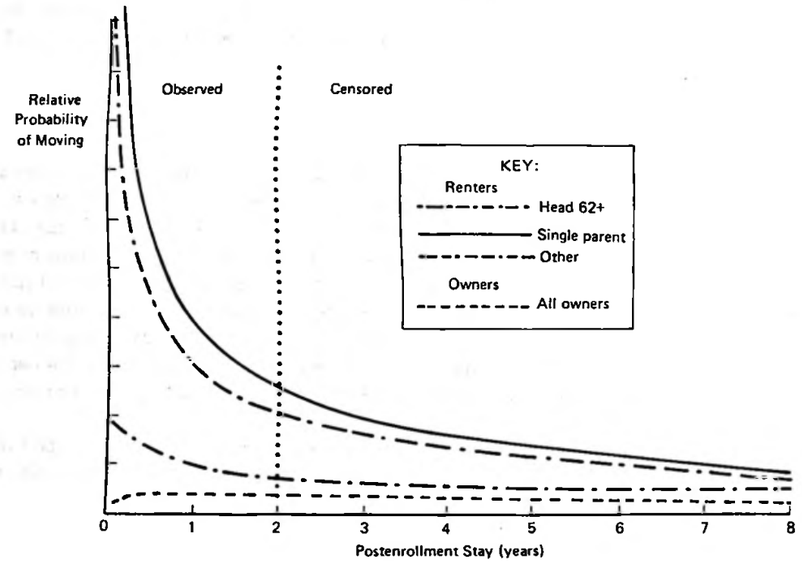
ϵ = error term with logistic distribution (zero mean, variance proportional to $1/\alpha^2$).

α, β_i = estimated parameters.

Figure 5.6, below, displays the so-called hazard function, $h(l)$, as estimated from our data for selected groups of participants, combining data for both sites.

participants in the allowance program. However, early findings from the participant data alone are enlightening.

Figure 5.6 shows that the probability of moving is highest for all groups of renters immediately after enrollment, but declines rapidly during the two years for which we have data.[34] No such enrollment effect is evident for homeowners. Those results are consistent with the cruder ones presented earlier in Fig. 5.5. However, the method used here enables us to estimate the longterm behavior of program participants with less chance of serious error than if we simply extrapolated annual mobility rates over a postenrollment period in which the propensity to move is changing.



SOURCE: Length-of-stay model fitted to HAO data for both sites.

Fig. 5.6—Relative probability of moving from enrollment dwelling by household type: enrollees authorized for payment by end of year 2

The household groups distinguished in Fig. 5.6 are all those we have identified whose moving behavior is distinctive within our sample (a larger sample might reveal more such groups). They differ in both known preenrollment and estimated postenrollment mobility, as shown in Table 5.10. Not surprisingly, preenrollment length of stay influences postenrollment mobility. The longer a household occupies

[34] The figure's vertical scale is not numbered because values for instantaneous probabilities would be meaningless to the reader. However, all the functions shown are plotted on the same absolute scale so that relative probabilities are correctly displayed.

Table 5.10

ESTIMATED LENGTH OF POSTENROLLMENT STAY IN ENROLLMENT RESIDENCE FOR ENROLLEES EVER AUTHORIZED FOR PAYMENTS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES

Household Type	Median Stay (years)		Elasticity $\left(\frac{\Delta l}{l} / \frac{\Delta x}{x}\right)$	
	Before Enrollment (x)	After Enrollment (l)	Point Estimate	Standard Error
All renters	.9	1.8	.15	.02
Head 62+	3.8	7.7	.33	.06
Single parent	.6	1.0	.13	.02
Other	.7	1.4	.13	.03
All owners	10.9	24.9	.23	.07
All participants	3.1	6.6	.16	.02

SOURCE: Estimated by HASE staff from HAO records through June 1976 for Brown County and December 1976 for St. Joseph County, using length-of-stay model. See Mark David Menchik, *Residential Mobility among Program Participants*, The Rand Corporation, WN-9818-HUD, forthcoming.

NOTE: Estimates of postenrollment length of stay are based on censored data whose maximum period of observation is two years.

In calculating the estimates, other mobility-related characteristics were set at typical values for the populations studied. It should also be understood that the extrapolation of length of stay beyond two years assumes continued survival of the household head and continued participation in the allowance program. In fact, a 65-year-old owner is unlikely to survive to live another 25 years in his preenrollment home.

a dwelling before enrolling, the longer it is likely to stay there after enrolling. The effect, measured by the "elasticities" in the third column of the table, is strong for elderly renters and homeowners but weak for single-parent and other renters.

Compared with housing tenure and household composition, program status has a lesser but still significant effect on mobility, at least for renters. Table 5.11 shows how length of stay varies with the certification history of the enrollment dwelling. Those whose dwellings were certified by the HAO tended to stay in them for about the same length of time whether or not repairs were made to obtain certification. Those whose enrollment dwellings were never certified could enter the population analyzed here only by moving to another certified dwelling. Some first tried to repair their enrollment dwellings but were unable to remedy all defects to the HAO's satisfaction. Others did not try to repair their failed dwellings, moving promptly to other quarters.

Because our data exclude enrollees who never qualified for payments, the findings must be interpreted cautiously. Nonetheless, it appears that those who are able to qualify for payments in their enrollment dwellings usually stay there about as long as they would absent the allowance program. Some demonstrate a preference for staying by attempting to repair failed dwellings, but when the repairs are

Table 5.11

LENGTH OF STAY BY STATUS OF ENROLLMENT DWELLING: RENTERS QUALIFYING FOR ALLOWANCE PAYMENTS BY END OF YEAR 2

Standard Household Type[a]	Median Stay (years) if Dwelling Was:		
	Certified with or without Repair	Never Certified[b]	
		Repaired after Failing	Never Repaired
Head 62+	10.5 (1.4)	.2 (.05)	
Single parent	2.4 (.1)	1.0 (.2)	.1 (.01)
Other	2.9 (.2)	1.5 (.4)	.1 (.01)

SOURCE: Estimated by HASE staff from length-of-stay model fitted to HAO data covering enrollees who qualified for payments by June 1976 in Brown County and December 1976 in St. Joseph County.

NOTE: Parenthetical entries are standard errors.

[a]Other household characteristics affecting length-of-stay are set at their median (continuous variable) or predominant (binomial) values for the indicated group of households.

[b]Enrollee moved to another dwelling that was certified.

unsuccessful they reluctantly move in order to qualify for payments. Still others whose dwellings failed move promptly, perhaps because they were already dissatisfied and the allowance offer tipped the balance.

Once the variables discussed above are taken into account, we find that neither experimental site nor race of the household head significantly affects length of stay by program participants in their enrollment residences.[35] Thus, the indications in Fig. 5.5 that renter participants in Brown County move less often than those in St. Joseph County appear to reflect a different composition of the two groups rather than different underlying behavior; and market constraints in St. Joseph County do not seem to inhibit black renters from moving with the same frequency as similarly situated whites.

Moving and Housing Improvement

We have yet to develop and apply a comprehensive physical measure of the housing improvements achieved by participants who move. Comparing two dwellings simultaneously along many dimensions is intrinsically difficult and may yield

[35] The one exception is that black homeowners in St. Joseph County tend to stay longer in their enrollment residences than white homeowners.

no clear conclusion whether one is better than the other; deciding how much better is even harder.[36]

In the meantime, we can report on two imperfect indicators of the housing improvements achieved by movers. One is the number who moved from unacceptable enrollment dwellings to acceptable homes, as judged by HAO evaluators. The other is the difference in what they paid for premove and postmove dwellings.

A dwelling may fail the HAO evaluation because of some easily repaired defect (for example, unsanitary litter on the premises), yet the enrollee may decide to move. His new home, if passed by the HAO, is by definition better than the failed dwelling, but the amount of improvement varies greatly from case to case. Moreover, about half the movers exchanged one acceptable dwelling for another; the evaluation results do not help measure the housing improvement achieved in those cases.

Most people would agree that the market price of a dwelling reflects the general consensus among consumers as to its merits relative to dwellings available at higher or lower prices. As noted in Sec. IV, that consensus does not strictly agree with the allowance program's standards of housing quality; consumers have different priorities than those who devise housing codes. Moreover, each consumer has views about the relative merits of different dwellings which may deviate from the market consensus. Nonetheless, moving to a more expensive home is as good a test of housing improvement as we can presently apply.

Table 5.12 shows that most of the movers were paying more rent at the end of year 2 than when they enrolled; the median increase in both sites was 23 percent. Because of some very large increases, especially in St. Joseph County, the averages are well above the medians. Note that those whose enrollment dwellings passed the initial evaluation typically paid only 13 percent more for their new homes, whereas those whose enrollment dwellings failed spent about 30 percent more after moving.

We should add two qualifications. During the average enrollment period for movers (15 months in Brown County and 13 months in St. Joseph County), rents in general were increasing. However, data for nonmovers whose dwellings did not need repairs show an average annual increase of 3.2 percent in Brown County and 1.4 percent in St. Joseph County, not nearly enough to explain away the movers' increased expenditures.[37]

Also, we are accumulating evidence that renters who move thereby give up a price advantage that accrues with duration of occupancy. For Brown County, we estimate that each year of occupancy discounts the average contract rent by about 1.7 percent.[38] Since the average mover occupied his dwelling for less than a year before enrolling, that effect is also inadequate to explain away the observed increase in expenditures.

Our conclusion is that movers use the occasion of moving to increase their housing consumption by renting larger or better homes, or by choosing homes in

[36] An approach is outlined in C. Lance Barnett, *Using Hedonic Indexes to Measure Supply Response to Housing Allowances*, The Rand Corporation, WN-8686-HUD, August 1974. Barnett has fitted such an index to rental housing in Brown County; his results will be reported in *Hedonic Index of Housing Services at Baseline in Site I*, The Rand Corporation, WN-9028-HUD, forthcoming.

[37] These rates of increase for nonmovers in the program are below the general rates of increase in contract rent reported earlier in this section (4.4 and 3.1 percent annually in the two counties respectively). See Table 5.3, above.

[38] Barnett, *Hedonic Index of Housing Services at Baseline in Site I.*

Table 5.12

POSTENROLLMENT CHANGES IN CONTRACT RENT FOR MOVERS RECEIVING PAYMENTS AT END OF YEAR 2 BY INITIAL EVALUATION RESULT: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES

Initial Evaluation Result	Number of Cases	Percentage Distribution of Cases by Change in Contract Rent				Percentage Change in Contract Rent		
		Decrease	No Change	Increase	Total	Average	Adjusted Average[a]	Median
Brown County								
Pass	182	24	7	69	100	23	23	13
Fail	228	11	5	84	100	44	42	29
No result[b]	62	6	8	85	100	38	38	26
Total	472	15	6	78	100	35	34	23
St. Joseph County								
Pass	108	26	8	66	100	55	32	13
Fail	217	17	10	74	100	62	46	30
No result[b]	136	16	15	69	100	100	53	19
Total	461	19	11	70	100	72	44	23

SOURCE: Tabulated by HASE staff from HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

NOTE: Table excludes 232 movers in Brown County and 323 in St. Joseph County who received payments but whose enrollments were terminated before the end of year 2. It also excludes 49 movers in Brown County and 150 in St. Joseph County whose rent records were defective or who lived rent free at enrollment.

[a]Excludes rent increases of 500 percent or more. Such cases are usually renters who paid less than market rents at enrollment because of special relationships with their landlords.

[b]No evaluation attempted because enrollment dwelling was public housing; or evaluation attempt was unsuccessful because of an uncooperative landlord or because the enrollee moved before the evaluation could be scheduled.

better neighborhoods. As we will see below, there is little evidence of net neighborhood change, so the increases must reflect more housing consumption. Finally, among enrollees who move, the amount of the increase is closely related to the adequacy of their preenrollment homes, as judged by the HAO: Those in worse housing increase their consumption proportionally more than those in better housing.

Moving and Neighborhood Change

During the first two program years, 824 participants in Brown County and 1,005 in St. Joseph County moved to new addresses. Here we examine the origin and destination of those moves and their effect on the local housing market.

At the beginning of the experiment, we divided Brown County into 108 neighborhoods and St. Joseph County into 86, choosing boundaries to group similar dwellings and residential environments.[39] Most neighborhoods have 2,000 to 4,000

[39] For details of neighborhood designation and characteristics of the designated neighborhoods, see Bryan Ellickson, *Neighborhoods in Brown County*, The Rand Corporation, WN-8468-HUD, November 1973; and John W. Bala, *Neighborhoods in St. Joseph County*, The Rand Corporation, WN-10210-HUD, forthcoming.

residents, their areas increasing as residential density decreases. To analyze program participants' moves, we grouped the neighborhoods into larger districts, again based on residential similarities. Figures 5.7 and 5.8 show the districts and the neighborhoods they comprise for the urban parts of Brown and St. Joseph counties, respectively.

In Brown County, the two most central districts lost participants to adjacent areas. The Central Business District East lost a total of 46 participating households out of 639 who originally enrolled there. It contains small, aging single-family homes and makeshift multiple dwellings, mixed with commercial and light industrial establishments. The portions along the waterfront are subject to flooding, and part of the district has been designated a special code enforcement area because of its deteriorating housing. Similar conditions prevail across the river, where Central Business District West lost 18 of its 376 participating households.

The district that gained most substantially is the Outer West, composed of neighborhoods 347 through 358. It gained 59 participating households over the 464 living there at enrollment. Its newer housing stock consists of modest single-family homes, increasingly mixed with new apartment buildings; it is well served by schools, parks, retail shops, and a large complex of medical services. East of the river, the Outer East district gained 8 over the 172 households that enrolled there.

The allowance program thus appears to have induced or facilitated some shift from residentially deteriorating districts to areas that offer better housing and neighborhood services. However, in no case did participants' net moves over the two-year period amount to more than 1.2 percent of all households in the district of origin or destination. For each of the remaining districts, outbound and inbound moves nearly balanced, the net flow never exceeding 7 households.

The pattern of net moves in St. Joseph County is more complex, perhaps because it involves racial as well as physical environments. Most moves occurred within the area of deteriorated housing that we call "central South Bend." It includes five of the districts shown in Fig. 5.8: Core East, Core West, Southwest, Northwest, and Southeast.

Enrollment is heavy in nearly all of central South Bend. In 1974, the area contained about 16,000 white and 5,500 black households, with another 500 of other races. As shown in Table 5.13, about 13 percent of the whites and 35 percent of the nonwhites enrolled during the first two program years. Among nonwhites, nearly half the renters and a fourth of the homeowners enrolled.

The district that lost the most enrollees, Core West, is more than half black and has the worst housing and the highest crime rate in South Bend. Between 1970 and 1976, nearly a sixth of its dwellings were demolished without replacement; and only 37 new dwellings were built. Rental housing predominates. On balance, Core West lost 53 of its 986 participating households.

Most of those households moved to two adjacent districts, Core East and Southwest, which are over three-quarters white and contain a large proportion of owner-occupied units. Although Core East shares its counterpart's high crime rate, it has marginally better housing, more attractive vacant land, and better municipal services. The Southeast district, inhabited mostly by whites with strong ethnic ties, has a lower crime rate and less dense development. The two districts gained 24 and 19 participating households, respectively.

We examined moves by enrollees out of and into central South Bend separately for whites and nonwhites. Although nearly a fourth of all moves crossed that

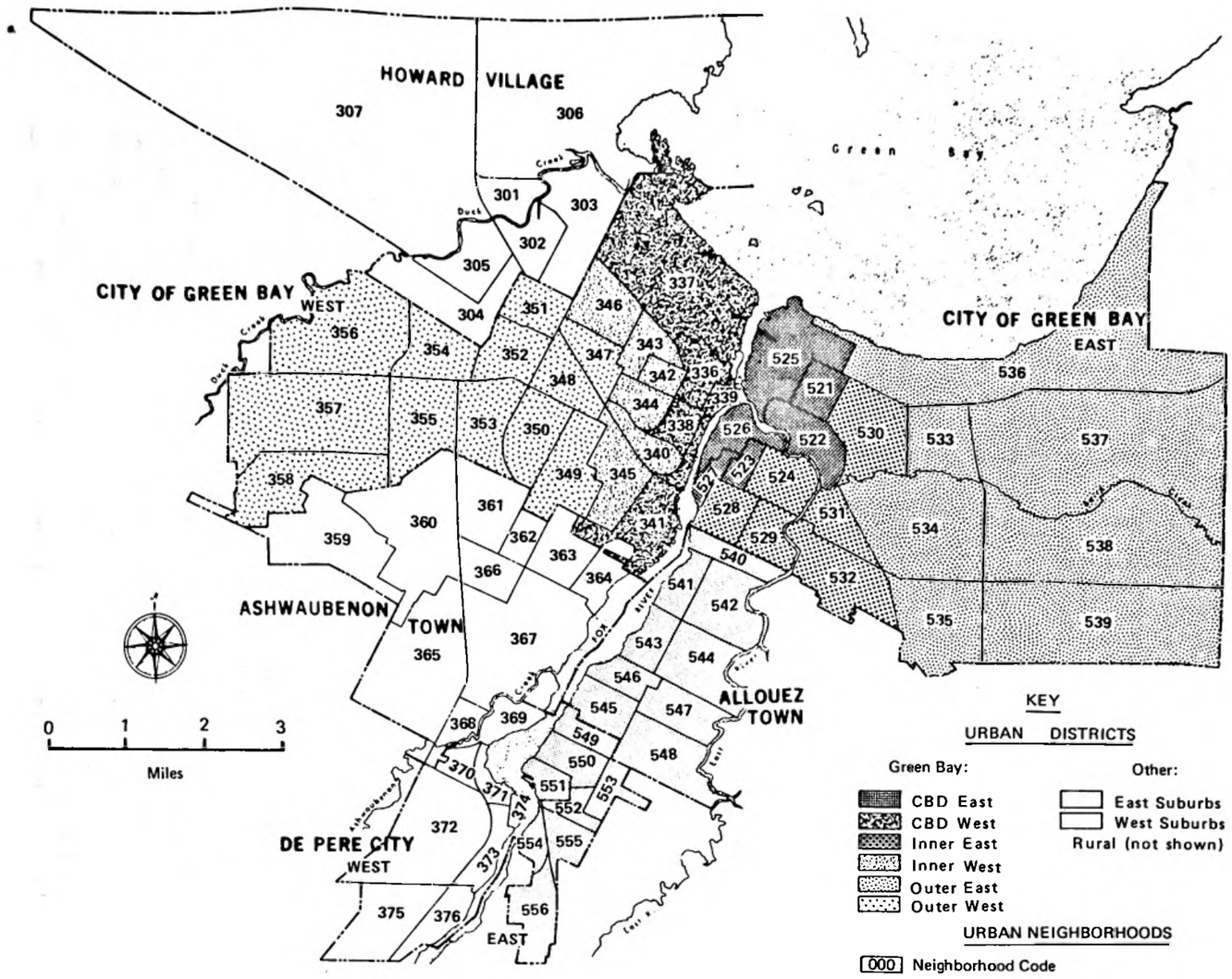


Fig. 5.7—Urban districts and neighborhoods in Brown County

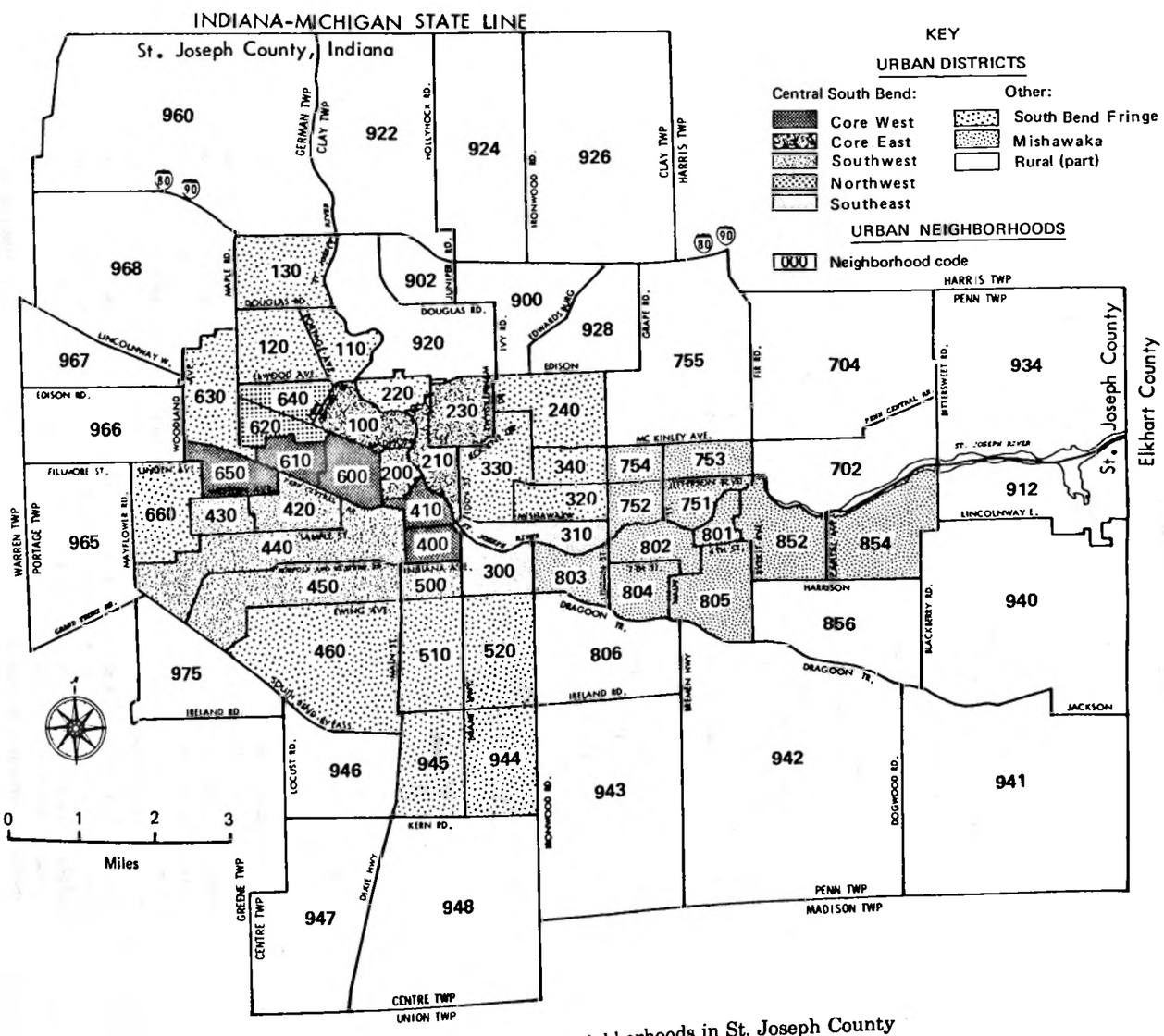


Fig. 5.8—Urban districts and neighborhoods in St. Joseph County

Table 5.13

ENROLLMENT AND PARTICIPATION IN CENTRAL SOUTH BEND BY RACE AND HOUSING TENURE: HOUSING ALLOWANCE PROGRAM IN ST. JOSEPH COUNTY THROUGH YEAR 2

Program Status	Households, by Race of Head			
	White		Black or Other[a]	
	Number	Percent	Number	Percent
Renters				
Population in 1974	6,031	100	2,887	100
Enrolled, first two years	1,031	17	1,342	46
Ever authorized for payments	702	12	840	29
Still authorized, end of year 2	471	8	554	19
Owners				
Population in 1974	10,087	100	3,154	100
Enrolled, first two years	1,088	11	752	24
Ever authorized for payments	921	9	563	18
Still authorized, end of year 2	734	7	448	14
Renters and Owners				
Population in 1974	16,118	100	6,041	100
Enrolled, first two years	2,119	13	2,094	35
Ever authorized for payments	1,623	10	1,403	23
Still authorized, end of year 2	1,205	7	1,002	17

SOURCE: Population estimated by HASE staff from records of the baseline survey of households. Enrollment and participation figures tabulated from HAO records through December 1976.

NOTE: Entries for those enrolled and those ever authorized are based on enrollment address and housing tenure. Entries for those still authorized at the end of year 2 are based on current address and housing tenure.

[a]Includes Latin origin or descent.

boundary, the directional flows balance almost exactly for each racial group: 84 white and 37 nonwhite enrollees moved out, whereas 86 whites and 37 nonwhites moved in.

However, the outbound and inbound groups differ in other respects. More of those moving out of central South Bend were couples with children and more were renters buying homes. Those moving in had lower incomes, and more were young single persons or childless couples. Over a fourth of the inbound movers appear to have formed new households, moving from rent-free quarters (such as their parents' homes) to the area of the county where housing is least expensive.

White and nonwhite movers show different locational preferences within central South Bend. Whereas Core East gained 33 nonwhite enrollees due to moving, it lost 9 white households to other parts of central South Bend. The Southeast district, on the other hand, lost a few nonwhites but gained a few whites. A more detailed examination of enrollees' moves by their origins and destinations shows some dispersion of blacks and some movement of whites away from the blackest

neighborhoods. But as noted above, those shifts took place within central South Bend, not between that area and the rest of the county.[40]

Conclusions

The housing allowance program either prompts or accelerates moves by a substantial number of renters but few homeowners. The renters who move usually increase their housing expenditures substantially; the median increase in their contract rent in both sites was 23 percent. Discounting that figure for inflation, the loss of price advantages that accrue with duration of occupancy, and the fact that contract rent does not cover all of a renter's housing costs, we conclude that renters who move typically increase their housing consumption by at least 15 percent.

Given that a third of all renters ever authorized for payments had moved during a period of enrollment that averaged about a year, it seems likely that more will do so over a longer period; but we cannot yet estimate the longrun effects on housing consumption. It is nonetheless clear that the freedom to move is an important feature of the experimental allowance program, permitting consumption changes that could not readily be achieved otherwise.

The similarity of mobility rates and expenditure changes in the two sites, combined with the generally random geography of moves, suggests that they are more often motivated by housing than neighborhood considerations. Newly formed households tend to locate in the older neighborhoods where housing is least expensive; couples with children tend to leave those neighhorhoods when they buy homes. But only the worst neighborhoods in each site lost program participants who moved, on balance, to better neighborhoods.

Moves by participants have not been so numerous or so selective as to origin or destination that they could much disturb the social order or housing market of any specific neighborhood. In South Bend's segregated housing market, the program may have speeded the normal process of black dispersion, but not dramatically. White flight may have been facilitated, but not very much.

COMMUNITY ATTITUDES

The allowance program gives financial aid to low-income households and encourages them to seek better housing in the private market. Those not receiving allowances could view the program in various lights, depending on what they knew about it, their ideological commitments, their roles in the housing market (e.g., as landlords, renters, homeowners, or real estate brokers), and their personal experiences with participants or HAO staff.

Planners of the experiment were most concerned about the possible crystallization of organized opposition to the program among those who perceived (correctly or not) that attempts by participants to obtain better housing had driven up housing prices for nonparticipants; or that moves by participants (especially those be-

[40] See Ira S. Lowry, *An Overview of the Housing Assistance Supply Experiment*, The Rand Corporation, P-5976, September 1977. The analysis covers 22 census tracts that contained at least 10 black enrollees. Those tracts make up about four-fifths of central South Bend as described here and include one sparsely settled tract outside that area.

longing to racial minorities) had upset the social equilibrium of nonparticipants' neighborhoods.

Other possibilities were that landlords would refuse to deal with participants for ideological reasons, or that landlords and the general public would lump allowance recipients with welfare recipients, castigating both as undeserving of public assistance.

There were also positive possibilities. The public might view the program as helping the deserving poor lead decent lives, improving the community's housing stock, stabilizing neighborhoods, or adding to the community's general prosperity. Landlords might see the benefits to them of a more prosperous tenantry, even though the program offers no guarantees to any particular landlord.

Here, we report on the formation of public attitudes toward the program during roughly its first two years of operation in each site. We draw mostly on data gathered in surveys of households and landlords conducted just before the program began and repeated a year later; but also on reports by resident observers in each site and records of telephone calls to each HAO.[41]

Key Findings

- The allowance program has become an accepted institution in both sites. Early controversies among community leaders about local participation have receded and never gained the attention of the general public.
- Despite considerable media coverage of negotiations with local officials, only a fourth of all household heads in Brown County and a third in St. Joseph County had heard of the program when it began operating, and few of these could describe it accurately.
- Due primarily to HAO outreach activities (including paid advertising), knowledge of the program spread rapidly once it was operating. Within a year, four out of five households in Brown County and seven out of eight in St. Joseph County said they had heard of the program.
- In both sites, community leaders expected different things of the program than did ordinary citizens. The leaders looked for dramatic countywide housing improvements and fiscal benefits, whereas citizens thought the program would help poor people find decent places to live and were unconcerned about the possible negative affects (inflation, neighborhood change, fraud) discussed in the media.
- The program has been well received in both sites. At the end of the first year, 58 percent of those in Brown County who had heard of it reported positive views, 31 percent were neutral, and 11 percent were negative. The corresponding figures for St. Joseph County were 64, 21, and 15 percent.
- As the figures above suggest, residents of St. Joseph County held more definite opinions on a variety of program-related topics than did residents of Brown County. That outcome seems to reflect important cultural differences between the two communities rather than differences in their allowance programs.

[41] The findings reported here are drawn mainly from Phyllis L. Ellickson and David E. Kanouse, *Public Perceptions of Housing Allowances: The First Two Years*, The Rand Corporation, WN-9817-HUD, forthcoming.

- Data for St. Joseph County indicate that the program's popularity increased among household heads but waned among landlords during the first year. Although the analysis is incomplete, it appears that the changes mainly entail the formation of definite opinions by those who earlier had reserved judgment.
- Housing allowances are favorably distinguished from welfare in both sites. About 47 percent of the household heads in Brown County and 42 percent in St. Joseph County approved of allowance recipients; only 29 and 25 percent, respectively, approved of welfare clients.

Politics of Program Acceptance

The experimental sites differ as to population size, social structure, and social and political attitudes. These differences are powerfully reflected in the two communities' initial responses to the allowance program.

Brown County is racially homogeneous, generally prosperous, and socially conservative. Mostly of northern European origin or descent, its citizens and community leaders work together in seeming harmony on a variety of civic projects. There are few formal political organizations or even well-defined factions; the politics of consensus prevail.

St. Joseph County is larger and more diverse racially, economically, and politically than Brown County. Its citizens tend to ally themselves in small groups with common backgrounds, joint interests, or shared values, so that its political life consists more of intergroup negotiations than of common endeavor. Personal, ethnic, and jurisdictional rivalries are sharp and open. Public events are closely monitored by interest groups alert for issues that may impinge on them.

From the beginning of the negotiations that led to Brown County's selection as an experimental site, the progam's relations with local officials and civic leaders have been extremely cordial. At no time has program implementation been impeded by public controversy or factional dissent—which is not to say that community leaders have been uncritical. They have often voiced concern about specific program features such as the lease requirement for renters, housing quality standards, benefit levels, and the possibility that the program might attract inmigrants. But those concerns have been expressed in the context of general support for the program.

Under the federal statute authorizing funds for the program, its operation within a local jurisdiction requires approval by the government of that jurisdiction, and its funds must be channeled through a local public agency—usually a housing authority. To operate the program throughout Brown County, approvals were needed from the governments of each of two cities, four villages, 18 townships, and an Indian tribe, as well as from the county itself. Approvals were quickly and easily obtained and a county housing authority was created specifically to serve as the funding conduit to the HAO.

Negotiations went differently in St. Joseph County. Some local leaders vigorously supported the program, while others denounced it or sought major changes in its purposes, methods, or management. The most consistent early support came from the mayor and city council of South Bend, whose strong endorsement convinced Rand and HUD that the county was viable as an experimental site. Despite

protracted negotiations, neither South Bend's sister city, Mishawaka, nor the county government would approve the program for their jurisdiction.[42] Only after the program was under way in South Bend and after elections had changed the membership of their governing bodies did those jurisdictions reconsider. Once they joined, the remaining seven small incorporated areas followed suit, completing countywide coverage.

Local organizations in St. Joseph County have watched the program carefully. A civic group that provides social services for the elderly has lobbied for the program; a taxpayers' association has been persistently hostile, and a group that operates social programs in low-income neighborhoods was at least briefly so. Leaders of two organizations representing minorities, while not opposing the program in principle, have attacked features of it. One, a local NAACP officer, sought a more forceful desegregation policy; others, representing a Mexican-American organization, successfully sought revision of the HAO policy that delayed action on enrolling new residents. A Mishawaka developer argued that accepting the program would cut off federal funds for new rental housing. The South Bend Housing Authority (the conduit for program funds) charged that the allowance program draws away many of its "best" actual or prospective tenants, causing the authority financial difficulties.

Some objections have focused on program management. For example, a labor union accused the HAO of improper conduct in soliciting nonunion bids to renovate its permanent quarters; the owner of a downtown office building complained that in choosing its office space, the HAO had not supported efforts to reinvigorate the city's central business district. An association of Hungarian immigrants persuaded a member to withdraw his application for enrollment because they did not trust the HAO's pledge to keep personal information confidential.

The contrast with events in Brown County, where there has been no organized criticism of the program, is striking. It is also notable that most public complaints about the program in St. Joseph County have been based less on objections of principle than on concerns for special constituencies.

Growth of Community Awareness

Although the negotiations leading to the program's acceptance in each site were well publicized (especially in St. Joseph County), relatively few citizens paid much attention. From the records of our baseline household surveys, conducted over several months in the period between acceptance and inauguration of the program, we estimate that a fourth of all household heads in Brown County and a third in St. Joseph County had heard of the program.

Even among those aware of the program, few really understood it. Taking St. Joseph County as an example, analysis of respondents' verbatim program descriptions yielded the following results:

[42] In Mishawaka, an important source of opposition was the fear that the program would encourage South Bend's blacks to move to that all-white jurisdiction. The county commissioners seemed most concerned about who would control the housing allowance office.

Code	Level of Awareness	Percent of All Households	Percent of All Landlords
0	Had not heard of the program	66	64
1	Had heard of the program	34	36
2	Gave accurate details	16	19
3	Gave distinctive details	2	4
	Total	100	100

By the time of the next annual survey, 80 percent of the household heads in Brown County and 87 percent in St. Joseph County had heard of the program (level 1); and preliminary analysis indicates that its details were also more widely understood. The rapid growth in public knowledge is mostly attributable to the outreach efforts of the housing allowance offices, which included advertising on radio and television and in newspapers, distributing posters and brochures, speaking to civic and fraternal organizations, and mailing program information to lists of likely eligibles.[43]

Selecting the household heads and landlords in St. Joseph County who supplied some accurate details about the program (level 2) at baseline, we have tabulated the elements of their descriptions. A synthetic modal response would read as follows:

> The housing allowance program helps the elderly and those with low incomes, both renters and homeowners, pay their housing and other expenses, fix up their homes, and move to better housing or neighborhoods.

Notably absent from that description is any mention of minorities or the undeserving poor, program-caused market disturbances, undesirable effects on neighborhoods, who would control the program, how much money it would bring into the county, or other controversies that preoccupied civic leaders and were aired by the press. The average citizen with some information was more concerned with concrete near-term effects on the lives of individuals than with abstract, longrun, or global consequences of the program. When people did speculate about the latter, the tone was positive—for instance, that the program would improve the community's housing. Landlords responded in nearly the same pattern as all household heads, but especially emphasized that the program would help tenants with their housing expenses.

Attitudes toward the Program

Preliminary tabulations from wave 2 survey data provide our first glimpse of attitudes toward the program after exposure to its actual operation; and, for St. Joseph County, how they shifted during the first program year. Table 5.14 divides survey respondents according to their general evaluations of the allowance program. As its footnote indicates, the evaluations reported for baseline in St. Joseph County come from a more restricted set of respondents than do those for wave 2 in each site; and the data for landlords are unweighted. However, we are confident

[43] See Sec. VI, "Outreach: Informing Eligibles about the Program," for details.

Table 5.14

PROGRAM EVALUATIONS BY HOUSEHOLD HEADS AND LANDLORDS: BROWN COUNTY (WAVE 2) AND ST. JOSEPH COUNTY (BASELINE AND WAVE 2)

Program Evaluation[a]	Brown County, Wave 2[b]	St. Joseph County	
		Baseline[c]	Wave 2[d]
Household Heads (Percent of All Informed Households)			
Positive (1-3)	58	53	64
Neutral (4) or no opinion	31	30	21
Negative (5-7)	11	17	15
Total	100	100	100
Landlords (Percent of All Informed Respondents)			
Positive (1-3)	40	48	44
Neutral (4) or no opinion	39	30	25
Negative (5-7)	22	22	31
Total	100	100	100

SOURCE: Tabulated by HASE staff from records of the indicated surveys of households and landlords. Adapted from Phyllis L. Ellickson and David E. Kanouse, *Public Perceptions of Housing Allowances: The First Two Years*, The Rand Corporation, WN-9817-HUD (forthcoming), Table 6.2.

NOTE: Respondents to the baseline surveys in Brown County were not asked to evaluate the program. Informed respondents are those demonstrating knowledge of the program, but are less rigorously chosen for wave 2 tabulations than for baseline tabulations (see notes *b*, *c*, *d* below). Levels of program awareness are defined in text table on p. 137. Data for households are weighted to represent corresponding populations of informed households. Data for landlords are unweighted; see accompanying text.

[a]Respondents with opinions selected integer values on a scale from 1 (good idea) to 7 (bad idea).

[b]Level 1 respondents (1,167 household heads, 623 landlords).

[c]Level 2 respondents (288 household heads, 236 landlords).

[d]Level 1 respondents (1,564 household heads, 608 landlords).

that the conclusions discussed below will survive the more rigorous analysis of the wave 2 data that is now under way.[44]

After a year of exposure to program operations, about three-fifths of all informed household heads and two-fifths of all informed landlords thought housing allowances were a "good idea" and most others were neutral or had no opinion. However, the response patterns differ in the two sites. Relatively fewer respondents in Brown County were aware of the program; and of those aware, fewer had definite opinions. Among those that had definite opinions, Brown County respondents (both household heads and landlords) viewed the program more favorably than those in St. Joseph County.

Those results are wholly consistent with the reports of our resident observers in each site. The citizens of Brown County are cautious in opinion and action, but distinctly prefer positive to negative views of anyone's efforts at civic betterment. Those in St. Joseph County are more impulsive, more outspoken, and more critical of the motivations and judgments of others.

Overall, the progam has fared remarkably well under public scrutiny in both sites. Only 11 percent of the informed household heads in Brown County and 15 percent in St. Joseph County thought housing allowances were a "bad idea." Landlords were less enthusiastic: A fifth of those in Brown County and nearly a third in St. Joseph County reported negative attitudes.

The last two columns of Table 5.14 show how opinions shifted in St. Joseph County between the baseline and wave 2 surveys. The comparisons are as yet speculative because respondents to the two surveys were selected on different levels of program awareness; and program awareness itself spread greatly during the interval. Exposure to a year of program operations apparently increased the incidence of those with definite opinions. Whereas household heads viewed the program with increasing favor, landlords found it less attractive than at baseline.[45]

The positive shift of general opinion seems reasonable to us. As noted earlier, ordinary citizens expected only modest results from the program; it has easily met those expectations, and done so without untoward side effects. Only a few household heads had reason to be disgruntled: those who applied and were found ineligible (still a small number at the time of the wave 2 survey) and those who knew of "undeserving" beneficiaries (rare, if we can judge by complaints to the HAO and letters to the press).

The negative shift of landlords' opinions is also understandable. For them, the most immediate result of program operations was that enrolled tenants had their dwellings evaluated; and if a dwelling failed, the landlord was often asked to make or pay for repairs. The second event was a request from the tenant for a lease agreement on a standard form provided by the HAO.[46] Later, some landlords were

[44] We were careful in our surveys to ask only respondents who professed knowledge of a subject how they felt about it. However, determining the level of awareness requires detailed analysis of verbatim responses, not yet complete for wave 2 surveys. Thus, the table reports the wave 2 opinions of everyone who said they had heard of the program, whereas the baseline responses for St. Joseph County include only those who could describe it accurately. Respondents to the baseline surveys in Brown County were not asked their opinions of the program. For additional detail on baseline evaluations in St. Joseph County, see Ellickson and Kanouse, *Public Perceptions of Housing Allowances*, Table 6.1.

[45] Further analysis will tell us whether the views of individual respondents changed, or whether those late to learn about the program held different views from those who were aware of it at baseline.

[46] Actually, any agreement was acceptable so long as it contained several provisions required by federal law. The most troublesome item to landlords was an agreement to notify the HAO prior to evicting a tenant; many landlords interpreted the notification as a legal impediment to eviction, which it is not.

disgruntled by the discovery that the HAO did not guarantee the rent payments owed by recipients nor was the HAO liable for damages to recipient-occupied dwellings.

Housing allowance offices in both sites are accustomed to complaints from angry landlords about the misdeeds of recipients, and many of the complaints are obviously justified. The receipt of a housing allowance does not transform negligent or troublesome tenants into model citizens. It does encourage many tenants to join with their landlords in bringing dwellings up to program standards (see Sec. IV, "Housing Repairs and Improvements") and helps all of them pay their rents. Those benefits to landlords are reflected in the solid core of their support for the program, at least 44 percent reporting positive views after a year of exposure to it.[47]

Comparing Allowance Recipients to Welfare Recipients

In Sec. IV, we showed that those enrolled in the housing allowance program approvingly distinguished themselves from welfare recipients. Here, it is worth noting that the general public also makes that distinction:

Respondents' Attitude	Percent of Informed Household Heads	
	Brown County	St. Joseph County
Approves of allowance recipients . . .	47	42
Approves of welfare recipients	29	25

Although we cannot yet confirm our interpretation of those results with systematic data, informal observation leads us to believe that the more favorable view of allowance recipients reflects two widely held (and accurate) perceptions of the allowance program. One is that so many allowance recipients are elderly homeowners, generally regarded as valued citizens whose need for help does not reflect improvidence so much as physical disability and price inflation. The other is that, unlike welfare, the allowance program requires something in return for benefits: that recipients keep up their homes.

Conclusions

As overseers of program operations, we are naturally gratified but somewhat surprised by the amount of public approval the program has gained. The evidence speaks well for the program's objectives (modest housing improvements and eased expense burdens), its methods (operating through instead of aside from the private market and leaving to clients the management of their own affairs), and not least, the skill and dedication of the HAO personnel in the two sites.

Undesirable side effects of the program, had they occurred, could have soured public opinion in either site. The possibility of such effects was properly a matter of great concern both to the planners of the experiment and the civic leaders of

[47] The table shows unweighted landlords' responses for both baseline and wave 2, in order to make the entries more nearly comparable. The baseline responses have been weighted and the results suggest that weighting the wave 2 responses will shift the distribution of opinions positively, but not enough to belie the negative time-trend shown by the unweighted responses.

Brown and St. Joseph counties; but in retrospect, the likelihood of calamities seems much exaggerated. In any event, ordinary citizens did not expect them, but took more practical and realistic views of what the program might accomplish than either most civic leaders or outside observers. By and large, public expectations have been fulfilled, and the allowance program has come to be regarded as an undramatic but useful means of helping low-income families with their housing.

CONCLUSIONS

In Sec. IV of this report, we showed that housing allowances have been reasonably effective both in relieving the budgetary burdens of low-income families and in improving the quality of their housing. This section addressed broader concerns about the effects of a fullscale program on the housing market and community in which it operates.

During the program's first two years, the market and community effects were slight. We find no evidence of program-generated price increases in either the rental or the ownership markets, no strains on the community's resources for financing home purchases or improvements, no signs of overload on the construction or home repair industries, no problems arising from interneighborhood moves by program participants, and a general climate of public approval.

On the other hand, neither do we find much evidence of widespread housing or neighborhood improvement, more favorable attitudes of lenders toward low-income borrowers or low-valued properties, more rapid residential desegregation, or any general reconciliation of the often conflicting interests of landlords and tenants, lenders and borrowers, poor and prosperous citizens, blacks and whites, or cities and suburbs.

In terms of their market and community effects, housing allowances have so far been neither the disaster that some predicted nor the cure-all expected by others. At this point in the experiment, we judge that the main effects of the program are on its participants and their housing. Nonparticipants have been so mildly affected that it hardly matters whether such effects are deemed favorable or unfavorable.

Some market and community effects may be slow to begin but cumulative in significance. For example, we see some net shifts in the residential locations of program participants in both sites; they are not yet enough to signify or be noticed by neighborhood residents, but could still snowball. We note a small net change in housing tenure among participants; the mortgage repayment records of allowance-assisted homebuyers could, over time, affect the availability of mortgage credit to program participants. We see a small negative shift in landlords' attitudes toward the program which, if it persists, might diminish the effectiveness of housing allowances.

Assuming that the longrun effects of the program on the housing market and community are no greater than those so far observed, the issues to be considered by federal policymakers are much simplified: The merits of a national housing allowance program can be judged primarily in terms of its effects on those who participate, and on its costs relative to alternatives. A final assessment in those terms must also await additional evidence and analysis; but the reader is invited to consider the interim findings reported in Secs. IV and VI.

VI. ADMINISTERING THE ALLOWANCE PROGRAM

A government housing or transfer program often turns out differently than its sponsors hoped because its administrative procedures unexpectedly impede the attainment of the program's objectives. Poorly designed or inadequately staffed administration may confuse or alienate the intended beneficiaries and unnecessarily delay urgent decisions; benefits may be misdirected because of ambiguous program rules or uncontrolled errors in procedures; and administrative review may be hampered for lack of analyzable records.[1] We tried to avoid such failures in the Supply Experiment.

Because the housing allowance offices in Brown and St. Joseph counties were to administer fullscale allowance programs for ten years, makeshift administration was clearly inappropriate. Rand's Field and Program Operations Group and the senior staffs of the two HAOs carefully analyzed the program's functions and consulted with a variety of experts for advice in formulating program rules and operating procedures. Those rules and procedures are recorded in a comprehensive administrative handbook whose contents were approved by HUD and have been modified as warranted by subsequent experience.[2]

The experimental nature of the program prompted more elaborate recordkeeping and more systematic studies of administrative procedures than are usual for established programs. We seek data on the costs, reliability, and efficiency of HAO procedures and their effects on clients, data that can be used not only to improve the HAOs but to guide HUD and other agencies in planning similar housing or transfer programs.

Partly because of the nature of the program and partly because of the design of its record system, HAO records have unusual advantages for administrative research:

- The records cover enough cases (35,000 applicants and 17,000 enrollees as of September 1977) for quite detailed statistical analysis.
- Both program rules and administrative procedures are carefully specified and conformance to them is monitored, so that relationships between rules or procedures and program results are unusually clear.
- A rare amount of detail about clients and their transactions with the HAOs has been preserved in machine-readable files, whose entries are audited for possible errors. The data are thus both reliable and accessible.
- The program's duration makes it possible to study the effectiveness of program procedures over time, as clients learn how the system works and as the composition of the client population changes.

[1] See, for example, Sharon Galm, "Welfare—An Administrative Nightmare," in *Studies in Public Welfare*, Paper No. 5, a staff study prepared for the Subcommittee on Fiscal Policy of the Joint Economic Committee, Congress of the United States, 31 December 1972.

[2] This document, the *Housing Allowance Office Handbook*, covers all elements of program administration. More detailed instructions are provided in a series of manuals, of which the most important are the *Instruction Manual for the Enrollment Application* and the *Housing Evaluation Manual*. In addition, policy clarification memoranda (PCMs) are issued as needed to clarify existing rules or transmit modifications. Through September 1977, a total of 195 PCMs had been issued.

- The program includes a broader spectrum of clients—renters and homeowners, old and young, families and single persons, employed and unemployed—than do most housing or transfer programs. Rules and procedures are consequently tested under a wide variety of personal circumstances.
- The availability of parallel records from two experimental sites that differ in many program-relevant characteristics helps us test the generality of any conclusions about program administration.

Although we have yet to exploit all these advantages, we have already learned a great deal about the HAOs' administrative system. This section summarizes our interim findings. First, we review the HAOs' functions and explain the principles that governed the design of operating procedures. We then report on administrative costs and compare them with such costs in other programs. Finally, we describe the HAOs' experience with each of the three functions—outreach, enrollment, and housing certification—entailed in bringing eligible households into the program. Although services to continuing participants are included in the general cost analysis, this section does not examine those functions in detail.

ADMINISTRATIVE FUNCTIONS

Like most organizations, the HAOs are divided into sections within which staffs perform similar or interrelated tasks. Daily activities are regulated by a hierarchy of supervisors headed by the HAO director (see Appendix C). Budgets and expenditure reports follow the pattern HUD established for local housing authorities, with line items for each major type of expenditure—such as salaries, office rent, computer services. However, to plan and monitor administrative procedures, we adopted a functional view of activities and their costs.

In that view, HAO activities are grouped into four classes according to the purposes they serve rather than the nature of the work itself. *Client intake functions* comprise all activities directed to bringing eligible households into the program. *Client maintenance functions* comprise all activities that serve continuing clients. Those two groups constitute program operations, as distinct from support services, which consist of *general support functions* and *research support functions*. The activities within each function are detailed below.

Client Intake

Outreach. Using advertising and other techniques to inform eligibles about the program.

Enrollment. Arranging and administering means tests for households that submit an application. The enrollment process includes the following:

Screening and scheduling. Preliminary screening of applicants and scheduling enrollment interviews for those not screened out as clearly ineligible.

Program information and enrollment interview. Providing information to applicants about program rules and conducting interviews with them to obtain information on household status and income; determining whether

the household is eligible; if eligible, determining the amount of its allowance entitlement; and signing participation agreements with eligibles who choose to enroll.

Error control and data processing. Checking enrollment forms to detect and correct errors; verifying undocumented information with employers, banks, public agencies, etc.; and creating client records in the HAO computer system.

Housing certification. This function distinguishes the allowance program from a pure income transfer program. It has two components:

Housing evaluation. Inspecting enrollees' housing units; informing them of the results; reevaluating units after repairs are attempted; processing evaluation results and lease agreements and authorizing payments to those whose housing qualifies.

Enrollee services. Providing services to help enrollees obtain certifiable housing. In the Supply Experiment such services have consisted mainly of voluntary group counseling sessions and legal services in discrimination cases.

Client Maintenance

Payment operations. Generating and mailing monthly allowance checks; suspending or terminating payments; adjusting payment amounts to reflect recertification results, previous underpayments or overpayments, or security deposit advances.

Eligibility recertification. Conducting periodic means tests of three types to monitor client eligibility and allowance entitlement:

Annual recertification. Activities are similar to those in enrollment certification: scheduling, interviewing, error control, and data processing. The interview is conducted in the month of the client's enrollment anniversary.

Semiannual recertification. Processing mailback questionnaires on household status and income, prepared halfway between enrollment anniversaries. Includes followup to obtain additional information when questionnaire responses are inadequate, plus error control and data processing.

Special recertification. Administering means tests by telephone or interview in special circumstances between annual and semiannual recertifications.

Housing recertification. Monitoring to assure that recipients continue to meet housing requirements.

Housing reevaluation. Inspecting dwellings occupied by recipients annually; inspecting units to which recipients plan to move; informing recipients of evaluation results; reevaluating failed units after repairs have been attempted; and processing results.

Recipient services. Conducting voluntary group counseling sessions; providing literature on housing maintenance; and providing legal services for discrimination cases.

Support Services

General support. Providing support for regular program operations and research, including general management, training, press and community relations,

financial management and accounting, personnel administration, and secretarial services.

Research support. Meeting special needs of the experiment—for example, preparing computer files for transmission to Rand, conducting special studies, and preparing special reports and presentations for HUD.

Design Objectives

In designing procedures to carry out the functions described above, three objectives were paramount: safeguarding program integrity, treating clients considerately, and organizing the work efficiently. The first priority was to ensure that the right people got the right amounts of money and that all transactions could be traced through HAO records. Procedures were designed to ensure that decisions on each household's eligibility and each dwelling's acceptability were based on reliable information and conformed to clear rules. Because program records would be used not only for administrative monitoring but also for program research, their accuracy was doubly important. We designed error control procedures accordingly.

Second, we sought procedures that were considerate of clients' time, dignity, and privacy. Thus, enrollment interviews are separately scheduled so applicants need not wait in line. The interviews are held in private rooms. Information provided by a client is treated confidentially, and third-party confirmation is sought only with a client's written permission. Program rules, forms to be completed by clients, and letters to them are written in the clearest language we could devise.

Third, we planned the sequence of work and the format of records to eliminate redundant effort, automate routine activities, and focus staff attention on the steps that required human judgment. Although we thought our emphasis on program integrity and consideration for the client would lead to high administrative costs, we see in retrospect that extra care with data used in case decisions and extra consideration for clients' feelings are cost-effective.

ADMINISTRATIVE COSTS

Once program procedures had stabilized, we installed a cost accounting system that reflects the functional distinctions summarized above. The full system has been operating in both HAOs since April 1976, and the findings reported below are derived from cost data for the subsequent nine months, through December 1976. However, we normalized the data in various ways to minimize the influence of special circumstances during the base period.

Key Findings

Operating cost ratios were surprisingly similar in the two HAOs. Maintenance cost per recipient year in St. Joseph County differed from the comparable Brown County figure by less than one percent. Omitting outreach and enrollee service costs (because the sites handled those functions differently during the base period), intake costs per new recipient differed by less than 4 percent.

- Intake cost averaged $249 per new recipient. The enrollment process accounted for 49 percent of that total, housing certification for 27 percent, and outreach for 24 percent.
- Maintenance cost averaged $133 per recipient year. Again, means test administration (eligibility recertification) accounted for the largest share (58 percent). Housing recertification accounted for 26 percent and payment operations, 16 percent.
- Average total administrative cost was about $216 per recipient year. (Intake costs were amortized on the assumption that the average recipient would receive payments for three years.)
- Without housing certification, we estimate that the average administrative cost would fall to $146 per recipient year. Earmarking the allowance payments for housing purposes thus has a marginal cost of $70 per recipient year and also reduces the number of recipients by about 22 percent.
- Although interprogram cost comparisons are inexact because of differences in program functions, the HAOs' costs per recipient year appear reasonable in relation to those of other operating programs. For example, the HAOs' costs for income transfer functions are well below the national average for AFDC administration.

History and Composition of HAO Expenditures

Despite dramatic shifts in the composition of their workloads, both HAOs have been able to hold expenditure levels relatively constant since the program began. Monthly administrative costs have averaged $94,000 since open enrollment started in Brown County. The St. Joseph County average has been $133,000 per month.

The HAOs are highly labor-intensive. During the first year of operation they spent considerable sums on supplies, automobiles, and equipment. But even then, salaries and fringe benefits accounted for over half the total administrative costs in both sites. During the second year, salaries and fringe benefits accounted for two-thirds of the total in both sites. The next largest category, office and equipment rental, accounted for about 10 percent. Percentages in other categories were comparatively small.

Costs Distributed by Function

During the base period, HAO employees recorded how much time they spent daily on each activity and function described below. Those accounts were used to disaggregate personnel costs by activity. The costs of other items either were assigned to the activities that used them, or if usage was shared among activities, were allocated in proportion to workload measures or personnel costs. Activities or costs that were not readily allocable to program operations (e.g., office rent) were assigned to general support.

Such methods distinguished intake, maintenance, and general support costs. Research costs were more difficult to estimate. Although some activities (such as developing presentations for the experiment's review panel) serve research purposes only, others (such as record maintenance) serve both operations and research. Here, we count only the clearly separable research costs.[3]

Table 6.1 shows cost distributions for the base period. At that time, St. Joseph County's program was larger and growing more rapidly than Brown County's. The average monthly costs for each function are therefore greater in St. Joseph County, and the difference is greatest for client intake. Research support costs are nearly the same in the two sites.

Table 6.1

COSTS OF MAJOR ADMINISTRATIVE FUNCTIONS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES, APRIL TO DECEMBER 1976

Function	Average Monthly Cost			
	Brown County		St. Joseph County	
	Amount ($)	Percent	Amount ($)	Percent
Program operations:				
Client intake	17,200	19.1	39,500	28.7
Client maintenance	18,200	20.2	21,800	15.9
Total	35,400	39.3	61,300	44.6
Support services:				
General support	40,800	45.2	61,300	44.6
Research support	14,000	15.5	14,800	10.8
Total	54,800	60.7	76,100	55.4
All functions	90,200	100.0	137,400	100.0

SOURCE: Analysis by HASE staff of HAO accounting records.
NOTE: Intersite differences reflect differences in program size and in activity mixes from April through December 1976: St. Joseph County's program was larger and growing more rapidly. Distributions may not add exactly to totals because of rounding.

Costs Relative to Workload

In the next step, general support costs (about 45 percent of the total in each site) were allocated among the other three functions in proportion to their direct costs. With "overhead" thus distributed, we set research support costs aside, then estimated intake and maintenance costs per recipient, as shown in Table 6.2.

For intake activities, we first calculated the full cost per unit of work (e.g., per enrollment interview) actually performed during the base period. We then multiplied the unit cost by the number of work units per household that was authorized

[3] In so doing, we follow the lead of a study of HAO operations by independent accountants, who nonetheless recognized that additional research costs were embedded in program operations. For example, they estimated that the HAO client master file could be reduced to nearly a fourth of its actual size without degrading program operations; the extra data primarily serve research purposes. See Touche Ross and Co., *Operations Review of the South Bend Housing Allowance Office: Final Report*, Washington, D.C., submitted to HUD on 21 October 1976.

Table 6.2

ADMINISTRATIVE COSTS PER RECIPIENT: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES, APRIL TO DECEMBER 1976

Activity, by Function	Sum of Direct and Indirect Costs[a]			
	Brown County		St. Joseph County	
	Amount ($)	Percent	Amount ($)	Percent
Intake Costs (Per New Recipient)				
Outreach	45.98	20.7	78.41	28.4
Enrollment:				
Screening and scheduling	24.58	11.1	18.01	6.5
Interview and program information	52.25	23.6	54.22	19.7
Error control and data processing	45.66	20.6	43.84	15.9
Total	122.49	55.3	116.07	42.1
Housing certification:				
Housing evaluation	52.23	23.5	64.89	23.5
Enrollee services	1.08	.5	16.45	6.0
Total	53.31	24.0	81.34	29.5
All intake activities	221.78	100.0	275.82	100.0
Maintenance Costs (Per Recipient Year)				
Payment operations	19.32	14.5	23.43	17.6
Eligibility recertification:				
Annual	42.75	32.0	39.97	30.1
Semiannual	29.12	21.8	22.8	17.2
Special	10.98	8.2	9.96	7.5
Total	82.85	62.0	72.73	54.8
Housing recertification:				
Housing reevaluation	29.46	22.1	30.24	22.8
Recipient services	1.87	1.4	6.37	4.8
Total	31.33	23.5	36.61	27.6
All maintenance activities	133.50	100.0	132.77	100.0

SOURCE: Analysis by HASE staff of HAO accounting records and management information reports.

NOTE: See accompanying text for methods of estimation.

[a]Excludes identifiable research-related costs.

for payment from the beginning of the program through the end of the base period. The second step minimized distortion due to lags in intake processing: Not all work performed during the base period was accountable to applicants who became recipients during that same period.

Intake costs were a fourth higher in St. Joseph County ($276) than in Brown County ($222), mostly because of larger expenditures on outreach and enrollee services. The costs of enrollment were slightly higher in Brown County and the costs of housing certification were slightly higher in St. Joseph County. The reasons for major differences are discussed later in this section. For now, we stress the cross-site average, $249 per new recipient.

Lags are less significant for maintenance activities. Consequently, we simply divided the full costs of each activity during the base period by the number of

recipient years of service provided during the same period. Costs per recipient year were almost identical in the two sites: $134 in Brown County and $133 in St. Joseph County. However, the costs of component activities varied much as did those of the counterpart intake activities and for much the same reasons. Again, we presently stress the cross-site average, $133 per recipient year.

Comparison with Other Programs

Tables 6.3 and 6.4 compare the administrative costs of the Supply Experiment's allowance programs with the costs of other housing and welfare programs. Such

Table 6.3

ADMINISTRATIVE COSTS OF SELECTED HOUSING ASSISTANCE PROGRAMS

Program and Statistic	Actual or Planned Cost ($)		
	Intake (per new recipient)	Maintenance (per recipient year)	Total[a] (per recipient year)
Housing Allowance Programs (Actual Costs)			
Supply Experiment (2 sites):			
Range	222–276	133–134	207–225
Median[b]	249	133	216
Administrative Agency Experiment (7 sites):			
Range	204–344	148–306	219–401
Median	290	235	332
Sec. 8 Existing Housing Program (Planned Costs)			
Brown and St. Joseph counties:			
Range	(c)	167–191	(d)
Median[b]	275	179	(d)

SOURCES: Data for the Supply Experiment are from Table 6.2; Administrative Agency Experiment data, from Charles M. Moloy, J. Patrick Madden, David Budding, and William L. Hamilton, *Administrative Costs in a Housing Allowance Program: Two Year Costs in the Administrative Agency Experiment*, Abt Associates, 1 February 1977; Sec. 8 data, from U.S. Department of Housing and Urban Development, *Section 8 Housing Assistance Payments Program, Existing Housing Handbook*, 7420.3 Rev., App. 5, August 1976, and *Federal Register*, Vol. 42, No. 127, effective 29 March 1977.

NOTE: Populations served, functions performed, and cost categories are not strictly comparable across programs. See accompanying text for discussion of adjustments to the source data. AAE costs have been increased by 14.7 percent to compensate for inflation from mid-1974 to mid-1976. Costs for the Jacksonville, Florida, AAE site were excluded in establishing the AAE range because operating experience there was not comparable to that in the other sites.

[a]Intake costs amortized over postulated three-year average duration of recipiency.

[b]For two observations, the median and average are identical.

[c]No range; the figure of $275 applies nationwide.

[d]Not calculable under Sec. 8 formula.

Table 6.4

ADMINISTRATIVE COST OF HOUSING ALLOWANCES VS. AID TO FAMILIES WITH DEPENDENT CHILDREN (AFDC)

Program and Jurisdiction	Annual Cost per Case ($)		
	Income Transfer	Housing Requirements	Total
Housing Allowance Program			
Brown County	149	58	207
St. Joseph County	144	81	225
Average	146	70	216
AFDC[a]			
New York (highest cost)	582	--	582
California	441	--	441
Indiana	226	--	226
Wisconsin	145	--	145
Mississippi (lowest cost)	77	--	77
National average	295	--	295

SOURCES: Housing allowance program data are from Table 6.2. AFDC data are from Toby H. Campbell and Marc Bendick, Jr., *A Public Assistance Data Book*, The Urban Institute, 1978, pp. 7, 8, 252, and 253.

NOTE: Housing allowance costs per case are based on a postulated three-year average duration of recipiency, as in Table 6.3. AFDC costs per case are based on amounts spent during fiscal year 1976 for determining eligibility and administering payments, divided by the average monthly caseload during that year; costs of social services to recipients are excluded from the table.

[a]Entries are shown for selected states; the national average (50 states) weights each state's costs by its caseload.

comparisons are necessarily imprecise because each program serves a different population, provides different services, and records costs differently. Nonetheless, the tables provide a useful perspective on HAO costs, and in fact yield an unexpected finding: To perform roughly comparable functions, other programs usually spend more than the HAOs.

Table 6.3 compares HAO costs with those reported for the smaller allowance programs conducted in seven of the eight Administrative Agency Experiment (AAE) sites; and, with less validity, to HUD's cost standards for the Sec. 8 existing housing program. In all cases, it is feasible to separate intake and maintenance costs; and for Supply Experiment and AAE comparisons, we amortize intake costs in each case over a postulated three-year period of recipiency to estimate total costs per recipient year.[4]

[4] In other words, Total cost per recipient year = 1/3 (Intake cost per new recipient) + Maintenance cost per recipient year.

In each of the seven AAE sites, program functions were similar to those performed by the HAOs, but enrollments ranged only from 500 to 1,500 and were limited to renters. Procedures, which were designed by the administering agencies, varied considerably in the rigor of eligibility and housing certification and in services to participants. The range of costs is thus wide, but the median is 50 percent above the corresponding HAO figure.[5]

The Sec. 8 existing housing program differs from the Supply Experiment's allowance program in two important respects: It is limited to renters, and the administering agency contracts with the landlord as well as the tenant. Enrollees are encouraged to nominate privately owned rental units for agency approval, whereupon the agency pays a rent supplement directly to the landlord. Moreover, the cost figures shown for that program do not reflect operating experience and also differ conceptually from the corresponding HAO costs. HUD allows the administering agency up to $275 to enroll and place each new tenant, but the cost of replacing tenants or landlords who subsequently drop out of the program is subsumed in an annual administrative allowance per recipient. That annual allowance is linked to a schedule of fair market rents maintained by HUD for each local housing market; hence the difference in maintenance costs shown for Sec. 8 in Brown and St. Joseph counties.

In fact, the program is inactive in those sites and national data on actual Sec. 8 costs have yet to be released by HUD. Early indications from a number of Sec. 8 agencies are that the intake cost allowance is ample, but that maintenance cost allowances may be too low to cover actual costs.[6] However, the scheduled costs shown in the table for both intake and maintenance are higher than those reported by the HAOs.[7]

Table 6.4 compares HAO costs with those reported for state and local administration of AFDC. For the HAOs, the comparison distinguishes costs attributable to income transfer functions from those attributable to the enforcement of the program's housing requirements, inasmuch as AFDC programs have no housing requirements. The AFDC costs shown are only those attributable to income transfer functions, specifically excluding the costs of social services that some states provide to recipients.

Separating HAO income transfer costs from housing requirement costs entailed four steps. First, the cost of all activities connected with housing certification were deleted from both intake and maintenance. Second, the remaining intake costs

[5] The cost figures for the AAEs have all been increased by 14.7 percent, the amount of the change in the national consumer price index between August 1974 (the approximate midpoint of AAE program operations) and August 1976 (the approximate midpoint of the HAO base period).

[6] See Westat, Inc., *PHA Administrative Functions and Fees, Study of Sec. 8 Housing Assistance Programs for the Office of Policy Development and Research, U.S. Department of Housing and Urban Development*, 23 May 1977.

[7] HAO costs as estimated here would fall substantially below the Sec. 8 standards over the long term were it not that the preliminary fee to cover initial intake costs is granted only once under Sec. 8 rules. Subsequent costs to cover intake for households joining the program to replace recipients who drop out are charged to the ongoing fee for maintenance. With continued turnover in the recipient population over time, the Sec. 8 standards become harder to meet. Applying cost ratios from Table 6.3 to actual HAO workloads, we estimate that cumulative HAO costs in both sites would have been 40 to 50 percent below the totals allowed in Sec. 8 standards at the end of the first year of allowance program operations, but only about 10 to 12 percent below them at the end of the second year. At the end of the third year, HAO costs would just about reach the ceilings implied under Sec. 8 rules. (These estimates assume an initial Sec. 8 allocation of 3,500 units for the Brown County program and 6,000 units for the St. Joseph County program.)

were spread over a larger base of recipients (housing certification requirements prevent about 22 percent of all enrollees from becoming recipients). Third, the adjusted intake cost per recipient was amortized and combined with the new maintenance cost per recipient year. Fourth, the adjusted total cost for income transfer functions was subtracted from the unadjusted total to obtain the marginal cost per recipient year of administering the housing requirements. For the two-site average, we obtain an annual income transfer cost of $146 per recipient and an annual housing requirement cost of $70.

The figures for state and local AFDC administration were computed by the Urban Institute from financial and caseload statistics. (The national average was computed by Rand from Urban Institute data.) The national average is twice the income transfer cost of the HAOs and a third larger than total HAO administrative costs. Only six of the 50 states had AFDC costs that were lower than the HAO income transfer average of $146.

Notwithstanding the imprecision of all of the above comparisons, it is clear that the HAOs are unusually efficient. In a regular as opposed to an experimental program, we think that some costs would rise and others would fall, but that a regular program could operate under HAO rules at less longrun cost than is shown here. The contention is unprovable, but support for it will be found in subsequent discussions of intake functions.

Cost/Subsidy Ratios

Managers of income transfer programs are often asked how much they spend on administration per dollar of subsidy. While such ratios are important in overall policy evaluation, they are misleading if used to compare the efficiency of administrative systems.

In fiscal year 1976, the AFDC program paid an average benefit of $2,697 per case. With an average annual administrative cost per case of $295, the AFDC thus spent 11 cents in administration for each dollar it gave recipients. The HAOs' average annual allowance payment from April through December 1976 was $870; its administrative cost was $216 per recipient year, or 25 cents per dollar of subsidy. Without housing requirements, administrative costs would have been $146 per recipient year, or 17 cents per dollar of subsidy.

However, the work involved in program administration is not influenced by the amounts for which benefit checks are written. The HAOs could have provided higher annual subsidy payments without increasing their administrative costs. To do so would have required only a simple adjustment to the benefit formula in the computer program. Checks for larger amounts would then have been generated automatically. By the same reasoning, reducing the AFDC check amounts would not directly cause administrative savings. Administrative cost per case served, the ratio used earlier, is a much better indicator of administrative efficiency because it reflects the amount of work performed.

CLIENT INTAKE

To bring eligible households to recipient status, the HAOs must inform them about the program, enroll those who apply, and confirm that their dwellings meet

program standards. In the following pages, we report the HAOs' experience with each of those activities, explaining how experimental purposes were reflected in administrative procedures, reporting how the procedures worked, and evaluating their outcomes. The discussion covers outreach, enrollment, error control, housing evaluation, and enrollee services.

Outreach: Informing Eligibles about the Program

Many people who are eligible for benefits from various federal income transfer programs never apply for them—perhaps because of ignorance, incapacity, or distaste for the program. One purpose of the Supply Experiment was to learn what proportion of the eligible population—estimated at about a fifth of all households in each site—would choose to participate in a housing allowance program. Outreach was designed so that those who were eligible would learn about the program and what it offered them. Observed participation rates would then reflect informed choices.

Because the experiment had a limited duration, it was important to spread program information quickly. However, surprisingly little was known about the best ways to reach the low-income population. We therefore encouraged the HAOs to try a variety of methods, expecting that not all would be equally cost-effective. They sought publicity in local media; explained the program to community groups and agencies that dealt with potential clients; and advertised by direct mail, with brochures and posters in public places, in newspapers, and on radio and television. The HAOs' experience with media advertising, rarely used for such purposes, is especially instructive.

Key Findings:

- Although other outreach methods helped, paid advertising governed the flow of applications in both sites during the first two program years. Because the level and timing of such advertising is easily controlled and because public response is immediate, the HAOs were able to match the flow of applications to processing capability, a substantial advantage. However, effective advertising is expensive.
- Advertising could convey only the simplest messages. Attempts to provide audiences with information by which they could determine their own eligibility were generally unsuccessful. However, the purposes of the program were communicable and its image, hence its attractiveness, could be shaped by judicious choice of symbols.
- Advertising and media publicity were cited by about half of all applicants as their source of information; the remainder heard about the program from friends, relatives, landlords, or welfare agencies. Racial minorities and welfare recipients were the least and the elderly the most media-oriented of all applicants.
- As program knowledge spread, advertising's effectiveness diminished. Although each new media campaign temporarily increased the flow of applications, costs per applicant rose considerably. Both HAOs cut back sharply on advertising during the third program year, concluding that major information objectives had been met even though many eligibles still had not enrolled.

Use of Advertising. Traditional public relations techniques are an important part of the HAO outreach programs. Through September 1977, the Brown County HAO had made 168 presentations to community groups and issued 42 press releases about program events. The St. Joseph County HAO had made 276 presentations to community groups and issued 54 press releases. By that date both HAOs had distributed thousands of brochures, and their officers had appeared on many local news and public affairs programs. But what distinguished the HAO outreach programs was their use of media advertising.

In the first 30 months (10 quarters) after enrollment opened, the Brown County HAO had spent an average of $2,061 a month on media advertising, the equivalent of $7.76 per household initially eligible for the program. The St. Joseph County HAO, over its first 10 quarters, spent an average of $6,964 a month, or $13.41 per initial eligible.[8]

By design, the intensity of outreach fluctuated from month to month. Both sites staged media campaigns lasting from one to four weeks each, separated by longer quiet periods. In each campaign, new materials and themes were tried and responses analyzed for the next effort.

During each campaign, the backlog of unprocessed applications mounted rapidly; when it became excessive, the campaign was ended and the HAO staff worked to interview the applicants and enroll those who were eligible. When the backlog dropped below a certain level, a new campaign was mounted. In both sites, the major campaigns were staged in the second, fifth, and eighth quarters after enrollment began.

The two HAOs allocated advertising funds differently. Over the first 10 quarters in St. Joseph County, expenditures per eligible household amounted to $4.23 for newspaper advertising, $1.21 for radio, and $7.98 for television. The comparable rates in Brown County were a little higher for newspapers ($4.73) and radio ($1.75) but much less for television ($1.28).

The differences are largely explained by community reaction. The Brown County HAO was criticized by community leaders for "advertising to give away public money." Explanations of the special experimental needs for outreach softened but did not eliminate that reaction. Television advertising was particularly criticized. Because Green Bay television stations serve a 17-county regional market of over 150,000 homes, about 95 percent of the potential audience was ineligible for the program either because of place of residence or income. The St. Joseph County HAO was also criticized for advertising, but not as severely. The South Bend television market also exceeds county boundaries, but not by as much. With less constraint, it was possible there to experiment more with television outreach.

Another difference between the sites was in the use of direct mail advertising—sending fliers or letters enclosing program brochures to groups likely to be eligible for allowances. The Brown County HAO began using direct mail in its fifth quarter. Through September 1977 it had mailed 39,000 pieces, most of them to residents of low-income neighborhoods. The St. Joseph County HAO's use of direct mail was more extensive and more varied. It first used the technique in its fourth quarter,

[8] Expenditures for media advertising are only a part of the full cost of outreach that was presented in Table 6.2. During the base period (quarters 8 through 10 in Brown County and 5 through 7 in St. Joseph County), Brown County HAO media costs accounted for only 53 percent, the remainder being for salaries of staff working on outreach, printing, and miscellaneous needs. Media costs accounted for 67 percent of total St. Joseph County outreach costs during the base period.

and through September 1977 had mailed 69,000 pieces. Most were directed to groups whose addresses could be obtained from directories—retired persons, households with workers in low-wage occupations, and female heads of household.

Advertising Content. It would have been ideal if the media could have conveyed enough information about program purposes, rules, and eligibility criteria to enable eligible households to make informed decisions about participating before contacting the HAO. In brochures and group presentations it was possible to go into some detail, but not in media advertising.

Early advertisements in both sites gave criteria for eligibility, including approximate income limits for different household sizes. But few households proved able to add and adjust their incomes appropriately. Consequently, later advertisements explained only the basic features of the program and encouraged those who were interested to call the HAOs for more information. Most advertisements said, in effect: (a) the housing allowance program is open to residents of this county; (b) it is being run by the housing allowance office; (c) it provides money to low- and moderate-income households; (d) the purpose is to help with housing; and (e) call (telephone number) if you are interested.

In their advertising, both HAOs sought to avoid the "welfare image." Most eligibles were not welfare clients, and local advisers believed that many people would not enroll unless housing allowances were differentiated from welfare. Although media advertising said that the program was open to all types of households, nonwelfare groups (such as the elderly) were mentioned prominently, and housing improvement was stressed. Both HAOs televised brief testimonials volunteered by satisfied clients (during the fifth quarter in Brown County and the eighth quarter in St. Joseph County).

Since media advertising would reach all segments of the eligible population, the HAOs generally avoided targeting it to particular groups. The exception was St. Joseph County's eighth-quarter campaign, which focused on benefits to the elderly. The campaign generated a large number of applications from elderly prsons, but also created some confusion, reflected in telephone inquiries from nonelderly persons who had become uncertain about their eligibility.

Response to Outreach. After 10 quarters of outreach, the Brown County HAO had received 11,034 applications (an average of 368 per month) and the St. Joseph County HAO, 21,943 (an average of 732 per month). The flow was far from smooth in either site. In Brown County, the application rate peaked in the second and third quarters, then dropped off considerably (see Table 6.5). Later peaks were much lower than the first. St. Joseph County's highest intake rates occurred during its first two quarters. Subsequent rates varied considerably from quarter to quarter, declining less dramatically than in Brown County.

Before the program began, the opinion was often expressed that most of the eligibles who decided to participate would apply during the first year and that the programs would stop growing shortly thereafter. In Brown County, however, the program continued to grow for a full 30 months. Not until the eleventh quarter was the number of new enrollees approximately offset by the number of terminated enrollments. At the end of its first 10 quarters the St. Joseph County program was still growing, although we judge that its growth rate would have dropped sharply during the eleventh quarter except for the change allowing single persons under 62 (a group ineligible under previous rules) to enroll.

Table 6.5

MONTHLY APPLICATIONS AND MEDIA COSTS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES

Quarter	Average Number of Applications per Month	Media Cost	
		Average per Month ($)	Per Application ($)
Brown County			
1st	235	--	--
2d	522	2,679	5.13
3d	703	1,722	2.45
4th	337	1,764	5.23
5th	295	5,133	17.40
6th	299	2,816	9.42
7th	242	1,311	5.42
8th	360	4,509	12.53
9th	279	500	1.79
10th	270	177	.66
Average	368[a]	2,061	5.60
St. Joseph County			
1st	873	1,705	1.95
2d	898	6,810	7.58
3d	725	6,753	9.31
4th	760	6,383	8.40
5th	864	8,156	10.73
6th	596	7,878	13.22
7th	570	6,159	10.81
8th	714	12,448	17.43
9th	495	9,479	19.15
10th	724	3,878	5.36
Average	731[a]	6,964	9.52

SOURCE: HAO management information reports and accounting records.

[a]The 567 Brown County applications and 285 St. Joseph County applications that were received before the start of open enrollment are excluded from the averages for the first quarter at each site but are included in the cumulative averages.

More can be learned about the response to outreach by examining how applicants learned about the program. The application form asks them to check one or more sources of information. Their responses through September 1977 are summarized in Table 6.6.

In both sites, advertising or media publicity was named about half the time. Referrals by friends, relatives, or others accounted for the remainder. Reflecting the difference in outreach strategies, television was mentioned more often in St. Joseph County, whereas radio and newspapers were more important as sources in Brown County. Referrals are distributed almost identically in the two sites: Friends and relatives provided program information to about a third of all applicants; churches and agencies were named by about a tenth.

We expected media advertising to be more influential at the start and word-of-mouth communication to increase as program knowledge spread. However, no such shift is evident in the data. As long as the media were being used, advertising and publicity accounted for a relatively constant share of all sources checked. In both sites, the percentage of applicants checking referrals, as well as the percentage checking the media, went up rapidly during intensive advertising and declined afterwards.

Different types of clients found out about the program from different sources. Through June 1976 in St. Joseph County, for example, 48 percent of all white

Table 6.6

SOURCES OF PROGRAM INFORMATION MENTIONED BY APPLICANTS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH SEPTEMBER 1977

Source of Information	Brown County		St. Joseph County	
	Number of Mentions	Percent	Number of Mentions	Percent
Advertising and publicity:				
Television	1,140	8.7	5,414	20.0
Radio	1,656	12.6	893	3.3
Newspapers	2,804	21.3	4,549	16.8
Mailings	721	5.4	2,653	9.8
Poster-billboard	105	.8	221	.8
Total	6,426	48.8	13,730	50.7
Referrals:				
Friend or relative	4,057	30.8	8,732	32.3
Landlord or realtor	316	2.4	396	1.5
Church or agency	1,557	11.8	2,751	10.2
Total	5,930	45.1	11,879	44.0
Other	799	6.1	1,439	5.3
Total	13,155	100.0	27,048	100.0

SOURCE: HAO management information reports.

NOTE: By September 1977, 12,745 applications had been filed in Brown County, and an average of 1.03 sources of program information were mentioned per application. In St. Joseph County, with 21,943 applications through September 1977, 1.23 sources were mentioned per application.

enrollees but only 35 percent of the nonwhite enrollees checked media sources. Those sources were checked by 44 percent of all respondents with wage and salary income and by 50 percent of those receiving social security benefits or pensions, but by only 33 percent of those on welfare. For racial minorities and welfare recipients, the more frequently cited sources were friends, relatives, and social agencies. The pattern was similar in Brown County.

Importance of Advertising. We have no way of estimating what participation rates would have been if the HAOs had not used advertising. It seems certain, however, that program growth would have been much slower, and probable that ultimate program size would have been smaller.

In both sites, application rates were high during the first few weeks after enrollment began, an event accompanied by considerable (free) publicity. But rates soon dropped off sharply, rising only with the first advertising campaign.[9] After that, monthly and even weekly increases and decreases in application rates followed variations in media advertising quite closely. Advertising and publicity accounted for about half of all responses from applicants who were asked how they had heard about the program, and referral responses increased with all others during advertising campaigns. In other words, many friends, relatives, and others who referred applicants to the HAO apparently were themselves prompted by advertising.

But did the HAOs need to spend as much as they did on advertising? Over the first 30 months, the Brown County HAO spent $7.76 per eligible household and the St. Joseph County HAO spent $13.41, yet both achieved about the same participation rate at the end of the period (see Sec. IV). The extra expenditure in St. Joseph County was almost all for television advertising, more expensive per message than radio or newspaper advertising but also thought to be more effective.

We are not sure that the St. Joseph County HAO would have attracted the same number of applicants had it spent at the Brown County rate. Still, it is evident that the media became less effective over time in both sites. During quarters 2 through 4, the Brown County HAO spent only $4.00 on media advertising for each application received, but $11.50 during quarters 5 through 8. The St. Joseph County HAO spent about $8.40 per applicant during quarters 2 through 4, and $12.60 during quarters 5 through 8.

Managers of both HAOs believe that media advertising was needed to establish the program's identity in the community and spread awareness of it among those who were eligible. But in retrospect, they judge that they could have advertised less, particularly during the second year, without much effect on participation rates. Of course, if the local programs had been part of a national one, free national publicity could have done much to establish program identity. Moreover, a national program would have been easier to explain and national advertising would have cost less per viewer or listener.

The Enrollment Process

The enrollment process includes the first four steps in eligibility certification:

[9] Applications received per week in Brown County averaged 47 in weeks 5 through 8, 24 in weeks 9 through 12, and 123 in weeks 16 through 19—the first four weeks after advertising began. The St. Joseph County averages were 165 in weeks 5 through 8, 101 in weeks 9 through 12, and 338 in weeks 20 through 23—the first four weeks after the start of advertising.

Screening. Most potential applicants first contact an HAO by telephone. Less than a fifth have done so by mailing in an application, and only a few by visiting the office. In a telephone contact or office visit, the responding HAO employee begins by reviewing program features and answering questions. If the inquirer is then still interested in applying, the employee asks questions designed to screen out those who are obviously ineligible. A brief application form is prepared for those not screened out.

Scheduling enrollment interviews. Applications are processed by computer and scheduling rosters prepared. Applicants are contacted (in the order of application) to set dates for enrollment interviews.

Providing program information. After scheduling, the HAOs send each applicant a brochure with more information about the program and a list of documents (e.g., paycheck stubs, bank statements) that may be needed during the interview. Both HAOs offer information sessions for those who want to learn more about the program. In Brown County, a 20-minute slide presentation is given immediately before the interview. In St. Joseph County, applicants are invited to an hour-long group session scheduled separately from the interview.

Conducting enrollment interviews. The interview is conducted by a trained enroller who follows a standard pattern of questions to obtain information on place of residence, household composition, assets, income, deductions, and housing expenses. The applicant is asked to document the financial information; if documentation is lacking, he is asked to sign forms that authorize the HAO to verify the data with third parties. When the enrollment form is complete, the applicant is asked to sign it, certifying that the information he has provided is accurate and complete. The enroller then determines whether the applicant is eligible, and if so, calculates the amount of his allowance entitlement.

Eligible applicants then review the program's participation agreement and sign (thereby enrolling) if they agree to its conditions. Finally, those who have enrolled are reminded about the housing certification requirements they must meet before they can receive payments.

Key Findings:

- Despite preapplication screening, attrition during the enrollment process appears inevitable. Only 55 percent of all Brown County applicants and 49 percent of St. Joseph County applicants actually enroll; the others either drop out before the interview, are found ineligible, or decline participation during the interview.
- Most of those who do not enroll drop out before much money has been spent on them, so the cost of attrition is less than the rates might suggest. With perfect preapplication screening, enrollment costs would drop by about 20 to 30 percent per enrollee, but no method of screening in an open enrollment program is likely to approach perfection.
- Individual scheduling of interviews and other measures of consideration for clients' dignity and convenience do not markedly increase administrative costs. In fact, HAO supervisors believe that these courtesies pay for themselves by raising staff morale and facilitating transactions with clients.
- Because some groups have higher attrition rates and more complicated interviews than others, administrative costs vary by client type. For example, the cost of enrollment is about 20 percent higher per homeowner than per renter.

Attrition Between Contact and Enrollment. By the end of September 1977, the Brown County HAO had recorded 23,210 contacts with potential applicants and the St. Joseph County HAO, 30,672. Table 6.7 shows the attrition that occurred as households who inquired about the program either dropped out voluntarily or were screened out by the HAO at various stages of the enrollment process.

Table 6.7

ATTRITION BETWEEN CONTACT AND ENROLLMENT: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH SEPTEMBER 1977

Item	Brown County		St. Joseph County	
	Number	Percent	Number	Percent
Contacts with Potential Applicants				
Screened out	10,465	45.1	8,729	28.4
Applications submitted	12,745	54.9	21,943	71.5
Total	23,210	100.0	30,672	100.0
Applications Submitted				
Applicant dropped out before interview	3,268	25.6	5,788	26.4
Case pending[a]	506	4.0	1,682	7.7
Applicant interviewed[b]	8,971	70.4	14,473	66.0
Total	12,745	100.0	21,943	100.0
Applicants Interviewed				
Ineligible	1,523	17.0	2,489	17.2
Declined or did not complete interview	666	7.4	1,958	13.5
Enrolled	6,782	75.6	10,026	69.3
Total	8,971	100.0	14,473	100.0

SOURCE: HAO management information reports.

NOTE: Screened-out contacts from potential applicants may include duplicate contacts from the same household. In all other categories, duplicates have been deleted.

[a] Not yet interviewed, or interviewed but case not yet processed.

[b] Interviewed and case processed.

The biggest difference between the sites is in the proportion of contacts that result in an application—55 percent in Brown County vs. 72 percent in St. Joseph County. The Brown County HAO has thus far interviewed a slightly higher percentage of all its applicants (70 percent vs. 66 percent) and has enrolled a higher percentage of all interviewees (76 percent vs. 69 percent).

Because each site had a backlog of applications, the ratio of completed enrollments to initial contacts overstates attrition. Assuming that "cases pending" are resolved in the same pattern as those acted upon, attrition from each 1,000 contacts can be summarized as follows:

	Brown County	St. Joseph County
Contacts with potential applicants	1,000	1,000
Applications submitted	549	715
Applicants interviewed	402	511
Applicants enrolled	304	354

Thus, only 30 percent of all contacts in Brown County and 35 percent in St. Joseph County lead to enrollments. Is so much attrition usual in income transfer programs? We have not found any other program that keeps comparable records on the early stages of enrollment, but data on case decisions are roughly comparable to the results of the HAO interview stage. Of 3.0 million national Supplemental Security Income (SSI) case decisions from January 1974 through July 1975, only 68 percent resulted in—to use our term—enrollment. Of 2.5 million AFDC case decisions in 1976, 67 percent had that result.[10] The comparable HAO figures are 76 and 69 percent for Brown and St. Joseph counties, respectively.

Those who drop out before an enrollment interview may be either eligible or ineligible. Eligible households are most likely to be erroneously discouraged from applying at the early stages, when neither the household nor the HAO has much information about the other. But carrying truly ineligible households further through the enrollment process sujects them to fruitless inconvenience and adds to administrative costs.

The HAOs have tried various means to increase the efficiency of attrition. The Brown County HAO developed more detailed probes for screening initial contacts by telephone, with the hope of reducing the ineligibility rate at the interview stage. Both HAOs make reminder calls to most applicants shortly before their scheduled interview and followup calls to those who do not appear. But those measures have not notably affected attrition rates.[11]

Enrollment Costs with Perfect Screening. Administrative costs accumulate as potential enrollees move through the enrollment process. As the system now operates, 45 percent of all contacts in Brown County and 28 percent in St. Joseph County are screened out before they submit an application. However, about half of all applicants fail to enroll—after their cases have consumed varying amounts of HAO and client effort. What are the possible gains from more efficient screening?

In an open enrollment program, it must be assumed that many who are ineligible will inquire about enrolling. As noted earlier, we found that outreach messages designed to facilitate self-screening did not work. The critical issue for determining eligibility is usually income, and the tests are necessarily too complex for self-administration.

Suppose, however, that Brown County's preapplication telephone screening could be developed to perfect efficiency, with no increase in its present cost of $3.82

[10] SSI data are from U.S. Department of Health, Education, and Welfare, Social Security Administration, *Denials Under the Supplemental Security Income Program, January 1974-1975*, Research and Statistics Note 26, 16 December 1976. AFDC data are from U.S. Department of Health, Education, and Welfare, Social and Rehabilitation Service, *Applications and Case Dispositions for Public Assistance, October-December 1976*, DHEW Publication (SRS) 77-03109, NSCC Report A-12 (12 October 1976), June 1977.

[11] Although Brown County has less postapplication attrition than St. Joseph County (45 vs. 50 percent), that was true even before the Brown County HAO began more intensive screening.

per contact. (By perfect efficiency, we mean that all those rejected at this stage would either be ineligible or would drop out before enrollment despite being eligible; and all those accepted would prove eligible and enroll.) In that (improbable) event, each 1,000 contacts in Brown County would lead to 304 applications (the actual number is 549). Combining the screening costs for 1,000 contacts with the costs of scheduling, interviewing, and checking on 304 applicants (all resulting in enrollments) yields an average cost per enrollee of $77, a 22 percent reduction from the observed cost of $99 (see Table 6.8).

In St. Joseph County, preapplication screening turns away proportionately fewer callers than in Brown County but also costs less per contact. If we assume, as for Brown County, that perfect screening is possible without raising screening costs, the average cost per enrollee could be reduced by 30 percent, from $86 to $60.

More realistic assumptions about the perfectability of screening would yield less savings. For instance, Table 6.7 shows that a fourth of all applicants voluntarily

Table 6.8

POTENTIAL ENROLLMENT COST SAVINGS FROM PERFECT PREAPPLICATION SCREENING HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES

Enrollment Activity	Cost Per Case ($)	Current Method		With Perfect Screening	
		Number of Cases	Total Cost ($)	Number of Cases	Total Cost ($)
Brown County (304 Enrollees per 1,000 Contacts)					
Preapplication screening	3.52	1,000	3,520	1,000	3,520
Application processing and interview scheduling	4.51	549	2,476	304	1,371
Information session and interview	31.78	402	12,775	304	9,661
Interview data review	11.31	402	4,547	304	3,438
Interview data processing	13.39	402	5,383	304	4,071
Third-party verification[a]	6.98	184	1,284	184	1,284
Total for 304 enrollees	(b)	(b)	29,985	(b)	23,345
Total per enrollee	(b)	(b)	99	(b)	77
St. Joseph County (354 Enrollees per 1,000 Contacts)					
Preapplication screening	1.27	1,000	1,270	1,000	1,270
Application processing and interview scheduling	4.86	715	3,475	354	1,720
Information session and interview	27.76	511	14,185	354	9,827
Interview data review	10.64	511	5,437	354	3,767
Interview data processing	9.06	511	4,630	354	3,207
Third-party verification[a]	15.71	87	1,367	87	1,367
Total for 354 enrollees	(b)	(b)	30,364	(b)	21,158
Total per enrollee	(b)	(b)	86	(b)	60

SOURCE: Analysis by HASE staff of HAO accounting records and management information reports.

NOTE: "Current Method" entries reflect attrition rates derived from Table 6.7 and administrative cost factors for April-December 1976. "With Perfect Screening" entries use the same cost factors but assume that only those who finally enroll will survive preapplication screening.

[a]The percentage of interview records that are verified is smaller in St. Joseph County because the average level of documentation is higher there. However, the cost per case verified is also higher in St. Joseph County.

[b]Not applicable.

drop out before being interviewed, and we seriously doubt that screening could identify them. Even if they could be identified, they could hardly be denied the right to submit an application. Moreover, better screening would almost certainly raise costs. If the cost of Brown County's more elaborate screening is applied to the data for St. Joseph County, the potential enrollment savings amounts to 22 rather than 30 percent of current costs per enrollee. Perfect screening would be the equivalent of an enrollment interview, with attendant costs.

Both HAOs plan further refinements in screening methods and are seeking ways to reduce preinterview attrition among eligibles who apply, but no one expects such measures to eliminate attrition during the enrollment process.

Does It Cost More to Be Considerate? Although we have not estimated the amount, extra expense has clearly attended the HAOs' efforts to deal considerately with applicants and enrollees. Private interviewing cubicles require more floor space and renovation than an open floorplan. More was spent on training the HAO staff to treat clients tactfully. Safeguarding the confidentiality of client records complicates the flow of work. On the other hand, transactions with clients—especially enrollment interviews—go more smoothly when the clients are relaxed and confident that their names and the personal information they disclose will not become public knowledge.

The only "extra" we have measured is the cost of scheduling—$8 per enrollee in Brown County, $11 in St. Joseph County. It is expensive mainly because applicants often miss their appointments. Of the St. Joseph County applicants scheduled for interviews through September 1977, 38 percent did not show up; the Brown County rate was 22 percent. Contacting those clients again and scheduling new interviews meant more work. Also, the no-show rate seems unpredictable, causing both HAOs to overschedule; staff with other regular assignments have been trained to help with the interview workload on peak days.

But would costs have gone down if scheduling had been eliminated and applicants had been told to come to the office any time and wait for an interview? Under that scheme, daily workloads would have been even more variable than they are, and it would have been harder to use staff efficiently. Applicants would have come less prepared for the interview. The waiting line would have required an attendant. Finally, the inconvenience of standing in a line or the possibility of being seen in it would have discouraged some eligible applicants.

Many anecdotes suggest that the consideration shown them contributed to clients' positive views of the program (see Sec. IV). HAO managers believe that treating clients courteously reduces rather than increases administrative costs, by easing agency-client relationships and raising staff morale.

How Different Types of Clients Affect Enrollment Workloads. Does it cost more to enroll some types of clients than others? The question is still being investigated, but some of the factors influencing workloads and costs are shown in Table 6.9, which groups applicants by tenure and age of household head.

There are some clear, though unsubstantial, differences in attrition rates. Homeowner and elderly applicants are more likely to keep their interview appointments than renter or nonelderly applicants. Interviewed homeowners are less often enrolled than interviewed renters; within each tenure class, the elderly more often survive the interview. Thus, homeowners are more likely to follow through on their applications but less able to assess their own eligibility.

Table 6.9

FACTORS AFFECTING ENROLLMENT COSTS BY HOUSING TENURE AND AGE OF APPLICANT: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH JUNE 1976

Housing Tenure and Age of Head	Number of Applicants	Percent Surviving		Average Length of Interview (min)
		From Application to Interview	From Interview to Enrollment	
Brown County				
Renters				
Under 62	4,510	68	78	54
62 and over	1,126	72	84	59
Total	5,636	69	79	55
Homeowners				
Under 62	2,388	72	65	66
62 and over	1,611	74	70	61
Total	3,999	73	67	64
Renters and Homeowners				
All ages	9,640[a]	70	74	59
St. Joseph County				
Renters				
Under 62	5,208	61	72	55
62 and over	856	59	78	62
Total	6,064	61	72	56
Homeowners				
Under 62	3,612	63	61	65
62 and over	2,943	67	70	68
Total	6,555	65	65	66
Renters and Homeowners				
All ages	12,644[a]	63	68	61

SOURCE: Tabulated by HASE staff from HAO records through June 1976.

NOTE: Housing tenure and age of head are sometimes reported differently on application and enrollment records. The last three columns of the table are based on enrollment records.

[a]Totals include 5 Brown County applicants and 25 St. Joseph County applicants who were not classified by age or tenure.

Because homeowners are likely to have more complex incomes and assets than renters, there were some preexperimental concerns about the administrative burden entailed in certifying their eligibility. The table shows that their interviews do in fact take longer than those of renters, but not much. Our most important finding about interview length is that the distributions are similarly concentrated in the two sites. Interviews average an hour, with a standard deviation of 25 minutes; only 1.5 percent of all interviews lasted more than two hours.

Taking into account both the differences in attrition and the effect of different interview durations, we estimate that enrollment costs per homeowner exceed costs per renter by 20 percent in Brown County and 17 percent in St. Joseph County. However, homeowners require fewer housing evaluations than renters and are more likely to meet the housing requirements. Moreover, once they become recipients, they are likely to retain that status longer than renters. We therefore expect future analysis to show that total administrative costs per recipient year are lower for homeowners than for renters.

Error Control in the Means Test

Although means tests are widely used in income transfer programs to determine both eligibility and benefit amounts, little is known about how procedures affect results. The frequency of testing, how information is obtained from or about the client, the complexity of income and benefit calculations, how agency staff are trained, and the way data are processed and audited—all these factors influence the reliability of eligibility determinations and the accuracy of payments. The importance of the issue is illustrated by a recent study of the national AFDC program, which found payment errors in 25 percent of all cases reviewed and estimated that net overpayments amounted to an average of $216 per recipient year, or 8 percent of the average payment.[12]

The Supply Experiment's planners drew on what guidance they could find in designing procedures both to prevent and to correct errors. Information about applicants' incomes and assets are collected in hour-long interviews conducted by trained personnel who follow a detailed protocol. Critical information not documented by the applicant is subject to third-party verification. Completed forms are reviewed manually and by computer for errors in transcription or calculation, misapplied rules, or implausible statements. Once enrolled, clients must recertify their income semiannually and are readministered the full means test annually. Below, we describe the effect of the HAO system on payments, drawing on records of errors caught and corrected in the course of normal operations and also on sample audits conducted by HAO staff and independent accountants.[13]

Key Findings:

- The data gathered during client interviews is quite accurate. Client misreporting that affects payments by more than $10 per month occurs in

[12] The study was based on a sample audit of 45,000 cases, conducted by the Social and Rehabilitation Service, U.S. Department of Health, Education, and Welfare, during the first half of 1976; findings were reported in a news release dated 16 December 1976. We computed average dollar amounts of net overpayments by applying the reported 8 percent net overpayment rate to national benefit and caseload data for fiscal 1976 (Appendix to *Budget of the United States Government, Fiscal Year 1978*, p. 347).

[13] Payment errors are only part of the known story. We also have data on other errors (e.g., in family or housing circumstances) that affect administrative and research costs but not payments. Such effects are hard to measure.

about 5 percent of all enrollment interviews. If uncorrected, those errors would lead to an average net overpayment of about $3 per recipient year in Brown County and $11 in St. Joseph County.

- Staff errors in transcribing interview data, calculating income adjustments or allowance entitlement, or interpreting program rules occur in 14 to 23 percent of all enrollments. If uncorrected, they would lead to net overpayments averaging from $4 to $7 per recipient year.
- Regular error control procedures correct at least two-thirds of the errors described above. We estimate that errors affecting payments persist in only 2 to 9 percent of all enrollments. The resulting net overpayment is under $5 per recipient year in both sites, or less than one percent of the average annual payment.
- Most misreporting appears to be inadvertent. Although all suspect cases are reviewed by the HAOs, only eight in Brown County and 20 in St. Joseph County have warranted referral to federal authorities for further investigation.

Preventing Errors in the Interview. Having followed essentially the same interview procedures throughout the experiment, we cannot say how much error is prevented by our methods. Other studies show that data collected in thorough interviews are more reliable than those from forms completed by applicants,[14] and the HAO staffs generally agree. They note that applicants often misunderstand the concepts and jargon of income accounting and that the means test as a whole is too complex for any but trained personnel to administer.

The HAOs ask applicants to document as many income items as is feasible. About 45 percent of the applicants in Brown County and 39 percent in St. Joseph County have brought in acceptable evidence (e.g., paycheck stubs, W-2 forms) that accounts for at least half of their reported incomes. Since March 1976, the St. Joseph County HAO has raised that proportion to 67 percent by asking some applicants to return with more evidence.

Surprisingly, applicants are least able to document income from other government transfer programs. Those programs usually send participants award letters (which often get lost), but do not provide regular confirmation of amounts such as appears on most payroll check stubs. A sample study in St. Joseph County found the following documentation rates by income source:

Income Source	Income Documented as Percent of Cases with Income Reported
Wage or salary	42
Pension or annuity	50
AFDC	18
Supplemental Security Income	17
Social Security	10

[14] William S. Harrar, *The Accuracy of Self-Administered Reporting*, Rural Income Maintenance Experiment Final Report, Vol. II, Institute for Research on Poverty, University of Wisconsin, Madison, 1976.

Errors Due to Misreporting. Although all undocumented entries on the enrollment form are subject to third-party verification, only a sample of cases is actually verified. The sampling rate varies according to how much of the applicant's reported income is documented. All cases documenting less than a tenth of income are verified, but only one case in ten documenting over half of income. Interviewers are instructed to refer any suspicious case for verification, regardless of its documentation.

When a case is selected for verification, requests for pertinent information (signed by the applicant during the interview) are sent to the relevant third parties —such as employers, banks, welfare agencies. Most responses are returned by mail within two weeks. Because third-party reports might be wrong, clients are invited to review those that would (if correct) affect their allowance; but to avoid costly reviews, payment corrections are proposed only if the change would exceed $10 monthly.

As practiced, verification leads to payment changes for 4 percent of all enrollees in Brown County and 2 percent in St. Joseph County. Some payments are increased and others decreased, the net effect being a slight reduction: $2.20 per recipient year in Brown County and $6.40 in St. Joseph County. The highest discrepancy rate is for wage and salary income.

From sample studies of verification reports, we can estimate the effects of both more comprehensive verification and more stringent payment change rules. If all enrollment records rather than only a sample were verified, the verification workload would increase by 72 percent in Brown County and 107 percent in St. Joseph County. However, payments would be reduced by only another $1.00 per recipient year in Brown County and $5.00 in St. Joseph County. If the threshold for payment corrections were lowered from $10 to $1, the number of cases requiring client review would increase by 206 percent in St. Joseph County, but payments would be reduced by only about 42 cents per recipient year. (We presently lack the data needed to estimate these effects for Brown County.) On the evidence so far, neither measure looks attractive in terms of HAO costs and fiscal gains. However, further studies may lead to more efficient verification sampling or to a reappraisal of the $10 threshold for payment changes.

Even complete verification of undocumented entries would not catch all misreporting. Documentation may be forged, or income sources may be concealed. An independent accounting firm (Arthur Young and Co.) has audited the documents supplied by a sample of 100 clients in each site, interviewed the clients, and checked with likely unreported sources of income. The results indicate that there has been very little additional error due to the above causes. In neither site were any forged documents found; in Brown County there was one case with an unreported asset (a bond), as well as one case with unreported income (a parttime job), and in St. Joseph County there was one case with unreported income (a parttime job).

Most evidence of client misreporting comes from routine verification procedures, but sometimes HAO staff or third parties (neighbors or landlords) bring cases of suspected misreporting to the attention of the HAOs. Each case, whatever its origin, is investigated. Through September 1977, 43 cases had been opened in Brown County and 241 in St. Joseph County. The HAOs had then completed their reviews of 35 and 225 cases, respectively, finding evidence of misreporting in 17 Brown County cases and 61 St. Joseph County cases. However, the HAOs concluded

that most errors were inadvertent. Only eight Brown County cases and 20 in St. Joseph County were referred to federal authorities for further investigation.

Errors by HAO Staff. Each completed enrollment form is reviewed twice: once by a certification specialist who checks both the form and its supporting documents; and once by a computer program that tests all fields in the machine-readable enrollment record for completeness and arithmetic and logical consistency. Sample studies of error reports show that together those procedures find about 1.4 missing or erroneous entries per enrollment form in Brown County and 2.5 in St. Joseph County. However, few of the errors affect eligibility status or allowance entitlement. In Brown County, errors affecting payments are found in about 13 percent of all enrollment forms; if uncorrected, the errors would lead to net overpayments averaging $3.50 per recipient year. In St. Joseph County, the error discovery rate is 16 percent and the net overpayment is $7.20.[15]

The sequence of manual and computer checking differs in the two sites, hence the proportion of all errors caught by each method differs. The computer checks primarily identify errors in transcription or calculations, whereas the manual checks also note errors in the application of program rules. The payment changes noted above are virtually all attributable to manual error identification. Postcertification audits of a sample of cases in each site have been used to estimate the frequency of uncorrected staff errors. More were found in St. Joseph than in Brown County, but their net effect on payments was virtually nil in both sites.

Benefits and Costs of Error Control. To summarize, the HAO error control procedures have identified and corrected errors affecting payments in 16 to 18 percent of all enrollments in each site. From verification records and postcertification audits, we estimate that 2 percent of all clients in Brown County and 9 percent in St. Joseph County are either overpaid or underpaid because of uncorrected errors.

The significance of the errors is best measured in dollars per recipient year, but the appropriate accounting depends on the perspective. If primary concern is about equitable treatment of clients, underpayments and overpayments are equally important and should be summed without regard for sign (yielding gross payment error). If program costs are at issue, underpayments should be subtracted from overpayments (giving net payment error). Table 6.10 summarizes our findings about both gross and net payment errors.

In Brown County, client misreporting and staff errors would lead to gross payment errors averaging about $24 per recipient year, of which 95 percent is corrected by error control procedures. Thus, hardly anyone gets more or less than he is entitled to under program rules. However, the fiscal benefit of error control, measured by the $5.70 reduction in net overpayments per recipient year, is quite small.

St. Joseph County is different. Client and staff errors lead to larger gross payment errors ($34 per recipient year), of which only three-fourths are corrected. The fiscal saving from error control is also larger, averaging $13.60 per recipient year.

Overall, the direct savings from the HAOs' error control activities are less than the cost of those activities. Verification, which corrects client misreporting errors,

[15] The data exclude errors that affected payments by less than $1 per month.

Table 6.10

SUMMARY OF PAYMENT ERRORS BY SOURCE AND DISPOSITION: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES

Source and Disposition of Errors	Average Payment Error per Recipient Year ($)			
	Brown County		St. Joseph County	
	Gross[a]	Net[b]	Gross[a]	Net[b]
Identified				
Client misreporting	12.60	3.20	16.90	11.40
Staff error	11.10	3.50	17.10	6.70
Total	23.70	6.70	34.00	18.10
Corrected				
Client misreporting	11.30	2.20	11.10	6.40
Staff error	11.10	3.50	13.10	7.20
Total	22.40	5.70	24.20	13.60
Uncorrected				
Client misreporting	1.30	1.00	5.80	5.00
Staff error	(c)	(c)	4.00	-.50
Total	1.30	1.00	9.80	4.50

SOURCE: Estimated by HASE staff from sample studies of HAO case records conducted by HAO staff and independent accountants.

NOTE: Errors affecting payments by less than $10 per month are excluded from the analysis of client misreporting; errors affecting payments by less than $1 per month are excluded from the analysis of staff error. Entries are based on samples as small as 95 cases and error rates were low, so the estimated dollar amounts are subject to considerable sampling variability; 95 percent confidence intervals range from $3 to $17.

[a] Sum of positive and negative errors without regard to sign, divided by the number of cases with and without error. Average errors from different sources are added here to form totals, even though the errors may be offsetting in individual cases.

[b] Sum of positive and negative errors, divided by the number of cases with and without error.

[c] Too few errors in sample to permit estimation.

costs $4.11 per enrollee in Brown County and $3.97 in St. Joseph County, whereas the corresponding fiscal savings are $2.20 and $6.40. Routine review of enrollment forms to correct staff errors costs $11.31 per interview in Brown County and $10.64 in St. Joseph County, as against fiscal savings of $3.50 and $7.20 per enrollee.[16] Those comparisons do not take into account the deterrent effect of verification on misreporting or the administrative savings from correcting staff errors that do not directly affect payments.

The intersite differences noted in Table 6.10 should not obscure the fact that all the entries in that table are small relative to average annual payments. In September 1976, the average annual payment was $864 in Brown County and $936 in St. Joseph County. If uncorrected, gross payment errors would have amounted to less than 4 percent of average payments in each county. Net payment errors—the fiscal loss—would have amounted to less than 2 percent of average payments. After error correction, the residual net payment errors are less than 0.5 percent of average payments in both sites.[17]

Housing Certification

Those who enroll in the program can draw allowances only while occupying dwellings whose quality has been approved by the HAO. Renters must also execute an HAO-approved lease agreement with their landlords. Although the program sets no limits on a participant's housing expenses, the allowance cannot exceed that expense. Those requirements distinguish the allowance program from a pure income transfer program. Enforcing them is the function of housing certification.

Housing evaluation is the most complex part of certification. The experiment's planners had to design a set of housing standards that would reflect the public interest in participants' residential environments and devise a system for enforcing those standards efficiently. Generally, the standards we adopted follow model housing codes promulgated by national organizations, but are reconciled in some particulars with the local codes in our two sites.[18] The HAOs' standards are enforced by on-site evaluations of enrollees' dwellings before payments are authorized and annually thereafter. In the following pages, we discuss the workload, reliability, and costs of housing evaluation for new enrollees.

[16] Cost per interview and saving per enrollee are not strictly comparable because not all interviews result in enrollments. If all enrollment form review costs were included in the figure for those who enroll, the cost per enrollee would be about $15 in both sites.

[17] A study at the St. Joseph County HAO indicates that these figures would not be much different if we included the smaller misreporting errors that are discovered through verification but not corrected, i.e., those affecting payments by from $1 to $10 per month. Gross payment errors would still amount to about 4 percent of average payments; net payment errors—the fiscal loss—would still amount to about 2 percent of average payments; and the residual net payment errors would equal less than 0.7 percent of average payments.

[18] The Green Bay housing code reviewed in the development of HASE standards is Sec. 31 of the Code of General Ordinances, City of Green Bay, originally adopted in February 1965. In South Bend, a model code is used: Building Officials and Code Administrators International, *Basic Housing-Property Maintenance Code* (2d ed. 1970, with 1971 supplement), adopted by amendment to Sec. 11.1, Chap. 11 of the South Bend Municipal Code in January 1973. Other model codes reviewed include American Public Health Association and U.S. Public Health Service, Department of Health Education and Welfare, *Recommended Housing Maintenance and Occupancy Ordinance* (Washington, D.C., 1971), Southern Building Code Congress, *Southern Standard Housing Code* (Birmingham, Alabama, 1973), and International Conference of Building Officials, *Uniform Housing Code* (Whittier, California, 1973).

Key Findings:

- Between enrollment and first housing certification, the HAOs conduct 140 housing evaluations per 100 enrollees in Brown County and 156 in St. Joseph County. They include initial evaluations on dwellings occupied at enrollment, deficiency reevaluations (after repairs have been made), and evaluations of dwellings to which enrollees move.
- The lower quality of St. Joseph County's housing is reflected in more deficiency and move-related evaluations. In both sites, nonelderly renters require more evaluations than any other group of enrollees, primarily because they more often move before first certification.
- A trained evaluator can rate some 38 aspects of a dwelling (habitable rooms, essential facilities, hazards to health or safety) in 26 minutes on site. Tests show that different evaluators reach the same conclusions, both on individual items and overall, in 98 percent of all cases.
- Housing certification costs per case average $25 for conducting the evaluation and reporting its results to the client, plus $6 for processing evaluation results, lease agreements, and housing expense statements. Because some enrollees request more than one evaluation, the average cost per enrollee is $45 and the average cost per new recipient is $59.

Housing Evaluation Workload. During the first two program years, each 100 enrollments generated 140 housing evaluations in Brown County and 156 in St. Joseph County. Table 6.11 shows that initial evaluations of dwellings occupied by clients when they enroll account for most of the workload. In order to obtain data on preenrollment housing conditions, the HAOs try to evaluate each such dwelling even though the occupant may plan to move, but do not always succeed. Evaluations are completed on about 95 percent of all enrollment dwellings in Brown County and 92 percent in St. Joseph County; for one group of highly mobile renters in St. Joseph County, the success rate is only 83 percent.[19]

Deficiency reevaluations are conducted at the request of enrollees whose current or prospective dwellings have failed initial evaluations, presumably after defects have been repaired. About 31 percent of the enrollees in Brown County and 40 percent in St. Joseph County call for such reevaluations, which encompass only the previously failed items and nearly always result in approval of the dwelling.

An enrollee who plans to move is urged by the HAO to arrange an evaluation of the prospective dwelling before he is committed to it, so he will know what if anything must be done to bring the dwelling up to program standards. However, enrollees often move, then request evaluations. Nearly all premove and postmove evaluations are conducted on behalf of nonelderly renters, some of whom request evaluations of several dwellings as they search for one that is acceptable.

Because the HAO does not authorize payments until housing certification is complete, evaluation delays penalize the enrollee and should therefore be minimized. Although the HAOs strive for quick response, evaluations conducted during

[19] Those who intend to move sometimes avoid scheduling evaluation appointments until the move has been completed, whereupon the HAO has no grounds for requesting admission to the vacated dwelling. Sometimes a landlord refuses to permit an evaluation (e.g., for a departing tenant); and public housing units are not evaluated as a matter of policy (their occupants must move to unsubsidized dwellings in order to qualify for payments).

Table 6.11

PRECERTIFICATION HOUSING EVALUATIONS BY TYPE OF ENROLLEE: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH YEAR 2

Type of Enrollee	Number of Enrollees	Number of Evaluations per 100 Enrollees, by Type				
		Initial[a]	Deficiency[b]	Premove or Postmove[c]	Other[d]	Total
Brown County						
Homeowners						
Nonelderly:						
No children	148	101[a]	39	3	2	145
Couple with children	614	98	39	1	1	139
Single with children	306	99	36	2	2	138
Elderly:						
Couple	289	96	32	1	3	132
Single	540	97	31	0	2	130
All	1,897	98	35	1	2	136
Renters						
Nonelderly:						
No children	502	93	29	19	2	144
Couple with children	759	94	34	22	3	153
Single with children	964	92	28	20	2	144
Elderly:						
Couple	115	96	29	9	6	138
Single	564	95	20	8	3	126
All	2,904	94	28	18	2	143
All enrollees	4,801	95	31	11	2	140
St. Joseph County						
Homeowners						
Nonelderly:						
No children	305	100	41	2	3	146
Couple with children	594	98	34	1	4	137
Single with children	756	98	39	3	5	144
Elderly:						
Couple	515	99	35	0	2	137
Single	1,298	98	42	1	2	143
All	3,468	98	39	1	2	142
Renters						
Nonelderly:						
No children	445	85	41	35	3	164
Couple with children	645	88	35	36	5	164
Single with children	1,746	83	45	52	5	186
Elderly:						
Couple	67	100	31	9	6	146
Single	450	98	34	6	3	142
All	3,353	86	41	40	5	172
All enrollees	6,281	92	40	20	4	156

SOURCE: Tabulated by HASE staff from HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

NOTE: Items may not add to totals because of rounding.

[a]Evaluation of dwelling occupied at time of enrollment, attempted whether or not the enrollee planned to move, unless the dwelling was public housing. However, some enrollees who planned to move evaded this evaluation. During part of the period, reinstatement evaluations were coded as initial evaluations, so some enrollees appear to have two initial evaluations.

[b]Reevaluation.

[c]Includes evaluations requested either before or after clients moved into the dwelling.

[d]Includes special-appeal and reinstatement evaluations (but see note *a*).

periods of heavy enrollment have been delayed for longer than is desirable. In both sites, the median elapsed time between enrollment and initial evaluation is 6.9 days; between a request for and completion of a deficiency reevaluation, 3.5 days; and between a request for and completion of a move-related evaluation, 4.7 days. Whereas applicants often fail to show up for scheduled enrollment interviews, only about 6 percent of all evaluation appointments are missed.

An evaluation entails a thorough inspection of the interior and exterior of a dwelling to rate each of 38 items on the evaluator's checklist; some items are rated separately by room, others only once for the dwelling as a whole. Each defect is recorded in enough detail for later communication to the client. For initial evaluations of enrollment units, evaluators spend an average of 26 minutes on site in Brown County, 32 minutes in St. Joseph County (see Table 6.12). The added time required in St. Joseph County reflects collection of extra research data (dimensions of rooms, storage cabinets, and counter space).

Table 6.12

TIME ON SITE FOR PRECERTIFICATION HOUSING EVALUATIONS: HOUSING ALLOWANCE PROGRAMS IN BROWN AND ST. JOSEPH COUNTIES THROUGH YEAR 2

Type of Evaluation and Type of Dwelling	Time on Site (min)			
	Brown County		St. Joseph County	
	Mean	Standard Deviation	Mean	Standard Deviation
Precertification				
Initial (enrollment dwelling)	25.7	7.2	31.9	7.8
Deficiency reevaluation	8.6	5.1	9.9	6.2
Premove or postmove	25.2	7.9	34.5	9.4
Initial, by Type of Unit				
Single-family detached:				
0-1 bedroom	25.9	7.9	30.3	8.2
2-4 bedrooms	25.1	6.0	30.3	6.6
5+ bedrooms	28.2	7.9	33.6	8.0
Duplex or row house:				
0-1 bedroom	23.4	6.3	28.5	8.2
2-4 bedrooms	22.4	5.7	30.2	8.6
5+ bedrooms	25.4	8.3	36.2	9.3
Apartment building or rooming house:				
0-1 bedroom	23.2	6.1	30.7	8.3
2-4 bedrooms	24.5	6.2	32.8	7.8
5+ bedrooms	27.6	7.5	35.7	8.6
Mobile home	22.0	4.9	26.4	7.0
Initial, by Result				
Acceptable	23.7	6.3	30.2	7.1
Not acceptable	27.7	7.5	33.2	8.0

SOURCE: Tabulated by HASE staff from HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

Evaluation time increases slightly with the size of a dwelling unit but does not vary much with property characteristics. Unacceptable dwellings take longer than acceptable ones. Because of their limited scope, deficiency reevaluations take less than a third as long as initial or move-related evaluations. Note that the times shown in the table include only time on site; travel time is more variable and can easily exceed time on site in individual cases. However, the HAOs try to schedule successive appointments in geographic clusters so as to economize on travel.

Consistency in Housing Evaluation Results. Housing quality standards are difficult both to design and to administer equitably. Design is hampered by the lack of scientific evidence as to the risks associated with commonly acknowledged defects. Administration of many common standards requires either expensive equipment and time-consuming measurement or else reliance on an evaluator's judgment.

The program's housing standards are a mixture of specific requirements for space and facilities and a list of features to be checked for specified or unspecified hazards. Some items (e.g., number of rooms) are readily countable or measurable; for others, we rely on general criteria and the trained judgment of the evaluator (e.g., the adequacy of natural light and ventilation, whether or not an electrical fixture is hazardous). If any feature of a dwelling is failed, the dwelling is rated unacceptable.

The HAOs have taken a number of steps to improve evaluator judgment and to achieve consistent application of the standards. The standards themselves are specified in each site's handbook and are supplemented by training manuals that interpret the rules and suggest criteria for close decisions. Evaluators must have previous training or experience in architecture, construction, real estate sales, or code enforcement. Training is thorough and each trainee's evaluations are independently rechecked. About 5 percent of all evaluations are repeated by a supervisor, for quality control. Cross-site tests are conducted periodically.

Those methods seem to work. In both sites, overall pass-fail findings from quality control evaluations differ from the results of the originals in only 1.6 percent of all cases.[20] As might be expected, item discrepancy rates vary with the amount of judgment entailed. For example, in St. Joseph County, discrepant ratings were rare (0.1 percent or less) for such items as working toilets, sinks, and kitchen ranges, but more common (1.0 to 2.0 percent) for condition of roofs, walls, or floors. The highest discrepancy rate (2.3 percent) was for the condition of windows.[21]

Cost of Housing Certification. From the cost analysis described earlier, we estimate that the Brown County HAO spends an average of $24 per housing evaluation, the St. Joseph County HAO, $27. The costs include scheduling and conducting the evaluation, preparing the evaluation report, and notifying the client of the results, plus a share of overhead expenses. Separately from the HAO's evaluation section, another staff group collates evaluation results with lease agreements and data on enrollees' housing expenses, checking all for conformance with program

[20] Data are from 275 quality control evaluations in Brown County and 527 in St. Joseph County, conducted from October 1975 through August 1976.

[21] Data are from 308 quality control evaluations conducted in St. Joseph County from March through August of 1976.

rules and issuing payment authorizations when all requirements are met. In both sites, that process costs about $6 (including overhead), per evaluation performed.

The total for each certified unit is thus a minimum of $30 to $33, more if over one evaluation is required. The average cost of housing certification per enrollee is estimated to be $45. Since not all enrollees qualify for payments, the cost per new recipient is still higher, about $59.

Services for Enrollees

An important premise of the housing allowance concept is that most of those who cannot afford adequate housing can nevertheless manage their money, make sensible housing decisions, and negotiate competently with landlords, lenders, contractors, and other actors in the housing market. Only if that premise is correct can a program of direct cash assistance be effective in improving recipients' housing.

No one supposes that the premise holds for either all low-income households or none of them; but experts disagree about how many need what kind of guidance. In the Supply Experiment, we deliberately limited supporting services in order to learn what proportion of enrollees could manage without them. The HAOs have provided only two kinds of services besides cash: housing information, and legal aid in housing discrimination cases.

Enrollees were invited to attend any of three housing information sessions scheduled periodically by the HAO. One session dealt with leases, landlord-tenant relationships, and the fair housing law. The second reviewed local housing alternatives and explained the steps in home purchase. The third described the HAO's housing standards and discussed home improvement techniques. All were designed as group lectures and discussions, not individual counseling.

Both HAOs have offered brochures on home improvement to their clients. The St. Joseph County HAO periodically sends its clients a newsletter with tips on home maintenance, home improvement, and energy conservation. In June 1977, the same HAO began offering a list of currently available rental units to clients interested in moving. The list is compiled by a local antipoverty agency, mostly from classified ads; it makes no recommendations or endorsements.

The one casework service offered is legal aid to clients who encounter housing discrimination. Complaints are referred to an attorney retained by the HAO (in St. Joseph County, the local Legal Aid Society) who investigates and takes legal action if appropriate.

Key Findings:

- Very few enrollees have used the services offered by the HAOs. Only nine persons in Brown County and 178 in St. Joseph County attended any housing information session. Only two housing discrimination complaints were submitted to the HAO in Brown County and 35 in St. Joseph County. Yet both kinds of service were well publicized.
- About 80 percent of all enrollees resolve their housing problems well enough to qualify for payments without special counseling or intermediation by the HAOs, or even cash advances for repairs. The need as well as the demand for special services thus seems quite limited.
- Some enrollees who do not qualify for payments might benefit from counseling or technical services, even though housing information sessions do

not attract them. We are currently investigating their circumstances to learn why they do not take the actions required for housing certification.

Response to Housing Information Services. Clients who attended housing information sessions generally liked them, or said they did. However, attendance was so sparse in Brown County—nine persons in 18 months—that the sessions were finally discontinued. In St. Joseph County, 178 persons have attended such sessions, which are still being offered. But even counting each attendee as a different enrolled household (some were friends or relatives), 178 is less than 2 percent of all enrollees.[22]

The HAOs have worked hard to make the sessions interesting and informative and have publicized them thoroughly. The attendance record clearly indicates that few clients believe they need advice as well as money. Whether or not they judge correctly, it seems unlikely that mandatory sessions would accomplish more.

The list of available rental units in St. Joseph County has been popular with enrollees. Most renters take a copy when they enroll and many call back later for new editions. Clients also seem to appreciate newsletters and home improvement brochures; but we cannot show that they affect behavior.

Response to Housing Discrimination Services. Given the area's virtual absence of racial minorities, it is not surprising that only two Brown County clients have ever complained to the HAO about housing discrimination. In neither case did the attorney find grounds for legal action.

St. Joseph County's segregated housing market gives rise to more complaints—35 through September 1977, nearly all from households headed by black or Latin women. The Legal Aid Society has investigated and closed 26 cases without action (nine because the client lost interest and 17 because of insufficient evidence). Two cases were resolved by mediation and four actions were filed. The judge ruled against one complainant; one case was resolved out of court; and the other two actions have yet to be adjudicated. Three complaints are still being investigated by the Legal Aid Society.

Though few discrimination complaints have been submitted, we think free legal aid is worthwhile, both to help those discriminated against and to discourage discrimination by publicizing its illegality.

Do Enrolled Nonrecipients Need Additional Help? About half of all enrollees in each site occupy dwellings that already meet the program's housing standards when they enroll; they qualify for payments without further effort. Roughly 30 percent fail initial housing evaluations but either repair their homes or move in order to become recipients. The remaining 20 percent fail, never meet the housing requirements, and so never qualify for payments.

The last group contains the obvious candidates for counseling or technical services to help them remedy their housing defects and become recipients. Although we have many anecdotes about them, only since the summer of 1977 have their circumstances been studied systematically. At that time, the St. Joseph County HAO began calling enrollees who had not obtained certifiable housing within two months of their enrollment dates. The caller tried to learn why the enrollee had not

[22] Program information sessions are more popular. In Brown County, a 20-minute slide show precedes the enrollment interview, so all enrollees attend. The St. Joseph County HAO schedules voluntary group sessions, attended by 2,600 persons through September 1977.

acted and offered advice or assistance. A preliminary report on the first 200 such cases gives the following details.

Despite three attempts in each case, the HAO was unable to contact half of those enrollees. Of the 103 contacted, 21 planned to obtain certifiable housing by moving and 78 by repairing their current dwellings. Only four said they did not plan to stay in the program.

None of those planning to move were interested in attending a special information session offered by the HAO. Only one reported difficulty in getting his prospective landlord to sign an HAO-approved lease agreement. Those planning repairs gave a variety of reasons for not having done them. Twenty-five said they could not understand the deficiency list sent to them by the HAO; 18 said they could not afford the indicated repairs; others were waiting for free time, good weather, or promised help from relatives or landlords.

Given the circumstances of the inquiry, responses are likely to be defensive and reasons for delay sometimes invented. The HAO employees who made the calls think that many of those contacted had lapsed into inaction even though they faced no serious impediments. The telephone reminder and a little advice was enough to motivate some to act.

The early results may be modified by study of larger samples, but they do not indicate a large unfilled need for supporting services. One issue we especially plan to investigate is whether those who say they cannot afford the requisite repairs would benefit from cash advances or help in negotiating home improvement loans. But to judge from the sample, such cases account for less than a fifth of those who fail to qualify promptly and less than 4 percent of all enrollees.

CONCLUSIONS

Operating experience in Brown and St. Joseph counties demonstrates the administrative feasibility of an open-enrollment housing allowance program with 3,000 to 6,000 participating households served by a local office. The HAOs maintain high standards of program integrity and treat their clients considerately, yet their administrative costs per household served are modest given the functions performed.

The program has two basic functions: transferring income and enforcing housing standards. At a cost of about $146 per recipient year, the HAOs encourage applications, determine which applicants are eligible, and deliver the appropriate allowances to those who qualify. Ensuring that recipients occupy dwellings of adequate size, quality, and condition adds about $70 per recipient year to the income transfer costs.

Sample audits show that error rates in both functions are very low. Gross payment errors (the sum of underpayments and overpayments) amount at most to 1.0 percent of total payments; net overpayments (the fiscal loss) amount at most to 0.5 percent of total payments. Unrecoverable balances of overpayments and advances are less than 0.3 percent of total disbursements. Although 284 cases of possible misreporting have been investigated, only 28 (out of 13,000) clients are suspected of fraud. Sample reevaluations of clients' dwellings yield different conclusions (pass/fail) from the originals in only 1.6 percent of all cases.

Those results are achieved without harassing or intimidating clients. Administrative procedures are designed to obtain accurate information from clients and inform them clearly about their rights and obligations, without subjecting them to unnecessary paperwork, inconvenient conferences, long delays in case actions, or unwanted publicity. HAO employees are trained to deal courteously and considerately with applicants and participants. Their success is mirrored in the fact that about 95 percent of the clients in both sites approve of the treatment they have received, and no more than 10 percent are dissatisfied with the program.

To be sure, the HAOs operate in the spotlight of a major social experiment, a circumstance that has helped them recruit able personnel and motivate outstanding performances. The same level of performance would be harder to achieve in a nonexperimental context such as a permanent national program. However, we note certain administrative features of the experimental program which, if generally adopted, would substantially increase the effectiveness and efficiency of regular programs with similar functions.

One key to better performance is a well-designed system for measuring performance and its associated costs. All public programs are required to account for their expenditures, but few have accounting systems that can be used effectively to guide managerial decisions. A good management information system need not be expensive to operate; nor need it be threatening to local program managers, even though it also informs their higher level supervisors. If local managers have the authority to act on problems revealed by such a system, their perceptions of increased competence and control should outweigh the risks of outside criticism.

A second key is the emphasis accorded to the decent treatment of clients. The HAOs' experience indicates that consideration for clients is amply rewarded by their cooperation and honesty, which in turn sustains staff morale. Creating a climate of joint endeavor between staff and clients depends partly on the design of administrative procedures and partly on staff selection and training. Each step of administrative procedure should be assessed in terms of its burden on clients as well as its apparent internal efficiency. Adversary proceedings should be separated from cooperative ones. Those who deal with clients should know not only the program rules but the reasons for them, and should be taught how to explain them simply. Work should be scheduled to avoid the overloads that lead to abruptness and exasperation with clients.

A third key is simplicity in the basic program design. Program rules are often overelaborated in a misguided effort to ensure either full accountability for program funds or equitable treatment of clients whose circumstances are diverse. Both are legitimate objectives, but a program that cannot achieve them with simple rules is fundamentally flawed. Moreover, complex rules or those that place heavy reporting burdens on clients are virtually always simplified or ignored in practice. The HAOs have been at least moderately successful in balancing simplicity, accountability, and equity merely by explicitly assessing proposed rules from all three perspectives.

In addition to these general administrative lessons from the experimental program, we have learned more specific ones about techniques for informing the public about a new program, securing reliable information from clients, controlling errors in administrative procedures, measuring the quality of clients' housing, and helping clients meet program requirements. Those lessons, discussed in the body of this

section, offer guidance for designing an effective and efficient housing allowance program, and each also has some wider realm of applicability to public programs.

Future administrative studies of the allowance program will address all these topics with the aid of longer time series and more evidence of steady-state performance characteristics. A special challenge for administrative improvement is to understand why about a fifth of those who enroll never resolve their housing problems well enough to qualify for payment; and in the light of that knowledge, to devise inexpensive ways to help them.

Appendix A

HOUSING ASSISTANCE SUPPLY EXPERIMENT PUBLICATIONS

A research project that entails gathering and processing primary data requires a great deal of technical documentation, the external audience for which is limited to those who wish to probe deeply into research methods. For the Supply Experiment, such technical information is preserved in working notes (WN series), copies of which are permanently on file at Rand, HUD, and the National Technical Information Service. Because of their limited audience, those notes have not been published for general distribution, but can be made available to requestors on a case-by-case basis.

Research findings of broader interest are initially published as working notes for prompt delivery to HUD. Some are subsequently reviewed and revised for publication as Rand reports (R series) or professional papers (P series) that are readily available to the public from Rand or from nearly 350 libraries that subscribe to Rand publications. Other working notes are incorporated into more comprehensive documents such as annual reports.

This appendix lists three reports, 89 working notes, and eight professional papers that are currently available, many of which are cited in the text of this report. They are indexed here by subject, so some titles appear more than once. Within each subject, publications are listed in order of publication number. Titles appearing on earlier lists but not shown here have been superseded and withdrawn.

RESEARCH DESIGN

WN-7711-UI. *Testing the Supply Response to Housing Allowances: An Experimental Design.* I. S. Lowry, C. P. Rydell, D. M. de Ferranti. December 1971.

WN-7833-HUD. *Site Selection for the Housing Assistance Supply Experiment: Stage I.* Housing Assistance Supply Experiment Staff. May 1972.

WN-7866-HUD. *Preliminary Design for the Housing Assistance Supply Experiment.* I. S. Lowry. June 1972.

WN-7883-HUD. *Preliminary Description of Survey Instruments.* Housing Assistance Supply Experiment Staff. June 1972.

WN-7885-HUD. *Data Management System: Part 1, Fieldwork Data and Data Transfer Specifications.* G. Levitt. July 1972.

WN-7888-HUD. *Phase II Price Controls and the Housing Assistance Supply Experiment.* D. B. Lewis. July 1972.

WN-7907-HUD. *Site Selection for the Housing Assistance Supply Experiment: SMSAs Proposed for Site Visits (A Briefing).* Housing Assistance Supply Experiment Staff. August 1972.

WN-7953-HUD. *Data Management System: Part II, The Management of Data for Analysis.* G. Levitt. August 1972.

WN-7982-HUD. *Supplemental Design Papers for the Housing Assistance Supply Experiment.* Housing Assistance Supply Experiment Staff. July 1972.
WN-8029-HUD. *Sample Design for the Housing Assistance Supply Experiment.* T. M. Corcoran, E. C. Poggio, T. Repnau. November 1972.
WN-8034-HUD. *Collected Site Selection Documents: Housing Assistance Supply Experiment.* R. Dubinsky. January 1973.
WN-8054-HUD. *Data Management System for the Housing Assistance Supply Experiment.* C. M. Dodd, M. C. Fujisaki, G. Levitt. November 1972.
WN-8174-HUD. *The Effects of Nonresponse on Record Completion in a Panel of Residential Properties.* T. M. Corcoran. April 1973.
WN-8198-HUD. *General Design Report: First Draft.* I. S. Lowry, Editor. May 1973.
WN-8218-HUD. *The Role of Household Survey Data in the Supply Experiment.* A. P. Massell, Editor. March 1973.
WN-8268-HUD. *Compensating for Landlord Nonresponse in the Housing Assistance Supply Experiment.* A. P. Massell. June 1973.
WN-8364-HUD. *General Design Report: Supplement.* I. S. Lowry, Editor. August 1973.
WN-8396-HUD. *Proceedings of the General Design Review of the Housing Assistance Supply Experiment.* Housing Assistance Supply Experiment Staff. October 1973.
WN-8577-HUD. *Market Intermediaries and Indirect Suppliers: Reconnaissance and Research Design for Site I.* W. G. Grigsby, M. Shanley, S. B. White. February 1974.
WN-8611-HUD. *Baseline Data Systems Design, Implementation, and Operation Report.* G. Levitt, Editor. March 1974.
WN-8612-HUD. *Baseline Audit Plan.* L. G. Chesler, D. M. de Ferranti, W. L. Dunn, J. A. Grundfest, R. E. Stanton. February 1974.
WN-8623-HUD. *Sampling Nonresidential Properties: Site I.* T. M. Corcoran. March 1974.
WN-8640-HUD. *Survey Sample Design for Site I.* T. M. Corcoran. March 1974.
WN-8686-HUD. *Using Hedonic Indexes To Measure Supply Response to Housing Allowances.* C. L. Barnett. August 1976.
WN-8687-HUD. *Accounting and Auditing Procedures for Rental Property Financial Data.* T. P. Britt, Jr. August 1974.
WN-9026-HUD. *Market Intermediaries and Indirect Suppliers: Reconnaissance and Research Design for Site II.* W. G. Grigsby, M. Shanley, S. B. White. May 1975.
WN-9051-HUD. *Monitoring the Experiment: An Update of Sec. IV of the General Design Report.* I. S. Lowry. April 1975.
WN-9070-HUD. *The Experimental Housing Allowance Program: An Update of Sec. III of the General Design Report.* I. S. Lowry. April 1975.
WN-9098-HUD. *Introduction and Overview: An Update of Secs. I and II of the General Design Report.* I. S. Lowry. May 1975.
WN-9211-HUD. *A Plan for Analyzing Nonresponse Bias: Survey of Landlords, Baseline, Site I.* C. P. Rydell, R. E. Stanton. August 1975.
WN-9292-HUD. *HASE Data Systems: The HASE Audit and Analysis Support Package (HAASP).* E. F. Harslem, M. M. Rogson. November 1975.
WN-9541-HUD. *Are Further Survey Cycles Needed in Site I?* I. S. Lowry. July 1976.

P-4645. *Housing Assistance for Low-Income Urban Families: A Fresh Approach.* I. S. Lowry. May 1971.
P-5302. *The Housing Assistance Supply Experiment: Tensions in Design and Implementation.* I. S. Lowry. September 1974.
P-5564. *Measuring the Supply Response to Housing Allowances.* C. P. Rydell. January 1976.
P-5567. *The Housing Assistance Supply Experiment: An Overview.* I. S. Lowry. January 1976.
P-5976. *An Overview of the Housing Assistance Supply Experiment.* I. S. Lowry. September 1977.

PROGRAM DESIGN

WN-7866-HUD. *Preliminary Design for the Housing Assistance Supply Experiment.* I. S. Lowry. June 1972.
WN-7895-HUD. *Failure Mode Analysis for the Housing Allowance Program.* R. A. Levine. July 1972.
WN-8025-HUD. *Funding Housing Allowances for Homeowners under Sec. 235.* M. Ott. November 1972.
WN-8028-HUD. *Housing Allowances and Household Behavior.* I. S. Lowry, M. Ott, C. W. Noland. January 1973.
WN-8105-HUD. *Estimating the Standard Cost of Adequate Housing.* D. B. Lewis, I. S. Lowry. February 1973.
WN-8167-HUD. *Additional Estimates of Enrollment and Allowance Payments under a National Housing Allowance Program.* T. Repnau, B. Woodfill. March 1973.
WN-8350-HUD. *The Housing Allowance Program for the Supply Experiment: First Draft.* R. Dubinsky, Editor. August 1973.
WN-8439-HUD. *Estimates of Eligibility, Enrollment, and Allowance Payments in Green Bay and Saginaw: 1974 and 1979.* B. Woodfill, T. Repnau, I. S. Lowry. September 1973.
WN-8489-HUD. *Funding Homeowner Assistance in the Supply Experiment: Problems and Prospects.* I. S. Lowry. November 1973.
WN-8547-HUD. *Program Size and Cost for Site I: New Data from the Screener Survey.* I. S. Lowry, B. Woodfill, T. Repnau. December 1973.
WN-8574-HUD. *Program Standards for Site I.* I. S. Lowry, B. Woodfill, T. Repnau. January 1974.
WN-8715-HUD. *Equity and Housing Objectives in Homeowner Assistance.* I. S. Lowry. June 1974.
WN-8974-HUD. *Program Standards for Site II.* I. S. Lowry, B. Woodfill, M. A. Dade. February 1975.
WN-8999-HUD. *The Section 8 Housing Assistance Program: Notes on Eligibility and Benefits.* B. Woodfill. February 1975.
WN-9070-HUD. *The Experimental Housing Allowance Program: An Update of Sec. III of the General Design Report.* I. S. Lowry. April 1975.
WN-9430-HUD. *Inflation in the Standard Cost of Adequate Housing: Site I, 1973-1976.* I. S. Lowry. March 1976.
WN-9734-HUD. *Rent Inflation in St. Joseph County, Indiana: 1974-77.* J. P. Stucker. September 1977.

FIELD SURVEYS

WN-7885-HUD. *Data Management System: Part 1, Fieldwork Data and Data Transfer Specifications.* G. Levitt. July 1972.
WN-7953-HUD. *Data Management System: Part II, The Management of Data for Analysis.* G. Levitt. August 1972.
WN-8054-HUD. *Data Management System for the Housing Assistance Supply Experiment.* C. M. Dodd, M. C. Fujisaki, G. Levitt. November 1972.
WN-8101-HUD. *Preliminary Description of Sample-Selection Procedure.* E. C. Poggio. January 1973.
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Appendix B

CHRONOLOGY OF MAJOR EVENTS

Table B-1

CHRONOLOGY OF MAJOR EVENTS IN SITE I: HOUSING ALLOWANCE PROGRAM

Date	Event
	1972
18 December	• Rand appoints site manager for Brown County.
22 December	• HUD tentatively designates Brown County as an experimental site, based on progress in negotiating memoranda of understanding with the major units of local government.
	1973
21 February	• Brown County board of supervisors approves a memorandum of understanding with HUD and establishes the Brown County Housing Authority (BCHA) as an agency empowered to enter into an annual contributions contract (ACC) with HUD under Sec. 23.
5 March	• Rand opens a site office in Green Bay.
15 May	• First meeting of the BCHA.
4 June	• BCHA approves a memorandum of understanding with HUD concerning the purposes and organization of the experimental housing allowance program.
19 October	• Housing allowance office (HAO) of Brown County is incorporated as a nonprofit organization under the laws of the State of Wisconsin. Incorporators appoint director and deputy director of the HAO.
14 December	• HAO board of trustees adopts bylaws, elects officers, and ratifies appointments of HAO director and deputy director.
24 December	• HAO acquires temporary quarters in Green Bay.
	1974
4 January	• Rand submits drafts of final sections of HAO handbook to HUD.
18 February	• BCHA formally submits application for annual contributions contract to HUD, accompanied by resolutions of approval from 20 units of local government in Brown County.
11 March	• BCHA approves allowance program standards promulgated by HUD.

14 March	• HUD and BCHA execute annual contributions contract. BCHA and HAO execute agreement delegating program operations to the HAO.
29 March	• HAO tests enrollment and housing certification procedures with small number of invited applicants.
6 May	• HUD conducts HAO operational readiness review.
21 May	• HUD approves HAO operating budget.
29 May	• HUD and BCHA deliver first installment of ACC funds to HAO.
12 June	• HUD approves participation manual and form of participation agreements for renters and homeowners.
13 June	• Advisory committee of local officials and citizens formed. First meeting held.
17 June	• HAO completes first formal enrollment (signed participation agreement).
19 June	• HAO invites applications for enrollment from the general public and makes first payment to allowance recipient.
10 October	• HAO moves into permanent quarters in Green Bay.
14 October	• HAO begins active outreach, including newspaper and radio advertising.
26 November	• Number of households enrolled reaches 1,000.
	1975
24 January	• Number of households receiving payments reaches 1,000.
4 April	• HAO begins first semiannual recertification cycle.
19 June	• HAO begins second year of open enrollment, first annual recertification cycle, and first annual housing reevaluation cycle.
14 July	• HAO opens field office on west side of Green Bay.
9 August	• HAO begins television advertising.
25 August	• Cumulative allowance payments reach $1 million.
7 October	• BCHA approves removal of lease-leaseback requirement from homeowners' participation agreements.
24 October	• HAO opens temporary office in Pulaski.
30 October	• HAO opens temporary office in De Pere.
26 November	• Number of households whose enrollments have been terminated reaches 1,000.
	1976
9 January	• HAO opens temporary branch offices in Wrightstown and Denmark.
1 April	• HUD-approved increase in benefit levels reflected in April allowance payments.

26 April	•	HUD authorizes residents of subsidized housing for allowance payments if other subsidy is foregone.
19 June	•	HAO begins third year of open enrollment.
1 August	•	HAO publishes *Report to Brown County.*
		1977
1 January	•	HAO adopts more restrictive lead-based paint standards.
1 January	•	HAO broadens definition of assets counted toward eligibility asset limit.
1 May	•	HUD-approved increase in benefit levels reflected in May allowance payments.
19 June	•	HAO begins fourth year of open enrollment.
15 August	•	HAO closes field office on west side of Green Bay.
1 October	•	HAO opens enrollment to most single persons under 62.

Table B-2

CHRONOLOGY OF MAJOR EVENTS IN SITE I: RESEARCH PROGRAM

Date		Event
		1973
1 February	•	Mathematica opens site office in Green Bay.
13 March	•	Rand completes plan for survey sample selection.
23 April	•	Mathematica commences tax office search for parcel data required for sample selection.
6 August	•	Rand releases screening survey sample list of residential properties to Mathematica.
26 August-13 October	•	Mathematica conducts screening survey of occupants of 10,500 housing units.
19 October	•	Rand completes coding, keypunching, and cleaning of 8,646 completed screening survey questionnaires and compiles master file for baseline sample selection.
16 October-21 December	•	Mathematica conducts baseline survey of 6,750 residential buildings.
11 November-18 December	•	Rand releases baseline sample list to Mathematica in installments.
10 December-31 March 1974	•	Mathematica conducts baseline survey of landlords of 3,115 rental properties.
12 December-30 April 1974	•	Mathematica conducts baseline survey of 6,319 tenants, 1,412 homeowners, 264 lodgers, and 147 occupants of mobile homes.
27 December-11 January 1974	•	Mathematica conducts baseline windshield survey of 8,660 street segments in 108 neighborhoods.
		1974
10 January	•	Rand publishes first analysis of screening survey data (WN-8574-HUD).
31 January	•	Rand releases baseline sample list of nonresidential properties to Mathematica.
3 March-8 April	•	Mathematica conducts baseline survey of owners of 378 nonresidential properties.
15 March	•	Rand releases baseline sample list of seasonal properties to Mathematica.
3 April-19 April	•	Mathematica conducts baseline survey of owners of 250 seasonal properties.

15 June	• Mathematica completes baseline survey cleanup; closes site office.
1 July	• Mathematica delivers field record management materials to Rand.
5 August-18 November	• Rand publishes codebook materials for screening survey (WN-8688-HUD, WN-8689-HUD).
20 August	• Rand completes accountability review on all major surveys.
16 September	• Rand completes coding, keypunching, and cleaning of 6,751 field observation forms from the survey of residential buildings.
20 September	• Rand releases sample list for wave 2 fieldlisting of selected residential properties.
24 September-9 October	• NORC conducts wave 2 fieldlisting of 275 residential properties.
4 October	• Rand completes coding, keypunching, and cleaning of 2,116 questionnaires from the baseline survey of landlords.
17 October	• Rand releases field materials for wave 2 landlord quest.
18 October	• Rand completes coding, keypunching, and cleaning of 8,064 field observation forms from the baseline survey of neighborhoods.
18 October-13 December	• NORC conducts wave 2 landlord quest for 1,620 residential properties.
25 November	• Rand publishes audit report on screening survey (WN-8684-HUD).
18 December	• Rand selects permanent panel of 1,945 residential properties, 2,074 residential buildings, and 3,288 housing units from among those with complete baseline records.

1975

11 January	• Rand releases sample list for wave 2 survey of tenants and homeowners.
15 January	• Rand completes coding, keypunching, and cleaning of 108 local sources data forms from the baseline survey of neighborhoods.
15 January	• Rand compiles preliminary master file of field observation records for the baseline survey of neighborhoods.
16 January	• Rand completes coding, keypunching, and cleaning of 3,976 questionnaires from the baseline surveys of tenants, homeowners, lodgers, and occupants of mobile homes.
20 January-30 September	• NORC conducts wave 2 survey of 2,973 tenants and 685 homeowners.

3 February	• Rand compiles preliminary master file for the baseline survey of landlords.
13 February	• Rand compiles preliminary master file for the baseline survey of residential buildings.
22 February	• Rand compiles preliminary master file for the baseline surveys of tenants and homeowners.
3 March	• Rand compiles preliminary master file for the local sources records of the survey of neighborhoods.
7 March	• Rand publishes codebook for the baseline survey of residential buildings (WN-8810-HUD).
26 March	• Rand publishes codebook for the baseline survey of landlords (WN-8976-HUD).
1 April	• Rand releases sample list for wave 2 survey of landlords.
21 April-30 September	• NORC conducts wave 2 survey of landlords of 1,316 rental properties.
8 May	• Rand publishes first analysis of the baseline survey of landlords (WN-8980-HUD).
16 June	• Rand releases preliminary sample list for wave 2 panel augmentation (new construction sample).
23 June-30 June	• NORC conducts wave 2 fieldlisting of 136 newly constructed residential properties.
15 July	• HAO delivers administrative records for first year of program operations to Rand.
30 July	• Rand releases sample list for wave 2 survey of residential buildings.
8 August-30 October	• NORC conducts wave 2 survey of 2,714 residential buildings.
26 August-1 November	• NORC conducts wave 2 surveys of landlords, tenants, homeowners, and residential buildings for 65 properties in the new construction sample.
5 September	• Rand compiles preliminary master file for the baseline surveys of lodgers and occupants of mobile homes.
15 September-30 September	• NORC pretests instrument for wave 3 survey of tenants and homeowners.
22 September	• Rand compiles preliminary master file of client characteristics from HAO records for first year of program operations.
22 September	• Rand releases sample list for wave 3 fieldlisting of selected residential properties.
24 September	• NORC begins wave 3 fieldlisting for 414 residential properties.
8 October	• Rand releases field materials for wave 3 landlord quest.
13 October-14 November	• NORC conducts wave 3 landlord quest for 1,960 properties.

5 December	• Rand completes respondent accounting for wave 2 survey of tenants and homeowners.
18 December	• Rand releases main sample list and field materials for wave 3 survey of tenants and homeowners.
22 December	• Rand publishes codebook for baseline survey of tenants and homeowners (WN-8809-HUD).

1976

13 January	• Rand compiles HAO client characteristics file for year 1.
19 January-30 July	• NORC conducts wave 3 survey of 3,838 tenants and 838 homeowners.
20 January	• Rand publishes audit report on baseline survey of residential buildings (WN-8973-HUD).
20 February	• Rand completes respondent accounting for wave 2 survey of landlords.
26 February	• Rand submits wave 3 landlord instrument to HUD and OMB for clearance.
27 February	• Rand compiles HAO housing characteristics file for year 1.
2 March	• Rand releases supplementary sample list and field materials for wave 3 survey of tenants and homeowners, including 490 households added to Urban Institute comparability panel.
21 March	• Rand releases sample list for wave 3 survey of landlords.
25 March	• Rand publishes study of rent inflation in Site I (WN-9430-HUD).
29 March	• Rand completes data entry and cleaning of 2,010 baseline tax records for sampled properties.
7 April	• Rand completes data entry and cleaning of 2,010 wave 2 tax records for sampled properties.
26 April-20 August	• NORC conducts wave 3 survey of landlords of 1,334 rental properties.
7 May	• Rand completes data entry and cleaning of 1,117 questionnaires from wave 2 survey of landlords.
13 May	• Rand completes data entry and cleaning of 2,868 questionnaires from wave 2 survey of tenants and homeowners.
24 May	• Rand completes coding, data entry, and cleaning of 2,444 field observation forms and 1,218 refielded questionnaires from wave 2 survey of residential buildings.
31 May	• Rand publishes codebook for HAO client characteristics file, year 1 (WN-9433-HUD).
9 July	• HAO delivers administrative records for second year of program operations to Rand.

10 July	• Rand publishes review of needs for future surveys in Brown County (WN-9541-HUD).
19 July	• Rand publishes codebook for HAO housing characteristcs file, year 1 (WN-9504-HUD).
19-23 July	• NORC pretests wave 4 instrument for survey of tenants and homeowners.
22 July	• Rand releases sample list for wave 3 survey of residential buildings (comparability panel only).
26 July-27 August	• NORC conducts wave 3 survey of 446 residential buildings (comparability panel only).
16 August	• Rand publishes first analysis of baseline survey of tenants and homeowners (WN-9029-HUD).
19 August	• Rand submits wave 4 tenant/homeowner instrument to HUD and OMB for clearance.
30 August	• Rand completes sample accounting for wave 2.
28 September	• Rand releases sample lists for wave 4 landlord quest and fieldlisting of selected properties.
5 October	• Rand releases sample list for wave 4 panel augmentation (new construction sample).
5 October-22 October	• NORC conducts wave 4 fieldlisting of 235 properties.
6 October-29 October	• NORC conducts landlord quest for 575 properties.
22 October	• Rand compiles HAO client characteristics file for year 2.
6 December	• Rand compiles HAO housing characteristics file for year 2.
7 December	• Rand completes respondent accounting for wave 4 survey of tenants and homeowners.
14 December	• Rand releases sample list for wave 4 survey of tenants and homeowners.

1977

5 January-8 July	• NORC conducts wave 4 survey of 3,290 tenants and 843 homeowners.
20 March	• Rand releases sample list for wave 4 survey of landlords.
30 March - 12 August	• NORC conducts wave 4 survey of landlords of 1,297 rental properties.
15 April	• Rand publishes audit report on baseline survey of neighborhoods (WN-9732-HUD).
10 June	• Rand publishes audit report on baseline survey of landlords (WN-8977-HUD).
7 July	• Rand publishes codebook on baseline survey of neighborhoods (WN-8811-HUD).
8 July	• Rand completes community attitude coding of 1,117 questionnaires from wave 2 survey of landlords.

22 July	•	Rand releases field materials for wave 4 survey of neighborhoods.
26 July	•	Rand completes coding, data entry, and cleaning of 2,508 wave 3 tax record abstracts.
27 July	•	Rand releases sample list for wave 4 survey of residential buildings.
1 August - 23 September	•	NORC conducts wave 4 survey of neighborhoods (9,311 street segments).
16 August - 21 October	•	NORC conducts wave 4 survey of 2,577 residential buildings.
30 August	•	Rand completes coding, data entry, and cleaning of 2,997 completed questionnaires from wave 3 survey of households.
30 August	•	Rand completes coding, data entry, and cleaning of 415 field reports from wave 3 survey of residential buildings.
6 September	•	Rand completes cleaning of 5,763 reports of calls to HAO.
20 September	•	Rand completes community attitude coding of 2,868 questionnaires from wave 2 survey of households.

Table B-3

CHRONOLOGY OF MAJOR EVENTS IN SITE II: HOUSING ALLOWANCE PROGRAM

Date		Event
		1974
28 January	•	South Bend common council approves a memorandum of understanding with HUD concerning the purposes and organization of the housing allowance program.
8 April	•	HUD designates St. Joseph County as an experimental site despite failure to secure participation of Mishawaka and the remainder of the county.
13 May	•	Rand appoints site manager for St. Joseph County.
15 July	•	Rand opens site office in South Bend.
25 July	•	Housing allowance office (HAO) is incorporated as a nonprofit organization under the laws of the State of Indiana.
8 August	•	First meeting of HAO board of trustees. Board adopts bylaws and elects officers.
14 August	•	South Bend Housing Authority (SBHA) formally submits application for annual contributions contract (ACC) to HUD, accompanied by a resolution of approval from the South Bend common council.
5 September	•	HAO board of trustees appoints HAO director and deputy director.
6 September	•	HUD and SBHA execute annual contributions contract. SBHA and HAO execute agreement delegating program operations to the HAO.
16 September	•	HAO acquires temporary quarters in South Bend.
27 September	•	HUD approves operating budget for the HAO.
27 September	•	First meeting of HAO advisory committee of public officials and citizens.
3 October	•	HUD and SBHA deliver first installment of ACC funds to the HAO.
15 October	•	Rand submits draft of HAO handbook to HUD.
29 November	•	HAO completes hiring for supervisory staff.
5 December	•	HUD conducts operational readiness review.
12 December	•	HAO begins invitational enrollment of homeowners.
16 December	•	HAO handbook approved by chairman of the board of trustees.
27 December	•	HAO completes first formal enrollment and payment authorization.
31 December	•	HAO moves into permanent quarters in South Bend.

1975

2 April	• HAO invites enrollment from general public.
26 June	• St. Joseph County and SBHA agree to extend program jurisdiction to unincorporated territory within five miles of South Bend.
25 July	• Number of enrolled households reaches 1,000.
10 August	• HAO begin active outreach, including newspaper, radio, and television advertising.
11 August	• St. Joseph County Council endorses allowance program.
14 August	• Roseland joins allowance program.
22 September	• Number of households receiving payments reaches 1,000.
24 September	• SBHA approves removal of lease-leaseback requirement from homeowners' participation agreements.
1 October	• HAO begins first semiannual recertification cycle.
6-8 October	• GAO reviews HAO operations.
4 November	• New Carlisle joins allowance program.
1 December	• HAO begins first annual recertification cycle.
3 December	• North Liberty joins allowance program.

1976

1 March	• Cumulative allowance payments reach $1 million.
15 March	• Mishawaka joins allowance program.
24-25 March	• SBHA and HUD approve amended annual contributions contract and SBHA/HAO agreement.
2 April	• HAO begins second year of open enrollment, first annual recertification cycle, and first annual housing reevaluation cycle.
5 April	• HAO opens branch office in Mishawaka.
15 April	• Walkerton joins allowance program.
19 April	• HUD conducts equal opportunity compliance review of HAO operations.
3 May	• Osceola joins allowance program.
11 May	• HAO begins direct mail advertising.
7 June	• Lakeville joins allowance program.
11 June	• Number of households whose enrollments have been terminated reaches 1,000.
14 June	• Mishawaka Housing Authority (MHA) agrees to extend program to unincorporated territory within five miles of Mishawaka.
22 June	• St. Joseph County Council reactivates County Housing Authority (CHA).
13 July	• St. Joseph County Council and CHA agree to extend program to all unincorporated territory in county.
2 August	• HAO begins billboard advertising.

1 September	• HUD-approved increase in benefit levels reflected in September allowance payments.
1 November	• Indian Village joins allowance program, whose jurisdiction now includes all of St. Joseph County.

1977

2 April	• HAO begins third year of open enrollment.
15 July	• HAO publishes *Report to St. Joseph County.*
1 August	• HAO opens enrollment to most single persons under 62.
1 September	• HUD-approved increase in benefit levels reflected in September allowance payments.

Table B-4

CHRONOLOGY OF MAJOR EVENTS IN SITE II: RESEARCH PROGRAM

Date	Event
	1974
30 January	• Rand completes preliminary design for sample selection (WN-8588-HUD) and obtains list of tax parcels in St. Joseph County.
1 May-3 July	• Rand conducts tax record search for data on 40,894 properties.
16 May	• Westat opens site office in South Bend.
24 June-9 August	• Rand releases screening survey sample list of housing units to Westat in installments.
10 July-6 September	• Westat conducts screening survey of occupants of 9,976 housing units.
23 July-23 September	• Rand codes, keypunches, and cleans 6,066 completed screening survey questionnaires.
18 September-28 November	• Westat conducts baseline survey of 12,136 street segments in 86 neighborhoods.
11 November	• Rand releases sample list for baseline survey of landlords.
18 November	• Rand releases sample list for baseline survey of tenants and homeowners.
25 November-20 June	• Westat conducts baseline surveys of landlords of 3,528 rental properties, 5,803 tenants, and 1,415 homeowners.
2 December	• Rand compiles preliminary master file of screening survey records.
	1975
21 April	• Rand releases sample list for baseline survey of residential buildings.
25 April-2 July	• Westat conducts baseline survey of 5,074 residential buildings.
25 June	• Rand releases sample list for baseline verification survey of nonresidential properties.
6 August-22 August	• Westat conducts baseline verification survey of 543 nonresidential properties.
31 August	• Rand completes coding, keypunching, and cleaning of 1,922 questionnaires from the baseline survey of landlords.
8 September-8 October	• Westat conducts tax record search for data on 4,943 residential properties.

22 September	• Rand releases sample list for wave 2 fieldlisting of selected residential properties.
24 September	• Westat begins wave 2 fieldlisting for 600 residential properties.
1 September-15 December	• Rand conducts fieldwork for local sources module of baseline survey of neighborhoods.
14 October	• Rand releases field materials for wave 2 landlord quest.
15 October-13 November	• Westat conducts wave 2 landlord quest for 2,581 residential properties.
23 October	• Rand completes data entry and cleaning of 2,927 questionnaires from baseline surveys of tenants and homeowners.
24 October	• Rand publishes report on baseline sample selection (WN-9027-HUD).
3 November	• Rand completes coding, data entry, and cleaning of 12,137 field observation forms from baseline survey of neighborhoods.
21 Novembe	• Rand completes sample accounting for wave 1.
5 December	• Rand completes respondent accounting for wave 1 survey of tenants and homeowners.
18 December	• Rand releases main sample list and field materials for wave 2 survey of tenants and homeowners.
	1976
9 January	• HAO delivers administrative records for first year of program operations to Rand.
24 January-30 July	• Westat conducts wave 2 survey of 4,308 tenants and 723 homeowners.
30 January	• Rand completes coding, data entry, and cleaning of 3,092 field observation forms from baseline survey of residential buildings.
3 February	• Rand completes data entry and cleaning of 4,611 baseline tax records for sampled properties.
9 February	• Rand compiles preliminary master file for baseline survey of landlords.
20 Feburary	• Rand completes respondent accounting for baseline survey of landlords.
26 February	• Rand submits instrument for wave 2 survey of landlords to HUB and OMB for clearance.
2 March	• Rand releases supplementary sample list and field materials for wave 2 survey of tenants and homeowners.
18 March	• Rand completes coding, data entry, and cleaning of local sources module of baseline survey of neighborhoods.

29 March	• Rand releases sample list and field materials for wave 2 survey of landlords.
22 April	• Rand compiles preliminary master file for baseline survey of tenants and homeowners.
1 May-31 August	• Westat conducts wave 2 survey of landlords of 1,417 rental properties.
11 June	• Rand completes postcoding of community attitudes module of baseline survey of tenants and homeowners.
16-23 July	• Westat pretests wave 3 instrument for survey of tenants and homeowners.
18 July	• Rand compiles HAO client characteristics file for year 1.
23 July	• Rand releases sample list and field materials for wave 2 survey of residential buildngs (comparability panel only).
23 July	• Rand publishes codebook for baseline survey of landlords (WN-9444-HUD).
19 August	• Rand submits instrument for wave 3 survey of tenants and homeowners to HUD and OMB for clearance.
31 August	• Rand completes postcoding of community attitudes module of baseline survey of landlords.
24 September	• Rand publishes report on market intermediaries for year 1 (WN-9400-HUD).
28 September	• Rand releases sample list and field materials for wave 3 landlord quest and fieldlisting of selected properties.
30 September	• Rand compiles HAO housing characteristics file for year 1.
1 October-13 October	• Westat conducts wave 3 fieldlisting of 101 properties.
1 October-13 October	• Westat conducts landlord quest for 723 properties.
15 December	• Rand releases sample list for waves 2 and 3 panel augmentation (new construction sample).
17 December-14 January	• Westat conducts waves 2 and 3 fieldlisting of 153 newly constructed residential properties.
20 December	• Rand releases sample list for wave 3 survey of households.

1977

5 January	• Rand compiles preliminary master file for baseline survey of neighborhoods (local sources module).
10 January-3 July	• Westat conducts wave 3 survey of 4,220 tenants and 861 homeowners.

19 January	• Rand compiles preliminary master file for baseline survey of residential buildings.
20 January	• Rand completes coding, data entry, and cleaning of 2,658 completed questionnaires from wave 2 survey of households.
2 February	• Rand completes coding, data entry, and cleaning of 929 completed questionnaires from wave 2 survey of landlords.
24 February	• Rand publishes codebook for HAO client characteristics file, year 1 (WN-9621-HUD).
23 March	• Rand releases sample list for wave 3 survey of landlords.
6 April	• Rand publishes codebook for HAO housing characteristics file, year 1 (WN-9622-HUD).
6 April	• Rand compiles HAO client characteristics file for year 2.
13 April	• Rand compiles preliminary master file for baseline survey of neighborhoods (street observation module).
22 April	• Rand completes data entry and cleaning of 11,587 reports of calls to HAO.
25 April-24 August	• Westat conducts wave 3 survey of 1,350 landlords.
10 May	• Rand publishes report on permanent panel of residential properties (WN-9577-HUD).
13 June	• Rand compiles HAO housing characteristics file for year 2.
15 July	• Rand compiles preliminary master file for wave 2 survey of households.
5 August	• Rand publishes report on community attitudes (WN-9774-HUD).
7 August	• Rand releases sample list and field materials for wave 3 survey of residential buildings (comparability panel and new construction only).
17 August	• Rand publishes report on market intermediaries and indirect suppliers (WN-9020-HUD).
30 August	• Rand completes coding, data entry, and cleaning of 476 field reports from wave 2 survey of residential buildings.
30 September	• Rand publishes report on rent inflation (WN-9734-HUD).
26 September-14 November	• Westat conducts wave 3 survey of 630 residential buildings.
30 September	• Rand publishes codebook for baseline survey of residential buildings (WN-9895-HUD).

Appendix C

ORGANIZATION OF THE HOUSING ASSISTANCE SUPPLY EXPERIMENT

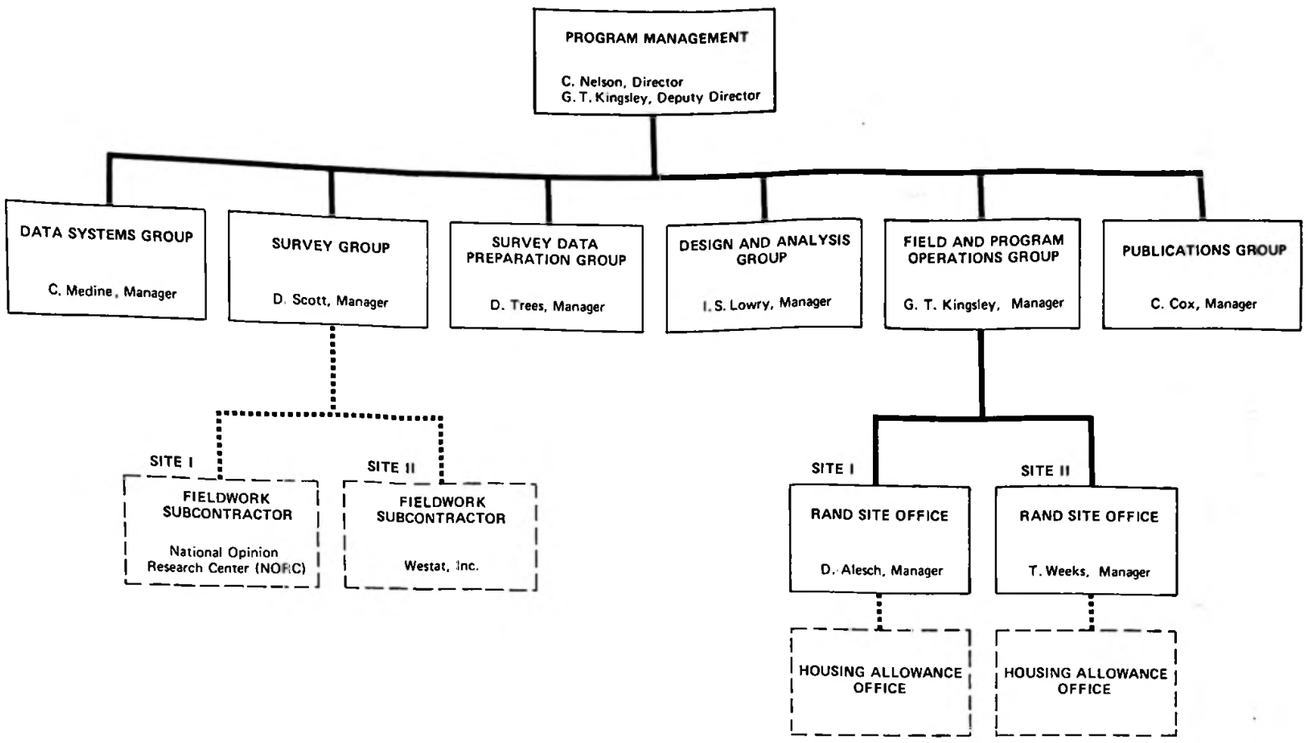
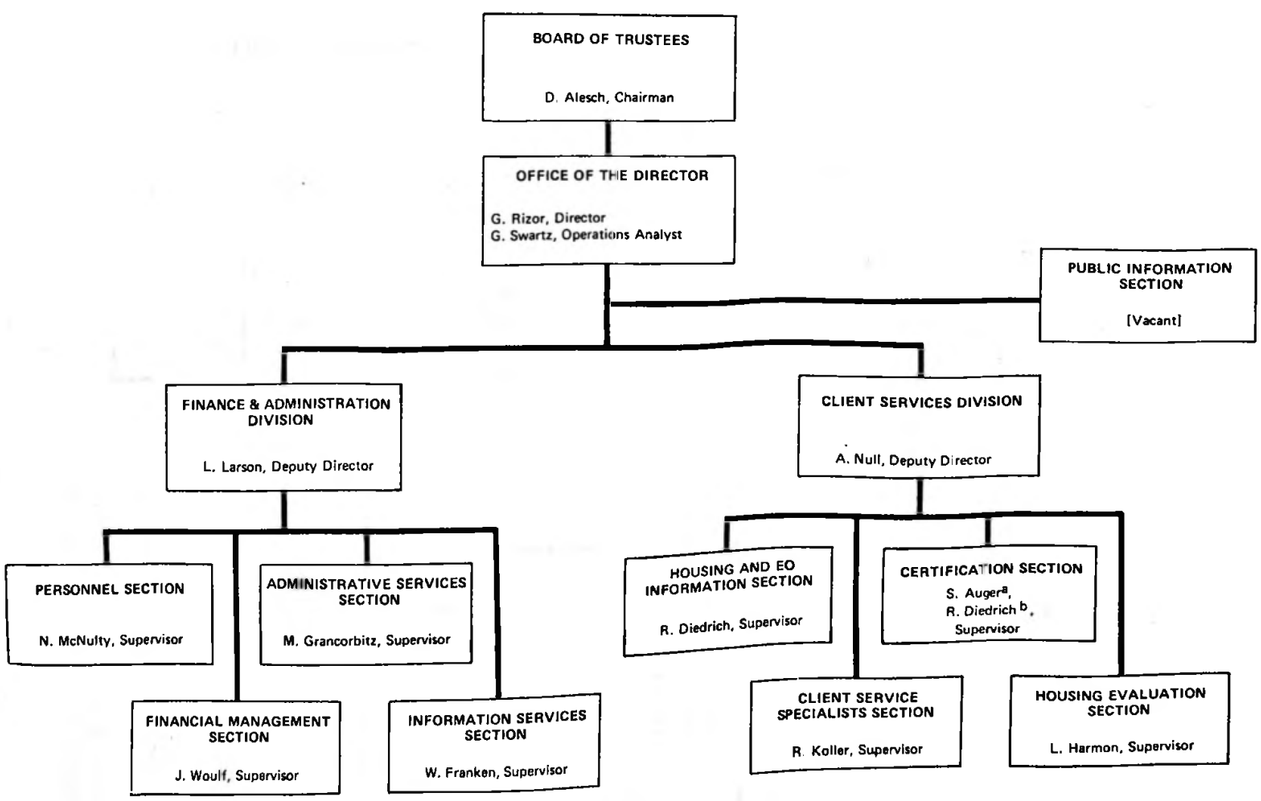


Fig. C.1—Rand's project organization for HASE, October 1976-September 1977



[a] Until August 1977.
[b] As of August 1977.

Fig. C.2—Organization of the housing allowance office for Brown County (Site I), October 1976-September 1977

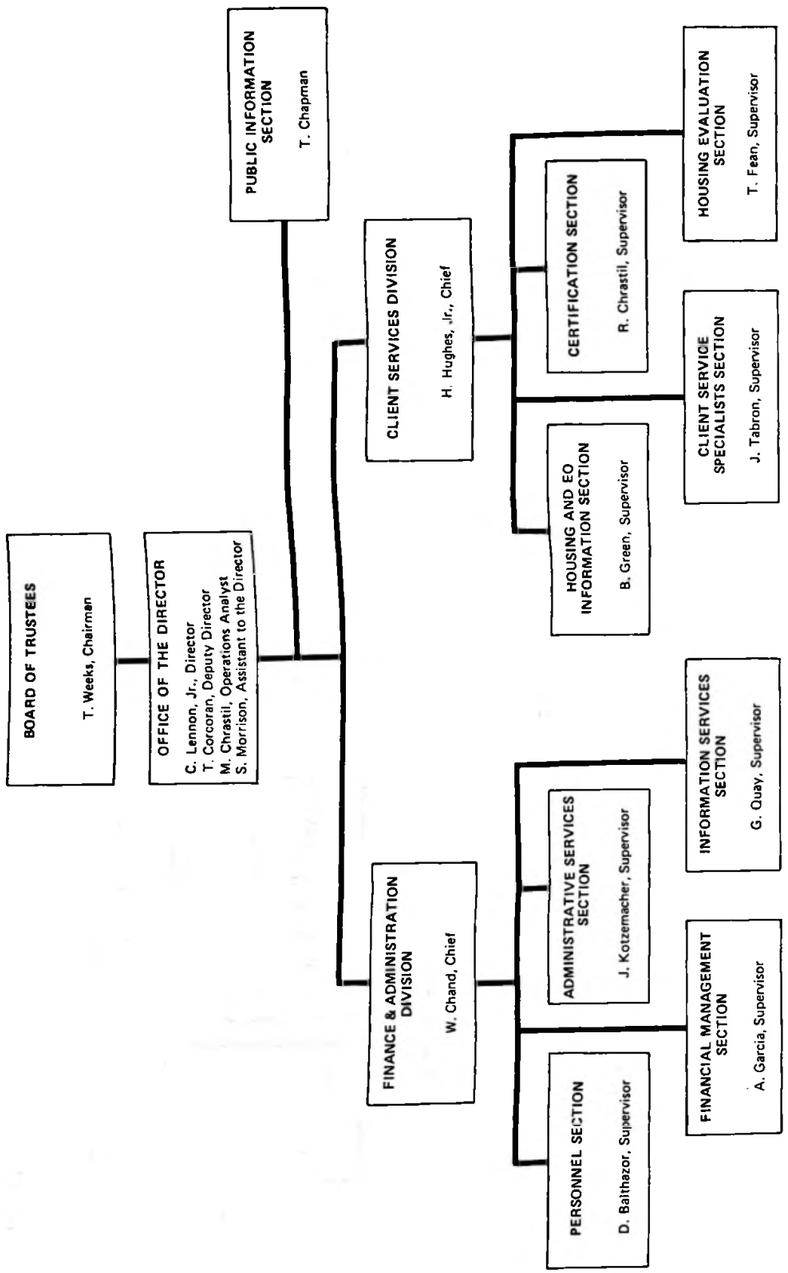


Fig. C.3—Organization of the housing allowance office for St. Joseph County (Site II), October 1976-September 1977

Appendix D

RAND'S STAFF FOR THE HOUSING ASSISTANCE SUPPLY EXPERIMENT

October 1976-September 1977

The Housing Assistance Supply Experiment began its formal existence in April 1972 with a staff of ten professionals engaged in planning the experiment and screening potential sites. By September 1974, when the experiment was under way in two sites and a large volume of field survey data was being processed, the staff had grown to the equivalent of about 110 fulltime employees. They were located in Rand's offices in Washington, D.C.; Santa Monica, California; Green Bay, Wisconsin; and South Bend, Indiana. Since then, the number has fluctuated with seasonal workloads but remains in the range of 100 to 110 fulltime equivalents.

Slightly more than half the staff are professionally rated employees or consultants, most of them working full time on the project. The remainder provide the administrative, clerical, data preparation, and secretarial services without which such a project could not function.

In the following pages, we list the professional staff of the project during the year covered by this report[1] and indicate at least the main responsibilities or contributions of each member. Because responsibilities and job titles change continuously in response to shifts in workload and the professional growth of staff members, it is difficult to give as clear a picture as we would like of the contributions of each person.

To simplify the lists, several conventions have been observed. First, only professionally rated employees and consultants are included. While the nonprofessional support staff has been indispensable, turnover, changes of assignment, and division of effort between this project and others makes a listing of such individuals wellnigh incomprehensible. Second, where names are grouped by function, they are listed alphabetically and the persons listed thus were not necessarily all working concurrently at the indicated tasks. Third, some individuals are listed in more than one place, reflecting concurrent or successive assignments. Fourth, the incumbents of a few key positions are listed in order of incumbency.

Many more persons than are listed have contributed in significant ways to the Supply Exeriment. However, those listed have borne the daily brunt of problem resolution and schedule pressures, for which they deserve special recognition. On that basis, we have included the names of our fieldwork subcontractors and their key personnel.

The housing allowance offices in our two experimental sites are corporate entities separate from The Rand Corporation. Their principal officers as of September 1977 are named in Appendix C.

[1] See prior annual reports for staffing during earlier phases of the experiment.

STAFF FOR PHASE II
OCTOBER 1976 — SEPTEMBER 1977

PROGRAM MANAGEMENT

Program Director
Charles E. Nelson

Deputy Director
G. Thomas Kingsley

Program Control Officer
Priscilla M. Schlegel

Program Control Assistant
Patricia L. Meers

FIELD AND PROGRAM OPERATIONS GROUP

Manager
G. Thomas Kingsley

Staff
Deborah R. Both
Stacey W. Gamble
David K. Groo
Iao Katagiri
Sheila Kirby
Priscilla M. Schlegel
Paul E. Tebbets

Site I Staff

Site Manager
Daniel J. Alesch

Site Monitors
Kirk L. Gray
Paul F. Ernst (HAO)

Site II Staff

Site Manager
Thomas W. Weeks

Assistant Site Manager
Michael G. Shanley

Site Monitors
Nancy O'Nell
Wim Wiewel (HAO)

DESIGN AND ANALYSIS GROUP

Manager
Ira S. Lowry

Deputy Manager,
Operations and Planning
John H. Enns

Deputy Manager,
Reports
Stanley C. Abraham

Administrative Assistant*
Teresa E. Barrett
Ellen T. Friedmann

Topical Analysis

Supply Response
John E. Bala
C. Lance Barnett
Therman P. Britt
Lawrence Helbers
C. Peter Rydell

Residential Mobility
Kevin F. McCarthy
Mark David Menchik

Market Intermediaries
William G. Grigsby
Sammis B. White

Community Attitudes
Phyllis L. Ellickson
David E. Kanouse

Inflation Monitoring
Charles W. Noland
James P. Stucker

Allowance Program
Phyllis L. Ellickson
David E. Kanouse
Lawrence W. Kozimor
Bruce W. Lamar
Adele P. Massell
James L. McDowell
Mark David Menchik

File Preparation and Survey Audit

Sample Accounting and File Preparation
Carole A. Beauchemin
John W. Dawson
Carol E. Hillestad
Beverly F. Lowe
Tiina Repnau†

Landlord Surveys
Marsha Baran
Therman P. Britt
Richard E. Stanton

Household Surveys
Katherine E. Anna
Marsha Baran
Lawrence Helbers

Building Surveys
Larry A. Day
Charles W. Noland

Neighborhood Surveys
John E. Bala
C. Lance Barnett
Doris Dong

Public Records and Census Data
John E. Bala
Albert H. Rosenthal

HAO Records
Iao Katagiri
Ann W. Wang

Sample Maintenance
David Cates
Tiina Repnau

Statistical Methods
Daniel A. Relles
William H. Rogers

Maps and Graphics
Doris Dong

*In order of incumbency.
†Team leader.

SURVEY GROUP

Manager
Douglas Scott

Administrative Assistant
Patricia L. Meers

Survey Design and Quality Control Operations

Survey of Tenants and Homeowners	Survey of Landlords	Survey of Residential Buildings
Carmen Wilson	Diane Schoeff	Patricia Ebener

Neighborhood Street Observation Survey	Neighborhood Local Sources Survey
Marilyn Fisher	Frank Leone

Sample Maintenance and Survey Operations

Assistant Manager
Zahava Blum-Doering

Sample Maintenance
Susan Welt, Technical Supervisor
Mary Wallschlaeger, Operations Supervisor
Janis Lenox
Susan Sampson
Sandra Figge

Production Unit

Nancy Hope, Supervisor

Instruments	Codebooks
Sandy Flory	Patricia Boren

Site I, Wave 4 Surveys

National Opinion Research Center
Project Leader
Celia Homans

Site Director
Mary Ann Fitzgerald

Site II, Wave 3 Surveys

Westat, Inc.
Project Leader
Oscar L. Powers

Site Director
James O. Hicks

SURVEY DATA PROCESSING GROUP

Manager
Donald P. Trees

Deputy Manager
Doris Allison

Data Coding, Editing, and Control

Supervisor
Doris Allison
Elizabeth Davidson

Coding and Editing Staff*	Data Control Staff
Marsha Baran	Barbara Conley
Carole Beauchemin	Hallie Day
Ellyn Bloomfield	Inga Leunig
Linda Buhl	Al Shoden
Elizabeth Davidson	
John Hutchison	
Frank Maltez	
Nancy McGuire	
Douglas Miller	
Sandy Turner	

*Plus 70 part-time consultants.

Computer Services

Supervisor
Chris S. Harslem
Edward M. Fairbrother
William A. Allen

Computer Services Staff
Mitsuko Adachi
Kathy Green
Tom Gayle
Karen Hackett
Sandra Edwards
Kevin McCardle
Sandy Richardson
Joanne Soohoo
Mitch Tuller
Russell Weisz

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DATA SYSTEMS GROUP

Manager
Carol A. Medine

Administrative Assistant
Jan L. Butler

Audit and Analysis
Susan C. Augusta*
Dorothy Baumann
M. A. "Jean" Bedell
Joseph Berry
Donna R. Cooper
Thomas Gayle
Wade Harrell
Linda Soper
Hanny Swart
Helen Wagner
Robert Young

HAMISH
Edmund von Heydenreich*
Sharon K. Matyskiela
Lynn Oliver
Carol Edwards
James S. Reiley
Lawrence Baer
Charles H. Bush
Alice Way

Data Administration
Shirley J. Lee

Postbaseline System
Michael Wahrman
Dorothy Baumann

*Leader.

PUBLICATIONS GROUP

Managing Editor
Charlotte P. Cox

Consulting Editor
Linda L. Colbert