

→ 2/11 10/PT

MEASURING NEIGHBORHOOD CHANGE DUE TO HOUSING ALLOWANCES

CAROL E. HILLESTAD AND JAMES L. McDOWELL

R-2776-HUD

MAY 1982

A FINAL REPORT OF THE

HOUSING ASSISTANCE SUPPLY EXPERIMENT

Sponsored by

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



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.

711.581

H45m

Library of Congress Cataloging in Publication Data

Hillestad, Carol E.

Measuring neighborhood change due to housing allowances.

"Prepared for the Department of Housing and Urban Development."

"R-2776-HUD."

1. Neighborhood--Longitudinal studies. 2. Housing subsidies--Social aspects--United States--Measurement--Longitudinal studies. I. McDowell, James L. II. Rand Corporation. III. United States. Dept. of Housing and Urban Development. IV. Title.

HT123.H53 307'.3

81-21054

ISBN 0-8330-0336-4

AACR2

The Rand Publications Series: The Report is the principal publication documenting and transmitting Rand's major research findings and final research results. The Rand Note reports other outputs of sponsored research for general distribution. Publications of The Rand Corporation do not necessarily reflect the opinions or policies of the sponsors of Rand research.

**MEASURING NEIGHBORHOOD CHANGE
DUE TO HOUSING ALLOWANCES**

CAROL E. HILLESTAD AND JAMES L. McDOWELL

R-2776-HUD

MAY 1982

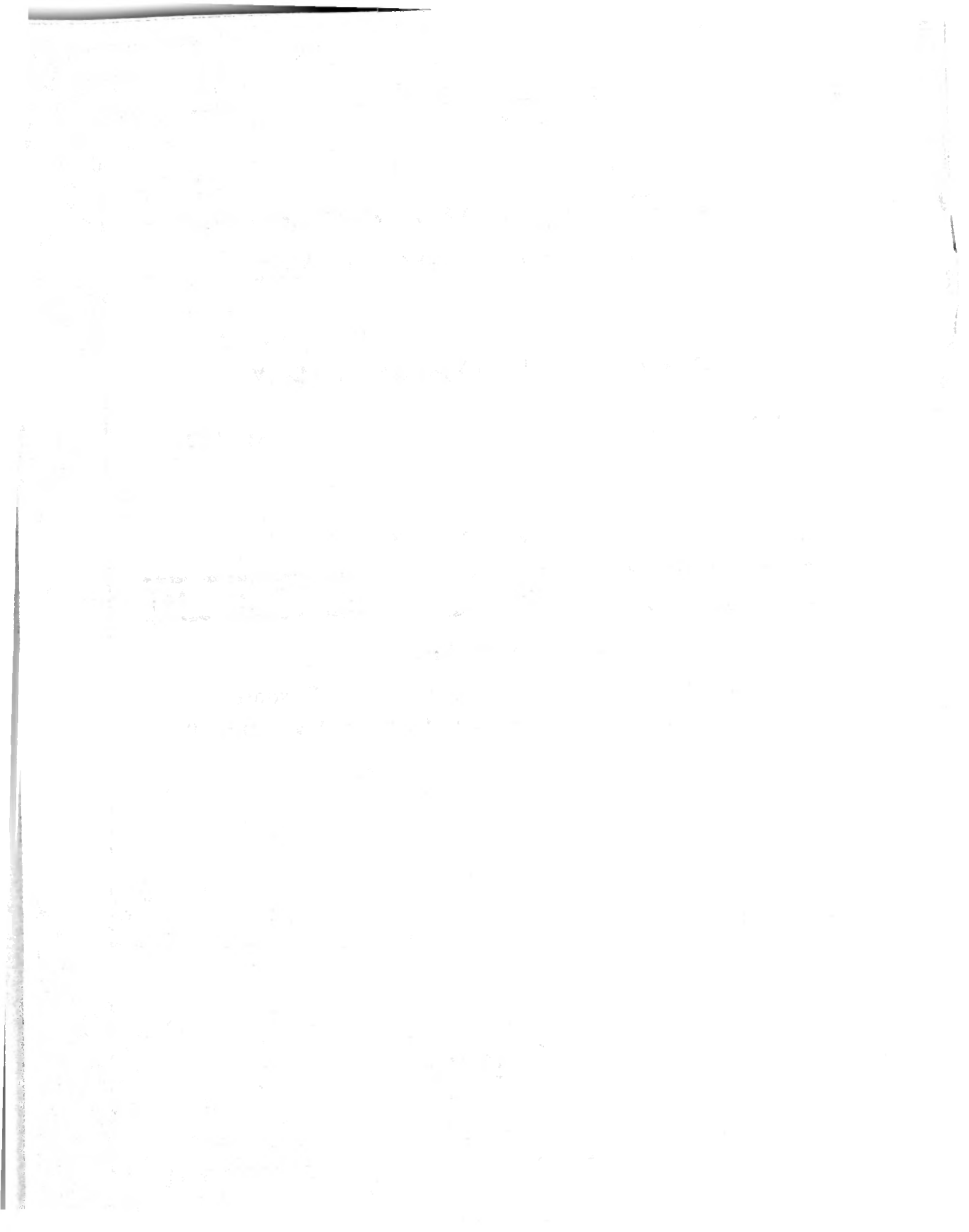
A FINAL REPORT OF THE

HOUSING ASSISTANCE SUPPLY EXPERIMENT

Sponsored by

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

Rand
SANTA MONICA, CA. 90406



PREFACE

This document was prepared for the Office of Policy Development and Research, U.S. Department of Housing and Urban Development (HUD). It describes changes in neighborhood conditions resulting from HUD's experimental housing allowance program in Brown County, Wisconsin and St. Joseph County, Indiana. The analysis presented here is the final report of the Housing Assistance Supply Experiment (HASE) on that topic.

C. Lance Barnett, Ira S. Lowry, Kevin Neels, and C. Peter Rydell reviewed the initial draft. David Kanouse and Gene Rizor, the technical reviewers, offered several helpful suggestions. Michael Shanley provided the information about mobility-induced change. Special thanks go to Bob Young, who provided programming support, and to Jan Newman and Karen J. Stewart, who prepared the typescript. Dolores Davis was responsible for the preparation of final copy. Judy Rasmussen edited the report and supervised its production.

This report was prepared pursuant to HUD Contract H-1789, Task 2.16.4.

The first part of the report deals with the general situation of the country and the progress of the work during the year. It is followed by a detailed account of the various projects and the results achieved. The report concludes with a summary of the work done and the plans for the future.

The work has been carried out in accordance with the programme of work approved by the Council of the League of Nations. It has been carried out in a spirit of cooperation and in the best interests of the League.

The results of the work have been most satisfactory and it is hoped that they will be of great value to the League and to the world.

The work has been carried out in a spirit of cooperation and in the best interests of the League.

The results of the work have been most satisfactory and it is hoped that they will be of great value to the League and to the world.

SUMMARY

The Housing Assistance Supply Experiment was undertaken to learn how a full-scale housing allowance program for low-income households would affect local housing markets. The two sites chosen for the experiment are Brown County, Wisconsin (a tight housing market with almost no minority population) and St. Joseph County, Indiana (a loose housing market with a segregated minority population). We used housing allowance office records from the first three years of program operation and data from the first and fourth annual HASE surveys of households, landlords, and neighborhoods.

Because low-income households often reside in pockets of low-quality housing, and because improving neighborhood conditions is one objective of federal housing programs, the effect of the allowance program on neighborhoods is important. When the experiment was planned, some observers hoped that the program would affect neighborhoods in at least three ways:

- Because participants would be concentrated in low-income neighborhoods where dwellings were most deteriorated, the program would require and pay for housing improvement in neighborhoods where it was most needed.
- Minority households participating in the program would use their allowances to move from segregated neighborhoods to other neighborhoods where housing conditions are better.
- Allowances would alter residents' attitudes about their neighborhoods. Community awareness of the program's direct effects would improve expectations about a neighborhood's future and thereby promote investment in that neighborhood.

The allowance program disbursed \$13 million during the first three years of program operation. Although program benefits were not targeted geographically, most of the allowance program's assistance was concentrated in neighborhoods with the worst housing and the lowest

average incomes. Even in those neighborhoods, however, we found no substantial economic or physical changes that could be attributed to the program; although the program affected individual households and dwellings, those effects were small when averaged across neighborhoods.

- Countywide, the allowance program provided only about a 0.3% increment to household income and a 0.5% increase in repair activity.
- Three-fifths of the neighborhoods in those counties had almost no contact with the allowance program: few residents enrolled and few enrollees moved into neighborhoods where the allowance program was active.
- Among the remaining two-fifths of the neighborhoods, enrollees cumulatively represented less than one-third of the households. Only occasionally did they constitute more than one-half of the households. Because participation levels fluctuate, at any one time fewer than one-third of the households are enrolled.
- Even in neighborhoods with the highest level of program activity, allowance payments only increased overall neighborhood income by 1 percent. Program-required repair costs represented less than 3 percent of allowance payments.

The allowance program neither promoted widespread changes in existing settlement patterns nor led to the economic destabilization of neighborhoods. The net flows between minority, integrated, and nonminority neighborhoods were small--about 8 percent of all moves across area boundaries. The fraction of enrolled minority households residing in minority neighborhoods declined modestly, but those households were replaced by nonminority enrollees with similar incomes.

Community attitudes toward the program were positively influenced by the program's effects on repairs and property upkeep, suggesting either that attitudes are influenced by subtle improvements too small to be measured by our surveys, or by the mere prospect or perception of change. Although that positive community attitude did not stimulate large physical or economic changes in the first three years of the

program, it may have prevented or reduced long-run neighborhood deterioration.

Readers should keep in mind that the allowance program was designed to assist low-income households in occupying and maintaining safe, adequate dwellings at costs they could afford. Viewed in those terms, the program was a success. However, we find little evidence that the first three years of the allowance program had broader benefits that spilled over to other, nonenrolled households, and to enrollees' neighborhoods in general.

Faint, illegible text at the top of the page, possibly a header or introductory paragraph.

Second block of faint, illegible text, appearing as several lines of a paragraph.

Third block of faint, illegible text, continuing the main body of the document.

Final block of faint, illegible text at the bottom of the page, possibly a conclusion or signature area.

CONTENTS

PREFACE	iii
SUMMARY	v
FIGURES	xi
TABLES	xiii
Section	
I. INTRODUCTION	1
II. BACKGROUND	3
The Research Program	3
Experimental Sites	4
Program Features	5
Indicators of Program Effectiveness	6
III. SCOPE OF NEIGHBORHOOD RESEARCH	8
Preprogram Expectations about Neighborhood Change	8
Data Sources	9
HAO Administrative Data	9
Household Surveys	11
Landlord Surveys	11
Neighborhood Surveys	11
Analytical Methods	11
Neighborhood Classification	12
Measuring Neighborhood Change	13
IV. NEIGHBORHOOD CONDITIONS	19
Preprogram Neighborhood Conditions	19
Program-Related Changes	23
Why Program-Related Neighborhood Changes Were Small	27
New Construction	28
Income Supplement	29
Program-Required Repairs	31
Summary	33
V. RESIDENTIAL MOBILITY AND NEIGHBORHOOD CHANGE	34
Mobility in St. Joseph County	34
Mobility in Brown County	40
Summary	41
VI. PUBLIC EVALUATION OF THE ALLOWANCE PROGRAM	42
Households' Perception of the Program	42
Landlords' Perception of the Program	45
Summary	46
VII. CONCLUSIONS	48

Appendix	
A. HAO HOUSING STANDARDS	51
B. COMMUNITY PERCEPTIONS OF THE ALLOWANCE PROGRAM IN BROWN COUNTY	54
BIBLIOGRAPHY	57

FIGURES

3.1.	Distribution of Allowance Program Activity: Urban Brown County	14
3.2.	Distribution of Allowance Program Activity: Rural Brown County	15
3.3.	Distribution of Allowance Program Activity: St. Joseph County	16
5.1.	Racial Balance in St. Joseph County	35
5.2.	Net Flows of Movers Between Integrated, Minority, and Nonminority Neighborhoods in St. Joseph County	38

TABLES

3.1.	Data Sources by Site, Wave, and Record Count	10
4.1.	Cumulative HAO Assistance and Average Household Income by Level of Program Activity	20
4.2.	Property Values by Level of Program Activity	21
4.3.	Occupancy Characteristics by Level of Program Activity ...	22
4.4.	Building and Landscaping Ratings by Level of Program Activity	23
4.5.	Relative Neighborhood Income and Income Change	24
4.6.	Average Annual Change in Land, Improvement, and Property Value by Level of Program Activity	25
4.7.	Changes in Number of Occupied Units by Level of Program Activity	28
4.8.	Changes in Household Income by Level of Program Activity .	30
4.9.	Required Repairs as a Percent of Allowance Payments by Level of Program Activity	32
5.1.	Housing and Income Statistics by Neighborhood Racial Balance: St. Joseph County	36
5.2.	Program-Related Moves between Minority, Integrated, and Nonminority Neighborhoods in St. Joseph County	37
5.3.	Comparison of Incoming and Outgoing Moves by Neighborhood Racial Balance: St. Joseph County	39
5.4.	Program-Related Moves between Central Green Bay and Rest of Brown County	41
6.1.	Community Perceptions of Neighborhood Change by Level of Program Activity: St. Joseph County	44
6.2.	Landlord Perceptions of Program Effects on Neighborhoods by Level of Program Activity: St. Joseph County	46
B.1.	Community Perceptions of Neighborhood Change by Level of Program Activity: Brown County	55
B.2.	Landlord Perceptions of Program Effects on Neighborhoods by Level of Program Activity: Brown County	56



I. INTRODUCTION

Neighborhood deterioration and racial segregation are matters of great concern in many urban communities of the United States. In the wake of government programs that facilitated suburbanization, minorities concentrated in inner city neighborhoods, the demand for housing in many such neighborhoods weakened, and housing maintenance was neglected. Federal assistance and market forces have succeeded in reversing the decline of some such neighborhoods; others continue to deteriorate despite attempts to improve them. This report examines the neighborhood effects of housing allowance programs in Brown County, Wisconsin, and South Bend, Indiana.

These housing allowance programs enabled low-income households throughout those counties to afford adequate housing without spending more than a quarter of their incomes. Although the programs were not focused on specific neighborhoods, some observers believed that they would stimulate neighborhood improvement. They reasoned that allowances would increase overall levels of neighborhood income in deteriorated neighborhoods and would encourage spending for housing improvement. The programs could change expectations about the future of particular neighborhoods, making new investments more attractive. Furthermore, allowances could alter the settlement patterns of minority households if the primary reason that such households remain in racially segregated neighborhoods was that they could not afford to move to better neighborhoods.

This report examines the physical, economic, demographic, and attitudinal indicators that describe preprogram and postprogram neighborhood conditions, and evaluates the program's role in stimulating neighborhood change. We found that although the program effectively met its primary objective--helping needy households obtain adequate housing--it neither stimulated physical or economic change nor altered patterns of racial segregation in any substantial way. However, residents of neighborhoods in which the programs were particularly active did perceive housing and neighborhood improvements; those

perceptions might have forestalled further deterioration and might bring about neighborhood improvement in the future.

The remainder of this report is divided into six sections. In Sec. II, we describe the experimental program and the counties in which it operated. Section III outlines our analysis plan, reviews preprogram expectations, and describes the data sources and research procedures. Indicators of preprogram and postprogram neighborhood conditions are presented in Sec. IV, which explains why the changes we observed were not larger. Section V considers the effect of allowances on mobility and residential integration. In Sec. VI, we discuss the program's effect on public attitudes, and Sec. VII presents this study's major conclusions and policy implications.

II. BACKGROUND

The Housing Assistance Supply Experiment (HASE) was part 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. EHAP's primary purpose was to provide information on the best design of a housing allowance program and to comment on the merits of such a program as a means of improving the housing conditions of low-income households.

THE RESEARCH PROGRAM

As part of EHAP, the Supply Experiment assesses market and community response to the allowance program by answering the following questions about the effects of a national housing allowance program:

1. Supply responsiveness. How will suppliers of housing services (landlords, developers, and homeowners) respond 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 properties? What happens to availability, price, and quality of building services or repair and remodeling services? How will intermediaries and suppliers change their institutional or industrial policies as a result of the allowance program?
3. Effects on nonparticipants. How will households who do not receive housing allowances (particularly those whose incomes

are within or just above the limit of eligibility) be affected by the program?

4. 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 types of neighborhoods will the movers seek and succeed in entering? How do nonparticipants perceive and react to allowance-stimulated neighborhood change?

This report focuses on a portion of the last two questions,¹ explaining the effects of the housing allowance program on neighborhoods and their residents.

Experimental Sites

The two communities selected as sites for HASE are Brown County, Wisconsin (whose central city is Green Bay), and St. Joseph County, Indiana (whose central city is South Bend). Both are self-contained housing markets, relatively isolated from other population centers. When the program began, about 48,000 households lived in Brown County; 76,000 lived in St. Joseph County.

Those communities were selected as HASE sites primarily because of their contrasting housing markets. Brown County was chosen because it was considered representative of metropolitan markets with rapidly growing urban centers and a small number of racial minorities; hence, a relatively tight housing market with few housing discrimination or segregation problems. St. Joseph County was chosen because it was considered representative of declining urban centers with large, growing populations of blacks or other minorities; hence, a relatively loose housing market with potentially large problems of racial segregation or housing discrimination.

¹ The first two questions are discussed in Rydell and Neels (forthcoming) and Shanley and Hotchkiss (1980).

Program Features

The experimental allowance program is administered in each site by a housing allowance office (HAO). The program is open to all families and most single persons² unable to afford the standard cost of adequate housing on the local housing market without spending more than a fourth of their adjusted incomes. Periodic market studies conducted in each site provide estimates of that standard cost for each household size. The allowance payment equals the difference between that amount and one-fourth of the household's adjusted gross income. The amount of the allowance is usually much less than and does not vary with actual housing expenses.

Program participants may be either renters or homeowners who may change their tenure or place of residence (within the boundaries of the experimental site) without affecting their eligibility. Because of the allowance formula, 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 upon request and with equal opportunity assistance if needed. But they are not directed to particular neighborhoods or types of housing, nor are they required to spend specific amounts on housing.³

To receive monthly cash payments, a participating household must occupy a dwelling that meets program standards for adequate space, domestic facilities, and safety conditions.⁴ Program standards are enforced by periodic evaluations conducted by the HAO. Results from initial evaluations (those conducted immediately after enrollment) show that one-half of the enrollees do not live in acceptable housing. To receive payments, enrollees of failed housing units must either repair the defects or move to another dwelling that meets program standards.

² Before August 1977, only single persons who were elderly (62 or over), handicapped, disabled, or displaced by public action were eligible. Thereafter, all single persons meeting program requirements were eligible.

³ However, recipients must spend at least as much on housing expenses as they receive in allowance payments.

⁴ A summary of program standards is included in Appendix A.

Indicators of Program Effectiveness

The program's effectiveness in meeting its primary objective-- helping participants occupy and maintain safe, decent dwellings at prices they can afford--provides a background for studying neighborhood change. To summarize the program's direct effects, we examined the number of households served, the amount of allowances disbursed, and how the allowances were used. Based on three years of program experience in each site and four waves of survey data for both counties, we found that:

- During the three first program years, over 17,300 households enrolled and nearly 80 percent received one or more allowance payments.
- In those first three years, \$13 million worth of allowances were disbursed in the two counties. The average monthly payment was about \$70. Some households, because of their income and family size, have been entitled to as much as \$245 per month. Altogether, allowances increased participants' adjusted gross income by 26 percent.
- Allowance dollars were used according to the needs of the household. Nearly half of all enrollees joined the program while living in dwellings that met program standards, so their allowances usually helped them with existing housing expenses. Before the program began, those enrollees were generally spending one-half of their adjusted gross income on housing. Allowances helped reduce that housing burden by 18 percentage points, to about 32 percent of their income. But for many enrollees, it was necessary to repair defects that kept them from receiving payments. Nearly 6,500 dwellings had been repaired as a result of the program. Other enrollees changed residences to improve their housing conditions; in all, over 3,100 program-related moves took place in the program's first three years.⁵

⁵ The count of program-related moves is based on all moves to certified dwellings (the number of enrollees who moved to dwellings that met program standards).

- By the end of the third program year, current recipients represented about 7 percent of the estimated 127,000 households in the two sites.

Allowance program findings suggest that with modest financial aid, many low-income families can secure decent, safe, and sanitary housing in the private market: approximately 80 percent of enrolled households receive payments. Of the remainder, approximately half are unable or unwilling to repair their dwellings or to move to an acceptable dwelling. The other half of the households who enrolled but did not receive payments dropped out of the program because of changed household circumstances (such as increased income), dissatisfaction with the program, or the amount of the allowance payment.⁶

⁶ See Kirby (forthcoming) for an explanation of why some enrolled households leave the allowance program without receiving allowance payments.

III. SCOPE OF NEIGHBORHOOD RESEARCH

Our strategy for measuring neighborhood change was to formulate hypotheses about the nature of that change, selecting a suitable data base and developing a method for tracking change over time. In this section we describe preprogram expectations about neighborhood change, which we treat as hypotheses to be tested. We then describe our data base and explain our aggregation of neighborhoods into analytically useful groupings. Finally, we describe a research method that allows us to distinguish program-induced change from other neighborhood change that would have occurred in the absence of the program.

PREPROGRAM EXPECTATIONS ABOUT NEIGHBORHOOD CHANGE

Even though the program had a direct effect on participants, we questioned its possible effect (direct or indirect) on neighborhoods. Preexperimental speculation about that effect included the following:

- Allowances would improve neighborhoods. Proponents of the experiment expected housing allowances to increase the income of poor households, allowing them to repair substandard housing. Others believed that those repairs would be too small to reverse deterioration in declining areas such as South Bend or increase neighborhood quality in tight housing markets such as Green Bay.
- Allowances would remove barriers to integration. Some observers thought that allowances would enable minority households living in segregated areas to move to better neighborhoods. However, portability of those benefits could destabilize neighborhoods, especially in segregated housing markets, since minority participants could move rather than repair their housing units. Others expected few moves despite portability of benefits, judging that housing allowances alone could not break down existing social and political barriers to integration.

- The program would positively affect nonparticipants' attitudes about their neighborhoods. The direction of neighborhood change could be largely influenced by peoples' attitudes. For instance, if people believe that their neighborhood's condition is improving because of visible repairs made to recipients' dwellings, they will be more likely to have a positive attitude toward that neighborhood and perhaps even upgrade their own homes. On the other hand, ineligible households could have a negative attitude about the program's assistance to low-income families, especially if their own housing costs increased or neighborhoods declined as a result of HAO recipients moving into their neighborhoods.

DATA SOURCES

Two primary data sources were used in this report: housing allowance office records and annual surveys from the first three years of program operation. Administrative records of the housing allowance program were used to measure the direct effects of the program on households and their neighborhoods. Data from the annual household and landlord surveys describe both the economic and housing condition of neighborhoods and respondents' perceptions of the allowance program and its effect on neighborhoods. These surveys provided extensive data for our analysis because of their cumulative nature and the fact that they are based on a stratified random sample.¹ Less frequent countywide neighborhood surveys provided supplemental information about the physical condition of neighborhoods. Table 3.1 specifies the files and record counts used in our analysis.

HAO Administrative Data

Administrative records provided information on the characteristics of applicants, enrollees, recipients, and their housing. Data files, some cumulative and others updated to reflect recent transactions,

¹ The stratified random sample contained approximately 2,000 residential properties in each site. From those properties over 6,000 housing units were empaneled.

Table 3.1

DATA SOURCES BY SITE, WAVE, AND RECORD COUNT

Data Source	Number of Records			
	Brown County		St. Joseph County	
	Baseline	Wave 4	Baseline	Wave 4
HAO files: ^a				
Client characteristics ^b		6,483		10,850
Housing characteristics ^c		16,378		25,110
Survey of households:				
Regular survey ^d	2,712	2,427	2,066	2,111
Community attitudes ^e		1,731		1,665
Survey of landlords:				
Regular survey	1,318	908	1,404	822
Community attitudes ^e		758		735
Survey of neighborhoods:				
Local sources	108	108	86	86
Street observation	8,084	9,315	12,152	12,852

SOURCE: Tabulated from records of the client and housing characteristic files and the baseline and wave 4 surveys of households, landlords, and neighborhoods in each site.

^aIncludes HAO files at least through year 3. HAO year 3 coincides with wave 4 survey data.

^bThe HAO client characteristic files include information about clients before they enrolled and at the close of the file.

^cThe HAO housing characteristics file is cumulative and includes all housing transactions until close of file.

^dIncludes only records from the survey of households that had complete income information.

^eFigures include only respondents who knew of the allowance program.

described housing conditions and expenditures, household composition and income, and individual enrollee histories.

Household Surveys

In the household survey respondents were asked to describe the features and condition of their housing as well as their housing costs. To measure changes in those responses over time, we compared the baseline survey (fielded before the program began) with the wave 4 survey (fielded after three years of program operation).

Landlord Surveys

The landlord survey sought detailed information about rental revenues and outlays for building maintenance and operation, which included a record of repairs and improvements and their associated costs. The survey also elicited data on landlords' perceptions of the allowance program and its effect on their properties.

Neighborhood Surveys

The countywide survey of neighborhoods gathered data on HASE-designated neighborhoods within each site. Detailed information on land use, access to public facilities and services, and the condition of housing and streets was collected at baseline and at wave 4.

ANALYTICAL METHODS

When the experiment began, each county was divided into small, residentially homogeneous neighborhoods: 108 HASE-designated neighborhoods in Brown County and 86 in St. Joseph County. The neighborhoods in St. Joseph County conform closely with 1970 census tract boundaries--nearly a third are exactly coterminous with a single tract. The neighborhoods in Brown County can also be geographically identified by census tracts and blocks, but correspond more closely with that county's planning districts. In each county, however, neighborhood boundaries were drawn to recognize the presence of physical boundaries such as railroad rights-of-way or differences in housing stock

characteristics.² Because many neighborhoods contained fewer than ten sampled properties in the HASE surveys, and because sampling error could easily conceal any observed effects, we needed a larger analytic unit to measure neighborhood change. Accordingly, we aggregated neighborhoods, as described below.

Neighborhood Classification

We ranked each neighborhood along three variables of policy interest: average household income, average cumulative allowance payments per household, and percentage of households enrolled in the program. Each of those three rankings was divided into five groups that represented the range of high (1) to low (5) values. The result was three distinct, five-level classification schemes:

- Average household income. Income was presumed to act as a proxy of neighborhood change because it is correlated with such variables as property values and residential building quality.
- Average cumulative allowance payments per household residing in the neighborhood. If allowance payments affect neighborhood change, that change should be greatest where allowance payments are most highly concentrated.
- Percentage of households enrolled in the program. If the number of enrolled households in a particular neighborhood affects neighborhood change, that change should be greatest where the greatest fraction of enrolled households resides.

Based on our preliminary analysis, average cumulative allowance payments per household was the most consistent grouping and was used as the basis for the remainder of the research. Compared to average household income, it was far more likely to capture statistically significant differences. Compared to percent of households enrolled, it was a neater grouping because it was cumulative over time and thus

² Designating neighborhoods by size and geographic boundaries has helped us collect and organize data from the annual surveys, administer the allowance program, and conduct spatial analysis.

less dependent on when the comparison was made. All three of these groupings produced almost identical clusters of neighborhoods: a neighborhood's ranking on our five-level scale seldom varied by more than one step, and almost never varied by more than two.

Figures 3.1 through 3.3 map the neighborhoods grouped by average cumulative allowance payments per household for Brown and St. Joseph counties. Those neighborhoods receiving the highest share of allowance dollars are usually concentrated in the center of each county's major city, which contains most of the older housing stock and the most deteriorated neighborhoods. The other four neighborhood groups are clustered away from the central cities.

Because the allowance program's effect on minority neighborhoods could be especially significant, for St. Joseph County we defined an additional neighborhood grouping that identified racially segregated and integrated neighborhoods by measuring deviation from racial balance, measured as the fraction of minority-headed households.³ Most indexes or measures of residential segregation are based on relative proportions of minority populations. Since we were not interested in intercity comparisons but rather the pattern of segregation in St. Joseph County, a more elaborate neighborhood classification was not necessary (see Taeuber and Taeuber, 1965). We did not construct a comparable measure for Brown County because few minority households live there.

Measuring Neighborhood Change

We judge that two principal reasons for change in a neighborhood's physical condition are that residents' incomes or expectations about the neighborhood change. As incomes increase, households demand more housing. When that demand is satisfied by repairs to existing housing, neighborhood conditions improve. If households perceive that their neighborhood is now or will be a better place to live with an influx of higher income households or improved conditions in adjacent areas,

³ Neighborhoods with 50 percent or more minority households were classified as minority; neighborhoods with 5 to 49 percent were classified as integrated; and those with less than 5 percent were considered non-minority. The thresholds were set to include at least 10 percent of the households in each group.

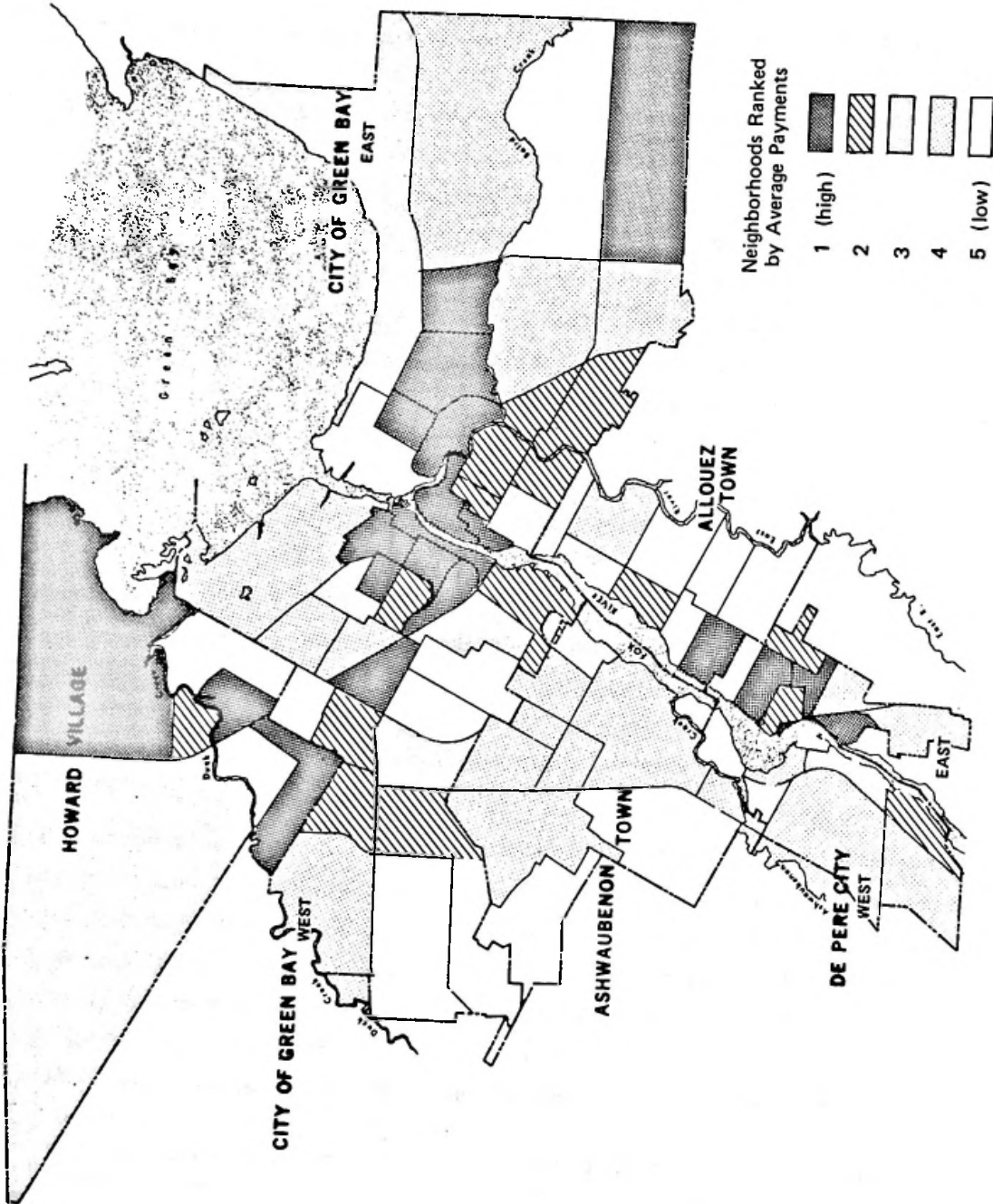


Fig. 3.1—Distribution of Allowance Program Activity:
Urban Brown County

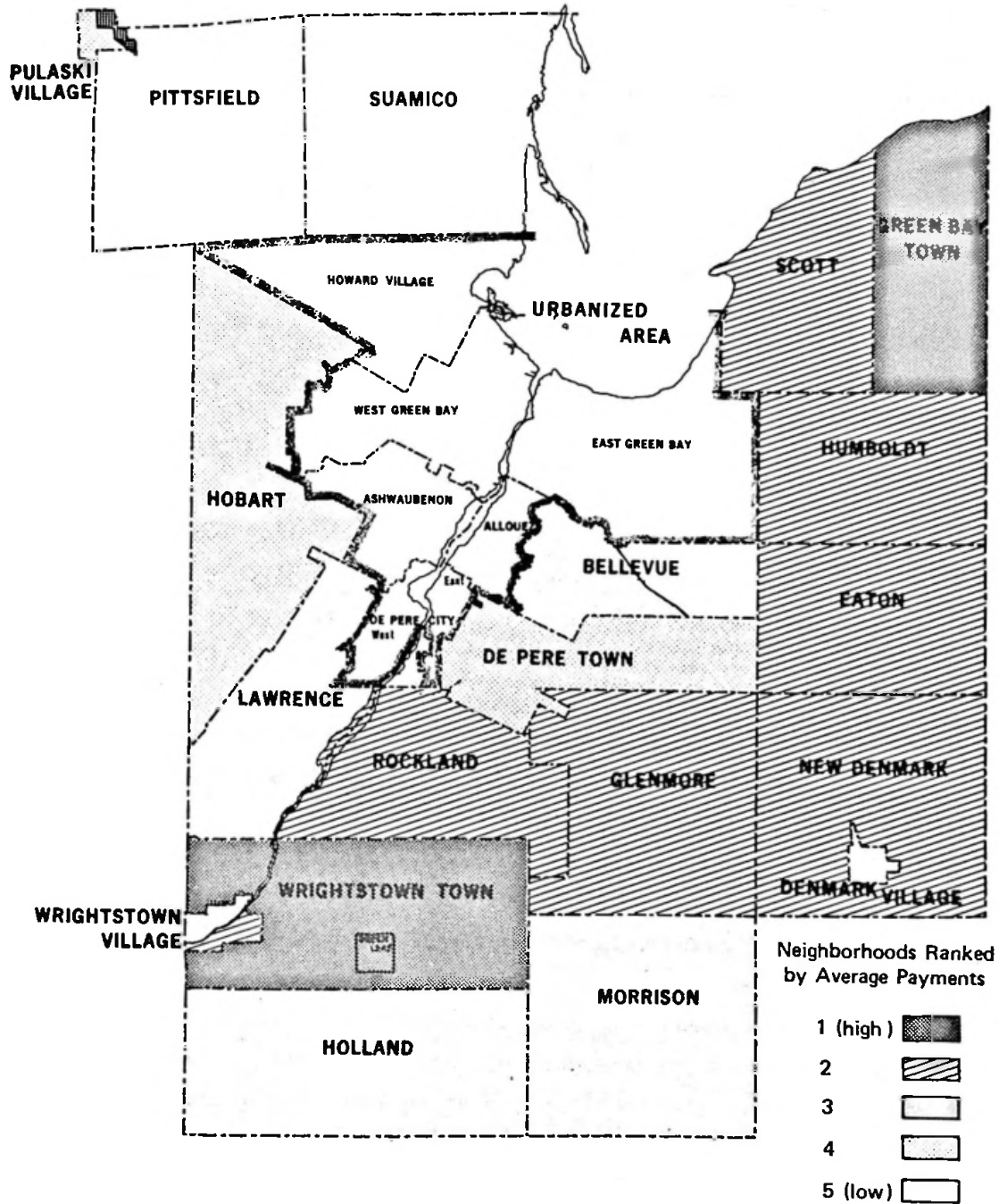


Fig. 3.2 —Distribution of Allowance Program Activity:
Rural Brown County

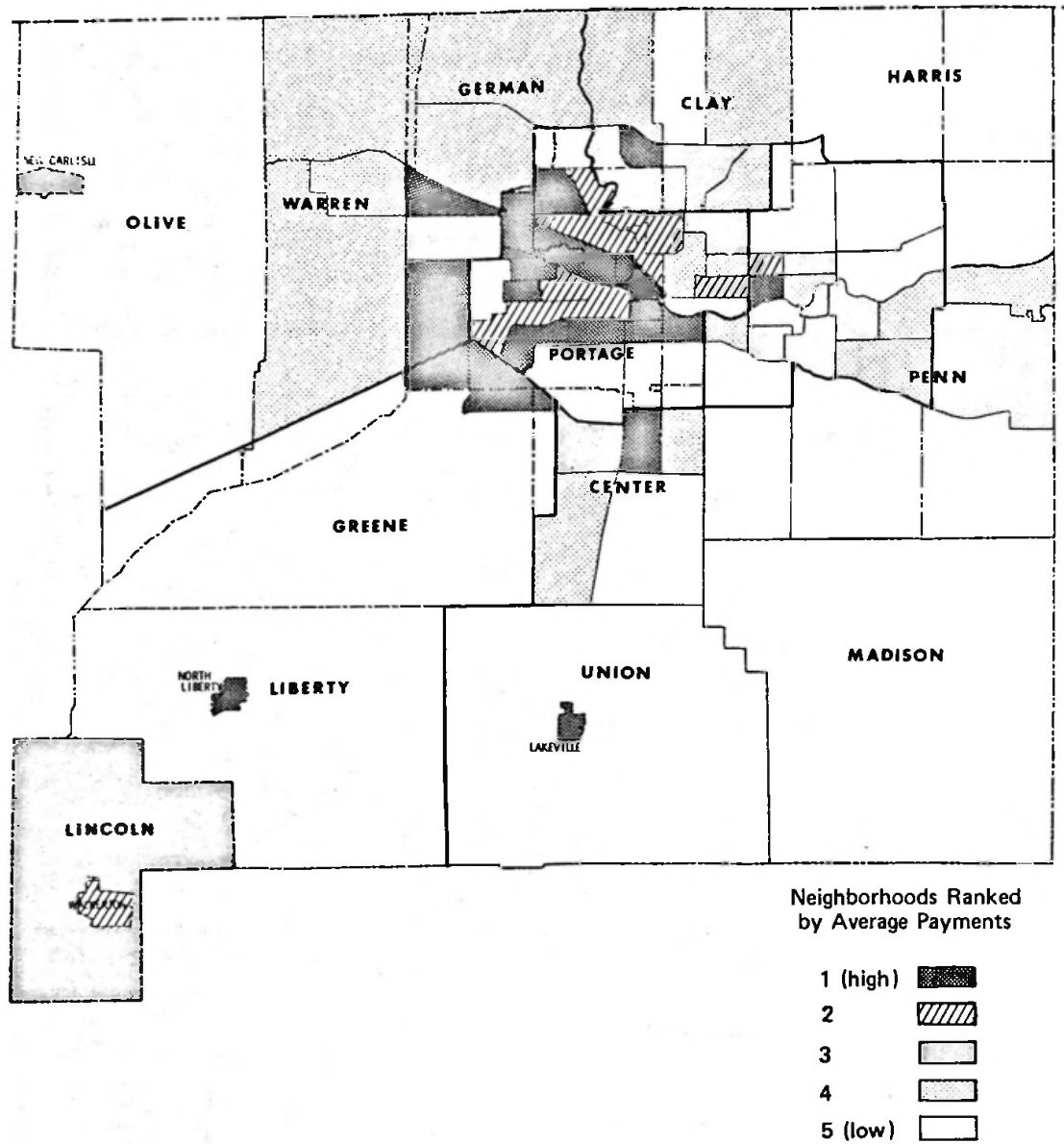


Fig. 3.3—Distribution of Allowance Program Activity:
St. Joseph County

households and landlords might invest more materials as well as paid and unpaid labor in their properties, thus improving their neighborhoods.⁴

Because no single measure fully captures all qualitative features of neighborhood conditions, we looked for changes along several dimensions.

- Average household income provides a broad summary measure of the economic condition of households residing in a neighborhood.
- Average property values show how the market evaluates the overall desirability and condition of particular neighborhoods.
- Dwelling and property condition ratings show how physical conditions (the quality of dwelling and property maintenance, standard or substandard housing conditions) vary over time and across neighborhoods.
- The fraction of dwellings occupied by minority households shows how patterns of racial segregation have changed with time.
- Households' perceptions of program-related change show that residents' views of the program's effects and empirical evidence of program change may be very different.

We measured neighborhood improvement using two definitions of change: absolute change (e.g., income at wave 4 minus income at baseline) and relative change (e.g., how neighborhood rankings based on average household income changed between wave 4 and baseline). Both measures are useful: the first because it indicates whether conditions improved or declined; the second because it shows how particular neighborhoods changed compared to others.

⁴ Neighborhood conditions and public expectations about neighborhoods may also improve because of gentrification, the increasingly common form of neighborhood change that results from higher income households displacing longtime residents of lesser means. Whereas gentrification improves neighborhood conditions by the displacement of original residents, the allowance program augments the incomes of established residents, who usually remain in their preenrollment dwellings.

Much neighborhood change, of course, occurs independent of the allowance program. Dwellings age and deteriorate. Regional economies expand and decline. Settlement patterns of ethnic groups change in geography and number. New housing tracts are developed and draw demand away from housing in existing neighborhoods. Dilapidated or obsolete dwellings are demolished, thereby reducing the size of the existing housing stock and freeing the land for new uses.

The allowance program could affect neighborhoods in two principal ways: (1) it could increase recipients' incomes, thereby allowing for additional consumption of housing services, and (2) it could prompt housing repairs by requiring participants to comply with HAO standards. Neighborhoods with large numbers of enrolled households that either spent large fractions of their allowance income on increased housing consumption or made many required repairs could experience considerable changes in neighborhood conditions. If those changes occurred as a result of recipient actions, nonrecipients might also be prompted to upgrade their dwellings.

To determine whether housing allowances alter neighborhoods, we must distinguish program-induced change from other neighborhood change (e.g., the long-standing growth of Brown County). Because enrollees were free to live wherever they chose, it was impossible to designate neighborhoods that were unaffected by the allowance program; and open enrollment precludes having a control group. We therefore assess program effects by comparing program inputs with similar "natural" inputs. If program inputs are relatively small, it is likely that program change brought about by those inputs will be small. We also compare neighborhood outcomes by level of program activity. If there is no clear link between neighborhood change and level of program activity, it is unlikely that the program was an important factor.

IV. NEIGHBORHOOD CONDITIONS

Having grouped the neighborhoods according to levels of program activity, we now examine the differences between the neighborhood groups before the program began and after three years of program operation. As stated earlier, our data indicate that even in neighborhoods where allowance payments were most heavily concentrated, the allowance program had little effect. Later in this section we will show why that is so.

PREPROGRAM NEIGHBORHOOD CONDITIONS

As Table 4.1 indicates, neighborhood groups vary widely in the amount of allowance payments received per household. In neighborhoods with high levels of program activity, average cumulative allowance payments per household were 7 and 14 times as great in Brown County and St. Joseph County neighborhoods, respectively, as they were in neighborhoods with low levels of program activity.¹ Clearly, the allowance program did not spread assistance evenly across neighborhoods; even though the program was not designed to concentrate assistance in particular areas, enrolled households tended to live near one another. Differences between neighborhood groups were also reflected in the percent of households enrolled and in the average amount of preprogram income.

When the neighborhood's level of program activity is compared with other indicators of neighborhood condition, other differences emerge. Table 4.2 shows that allowance payments were most concentrated where property values were lowest. Moreover, neighborhoods receiving most HAO assistance had the lowest land values, suggesting that there were fewer neighborhood amenities for those dwellings; they also had the lowest improvement values, indicating that the dwellings were either smaller or of lower quality. In addition, the allowance program concentrated

¹ Average cumulative allowance payments per household is the sum of all allowance payments paid to all enrollees in a particular neighborhood through the first three years of program operation, divided by the number of households residing in the neighborhood before the program began.

Table 4.1
 CUMULATIVE HAO ASSISTANCE AND AVERAGE HOUSEHOLD INCOME
 BY LEVEL OF PROGRAM ACTIVITY

Neighborhoods Grouped by Average Payments	Number of Neighborhoods ^a	Number of Resident Households (baseline)	Average Cumulative Allowance Payments per Resident Household (\$) ^b	Percent of Resident Households Enrolled (wave 4)	Average Income per Resident Household (baseline \$)
<i>Brown County</i>					
1 (high)	23	8,231	252	13	9,534
2	21	9,017	151	9	10,761
3	14	8,578	97	6	12,393
4	20	9,084	55	4	14,067
5 (low)	18	8,868	37	2	15,330
<i>St. Joseph County</i>					
1	21	14,113	220	21	8,758
2	12	14,780	119	10	10,431
3	16	13,886	61	6	11,566
4	15	15,786	44	4	13,264
5	18	16,254	16	2	14,015

SOURCE: Tabulated from records of the HAO client characteristics files for year 3 and the baseline and wave 4 surveys of households in each site.

^aThe number of neighborhoods do not add up to the total in each county because some were excluded on the basis of insufficient sample size.

^bAverage cumulative allowance payments per households is the sum of all allowance payments paid to all enrollees in a particular neighborhood through the first three years of program operation, divided by the number of households residing in the neighborhood before the program began.

Table 4.2

PROPERTY VALUES BY LEVEL OF PROGRAM ACTIVITY

Neighborhoods Grouped by Average Payments	Estimated Values Per Dwelling (baseline \$)		
	Land	Improvements	Total
<i>Brown County</i>			
1 (high)	3,565	12,576	16,141
2	4,128	16,734	20,862
3	4,148	17,857	22,005
4	4,397	20,923	25,320
5 (low)	4,648	20,280	24,928
<i>St. Joseph County</i>			
1	2,969	5,644	8,613
2	3,596	5,670	9,266
3	3,943	7,658	11,601
4	4,805	9,577	14,382
5	7,472	12,655	20,127

SOURCE: Tabulated from records of the base-line surveys of households and landlords in each site.

NOTE: Estimated land and improvement values come from owner estimates of property value, and when that was unavailable, from tax records. For further information about that methodology, consult Neels and Rydell (1981).

payments in neighborhoods with large numbers of rental dwellings (as shown in Table 4.3) and single-parent families (a group that may have greater difficulty securing adequate housing).

Differences in physical quality measures also distinguish the neighborhoods. The program concentrated its benefits in neighborhoods with comparatively worse building quality (see Table 4.4).² A similar pattern was apparent for residential landscaping. For St.

² Evaluators rated the quality of every property on four-point ordinal scales; from those ratings we obtained average ratings for each neighborhood.

Table 4.3

OCCUPANCY CHARACTERISTICS BY LEVEL OF PROGRAM ACTIVITY

Neighborhoods Grouped by Average Payments	Percent of Baseline Dwellings Occupied by:		
	Renters	Elderly Households	Single- Parent Families
<i>Brown County</i>			
1 (high)	50	19	10
2	37	14	8
3	28	15	9
4	21	15	4
5 (low)	13	15	5
<i>St. Joseph County</i>			
1	37	22	16
2	41	15	11
3	24	21	12
4	19	22	10
5	12	19	7

SOURCE: Tabulated from records of the baseline survey of households in each site.

Joseph County, we have countywide estimates of whether dwellings would meet HAO quality standards.³ The table below shows that about 45 percent more dwellings in neighborhoods with low levels of program activity would meet HAO standards than would dwellings in neighborhoods with the most program activity.

<u>Neighborhoods Grouped by Average Payments</u>	<u>Incidence of Acceptable Housing Relative to Group 1</u>
1 (high)	1.00
2	1.07
3	1.27
4	1.36
5 (low)	1.45

³ The estimates were obtained from a model fit to linked records of HAO housing evaluations and household surveys. The model was used to estimate the probability that a dwelling would fail an HAO housing evaluation, given its characteristics as recorded in the household survey. See Mulford and Yildiz (forthcoming) for details of the model.

Table 4.4

BUILDING AND LANDSCAPING RATINGS BY LEVEL OF PROGRAM ACTIVITY

Neighborhoods Grouped by Average Payments	Relative Quality Rating ^a	
	Residential Buildings	Residential Landscaping
<i>Brown County</i>		
1 (high)	1.00	1.00
2	1.06	1.04
3	1.05	1.04
4	1.15	1.09
5 (low)	1.17	1.12
<i>St. Joseph County</i>		
1	1.00	1.00
2	.99	.99
3	1.04	1.03
4	1.09	1.10
5	1.11	1.12

SOURCE: Tabulated from records of the baseline survey of neighborhoods in each site.

^aAverage neighborhood quality rating, on a scale from 1 (poor) to 4 (good), divided by the average rating for neighborhood group 1.

PROGRAM-RELATED CHANGES

We measured changes in neighborhood conditions after the allowance program began to see if changes in key neighborhood indicators were concentrated in or away from neighborhoods with high levels of program activity. Most changes occurred countywide, rather than in neighborhoods with the most allowance assistance. However, we found important exceptions to that generalization, which we will consider later in this section.

During the first three years of program operation,⁴ there were subtle changes in the areas' property values, demographic characteristics, and housing stock. Incomes increased about 8 percent per year in both counties (see Table 4.5). Brown County increases were spread fairly uniformly across all neighborhood groups, but St. Joseph County incomes grew least in neighborhoods where the allowance program was most active.⁵ Property values also increased: Brown County values rose by 10 percent per year, St. Joseph County's by 7 percent (see Table 4.6). But in neither county did property values rise more in neighborhoods with high levels of program activity. Looking at change in the component parts of property values, we found that improvement values increased about 9 percent per year in both counties; land values increased 15 percent per year in Brown County, and 4 percent per year in

Table 4.5

RELATIVE NEIGHBORHOOD INCOME AND INCOME CHANGE

Neighborhoods Grouped by Average Payments	Relative Baseline Income		Average Annual Change in Income (%) ^a	
	Brown County	St. Joseph County	Brown County	St. Joseph County
1 (high)	1.00	1.00	6	4
2	1.13	1.19	8	7
3	1.30	1.32	8	8
4	1.48	1.51	9	12
5 (low)	1.61	1.60	8	11

SOURCE: Tabulated from the baseline and wave 4 surveys of households in both sites.

^a Averaged over the three-year period between wave 4 and baseline. Includes allowance income. Annual percentage change was not compounded.

⁴ July 1974 through June 1977 in Brown County; and January 1975 through December 1977 in St. Joseph County.

⁵ Note the wide disparity in income growth between neighborhood groupings in St. Joseph County; incomes increased by 11 to 12 percent in suburban neighborhoods.

Table 4.6

AVERAGE ANNUAL CHANGE IN LAND, IMPROVEMENT,
AND PROPERTY VALUE BY LEVEL OF
PROGRAM ACTIVITY

Neighborhoods Grouped by Average Payments	Average Annual Change in Value Per Unit ^a		
	Land	Improvement	Entire Property
<i>Brown County</i>			
1 (high)	9.2	9.0	9.0
2	19.6	11.2	11.4
3	19.4	10.0	10.4
4	17.6	8.5	10.1
5 (low)	11.0	9.8	10.0
<i>St. Joseph County</i>			
1	2.2	3.4	3.0
2	4.8	5.4	5.2
3	6.8	8.6	8.1
4	4.1	3.4	3.7
5	1.8	3.6	3.3

SOURCE: Tabulated from records of the base-line and wave 4 surveys of households and landlords in each site.

^aPercent change was neither adjusted for inflation nor compounded annually.

St. Joseph County. There were no distinct patterns to these value increases with regard to program activity.

Although increases in property values were fairly uniform across neighborhoods grouped by average cumulative allowance payments, a different picture emerges if we group St. Joseph County neighborhoods by deviation from racial balance. As the following table demonstrates, St. Joseph County's annual property values increased six times as quickly in nonminority neighborhoods as in minority neighborhoods.

<u>Neighborhoods Grouped by Deviation from Racial Balance</u>	<u>Average Annual Change in St. Joseph County Property Values (%)</u>
Minority (50-100% minority)	2.1
Integrated (5-49% minority)	3.5
Nonminority (0-4% minority)	12.1

Neighborhoods grouped by racial composition show comparable differences in land value and improvement value, suggesting that both land and structures also appreciate much more slowly in minority neighborhoods.

Compared to incomes and property values, changes in the demographic characteristics of households in the neighborhoods of both sites were small and statistically insignificant. The fraction of elderly households increased 1 percent in Brown County and 2 percent in St. Joseph County, and the fraction of single-headed households increased about as much. (These changes reflect nationwide trends.) The percentage of households who rented their dwellings remained unchanged. None of those changes varied perceptibly across our neighborhood groupings and preprogram differences between groups remained unchanged.⁶

The physical quality of housing stock, as measured by field observation, did not change significantly over this period; and there were no systematic variations between neighborhood groupings. The following table shows that the direction of change was mixed and that overall, residential building quality remained unchanged in the two counties.

⁶ For example, twice as many single-headed households lived in neighborhoods with high levels of program activity as in neighborhoods with low levels of activity. The relative numbers remained the same as before the program began.

Neighborhoods Grouped by Average Payments	Percentage Difference in Residential Building Quality (relative to baseline rating)	
	<u>Brown County</u>	<u>St. Joseph County</u>
1 (high)	2.1	-.9
2	-1.7	.0
3	3.8	3.2
4	.5	1.4
5 (low)	-1.0	-3.5

With few exceptions, we found no evidence that allowance payments changed neighborhood conditions or demographic patterns that were set before the program began. Those few exceptions suggest that undesired trends became even more pronounced in St. Joseph County, where incomes rose less in neighborhoods receiving the most program assistance, and property values appreciated far less in minority and integrated neighborhoods. In short, the allowance program promoted few demographic changes that can be measured directly.

WHY PROGRAM-RELATED NEIGHBORHOOD CHANGES WERE SMALL

In addition to its primary purpose, that of helping low-income households afford and secure safe, decent, and sanitary housing, a full-scale housing allowance program was expected to upgrade neighborhood quality. However, after three years of program operation, we have seen little evidence that the program induced neighborhood change with respect to household income, property values, residential quality, or neighborhood quality; nor did it help redistribute renter, elderly, or single-parent households.

There are several possible reasons for that outcome. First, even though allowance program activity was concentrated in the poorest neighborhoods with the worst housing conditions, that activity was not sufficient to reverse urban development patterns already established in the two communities prior to the program. Second, allowances added little to overall household income in a neighborhood. Third, although program-required repairs improved housing conditions and were relatively

inexpensive, they were not large or visible enough to encourage nonrecipients to repair.

New Construction

The location of new construction in an urban area depends on several factors: availability of land, condition of housing stock, access to public amenities and services, location of employment, credit costs and availability, building costs, and population trends. Since few of those factors are likely to be affected by the allowance program, we would not expect new construction in neighborhoods with high levels of program activity.

In fact, the allowances did not substantially affect the number of occupied units in high program-activity neighborhoods (see Table 4.7). In Brown County, we found that Green Bay, like many cities, is

Table 4.7

CHANGES IN NUMBER OF OCCUPIED UNITS BY
LEVEL OF PROGRAM ACTIVITY

Neighborhoods Grouped by Average Payments	Number of Occupied Units (baseline)	Percent Change by Wave 4		
		Owner	Renter	Total
<i>Brown County</i>				
1 (high)	10,149	4	2	3
2	9,563	1	4	2
3	9,373	3	9	4
4	9,053	8	5	7
5 (low)	8,802	6	25	9
<i>St. Joseph County</i>				
1	14,589	-1	-15	-6
2	13,704	1	-11	-4
3	13,425	4	9	6
4	16,195	4	20	7
5	16,642	-2	27	2

SOURCE: Tabulated from records of the baseline and wave 4 household and landlord surveys in each site.

experiencing suburbanization. An increase in the number of occupied units for neighborhoods receiving allowance dollars, however, indicates a relatively healthy central city. St. Joseph County, on the other hand, experienced a decline in the number of occupied units in neighborhoods with the most program activity. It is not clear, however, whether the program in any way slowed the decline.

Income Supplement

The program's most direct effect on neighborhood conditions was to increase the overall neighborhood income level by offering cash allowances to program participants, whose incomes were raised by 20 percent.⁷ How important is that increase compared with neighborhood income in general?

To determine the role of allowances in augmenting incomes, we measured the allowance-induced component of the percentage increases in income. That component was very small, one percentage point or less, even in neighborhoods receiving most allowance dollars. (See Table 4.8 for our method of measuring changes in income.) For example, in Brown County neighborhoods with high program activity, only one of the 18 percentage point increases was attributable to allowance income. Although the program increased the recipients' average income by 20 percent during their participation in the program, those increases were diluted by nonrecipient income, which far outweighs recipient income in all neighborhoods.⁸

⁷ The amount of the income supplement is reported in Table 3.5 of Lowry, Experimenting with Housing Allowances, forthcoming.

⁸ That finding requires several qualifications. Allowance program enrollment did not reach a steady state until the fifth program year and even that equilibrium was temporary; it held for about one year before program enrollment again increased because of changing economic conditions.

During the first three program years, the period studied in this report, enrollment increased. Some recipients dropped out of the program, but those terminations were more than offset by new enrollments and reinstatements. At the end of the third year, about 13,500 households had received \$13 million in allowance payments. In contrast, 20,000 households had received \$30 million in payments by the end of

Table 4.8

CHANGES IN HOUSEHOLD INCOME BY LEVEL OF PROGRAM ACTIVITY

Neighborhoods Grouped by Average Payments	Baseline Average Household Income (\$)	Percent Change by Wave 4		
		Allowance-Induced	Other	Total
<i>Brown County</i>				
1 (high)	9,354	1	17	18
2	10,761	(a)	25	25
3	12,393	(a)	25	25
4	14,067	(a)	28	28
5 (low)	15,330	(a)	25	25
<i>St. Joseph County</i>				
1	8,758	1	11	12
2	10,431	(a)	21	21
3	11,566	(a)	24	24
4	13,264	(a)	37	37
5	14,015	(a)	32	32

SOURCE: Tabulated from records of the baseline and wave 4 household surveys and the year 3 HAO client characteristics files in each site.

NOTE: The percent change in total income is calculated as wave 4 income minus wave 1 income with that quantity divided by wave 1 income. The allowance-induced change is the cumulative amount of allowance payments per household through year 3 divided by 3 (to obtain the average annual payment per household), and that quantity divided by wave 1 income. Change in other income is the residual between total change and allowance-induced change.

^aLess than 0.5 percent.

Program-Required Repairs

Although nearly 6,500 dwellings were repaired to meet program standards, those repairs are small when compared with the amount of allowances received and the amount of repair activity in the two sites that occurred outside the program. Table 4.9 shows the amount of required repair activity by neighborhood groupings. Like allowance payments, repairs are concentrated in neighborhoods where the program is most active. No matter how repair activity is measured--by cash expenditures alone or by including a valuation for unpaid labor⁹--about 45 percent of program-required repairs in both sites occur in neighborhood group 1.

Cash expenditures for required repairs in both counties during the first three program years total \$370,000; an additional \$110,000 is included as the value of unpaid labor. With a total of 16,000 separate repair actions, each repair averaged \$23 in cash costs and \$7 in unpaid labor. Usually, costs were low because those repairs primarily corrected relatively inexpensive health and safety defects in enrollees' homes.¹⁰ Few required repairs directly affected the appearance of the dwelling. Of those that did, less than 30 percent were made to the building's exterior or surrounding property; a full 70 percent involved interior rooms or the basement.

Measured against cumulative allowance payments and countywide levels of repair activity, however, the amount spent on required repairs

year 5. Annually, overall disbursements were almost twice as great in the fourth and fifth years as they were in the previous three, suggesting that neighborhood effects might be as much as twice as large in those later years. Even if that were true (no field surveys were conducted after year 3; thus, we cannot measure neighborhood change in those later years), we expect that the overall longer term effect on neighborhoods would be small. For example, as income supplements, allowances would represent up to a 2 percent increase in neighborhood income--a small amount when compared with other sources of neighborhood change.

⁹ We value tenant and homeowner labor at the hourly minimum wage. Landlord repairs are valued according to repair industry cost estimates.

¹⁰ Frequent repairs include fixing unsafe stairs and railings, repairing broken windows, fixing inoperable sinks and toilets, and sealing defective furnace venting. See Appendix A for more details on housing program standards.

Table 4.9

REQUIRED REPAIRS AS A PERCENT OF ALLOWANCE PAYMENTS
BY LEVEL OF PROGRAM ACTIVITY

Neighborhoods Grouped by Average Payments	Total Repair Expenditures (\$)		Cash Expenditures as a Percent of Allowance Payments
	Cash	Cash and Noncash	
<i>Brown County</i>			
1 (high)	50,955	67,505	2
2	35,418	47,553	2
3	18,503	23,766	2
4	9,791	12,729	2
5 (low)	6,319	8,458	2
<i>St. Joseph County</i>			
1	113,242	146,011	3
2	54,784	72,498	3
3	48,784	60,602	4
4	22,050	28,164	3
5	10,448	13,496	3

SOURCE: Tabulated from records of the HAO housing characteristics files from January 1976 through June 1977 in Brown County; and through December 1977 in St. Joseph County.

NOTE: Repair information was first collected in January 1976, after 18 months of program operation in Brown County and 12 months in St. Joseph County. This table includes an estimate for repairs made prior to 1976, assuming that cost of repairing deficiencies was the same as reported in 1976-77. Information about the relative importance of unpaid labor comes from later evaluations.

looks small. Cash outlays for required repairs totaled only about 2 percent of the cumulative allowance payments in Brown County and about 3 percent of those payments in St. Joseph County, percentages that remained stable across all neighborhood groupings. Furthermore, compared with the ongoing repair activity in both counties, required repairs were small--less than 0.5 percent. Although the allowance program stimulated health and safety repairs in low-income households' dwellings, other owners and occupants repaired or improved their dwellings without government assistance. Other evidence (McDowell, 1979) suggests that many households, enrollees and nonenrollees alike, voluntarily upgrade the appearance and comfort of their dwellings, yet neglect inexpensive repairs that would make them safe.

Summary

If allowance assistance had been spread evenly across the experimental sites, we would have expected small neighborhood changes. Our analysis shows, however, that when low-income households apply for assistance and qualify their housing under HAO standards, most assistance is concentrated in a small number of neighborhoods.

Despite such natural targeting of allowance assistance, the effects of the program on neighborhoods were small. Before the program began and after three years of operation, neighborhoods receiving most assistance were the poorest neighborhoods with the worst housing. The program could have affected neighborhoods by changing the number of occupied units, augmenting income, or increasing the level and visibility of housing repairs. We found, however, that on all counts the allowance program had an imperceptible effect because of its size: The recipient population and the amount of allowance assistance were not large enough to have a significant effect on neighborhood development patterns, household incomes, and dwelling repairs.

V. RESIDENTIAL MOBILITY AND NEIGHBORHOOD CHANGE

Most housing assistance programs subsidize private or publicly owned dwelling units that are selected by and under contract to the government. Participants in the housing allowance program choose their homes on the open market, and subject to its constraints, may move about and rent or buy homes without affecting their allowance entitlements. One purpose of the program was to learn how many participants would move, what they would gain by moving, and how the neighborhoods of origin and destination would be affected.¹

MOBILITY IN ST. JOSEPH COUNTY

In St. Joseph County, residential mobility is of particular interest because of its potential effects on racial segregation. Some hoped and others feared that a neighborhood's racial balance would be upset if the program succeeded in removing barriers to residential integration. After five years of operation, we find little evidence that the program removed barriers to residential integration or destabilized neighborhoods. The net flow of moves across minority, integrated, and nonminority neighborhood boundaries was small.

We began investigating residential mobility and neighborhood change in St. Joseph County by classifying neighborhoods according to the percentage of minority households in each.² Neighborhoods with 50 percent or more minority households were classified as minority; neighborhoods with 5 to 49 percent were classified as integrated; and those with less than 5 percent were considered nonminority neighborhoods. Figure 5.1 displays those groupings. The minority

¹ To study residential mobility, we extended our time frame to cover the first five program years instead of the first three. Other analyses mentioned in this report were confined to a three-year period because of the necessary comparison to the fourth annual survey, whereas our residential mobility research relies solely on allowance records, which cover five years of program information.

² We defined minority households as ones in which one or both household heads was of a race other than Caucasian, or was of Latin origin.

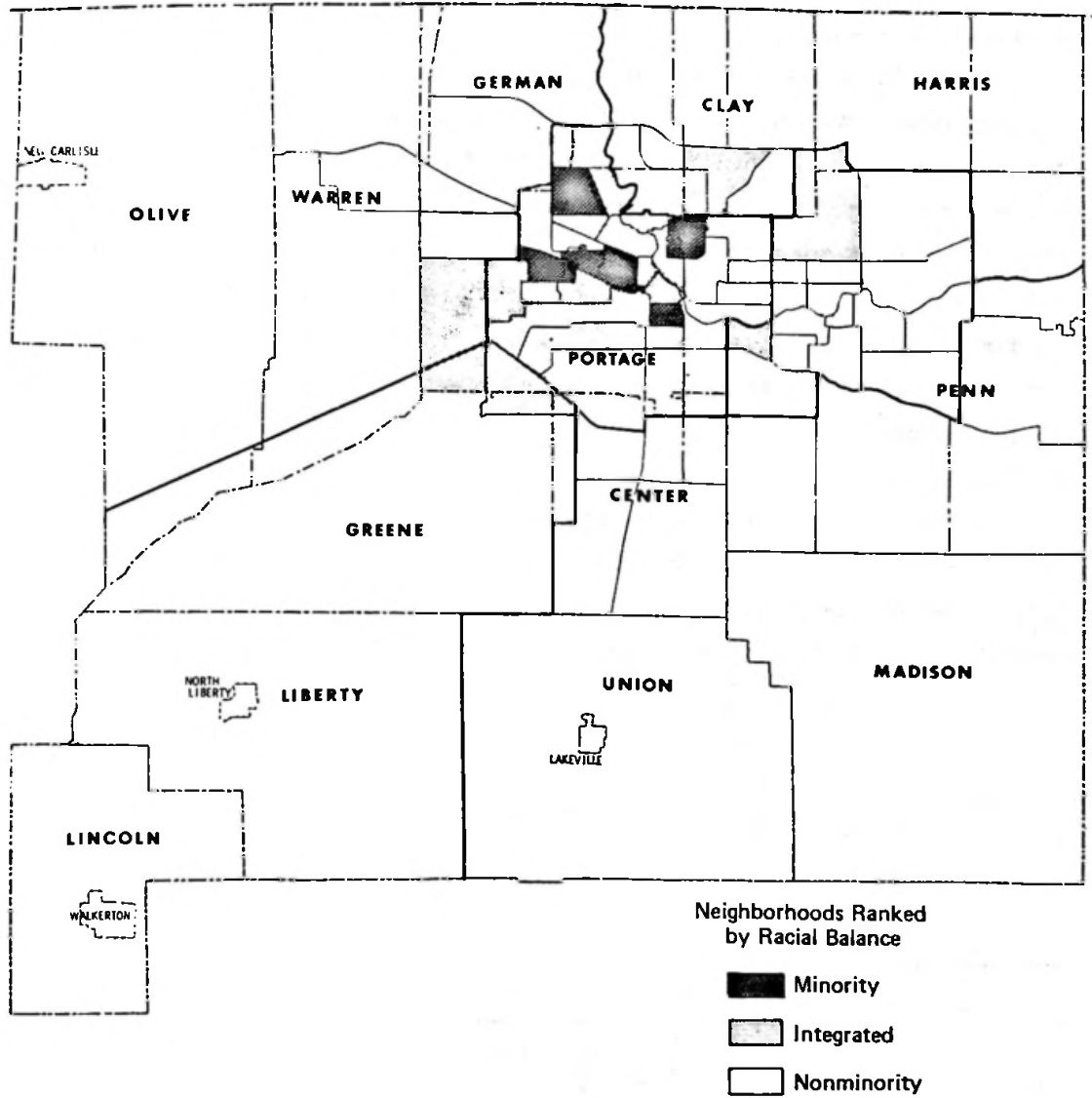


Fig. 5.1—Racial balance in St. Joseph County

neighborhoods include approximately 7,719 households, about one-tenth of the total household count in St. Joseph County. Note that the six neighborhoods classified as minority are among 21 that received the most allowance assistance.

Judged in terms of housing and income statistics, minority neighborhoods have more severe housing problems (see Table 5.1). For example, the average household income is 36 percent greater in nonminority neighborhoods than in minority neighborhoods, and property values are about twice as large. Also, the fraction of homeowner units and the fraction of dwellings predicted to pass allowance program standards are both about one-third higher in nonminority neighborhoods. As one might expect, the values of those income and housing variables in integrated neighborhoods fall between those of minority and nonminority neighborhoods.

Our data confirm that housing and neighborhood problems for households in minority neighborhoods are more severe than those of others. Given their limited resources, it is doubtful that minority households could do much to improve neighborhood conditions. That

Table 5.1

HOUSING AND INCOME STATISTICS BY NEIGHBORHOOD RACIAL BALANCE:
ST. JOSEPH COUNTY

Neighborhood Classification	Value Relative to Minority Neighborhood			
	Average Household Income	Average Property Value	Percent of Homeowner Dwellings	Percent of Dwellings Predicted to Pass HAO Standards
Minority ^a	1.00	1.00	1.00	1.00
Integrated ^b	1.06	1.09	1.15	1.31
Nonminority ^c	1.30	1.58	1.32	1.33

SOURCE: Tabulated from records of the baseline household and landlord surveys in St. Joseph County.

^a50 to 100 percent minority.

^b5 to 49 percent minority.

^c0 to 4 percent minority.

inability to effect neighborhood change could cause minority households to move from segregated neighborhoods into areas in which living conditions are better. Housing allowances may provide the economic means for them to do so.

We examined that possibility by looking at the net flow of program-related moves between minority, integrated, and nonminority neighborhoods. Of 3,641 program-related moves made during the first five years, only 1,300 crossed one of the three neighborhood classifications designated in Table 5.2. The direction of the net flows is away from minority neighborhoods, but the size of the flows, presented schematically in Fig. 5.2, is small. For example, the net flow away from minority neighborhoods represents only 6 percent of the absolute number of moves to and from those neighborhoods. Net moves

Table 5.2

PROGRAM-RELATED MOVES BETWEEN MINORITY, INTEGRATED,
AND NONMINORITY NEIGHBORHOODS IN ST. JOSEPH COUNTY

Enrollment Neighborhood (moved from)	Current Neighborhood (moved to)		
	Minority	Integrated	Nonminority
Minority	(a)	329	102
Integrated	288	(a)	266
Nonminority	91	220	(a)

SOURCE: Tabulated from records of the year 5 HAO client and housing characteristics files in St. Joseph County.

^aMoves within a neighborhood group are not reported.

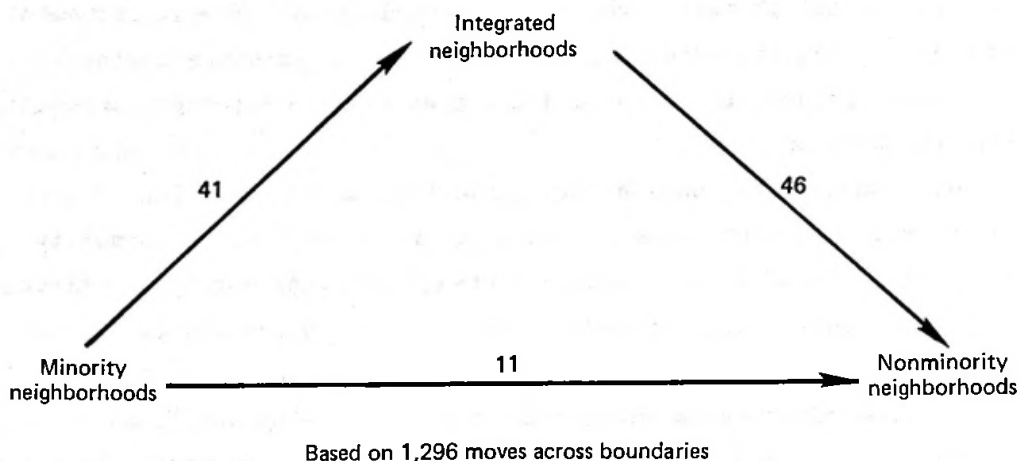


Fig. 5.2 —Net flows of movers between integrated, minority, and nonminority neighborhoods in St. Joseph County

collectively represent less than 8 percent of all moves that involved crossing one of the neighborhood classifications.³

Even without a large flow of households from minority neighborhoods, we thought that important differences between households moving to and from those neighborhoods might be detected. A comparison of several household characteristics (shown in Table 5.3), however, reveals that incoming movers generally resemble outgoing movers. The average annual income of households that moved into minority neighborhoods was slightly higher than that of those who moved out of minority neighborhoods. Therefore, minority neighborhoods may have benefited slightly in overall income from program-related moves, even though the difference in income was not significant. There was also no significant difference between the gross rent of those moving into and those moving out of minority neighborhoods.

³ The direction of program-related moves and the net gain of nonminority neighborhoods are probably more indicative of general trends occurring in St. Joseph County rather than in the allowance program. Central South Bend was experiencing a decline long before the allowance program was established.

Table 5.3
 COMPARISON OF INCOMING AND OUTGOING MOVES BY NEIGHBORHOOD
 RACIAL BALANCE: ST. JOSEPH COUNTY

Residence Before or After Move	Household Statistics			
	Average Annual Gross Income (\$)	Average Monthly Gross Rent (\$)	Minority	Percent Single Parents Elderly
<i>Minority Neighborhoods</i> Moved to	3,600	200	58	58
Moved from	3,500	210	68	67
<i>Integrated Neighborhoods</i> Moved to	3,400	200	53	60
Moved from	3,700	210	44	56
<i>Nonminority Neighborhoods</i> Moved to	4,000	230	15	55
Moved from	3,800	210	12	52

SOURCE: Tabulated from records of the year 5 HAO client and housing characteristic files in St. Joseph County.

We found an interesting difference between the fraction of minority households moving into and out of minority neighborhoods. Fifty-eight percent of incoming movers were minority households, whereas 68 percent of outgoing movers were minority. Even so, the changed ethnic composition of enrollee movers was not significant enough to alter patterns of segregated housing.

Small changes in the demographic mix occurred for the percentage of single-parent families and elderly households in minority neighborhoods. As a result of those moves, the percentage of single-parent families was reduced, but the proportion of elderly in those neighborhoods increased slightly.

Those who moved to and from integrated and nonminority neighborhoods also shared similar characteristics. The small differences between incoming and outgoing movers, along with the small number of moves between minority, integrated, and nonminority neighborhoods, leads us to conclude that the allowance program did not change the overall racial pattern of St. Joseph County.

MOBILITY IN BROWN COUNTY

Although Brown County lacks a segregated housing market, we also studied program participants' mobility there, looking at the geographical location of neighborhoods rather than racial composition as the basis for comparing moves to and from neighborhoods. Specifically, we compared moves between central Green Bay and the rest of the county. Most neighborhoods in central Green Bay also belong to the neighborhood group receiving most housing allowance assistance. Of the 2,700 program-related moves, only 794 involved crossing the boundary between those two geographical areas (shown in Table 5.4).

The net flow of program moves was small: only 106 more households moved away from central Green Bay than moved into that city. This finding suggests that program-related moves were not numerous or geographically selective enough to affect either the demographic composition or housing market of either area.

Table 5.4

PROGRAM-RELATED MOVES BETWEEN CENTRAL GREEN BAY
AND REST OF BROWN COUNTY

Enrollment Neighborhood (moved from)	Current Neighborhood (moved to)	
	Central Green Bay	Rest of County
Central Green Bay	(a)	450
Rest of county	344	(a)

SOURCE: Tabulated from records of the year 5 HAO client and housing characteristics files in Brown County.

^aMoves within a neighborhood group are not reported.

SUMMARY

Enrollee moves in both counties can be described as countervailing flows. Although 30 percent of Brown County enrollee moves and 40 percent of St. Joseph County enrollee moves involved crossing from one type of neighborhood to another, the net flows of households were small: almost as many households moved into minority neighborhoods as moved away from them: The net result was a small flow away from minority neighborhoods in St. Joseph County and a small flow away from central Green Bay. Neither movement indicated the drastic change in mobility patterns that some observers expected.

VI. PUBLIC EVALUATION OF THE ALLOWANCE PROGRAM

In this section we examine how recipients and nonrecipients perceived the effects of the allowance program. Positive community attitudes toward the program would suggest that the program's direct benefits, such as income supplements to low-income households and increased repair activity, contribute to a more favorable view of one's own neighborhood. Often a neighborhood's demographic and economic future is affected by public expectations.¹

The data on community attitudes toward the program come from the wave 4 household and landlord surveys in each site. The household surveys asked those who knew about the allowance program whether they thought it had an effect on their household or neighborhood. The landlord surveys asked about the effects of the program on the neighborhood where a landlord's rental property was located.

Despite the variation between sites and households, we found a similar pattern in Brown and St. Joseph County survey responses. For simplicity, we report detailed findings for St. Joseph County only. Tables with Brown County findings are presented in Appendix B.

HOUSEHOLDS' PERCEPTION OF THE PROGRAM

We specifically looked at the responses of three subgroups of households: (1) recipients in neighborhoods with high levels of program activity, (2) nonrecipients in neighborhoods with high levels of program activity, and (3) all households in neighborhoods with low levels of program activity (most households in this subgroup were nonrecipients). The difference between the first and second subgroups is whether or not the household received allowance payments; the interesting difference between the second and third subgroups is whether the respondent's neighborhood received high or low levels of program assistance.

¹ Appraisals of neighborhood conditions by public planners and private investors can become self-fulfilling prophecies: an expert's opinion that a property's value will decline can contribute to that decline, particularly if private investments and public assistance are denied (Stegman, 1979, pp. 495-496).

Neighborhood groups 1 and 2 represent neighborhoods with high levels of assistance; neighborhood groups 3, 4, and 5 represent neighborhoods with low levels of assistance.

Few respondents thought that the program had negative effects (see Table 6.1). Less than five percent of all respondents thought that the program had decreased property values, property upkeep, or repairs. If we distinguish between neutral and positive responses, recipients in neighborhoods with high levels of program activity viewed the program most favorably. For most measures of neighborhood change, nonrecipients in the same neighborhoods viewed the program more favorably than did households living in neighborhoods with lower levels of program activity. But as Table 6.1 vividly shows, the responses varied by question.

More than two-thirds of all recipients in neighborhoods with high levels of program activity thought the program had positive effects on property values, dwelling upkeep and repair, and their own households. More than half of those households thought that the program had at least some effect on their neighborhood as a whole, and almost everyone thought that program-related moves had no deleterious effect on the neighborhood.

Nonrecipients living in the same neighborhoods expressed less favorable views of the program. About half of those households reported that the program had increased property values, property upkeep, and repairs. But more than 90 percent thought that there was no overall effect on their households, suggesting that direct program assistance determined whether a household judged that they were affected by the program. Over 60 percent of those nonrecipient respondents living in neighborhoods with high levels of program activity thought that the program had no effect on their neighborhoods. Almost 80 percent of those respondents thought program-related moves had no effect on their neighborhoods; the remaining 20 percent were almost evenly split between positive and negative reaction to the moves.

Households living in neighborhoods that received little program assistance were least positive in their views. Between one-third and one-half thought that the program had increased property values, upkeep,

Table 6.1

COMMUNITY PERCEPTIONS OF NEIGHBORHOOD CHANGE BY LEVEL
OF PROGRAM ACTIVITY: ST. JOSEPH COUNTY

Response	Percent of Responding Households			
	Level of Program Activity			All Households
	High		Low (both)	
	Recipients	Nonrecipients		
<i>Effect of Program on Neighborhood Property Values?</i>				
Increased	67	45	38	45
Decreased	1	6	5	5
No effect	32	49	57	50
<i>Effect of Program on Neighborhood Property Upkeep?</i>				
Increased	84	50	48	54
Decreased	0	4	3	3
No effect	16	46	49	43
<i>Effect of Program on Repairs?</i>				
Increased	67	55	40	50
Decreased	1	3	7	4
No effect	32	42	53	46
<i>Has the Program Affected Your Household?</i>				
A lot	75	3	4	9
Somewhat	15	2	5	5
Very little	4	4	4	4
Not at all	6	91	87	82
<i>Has the Program Affected Your Neighborhood?</i>				
A lot	29	7	2	5
Somewhat	23	21	5	11
Very little	9	11	10	10
Not at all	39	61	83	74
<i>What is the Effect of Moves into Neighborhood?</i>				
Desirable movers	19	11	5	10
Undesirable movers	1	10	7	7
No effect	80	79	88	83

SOURCE: Tabulated from weighted records of the wave 4 household survey in St. Joseph County.

and repairs. About 87 percent thought that the program had no effect on their households, and 88 percent thought that program-related moves had no effect on their neighborhoods.

The most interesting differences in households' responses emerged in answer to the question, "Has the program affected your neighborhood?" Recipients in neighborhoods with high levels of program activity were not only more likely to give favorable responses; their responses were also the most positive. For example, over one-quarter thought that the program had affected their neighborhoods "a lot." Nonrecipients in the same neighborhoods were more guarded in their evaluations: compared to recipients, about two-thirds as many offered favorable responses in their descriptions. However, most nonrecipients used the less positive modifier "somewhat" in their responses. Since those recipients and nonrecipients live in the same neighborhoods, the lack of direct program benefits by nonrecipients presumably led to their less favorable responses.

Comparing nonrecipients in neighborhoods with high levels of program activity with all households (most of whom were nonrecipients) in neighborhoods with low levels of program activity, we found that the former were more likely to respond favorably and that those responses were usually more positive. Since the interesting difference between those two nonrecipient groups is the level of program activity in their neighborhoods, we conclude that the positive attitude of nonrecipients living in high-activity neighborhoods is a reaction to their neighbors' receiving program assistance and often using that assistance to improve their housing.

LANDLORDS' PERCEPTION OF THE PROGRAM

Landlords were asked about the program's effect on neighborhoods where their rental properties are located (see Table 6.2). As a group, only 24 percent of landlords believed that the allowance program had an effect on their neighborhoods.² Landlords who had a direct

² However, landlords' perceptions that the program did not affect their neighborhoods are similar to those of households, reported earlier.

Table 6.2

LANDLORD PERCEPTIONS OF PROGRAM EFFECTS ON NEIGHBORHOODS BY LEVEL OF PROGRAM ACTIVITY: ST. JOSEPH COUNTY

Response	Percent of Responding Landlords			
	Level of Program Activity ^a			All Landlords
	High		Low (both)	
	Rents to HAO Tenants	Does Not Rent to HAO Tenants		
A lot	6	2	(b)	3
Somewhat	28	10	4	12
Very little	7	11	8	9
Not at all	59	77	88	76

SOURCE: Tabulated from records of the wave 4 landlord survey in St. Joseph County.

^aIn neighborhood where property is located.

^bLess than 0.5 percent.

association with the allowance program were more likely to perceive effects: 41 percent of landlords who rented to HAO recipients thought the program had positive effects.³ Holding the level of HAO activity constant, we found that landlords who had no association with the program were about half as likely to perceive program benefits. Almost nine-tenths of landlords in neighborhoods with low program activity perceived no program effects. Direct contact with the program, apparently, was important in fostering a positive attitude about its effects.

SUMMARY

With the exception of perceived changes in property upkeep and repair (neighborhood conditions with which the program is most closely

³ Landlords knew whether they rented to HAO recipients because one of the program rules was that the landlord sign an HAO approval lease before the unit could be certified.

involved), most households in the program perceived little or no effect on their neighborhoods. Households that received payments usually believed that the program affected their households and neighborhoods; other households usually did not. Nonparticipant households living in neighborhoods with high levels of program activity were more likely to perceive program effects than households who lived in neighborhoods with low levels of program assistance, suggesting that some nonrecipients judged that neighborhood conditions had improved because their neighbors had received assistance. Program-related moves were either considered infrequent or of little consequence. Landlord attitudes about the program's effect on neighborhoods were quite similar to those of local residents.

VII. CONCLUSIONS

The allowance program had a direct, measurable effect on participants and their housing. Expectations that benefits would indirectly spill over to other households in those neighborhoods were unfulfilled. Although 13,500 households received one or more allowance payments and the HAOs disbursed over \$13 million in payments in the first three years, program effects on neighborhoods were diluted by the large number of nonparticipants, almost 93 percent of all households. With those facts in mind, we consider again the three preprogram expectations reported earlier.

- Allowances would improve neighborhoods. The program did increase the economic well-being of poor households by increasing recipients' income an average of 20 percent, and by providing the means and motivation for repairing approximately 6,500 dwellings to bring them up to program standards. Those infusions of money and repairs, however, were greatly diluted by nonallowance income and ongoing repair activity. Specifically, allowance payments raised average neighborhood income by 0.3 percent, and program-required repairs added less than half a percent to countywide repair activity. The contributions made by the allowance program could not offset long-standing patterns of deterioration, as in Central South Bend, or make a noticeable difference in prosperous areas such as suburban Brown County.
- Allowances would remove barriers to racial integration. Allowances substantially increased recipients' income, and in contrast to many other housing programs, recipients were permitted to move without loss of benefits. Presumably, minority households would have the means to move to integrated or nonminority neighborhoods with better conditions. In fact, the net flows of households were small; almost as many households moved to minority neighborhoods as moved away from

them. In addition, net effects on the concentration of minority households were small: allowances did not substantially alter the existing patterns of racial segregation.

- Allowances would change expectations about neighborhoods. Although the program's effect on property values, upkeep, and repairs was fairly small, residents' perceptions and beliefs about program effects were often more positive than measurements of physical change. Undoubtedly, many residents who reported neighborhood change were generalizing from personal experience with the program. Others may have been influenced by the prospect of change, rather than the actual fact. For whatever reasons, those positive expectations were not held strongly or widely enough to stimulate additional neighborhood improvement by those not in the program, at least not in the first three years.

Many social and economic factors influence neighborhood change. But even a full-scale housing allowance program that enrolls about 7 percent of all households and disburses over \$13 million in assistance did not significantly affect existing social and economic conditions. Allowance-induced repairs corrected more than 16,000 violations of program housing standards, yet that activity is dwarfed by the normal level of repair activity in the two counties. Most allowance assistance went to neighborhoods with the worst housing problems, but even that concentration of program dollars was insufficient to change a neighborhood's physical appearance.

The allowance program accomplished its objective: it enabled over 13,500 households to occupy safe, adequate housing at a cost they could afford. The hope that cash allowances would also serve to stimulate better neighborhood conditions proved unfounded. Quite simply, the stimulus was spread too thin.

Appendix A
HAO HOUSING STANDARDS

The HAO housing standards are a composite of current housing codes in the two sites, the Building Officials and Code Administrators' model code, and minimum housing standards developed by organizations such as the American Public Health Association. The standards require that the dwelling meet the following conditions:

Contain essential facilities in good working condition. The dwelling must have available, either communally or for the sole use of the enrollee, an adequate kitchen and bathroom:

- The kitchen must have ceiling height of 6'6" or greater over at least 35 sq. ft. of floor area, adequate ventilation from at least one openable window or mechanical device, sufficient light from natural or artificial sources, two separate, operating electric wall outlets or switches, a sink with hot and cold running water, a cooking range with a working burner and oven, and a working refrigerator.
- The bathroom must have a permanent source of heat, a door or other means of enclosure, an openable window or ventilation device, an operating electric wall outlet or switch, a working flush toilet, and a sink and bathtub (or shower) with hot and cold running water.

Be free from hazards to health and safety. The standards permit no health or safety hazards around the home. Evaluators check the operation of the heating, electrical, and plumbing systems, the soundness of the dwelling's exterior and interior, and the condition of windows and doors. The standards require certain safety features, such as overload devices, and permit no accumulation of hazardous materials or trash.

- The exterior property should be well-graded and have no hazardous structures or fences, accumulations of trash or garbage, or overgrown plants.
- The building exterior should have no hazardous conditions such as sagging, deteriorated, or incomplete foundations, walls, chimneys, or roofs (including gutters and drainspouts); windows and doors should be weathertight with no missing, broken, or rotted panes, panels, or frames; porches and stairways should have no broken or missing platforms or steps, and must have railings for porches 4 ft. or more off the ground and handrails for six or more consecutive steps.
- The building and unit interior must have no significant accumulations of trash; there must be at least one exit from the unit and two from the building; ceilings, walls, and floors must be free from holes, buckling, dry rot, insect damage, or persistent moisture; bathrooms and kitchens must have no damaged or broken fixtures or appliances (including those not required under essential facilities); bathroom and kitchen floor coverings must be impervious to moisture; plumbing, heating, water heating, and electrical systems must be permanent, complete, well-functioning, properly connected, insulated, sealed, vented, and incorporating ample safety or overload devices; stairways and railings must have a handrail around open steps or along six or more consecutive steps and be free from structural defects, including broken or missing steps; and (since January 1977) dwellings occupied or frequently visited by children under seven years of age should be free from lead-based paint hazards, including flaking, cracking, scaling, chipping, or loose paint on any interior surface, or any accessible exterior surface.

Provide essential space and privacy. There must be at least one bedroom for every two persons, up to a maximum of four required bedrooms. In addition, there must be a general-purpose room for households of three or more persons. All habitable rooms must have

70 sq. ft. or more of floor area, a ceiling height of at least 6'6" over 35 sq. ft. of the room, natural light from a window opening directly outdoors or onto a sunporch, adequate ventilation from an openable window or mechanical device, a working electric outlet, and a permanent source of heat; and cannot contain any special adaptations for use as a kitchen, bathroom, or utility room. In addition to those requirements, bedrooms must have rigid walls secured from floor to ceiling with a door or other means of enclosure.

Appendix B

COMMUNITY PERCEPTIONS OF THE ALLOWANCE PROGRAM IN BROWN COUNTY

Households in Brown County were similar to those in St. Joseph County in their perception of the allowance program. Tables B.1 and B.2 show that households perceived the program's largest effects to be on property values, upkeep, and repairs, results that parallel those in St. Joseph County. Like their counterparts in St. Joseph County, most Brown County landlords (a full 78 percent) reported no program effects. Landlords who had more direct program contact, either by renting to HAO recipients or having their dwellings evaluated, perceived more positive program effects.

Table B.1

COMMUNITY PERCEPTIONS OF NEIGHBORHOOD CHANGE BY LEVEL
OF PROGRAM ACTIVITY: BROWN COUNTY

Response	Percent of Responding Households			
	Level of Program Activity			All Households
	High		Low (both)	
	Recipients	Nonrecipients		
<i>Effect of Program on Neighborhood Property Values?</i>				
Increased	55	31	25	31
Decreased	0	6	2	3
No effect	45	63	73	66
<i>Effect of Program on Neighborhood Property Upkeep?</i>				
Increased	66	35	29	36
Decreased	0	4	2	3
No effect	34	61	69	61
<i>Effect of Program on Repairs?</i>				
Increased	74	35	38	43
Decreased	1	2	1	2
No effect	25	63	61	55
<i>Has the Program Affected Your Household?</i>				
A lot	66	4	5	10
Somewhat	25	6	6	7
Very little	7	6	6	6
Not at all	2	84	83	77
<i>Has the Program Affected Your Neighborhood?</i>				
A lot	16	2	1	2
Somewhat	27	18	8	13
Very little	16	14	17	16
Not at all	41	66	74	69
<i>What is the Effect of Moves Into Neighborhood?</i>				
Desirable movers	25	10	14	14
Undesirable movers	0	3	4	4
No effect	75	87	82	82

SOURCE: Tabulated from weighted records of the wave 4 household survey in Brown County.

Table B.2

LANDLORD PERCEPTIONS OF PROGRAM EFFECTS ON NEIGHBORHOODS BY LEVEL OF PROGRAM ACTIVITY: BROWN COUNTY

Response	Percent of Responding Landlords			
	Level of Program Activity ^a			All Landlords
	High		Low (both)	
	Rents to HAO Tenants	Does Not Rent to HAO Tenants		
A lot	6	1	(b)	2
Somewhat	18	7	6	9
Very little	13	14	8	11
Not at all	63	78	85	78

SOURCE: Tabulated from records of the wave 4 landlord survey in Brown County.

^aIn neighborhood where property is located.

^bLess than 0.5 percent.

BIBLIOGRAPHY

- Carter, Grace M., and Steven L. Balch, Measuring Eligibility and Participation in the Housing Assistance Supply Experiment, The Rand Corporation, R-2780-HUD, September 1981.
- Downs, Anthony, "Key Relationships Between Urban Development and Neighborhood Change," The Journal of the American Planning Association, Vol. 45, No. 4, October 1979, pp. 462-472.
- Ellickson, Phyllis L., Public Knowledge and Evaluation of Housing Allowances: St. Joseph County, Indiana, 1975, The Rand Corporation, R-2190-HUD, February 1978.
- Fourth Annual Report of the Housing Assistance Supply Experiment, The Rand Corporation, R-2302-HUD, May 1978.
- Kirby, Sheila Nataraj, An Analysis of Nonrecipient Households and Their Need for Services, The Rand Corporation, N-1663-HUD, forthcoming.
- Laska, Shirley B., and Daphne Spain, "Urban Policy and Planning in the Wake of Gentrification," The Journal of the American Planning Association, Vol. 45, No. 4, October 1979, pp. 523-531.
- Lowry, Ira S., Experimenting with Housing Allowances, The Rand Corporation, R-2880-HUD, April 1982.
- McDowell, James L., Housing Allowances and Housing Improvement: Early Findings, The Rand Corporation, N-1198-HUD, September 1979.
- Mulford, John, and Orhan Yildiz, Index of Housing Quality, The Rand Corporation, N-1774-HUD, forthcoming.
- Neels, Kevin, and C. Peter Rydell, Measuring Capital's Contribution to Housing Services Production, The Rand Corporation, P-6587, February 1981.
- Rydell, C. Peter, and Kevin Neels, Rent Inflation in the Housing Assistance Supply Experiment, The Rand Corporation, R-2720-HUD, forthcoming.
- Shanley, Michael G., and Charles M. Hotchkiss, The Role of Market Intermediaries in a Housing Allowance Program, The Rand Corporation, R-2659-HUD, December 1980.

Stegman, Michael A., "Neighborhood Classification and the Role of the Planner in Seriously Distressed Communities," The Journal of the American Planning Association, Vol. 45, No. 4, October 1979, pp. 495-505.

Taeuber, Karl E., and Alma F. Taeuber, Negroes in Cities, Aldine Publishing Co., Chicago, 1966.

White, Sammis B., Market Intermediaries and Indirect Suppliers: First Year Report for Site II, The Rand Corporation, N-1087-HUD, December 1979 (first issued as WN-9020-HUD, August 1977).

-----, Market Intermediaries and Indirect Suppliers: First Year Report for Site I, The Rand Corporation, N-1101-HUD, November 1979 (first issued as WN-9400-HUD, September 1976).



