

N-1339-HUD

August 1980

HOW HOUSING ALLOWANCES AFFECT HOUSING MARKETS:
SUPPLY EXPERIMENT INTERIM FINDINGS

Wayne D. Perry

HOUSING ASSISTANCE SUPPLY EXPERIMENT

A RAND NOTE

This Note was prepared for the Office of Policy Development and Research, U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, under Contract No. H-1789. Its views and conclusions do not necessarily reflect the opinions or policies of the sponsoring agency.

Rand
SANTA MONICA, CA. 90406

333.322.3

P27

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.

N-1339-HUD

August 1980

HOW HOUSING ALLOWANCES AFFECT HOUSING MARKETS:
SUPPLY EXPERIMENT INTERIM FINDINGS

Wayne D. Perry

HOUSING ASSISTANCE SUPPLY EXPERIMENT

A RAND NOTE

This Note was prepared for the Office of Policy Development and Research, U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT, under Contract No. H-1789. Its views and conclusions do not necessarily reflect the opinions or policies of the sponsoring agency.

Rand
SANTA MONICA, CA. 90406

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 435

LECTURE 10

PREFACE

This note summarizes the current evidence and key findings as to how a housing allowance program affects local housing markets, and discusses the factors that explain these observed effects on housing prices, neighborhood change, and market intermediaries. Finally, it briefly describes further research that will test these interim conclusions. The author would especially like to thank Rand colleagues Ira S. Lowry, C. Lance Barnett, and Adele Palmer for helpful comments and valuable suggestions to improve an earlier draft of this paper. The text and all tables were prepared by Donna Sloat, and her secretarial skills are appreciated. Penny Post's editorial and production supervision are gratefully acknowledged.

An earlier draft of the note was written for the Housing Assistance Supply Experiment (HASE) Session at the 26th North American Meetings of the Regional Science Association, held in Los Angeles on 9-11 November 1979. The author is grateful for the comments of the paper's discussant, Professor Jennifer Wolch of the University of Southern California. The research covered here is a part of the HASE market effects study directed by the author and sponsored by the Office of Policy Development and Research, U.S. Department of Housing and Urban Development, under Contract No. H-1789.

The first paragraph of the letter states that the writer is writing to inform the recipient of the results of the experiment. The writer mentions that the experiment was conducted over a period of several weeks and that the results were quite surprising. The writer then goes on to describe the experiment in more detail, mentioning the materials used and the procedures followed. The writer concludes the letter by stating that the results of the experiment are being shared with the recipient for their information and that the writer is available to discuss the results further if needed.

The second paragraph of the letter discusses the implications of the experiment. The writer notes that the results suggest that there may be a connection between the variables being studied. The writer also mentions that the results are consistent with previous research in the field. The writer concludes the paragraph by stating that the results are being shared with the recipient for their information and that the writer is available to discuss the results further if needed.

The third paragraph of the letter discusses the limitations of the experiment. The writer notes that the experiment was conducted in a controlled environment and that the results may not be applicable to real-world situations. The writer also mentions that the sample size was small and that the results may be affected by other factors. The writer concludes the paragraph by stating that the results are being shared with the recipient for their information and that the writer is available to discuss the results further if needed.

The fourth paragraph of the letter discusses the future research. The writer notes that the results of the experiment suggest that there may be further research to be done in this area. The writer also mentions that the results are being shared with the recipient for their information and that the writer is available to discuss the results further if needed.

The fifth paragraph of the letter is a closing statement. The writer thanks the recipient for their interest in the experiment and for their time. The writer also mentions that the results are being shared with the recipient for their information and that the writer is available to discuss the results further if needed.

SUMMARY

The Supply Experiment was designed to learn what effects a full-scale housing allowance program would have on local housing markets. The concerns that motivated the Supply Experiment focused on three effects: housing prices, neighborhood change, and transactions between participants and market intermediaries.*

There were widespread preexperimental conjectures concerning the possible adverse effects that a full-scale program could generate. Many housing experts argued that direct cash payments to the poor would substantially increase housing demand and thereby raise rents and home prices significantly in the short run. One faction expected that moves by participants would facilitate residential integration of racial minorities, while others felt the program would merely reinforce existing housing segregation because of its reliance on regular market channels. Finally, the program's influence on market intermediaries could affect program outcomes. For renters who wished to purchase homes, evidence of allowance entitlement might affect the availability of mortgage credit; enrollees who wished to repair defective dwellings in order to qualify for benefits might find it easier to get home improvement loans.

Given these concerns, two north central metropolitan counties, Brown County, Wisconsin (whose major city is Green Bay), and St. Joseph County, Indiana (whose major city is South Bend), were chosen for their contrasting market conditions. As measured by vacancy rates and vacancy durations, Brown County has a persistently tight housing market, while St. Joseph County's market is loose. Central South Bend, with its segregated black neighborhoods and older, deteriorated housing stock, forms a geographical submarket distinct from the remainder of the county. No parallel submarkets exist in Brown County, which has a negligible minority population and newer housing stock.

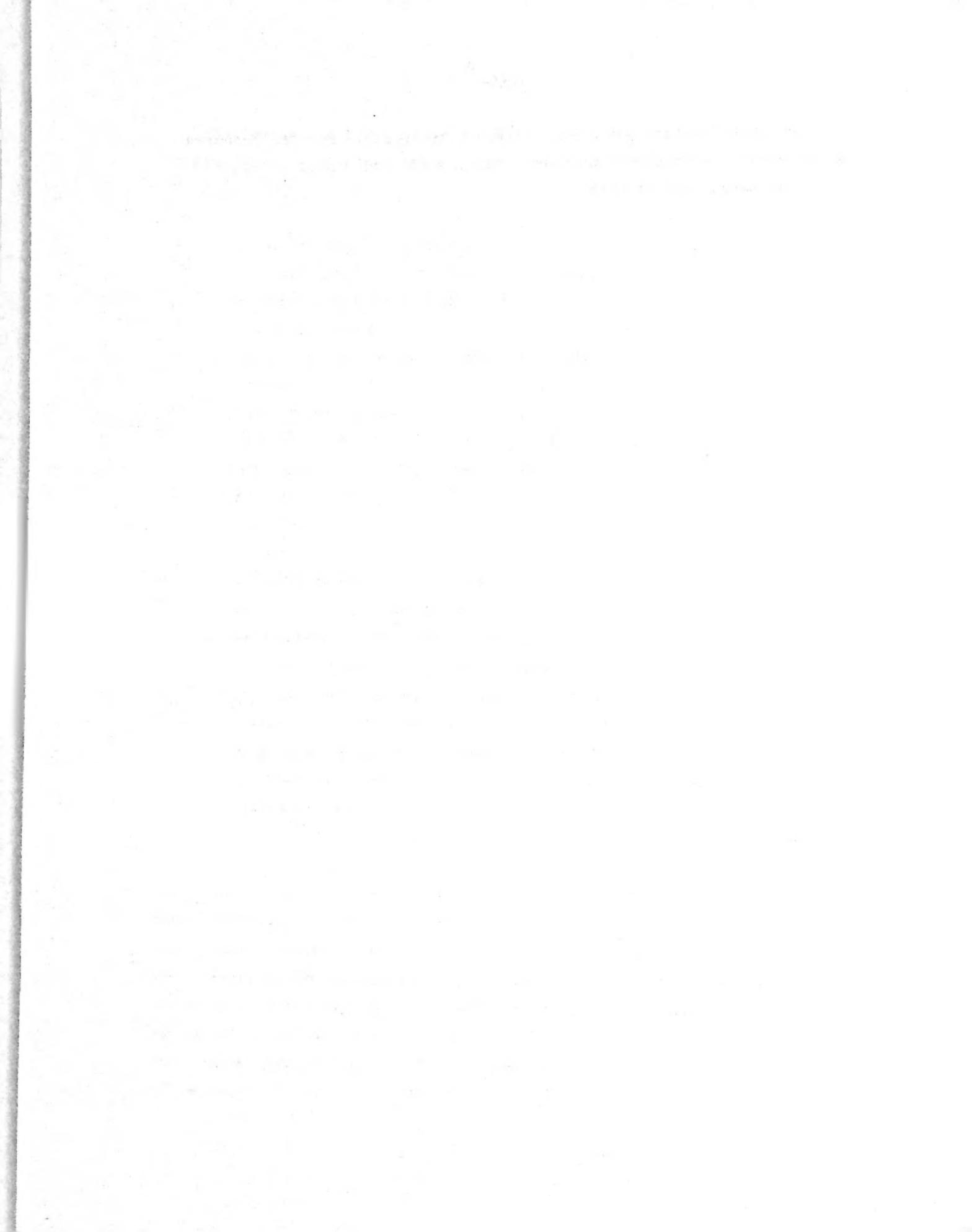
*Market intermediaries include real estate brokers, mortgage lenders, insurance companies, home repair lenders, home repair and improvement contractors, rental agents, and property management and maintenance firms.

Following are key findings of the Supply Experiment pertaining to housing price inflation, neighborhood change, and market intermediaries:

- o Although rents and home prices rose rapidly in both sites during the experimental period, the increases are virtually all accounted for by general inflation, not the allowance program.
- o In St. Joseph County's segregated submarkets, the program may have expedited the dispersion of blacks, but not by much. Similarly, the exodus by whites from certain neighborhoods may have been reduced, but not significantly. In sum, the program's effects have been negligible in terms of neighborhood racial integration.
- o Among market intermediaries, only four groups were significantly involved in program participants' housing transactions: real estate brokers, mortgage lenders, home improvement lenders, and repair contractors. These intermediaries are definitely aware of the program and in some instances have adjusted their transactions with participants to take into account the allowance payment or program standards. However, none of the firms altered their normal business practices to accommodate what they perceived as a small increase in demand.

The midexperimental findings described in this note indicate that the housing market effects induced by the program have been minor in the short run. The note summarizes the evidence to date that underlies these findings and discusses their possible significance. Much of the evidence reflects either two or three years of experimental data. While we do not expect major contradictions to these interim findings, the conclusions are being further tested by analysis of the full four years of survey data and five years of program data, as well as certain

surveys that have not yet been analyzed extensively. Further research will refine the interim conclusions and provide additional insights into the mechanisms at work.



CONTENTS

PREFACE	iii
SUMMARY	v
TABLES AND FIGURES	xi
Section	
I. INTRODUCTION	1
Preexperimental Concerns	1
Experiment Sites	3
II. RENT INFLATION	9
Marketwide Rent Increases	9
Submarket Rent Increases in St. Joseph County	10
Influences on Rent Increases	12
III. HOMEOWNERSHIP AND HOUSING PRICES	15
Conventional Home Financing	16
Alternative Home Financing	17
IV. HOME IMPROVEMENTS AND REPAIRS	21
Number and Cost of Defects in Repaired Dwellings	21
Front-End Financing to Repair Substandard Dwellings	22
Why Initial Repairs Are Inexpensive	24
V. NEIGHBORHOOD POPULATION CHANGE	29
Participant Moves Between St. Joseph County Neighborhoods	30
Discrimination and Neighborhood Choice	33
VI. CONCLUDING COMMENTS AND FUTURE RESEARCH	37
REFERENCES	39

TABLES AND FIGURES

Tables

1. Population Contrasts at Baseline: Brown County (1974) and St. Joseph County (1975)	4
2. Housing Vacancies Rate, and Duration at Baseline: Brown County (1973) and St. Joseph County (1974)	4
3. Market Values of Owner-Occupied Single-Family Homes at Baseline	5
4. Annual Gross Rent by Property Size and Age	6
5. Annual Percentage Rent Increase by Dwelling Size: 1973-78	10
6. National, Regional, and Local Contract Rent Increases: 1973-78	11
7. Qualifications as Home Purchasers: Renter Enrollees, 1974-77	16
8. Selected Characteristics of Renter Enrollees who Purchased Homes: Brown County and St. Joseph County (1974-78)	17
9. Home Purchases by Type of Financing: Renter Enrollees and General Population in Both Sites	18
10. Cash Expenses for Initial Repairs: Brown County and St. Joseph County (1976-77)	22
11. Enrollees' Response to Initial Evaluation Failures by Tenure: Brown County (1973-76) and St. Joseph County (1974-76)	23
12. Origins and Destinations of Moves by Participants: St. Joseph County, 1974-77	32
13. Direction of Moves by Race of Mover: Participants in St. Joseph County, 1974-77	32

Figure

1. Urban Districts, Subdistricts, and Neighborhoods in St. Joseph County	31
--	----

CONFIDENTIAL

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is essential for ensuring transparency and accountability in the organization's operations.

2. The second part of the document outlines the specific procedures and protocols that must be followed to ensure the integrity and security of the data. This includes regular audits, backups, and the implementation of strict access controls.

3. The third part of the document addresses the role of the management team in overseeing the implementation of these procedures. It stresses that management must provide the necessary resources and support to ensure that the system is effectively maintained.

4. The fourth part of the document discusses the potential risks and challenges associated with the implementation of these procedures. It identifies areas where the system may be vulnerable and provides strategies to mitigate these risks.

5. The fifth part of the document provides a summary of the key findings and recommendations. It concludes that while there are challenges, the benefits of a robust record-keeping system far outweigh the risks, and that the organization is well-positioned to succeed with the right implementation.

I. INTRODUCTION

Housing allowances are unique among federal housing assistance programs in that they provide direct cash payments to low-income households. The payments are portable; recipients may change residence or tenure without loss of benefits if they find adequate housing. Also participants find and repair their housing through regular market channels.

The Housing Assistance Supply Experiment (HASE) was designed to learn what effect a full-scale allowance program would have on local housing markets. Its allowance program is open to all renters and homeowners in two metropolitan counties who cannot afford the standard cost of adequate housing (determined from local market surveys) without spending more than 25 percent of their adjusted gross income. Eligible households whose dwellings meet minimum standards of decency, safety, and sanitation receive monthly cash payments equal to this "housing gap."

PREEXPERIMENTAL CONCERNS

Before the Supply Experiment began, a number of housing experts voiced concern over the possible adverse market effects of a full-scale housing allowance program. Their concerns focused on three areas: housing prices, neighborhood change, and transactions of participants with market intermediaries.

A major motivation for the experiment was the opportunity to test empirically its effects on housing prices. The need for such testing was clear: The program's critics feared that direct cash payments to low-income households could substantially increase housing demand, thereby raising rents and home prices significantly in the short run. The Kaiser Committee (1968) advised that if an allowance program were authorized, participation should be gradual to avoid rapid housing price increases. In congressional testimony, Anthony Downs compared the possible inflationary effects to those that occurred in prices of health services after the introduction of Medicare and Medicaid, and

Henry Aaron estimated that housing prices would increase by about 10 percent as a result of the program.*

Their reasoning implied that the allowance would merely fuel price inflation, leaving landlords and home speculators to reap most of the program's benefits. Participants would probably not obtain better housing and the proportion of their incomes spent on housing would be reduced only slightly, if at all.

Another point of apprehension was the potential acceleration of neighborhood decline if large numbers of program participants moved out of a deteriorating area rather than repairing the dwellings they already occupied. Such moves could initiate a chain reaction: Higher income households could move on to a more desirable location, while nonparticipants more seriously disadvantaged than HASE participants might move in. Predictions of changing neighborhood racial patterns also conflicted. Some people thought the program would facilitate integration of blacks and other minorities, while others felt that allowances would only reinforce existing segregation in housing (see Proceedings of the General Design Review of the Housing Assistance Supply Experiment, 1973).

The interaction between market intermediaries and eligible households presented a dual problem to critics. If the primary agents of the regular marketplace--that is, real estate brokers, mortgage lenders, and rental agents--informally supported segregation, they could minimize the program's potential for promoting integration. On the other hand, both renters and homeowners would be eligible for assistance, and renters might purchase homes without loss of benefits. Consequently the increased demand could conceivably cause a rise in home prices or mortgage interest rates, or otherwise affect mortgage-lending practices.

A related problem was the anticipated difficulty of enrollees in financing repairs of dwellings that failed to meet program standards.

* At the time of their testimony, Aaron was a senior fellow with the Brookings Institution, and Downs was a senior vice president of the Real Estate Research Corporation (see U.S. Congress, Housing Subsidies and Housing Policies, 1972, pp. 71-72).

For one thing the costs might be more than they could afford; for another, they might not be able to obtain home improvement loans because of low incomes, poor credit histories, or age. In either case they would have to move to an acceptable dwelling in order to participate in the program, thus facing the other problems of the open marketplace mentioned above.

EXPERIMENT SITES

Two north central sites were chosen for the experiment, Brown County, Wisconsin (whose major city is Green Bay), and St. Joseph County, Indiana (whose major city is South Bend). The housing markets of the two counties differ in three important respects: initial market conditions, submarket structure, and housing quality.

Brown County has experienced rapid growth in its urban population and employment opportunities. Its housing market is persistently tight, as demonstrated by low vacancy rates and short vacancy durations (see Tables 1 and 2). Because of Brown County's negligibly small minority population (see Table 1), submarkets there are defined only by tenure and type of dwelling. The housing stock is relatively new; nearly 60 percent has been built since 1944. Even in central Green Bay there are no neighborhoods dominated by badly deteriorated or abandoned housing.

In contrast, St. Joseph County has lost employment and population for a long time from South Bend and more recently from the rest of the county. Consequently, it has a loose housing market with higher vacancy rates and vacancy durations than Brown County. Due to its segregated black neighborhoods and older, deteriorated housing stock, central South Bend forms a submarket distinct from the remainder of the county, and is so treated in most of our analyses.

As one would expect and Table 3 shows, the value of homes in St. Joseph County is on average lower than in Brown County. However, Table 4 indicates that gross rents are surprisingly similar in both sites.*

* Even if rents are adjusted for inflation between 1973-74, the similarity remains for the two sites.

Table 1

POPULATION CONTRASTS AT BASELINE: BROWN COUNTY
(1974) AND ST. JOSEPH COUNTY (1975)

Area	Number of Persons	Average Annual Growth (Percent)		Households	
		1960-70	After 1970	Number	Percent Black and Latin
Brown County:					
Green Bay	88,500	3.3	0.2	28,100	1.9
Rest of county	81,900	1.2	3.0	19,800	0.6
Total	170,400	2.4	1.5	47,900	1.4
St. Joseph County:					
South Bend	112,500	-0.5	-2.2	39,300	18.6
Rest of county	123,000	1.2	0.6	36,300	1.3
Total	235,500	0.3	-0.8	75,600	10.4

SOURCE: *Fourth Annual Report of the Housing Assistance Supply Experiment*, The Rand Corporation, R-2302-HUD, May 1978, Table 5.1. Compiled from U.S. Bureau of the Census, *Census of Population and Housing: 1970*; and estimates by HASE staff from records of the baseline surveys of households in each site.

Table 2

HOUSING VACANCIES RATE, AND DURATION AT BASELINE:
BROWN COUNTY (1973) AND ST. JOSEPH COUNTY (1974)

Area	Vacancy Rate ^a (Percent)		Average Vacancy Duration (Weeks)	
	Homeowner ^b Unit	Rental ^c Unit	Homeowner ^b Unit	Rental ^c Unit
Brown County	0.8	2.9	5.6	4.0
St. Joseph County	2.4	10.6	12.6	9.6
Central South Bend	4.2	12.3	25.7	10.7
Rest of county	1.9	8.9	9.7	8.4

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

^aComparable national vacancy rates are 1.2 and 6.1 percent for homeowner units and rental units respectively.

^bExcludes mobile homes.

^cExcludes mobile home parks, rooming houses, farmhouses, and federally subsidized dwellings.

Table 3

MARKET VALUES OF OWNER-OCCUPIED
SINGLE-FAMILY HOMES AT BASELINE

Quartiles	Market Value (\$)	
	Brown County (1973)	St. Joseph County (1974)
Upper	30,000	28,000
Median	23,500	18,500
Lower	17,500	13,000

SOURCE: Michael G. Shanley and Charles M. Hotchkiss, *How Low-Income Renters Buy Homes*, The Rand Corporation, N-1208-HUD, August 1979, p. 3.

The remainder of the note summarizes the current evidence concerning the local market effects of the allowance program and discusses the factors that help explain the outcomes we observed.

Section II presents the results of the marketwide rent inflation analysis for both sites. The St. Joseph County analysis is further divided into two pairs of submarkets: (a) central South Bend and the remainder of the county, and (b) those dwellings ever occupied by program participants and all other dwellings. Several factors explaining why housing allowances have not generated significant rent increases are also discussed, including program size, participation levels, costs of satisfying housing standards, income elasticities of housing demand, and how short-run demand changes affect rent levels.

Section III further examines housing prices associated with home purchases by enrollees and specifically analyzes their interaction with market intermediaries in the financing of newly acquired dwellings. Given the assets and income of the enrollees relative to conventional requirements for financing of homes by commercial banks and savings and loan associations, a surprising number were able to purchase homes. The important role of alternative methods of

Table 4

ANNUAL GROSS RENT BY PROPERTY SIZE AND AGE

Size of Property and Year Built	Annual Rent (\$) per Unit		
	Brown County (1973)	Central South Bend (1974)	Rest of St. Joseph County (1974)
1 Unit:			
Post-1944	2,151	1,783	1,896
1915 to 1944	1,910	2,022	1,789
Pre-1915	1,702	1,840	1,927
2-4 Units:			
Post-1944	2,171	1,551	1,808
1915 to 1944	1,551	1,461	1,535
Pre-1915	1,448	1,377	1,300
5+ Units:			
Post-1944	1,984	2,829	2,568
1915 to 1944	1,443	1,332	1,445
Pre-1915	1,515	1,348	1,320
Average ^a	1,783	1,615	1,799
Adjusted average ^b	1,764	1,727	1,732

SOURCE: Adapted from C. Lance Barnett and Ira S. Lowry, *How Housing Allowances Affect Housing Prices*, The Rand Corporation, R-2452-HUD, September 1979, Table 11. Tabulated by HASE staff from records of the baseline surveys of landlords in each site.

NOTE: Brown County data for 1973 are adjusted for price inflation during 1973-74.

^aA weighted average, in which the weights equal the number of units in each cell divided by the total number of units in the corresponding location.

^bA simple average that controls for differing distribution of units across locations.

financing homes, such as mortgage bank or FHA-insured loans and land contracts, is discussed in this section.

Section IV describes the costs of home repairs and the difficulty enrollees have in financing them in order to bring defective dwellings up to program standards. The extremely low average cost associated with these repairs requires discussion of program standards,

evaluation of dwellings, the typical defects found, and the general physical adequacy of dwellings occupied by the eligible population.

Program-induced neighborhood population changes are considered in Sec. V. Since Brown County has so small a minority population, only St. Joseph County's neighborhoods were analyzed. Factors that could have minimized population changes include discrimination by landlords and the associated psychological and monetary costs of moving, individual consumer preferences, racial steering by real estate brokers, and redlining by mortgage lenders.

Finally, Sec. VI briefly describes further research that will test interim conclusions more rigorously.

Faint, illegible text, possibly bleed-through from the reverse side of the page.

II. RENT INFLATION

The Supply Experiment was conducted during a period of extremely rapid inflation across the nation, so we expected rents to increase. The U.S. Bureau of Labor Statistics' index of residential rents increased by 6 percent annually between January 1974 and December 1978, while the Consumer Price Index rose by an average of about 9 percent a year. However, rents in Brown and St. Joseph counties went up at a slower rate than elsewhere in the country.

The data on rents came from surveys of tenants and homeowners occupying dwellings in a marketwide sample in each site. The same dwellings were resurveyed each year, even when the occupants changed. Rent increases were calculated for each unit by comparing records of successive annual interviews. The Brown County survey data base was obtained over 42 months, from October 1973 to March 1977, and the St. Joseph County data base over 45 months, from November 1974 to July 1978 (see Lowry, 1976; Stucker, 1977, 1978; and Lindsay and Lowry, forthcoming).

MARKETWIDE RENT INCREASES

Annual percentage increases of gross rent and contract rent for dwellings of various sizes are listed in Table 5. Gross rent included all fuels, utilities, services, and other operating expenses for each unit regardless of who paid them; contract rent was the amount paid directly to the landlord, whether it included utilities or not. Gross rent rose on average by 6.6 percent annually in Brown County and 5.7 percent in St. Joseph County, while contract rent rose at substantially lower rates. The implication is that fuel and utility costs paid by tenants over and above their contract rent rose rapidly, and accounted for a large portion of gross rent increases.*

*In both sites between 1973-78, fuel and utility costs, which equal about one-third of gross rent, were increasing at annual rates three times greater than gross rent, while other operating expenses (maintenance, repairs and replacement, property management, insurance, and property taxes) had a net rate of increase similar to gross rent.

Table 5

ANNUAL PERCENTAGE RENT INCREASE
BY DWELLING SIZE: 1973-78

Number of Rooms	Brown County (Oct. 1973 - Mar. 1977)		St. Joseph County (Nov. 1974 - July 1978)	
	Contract Rent	Gross Rent	Contract Rent	Gross Rent
1 or 2	4.6	5.6	6.4	6.6
3	4.6	5.7	4.6	5.3
4	4.1	6.0	4.2	5.3
5	4.1	7.6	4.4	5.8
6+	4.9	8.8	4.1	6.9
All sizes	4.3	6.6	4.4	5.7

SOURCE: James P. Stucker, *Rent Inflation in Brown County, Wisconsin: 1973-78*, The Rand Corporation, WN-10073-HUD, August 1978, Table 4.5; and David Scott Lindsay and Ira S. Lowry, *Rent Inflation in St. Joseph County, Indiana, 1974-78*, The Rand Corporation, N-1468-HUD, forthcoming.

NOTE: Contract rent is the amount paid by a tenant to a landlord. Gross rent also includes the cost of fuel and utilities paid directly by the tenant.

Table 6 compares contract rent in both sites to national and regional rent indexes. Contract rent has gone up less rapidly per year locally than it has for all U.S. cities on average, or for north central cities with comparable populations.

SUBMARKET RENT INCREASES IN ST. JOSEPH COUNTY

The effect of rent inflation can also be checked by looking at distinctively characterized submarkets. Investigation focused on St. Joseph County because it divided naturally into geographical submarkets. The same site was examined for submarket response as defined by participant occupancy of units.*

* At the start of the experiment, it was hypothesized that an allowance program was more likely to cause inflation in a tight housing market such as Green Bay with its low vacancy rates. Subsequently,

Table 6

NATIONAL, REGIONAL, AND LOCAL CONTRACT
RENT INCREASES: 1973-78

Area	Average Annual Increase (%) in Contract Rent ^a					
	1973	1974	1975	1976	1977	1978
All U.S. cities	4.9	5.2	5.3	5.5	6.5	7.3
North central cities, by size:						
Over 1,400,000	6.8	4.8	3.7	3.9	6.9	7.3
250,000-1,400,000	2.4	3.6	4.5	4.2	7.3	10.5
50,000-250,000 ^b	2.8	4.6	5.0	7.1	6.9	5.2
2,500-50,000	4.1	5.0	5.0	4.4	9.0	9.8
Brown County		3.7	4.4	4.8		
St. Joseph County			3.1	4.3	5.4	

SOURCE: U.S. Bureau of Labor Statistics, *Monthly Labor Review*, various issues and special tabulations for north central cities (1973-1977); U.S. Bureau of Labor Statistics, *CPI Detail Report*, December 1978; James P. Stucker, *Rent Inflation in Brown County: 1973-1978*, The Rand Corporation, WN-10073-HUD, August 1978, Table 4.5; and David Scott Lindsay and Ira S. Lowry, *Rent Inflation in St. Joseph County: 1974-1978*, The Rand Corporation, N-1468-HUD, forthcoming.

^aEntries for U.S. and north central cities are based on the BLS index of "residential rent," which is definitionally equivalent to contract rent. Changes are calculated from December to December.

^bThe sample for this class of cities contains only Champaign-Urbana, Illinois, and Green Bay, Wisconsin.

Geographically, central South Bend provided an excellent opportunity for testing allowance program effects. The South Bend portion of St. Joseph County was open to the program for several months before the rest of the county joined. Rental units comprise over a third of central South Bend's housing stock, and about a fourth of the renter households there have participated in the program.

Marshall (1976) has suggested that rent inflation is more probable in a loose market like South Bend because landlords have been renting below cost to compensate for high vacancy rates.

Controlling for other dwelling characteristics, we find that in 1974-75 rents did increase more in central South Bend than elsewhere; however, in subsequent years the inflation rate there dropped below the rate elsewhere in the county. Between 1974-75 and 1978, the average rent increase in central South Bend was about the same as in the rest of St. Joseph County.

The marketwide rate of gross rent increase was also higher for dwellings occupied by participants than for other dwellings. For the entire period of 1975-78, participants' gross rents rose an average of 7.5 percent annually, compared to 5.5 percent for nonparticipants' gross rents. When the data are controlled for time period, property type, dwelling size, location (in central South Bend or elsewhere), and change in occupants, regression analysis indicates that participant occupancy adds about 2 percentage points annually to the inflation rate (see Lindsay and Lowry, forthcoming).

This "participation premium" is not cumulative. That is, when a tenant joins the program, or when a participant moves into a dwelling formerly occupied by a nonparticipant, a one-time surcharge of about 3 percent is imposed. Subsequently, the rent increases at approximately the same rate as for nonparticipants. The additional rent increase for participant housing is also at least partly attributable to the cost of improvements made to those dwellings. Between a third and a half of all participant dwellings were repaired to bring them up to program standards; therefore their rent on average went up more than did that of initially acceptable dwellings.* We think that the initial surcharge of 3 percent is an upper bound on the program's pure inflationary effects. Future research will examine how much of that rate is due to inflation alone and how much is due to the improvements.

INFLUENCES ON RENT INCREASES

Several factors explain why the allowance program has not generated significant rent increases: the number of participants and

* Nonmover participant renters who passed initial inspection experienced a 1 percent increase in contract rent compared to a 4 percent increase for those dwellings failed and subsequently repaired (see Barnett and Lowry, 1979, p. 30).

dwellings affected, aggregate allowance payments, costs of satisfying program housing standards, income elasticity of housing demand among participants, and the effects of short-run demand changes on rent levels.

By the end of the second program year, over 3,000 renter households in Brown County and 3,600 in St. Joseph County had enrolled in the program, but turnover was high. At the end of that period only about half of the eligible renters, or 15 percent of all renters in both sites, were currently enrolled. Although enrollment was still growing, it was clear then that steady-state participation rates would be lower than most observers anticipated.

About 50 percent of the renter enrollees in Brown County and around 40 percent in St. Joseph County lived in dwellings acceptable by program standards. Of those whose dwellings initially failed, two-thirds did repair them. The cash costs required were very small: The median repair cost for renters was \$10 in St. Joseph County and \$8 in Brown County. The less frequent expensive repairs, however, drove the average amounts up to \$37 and \$39 (see McDowell, 1979, p. 28). The total cost of repairs exceeds these cash costs because most of the labor was supplied by landlords, the tenants, or their friends.

Allowances increased the gross income of renter recipients by an average of 22 percent in Brown County and 30 percent in St. Joseph County. The resulting increase in housing demand was expected to be more or less proportionate to that gain; however, we found that the income elasticity of housing demand was very low for renters in both counties, about 0.2, and constant over the income range of \$4,000 to \$20,000 (see Mulford, 1979, pp. 17 and 33). That figure suggests that the average renter household would increase its housing consumption by about 4 percent in Brown County and 6 percent in St. Joseph County due solely to the allowance payment. In fact, only those who moved altered their housing expenditures very much.

A number of early conjectures concerned the relative price of rental housing in a tight housing market (Green Bay) versus a loose one (South Bend). The findings to date indicate that differences in

market conditions have minor effects on the rents charged by landlords for dwellings of the same age and size (see Table 4). Despite very different vacancy rates and vacancy durations (see Table 2), average rents are almost the same in central South Bend and the rest of St. Joseph County (about \$1,730 per year) and only slightly higher in Brown County (\$1,780 per year). At most, it appears average rents in central South Bend may be "discounted" by 2 percent below those in the other areas (see Rydell, 1977).

Since the rents paid by tenants are unaffected by drastic differences in prevailing market conditions among those three districts, it seems unlikely that the relatively small additional demand generated by the allowance program would have any effect either.*

* For a general model explaining the observed insensitivity of rents to market demand conditions, see Rydell (1979). Rydell's model demonstrates, and the empirical evidence supports the conclusion, that the substantial differences in rental market demand are reflected mostly in vacancy rates rather than contract rents. Higher vacancy rates imply less rental revenue and less return on investment in rental housing. A persistently low return is usually capitalized into lowered property values.

III. HOMEOWNERSHIP AND HOUSING PRICES

Renters and homeowners were both able to purchase homes without losing their allowances. Because of that there was a question of whether the impact of new demand by participants might lead to higher home prices or mortgage rates, or otherwise change practices of lenders. The following analysis describes purchases by enrollees.*

As of June 1978 about 34 percent of all households ever enrolled in Brown County and 48 percent of those in St. Joseph County were homeowners. The figures were as follows:

	<u>Brown County</u>		<u>St. Joseph County</u>	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Homeowners	2,625	33.9	5,715	48.2
Renters	5,129	66.1	6,138	51.8

During the first four years of the experiment, 101 renter enrollees in Brown County and 185 in St. Joseph County bought homes while still enrolled. Those who enrolled as homeowners and subsequently purchased another home totaled 58 in Brown County and 87 in St. Joseph County (see Shanley and Hotchkiss, forthcoming). In other words, 3 percent of all renters and 2 percent of all homeowners ever enrolled purchased homes during the first four years of the allowance program's operation.

In St. Joseph County's loose market, where inexpensive homes are readily available, enrollees purchased an average of only 68 homes annually, less than 2 percent of the average number sold (about 3,500). The small fraction of total purchases made by enrollees argues strongly against their having a significant effect on home prices, mortgage interest rates, or the practices of real estate brokers or mortgage lenders.

*The data used in this section are drawn from HAO enrollee purchase records, public property records, and, in South Bend, real estate brokers' Multiple Service Listings and numerous interviews with local lenders and real estate agents.

CONVENTIONAL HOME FINANCING

The number of enrollees who did buy homes was nonetheless quite large in view of their household characteristics. Fewer than 1 percent of the renters sampled had the assets and income usually necessary to buy a home (see Table 7). Conventional lenders (commercial banks and savings and loan associations) generally impose some standard requirements: A borrower's earned income must equal about half of the home's purchase price; the borrower must make a down payment equal to 10 to 20 percent of the purchase price; and the borrower must have a "good" credit history. Even though no data are available on the latter, the likelihood for homeownership among program enrollees is obviously low.

Table 7

QUALIFICATIONS AS HOME PURCHASERS:
RENTER ENROLLEES, 1974-77

Mortgage Credit Criterion	Percent Meeting Indicated Criterion	
	Brown County	St. Joseph County
Income ^a	7.1	17.8
Assets ^b	13.1	9.9
Income and assets	.3	1.1
Number of enrollees	4,079	5,571

SOURCE: Michael G. Shanley and Charles M. Hotchkiss, *The Role of Housing Market Intermediaries in the Supply Experiment*, The Rand Corporation, forthcoming. Tabulated by the authors from HAO records through three program years in each site: June 1977 in Brown County and December 1977 in St. Joseph County.

^aHouseholds meet income criteria to buy if their income exceeds \$8,000 in Brown County and \$6,000 in St. Joseph County. The amounts vary due to different housing costs in the two sites.

^bHouseholds have sufficient assets to buy if their liquid assets exceed \$2,000 in Brown County and \$500 in St. Joseph County. The amounts vary due to different mortgage lender requirements in the two sites.

Table 8 shows that few enrolled homebuyers met conventional lenders' standards, even when their incomes were augmented by allowances. Single women with children made up around two-thirds of the St. Joseph County purchasers, although their primary source of income was Aid to Families with Dependent Children. Brown County buyers appeared to be better qualified than those in St. Joseph County because they had higher incomes, more assets, and less dependence on transfer payments; however, these advantages were generally offset by the higher costs of homes in Brown County. In fact, for purchasers in both places, the ratio of property value to median income was about 2.5:1, using the lower quartile of home values (\$17,500 in Brown County and \$13,000 in St. Joseph County; see Table 3).

ALTERNATIVE HOME FINANCING

Conventional mortgage lending is only one among many methods of home financing. Table 9 shows the credit sources in both sites used

Table 8

SELECTED CHARACTERISTICS OF RENTER ENROLLEES WHO PURCHASED HOMES:
BROWN COUNTY AND ST. JOSEPH COUNTY (1974-78)

Item	Brown County	St. Joseph County
Median income (\$/year):		
Before allowance	6,326	4,183
Including allowance	7,170	5,425
Percent with:		
Assets less than \$500 ^a	81	95
No earned income	27	53
Percent single mothers	30	67

SOURCE: Michael G. Shanley and Charles M. Hotchkiss, *How Low-Income Renters Buy Homes*, The Rand Corporation, N-1208-HUD, August 1979, p. 5. Tabulated by the authors from HAO records through June 1978 based on 101 and 185 home purchases in Brown and St. Joseph counties, respectively.

NOTE: Entries refer to clients' circumstances at time of purchase.

^aCash on hand, checking and savings accounts, stocks, bonds, and other securities.

Table 9

HOME PURCHASES BY TYPE OF FINANCING: RENTER ENROLLEES
AND GENERAL POPULATION IN BOTH SITES

Type of Financing	Percent of All Home Purchases			
	Brown County		St. Joseph County	
	General Population 1969-1973	Renter Enrollee 1973-1978	General Population 1970-1974	Renter Enrollee 1974-1978
Mortgage:				
Conventional ^a	71.9	48.9	42.0	13.2
Government-insured ^b	16.8	3.2	33.9	44.4
Consumer loan: ^c				
Low-value house	--	2.1	.6	6.6
Mobile home	7.7	19.2	5.7	4.0
Land contract	3.5	26.6	17.7	31.8
Total ^d	100.0	100.0	100.0	100.0
Number of purchases	8,542	98	19,493	178

SOURCE: Michael G. Shanley and Charles M. Hotchkiss, *The Role of Market Intermediaries in the Supply Experiment*, The Rand Corporation, forthcoming. Tabulated by authors from three sources. Data on HAO clients came from HAO records through June 1978 and from public records in each site. General population estimates are based on sample data from 182 and 278 homeowners in Brown and St. Joseph counties, respectively, who financed a purchase within four years of baseline surveys. Percentages may not add exactly to 100.0 because of rounding.

^aComposed mainly of mortgages from commercial banks and savings and loan associations. Other mortgages came from other institutions, the previous owner of the property, or friends or relatives of the purchaser.

^bIncludes FHA-insured loans, VA-guaranteed loans, and loans made directly by state or federal VA agencies. For data on the general population, a few direct VA loans may be included under conventional mortgages.

^cLoans came from consumer loan departments of commercial banks and consumer finance companies.

^dExcludes purchases where home was bought outright or the financing source was unknown.

to finance home purchases by the general population before the experiment began and by enrollees after it started. In Brown County, over 95 percent of the transactions by the general population were financed by institutional lenders, but in St. Joseph County's looser market just over 25 percent were financed by land contracts.*

Although commercial banks and savings and loan associations are the most conservative lenders, almost half of Brown County renter enrollees who purchased homes obtained conventional mortgages. A number of other homebuyers there took consumer loans to purchase mobile homes, because they were much cheaper than more traditional houses. Of St. Joseph County buyers, about 13 percent likewise turned to private investment firms for mortgages without government insurance. However, a sizable 44 percent took out government-insured loans from mortgage banks because conventional lenders were reluctant to finance inexpensive homes in St. Joseph County. Finally, land contracts were used for financing by one-fourth of the enrolled buyers in Brown County and one-third of those in St. Joseph County.

Beginning in 1974 St. Joseph County's commercial banks and savings and loan associations set minimum loan values, usually \$10,000 with some as high as \$15,000.** Servicing small loans is as costly as servicing large ones, but small loans yield less interest and so are less profitable. Furthermore, in both sites conventional lenders were unwilling to provide FHA- and VA-backed loans because of the red tape and additional cost to them.*** On the other hand, mortgage banks in

* Land contracts differ from regular mortgages in two important ways: (a) Under a land contract the seller retains title to the property until the full purchase price is paid; and (b) land contracts are direct arrangements between buyer and seller, i.e., no realtors, appraisers, title companies, lenders, mortgage insurers, or state or federal regulatory agencies need be involved.

** While about half of the lenders interviewed in July 1979 no longer had formal minimum loan requirements, in practice they continued to restrict loans significantly on inexpensive properties.

*** FHA's share of new home mortgages has declined significantly from a pre-World War II maximum of 30 percent to about 7 percent in the mid-1970s, with similar declines in purchases of existing homes. A recent study by Kaserman (1977) has suggested that competition from

St. Joseph County regularly issued FHA-insured loans (as of 1977 there was only one such firm in Brown County). These banks accept no deposits, depending instead on quickly selling loans to secondary financial markets to replenish their supply of mortgage funds.

FHA loan insurance has been critically important to enrolled buyers in St. Joseph County. Current FHA policy permits the insurance of loans to borrowers whose income consists entirely of transfer payments. Down payments and closing costs for FHA loans are very low (as little as \$500 in St. Joseph County). Moreover, the local FHA treats the housing allowance very favorably by subtracting it from housing expenses instead of adding the allowance to income. For purposes of qualifying for a mortgage loan, this practice makes the allowance payment worth four times an equivalent increase in income. A change in FHA insurance standards as to property characteristics, borrower's income, or credit history would greatly affect the ability of program participants to obtain mortgage credit in St. Joseph County.

Through 1978, about 10 percent of enrolled homebuyers subsequently moved, and 4 percent went back to renting. So far about 5 percent of the FHA-insured mortgages have been foreclosed (see Shanley and Hotchkiss, forthcoming).

In sum, a few program participants have been able to finance inexpensive home purchases, mainly in South Bend. Most have had to secure their loans outside the main sources of residential financing, commercial banks and savings and loan associations. These institutions have not changed their policies and practices regarding inexpensive properties or low-income borrowers on the basis of an open-enrollment allowance program guaranteed to continue for ten years.*

private mortgage insurance is probably the main reason. The private firms usually insure only 75 percent, or some similar percentage of each loan, at less cost than FHA, which insures the entire amount. Lending firms have been willing to accept this risk because the private mortgage insurers can attract the more reliable borrowers as well. FHA has a single premium where all borrowers pay the same rate independent of risk.

*Conventional lenders are aware of the allowance program and a number have referred delinquent borrowers to the program where they might qualify for the allowance to help meet their mortgage payments.

IV. HOME IMPROVEMENTS AND REPAIRS

Before the experiment began, a number of experts were worried not only that home financing might prove difficult for enrollees seeking to purchase homes, but also that some households might be unable to qualify for payments because of the high cost of repairs and home improvement (see Proceedings of the General Design Review, 1973). For enrollees who failed the initial HASE inspection, however, such costs turned out to be less than expected. Indeed, standards applied to construction over the last 30 years have raised the overall quality of housing stock to such an extent that most of the defects cited for dwellings in both counties were easily and inexpensively remedied. Below we review households' costs and financing of repairs, program inspection standards, and what kinds of defects were found in enrollees' dwellings.

NUMBER AND COST OF DEFECTS IN REPAIRED DWELLINGS

Table 10 shows the range of repair costs; a surprising proportion of them are very low. The median cash expense for both homeowners and renters in each site was \$10; three-fourths of the dwellings required less than \$30 cash outlay to fix. The average repair costs varied by site and tenure from \$40 to \$80. Moreover, costs very seldom exceeded the first allowance payment, which averaged \$78 at the end of the program's first three years of operation (see Fifth Annual Report, 1979, p. 23).

While two-thirds of the failed dwellings received repairs, those that did not were usually in the worst condition. In Brown County and St. Joseph County respectively, 67 percent and 73 percent of renter enrollees whose units failed one element of the program standards made the necessary repairs, while less than a third took the trouble if their units failed four or more elements of the standards. The corresponding percentages for homeowners are significantly higher: 87 percent and 88 percent in Brown County and St. Joseph County respectively upgraded their units if one element failed, and 46 percent and 51 percent of homeowner enrollees upgraded if four or more

Table 10

CASH EXPENSES FOR INITIAL REPAIRS:
BROWN COUNTY AND ST. JOSEPH
COUNTY (1976-77)

Site and Type of Enrollee	Expense per Repaired Dwelling (\$)				
	Quartile Values (%)				Mean
	25	50 ^a	75	100	
Brown County:					
Homeowner	3	10	24	6,000	55
Renter	0	8	23	5,000	39
St. Joseph County:					
Homeowner	3	11	29	10,319	81
Renter	2	10	30	3,030	37

SOURCE: James L. McDowell, *Housing Allowances and Housing Improvement: Early Findings*, The Rand Corporation, N-1198-HUD, September 1979, p. 28.

^aMedian.

elements failed the standards (see McDowell, 1979, p. 20). Among the enrollees who did not repair failed dwellings, about a third moved (almost entirely renters) and the remainder terminated from the program (see Table 11).

FRONT-END FINANCING TO REPAIR SUBSTANDARD DWELLINGS

Would fewer enrollees drop out of the program if they were offered advances on monthly payments to help recondition substandard dwellings? There is little evidence that the lack of front-end financing for home improvement is a critical consideration for very many enrollees. Since renters can move if their landlords are unwilling to fix substandard items, repair financing is likely to trouble only homeowners. The estimated costs for homeowner enrollees who terminated from the program averaged \$48 in Brown County and \$75

Table 11

ENROLLEES' RESPONSE TO INITIAL EVALUATION FAILURES BY TENURE:
BROWN COUNTY (1973-76) AND ST. JOSEPH COUNTY (1974-76)

Number of Defects	Brown County				St. Joseph County			
	Number of Enrollees	Enrollee Response (Percent)			Number of Enrollees	Enrollee Response (Percent)		
		Repair	Move	Terminate		Repair	Move	Terminate
	<i>Homeowners</i>							
1	422	87	1	12	825	88	(a)	12
2	213	81	0	19	324	78	1	21
3	91	67	1	32	136	63	2	35
4+	89	46	3	51	170	51	3	46
All	815	79	1	20	1,455	79	1	20
	<i>Renters</i>							
1	517	67	16	17	544	73	11	16
2	266	60	17	23	290	55	17	28
3	133	52	18	30	171	52	16	32
4+	135	31	36	33	274	32	30	38
All	1,051	59	19	22	1,279	57	17	26

SOURCE: James L. McDowell, *Housing Allowances and Housing Improvement: Early Findings*, The Rand Corporation, N-1198-HUD, September 1979, p. 20. Tabulated by the author from HAO records through June 1976 for Brown County and December 1976 for St. Joseph County.

^aLess than 0.5 percent.

in St. Joseph County, even when paid labor was assumed (see McDowell, 1979, p. 37). Because these amounts are less than average monthly allowance payments, only a very few enrollees would have difficulty financing their initial repairs. Furthermore, only 11 percent of the homeowner terminees surveyed listed problems in meeting housing standards as a reason for termination (see Fourth Annual Report, 1978, pp. 65, 115).

Despite the high percentage of minor improvements, the modifications required to bring some dwellings up to standard are expensive enough to call for front-end financing by their occupants. A few clients in Brown County have complained about not receiving home improvement loans. However, interviewed bank loan officers indicated that they had little contact with program participants; most could not recall any loan applications. In St. Joseph County, lenders reported some transactions with program participants; during the first program year between 80 and 100 enrollees applied, and about half received loans. The number of applications declined between the first and fourth years of the program among participants. Other resources such as gifts and government grants (through the Housing and Community Development Act of 1974) provided for only about 2 percent of the initial repairs. Personal savings, cash on hand, and retail credit are apparently the most common methods of financing home improvement in both sites (see Fourth Annual Report, 1978; and Shanley and Hotchkiss, forthcoming).

WHY INITIAL REPAIRS ARE INEXPENSIVE

Does the low cost of typical repairs imply that the program's standards are trivial, missing defects common in deteriorating buildings; or that the dwelling evaluations are superficial? In fact, the overwhelming majority of enrollees occupied housing that was only marginally substandard. Unpaid labor and available materials also helped keep the cash outlay to a minimum, as is explained in detail below.

Program Housing Standards and Evaluations

HASE housing standards are based on model housing codes and existing ordinances in both counties.* Allowance program standards are very similar to the model codes and existing local housing ordinances, but when different from local housing codes, the HASE standards are usually more stringent.

A program housing evaluation covers the entire dwelling--every interior room, the basement, the building exterior, and the surrounding property. The inspectors check for signs of structural damage or weakness and carefully examine hidden, complicated, or specialized features that may escape notice by an occupant. They look at all windows, electrical outlets, circuit breakers or fuse boxes, vent pipes routing and seals, and water heater release valves. Most evaluations take about half an hour, though some badly deteriorated dwellings require much longer.

Program supervisors who randomly reevaluate dwellings find a cumulative discrepancy rate (incorrect overall rating) of only 3 percent. The two counties exchange staff for cross-site quality control comparisons, which have yielded a discrepancy rate only slightly higher than supervisors' reevaluations. The program inspection practices are as tough as or more so than those for existing national housing programs such as HUD inspections for public housing, or Section 8 existing housing. Some of these programs use checklists of standards, as does HASE, but none of the other programs systematically reevaluates every dwelling annually.

Typical Dwelling Defects

About half of all enrollees lived in dwellings that did not meet program standards in terms of size, domestic facilities, or health and safety hazards. Among the dwellings that failed, half failed only 1 of the 38 evaluation standards; about 15 percent failed 4 or more standards (see Table 11).

* For detailed discussion of program standards and evaluators' performance, see McDowell (1979), pp. 29-33 and Appendix B.

Nearly 60 percent of dwelling defects were hazardous conditions, such as the inadequate interior stairways and railings found in one-fourth to one-third of the dwellings. Damaged windows and unsafe plumbing, space-heating, electrical, or water-heating systems were also common. Exterior defects included stairways and porches, loose siding or roofing, damaged foundations, and accumulated refuse.

About one-sixth of the dwellings in each site had too few habitable rooms. Inadequate or incomplete kitchen and bathroom facilities were common, with bathroom defects twice as likely as kitchen defects. Bathroom defects often involved inoperable sinks, toilets, or bathing facilities, or inadequate ventilation. Kitchen failures were frequently due to inoperable stoves, refrigerators, or sinks.

Many defective dwellings were easily and inexpensively repaired by nonprofessional, often unpaid labor and readily available equipment and materials. A quarter to a third of initial repairs were performed by landlords, tenants, homeowners, or their friends and relatives, with materials and equipment on hand, so entailed no cash outlay.

Housing Conditions of Unenrolled Eligibles

Among those ever enrolled in the allowance program, about half lived initially in dwellings that met program standards, and most of the remainder lived in easily repaired dwellings. Only 7 percent lived in dwellings with four or more defects.

We do not have comparable data on the housing conditions of those who were eligible during some part of program history but did not enroll.* If their housing is no worse than enrollees' housing, the incidence of seriously substandard dwellings (say, those violating 4 or more of the 38 program standards) occupied by low-income families in our sites must be quite low, and the incidence of such dwellings in the entire housing stock must be even lower.

* Because households move in and out of eligibility, the cross-section of unenrolled eligibles is smaller than the cumulative number over a period of several years. At the end of the third program year, about 60 percent of the currently eligible households were not currently enrolled (see Carter and Balch, forthcoming).

However, it may be that most eligibles living in dilapidated dwellings choose not to enroll because they know that program rules would require them to make expensive repairs or move in order to qualify for payments. This hypothesis will be tested by research currently under way.*

* By September 1979, two-thirds of all rental dwellings in Brown County and half in St. Joseph County had been evaluated at least once by the HAOs. Because homeowners are less likely to become eligible for the program, the fractions of owner-occupied homes ever evaluated were much smaller, 9 and 12 percent in the two counties respectively. By matching HAO and survey records on dwellings covered by both data sources, we expect to be able to infer the quality of other dwellings sampled for the survey, and to estimate the countywide incidence of housing conditions that violate program standards.

V. NEIGHBORHOOD POPULATION CHANGE

One goal of federal housing policy is to promote equal housing opportunities for low-income families, especially for racial minorities. Nationwide, minority households, particularly black ones, prefer overwhelmingly to live in integrated neighborhoods.* Three-fourths of black respondents surveyed at baseline in St. Joseph County likewise favored blacks and whites living in the same neighborhoods. A desirable outcome of the allowance program would be to increase blacks' access to economically or racially integrated neighborhoods. In fact, we find in St. Joseph County that interneighborhood moves by black and white participants have been too few (less than 5 percent of the total neighborhoods' populations) and too random in origin and destination to perturb existing housing patterns or submarket conditions within either South Bend or the remainder of St. Joseph County.

Here, we present data on neighborhood change only for St. Joseph County, where interneighborhood moves by program participants were most common; in any case Brown County's neighborhoods are less diverse and its population is nearly all white.** Like the figures in Sec. III, these data encompass all those who participated in the program by enrolling, whether or not they received an allowance. Although active participation fluctuated over the first three years of the program, most enrollees qualified to receive at least one payment during that time.

*The only two neighborhood mixes that blacks appear reluctant to choose are the two extremes, i.e., all-black or all-white neighborhoods. Blacks' neighborhood preferences, unlike whites, are not very sensitive to a racial balance between the two extremes (see Pettigrew, 1973; and Taylor, 1979).

**The allowance program has apparently generated or facilitated some residential movement away from the central business district of Green Bay to other areas of Brown County that have better quality housing and public services. The net moves by participants during two years of program operation have not been much more than 1 percent of all the households in any neighborhood of origin or destination (see Fourth Annual Report, 1978).

PARTICIPANT MOVES BETWEEN ST. JOSEPH COUNTY NEIGHBORHOODS

St. Joseph County was divided into 86 neighborhoods of relatively homogeneous dwellings and socio-economic status. The neighborhoods' populations range from 2,000 to 4,000 persons; in the larger geographical areas residential density is lower. Because some of these neighborhoods did not have many participants, they were grouped into bigger districts (as mapped in Fig. 1) for the analysis reported here.*

Most of the residential movement by program participants occurred within central South Bend (see Table 12). In 1974 central South Bend's population was composed of 16,000 white households, 5,500 black households, and 500 households of other races. Just under 60 percent of all St. Joseph County enrollees were in this district, and they represented a correspondingly high proportion (about 40 percent) of all the district's eligible households (see Bala, 1979, pp. 11-13). Of all central South Bend's white and black residents, 13 percent and 35 percent respectively were enrolled; among the black population, about half of all renters and a fourth of all homeowners (see Fourth Annual Report, 1978, p. 132).

Participant Moves Between Central South Bend and Remainder of the County

The majority (56 percent) of moves by enrolled households during the first three years of the program in St. Joseph County took place within central South Bend, as shown in Table 12. Twenty-two percent moved either in or out of that area, without altering the racial balance; the net population change amounted to six additional white families in central South Bend (Table 13).

There were demographic differences between the inbound and outbound moves across the central South Bend boundary, however. More couples with children and more renters buying homes moved out. The households moving in had lower incomes and were either young singles or couples without children. A number of inbound households appeared to be recently formed, as people moved from a rent-free dwelling such

*Bala (1979) provides a detailed discussion of the neighborhood and district designations and characteristics.

Table 12

ORIGINS AND DESTINATIONS OF MOVES BY PARTICIPANTS:
ST. JOSEPH COUNTY, 1974-77

Origin ^a	Number of Moves, by Destination		
	Central South Bend	Rest of County	Total
Central South Bend	1,089	212	1,301
Rest of County	214	426	640
Total	1,303	638	1,941

SOURCE: Tabulated by HASE staff from HAO records, and entries cover all post-enrollment moves by program participants through year three.

^aParticipant's residence at enrollment.

Table 13

DIRECTION OF MOVES BY RACE OF MOVER: PARTICIPANTS
IN ST. JOSEPH COUNTY, 1974-77

Direction of Move	Number of Moves, by Race of Mover			
	Black	White	Other ^a	Total
Into central South Bend	53	158	3	214
Out of central South Bend	51	150	11	212
Population change in, central South Bend ^b	+2	+8	-8	+2

SOURCE: Tabulated by HASE staff from HAO records, and entries cover all post-enrollment moves by program participants through year three.

^aMostly household heads with Spanish surnames.

^bChange in number of households, due to moves by program participants.

as their parents' home into the area of the county where housing is least expensive (see Fourth Annual Report, 1978).

Participant Moves Within Central South Bend

To facilitate study of program participants who moved, central South Bend was further divided into five subdistricts as shown in Fig. 1: Core West, Core East, Southwest, Northwest, and Southeast.* The subdistrict that lost the most enrollees was Core West, which also has South Bend's worst housing and highest crime rate, is more than 50 percent black, and is dominated by rental housing. Most of the Core West households who moved went to either Core East or Southwest, both of which are more than 75 percent white and have a much larger proportion of owner-occupied units. Core East also has a high crime rate, but its housing stock, landscape, and public services are marginally better than Core West.

Black and white enrollee movers who stayed within central South Bend selected different subdistricts. Core East had a net increase of a few black enrollees and a net loss of even fewer white enrollees. The Southwest subdistrict experienced just the opposite shift, losing a few black households and gaining a few more whites.

In central South Bend the allowance program appears to have accelerated dispersion by blacks, but not significantly. It may have similarly facilitated the exodus of a few whites from certain neighborhoods. What is important is that the program has not exacerbated segregation as some federal housing assistance programs (e.g., public housing) have been accused of doing.

DISCRIMINATION AND NEIGHBORHOOD CHOICE

At the beginning of the experiment it was thought that housing opportunities for black recipient households might be restricted by the practices of market intermediaries. Rental agencies and real

* Detailed examination of enrollee moves in central South Bend by specific neighborhoods of destination and origin (as opposed to aggregate subdistricts) shows a similar dispersion of blacks and whites away from predominantly black neighborhoods. This dispersion is expected, given the preference of St. Joseph County black households for integrated neighborhoods.

estate brokers could reinforce existing patterns of segregation in housing by "steering" participant families into specific areas by race, for instance. Mortgage lenders might refuse loans to blacks seeking to buy homes in white neighborhoods.

Discrimination in Rental Housing

The allowance program has directly or indirectly influenced a substantial number of moves by renters, although very few by homeowners. Tenants normally found housing by using newspapers, asking friends or relatives, or observing signs posted on buildings.

Recent findings by McCarthy (1979) suggest that one reason most renters' moves are confined to their own or adjoining neighborhoods within both counties is that low-income households, particularly black ones, are much more likely to experience discrimination during their search than middle- and high-income groups.* Discrimination increases both the psychological and monetary costs to most black enrollees seeking a new rental unit. They tend therefore to rely heavily on friends and relatives to tell them about housing opportunities and to search only in familiar neighborhoods, which are often already segregated.

Several factors suggest that renters are more interested in improving the quality of their housing by finding a larger and better dwelling than they are in neighborhood characteristics. The rates of mobility among renters, the changes that moving usually makes in their housing expenditures, and the randomness of moves between neighborhoods all point to that preference. Preliminary analysis, using hedonic price indexes and controlling for various housing attributes, supports the same conclusion.**

* Discriminatory behavior was measured by responses to questions asking whether landlords were reluctant to rent because of the searcher's age, sex, marital status, race, nationality, or source of income, or because the household had children or pets. For a comprehensive national audit of the high degree of racial discrimination associated with rental housing opportunities, see Wienk et al. (1979).

** The hedonic indexes are calculated by regressing a dwelling's market rent on certain measures of housing and locational attributes. While neighborhood population characteristics (such as race) have not

Discrimination in Home Purchase

Persons seeking rental housing rarely interacted with rental agents or any other intermediaries in either site. However, enrollees who seek to buy homes, though few in number, do rely on real estate brokers' services. All brokers interviewed in St. Joseph County reported some contact with allowance recipients, and most of them had completed at least one sale. Only one interviewed firm actively promoted homeownership by participants, most dealing only with selected "live prospects" because of the small commission on inexpensive homes. According to interviews with both black and white brokers and recent homebuyers, overt discrimination by brokers (such as refusing to show a client a home in certain neighborhoods) is rare. But there is much anecdotal evidence that brokers do "steer" both black and white clients who are actively seeking homes in racially integrated neighborhoods; blacks are encouraged to look in black neighborhoods, and whites in white ones.

The racial pattern of home purchases by renter enrollees in St. Joseph County is consistent with both discrimination and steering hypotheses. While 86 percent of the black enrollees who bought homes purchased them within central South Bend, only 45 percent of white enrollee homebuyers bought there (see Shanley and Hotchkiss, forthcoming). The rest of the white enrollees bought into the fringe areas of South Bend, or in suburban districts (see Fig. 1).

However, many black homebuyers, like renters who move, may limit their search primarily to nearby neighborhoods, either because of preference or anticipated discrimination in mostly white neighborhoods. Over three-fourths of the homes they purchased were within the same central South Bend subdistrict of their previous residence. Therefore, the buying patterns of renter participants may reflect existing segregation rather than steering by brokers. In other words, for most black enrollees racial steering probably has the same effect

been included in regression estimates, research is planned on them (see Barnett, 1979; and Noland, 1979). However, Krumm (1980) shows that physical housing attributes, neighborhood amenities, and population characteristics have equally important influence on the selling price of homes.

that a limited search on their own for affordable or preferred housing would have.

As mentioned, even with the allowance most enrollees cannot afford to purchase a home within their neighborhoods using conventional financing. Normally, this judgment should be made by mortgage lenders; however, brokers usually ascertain whether a client can qualify for a loan before taking the time and effort to find them a home. There is no evidence that brokers misrepresent lenders' practices to enrollees of either race, though. If lenders are redlining certain neighborhoods, brokers merely execute the lenders' policies.

Conventional lenders are reluctant to make loans on properties in central South Bend, particularly in certain core subdistricts, and they loan on properties elsewhere in South Bend on less favorable terms than in suburban parts of St. Joseph County. However, as was discussed in Sec. III, FHA-insured loans through mortgage banks are readily available for home purchase throughout the county, including central South Bend.

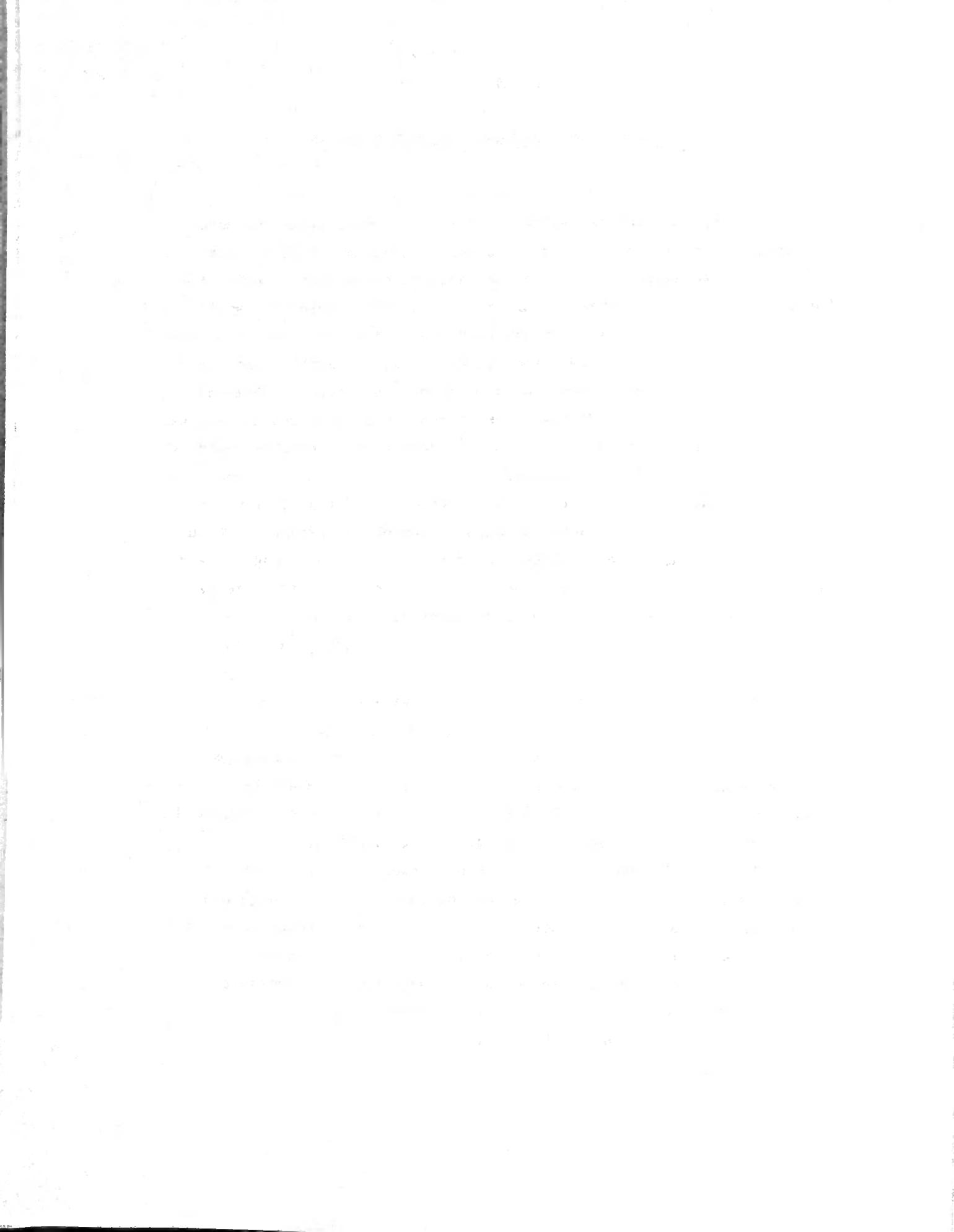
VI. CONCLUDING COMMENTS AND FUTURE RESEARCH

Only interim findings are reported in this note, since the data from all four years' surveys and five years' program operations have not yet been analyzed. Additional research on the market effects of housing allowances is currently under way, and still more is planned.

The rent inflation study will be expanded to compare landlord survey results with existing analyses of the tenant surveys. Measured rent increases will be decomposed into their components of price and quantity changes. Our analysis of short-run response of rental markets to demand changes will be refined and further tested, and longer-run supply adjustments will be analyzed.

Additional research on the general economics of rental property will provide detailed accounts of rental revenues and expenses. Cash and non-cash transactions will be considered, as will both capital and current expenditures. The profitability of different types of rental property investments in a period of rapid price inflation will be assessed with special attention to the effects of rising fuel and utility prices.

Further analysis of neighborhood change will examine specific neighborhoods with the most potential for significant change in the racial and income mixes of the population. The effects of program-induced repairs at the neighborhood level will be determined by measuring changes in neighborhood rents and property values associated with various levels of repair and program participation. Overall neighborhood quality ratings will also be viewed in terms of street cleanliness, condition of dwellings and buildings, and use of urban vacant land. Community attitudes and perceptions concerning specific declining neighborhoods may have been altered by the allowance programs more significantly, in the short run, than other measures of neighborhood change. These psychological effects and their consequences will also be examined by locality.



REFERENCES

- Bala, John W., Neighborhoods in St. Joseph County, Indiana, The Rand Corporation, N-1205-HUD, September 1979.
- Barnett, C. Lance, Using Hedonic Indexes to Measure Housing Quality, The Rand Corporation, R-2450-HUD, October 1979.
- Barnett, C. Lance, and Ira S. Lowry, How Housing Allowances Affect Housing Prices, The Rand Corporation, R-2452-HUD, September 1979.
- Carter, Grace, and Steven L. Balch, Measuring Eligibility and Participation in the Housing Assistance Supply Experiment, The Rand Corporation, forthcoming.
- Davis, Otto A., Charles M. Eastman, and Chan-I Hua, "The Shrinkage in the Stock of Low-Quality Housing in the Central City: An Empirical Study of the U.S. Experience Over the Last Ten Years," Urban Studies, Vol. 11, February 1974.
- Fifth Annual Report of the Housing Assistance Supply Experiment, The Rand Corporation, R-2434-HUD, June 1979.
- Fourth Annual Report of the Housing Assistance Supply Experiment, The Rand Corporation, R-2302-HUD, May 1978.
- Kaiser Committee, "A Decent Home," The Report of the President's Committee on Urban Housing, Washington, D.C., 1968.
- Kaserman, David L., "An Econometric Analysis of the Decline in Federal Mortgage Default Insurance," in Robert M. Buckley et al. (eds.), Capital Markets and the Housing Sector, Ballinger, Cambridge, Mass., 1977.
- Krumm, Ronald J., "Neighborhood Amenities: An Economic Analysis," Journal of Urban Economics, Vol. 7, No. 2, March 1980.
- Lindsay, David Scott, and Ira S. Lowry, Rent Inflation in St. Joseph County, Indiana, 1974-1979, The Rand Corporation, N-1468-HUD, forthcoming.
- Lowry, Ira S., Inflation in the Standard Cost of Adequate Housing: Site I, 1973-1976, The Rand Corporation, N-1102-HUD, October 1979 (first issued as WN-9430-HUD, March 1976).
- Marshall, Sue A., The Urban Institute Housing Model: Application to South Bend, Indiana, The Urban Institute, Washington, D.C., Working Paper 216-6, June 1976.
- McCarthy, Kevin F., Housing Search and Mobility, The Rand Corporation, R-2451-HUD, September 1979.

- McDowell, James L., Housing Allowances and Housing Improvement: Early Findings, The Rand Corporation, N-1198-HUD, September 1979.
- Mulford, John, Income Elasticity of Housing Demand, The Rand Corporation, R-2449-HUD, July 1979.
- Noland, Charles W., "Assessing Hedonic Indexes for Housing," Journal of Financial and Quantitative Analysis, Vol. 14, No. 4, November 1979. Also published by The Rand Corporation as N-1305-HUD, May 1980.
- Pettigrew, Thomas F., "Attitudes on Race and Housing: A Social Psychological View," in Amos Howley and Vincent Rock (eds.), Segregation in Residential Areas, National Academy of Sciences, Washington, D.C., 1973.
- Proceedings of the General Design Review of the Housing Assistance Supply Experiment, The Rand Corporation, WN-8396-HUD, October 1973.
- Rydell, C. Peter, Effects of Market Conditions on Prices and Profits of Rental Housing, The Rand Corporation, P-6008, September 1977.
- Rydell, C. Peter, Shortrun Response of Housing Markets to Demand Shifts, The Rand Corporation, R-2453-HUD, September 1979.
- Shanley, Michael G., and Charles M. Hotchkiss, How Low-Income Renters Buy Homes, The Rand Corporation, N-1208-HUD, August 1979.
- Shanley, Michael G., and Charles M. Hotchkiss, The Role of Housing Market Intermediaries in the Supply Experiment, The Rand Corporation, R-2659-HUD, forthcoming.
- Stucker, James P., Rent Inflation in St. Joseph County, Indiana: 1974-77, The Rand Corporation, N-1116-HUD, November 1979 (first issued as WN-9734-HUD, September 1977),
- Stucker, James P., Rent Inflation in Brown County, Wisconsin: 1973-78, The Rand Corporation, WN-10073-HUD, August 1978.
- Taylor, D. Garth, "Housing, Neighborhoods, and Race Relations: Recent Survey Evidence," The Annals of the American Academy of Political and Social Science, Vol. 441, January 1979.
- U.S. Congress, Housing Subsidies and Housing Policies, Hearings Before the Subcommittee on Priorities and Economy in Government of the Joint Economic Committee, 92d Congress, 2d Session, December 1972.
- Wienk, Ronald E., et al., Measuring Racial Discrimination in American Housing Markets: The Housing Market Practices Survey, U.S. Department of Housing and Urban Development, Washington, D.C., April 1979.

