

Housing Allowance Demand Experiment

The Search Behavior of Black Households in Pittsburgh in the Housing Allowance Demand Experiment

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THE SEARCH BEHAVIOR
OF BLACK HOUSEHOLDS IN PITTSBURGH
IN THE
HOUSING ALLOWANCE DEMAND EXPERIMENT

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ABSTRACT

This report analyzes the experience of black households that searched for housing during the Housing Allowance Demand Experiment in Allegheny County (Pittsburgh). The focus of the report is the way in which the process of searching for housing helped to maintain the existing pattern of racially segregated housing in Allegheny County. Particular attention is given to the extent to which black households restricted their search for housing to black areas. The extent to which black households reported encountering racial discrimination when they searched in nonminority areas is also discussed. Differences in the effectiveness of housing market information for black and white searchers are analyzed. The report concludes with a discussion of some of the policy implications of differences in the ease with which black and white households locate housing.

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SUMMARY

This report is one of a series of technical reports on the results of the Housing Allowance Demand Experiment. The Demand Experiment is one of three experiments being conducted by the Department of Housing and Urban Development as a part of the Experimental Housing Allowance Program (EHAP). These experiments, authorized by Congress in the Housing Act of 1970, are designed to test the concept of direct cash assistance to low-income households to enable them to live in suitable housing. The focus of the Demand Experiment is on how low-income renter households use allowances. The Demand Experiment was conducted in Allegheny County, Pennsylvania (Pittsburgh) and Maricopa County, Arizona (Phoenix). It tested a variety of allowance plans involving approximately 1,200 Experimental households and 600 Control households at each site. Experimental households were offered allowance payments for three years. Analysis is based on data from the first two years.

This report uses the information collected on the behavior of low-income renters during the experiment to examine an area important not only to a housing allowance program but to housing policy in general: the process by which black households search for housing in a largely segregated housing market. If black searchers are restricted to neighborhoods which have high concentrations of minority residents because they lack information about or are denied access to other neighborhoods, then the freedom of choice offered by a housing allowance program is diminished. To the extent that predominantly black neighborhoods have poorer housing than other areas, the goal of providing decent housing for allowance recipients may be thwarted as well.

In Pittsburgh, as in many other American cities, black households are concentrated in a limited set of neighborhoods, which generally have poorer housing than other areas of the city. The experimental housing allowance offers did little to change this. On average, black households in Pittsburgh that moved relocated in Census tracts where the concentration of minority households was only 7 percentage points lower than that of their previous neighborhoods, regardless of whether they were offered an allowance payment.

This report examines the search behavior of black households enrolled in the Demand Experiment in Allegheny County (Pittsburgh).¹ Its specific focus is on the way in which black households' search for housing helped to maintain racially segregated housing. No effort is made either to examine the impact of this on housing outcomes or to estimate the impacts of the allowance offers in search patterns. These topics are pursued elsewhere.

The role of the search behavior of black households in continuing the pattern of housing segregation is examined in two ways in this report. The first issue is the extent to which black households restricted their search to black neighborhoods. Black households that never looked in a neighborhood without a substantial black population never had the opportunity to move to such a neighborhood. The report then reviews evidence on a number of factors which might have led black households to restrict their search to minority neighborhoods, such as racial discrimination during search, expectations about discrimination, limitations in the housing information available from different sources, and restriction of search to dwellings in the immediate vicinity of the original residence. Throughout the report, neighborhoods are categorized into four types: black neighborhoods (those whose 1970 population was 50 percent or more black); mixed neighborhoods (those with populations at least 15 percent but less than 50 percent black); white neighborhoods with clusters of black residents (neighborhoods with populations less than 15 percent black but including black or mixed Census tracts); and white neighborhoods without clusters of black residents (neighborhoods with populations less than 15 percent black and not including black or mixed Census tracts). The major findings follow:

1. Black households searching for housing generally restricted their search to neighborhoods that were predominantly black or had clusters of black residents.

Among the neighborhoods seen by black households while searching for housing, 63 percent were black or mixed neighborhoods, 23 percent were white neighborhoods with clusters of black residents, and only 14 percent were white neighborhoods without clusters of black residents.

¹Data from the other experimental site--Maricopa County, Arizona (Phoenix)--were not used. Unlike Pittsburgh, Phoenix does not have a large number of relatively small and homogeneous neighborhoods with well-defined boundaries. Thus, data on the neighborhoods in which households searched for housing in Phoenix could not be defined in a way which would allow detailed analysis.

2. The racial composition of the neighborhoods chosen by black households that moved reflects the restricted set of neighborhoods seen by black households during search.

The percentage of black movers that moved to black, mixed, or white neighborhoods is very similar to the percentage of neighborhoods of that type seen during search.

3. Although some black households indicated that they avoided neighborhoods because they expected discrimination, those with this expectation do not appear to have restricted their search to predominantly black neighborhoods.

One quarter of black searchers indicated that they avoided some neighborhoods because they expected discrimination. However, these households were no less likely to search in white neighborhoods than were households not expecting discrimination.

4. Black households that searched in white neighborhoods without clusters of black residents were more likely to report racial discrimination than were other black searchers. However, the extent to which this discrimination discouraged black households from moving to such neighborhoods is unclear.

Forty-two percent of households that searched in white neighborhoods without clusters of black residents reported experiencing racial discrimination during their search; only 14 percent of black households searching only in other types of neighborhoods reported such discrimination. However, of those searchers that looked in white neighborhoods without clusters of black residents, households that reported racial discrimination were no less likely to move to neighborhoods of this type than were households that did not report discrimination.

5. Black households did not restrict their search because they were unwilling to look at dwellings outside their immediate vicinity.

Seventy-two percent of black searchers looked for housing outside the neighborhood in which they were living at the time of their search. In fact, black searchers living in predominantly black neighborhoods were more likely than other black searchers to look

for housing outside their own neighborhoods. The average distance and the maximum distance searched by black households were great enough to encompass a wide range of neighborhoods.

6. Housing information sources were not equally effective for black and white searchers. Black households were less successful than white households in obtaining information on rental vacancies through their network of personal contacts. Conversely, black searchers were more likely than white searchers to seek information through real estate agents and vacancy signs.

Friends and relatives were the information source used most frequently by both black and white households searching for housing. However, black searchers were significantly less likely to move to a dwelling located in this way than were white searchers; 44 percent of white searchers that used friends and relatives as an information source found housing in this way, compared to 28 percent of black searchers. However, friends and relatives were still the most important means for locating housing for both blacks and whites; 49 percent of black movers and 60 percent of white movers found their housing through friends or relatives.

Perhaps because personal contacts were less effective for black searchers than for white ones, black households were more dependent than white households on real estate agents and vacancy signs for information about housing. Seventy-three percent of black searchers but only 57 percent of white searchers contacted real estate agents; 67 percent of black searchers but only 45 percent of white ones used vacancy signs to locate rental vacancies. Black and white searchers using real estate agents and vacancy signs were about equally likely to locate a dwelling through these sources. Because black searchers used real estate agents and vacancy signs more frequently, black movers found 33 percent of their housing through these sources as compared with 16 percent for white movers.

Because black households are more dependent than white households on formal market information sources, public actions to assure equal treatment of black and white searchers by actors in the formal housing market such as real estate agents and apartment building managers can have important effects. The overall impact of such actions will be limited, however, by the fact that almost one half of all black movers still locate their housing through relatives and friends.

7. Black households using each of the four major housing information sources were equally likely to include white neighborhoods in their housing search.

The percentage of black households that searched in a white neighborhood not containing clusters of black residents was approximately equal for searchers that used newspapers, real estate agents, vacancy signs, or friends and relatives as an information source. Unfortunately, sample sizes are too small to support an analysis of the effect of information sources on the racial composition of the neighborhoods actually chosen by households that moved.

8. Programs to promote search by black households in neighborhoods of lower minority concentration could have important implications for the pattern of segregated housing. However, effectively encouraging search in neighborhoods of lower minority concentration may be difficult.

Black searchers move to neighborhoods with different levels of minority concentration about as frequently as they search in such neighborhoods. Simply getting black searchers to look outside their own familiar neighborhoods is not the problem: they do not currently restrict their search to these neighborhoods. The flow of information obtained from friends and relatives is difficult to affect through public action, and these personal contacts play a major role in the process of housing search. Still, some leverage might be exerted through the more formal information channels of the housing market, especially real estate agents and vacancy signs, which are used relatively heavily by black households.

Affecting search through individual anti-discrimination assistance may be difficult in the current context. Households in the Demand Experiment were offered the services of an equal opportunity lawyer. In part at least because search was restricted, the overall incidence of perceived racial discrimination among black searchers was relatively low. The use of the equal opportunity lawyer was lower still; indeed not one formal complaint was filed in two years. Provision of formal, complaint-response support alone appears to have relatively little opportunity to affect racial concentration under current patterns of housing search by black households.

Sources for Executive Summary

1. See Table 2-4 for the racial composition of the neighborhoods in which black households searched.
2. See Table 2-4 for the racial composition of the neighborhoods to which black households moved.
3. See Table 2-8 for the lowest minority concentration neighborhoods seen by black searchers that did and that did not say they avoided some neighborhoods because they expected discrimination.
4. See Table 2-7 for the incidence of perceived racial discrimination among black households that searched in neighborhoods of different racial composition; see the discussion of this table in Chapter 2 for the effect of perceived racial discrimination on the moving behavior of black searchers that looked in neighborhoods of relatively low minority concentration.
5. See Tables 2-2 and 2-3 for the rates at which black and white households searched outside their origin neighborhoods. See the discussion following these tables for the distances over which black and white households searched for housing.
6. See Table 3-2 for the rates at which black and white households used different information sources during their searches and the rates at which they moved to alternative housing located using these sources. Also see the discussion of typical and windfall searchers in Chapter 3 for a further discussion of racial differences in information sources.
7. See Tables 3-5 and 3-6 and accompanying discussion for the racial composition of neighborhoods seen by black searchers using each of the four major information sources. See Table 3-7 for the racial composition of neighborhoods moved to by households locating dwellings through the four basic information sources.
8. See Tables 2-2 and 2-3 for the rates at which black households searched outside their own neighborhoods. See Table 3-2 for the percentage of households obtaining information from each of the basic information sources and moving to dwellings located through these sources. See Table 2-7 and accompanying discussion for the incidence of perceived racial discrimination and the use of the equal opportunity lawyer.

CHAPTER 1
INTRODUCTION

This report analyzes the search behavior of low-income black renters enrolled in the Housing Allowance Demand Experiment in Pittsburgh. The purpose of the report is to better understand how the search behavior of black households operated to maintain a pattern of racially segregated housing such as that found among households in the Demand Experiment. The majority of black households in the experiment in Pittsburgh were living in Census tracts that were more than 50 percent black at the time they enrolled.¹ Those households that moved during the experiment located in Census tracts that had an average concentration of black households that was only 7 percentage points lower than that of their previous neighborhoods. The allowance offer did not affect this pattern.²

This concentration of minority households in a limited set of neighborhoods has several important implications for a housing allowance program. One of the possible advantages of a housing allowance is the freedom of locational choice offered to participants. That freedom of choice will be diminished for black households if they are denied access to predominantly white neighborhoods. Also, housing in minority neighborhoods often tends to be of lower quality than housing in other neighborhoods. Black households lacking access to or avoiding searching in nonminority areas will therefore be hampered in their efforts to obtain better housing and may have less chance of participating in a housing allowance program if they must satisfy housing quality requirements to qualify for allowance payments.

Analysis of how the search of black households contributes to maintaining segregated housing patterns is especially important because of the prevalence of racially segregated housing. The segregated housing pattern found among households in the experiment is fairly typical of the pattern for other households in Pittsburgh or the pattern generally found in American cities. In 1970, 72 percent of all urban black households lived in Census tracts that

¹Atkinson and Phipps (1977).

²Atkinson, Hamilton, and Myers (1979).

were more than 50 percent black.¹ Approximately one-third of all Standard Metropolitan Statistical Areas (SMSAs) were more segregated than Pittsburgh in 1970 (Schnare, 1977, Appendix B).²

The concentration of black families in a limited set of neighborhoods is particularly serious because these neighborhoods frequently have lower quality housing than other neighborhoods. In 1970, black families at every level of income were more likely than white families to live in substandard housing and to live in overcrowded housing (U.S. Commission on Civil Rights, 1975). The housing available in black neighborhoods in Pittsburgh was on average inferior to that available in nonminority neighborhoods along such dimensions as the condition of interior wall surfaces or the presence of abandoned buildings, cars, or street litter on the block face (Merrill, 1976).

Understanding the process by which racially segregated housing is maintained can have important implications for policies to help black households move to better housing or to less segregated neighborhoods. For example, if black searchers actively seek housing in white neighborhoods and are deterred from moving there by racial discrimination, enforcement of anti-discrimination legislation would be a central policy tool. If, on the other hand, black households confine their search to neighborhoods with high concentrations of minority residents, they may encounter relatively little active racial discrimination. In this case, programs to encourage black searchers to look outside nonwhite neighborhoods might receive greater initial emphasis.

This report examines the extent to which black households in the experiment concentrated their search in minority neighborhoods and discusses a number of factors which might have led them to restrict their search to such areas. Black households searching for housing might have restricted their search to minority areas because they expected to encounter racial discrimination

¹More detailed indicators of racial segregation, such as the Taeubers' segregation index and the exposure index, likewise indicate that racial segregation in urban areas is both extensive and persistent (Taeuber and Taeuber, 1965; Schnare, 1977).

²While the level of segregation found in Pittsburgh is typical of U.S. cities, the geographic pattern of segregation differs from the most common pattern in that there are several separate areas of segregated housing.

if they looked for housing in white neighborhoods. On the other hand, they might have simply been unwilling or uninterested in looking at dwellings outside their immediate vicinity; because about one half of black households were living in predominantly black neighborhoods when they enrolled in the experiment, restricting search to immediately adjacent areas would have meant, for many households, that they restricted their search to black neighborhoods. Finally, the information sources used by black households to find out about available housing might have led to restricted search patterns. For example, if most black households found out about rental vacancies through their friends or relatives, and most of these friends or relatives lived in black neighborhoods, then black searchers would have been unlikely to look at vacant dwellings outside predominantly black areas.

The analysis described in this report is based primarily on information provided by Pittsburgh households during interviews conducted before and during the Demand Experiment.¹ Four types of information about the search experience of households were collected: (1) where households searched, especially the location and racial composition of the neighborhoods they looked in; (2) whether households avoided neighborhoods because they expected discrimination and the types of perceived discrimination encountered, if any; (3) how households found out about available housing, including the dwelling to which they finally moved, e.g., from friends or through newspapers; and (4) how many dwellings they looked at during their search.²

¹Interviews were conducted prior to enrollment and after approximately six months, one year, and two years. For a description of the data collected during the Demand Experiment, see Appendix I.

²Phoenix, the second Demand Experiment site, is not discussed in the body of this report. Even though the housing of Spanish American households is poor (Budding, 1978) and the sample of Spanish American households in Phoenix is large enough to support an analysis comparable to that for blacks in Pittsburgh, Phoenix lacks well-defined and commonly recognized neighborhoods. Those neighborhoods that could be defined were too large and internally heterogeneous to be useful for purposes of this analysis. For example, while it was possible to define 226 neighborhoods in Pittsburgh, the set of neighborhoods commonly recognized in Phoenix numbers only 20. However, the perceived discrimination reported by minority households in Phoenix has been analyzed and results are reported in Appendix IV. Also, see MacMillan (1978) for a more general analysis of search and mobility controlling for race/ethnicity at both sites.

The sample for the analysis is all enrolled Pittsburgh households that were active two years after enrollment and that searched for housing during the Demand Experiment, without distinction according to Experimental/Control status. Experimental and Control households that moved over the two-year period of observation were equally likely to move to neighborhoods of lower minority concentration. Also, the combined sample facilitates the disaggregation necessary for a neighborhood level of analysis.¹

The analysis in Chapter 2 examines the racial composition of the neighborhoods in which black searchers looked for housing and reviews the evidence on a number of factors which might have been associated with the restriction of search to minority areas. The kinds of neighborhoods in which black households searched and the extent to which they restricted their search to black neighborhoods are described. The racial composition of neighborhoods seen during search is compared to the racial composition of the neighborhoods to which searchers moved. The degree to which black households concentrated their search in minority areas because they restricted their search to dwellings in their immediate vicinity is evaluated. The effect of expected discrimination on the restriction of search to predominantly black neighborhoods and the instances of racial discrimination reported by black searchers are also discussed.

Chapter 3 explores the role of information sources in the housing search of black households. Differences in the relative importance and usefulness of key information sources for white and black searchers are highlighted. Finally, the relationship between the sources of information used by black searchers and the types of neighborhoods they saw during search is examined. Chapter 4 presents conclusions derived from the analysis.

¹In addition, most of the analyses exclude households that only reported searching during the first six months after enrollment. This was done because data on the actual neighborhoods in which households searched was only collected in later interviews (see Appendix III for details).

REFERENCES

- Atkinson, Reilly and Antony Phipps, Locational Choice Part II: Neighborhood Change, Cambridge, Mass., Abt Associates Inc., August 1977.
- Atkinson, Reilly, William Hamilton, and Dowell Myers, Economic and Racial/Ethnic Concentration in the Housing Allowance Demand Experiment, Cambridge, Mass., Abt Associates Inc., January 1979 (revised June 1980).
- Budding, David W., Housing Deprivation Among Enrollees in the Housing Allowance Demand Experiment, Cambridge, Mass., Abt Associates Inc., November 1978 (revised June 1980).
- MacMillan, Jean, Mobility in the Housing Allowance Demand Experiment, Cambridge, Mass., Abt Associates Inc., June 1978 (revised June 1980).
- Merrill, Sally R., The Effects of Segregation and Discrimination on the Price and Quality of Minority Housing, unpublished doctoral thesis, Boston University Graduate School of Arts and Sciences, 1976.
- Schnare, Ann B., Residential Segregation by Race in U.S. Metropolitan Areas: An Analysis Across Cities and Over Time, Contract Report No. 246-2, Washington, D.C., The Urban Institute, 1977.
- Taeuber, K.E. and A.F. Taeuber, Negroes in Cities: Residential Segregation and Neighborhood Change, Chicago, Aldine, 1965.
- U.S. Commission on Civil Rights, Twenty Years After Brown: Equal Opportunity in Housing, Washington, D.C., December 1975.

CHAPTER 2
SPATIAL ASPECTS OF SEARCH BEHAVIOR

As noted in Chapter 1, housing in Pittsburgh tends to be racially segregated. Accordingly, households enrolled in the Demand Experiment generally lived in neighborhoods containing other households of their own race. For purposes of this analysis, neighborhood racial composition is measured in terms of the percentage of each neighborhood's population that is black and, for neighborhoods where the percentage of black population is relatively low, in terms of the extent to which that black population is clustered within the neighborhood. Data on the racial composition of neighborhoods have been taken from the 1970 Census of Population and Housing. Each neighborhood was assigned to one of four categories according to the concentration of minority households in the neighborhood. Those neighborhoods in which 50 percent or more of the population is black were classified as black neighborhoods; those with at least 15 percent but less than 50 percent black population were classified as mixed neighborhoods. The remaining neighborhoods, which are predominantly white, were divided into two groups: those that include at least one black or mixed Census tract and those that do not.¹

¹The neighborhoods used in the analysis were defined according to established local convention in Pittsburgh. (See Appendix III for a more extensive description of the neighborhood classification used.) The racial characteristics of these neighborhoods are described using tract data from the 1970 census. The composition of some neighborhoods may have changed between the time of the census and the time of the experiment. Equally important, racial groups are not necessarily evenly distributed within neighborhoods. Predominantly white and predominantly black neighborhoods may each contain residential areas in which the other race is dominant; mixed neighborhoods may be integrated or may be composed of smaller neighborhoods in which one race or the other forms a clear majority. Neighborhoods are commonly heterogeneous, and the description of neighborhood composition used to examine black/white differences is likely to miss some important elements of neighborhood racial characteristics. Some effort has been made to mitigate the effects of this difficulty by grouping the neighborhoods into broad categories. Nevertheless, the neighborhood descriptors are only approximate characterizations of neighborhood racial composition.

For the sample of all households enrolled in the experiment, 85 percent of white households originated¹ in neighborhoods that have fewer than 15 percent black residents (classified here as white neighborhoods); 69 percent lived in white neighborhoods that do not include any black or mixed Census tracts (Table 2-1). On the other hand, about one half of black households originated in neighborhoods where 50 percent or more of the population is black (classified as black neighborhoods), and another quarter of black households originated in areas that are more than 15 percent but less than 50 percent black (classified as mixed neighborhoods).

The racial composition of the neighborhoods of households at the end of the experiment proved to be similar to the composition of their neighborhoods of origin.² This report explores how the search locations of black households maintained the pattern of minority concentration. The observed outcome could have occurred in one of two ways: black searchers could have looked only (or at least primarily) in substantially black residential areas, or they could have searched in white neighborhoods but not moved there. This portion of the analysis seeks to determine the relative importance of these two factors. To the extent that black searchers considered housing alternatives in areas of low minority concentration but moved elsewhere, factors such as active discrimination may have been responsible and policies to reduce discrimination--such as legal assistance to searchers and legal actions against discriminating landlords--might reasonably be

¹The analysis of search behavior reported here refers only to the search that preceded the last move made by each household prior to its final interview (the Third Periodic Interview). For households that moved only once during the experiment and for households that did not move at all, the origin neighborhood is the neighborhood of residence at the time of enrollment. For households that moved more than once during the experiment, the origin is the neighborhood from which they made their last move.

²Among households that moved during the experiment, there was a slight tendency for both white and black households to move to white neighborhoods not including black or mixed Census tracts. However, this change in the distribution of movers was small and cannot be attributed to the effects of the experiment (Atkinson, Hamilton, and Myers, 1979). Furthermore, since the drift occurred among both white and black households, it is consistent with the maintenance of a racially segregated pattern of housing.

Table 2-1

DISTRIBUTION OF HOUSEHOLDS BY RACIAL COMPOSITION OF ORIGIN AND DESTINATION
NEIGHBORHOODS BY RACE AND MOBILITY^a

	BLACK NEIGH- BORHOOD	MIXED NEIGH- BORHOOD	WHITE NEIGHBORHOOD THAT INCLUDES BLACK OR MIXED CENSUS TRACTS	WHITE NEIGHBORHOOD THAT DOES NOT IN- CLUDE BLACK OR MIX- ED CENSUS TRACTS	TOTAL PER- CENTAGE ^d	SAMPLE SIZE
	Percentage	Percentage	Percentage	Percentage		
<u>White Households</u>						
All Households						
Origin neighborhood ^b	2%	13%	16%	69%	100%	(918)
Destination neighborhood ^c	2	12	15	71	100	(918)
Households that Moved						
Origin neighborhood ^b	2	16	18	65†	101	(320)
Destination neighborhood ^c	1	12	15	71	99	(320)
<u>Black Households</u>						
All Households						
Origin neighborhood ^b	48	25	20	7	100	(259)
Destination neighborhood ^c	47	24	19	10	100	(259)
Households that Moved						
Origin neighborhood ^b	43	28	22	6†	99	(81)
Destination neighborhood ^c	38	27	20	15	100	(81)

SAMPLE. All Pittsburgh households active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, and those whose origin neighborhood for their last move is not known.

DATA SOURCES. Baseline and Periodic Interviews, 1970 Census of Population.

a. Racial composition of neighborhoods is defined as follows

Black Neighborhood: 50 percent or more of households in the neighborhood are black

Mixed Neighborhood: 15 percent or more, but less than 50 percent of households in the neighborhood are black

White Neighborhood that includes black or mixed Census tracts: less than 15 percent of households in the neighborhood are black, but neighborhood includes at least one black or mixed Census tract

White Neighborhood that does not include black or mixed Census tracts: less than 15 percent of households in the neighborhood are black and neighborhood does not include any black or mixed Census tracts.

b. The neighborhood in which a household resided while conducting its search. For households that moved more than once during the experiment, this is the neighborhood from which they made their last move. For households that never moved or that moved only once, this is the neighborhood in which they lived at enrollment.

c. The neighborhood in which a household resided two years after enrollment.

d. Percentages may not sum to 100 because of rounding.

† Chi-square test of the difference between origin and destination on the two-category distribution "white neighborhoods that do not include black or mixed Census tracts" compared to all other groups combined significant at the 0.10 level with one degree of freedom.

expected to affect black households' residential choices. To the extent that black families did not search outside substantially black residential areas, the policy task is to expand the range of search for black households.

Two indicators are used to characterize the neighborhoods in which black households searched for housing. The simpler indicator of the geographic scope of search is the frequency with which black households searched outside their origin neighborhoods. Another indicator is the racial composition of the neighborhoods in which black households searched. Both the percentage of black households that searched in each type of neighborhood and the number of neighborhoods of each type that were searched in are considered. Taken together, these measures provide a description of the neighborhoods in which black households searched for housing.

The easiest explanation of why few black households moved to neighborhoods with lower minority concentration would be that, living originally in neighborhoods of relatively high minority concentration, they never searched outside the confines of their origin neighborhoods. The data do not support this hypothesis. Over 70 percent of the black households that searched looked for housing in at least one neighborhood other than their origin neighborhood (Table 2-2); this rate is identical to the one observed for white searchers. Of those black households that expressed a desire to move out of their original neighborhood, 84 percent actually looked in other neighborhoods; again this is very similar to the pattern observed among white households (Table 2-2). Moreover, those black households living in areas of high minority concentration were more likely to search outside their origin neighborhoods than were those living in neighborhoods of lower minority concentration (Table 2-3).¹ Households originating in neighborhoods in which at least 50 percent of the population is black were 22 percentage points more likely than other black households to have searched outside their

¹The exception to this pattern is the five black households that originally lived in white neighborhoods not including black or mixed residential areas. All of these households searched outside their original neighborhoods, but the small number of households involved makes it difficult to draw any conclusions about their behavior.

Table 2-2

PERCENTAGE OF SEARCHERS THAT LOOKED FOR HOUSING OUTSIDE
THEIR ORIGIN NEIGHBORHOOD, BY RACE AND DESIRE TO LEAVE
ORIGIN NEIGHBORHOOD

	PERCENTAGE OF SEARCHERS THAT LOOKED FOR HOUSING OUTSIDE THEIR ORIGIN NEIGHBORHOOD			
	WHITE HOUSEHOLDS		BLACK HOUSEHOLDS	
	Percentage	Sample Size	Percentage	Sample Size
All searchers	71%	(376)	72%	(113)
Searchers that wanted to leave their origin neighborhoods	88	(182)	84	(61)
Searchers that did not want to leave their origin neighborhoods	54	(193)	58	(52)

SAMPLE: All Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES: Baseline and Periodic Interviews.

Table 2-3

PERCENTAGE OF BLACK SEARCHERS THAT LOOKED FOR HOUSING
OUTSIDE THEIR ORIGIN NEIGHBORHOOD, BY RACIAL COMPOSITION
OF ORIGIN NEIGHBORHOOD

RACIAL COMPOSITION OF ORIGIN NEIGHBORHOOD	PERCENTAGE OF BLACK SEARCHERS THAT LOOKED FOR HOUSING OUTSIDE THEIR ORIGIN NEIGHBORHOOD	
	Percentage	Sample Size
Black neighborhood	84%**	(50)
Mixed neighborhood	61	(31)
White neighborhood that includes black or mixed Census tracts	56	(27)
White neighborhood that does not include black or mixed Census tracts	[100]	(5)
Total	72	(113)

SAMPLE: All black Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES: Baseline and Periodic Interviews, 1970 Census of Population.

NOTE: Brackets indicate percentages that are based on 15 or fewer observations.

**Chi-square test of the difference between households originating in black neighborhoods and those originating in other neighborhoods in terms of whether they did or did not search outside their origin neighborhood significant at the 0.01 level with one degree of freedom.

neighborhood. Finally, black and white searchers were equally likely to have actually moved outside their origin neighborhoods: 28 percent of white searchers and 26 percent of black searchers moved to a new neighborhood. The clustering of black movers in neighborhoods of high minority concentration cannot be understood in terms of the confinement of black searchers to their original neighborhoods.

A similar, simple explanation for the perpetuation of the existing pattern would be that black households searched or moved over shorter distances than white ones. Even though black households searched outside their original neighborhoods, they may not have ventured far enough to encounter neighborhoods that are not substantially black. Data also fail to support this explanation. The average search radius¹ for black searchers was 1.8 miles, and the average maximum search distance was 3.2 miles. Corresponding figures for white searchers are 2.2 miles and 3.5 miles, respectively. Among households that changed residence, the average distance moved was 1.6 miles for white movers and 1.3 miles for black movers.² Black and white households thus engaged in searches of similar geographic extent. Furthermore, within the radius searched by the average household, a wide range of neighborhoods is generally available. For example, the largest single cluster of enrolled black households lived in the Pittsburgh neighborhood of Homewood. Within two miles of the center of this neighborhood Census tracts ranging from 0 to 97 percent black may be found.³ Thus, the maintenance of patterns of minority concentration cannot be attributed to an unusually short radius of search among black households.

Although individual black households did not confine their search for housing to their origin neighborhoods, and although black and white households searched over approximately equal distances, black households did restrict their housing search in ways that tended to reinforce a racially

¹Search radius is measured from the center of the origin neighborhood to the center of each neighborhood seen during search.

²None of the differences between the search distances of black and white households are statistically significant at the 0.05 level.

³A complete analysis of the neighborhoods available to all searchers within the radius of their search has not been carried out.

segregated pattern of housing. A large percentage of the searching done by black households was done in neighborhoods with relatively high concentrations of black residents. Ideally, a measure of how black searchers distributed their search effort would consider the number of dwellings visited or the number of telephone inquiries made in each neighborhood type. Unfortunately, data were not collected on the number of dwellings visited in each neighborhood so this measure is unavailable. Therefore, the number of neighborhoods of each type that a household visited has been used to measure search effort in each type of neighborhood.¹ Using this measure, almost two thirds of the neighborhoods searched in by black households were neighborhoods in which 15 percent or more of the residents were black (Table 2-4).

The percentage of neighborhoods of each type seen by black searchers is similar to the percentage of movers selecting each neighborhood type (Table 2-4). (It is true, however, that black searchers were somewhat less likely to look in black neighborhoods than in mixed ones, but were equally likely to move to black or to mixed neighborhoods.) In the extreme case, the percentage of black movers choosing neighborhoods with the lowest level of minority concentration (those with fewer than 15 percent black residents and no clusters of black population) is virtually identical to the percentage of their search effort expended looking in such neighborhoods. Black households moved to neighborhoods of substantial minority concentration because that is where they did the major part of their searching for housing.

Despite the fact that only a modest amount of black households' search effort occurred in neighborhoods with very low concentrations of black residents, these neighborhoods were not entirely avoided by black households. Neighborhoods that were at least 15 percent but less than 50 percent black were seen by more black households than any other neighborhood type; 69 percent of black searchers (and 81 percent of those searching outside their origin neighborhood) looked in at least one such neighborhood (Table 2-5). At the same time, only 10 percent of black households searched exclusively in black neighborhoods, and two thirds looked in at least one white neighborhood (Table 2-6). Of the 75 black searchers that looked for housing in

¹Use of this measure is identical to making the assumption that households looked at the same number of dwellings in every neighborhood.

Table 2-4

RACIAL COMPOSITION OF NEIGHBORHOODS SEEN DURING
SEARCH AND DESTINATION NEIGHBORHOODS FOR BLACK SEARCHERS

RACIAL COMPOSITION OF NEIGHBORHOOD	DISTRIBUTION OF NEIGHBORHOODS SEEN DURING SEARCH				DISTRIBUTION OF NEIGH- BORHOODS TO WHICH BLACK HOUSEHOLDS MOVED	
	BY BLACK HOUSE- HOLDS THAT SEARCHED BUT DID NOT MOVE		BY BLACK HOUSE- HOLDS THAT MOVED		Number	Percentage
	Number	Percentage	Number	Percentage		
Black neighborhood	36	24%	41	26%	17	32%
Mixed neighborhood	53	36	63	40	17	32
White neighborhood that includes black or mixed Census tracts	38	26	32	20	11	21
White neighborhood that does not include black or mixed Census tracts	22	15	22	14	8	15
Total	149	101 ^a	158	100	53	100

SAMPLE: All black Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES: Baseline and Periodic Interviews, 1970 Census of Population.

NOTE: The unit of analysis in the table is neighborhoods, not households.

a. Percentages may not sum to 100 because of rounding.

Table 2-5

RACIAL COMPOSITION OF NEIGHBORHOODS SEEN DURING SEARCH FOR
BLACK SEARCHERS BY WHETHER THEY SEARCHED OUTSIDE THEIR
ORIGIN NEIGHBORHOOD

RACIAL COMPOSITION OF NEIGHBORHOOD	PERCENTAGE OF BLACK HOUSEHOLDS THAT SEARCHED IN EACH NEIGHBORHOOD TYPE		
	Households that searched only in their origin neighborhood (N=32)	Households that searched outside their origin neighborhood (N=81)	Total (N=113)
Black neighborhood	25%	59%	50%
Mixed neighborhood	38	81	69
White neighborhood that includes black or mixed Census tracts	38	54	50
White neighborhood that does not include black or mixed Census tracts	0	41	29

SAMPLE: All black Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES: Baseline and Periodic Interviews, 1970 Census of Population.

NOTE: Percentages do not sum to 100 because households frequently searched in more than one type of neighborhood.

Table 2-6

DISTRIBUTION OF BLACK SEARCHERS BY THE RACIAL COMPOSITION OF
THE NEIGHBORHOOD WITH THE LOWEST MINORITY CONCENTRATION SEEN
DURING SEARCH

RACIAL COMPOSITION OF THE NEIGHBORHOOD WITH THE LOWEST MINORITY CONCENTRATION SEEN DURING SEARCH	NUMBER OF HOUSEHOLDS	PERCENTAGE
Black neighborhood	11	10%
Mixed neighborhood	27	24
White neighborhood that includes black or mixed Census tracts	42	37
White neighborhood that does not include black or mixed Census tracts	33	29
Total	113	100

SAMPLE: All black Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES: Baseline and Periodic Interviews, 1970 Census of Population.

a white neighborhood, 33 (i.e., 29 percent of all searchers or 41 percent of those searching outside their origin neighborhood) saw white neighborhoods that did not include either black or mixed Census tracts.

Because black households seem to have moved to neighborhoods of each type of racial composition about as often as they searched in them, it is important to understand why black searchers limited their patterns of search. In particular, it would be useful to know the extent to which racial discrimination served to keep black households from searching more extensively in areas without substantial minority populations. Interview data from the Demand Experiment confirm the perception of discrimination in the housing market, although they shed little light on the role of discrimination in influencing neighborhood choice. Twenty-one percent of black searchers reported encountering racial discrimination; the comparable rate for white searchers was 3 percent.¹ Twenty-four percent of black searchers (and 13 percent of white ones) reported avoiding neighborhoods because they expected some form of discrimination.

Previous research has shown that racial discrimination is common in the rental housing market, but there are current indications that such discrimination has become quite subtle.² Thus black households may not detect discriminatory treatment even when it occurs and the Demand Experiment interview data may therefore understate the incidence or character of racial discrimination. Preliminary findings of current research on discrimination in housing indicate that the most prevalent form of racial

¹The equal opportunity lawyer whose services were made available to all enrolled households free of charge received calls about some type of alleged discrimination from only seven households (black and white). In no case was enough evidence of discrimination available to support the filing of any type of legal action. See Appendix IV for a complete discussion of perceived discrimination.

²Numerous studies of racial discrimination and reports of studies are included in the volume prepared for HUD under the auspices of the National Academy of Sciences, Segregation in Residential Areas, edited by Hawley and Rock (1973). The article by Foley cites the work of Biochel, who found in a survey that Pittsburgh brokers rarely showed black households rentals in white buildings and even more rarely rented to black households in white buildings. Foley also cites a 1970 study by Denton, who concluded that in the San Francisco Bay Area most apartment owners discriminated and that in such a tight housing market, discrimination is difficult to prove and easy to practice. The review article by Yinger (1977) also discusses the prevalence and mechanisms of discrimination.

discrimination among realtors, rental agents, and building managers is concealment of available vacancies.¹ Other types of discrimination include more frequent and more thorough financial checks done on black searchers, and less frequent volunteering of information to black households. These forms of discrimination are very difficult for an individual to detect, and are thus almost certainly underreported.

In addition, a more diverse sample would presumably reveal even sharper contrasts in expectations about discrimination between black and white households. The Demand Experiment sample was selected from the population of low-income--and hence relatively disadvantaged--renters. Many white households in this sample therefore have characteristics that may make them undesirable tenants from a landlord's point of view, e.g., dependence on welfare income. Moderate and middle-income households might be expected to encounter and to expect less discrimination than low-income households. However, black households in these "higher income" groups apparently continue to expect discrimination: Pettigrew (in Hawley and Rock), for example, cites Harris poll data indicating that two thirds of black interview respondents expected discrimination on the part of whites when they looked for housing. Hence a sample including households at all income levels would presumably show more difference in the level of expected discrimination among black and white households.

The role of discrimination in constraining the search of black households is not entirely clear from the data available in the Demand Experiment.²

¹ See the findings of real estate audits conducted for HUD by the National Committee Against Discrimination in Housing cited in Housing Affairs Letter, April 21, 1978.

² Either expected discrimination or a desire to remain in a black neighborhood might make black households reluctant to search in nonminority areas. Pettigrew (in Hawley and Rock) concludes that black households want neither mostly white nor mostly black neighborhoods and that their desire to live in mixed neighborhoods is motivated by desire for racial harmony as well as desire to achieve better housing and services, but that they are reluctant to seek housing in mixed neighborhoods because most expect discrimination. A 1976 study of the Detroit area by the Population Study Center at the University of Michigan also indicated that black households would prefer to live in racially mixed neighborhoods, but few would want to be the only black household in a neighborhood (Washington Post, April 17, 1978).

Black households that searched in at least one white neighborhood containing no clusters of black residents were significantly more likely (approximately 30 percentage points) than other black searchers to report that they perceived racial discrimination at some time during their housing search (Table 2-7). To the degree that this pattern is expected by black households, their expectations may lead them to avoid such white neighborhoods. The actual situation is apparently more complex than this, however. There is no simple relationship between the neighborhood of lowest minority concentration seen by black searchers and the extent to which they reported avoiding some neighborhoods because they expected discrimination (Table 2-8).¹ All that is clear is that black households that searched in neighborhoods with few black residents encountered more racial discrimination.

There is no evidence that the racial discrimination perceived and reported by black searchers that looked in white neighborhoods without clusters of black residents discouraged them from moving to those white neighborhoods. In fact, of the black movers that saw at least one white neighborhood that does not include a black or mixed Census tract, those reporting racial discrimination were more than twice as likely to have moved to such a neighborhood as those that did not report such discrimination (67 percent and 25 percent, respectively). However, sample sizes are very small: only 17 black movers saw such neighborhoods, of whom 9 reported racial discrimination. A similar pattern exists if black searchers that did not move are included. Of the 33 households that saw this type of white neighborhood, 43 percent of those reporting racial discrimination moved to such a neighborhood; only 11 percent of those not reporting racial discrimination moved to a neighborhood of this type.²

¹The question asked of all searchers was "...have you avoided looking in certain (neighborhoods/areas) because you expected some sort of discrimination?" Thus the analysis cannot separate expectations of racial discrimination from expectations of other forms of discrimination. However, if the lack of connection between reported avoidance and the racial composition of the neighborhoods in which black households actually searched reflects avoidance for reasons other than race, this would also indicate that relatively few black households restricted their search because they expected racial discrimination.

²The causal relationship here cannot be determined; it is possible that the most persistent black households were also the most likely to encounter discrimination even though it did not prevent their moving.

Table 2-7

PERCENTAGE OF BLACK SEARCHERS THAT REPORTED RACIAL DISCRIMINATION
BY THE RACIAL COMPOSITION OF THE NEIGHBORHOOD WITH THE LOWEST
MINORITY CONCENTRATION SEEN DURING SEARCH

RACIAL COMPOSITION OF THE NEIGHBORHOOD WITH THE LOWEST MINORITY CONCENTRATION SEEN DURING SEARCH	PERCENTAGE OF BLACK SEARCHERS REPORTING RACIAL DISCRIMINATION	
	Percentage	Sample Size
Black neighborhood	[9%]	(11)
Mixed neighborhood	19	(27)
White neighborhood that includes black or mixed Census tracts	12	(42)
White neighborhood that does not include black or mixed Census tracts	42**	(33)
Total	22	(113)

SAMPLE: All black Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES: Baseline and Periodic Interviews, 1970 Census of Population.

NOTE: Brackets indicate percentages that are based on 15 or fewer observations.

** Chi-square test comparing reporting/not reporting discrimination between households whose search neighborhood of lowest minority concentration was a white neighborhood that did not include black or mixed tracts and all other households significant at the 0.01 level with one degree of freedom.

Table 2-8

THE RACIAL COMPOSITION OF THE NEIGHBORHOOD WITH THE LOWEST
MINORITY CONCENTRATION SEEN DURING SEARCH BY WHETHER BLACK
SEARCHERS EXPECTED TO ENCOUNTER DISCRIMINATION

RACIAL COMPOSITION OF THE NEIGHBORHOOD WITH THE LOWEST MINORITY CONCENTRATION SEEN DURING SEARCH	BLACK SEARCHERS THAT EXPECTED DISCRIMINATION (N=28)	BLACK SEARCHERS THAT DID NOT EXPECT DISCRIMINATION (N=85)
Black neighborhood	14%	8%
Mixed neighborhood	11	28
White neighborhood that includes black or mixed Census tracts	39	36
White neighborhood that does not include black or mixed Census tracts	36	27
Total	100	99 ^a

SAMPLE: All black Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES: Baseline and Periodic Interviews, 1970 Census of Population.

a. Percentages may not sum to 100 because of rounding.

Overall, the percentage of black movers choosing each neighborhood type is very similar to the percentage of neighborhoods of each type seen by those movers. The measure of search effort used (i.e., the number of neighborhoods of each type seen by searchers) is not a precise one, but it is reasonably clear that black households searched predominantly in nonwhite neighborhoods. When they searched in white neighborhoods, they were more likely to look in white neighborhoods that include existing black or mixed residential areas rather than in those that do not. The frequency with which black households actually moved to each type of neighborhood closely parallels the effort they expended searching in that neighborhood type, despite the significantly higher incidence of racial discrimination reported in white neighborhoods containing no clusters of black residents. Thus the principal factor producing a pattern of minority concentration in the housing generally chosen by black movers appears to be the limited set of neighborhoods in which they concentrated their search.

REFERENCES

- Atkinson, Reilly, William Hamilton, and Dowell Myers, Economic and Racial/Ethnic Concentration in the Housing Allowance Demand Experiment, Cambridge, Mass., Abt Associates Inc., January 1979 (revised June 1980).
- Biochel, M.R., H.A. Aurbach, T. Bakerman, and D.H. Elliott, "Exposure, Experience and Attitudes: Realtors and Open Occupancy," Phylon, vol. 30, Winter 1969.
- Denton, J.H., Report of Consultant, Summary Report, Appendix J, San Francisco, National Committee Against Discrimination in Housing (NCDH), 1970.
- Foley, Donald L., "Institutional and Contextual Factors Affecting the Housing Choices of Minority Residents," in Segregation in Residential Areas, edited by Amos H. Hawley and Vincent P. Rock, 1973.
- Harris, L., Harris Overlay on Time Black Poll, unpublished paper of study no. 2014, March 1970.
- Hawley, Amos H. and Vincent P. Rock (eds.), Segregation in Residential Areas, Washington, D.C., National Academy of Sciences, 1973.
- Housing Affairs Letter, The Weekly Washington Report on Housing, no. 78-16, April 21, 1978.
- Pettigrew, Thomas F., "Attitudes on Race and Housing: A Social-Psychological View," in Segregation in Residential Areas, edited by Amos H. Hawley and Vincent P. Rock, 1973.
- U.S. Bureau of the Census, Census of Population and Housing, 1970.
- Washington Post, "Chicago: A Study in '68 Housing Act's Failed Dream," April 17, 1978.
- Yinger, John, "Prejudice and Discrimination in the Urban Housing Market," Discussion Paper D77-9, Department of City and Regional Planning, Harvard University, July 1977, revised January 1978, (also forthcoming in Issues in Urban Economics II, edited by Peter Mieszkowski and Mahlon Straszheim).

CHAPTER 3
INFORMATION GATHERING AND THE SEARCH PROCESS

Search is a process by which households that are considering moving acquire information about the housing market. Households that search obtain at least two types of information as they look for housing: first, they identify vacant (or soon-to-be-vacated) dwellings; second, they determine the characteristics of those dwellings, such as size, quality, neighborhood character, and rental cost.¹ For some households a third type of information may also be important: general knowledge of the prices and quality of locally available housing. This type of information allows a household to make a better assessment of whether continued search is likely to turn up better or cheaper housing.

Households obtain information about housing from two types of sources. One type consists of mechanisms designed specifically to convey information about housing; it includes newspaper advertisements, real estate agents, and vacancy signs. These sources vary both in their costs to the seller and the buyer and in the amount and quality of information they convey. However, all are directly linked to the operation of the housing market and might therefore be directly influenced through program action.

The other type of information includes a wide range of sources that tend to be less formal and are not housing-specific. These sources include friends and relatives, neighborhood bulletin boards, social service workers, and the like. These sources typically have virtually no costs for either the landlord or the prospective tenant. They would be extremely difficult to influence through public policy.

For searchers in the experiment friends and relatives were by far the most commonly used information source that is not specifically geared to the housing

¹In many cases, households may obtain both types of information simultaneously. It is important to distinguish them when devising policy, however. If black searchers hear about vacancies which they are not allowed to view, or about which they are given false information, an equal opportunity strategy relying on household complaints may be appropriate. If black searchers never find out about vacancies, a different and more difficult policy problem exists.

market.¹ Indeed, more households obtained information from relatives and friends than from any other single source: three quarters of all searchers consulted this information source (Table 3-1) and over one half of all movers located the dwelling to which they moved by this means. Of those searchers that obtained information from friends and relatives, 40 percent moved to a unit they found through this source--more than three times the success rate for the next most effective source.²

The relationship between information source and mobility is displayed in Figure 3-1, which shows the percentage of households that moved cumulated across the number of dwellings visited during search (used here as a measure of search effort). Households that relied exclusively on nonmarket information sources (principally friends and relatives) were more than four times as likely to have moved at very low levels of search effort as households using market-specific sources. Over 40 percent of households relying solely on nonmarket sources moved after looking at only one dwelling, while fewer than 10 percent of households that used any market source moved this quickly. At moderate levels of effort (up to a dozen dwellings seen), the marginal increases in the percentage of households that moved in the two groups were similar--so the initial advantage of those using nonmarket sources was maintained.³

The central role of friends and relatives as an information channel in the housing market has important consequences for the moving behavior of

¹Less than one-third of all searchers consulted a nonmarket information source other than friends or relatives, such as social workers, and none of these sources individually was used by enough households to be interesting for analysis purposes. For this reason, nonmarket information sources other than personal contacts are not considered in the remainder of the analysis.

²The limitations of this measure of "effectiveness" should be noted. Search is, in essence, an information-gathering process, with households seeking several types of information. Households may get useful information about the market from dwellings they decide not to take and from information sources that do not lead directly to the unit finally chosen. Measuring effectiveness in terms of the frequency with which an information source leads directly to a move is particularly likely to underestimate the usefulness of sources of information like newspaper advertisements, which easily and cheaply provide a large amount of information about dwelling sizes and prices by broad location, but which give poor information about detailed characteristics of location and housing quality.

³Households that visited more than 12 dwellings all consulted at least one market-specific source.

Table 3-1
USE AND EFFECTIVENESS OF INFORMATION SOURCES

INFORMATION SOURCE	NUMBER OF SEARCHERS USING SOURCE	PERCENTAGE OF SEARCHERS USING SOURCE ^a (N = 493)	PERCENTAGE OF MOVERS THAT FOUND NEW HOUSING VIA SOURCE ^b (N = 260)	PERCENTAGE OF SEARCHERS USING SOURCE THAT FOUND NEW HOUSING VIA SOURCE
Any Market-Specific Source	415	84%	33%	21%
Newspapers	352	71	14	10
Real estate agents	299	61	14	12
Vacancy signs	247	50	5	6
Friends and Relatives	372	75	58	40

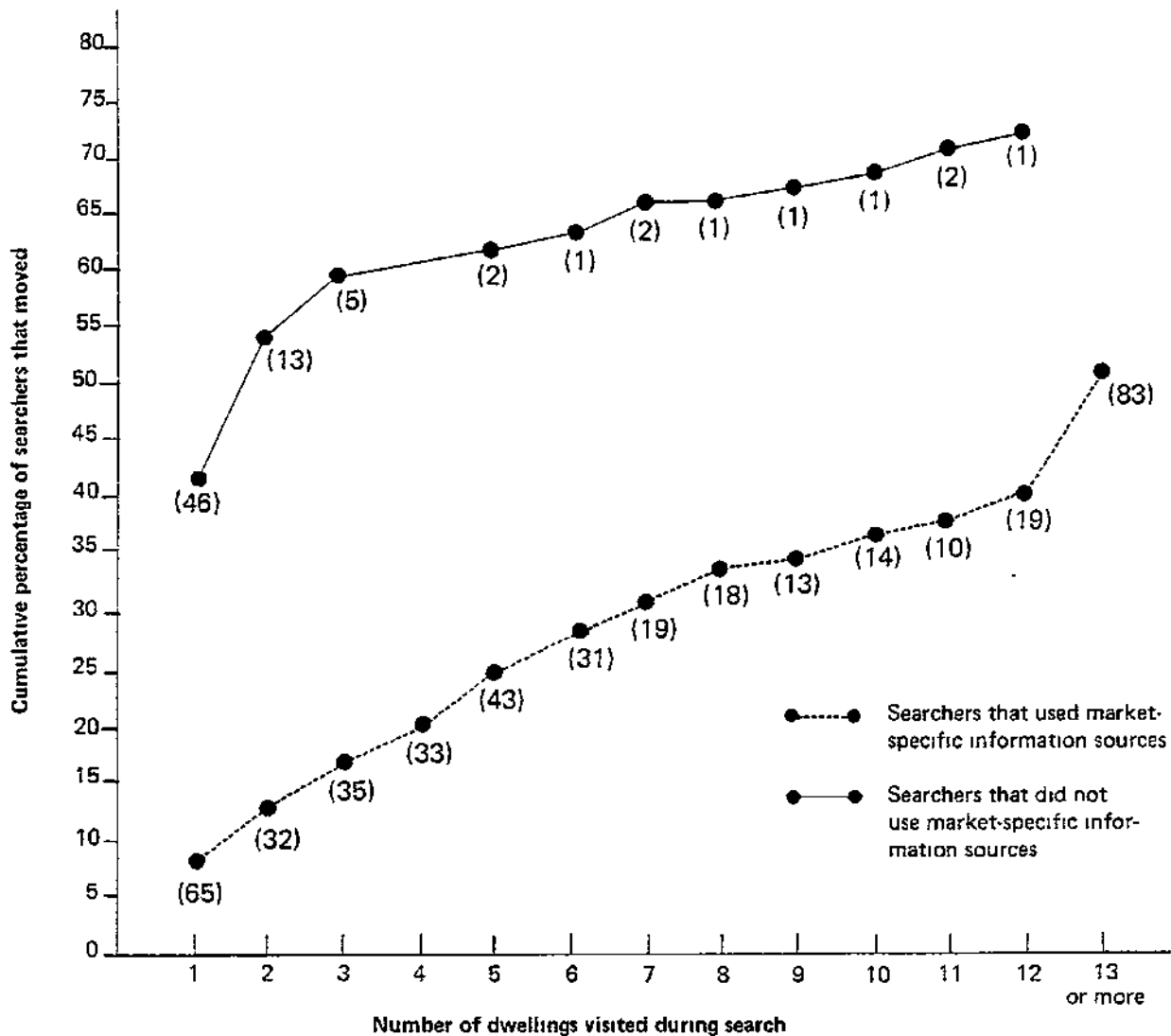
SAMPLE: All Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES: Baseline and Periodic Interviews.

a. Percentages sum to more than 100 percent because households frequently used more than one information source.

b. Percentages sum to less than 100 percent because some households moved to dwellings found via other sources, e.g., bulletin boards.

Figure 3-1
CUMULATIVE PERCENTAGE OF SEARCHERS THAT MOVED,
BY NUMBER OF DWELLINGS VISITED DURING SEARCH,
FOR SEARCHERS THAT USED MARKET-SPECIFIC INFORMATION SOURCES
AND THOSE THAT DID NOT



SAMPLE: All Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known

DATA SOURCES. Baseline and Periodic Interviews

black households because this key extra-market information source does not serve black households as well as it serves white ones. Although black households were at least as likely as white ones to seek information from relatives and friends, black searchers that obtained such information were significantly less likely than white searchers to move to a dwelling located in this way (Table 3-2). This suggests that the information available through market-specific sources may have particular importance for black households.

One result of the lower effectiveness of personal contacts as a housing information source for black searchers is that black households were less likely than white households to be the beneficiaries of windfall housing opportunities. The typical searcher, as usually described in the literature, desires to move because of a current or expected discrepancy between household circumstances and housing conditions. The typical searcher has a serious intent or wish to move, is more likely to be dissatisfied with his neighborhood or dwelling than is a nonsearcher, and so on. Behavioral models of search and moving behavior implicitly describe this typical searcher. A much smaller group of households appears to consider a move only in response to a specific opportunity that comes to their attention; this group searches because of a windfall.¹ Black searchers were less likely than white ones to benefit from windfalls during the experiment. If windfall searchers are considered to be those households that obtained information only from friends or relatives, that made fewer than three telephone inquiries during search, and that examined no more than one dwelling, 9 percent of white searchers but only 4 percent of black searchers were "windfall" searchers.²

The difference between windfall and typical searchers can be seen in their satisfaction with their initial housing and their interest in moving at the time they entered the experiment. Windfall searchers were less likely than typical searchers to express dissatisfaction with their original dwelling

¹At least two other studies of search behavior have noted the existence of this "windfall" group (Rossi, 1955; Miller, 1978). A more complete discussion of the definition and characteristics of typical and windfall searchers is contained in Appendix V.

²Households that encountered a windfall opportunity but did not report conducting a search on the Periodic Interviews because they did not pursue that opportunity (by going to look at the available dwelling, for example) are not counted as searchers.

Table 3-2
USE AND EFFECTIVENESS OF INFORMATION SOURCES, BY RACE

INFORMATION SOURCE	PERCENTAGE OF SEARCHERS USING SOURCE ^a		PERCENTAGE OF MOVERS THAT FOUND HOUSING VIA SOURCE ^b		PERCENTAGE OF SEARCHERS USING SOURCE THAT FOUND HOUSING VIA SOURCE			
	WHITE HOUSEHOLDS (N = 378)	BLACK HOUSEHOLDS (N = 113)	WHITE HOUSEHOLDS (N = 208)	BLACK HOUSEHOLDS (N = 51)	WHITE HOUSEHOLDS Percentage	BLACK HOUSEHOLDS Percentage	Sample Size	Sample Size
Any Market-Specific Source	82%	90%	32%	39%	22%		(311)	(102)
Newspapers	70	75	16	6	12*		(265)	(85)
Real estate agents	57**	73	17	23	12		(215)	(82)
Vacancy signs	45**	67	4	10	5		(171)	(76)
Friends and Relatives	74	80	60	49	44**		(281)	(90)

SAMPLE All Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known

DATA SOURCES Baseline and Periodic Interviews.

a Percentages sum to more than 100 percent because households frequently used more than one information source.

b Percentages sum to less than 100 percent because some households moved to dwellings found via other sources, e.g., bulletin boards

* Chi-square test of the difference between white and black households significant at the 0.05 level with one degree of freedom

** Chi-square test of the difference between white and black households significant at the 0.01 level with one degree of freedom

or neighborhood (Table 3-3). Prior to enrollment they were less likely to say they would be interested in moving given an additional \$50 a month to spend for rent. Despite relatively high levels of initial satisfaction, however, windfall searchers were more likely to move than typical searchers.

The effect of the differential rates at which black and white searchers encounter windfalls can be seen by looking at the cumulative percentage of households that moved at each level of search effort. Among all searchers, white households were more than three times as likely as black households to move after seeing no more than one dwelling (Figure 3-2). At higher levels of search effort, the increase in the percentage of households that moved after seeing an additional dwelling is roughly similar for the two groups, with the result that white households retain their initial advantage. When windfall searchers--mostly white--are removed from the sample and the graph is redrawn for the group of typical searchers, differences between black and white households are noticeably reduced (Figure 3-3). Using this simple indicator, low-income white searchers and black searchers appear to have very similar likelihoods of moving when their housing search includes housing-specific information sources. Differences between black and white searchers arise because white searchers are more likely to find housing relatively quickly through nonmarket information sources.

Black households are thus at a relative disadvantage because their network of personal contacts appears to provide them with fewer housing opportunities than are available to white households through such channels. It is unlikely that this disadvantage can be directly overcome through public action. It is therefore of special policy importance to black families to consider action such as monitoring rental agents to ensure that black searchers have equal access to the housing information that flows through market-specific channels. Two of these market-specific sources, real estate agents and vacancy signs, were consulted by a significantly greater proportion of black than of white searchers (Table 3-2); as a result, black movers were more likely than white movers to have found their dwellings through one of these two sources.¹

¹Two-tailed t-test of the proportions of black and white movers finding their dwellings through either real estate agents or vacancy signs is significant at the 0.01 level.

Table 3-3

ATTITUDES TOWARD MOVING PRIOR TO SEARCH AMONG
TYPICAL AND WINDFALL SEARCHERS

	TYPICAL SEARCHERS		WINDFALL SEARCHERS	
	Percentage	Sample Size	Percentage	Sample Size
Were dissatisfied with original housing ^a	39%*	(449)	18%	(38)
Were dissatisfied with original neighborhood ^a	29	(448)	16	(38)
Were interested in moving if they had an additional \$50 per month to spend for rent ^a	70	(355) ^b	63	(27) ^b
Moved	52**	(453)	74	(38)

SAMPLE: All Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES: Baseline and Periodic Interviews.

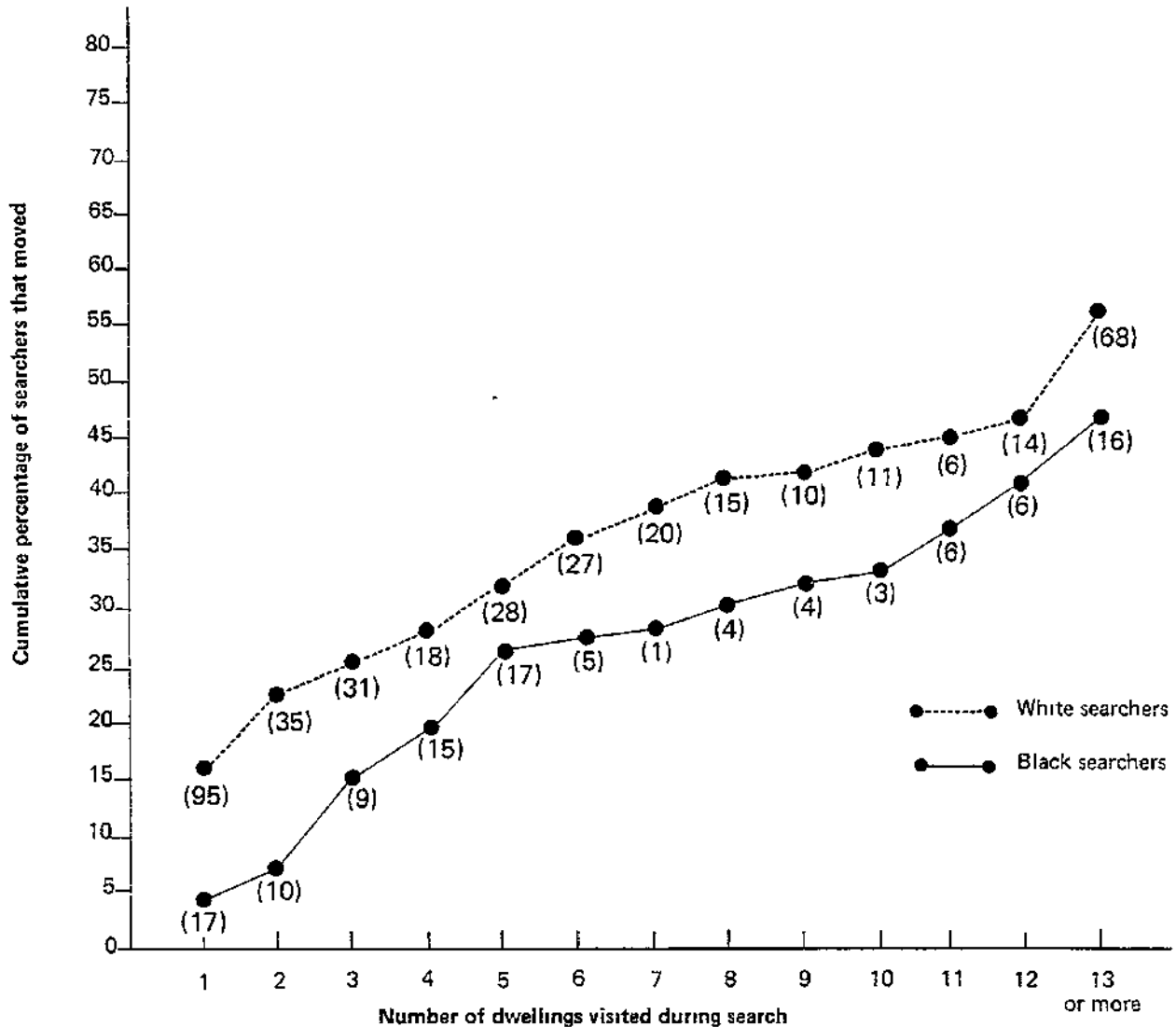
a. See Appendix II for a discussion of these measures.

b. Households for which the origin of the last move differed from the residence at the time of the Baseline Interview have been excluded from the sample.

* Chi-square test of the difference between typical and windfall searchers significant at the 0.05 level with one degree of freedom.

** Chi-square test of the difference between typical and windfall searchers significant at the 0.01 level with one degree of freedom.

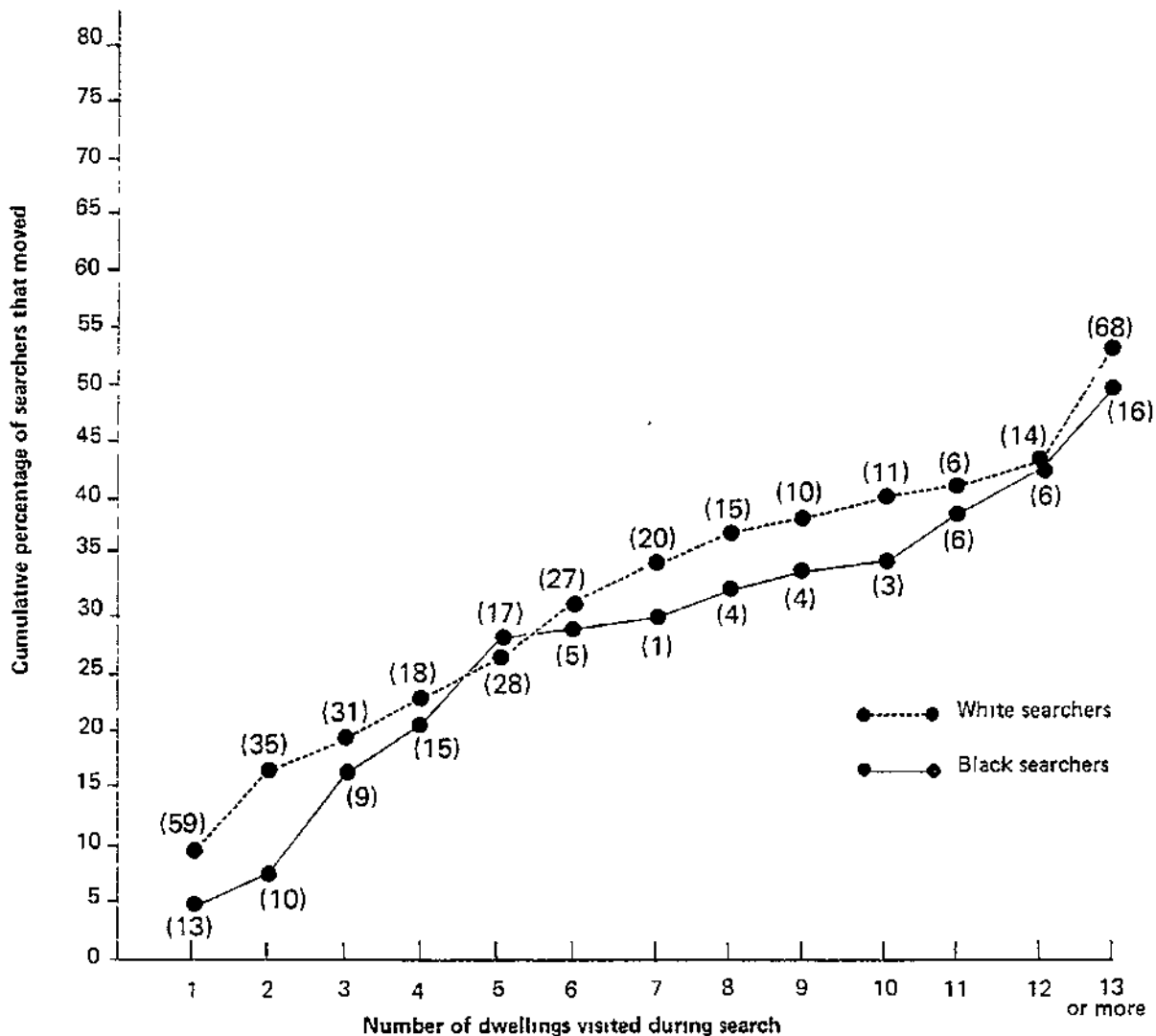
Figure 3-2
 CUMULATIVE PERCENTAGE OF SEARCHERS THAT MOVED
 BY NUMBER OF DWELLINGS VISITED DURING SEARCH,
 FOR WHITE AND BLACK SEARCHERS



SAMPLE: All Pittsburgh households that searched for new housing and were active two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES. Baseline and Periodic Interviews

Figure 3-3
**CUMULATIVE PERCENTAGE OF SEARCHERS THAT MOVED
 BY NUMBER OF DWELLINGS VISITED DURING SEARCH,
 FOR WHITE AND BLACK TYPICAL SEARCHERS**



SAMPLE. All Pittsburgh households that were "typical" searchers (see Appendix V) and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known

DATA SOURCES Baseline and Periodic Interviews

The relative importance of friends and relatives when compared to market-specific sources suggests that rental market information may be more difficult to influence through public policy than information about owner-occupied housing. A major study of households seeking houses to purchase in Toronto (Barrett, 1973) reported both a greater dependence on real estate agents and a lower reliance on personal contacts than has been found in this report (Table 3-4).¹ Also, Rossi (1955) noted that personal contacts were more important to renters than to owners in his sample of Philadelphia movers. These comparisons can be only suggestive because of important differences in the housing markets studied and in the characteristics of sampled households.² Nevertheless, because real estate agents play a smaller role in the rental market than in the market for owner-occupied housing, it is not clear whether policies aimed at ensuring equal access to owner-occupied housing (such as regulating real estate brokers or increasing the access of black real estate agents to multiple listing services) can reasonably be expected to have an equal impact on renters. Program action to assist black renters may have to be specifically targeted toward those renters or toward owners of apartment buildings or real estate agents that are active in the rental market.

The Effect of Information Sources on Where Blacks Search

If black households are to obtain housing in neighborhoods that do not already have substantial clusters of black residents, they must first obtain information about the availability of vacancies and about the characteristics of vacant dwellings in such neighborhoods. The behavior of black searchers during the Demand Experiment and the literature on discrimination cited earlier suggest two possible ways in which housing information sources might lead black households to search in and move to neighborhoods that already include black residents. First, the friends and relatives from whom black searchers learn about housing may provide information mainly about vacancies in nonwhite neighborhoods. Black searchers relying on personal contacts would thus find it easier to find housing in these neighborhoods. On the other hand,

¹ Barrett (1973), who sampled only households that contacted a realtor, did not note the presence of windfall searchers.

² Toronto has a relatively large percentage of new suburban housing; Barrett's analysis included only middle-income families, and neither the Barrett nor Rossi samples included black households.

Table 3-4
 PERCENTAGE OF HOUSEHOLDS THAT USED EACH INFORMATION
 SOURCE IN A STUDY OF HOUSEHOLDS THAT PURCHASED
 HOUSES IN TORONTO

INFORMATION SOURCE	PERCENTAGE OF HOUSEHOLDS THAT USED SOURCE
Newspapers	43%
Real estate agents	69
Vacancy signs	72
Friends and relatives	45

DATA SOURCE: Barrett, Frank A., Residential Search Behavior: A Study of Intra-Urban Relocation in Toronto, Atkinson College, Department of Geography, York University, Geographical Monographs, No. 1, Toronto, 1973.

market-specific sources of information, such as real estate agents, may provide different information to black and white searchers or may otherwise treat black and white households differently. Thus black searchers relying on market-specific information sources may be more vulnerable to discrimination than searchers relying on personal contacts and may find it easier to acquire information about nonwhite neighborhoods than about other neighborhoods. These possibilities are explored below. The conclusions reached must be qualified ones because the use of information sources cannot be directly tied to specific neighborhoods or to specific instances of discrimination and because sample sizes are frequently small. Given these qualifications, the available data do not indicate that the search neighborhoods of black households varied with the sources of information used.

Black searchers that used each of the four basic information sources were equally likely to see each of the four neighborhood types during their search. To take the extreme case, users of each information source were equally likely to have seen a white neighborhood including no mixed or black Census tracts (Table 3-5).¹ A similar pattern exists among those black households that searched outside their origin neighborhood.² Furthermore, the percentage of all neighborhoods seen that were of each neighborhood type was identical for users of each information source (Table 3-6). Available information does not support the proposition that either personal contacts or real estate agents differentially encouraged black households to search only in nonwhite neighborhoods.

Households' reports of how they found the dwellings to which they moved lead to a similar set of conclusions. Movers that located their new dwellings through market-specific information sources were about as likely to have moved to any given type of neighborhood as were movers that found their new homes via friends and relatives (Table 3-7). The percentages in Table 3-7 make it appear that black movers that relied on real estate agents were somewhat more likely than those that relied on personal contacts to have relocated

¹It must be remembered that these groups have a substantial amount of overlap, since the vast majority of black searchers consulted more than one type of information source.

²This same similarity in the likelihood of seeing a given neighborhood type no matter what information source was used exists for the other three neighborhood types as well.

Table 3-5

PERCENTAGE OF BLACK SEARCHERS THAT EVER SAW A WHITE NEIGHBORHOOD THAT DOES NOT INCLUDE BLACK OR MIXED CENSUS TRACTS, BY INFORMATION SOURCE USED DURING SEARCH

INFORMATION SOURCE	PERCENTAGE OF BLACK SEARCHERS USING SOURCE THAT SAW A WHITE NEIGHBORHOOD NOT INCLUDING BLACK OR MIXED CENSUS TRACTS		PERCENTAGE OF BLACK SEARCHERS USING SOURCE AND SEARCHING OUTSIDE ORIGIN NEIGHBORHOOD THAT SAW A WHITE NEIGHBORHOOD NOT INCLUDING BLACK OR MIXED CENSUS TRACTS	
	Percentage	Sample Size	Percentage	Sample Size
Any Market-Specific Source	31%	(102)	40%	(77)
Newspaper	31	(85)	38	(65)
Real estate agents	33	(82)	42	(64)
Vacancy signs	36	(76)	44	(59)
Friends and Relatives	30	(90)	39	(66)

SAMPLE: All black Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES: Baseline and Periodic Interviews, 1970 Census of Population.

Table 3-6

RACIAL COMPOSITION OF NEIGHBORHOODS SEEN DURING SEARCH BY INFORMATION SOURCE
USED FOR BLACK SEARCHERS

INFORMATION SOURCE	NUMBER OF NEIGHBORHOODS SEEN BY BLACK SEARCHERS USING SOURCE	RACIAL COMPOSITION OF NEIGHBORHOODS SEEN DURING SEARCH				TOTAL
		BLACK NEIGHBORHOOD	MIXED NEIGHBORHOOD	WHITE NEIGHBORHOOD THAT INCLUDES BLACK OR MIXED CENSUS TRACTS	WHITE NEIGHBORHOOD THAT DOES NOT INCLUDE BLACK OR MIXED CENSUS TRACTS	
Any Market-Specific Source	288	26%	37%	22%	15%	100%
Newspapers	247	24	38	23	14	99 ^a
Real estate agents	238	26	37	22	15	100
Vacancy signs	237	25	37	23	16	101 ^a
Friends and Relatives	255	25	38	22	15	100

SAMPLE: All black Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES: Baseline and Periodic Interviews, 1970 Census of Population.

a. Percentages may not sum to 100 because of rounding.

Table 3-7

RACIAL COMPOSITION OF DESTINATION NEIGHBORHOODS FOR BLACK MOVERS BY THE
INFORMATION SOURCE USED TO LOCATE DWELLINGS

INFORMATION SOURCE USED TO LOCATE DWELLING	NUMBER OF BLACK MOVERS THAT LOCATED DWELLING THROUGH SOURCE	RACIAL COMPOSITION OF DESTINATION NEIGHBORHOODS				TOTAL
		BLACK NEIGH- BORHOOD	MIXED NEIGH- BORHOOD	WHITE NEIGH- BORHOOD THAT INCLUDES BLACK OR MIXED CENSUS TRACTS	WHITE NEIGH- BORHOOD THAT DOES NOT IN- CLUDE BLACK OR MIXED CENSUS TRACTS	
Any Market-Specific Source	20	30%	30%	20%	20%	100%
Newspapers	3	[33]	[0]	[33]	[33]	[100]
Real estate agents	12	[25]	[33]	[17]	[25]	[100]
Vacancy signs	5	[40]	[40]	[20]	[0]	[100]
Friends and Relatives	25	32	32	24	12	100

SAMPLE: All black Pittsburgh households that moved to new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCE: Baseline and Periodic Interviews, 1970 Census of Population.

NOTE: Brackets indicate percentages that are based on 15 or fewer observations.

in neighborhoods of low minority concentration and correspondingly less likely to have moved to neighborhoods of very high minority concentration. Unfortunately, the samples in this table are too small even to speculate about. A shift in the destinations of only one or two households would markedly change the apparent patterns for the different information sources.

The incidence of perceived racial discrimination cannot be linked to the use of any particular information source. Black searchers that used each of the four basic information sources were equally likely to have reported that they experienced racial discrimination during their search; they were also equally likely to have reported experiencing any type discrimination while searching (Table 3-8).¹

¹The problem noted above--that many households appear in more than one category because they collect information from several sources--recurs here. In addition, it is important to recall that all reports of discrimination in this research come from individual households; discrimination that passes unnoticed by searchers is not reported here. This latter qualification assumes considerable importance in light of both the prevalence and subtlety of racial discrimination found in other research.

Table 3-8

PERCENTAGE OF BLACK SEARCHERS THAT REPORTED DISCRIMINATION
DURING SEARCH, BY INFORMATION SOURCE USED

INFORMATION SOURCE	NUMBER OF BLACK SEARCHERS THAT USED SOURCE	PERCENTAGE OF BLACK SEARCHERS THAT REPORTED RACIAL DISCRIMINATION	PERCENTAGE OF BLACK SEARCHERS THAT REPORTED ANY TYPE OF DISCRIMINATION
Any Market-Specific Source	102	22%	68%
Newspapers	85	22	73
Real estate agents	82	24	74
Vacancy signs	76	26	74
Friends and Relatives	90	26	71

SAMPLE: All black Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES: Baseline and Periodic Interviews.

REFERENCES

- Barrett, Frank A., Residential Search Behavior: A Study of Intra-Urban Relocation in Toronto, Atkinson College, Department of Geography, York University, Geographical Monographs, No. 1, Toronto, 1973.
- Miller, Roy I., "Simulating an Urban Housing Market: Learning From an Aborted Attempt" (Draft), Ph.D. Dissertation, Ann Arbor, University of Michigan, 1978.
- Rossi, Peter, Why Families Move, Glencoe, Ill., The Free Press, 1955.

CHAPTER 4

CONCLUSIONS

This study suggests that patterns of search by black households in Pittsburgh were consistent with the very modest changes in racial concentration observed during the experiment. Although most black households did some searching outside the predominantly black areas of the city (i.e., those with more than 50 percent black residents), a relatively small proportion of all the neighborhoods seen by black searchers were ones that did not include clusters of black residents. This focus of the search effort of black households in neighborhoods with concentrations of black population set the pattern for the destinations of those households that moved: neighborhoods at every level of minority concentration were chosen about as often as they were searched in.

The reasons for this concentrated pattern of search among black households are not entirely clear. Black searchers did not confine their housing searches to the neighborhoods in which they were residing at the time of their search. The overall incidence of perceived racial discrimination by black searchers was relatively low (about 20 percent). This is consistent with black searchers' concentration of their search effort in minority areas; 42 percent of black households that searched in white neighborhoods with no clusters of minority population reported racial discrimination--a rate almost 30 percentage points greater than that for other black searchers. However, these reports cannot be linked to any lack of success in moving to neighborhoods having low concentrations of black households.

A program to encourage black searchers to consider white neighborhoods might alter this pattern. Such a strategy might include (a) increased insistence that rental agents inform black searchers of the availability of vacancies in white neighborhoods; (b) public provision of information about residential opportunities outside black neighborhoods; (c) active agency solicitation of landlords in white neighborhoods to participate in existing housing programs such as Section 8 and to rent to black families; and (d) agency encouragement of black households to consider such dwellings.

Personal contacts are an extremely important source of information for households seeking rental housing. Over one half of all movers first learned about their new housing from relatives or friends. However, white searchers were significantly more likely to have found the house or apartment they actually moved to through friends or relatives than were black searchers. Black households were also less likely than white households to have benefited from "windfall" housing opportunities. These are dwellings located by households that, without being active searchers, appear simply to have heard about a desirable housing alternative, usually from friends or relatives. The lower effectiveness of personal contacts as a housing information source for black searchers is likely to be difficult to remedy through public action.

Perhaps because nonmarket information sources served white households better than they served black ones, black households were more dependent on formal housing market information sources. Black searchers were more likely than white searchers to obtain housing information from real estate agents and vacancy signs. Black and white households seeking information from these two sources were equally likely to move to dwellings found through these means. Other than personal contacts, however, real estate agents were the only information source through which more than 15 percent of black movers found housing. Because black searchers rely more heavily than white searchers on real estate agents and vacancy signs, programs and regulatory activities aimed at these formal parts of the private housing market have the potential of affecting a relatively high percentage of black households that seek alternative housing. It remains the case, however, that the context in which such programs would be implemented is a market in which approximately one-half of all movers--black and white--locate their housing through friends and relatives.

APPENDIX I
DESIGN OF THE DEMAND EXPERIMENT

This appendix presents a brief overview of the Demand Experiment's purpose, data collection procedures, experimental design, and sample allocation.

I.1 PURPOSE OF THE DEMAND EXPERIMENT

The Demand Experiment is one of three experiments established by the U.S. Department of Housing and Urban Development (HUD) as part of the Experimental Housing Allowance Program.¹ The purpose of these experiments is to test and refine the concept of housing allowances.

Under a housing allowance program, money is given directly to individual low-income households to assist them in obtaining adequate housing. The allowance may be linked to housing either by making the amount of the allowance depend on the amount of rent paid or by requiring that households meet certain housing requirements in order to receive the allowance payment. The initiative in using the allowance and the burden of meeting housing requirements are therefore placed upon households rather than upon developers, landlords, or the government.

The housing allowance experiments are intended to assess the desirability, feasibility, and appropriate structure of a housing allowance program. Housing allowances could be less expensive than some other kinds of housing programs. Allowances permit fuller utilization of existing sound housing because they are not tied to new construction. Housing allowances may also be more equitable. The amount of the allowance can be adjusted to changes in income without forcing the household to change units. Households may also, if they desire, use their own resources (either by paying higher rent or by searching carefully) to obtain better housing than is required to qualify for the allowance. As long as program requirements are met, housing allowances offer households considerable choice in selecting housing most appropriate to their needs--for example, where they live (opportunity to locate near schools, near work, near friends

¹The other two experiments are the Housing Allowance Supply Experiment and the Administrative Agency Experiment.

or relatives, or to break out of racial and socioeconomic segregation) or the type of unit they live in (single-family or multifamily). Finally, housing allowances may be less costly to administer. Program requirements need not involve every detail of participant housing. The burden of obtaining housing that meets essential requirements is shifted from program administrators to participants.

These potential advantages have not gone unquestioned. Critics of the housing allowance concept have suggested that low-income households may lack the expertise necessary to make effective use of allowances; that the increased supply of housing needed for special groups such as the elderly will not be provided without direct intervention; and that an increase in the demand for housing without direct support for the construction of new units could lead to a substantial inflation of housing costs.¹

If housing allowances prove desirable, they could be implemented through a wide range of possible allowance formulas, housing requirements, non-financial support (such as counseling), and administrative practices. The choice of program structure could substantially affect both the program's costs and impact.

The Demand Experiment addresses issues of feasibility, desirability, and appropriate structure by measuring how individual households (as opposed to the housing market or administrative agencies) react to various allowance formulas and housing standards requirements. The analysis and reports are designed to answer six policy questions:

1. Participation

Who participates in a housing allowance program? How does the form of the allowance affect the extent of participation for various households?

2. Housing Improvements

Do households that receive housing allowances improve the quality of their housing? At what cost? How do households

¹The issue of inflation is being addressed directly as part of the Housing Allowance Supply Experiment.

that receive a housing allowance seek to improve their housing--by moving, by rehabilitation? With what success?

3. Locational Choice

For participants who move, how does their locational choice compare with existing residential patterns? Are there non-financial barriers to the effective use of a housing allowance?

4. Administrative Issues

What administrative issues and costs are involved in the implementation of a housing allowance program?

5. Form of Allowance

How do the different forms of housing allowance compare in terms of participation, housing quality achieved, locational choice, costs (including administrative costs), and equity?

6. Comparison with Other Programs

How do housing allowances compare with other housing programs and with income maintenance in terms of participation, housing quality achieved, locational choice, costs (including administrative costs), and equity?

The Demand Experiment tests alternative housing allowance programs to provide information on these policy issues. While the experiment is focused on household behavior, it also offers data on program administration to supplement information gained through the Administrative Agency Experiment. Finally, the Demand Experiment gathers direct information on participants and housing conditions for a sample of households in conventional HUD-assisted housing programs at the two experimental sites for comparison with allowance recipients.

I.2 DATA COLLECTION

The Demand Experiment was conducted at two sites--Allegheny County, Pennsylvania (Pittsburgh), and Maricopa County, Arizona (Phoenix). HUD selected these two sites from among 31 Standard Metropolitan Statistical Areas (SMSAs) on the basis of their growth rates, rental

vacancy rates, degree of racial concentration and housing costs. Pittsburgh and Phoenix were chosen to provide contrasts between an older, more slowly growing Eastern metropolitan area and a newer, relatively rapidly growing Western metropolitan area. In addition, Pittsburgh has a substantial black minority and Phoenix a substantial Spanish American minority population.

Most of the information on participating households was collected from:

Baseline Interviews, conducted by an independent survey operation before households were offered enrollment;

Initial Household Report Forms and monthly Household Report Forms, completed by participating households during and after enrollment, which provided operating and analytic data on household size and income and on housing expenditures.

Supplements to the Household Report Forms, completed annually by participating households after enrollment, which provide data on assets, income from assets, actual taxes paid, income from self-employment, and extraordinary medical expenses;

Payments and status data on each household maintained by the site offices;

Housing Evaluation Forms, completed by site office evaluators at least once each year for every dwelling unit occupied by participants, which provide information on housing quality;

Periodic Interviews, conducted approximately six, twelve, and twenty-four months after enrollment by an independent survey operation; and

Exit Interviews, conducted by an independent survey operation for a sample of households that declined the enrollment offer or dropped out of the program.

Surveys and housing evaluations were also administered to a sample of participants in other housing programs: Public Housing, Section 23/8 Leased Housing, and Section 236 Interest Subsidy Housing.

Since households were enrolled throughout the first ten months of operations, the operational phase of the experiment extended over nearly four years in total. Analysis will be based on data collected from households during their first two years after enrollment in the experiment. The experimental programs were continued for a third year

in order to avoid confusion between participants' reactions to the experimental offers and their adjustment to the phaseout of the experiment. During their last year in the experiment eligible and interested households were aided in entering other housing programs.

I.3 ALLOWANCE PLANS USED IN THE DEMAND EXPERIMENT

The Demand Experiment tested a number of combinations of payment formulas and housing requirements and several variations within each of these combinations. These variations allow some possible program designs to be tested directly. More importantly, they allow estimation of key responses such as participation rates and changes in participant housing in terms of basic program parameters such as the level of allowances; the level and type of housing requirements; the minimum fraction of its own income that a household can be expected to contribute toward housing; and the way in which allowances vary with household income and rent. These response estimates can be used to address the policy questions for a larger set of candidate program plans, beyond the plans directly tested.¹

Payment Formulas

Two payment formulas were used in the Demand Experiment--Housing Gap and Percent of Rent.

Under the Housing Gap formula, payments to households constitute the difference between a basic payment level, C, and some reasonable fraction of family income. The payment formula is:

$$P = C - bY$$

where P is the payment amount, C is the basic payment level, "b" is the rate at which the allowance is reduced as income increases, and Y is

¹The basic design and analysis approach, as approved by the HUD Office of Policy Development and Research, is presented in Abt Associates Inc., Experimental Design and Analysis Plan of the Demand Experiment, Cambridge, Mass., August 1973, and in Abt Associates Inc., Summary Evaluation Design, Cambridge, Mass., June 1973. Details of the operating rules of the Demand Experiment are contained in Abt Associates Inc., Site Operating Procedures Handbook, Cambridge, Mass., April 1973.

the net family income.¹ The basic payment level, C, varies with household size, and is proportional to C*, the estimated cost of modest existing standard housing at each site.² Thus, payment under the Housing Gap formula can be interpreted as making up the difference between the cost of decent housing and the amount of its own income that a household should be expected to pay for housing.³

Under the Percent of Rent formula, the payment is a percentage of the household's rent. The payment formula is:

$$P = aR$$

where R is rent and "a" is the fraction of rent paid by the allowance. In the Demand Experiment the value of "a" remained constant once a household had been enrolled.⁴

Housing Requirements

The Percent of Rent payment formula is tied directly to rent: a household's allowance payment is proportional to the total rent. Under the Housing Gap formula, however, specific housing requirements are needed to tie the allowance to housing. Two types of housing requirement were used: Minimum Standards and Minimum Rent.

¹In addition, whatever the payment calculated by the formula, the actual payment cannot exceed the rent paid.

²The housing cost parameter, C*, was established from estimates given by a panel of qualified housing experts in Pittsburgh and Phoenix. For more detailed discussion regarding the derivation of C*, refer to Abt Associates Inc., Working Paper on Early Findings, Cambridge, Mass., January 1975, Appendix II.

³As long as their housing met certain requirements (discussed below), Housing Gap households could spend more or less than C* for housing, as they desired, and hence contribute more or less than "b" of their own income. This is in contrast to other housing programs, such as Section 8 (Existing).

⁴Five values of "a" were used in the Demand Experiment. Once a family had been assigned its "a" value, the value generally stayed constant in order to aid experimental analysis. In a national Percent of Rent program, "a" would probably vary with income and/or rent. Even in the experiment, if a family's income rose beyond a certain point, the value of "a" dropped rapidly to zero. Similarly, the payment under Percent of Rent could not exceed C* (the maximum payment under the modal Housing Gap plan), which effectively limited the rents subsidized to less than C*/a.

Under the Minimum Standards requirement, participants received the allowance payment only if they occupied dwellings that met certain physical and occupancy standards. Participants occupying units that did not meet these standards either had to move or arrange to improve their current units to meet the standards. Participants already living in housing that met standards could use the allowance to pay for better housing or to reduce their rent burden (the fraction of income spent on rent) in their present units.

If housing quality is broadly defined to include all residential services, and if rent levels are highly correlated with the level of services, then a straightforward housing requirement (one that is relatively inexpensive to administer) would be that recipients spend some minimum amount on rent. Minimum Rent was considered as an alternative to Minimum Standards in the Demand Experiment, in order to observe differences in response and cost and to assess the relative merits of the two types of requirements. Although the design of the experiment used a fixed minimum rent for each household size, a direct cash assistance program could employ more flexible structures. For example, some features of the Percent of Rent formula could be combined with the Minimum Rent requirement. Instead of receiving a zero allowance if their rent is less than the Minimum Rent, households might be paid a fraction of their allowance depending on the fraction of Minimum Rent paid.

Allowance Plans Tested

The three combinations of payment formulas and housing requirements used in the Demand Experiment were Housing Gap Minimum Standards, Housing Gap Minimum Rent, and Percent of Rent. A total of 17 allowance plans were tested.

The twelve Housing Gap allowance plans are shown in Table I-1. The first nine plans include three variations in the basic payment level, C (1.2C*, C*, and 0.8C*) and three variations in housing requirements (Minimum Standards, Minimum Rent Low (0.7C*), and Minimum Rent High (0.9C*)). The value of "b"--the rate at which the allowance is reduced as income increases--is 0.25 for each of these plans. The next two

plans have the same level of C (C*) and use the Minimum Standards Housing Requirement, but use different values of "b". In the tenth plan the value of "b" is 0.15, and in the eleventh plan, 0.35. Finally, the twelfth plan is unconstrained, that is, it has no housing requirement. This unconstrained plan allows a direct comparison with a general income-transfer program.

Eligible households that did not meet the housing requirement were still able to enroll. They received full payments whenever they met the requirements during the three years of the experiment. Even before meeting the housing requirements, such households received a cooperation payment of \$10 per month as long as they completed all reporting and interview requirements.

Within the Housing Gap design, the average effects of changes in the allowance level or housing requirements can be estimated for all the major responses. In addition, interactions between the allowance level and the housing requirement can be assessed. Responses to variations in the allowance/income schedule (changes in "b") can be estimated for the basic combination of the Minimum Standards housing requirement and payments level of C*.

The Percent of Rent allowance plans consist of five variations in "a" (the proportion of rent paid to the household), as shown in Table I-1.¹ A demand function for housing is estimated primarily from the Percent of Rent observations. Demand functions describe the way in which the amount people will spend on housing is related to their income, the relative price of housing and other goods, and various demographic characteristics. Such functions may be used to simulate response to a variety of possible rent subsidy programs not directly tested within the Demand Experiment. Together with estimates of supply response, they may also be used to simulate the change in market prices and housing expenditures over time due to shifts in housing demand or costs.

¹ Designation of multiple plans for the same "a" value reflects an early assignment convention and does not indicate that the households in these plans were treated differently for either payment purposes or analysis.

**Table I-1
ALLOWANCE PLANS TESTED**

HOUSING GAP* ($P = C - bY$, where C is a multiple of C^*)

b VALUE	C LEVEL	HOUSING REQUIREMENTS			
		Minimum Standards	Minimum Rent Low = $0.7C^*$	Minimum Rent High = $0.9C^*$	No Requirement
b = 0.15	C^*	Plan 10			
b = 0.25	$1.2C^*$	Plan 1	Plan 4	Plan 7	
	C^*	Plan 2	Plan 5	Plan 8	Plan 12
	$0.8C^*$	Plan 3	Plan 6	Plan 9	
b = 0.35	C^*	Plan 11			

Symbols: b = Rate at which the allowance decreases as the income increases.
 C^* = Basic payment level (varied by family size and also by site)

PERCENT OF RENT ($P = aR$)

a = 0.6	a = 0.5	a = 0.4	a = 0.3	a = 0.2
Plan 13	Plans 14 - 16	Plans 17 - 19	Plans 20 - 22	Plan 23

CONTROLS.

With Housing Information	Without Housing Information
Plan 24	Plan 25

Control Groups

In addition to the various allowance plans, control groups were necessary in order to establish a reference level for responses, since a number of uncontrolled factors could also induce changes in family behavior during the course of the experiment. Control households received a cooperation payment of \$10 per month. They reported the same information as families that received allowance payments, including household composition and income; they permitted housing evaluations; and they completed the Baseline Interview and the three Periodic Interviews. (Control families were paid an additional \$25 fee for each Periodic Interview.)

Two control groups were used in the Demand Experiment. Members of one group (Plan 24) were offered a Housing Information Program when they joined the experiment and were paid \$10 for each of five sessions attended. (This program was also offered to households enrolled in the experimental allowance plans but they were not paid for their attendance.) The other control group (Plan 25) was not offered the Housing Information Program. All the households in the various allowance plans had to meet a basic income eligibility requirement. This limit was approximately the income level at which the household would receive no payment under the Housing Gap formula:

$$\text{Income Eligibility Limit} = \frac{C^*}{0.25}$$

In addition, households in plans with lower payment levels (Plans 3, 6, 9 and 11) had to have incomes low enough at enrollment to receive payment under these plans. Finally, only households with incomes in the lower third of the eligible population were eligible for enrollment in Plan 13, and only those in the upper two-thirds were eligible for Plan 23.

I.4 FINAL SAMPLE

Final analysis of the impact of the housing allowance will be based on the first two years of experimental data. Thus, the key sample size

for this report and the other reports in this series is the number of households in the experiment at the end of the first two years. The two-year sample size is shown in Table I-2, and comprises households that were still active, in the sense that they were continuing to fulfill reporting requirements. The sample size for a particular analysis may be smaller. For example, analysis of the mobility of searchers is based on the sample of households that either searched for housing or moved during their participation in the program. The primary analysis of housing expenditures uses only those households that met the applicable housing requirements during their first year of enrollment.

**Table I-2
SAMPLE SIZE AFTER TWO YEARS**

HOUSING GAP* ($P = C - bY$, where C is a multiple of C^*)

b VALUE	C LEVEL	HOUSING REQUIREMENTS			
		Minimum Standards	Minimum Rent Low = $0.7C^*$	Minimum Rent High = $0.9C^*$	No Requirement
b = 0.15	C^*	Plan 10 PIT = 45 PHX = 36			
b = 0.25	$1.2C^*$	Plan 1 PIT = 33 PHX = 30	Plan 4 PIT = 34 PHX = 24	Plan 7 PIT = 30 PHX = 30	
	C^*	Plan 2 PIT = 42 PHX = 35	Plan 5 PIT = 50 PHX = 39	Plan 8 PIT = 44 PHX = 44	Plan 12 PIT = 63 PHX = 40
	$0.8C^*$	Plan 3 PIT = 43 PHX = 39	Plan 6 PIT = 44 PHX = 35	Plan 9 PIT = 43 PHX = 35	
b = 0.35	C^*	Plan 11 PIT = 41 PHX = 34			

Total Housing Gap: 512 households in Pittsburgh, 421 households in Phoenix

Symbols: b = Rate at which the allowance decreases as the income increases.
 C^* = Basic payment level (varied by family size and also by site)

PERCENT OF RENT ($P = aR$):

a = 0.6	a = 0.5	a = 0.4	a = 0.3	a = 0.2
Plan 13 PIT = 28 PHX = 21	Plans 14 - 16 PIT = 109 PHX = 81	Plans 17 - 19 PIT = 113 PHX = 66	Plans 20 - 22 PIT = 92 PHX = 84	Plan 23 PIT = 65 PHX = 46

Total Percent of Rent: 407 households in Pittsburgh, 298 households in Phoenix.

CONTROLS.

With Housing Information

Without Housing Information

Plan 24 PIT = 159 PHX = 137	Plan 25 PIT = 162 PHX = 145
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Total Controls 321 households in Pittsburgh, 282 households in Phoenix.

NOTE This sample includes households that were active, although not necessarily receiving payments, after two years of enrollment; households whose enrollment income was above the eligibility limits or that moved into subsidized housing or their own homes are excluded. While data on the excluded households may be useful for special analyses, particular analyses may also require the use of a still more restricted sample than the one shown here

APPENDIX II
SAMPLE AND VARIABLE DEFINITIONS

This appendix focuses on the definitions of the variables and the basic sample used in the analysis. The variables fall into three categories: characteristics of the search process (including resulting moves, if any), household characteristics, and other variables. Most of the variables are based on information obtained from the Baseline Interview, the Initial Household Report Form, or one of the three Periodic Interviews.¹

II.1 SAMPLE DEFINITION

The basic sample used in this analysis includes all Experimental and Control households that were active two years after enrollment.² Households with enrollment incomes over the income eligibility limits³ and households living in their own homes or in subsidized housing have been excluded.

Households That Moved

Determination of a move during the two years of the experiment was based on comparison of the addresses at which the Initial Household Report Form and the First, Second, and Third Periodic Interviews were given. Households residing at a different address at the time of any one of the interviews

¹The Baseline Interview was conducted approximately two months before the enrollment offer was made. The Initial Household Report Form was completed as part of the enrollment process approximately two months after the Baseline Interview. The First, Second, and Third Periodic Interviews were conducted approximately six months, one year, and two years, respectively, after enrollment.

²"Active" refers to those households that continued to reside in the program area and to fulfill reporting requirements.

³During the enrollment process, two months were allowed after completion of the Initial Household Report Form to obtain third-party verification of participant-declared income. Because the timing of subsequent analytic reports rested on the date at which enrollment was completed for all households, an accelerated enrollment process was adopted in January 1974. Under this procedure, households were enrolled, if necessary, without prior verification if their Initial Household Report Form income was less than \$500 above the eligibility limit. As a result of the verification process, some of these households were later determined to have incomes over the eligibility limits.

were counted as having moved (regardless of their response to interview questions on moving).

Households That Searched

If a move (as defined above) took place during the two years of the experiment, the household was automatically considered to be a searcher. Households that did not move, but reported that they searched for housing at any of the Periodic Interviews, were also classified as searchers. Information about search activity was based on household responses to First Periodic Interview Question 58, Second Periodic Interview Question 45, and Third Periodic Interview Question 62. The text of that question in all three interviews was:

In the past ___ months, that is since _____ 197_, have you or anyone in your household looked for or tried to find a new house or apartment?

II.2 CHARACTERISTICS OF SEARCH AND MOVE

Households reporting that they had searched or moved were asked a number of questions about their search experiences, including how much effort they had expended, what information sources they used, where they looked for housing, and what role discrimination played in their search. Additionally, movers were asked where they had moved in relation to their origin neighborhood. A household's search period often extended across more than one of the time periods preceding the Periodic Interviews. For households that searched but did not move, information is taken from all Periodic Interviews in which the household reported searching. For households that moved only once, information is taken for the search period leading up to the move. In the case of households that moved two or more times, information is taken for the period of search preceding the last move.

Search Effort

Number of dwellings seen, number of inquiries made by telephone, and length of search are the three major indicators of search effort available from the periodic Interviews.

All searchers answered questions about the number of dwellings they saw (First Periodic Interview Question 65, Second Periodic Interview Question 52, Third Periodic Interview Question 69). The text of that question was:

During the past ___ months, that is since _____, 197__, altogether about how many different houses or apartments have you (or someone from your household) actually visited? By visited we mean actually go inside to look at.

Information about the number of inquiries made by telephone was also obtained from all searchers (First Periodic Interview Question 66, Second Periodic Interview Question 53, Third Periodic Interview Question 70). The text of that question was:

During the past ___ months, that is since _____, 197__, altogether about how many different houses or apartments did you (or someone from your household) actually call or inquire about on the telephone?

Questions about search time were asked only of movers (First Periodic Interview Question 94, Second Periodic Interview Question 92, Third Periodic Interview Question 124). The text of that question was:

From the time you first started looking, how long did it take you until you found this place?

The number of dwellings visited and the number of telephone inquiries made were taken from each Periodic Interview during which search was reported and summed to get a total for the entire search period. Calendar time spent on search was measured at the end of the search.

Information Sources

A record of the information sources used by all searchers was compiled from the three Periodic Interviews (First Periodic Interview Question 62, Second Periodic Interview Question 49, Third Periodic Interview Question 66). The text of that question was:

During the past ___ months, that is since _____, 197__, while looking for a new place to live, did you or your family find out about available houses or apartments from (READ EACH ITEM):

- A. Newspapers
- B. Real estate agencies
- C. Neighborhood bulletin boards

- D. Vacancy signs on buildings
- E. Friends or relatives
- F. Social or family service workers
- G. Somewhere else (SPECIFY)

Households were considered to have used market-specific information sources if they responded positively to any one of items A, B, or D.

Movers were also asked to designate which source helped them to locate the unit they moved into (First Periodic Interview Question 93, Second Periodic Interview Question 91, Third Periodic Interview Question 99). The text of that question was:

Which of these ways comes closest to describing how you or other members of your household first found out that this (house/apartment) was available?

- A. Newspaper
- B. Real estate agency
- C. Neighborhood bulletin board
- D. Vacancy sign on building
- E. Friend or relative
- F. Social or family service worker
- G. Knew people who moved out of this apartment
- H. Other (SPECIFY)
- I. Don't know, don't remember

Neighborhoods Searched In

All households that searched after the first six months of the experiment were asked the number of neighborhoods they had searched in (Second Periodic Interview Question 62, Third Periodic Interview Question 79). The text of that question was:

In the past ___ months, that is since _____, 197_, when you looked for a place, how many different (neighborhoods/areas) did you look in (including the one to which you have now moved)?

They were also asked to name, if possible, or describe the location of each of these neighborhoods (Second Periodic Interview Questions 63 and 64, Third Periodic Interview Questions 80 and 81). See Appendix III for detailed information about variables related to the neighborhoods where households searched.

Searching Outside Origin Neighborhood

All searchers were asked if they had looked for housing outside their origin neighborhoods (First Periodic Interview Question 74, Second Periodic Interview Question 61, Third Periodic Interview Question 78). If a household responded positively to this question on any Periodic Interview during the search period, it was considered to have searched outside its origin neighborhood. The text of that question was:

Were any of the places you looked at outside of the
(neighborhood/area) you are living in now?

This measure of perceived extent of search is used in Appendix IV. An analogous measure based on information about the actual neighborhoods where households looked, rather than household perceptions, is used in the text. The derivation of this alternative measure, and the degree of correspondence between the two measures, are described in Appendix III.

Perceived Discrimination

All searchers were asked about their experiences with various forms of discrimination during search (First Periodic Interview Question 76, Second Periodic Interview Question 65, Third Periodic Interview Question 82). Information about discrimination was taken from each of the Periodic Interviews on which the search was described. The text of that question was:

In looking for houses or apartments in the past ___ months, that is since _____, 197_, do you feel that you experienced any discrimination from landlords, superintendents or other people who rent apartments because of your or anyone in your household's (READ EACH ITEM):

- A. Age
- B. Sex
- C. Marital status
- D. Race
- E. Nationality
- F. Sources of income
- G. Children
- H. Receiving a housing allowance¹

¹Item H was not asked of households in the Control group.

There was a high degree of overlap observed between minority households reporting racial discrimination and those reporting discrimination because of nationality.¹ Therefore, the responses to these two items were combined to yield a single measure called "racial/ethnic discrimination." A second, more general, measure of discrimination was derived which classified households as having reported discrimination if they reported any of the types of discrimination listed above.

Expectation of Discrimination and Neighborhood Avoidance

All searchers were asked if they had avoided looking in certain neighborhoods because they expected to encounter discrimination there (First Periodic Interview Question 63, Second Periodic Interview Question 50, Third Periodic Interview Question 67). If a household answered this question in the affirmative at any point in the search period, it was considered to have curtailed its search because it expected discrimination. The text of that question was:

In the past ___ months, that is since _____, 197_, have you avoided looking in certain (neighborhoods/areas) because you expected some sort of discrimination?

Moves Out of Origin Neighborhood

Movers were asked where they had relocated, relative to their origin neighborhood (First Periodic Interview Question 90, Second Periodic Interview Question 86, Third Periodic Interview Question 116). The text of that question was:

Did you stay pretty much in the same (neighborhood/area) when you moved here, or did you move to a new (neighborhood/area)?

This measure, based on households' perceived origin neighborhoods, is used in Appendix IV. An analogous variable based on the neighborhoods where

¹Only 1 percent (N = 946) of the nonminority searchers at both sites reported that they were discriminated against because of their nationality. In contrast, 15 percent (N = 159) of the black searchers in Pittsburgh, 7 percent (N = 61) of the black searchers in Phoenix, and 4 percent (N = 182) of the Spanish American searchers in Phoenix did so. Of all minority households reporting this difficulty, 89 percent (N = 36) also reported racial discrimination.

households actually searched is used in the text. This alternative measure, and the correspondence between the two measures, are described in Appendix III.

II.3 HOUSEHOLD CHARACTERISTICS

All demographic information was taken from the Periodic Interview prior to the beginning of the household's search period.

Age of Head of Household

Age was derived from the date of birth of the person determined to be the head of household according to census definitions.

Sex of Head of Household

To determine sex of the head of household, the census convention was used. Under this convention, all households that contained both a head of household and a spouse were classified as having a male head of household. Therefore, unless the household had a single female head, it was classified as having a male head of household.

Marital Status

Households were classified as married if both a household head and a spouse were present.

Race/Ethnicity

The following categories of racial or ethnic identification have been used in this report:

Pittsburgh: white, black
Phoenix: white, black, Spanish American

Major Source of Income

The single source accounting for the largest proportion of a household's income was determined to be its major source of income. Three basic income types were used: earned income, welfare income, and other income transfers.

Number of Children

Number of children is defined as the number of children under 18 years of age who are related to the head of the household (including stepchildren and foster children). Young children listed as cousins, grandchildren, etc. are not included.

II.4 OTHER VARIABLES

Satisfaction

All searchers were asked about satisfaction with their present housing (Baseline Interview Question 2, First Periodic Interview Question 101, Second Periodic Interview Question 101) and neighborhood (Baseline Interview Question 1, First Periodic Interview Question 106, Second Periodic Interview Question 105). The text of those questions was:

In general, how satisfied are you with the (house/apartment) you now live in--would you say very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

In general, how satisfied or dissatisfied are you with this neighborhood as a place to live--would you say very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?

Households in the first two categories (very satisfied, somewhat satisfied) were grouped together as being satisfied, and households in the last two categories (somewhat dissatisfied, very dissatisfied) as being dissatisfied. Information about household satisfaction is taken from the interview prior to the beginning of the household's search period.

Desire to Move Out of Origin Neighborhood

Movers were asked retrospectively if they had wanted to move out of their origin neighborhood when they began their search for housing (First Periodic Interview Question 75, Second Periodic Interview Question 60, Third Periodic Interview Question 77). The text of that question was:

When you first started looking, did you want to move to a new (neighborhood/area)?

Predisposition to Move

All households responding to the Baseline Interview were asked what actions they would take if they had \$50 more to spend on rent every month (Baseline Interview Question 77). The text of that question was:

If you had \$50 more to spend on rent every month, would you move from this (house/apartment) or have the landlord improve this (house/apartment) for a higher rent? (RECORD VERBATIM AND CODE INITIAL RESPONSE)

Move from this unit

Have landlord improve this unit

Would continue to rent this unit, no improvements necessary

Would try to buy this unit

Other (SPECIFY)

Households responding that they would "move from this unit" were considered to have a predisposition or willingness to move.

Housing Information Program (HIP)

Information about attendance at each of the five HIP sessions was taken from site attendance records.

APPENDIX III

NEIGHBORHOODS DEFINED FOR ANALYSIS OF SEARCH BEHAVIOR

Households in the Demand Experiment that searched for housing were asked on the Second (first annual) and Third (second annual) Periodic Interviews to indicate the neighborhoods in which they had searched.¹ A three-stage questioning procedure was used. Searchers first indicated whether they had looked in any neighborhood other than the neighborhood of residence. Those that responded "yes" were then asked how many neighborhoods they had looked in since the last interview. Searchers that had looked in five neighborhoods or fewer during the period covered by an interview were asked to provide a complete list of the neighborhoods seen. When the search had been conducted in more than five neighborhoods, a partial list of those neighborhoods was recorded: the first neighborhood seen, the last neighborhood seen, and the neighborhood seen most frequently. Many households included their origin neighborhoods in these lists. In the case of movers, the destination neighborhood for a mover was always known and was included in the list of areas seen.

Definition of Neighborhoods

In Allegheny County (Pittsburgh) a list of commonly used neighborhood names was compiled from maps of the area. Households were allowed to volunteer other neighborhood names if they wished. The basic list, plus additions volunteered by respondents, included 364 neighborhood names; 86 of these were in the central city.

To obtain neighborhood descriptors, the initial 364 neighborhood names were each linked to 1970 Census tracts. In some cases, several of the original neighborhoods were contained within a single Census tract. In other instances, a well-defined neighborhood consisted of several tracts. In a few cases,

¹ Questions concerning the number and identity of neighborhoods searched in were asked only on the Second and Third Periodic Interviews. Households that searched only during the first 6 months of the experiment (covered by the First Periodic Interview) are therefore excluded from the analysis sample; for other households, only those neighborhoods seen during the 18 months prior to the final interview (the Third Periodic Interview) were recorded.

commonly accepted neighborhood boundaries did not correspond to tract boundaries, so two or more small neighborhoods were collapsed into a single, multiple-tract neighborhood for analytic purposes. In all cases, the boundaries of the neighborhoods used in the analysis corresponded to Census tract boundaries. Outside the central city, commonly accepted neighborhood lines were relatively easy to draw: typically neighborhoods were towns, townships, or subdivisions lying within a single Census tract. Within the central city, neighborhood boundaries were more difficult to define. Commonly used commercial maps and the "Community Profiles" publications of the Department of City Planning were used as guides; when these sources differed, local program administrators were consulted. With the assignment of common neighborhood names to areas for which census data are available, the original 364 neighborhoods were collapsed into 226 neighborhoods. Of these, 72 were in the central city. It is these 226 areas that are considered neighborhoods in the analysis reported in the body of this report.

Households enrolled in the Demand Experiment were all low- or moderate-income renters, and they constituted a small percentage of such households in Allegheny County. As a result, some neighborhoods contained no enrolled households. Households included in the analysis reported here¹ lived or searched in 176 of the county's 226 neighborhoods.

Since neighborhood boundaries were drawn to conform to local usage, the neighborhoods defined in the analysis appear to correspond well to neighborhoods perceived by households in the experiment. When two measures of households' perceptions of the boundaries of their own neighborhoods are compared to two analogous measures derived using the neighborhood boundaries defined for this analysis, the two sets of measures perform similarly. Household perceptions about neighborhood were obtained on the Periodic Interviews. All searchers were asked whether they had ever searched outside their original neighborhood; movers were also asked whether they had moved to a new

¹The analysis sample includes households that were active 2 years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, and those whose search activity was confined to the first 6 months after enrollment. Active households were those that continued to fulfill all of the reporting requirements of the experiment.

neighborhood.¹ These measures of whether households' searches and moves had crossed perceived neighborhood borders were compared with derived measures of whether neighborhood borders were crossed. The derived measures were constructed by (a) checking to see whether households named as search locations any neighborhoods outside the origin neighborhood, and (b) checking to see whether the destination neighborhood for a mover differed from the origin neighborhood. These analytic definitions of whether households searched and/or moved outside their neighborhoods of origin are the ones used in the body of this report. They have been compared with the responses given on the Periodic Interviews to get a simple indication of the correspondence between perceived neighborhoods and neighborhoods defined for this analysis.

The similarity between neighborhoods perceived by interview respondents and neighborhoods defined for this analysis is shown in Table III-1. Eighty-one percent of the searchers that looked only in their origin neighborhood as defined for purposes of this analysis also reported on the Periodic Interviews that they saw only their own neighborhood during their search. Of those households that searched outside their analysis neighborhood of origin, 97 percent reported searching outside their neighborhood on the Periodic Interviews. Overall, only 7 percent of households that searched were classified differently under the two alternative measures. Furthermore, most of the searchers classified differently under the two measures were households that perceived their neighborhoods to be smaller than the neighborhoods defined for analytic purposes. Only 10 households (2 percent of all searchers) that said they searched exclusively within their perceived neighborhood were categorized as doing some searching outside their origin neighborhood according to the analytic definition of neighborhoods.

Among the subsample of movers, the fit between the two measures is somewhat weaker, but is still good. Of those who moved within their analysis neighborhood of origin, 92 percent reported on the Periodic Interview that they

¹The questions asked on the Periodic Interviews were: "Were any of the places you looked at outside of the (neighborhood/area) you are living in now?" and "Did you stay pretty much in the same (neighborhood/area) when you moved here, or did you move to a new (neighborhood/area)?" The former question was asked of all searchers; the latter was asked only of movers.

Table III-1

CORRESPONDENCE BETWEEN NEIGHBORHOODS AS DEFINED BY PERIODIC INTERVIEW RESPONDENTS
AND NEIGHBORHOODS AS DEFINED FOR ANALYSIS

HOUSEHOLD STATUS BASED ON NEIGHBORHOODS AS DEFINED FOR ANALYSIS	HOUSEHOLD STATUS BASED ON NEIGHBORHOODS AS DEFINED BY PERIODIC INTERVIEW RESPONDENTS		SAMPLE SIZE
	PERCENTAGE OF HOUSEHOLDS THAT NEVER SEARCHED OUTSIDE THEIR ORIGIN NEIGHBORHOOD	PERCENTAGE OF HOUSEHOLDS THAT SEARCHED OUTSIDE THEIR ORIGIN NEIGHBORHOOD	
Households that never searched outside their origin neighborhood	81%	19%	(140)
Households that searched outside their origin neighborhood	3	97	(379)
Percentage of households classified identically under both definitions = 93%			

HOUSEHOLD STATUS BASED ON NEIGHBORHOODS AS DEFINED FOR ANALYSIS	HOUSEHOLD STATUS BASED ON NEIGHBORHOODS AS DEFINED BY PERIODIC INTERVIEW RESPONDENTS		SAMPLE SIZE
	PERCENTAGE OF HOUSEHOLDS THAT MOVED WITHIN THEIR ORIGIN NEIGHBORHOOD	PERCENTAGE OF HOUSEHOLDS THAT MOVED OUTSIDE THEIR ORIGIN NEIGHBORHOOD	
Households that moved within their origin neighborhood	92%	8%	(125)
Households that moved outside their origin neighborhood	18	82	(135)
Percentage of households classified identically under both definitions = 87%			

SAMPLE: All Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES: Periodic Interviews, 1970 Census of Population.

had moved within the same neighborhood. Eighty-two percent of households leaving their analysis neighborhood of origin reported going to a new neighborhood when they moved. Overall, 87 percent of movers are classified identically using the two measures of moving to a new neighborhood. This finding again strongly suggests that the neighborhoods defined for the analysis of search behavior conform well to the neighborhoods perceived by the sample of households used for the analysis.

Racial Characteristics of Neighborhoods

Since the principal purpose of the analysis reported in the text is to examine the search behavior of black households, the neighborhoods in which households searched have been categorized according to their racial composition using 1970 census data. Neighborhoods in which 50 percent or more of the population is black were classified as black; those with at least 15 percent but fewer than 50 percent black population were classified as mixed. The remaining neighborhoods, which are predominantly white, were divided into two groups: those that include one or more black or mixed Census tracts and those that do not.¹

The neighborhoods used in the analysis of search behavior vary in size and in degree of racial homogeneity. Understanding the character of these neighborhoods should not only aid interpretation of the analyses in this report but also facilitate comparisons between the findings presented here and the findings of other research, which frequently uses Census tracts as the geographic unit of analysis.² The modal neighborhood consists of one Census tract; 40 percent of the neighborhoods ever lived in or searched in by Demand Experiment households were single-tract neighborhoods. The mean neighborhood,

¹Within Census tracts, population may not be evenly distributed. Thus even a "white" Census tract, which may have up to 15 percent black households, may have concentrations of black families. Similarly, "black" tracts may contain clusters of white households. The neighborhood descriptors used here must therefore be interpreted as indicators of the broad character of residential areas.

²An extensive analysis of the racial and income characteristics of Census tracts lived in by enrolled households at the beginning and end of the Demand Experiment is presented in Atkinson, Hamilton, and Myers, 1979.

however, includes two or three tracts (Table III-2). Since many neighborhoods consist of more than one Census tract, and since Census tracts tend to be relatively homogeneous geographic units within the county, it is to be expected that neighborhoods contain a greater variety of residential settings than Census tracts on average. This is especially true in mixed neighborhoods and in white neighborhoods including black or mixed tracts. These neighborhoods are, by definition, nonhomogeneous. In addition, they tend to include a larger number of Census tracts than other neighborhoods, particularly in the suburbs. This reflects the fact that the racially more heterogeneous suburban neighborhoods tend to be older industrial towns that have become suburbs of Pittsburgh, whereas 49 percent of the white suburban neighborhoods are single-tract towns or collections of townships and subdivisions. (There are no black suburban neighborhoods.)¹

There are at least two ways in which the characteristics of neighborhoods and Census tracts may be compared. The first is to compare the percentage of tracts and neighborhoods that fall into each of the categories of racial composition. Census tracts are classified on the basis of the percentage of resident households that are black. Tracts with fewer than 15 percent black households are designated "white;" those with at least 15 percent but fewer than 50 percent black households are "mixed;" all others are "black." The distribution of Census tracts and neighborhoods across types of neighborhoods for all neighborhoods lived in or searched in by enrolled households (176 neighborhoods), and for the entire county (226 neighborhoods) is given in Table III-4. The distribution of neighborhoods across different levels of minority concentration is similar to the distribution of Census tracts.

A second way of comparing the racial composition of tracts and neighborhoods is to note (a) the number of tracts included in neighborhoods of a different racial type and (b) the number of neighborhoods that include at least one tract of a different type. Thirteen percent of the Census tracts were included in neighborhoods of a racial type different from that of the tract, and 15 percent of the neighborhoods included at least one tract different in racial

¹If all neighborhoods in Allegheny County are considered rather than only those neighborhoods in which Demand Experiment households lived or searched, the same patterns persist (Table III-3).

Table III-2

NUMBER OF CENSUS TRACTS IN NEIGHBORHOODS LIVED IN OR SEARCHED
IN BY HOUSEHOLDS IN THE DEMAND EXPERIMENT, BY RACIAL COMPOSITION
OF NEIGHBORHOOD

RACIAL COMPOSITION OF NEIGHBORHOOD	NUMBER OF NEIGHBORHOODS	NUMBER OF CENSUS TRACTS IN NEIGHBORHOOD	
		MEAN	MEDIAN
<u>Central City</u>	61	2.8	2.2
Black neighborhood	14	2.5	2.0
Mixed neighborhood	6	2.8	3.0
White neighborhood that includes black or mixed Census tracts	8	5.0	2.5
White neighborhood that does not include black or mixed Census tracts	33	2.4	2.0
<u>Rest of County</u>	115	2.6	1.7
Black neighborhood	0	-	-
Mixed neighborhood	7	5.6	5.2
White neighborhood that includes black or mixed Census tracts	7	7.4	6.2
White neighborhood that does not include black or mixed Census tracts	101	2.1	1.5
<u>All Neighborhoods</u>	176	2.7	1.9

SAMPLE: Neighborhoods defined for analysis that were lived in or searched
in by households in the Demand Experiment.

DATA SOURCES: Baseline and Periodic Interviews, 1970 Census of Population.

Table III-3
NUMBER OF CENSUS TRACTS IN ALL NEIGHBORHOODS BY RACIAL
COMPOSITION OF NEIGHBORHOOD

RACIAL COMPOSITION OF NEIGHBORHOOD	NUMBER OF NEIGHBORHOODS	NUMBER OF CENSUS TRACTS IN NEIGHBORHOOD	
		MEAN	MEDIAN
<u>Central City</u>	72	2.6	2.0
Black neighborhood	16	2.3	1.8
Mixed neighborhood	7	2.6	2.8
White neighborhood that includes black or mixed Census tracts	8	5.0	2.5
White neighborhood that does not include black or mixed Census tracts	41	2.3	2.0
<u>Rest of County</u>	154	2.2	1.4
Black neighborhood	0	-	-
Mixed neighborhood	7	5.6	5.2
White neighborhood that includes black or mixed Census tracts	7	7.4	6.2
White neighborhood that does not include black or mixed Census tracts	140	1.8	1.0
<u>All Neighborhoods</u>	226	2.3	1.5

SAMPLE: Neighborhoods defined for analysis.
DATA SOURCES: 1970 Census of Population.

Table III-4
 RACIAL COMPOSITION OF CENSUS TRACTS AND NEIGHBORHOODS

NEIGHBORHOODS LIVED IN OR SEARCHED IN BY HOUSEHOLDS IN THE DEMAND EXPERIMENT

RACIAL COMPOSITION OF CENSUS TRACTS (N = 470)		RACIAL COMPOSITION OF NEIGHBORHOODS (N = 176)	
Black Census tract	9%	Black neighborhood	8%
Mixed Census tract	11	Mixed neighborhood	7
White Census tract	80	White neighborhood that includes black or mixed Census tracts	9
		White neighborhood that does not include black or mixed Census tracts	76
Total	100	Total	100

ALL NEIGHBORHOODS

RACIAL COMPOSITION OF CENSUS TRACTS (N = 527)		RACIAL COMPOSITION OF NEIGHBORHOODS (N = 226)	
Black Census tract	9%	Black neighborhood	10%
Mixed Census tract	10	Mixed neighborhood	6
White Census tract	81	White neighborhood that includes black or mixed Census tracts	5
		White neighborhood that does not include black or mixed Census tracts	80
Total	100	Total	100

SAMPLE: Census tracts and neighborhoods defined for analysis.
 DATA SOURCES: Baseline and Periodic Interviews, 1970 Census of Population.
 NOTE: Percentages may not sum to 100 percent because of rounding.

type from that of the neighborhood (Table III-5).¹ The patterns are similar when all neighborhoods in the county, rather than only those lived or searched in by enrolled households, are considered (Table III-6). The more common of the discrepant characterizations is for neighborhoods to contain tract(s) with a higher minority concentration than the neighborhood average.

From a purely statistical point of view increased heterogeneity of neighborhoods over Census tracts may be seen as a shortcoming of using neighborhoods as the geographic unit of analysis. From a behavioral point of view, however, there is an advantage to using neighborhoods that conform to households' mental maps of the city. Households presumably evaluate their housing alternatives in the context of a set of perceived neighborhood characteristics and expectations--and degree of heterogeneity, especially racial heterogeneity, is an important neighborhood attribute.

¹In calculating these percentages, black and mixed tracts in neighborhoods characterized as "white neighborhoods including black or mixed tracts" are considered to be in white neighborhoods. These numbers therefore provide some overestimate of the extent to which the descriptions provided by Census tracts and neighborhoods differ.

Table III-5

COMPARISON OF RACIAL COMPOSITION OF NEIGHBORHOODS AND THE CENSUS TRACTS THEY CONTAIN (FOR NEIGHBORHOODS LIVED IN OR SEARCHED IN BY HOUSEHOLDS IN THE DEMAND EXPERIMENT)

RACIAL COMPOSITION OF CENSUS TRACTS	NUMBER OF CENSUS TRACTS	RACIAL COMPOSITION OF NEIGHBORHOOD CONTAINING TRACT			
		BLACK NEIGHBORHOOD	MIXED NEIGHBORHOOD	WHITE NEIGHBORHOOD THAT INCLUDES BLACK OR MIXED CENSUS TRACTS	WHITE NEIGHBORHOOD THAT DOES NOT INCLUDE BLACK OR MIXED CENSUS TRACTS
Black Census tracts	44	32	11	1	0
Mixed Census tracts	52	3	23	26	0
White Census tracts	374	0	22	65	287
Total	470	35	56	92	287

Number of Census tracts contained in a neighborhood of a different type = 63 (13%)

RACIAL COMPOSITION OF NEIGHBORHOODS	NUMBER OF NEIGHBORHOODS THAT CONTAIN CENSUS TRACTS THAT ARE:			
	NUMBER OF NEIGHBORHOODS	BLACK CENSUS TRACTS	MIXED CENSUS TRACTS	WHITE CENSUS TRACTS
Black neighborhoods	14	14	2	0
Mixed neighborhoods	13	8	13	8
White neighborhoods that include black or mixed Census tracts	15	1	15	15
White neighborhoods that do not include black or mixed Census tracts	134	0	0	134
Total	176	23	30	157

Number of neighborhoods containing Census tracts of a different type = 27 (15%)

SAMPLE: Neighborhoods defined for analysis that were lived in or searched in by households in the Demand Experiment and the Census tracts they contain.

DATA SOURCES: Baseline and Periodic Interviews, 1970 Census of Population.

Table III-6

COMPARISON OF RACIAL COMPOSITION OF NEIGHBORHOODS
AND THE CENSUS TRACTS THEY CONTAIN (ALL NEIGHBORHOODS)

RACIAL COMPOSITION OF CENSUS TRACTS	NUMBER OF CENSUS TRACTS	RACIAL COMPOSITION OF NEIGHBORHOOD CONTAINING TRACT			
		BLACK NEIGH- BORHOOD	MIXED NEIGH- BORHOOD	WHITE NEIGH- BORHOOD THAT INCLUDES BLACK OR MIXED CENSUS TRACTS	WHITE NEIGH- BORHOOD THAT DOES NOT IN- CLUDE BLACK OR MIXED CENSUS TRACTS
Black Census tracts	46	34	11	1	0
Mixed Census tracts	53	3	24	26	0
White Census tracts	428	0	22	65	341
Total	527	37	57	92	341

Number of Census tracts contained in a neighborhood of a different type = 63 (12%)

RACIAL COMPOSITION OF NEIGHBORHOODS	NUMBER OF NEIGH- BORHOODS	NUMBER OF NEIGHBORHOODS THAT CONTAIN CENSUS TRACTS THAT ARE:		
		BLACK CENSUS TRACTS	MIXED CENSUS TRACTS	WHITE CENSUS TRACTS
Black neighborhoods	16	16	2	0
Mixed neighborhoods	14	8	14	8
White neighborhoods that include black or mixed Census tracts	15	1	15	15
White neighborhoods that do not include black or mixed Census tracts	181	0	0	181
Total	226	25	31	204

Number of neighborhoods containing Census tracts of a different type = 27 (12%)

SAMPLE: Census tracts and neighborhoods defined for analysis

DATA SOURCES: Baseline and Periodic Interviews, 1970 Census of Population.

REFERENCES

Atkinson, Reilly, William Hamilton, and Dowell Myers, Economic and Racial/
Ethnic Concentration in the Housing Allowance Demand Experiment,
Cambridge, Mass., Abt Associates Inc., January 1979 (revised June
1980).

APPENDIX IV
PERCEIVED DISCRIMINATION

This appendix analyzes the perceived discrimination reported by households that searched for new housing during the Demand Experiment. Results from both experimental sites, Pittsburgh and Phoenix, are included in the analysis. The search behavior of minority households in Phoenix has not been discussed in the main text of the report because the level of detail of neighborhood data in Phoenix was not sufficient to permit an analysis of the search pattern of minority households comparable to that performed for Pittsburgh. However, data on perceived discrimination are equally available for both sites and both Phoenix and Pittsburgh have been included in the analysis in this appendix.

A major potential advantage of a housing allowance program over public housing and other government housing programs is that it would give households greater latitude in choosing a place to live. To the extent that discrimination (either experienced or anticipated) limits the ability of all households to locate better housing or the ability of minority households to move to areas of lower minority concentration, this advantage is subverted. Thus, it is important as a matter of policy to observe the type and degree of discrimination encountered by households during the experiment.

Information concerning discrimination was obtained primarily from the three Periodic Interviews. All households that searched for rental units during the experiment were asked whether they had encountered various forms of discrimination during their search. All forms are generally referred to as "discrimination" in this appendix. Because of their particular policy relevance, however, findings concerned specifically with discrimination against minority households are discussed at some length.

¹The perceived discrimination question included in the Periodic Interviews asked households about their experiences with several forms of discrimination, including racial discrimination and discrimination on the basis of nationality. Only 1 percent (N = 946) of the nonminority searchers at both sites reported that they were discriminated against because of their nationality. In contrast, 15 percent (N = 159) of the black searchers in Pittsburgh, 7 percent (N = 61) of the black searchers in Phoenix, and 4 percent (N = 182) of the Spanish American searchers in Phoenix did so. Of all minority households reporting this difficulty, 89 percent (N = 36) also reported racial discrimination. Because of this high degree of overlap, racial discrimination and discrimination because of nationality were combined to form the racial/ethnic discrimination variable used in this appendix.

Household characteristics and the nature of the search process are expected to affect whether a household encounters discrimination. Conversely, discrimination (or expected discrimination) may affect the household's search. Thus, household characteristics, search patterns, and the supply of available units combine to influence whether a household will encounter discrimination and, furthermore, whether discrimination will function as a barrier to the household's mobility.

The analysis that follows considers only enrolled households that were still active in the Demand Experiment at the end of two years. Section IV.1 reports the overall incidence of various types of discrimination at both sites. Particular attention is paid to the relationships between household characteristics and reporting of specific problems. Section IV.2 examines the pattern of discrimination separately for each racial/ethnic group. Section IV.3 considers the relationships between various aspects of the search process and reported discrimination.

It is important to note that using household perceptions as a measure of discrimination introduces two types of measurement error. The major problem from a policy standpoint is that certain types of discrimination may go unnoticed or unreported, resulting in an underestimation of the magnitude of the problem.¹ On the other hand, households may mistakenly report discrimination where none has occurred. This situation is particularly likely if households expect (and are therefore predisposed to perceive) discrimination. There is no way to determine the extent to which these types of error are present in the Demand Experiment data.

IV.1 REPORTED INCIDENCE OF DISCRIMINATION

Three striking features emerge from the pattern of discrimination reported during the experiment. First, while a large percentage of households at both sites reported experiencing at least one type of discrimination,

¹It is possible, however, to see whether housing market outcomes are consistent with the hypothesis that some households were discriminated against in their search for housing. This type of analysis has been done by numerous researchers investigating the relationship between race and housing consumption. (See, for example, Kain and Quigley, 1975.) In the context of the Demand Experiment, Merrill (1977) found evidence of small price mark-ups in Pittsburgh's ghetto market. However, she found that both white and black households paid a premium for ghetto housing.

the reported incidence was significantly higher in Pittsburgh (54 percent, versus 33 percent in Phoenix). Each of the specific types of discrimination based on household characteristics was also reported by a greater percentage of households in Pittsburgh (Table IV-1).

These differences in the reported incidence of discrimination may be at least partly attributable to differences in sample composition at the two sites. The percentage of households that were black, welfare-dependent, female-headed, or headed by a single parent with children was greater in Pittsburgh than Phoenix (Abt Associates Inc., 1975, p. 9). Households with these characteristics were most likely to report relevant forms of discrimination at both sites (Figure IV-1). Note, however, that sample composition cannot explain site differences between groups having the same household characteristics. For example, it does not explain why black searchers reported more racial discrimination, or why welfare-dependent households were more likely to report discrimination because of their source of income in Pittsburgh than in Phoenix. One possible explanation is that the tighter housing market in Pittsburgh enabled landlords to be more selective in screening prospective tenants.¹

The second striking feature of the pattern of reported discrimination is the high percentage of households reporting discrimination because of children. This form of discrimination was the most commonly reported form of discrimination for all racial/ethnic groups at both sites. Forty-five percent of the households in Pittsburgh and 24 percent of the households in Phoenix said that they had encountered this problem. The marked difference in reported incidence of discrimination because of children between the two sites may be attributable to another aspect of the housing markets; the percentage of available single-family units, which are presumably better able to accommodate families with children, is higher in Phoenix.² The

¹The relative tightness of the Pittsburgh housing market is suggested by the fact that it took movers an average of 100 days to find housing in Pittsburgh, as compared to only 39 days in Phoenix.

²Single-family units comprise 48 percent of all renter-occupied units in Phoenix, but only 33 percent of renter-occupied units in Pittsburgh (U.S. Bureau of the Census, 1970). Similarly, of the households initially enrolled in the experiment, 18 percent in Pittsburgh and 46 percent in Phoenix lived in single-family detached houses; 34 and 48 percent, respectively, lived in a single-family dwelling.

Table IV-1
TYPE OF DISCRIMINATION REPORTED

TYPE OF DISCRIMINATION	PITTSBURGH PERCENTAGE OF HOUSEHOLDS THAT REPORTED DISCRIMI- NATION OF THIS TYPE (N = 697)	PHOENIX PERCENTAGE OF HOUSEHOLDS THAT REPORTED DISCRIMI- NATION OF THIS TYPE (N = 651)
Any type of discrimination	54%	33%
Age	15	12
Sex	8	2
Marital status	20	6
Race/ethnicity ^a	7	4
Source of income	30	8
Children	45	24
Receipt of a housing allowance ^b	1	1

SAMPLE: All households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits and those living in their own homes or in subsidized housing.

DATA SOURCES: Baseline and Periodic Interviews.

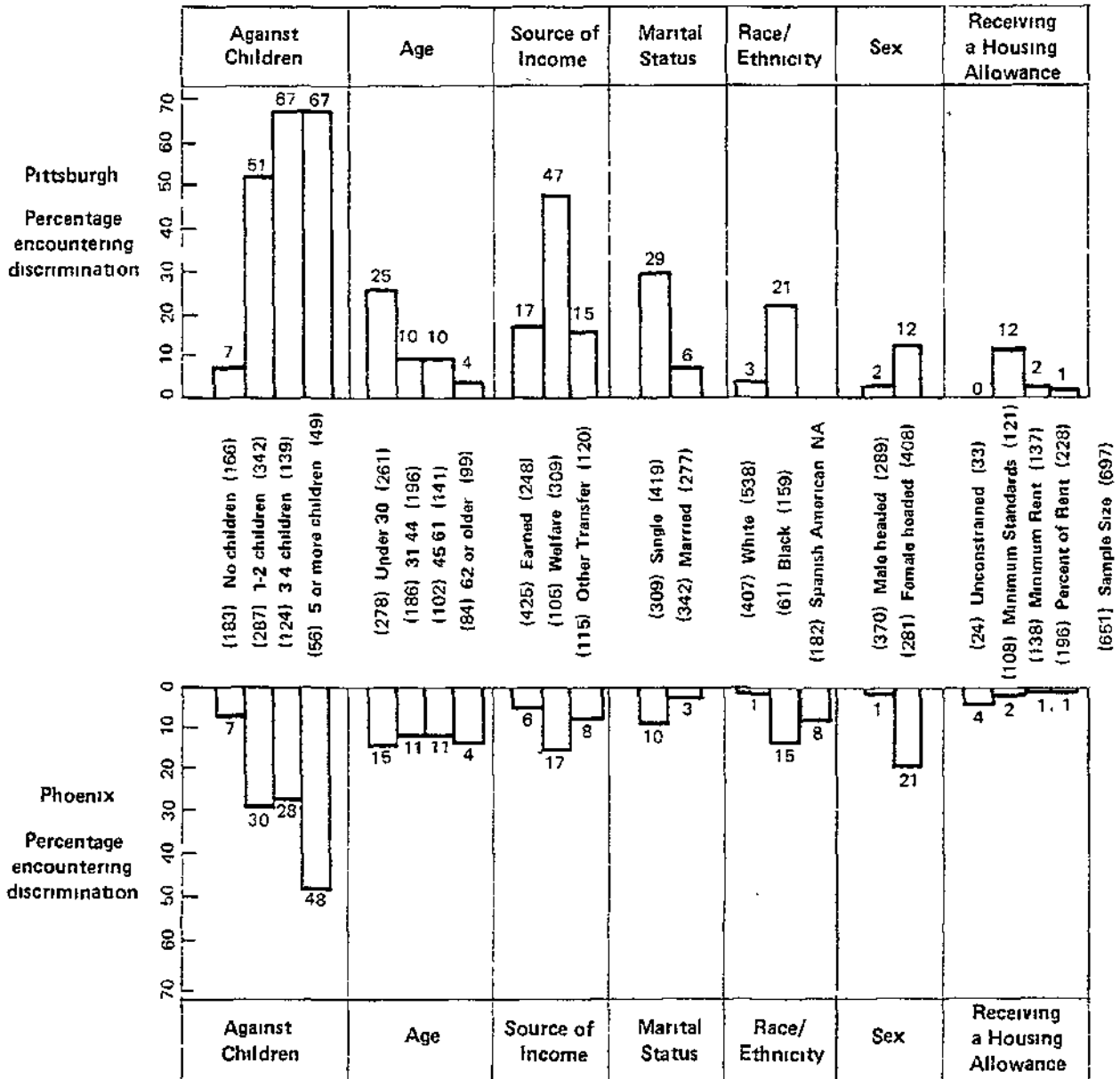
NOTE: Percentages may add to more than 100 because of multiple responses.

a. This was asked of all households; see Figure IV-1 for responses by racial/ethnic group.

b. This question was asked only of Experimental households. The number of valid cases for this type of discrimination is 603 in Pittsburgh and 529 in Phoenix.

Figure IV-1
 PERCENTAGE OF HOUSEHOLDS THAT REPORTED DISCRIMINATION
 IN LOOKING FOR A PLACE TO LIVE BY TYPE OF DISCRIMINATION

(Sample size in parentheses)



SAMPLE. All households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits and those living in their own homes or in subsidized housing

DATA SOURCES. Baseline and Periodic Interviews, Initial Household Report Form.

difference may also reflect a difference in state legislation. Discrimination because of children is expressly prohibited by law in Arizona, but is not illegal in Pennsylvania.

The relative importance of other types of discrimination varied slightly between the two sites, but source of income, age, and marital status were the next most commonly reported reasons for discrimination at both (Table IV-1). Discrimination associated with Demand Experiment program requirements appeared to be negligible.¹ Racial/ethnic discrimination was experienced by relatively few households overall. This finding is not particularly surprising, since white households, which constitute a large part of the sample at both sites, generally do not encounter this problem.

The third striking feature of the data becomes apparent when the reported incidence of racial discrimination is stratified by race. As shown in Figure IV-1, the reported incidence still remains lower than might be expected given the extent of racial segregation in housing at the two sites (see Atkinson, Hamilton, and Myers, forthcoming). Of black searchers, 21 percent in Pittsburgh and 15 percent in Phoenix reported racial/ethnic discrimination. Only 8 percent of Spanish American searchers in Phoenix said they had experienced this problem.

The relative frequency with which different types of discrimination were reported during the experiment are similar to the relative frequencies reported by enrolled households for the three-year period immediately preceding the Baseline Interview (see Abt Associates Inc., 1975, pp. 218-222). However, the reported incidence of discrimination was considerably greater during the experiment. This suggests four possibilities. First, it is likely that respondents had better recall when asked about their experiences

¹The pattern of responses in Table IV-1 is similar to the pattern observed in Jacksonville, Florida, during the Administrative Agency Experiment (AAE), with one exception. Twenty-four percent of the Jacksonville searchers reported discrimination associated with enrollment in the experiment. This was probably due to the fact that the housing requirements enforced were quite stringent given the availability of suitable units in Jacksonville. This was particularly true for black households confined to certain areas of the city (see Wolfe et al., 1976). Note by way of contrast that many of the households in the Demand Experiment had no housing requirements to meet.

during a six-month or twelve-month period rather than during a three-year period.¹ Second, simply being asked about discrimination in the Baseline Interview may have sensitized households to discrimination in later search experiences. Third, enrollment in the experiment may have contributed to the increase in reported discrimination. For example, households had access to the Housing Information Program, an optional five-session information service.² The third session was devoted entirely to discrimination-related issues. However, neither general attendance nor attendance at the discrimination session appeared to have had a consistent effect on the reported incidence of discrimination (see Table IV-2). All households were told that they would have an anti-discrimination lawyer at their disposal free of charge during the experiment. Although few households actually took advantage of this service,³ awareness that the service was available may have increased sensitivity to discrimination.

Finally, it is possible that households searched in neighborhoods they had avoided in the past, and that this change in search behavior led them to encounter discrimination more often. Unfortunately, a direct answer to this question cannot be given since information concerning where households had searched prior to the experiment was not collected.

¹The First and Second Periodic Interviews were conducted at approximately six-month intervals during the first year of the experiment; the Third Periodic Interview was conducted at the end of the second year. Each interview asked questions about household experiences during the time interval immediately preceding it.

²The Housing Information Program was offered to all Experimental households and to one of the two Control groups.

³During the period from the beginning of the Demand Experiment in mid-1973 to the end of the calendar year 1975, the equal opportunity lawyer in Pittsburgh received calls from only seven households about possible instances of discrimination; the attorney in Phoenix received calls from only five households during this same period. Each household complained of only a single alleged instance of discrimination. Of the households discussed in this appendix, the heads of only three households in Pittsburgh and of only one household in Phoenix said they had reported an instance of discrimination to the anti-discrimination lawyer. In no case was enough evidence of discrimination available to enable the lawyer to proceed to the filing of a formal complaint.

Table IV-2

PERCENTAGE OF HOUSEHOLDS THAT REPORTED SOME FORM OF DISCRIMINATION, BY
HOUSING INFORMATION PROGRAM (HIP) ATTENDANCE AND RACE/ETHNICITY

EXTENT OF ATTENDANCE AT HOUSING INFORMATION PROGRAM SESSIONS	PITTSBURGH		PHOENIX	
	PERCENTAGE THAT REPORTED SOME FORM OF DISCRI- MINATION	SAMPLE SIZE	PERCENTAGE THAT REPORTED SOME FORM OF DISCRI- MINATION	SAMPLE SIZE
<u>White Households</u>	51%	(469)	32%	(352)
Attended session 3 ^a	58†	(155)	20*	(91)
Attended at least one session, but not session 3	50	(52)	35	(40)
Did not attend any session	47	(262)	36	(221)
<u>Black Households</u>	61	(142)	31	(51)
Attended session 3	55	(62)	[17]	(12)
Attended at least one session, but not session 3	65	(20)	[33]	(6)
Did not attend any session	65	(60)	36	(33)
<u>Spanish American Households</u>	NA	NA	40	(156)
Attended session 3			45	(20)
Attended at least one session, but not session 3			[31]	(13)
Did not attend any session			40	(123)

SAMPLE: All households that searched for new housing, were invited to attend the Housing Information Program, and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits and those living in their own homes or in subsidized housing.

DATA SOURCES: Baseline and Periodic Interviews, site attendance records for the Housing Information Program.

NOTE: Brackets indicate percentages that are based on 15 or fewer observations.

a. Session 3 focused on discrimination-related issues.

† Chi-square test of the difference in reporting discrimination by extent of attendance at HIP sessions significant at the 0.10 level with two degrees of freedom.

* Chi-square test of the difference in reporting discrimination by extent of attendance at HIP sessions significant at the 0.05 level with two degrees of freedom.

IV.2 PATTERNS OF DISCRIMINATION REPORTED BY DIFFERENT RACIAL/ETHNIC GROUPS

Examining the patterns of discrimination stratified by race provides some insight into the differences between the search experiences of minority and nonminority households. As shown in Table IV-3, black searchers in Pittsburgh and Spanish American searchers in Phoenix were more likely to report experiencing at least one type of discrimination than were white searchers. This difference may simply indicate that minority households possess more of the characteristics (other than race/ethnicity) that precipitate discriminatory behavior.¹ Alternatively, this finding taken in conjunction with the unexpectedly low incidence of racial/ethnic discrimination reported by minority households may indicate that landlords and realtors used other types of discrimination to mask discrimination on the basis of race/ethnicity.² The following analysis tests these hypotheses.

In general, white searchers were at least as likely as black and Spanish American searchers to report types of discrimination not related to race or ethnicity. The single exception is that black households in Pittsburgh, and to some extent in Phoenix, were more likely to report discrimination because of source of income. The hypothesis that minority households are more likely to report discrimination because they are more likely to have characteristics associated with discrimination (e.g., being welfare-dependent) suggests that the likelihood of reporting discrimination because of source of income should be the same for whites and nonwhites when controlling for

¹A substantial proportion of households had several demographic and income characteristics that may have made them susceptible to discrimination. As a result, many of the households reporting discrimination (63 percent in Pittsburgh and 48 percent in Phoenix) reported encountering more than one type of discrimination.

²There is a substantial body of evidence suggesting that the discriminatory practices of landlords, real estate brokers, lending institutions and others have often restricted the quantity and quality of fairly-priced housing available to minorities (see Denton, 1970; Kain and Quigley, 1975; King and Mieszkowski, 1973; Yinger, 1975). While many of these practices are explicitly prohibited by federal law, it is generally assumed that more subtle forces operate to maintain segregated housing patterns. Evidence from a recent study conducted by the National Committee Against Discrimination in Housing (NCDH) lends support to this belief. Black testers attempted to rent dwellings from rental agencies in 40 metropolitan areas. The testers themselves rarely felt they were being discriminated against. However, preliminary findings based on comparison of their treatment with that afforded to matched white testers showed that the black testers had a 75 percent chance of encountering racial discrimination at least once if they visited four rental agents. Approximately 29 percent of all rental agents surveyed employed discriminatory practices (Housing Affairs Letter, April 21, 1978).

Table IV-3

TYPE OF DISCRIMINATION REPORTED, BY RACE/ETHNICITY

TYPE OF DISCRIMINATION	PITTSBURGH		PHOENIX		
	PERCENTAGE OF HOUSEHOLDS THAT REPORTED DISCRIMINATION OF THIS TYPE		PERCENTAGE OF HOUSEHOLDS THAT REPORTED DISCRIMINATION OF THIS TYPE		
	WHITE HOUSEHOLDS (N=538)	BLACK HOUSEHOLDS (N=159)	WHITE HOUSEHOLDS (N=408)	BLACK HOUSEHOLDS (N=61)	SPANISH AMERICAN HOUSEHOLDS (N=182)
Any type of discrimination	53%	60%†	31%	28%	39%†
Age	15	16	14	8	9
Sex	7	11	2	2	1
Marital status	20	18	7	5	3
Race/ethnicity	3	21**	1	15**	8**
Source of income	27	42**	7	15	8
Children	44	48	24	11*	30
Receipt of a housing allowance ^a	1	1	1	0	2

SAMPLE: All households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits and those living in their own homes or in subsidized housing.

DATA SOURCES: Baseline and Periodic Interviews.

NOTE: Percentages may add to more than 100 because of multiple responses.

a. This question was asked only of Experimental households. The number of valid cases for this type of discrimination is 603 in Pittsburgh and 529 in Phoenix.

† Chi-square test of the difference between white and black or Spanish American households significant at the 0.10 level with one degree of freedom.

* Chi-square test of the difference between white and black or Spanish American households significant at the 0.05 level with one degree of freedom.

** Chi-square test of the difference between white and black or Spanish American households significant at the 0.01 level with one degree of freedom.

income source. On the other hand, the masking hypothesis predicts that black households on welfare would be more likely than white households on welfare to report discrimination due to source of income when households reporting racial/ethnic discrimination are excluded from the sample. Results provided in Table IV-4 show that when only welfare-dependent households are considered the black-white difference disappears in Pittsburgh, although there is still some tendency for blacks to report discrimination due to source of income at a higher rate in Phoenix. In general, there is little evidence to suggest that any particular form of discrimination was consistently used to mask discrimination on the basis of race/ethnicity.¹

IV.3 SEARCH PATTERNS AND REPORTED DISCRIMINATION

Minority households enrolled in the experiment may have adopted search patterns that enabled them to avoid encountering racial/ethnic discrimination. If households successfully avoided this difficulty, the reported incidence of racial/ethnic discrimination understates its importance.

Evidence from the Demand Experiment suggests that many black households altered what would otherwise have been their search pattern because they expected discrimination. Among households that searched, minority households were at least as likely as white households to say they had searched outside the neighborhood they lived in at the time they made their search (see Table IV-5). However, black searchers were more likely than white searchers to say they avoided certain neighborhoods because they expected discrimination, regardless of the perceived extent of their search (see Table IV-6).² This finding is consistent with the results of a Harris poll (cited in Pettigrew, 1973) which showed that 67 percent of the black respondents expected to encounter discrimination on the part of whites when looking for new housing. In contrast, Spanish American households were less likely to avoid neighborhoods than either white or black households in Phoenix.

The relationship between perceived extent of search and the likelihood of encountering discrimination is examined in Table IV-7. Both white and

¹The analysis in Table IV-4 was repeated with each type of discrimination, controlling for the appropriate characteristics, with similar results.

²The effect of this avoidance of some neighborhoods on what black searchers actually saw during search is unclear. As reported in Chapter 2 of this report, Pittsburgh households that reported avoiding some neighborhoods because they expected discrimination and households that did not report such avoidance were equally likely to see neighborhoods of low minority concentration.

Table IV-4

PERCENTAGE OF HOUSEHOLDS WHOSE MAJOR SOURCE OF INCOME WAS WELFARE
 THAT REPORTED DISCRIMINATION BECAUSE OF SOURCE OF INCOME, BY
 RACE/ETHNICITY

HOUSEHOLD GROUPS	PITTSBURGH		PHOENIX	
	PERCENTAGE OF HOUSEHOLDS THAT REPORTED DIS- CRIMINATION BECAUSE OF SOURCE OF INCOME	SAMPLE SIZE	PERCENTAGE OF HOUSEHOLDS THAT REPORTED DIS- CRIMINATION BECAUSE OF SOURCE OF INCOME	SAMPLE SIZE
All Households Whose Major Source of Income Was Welfare	43%	(278)	16%	(97)
White households	43	(208)	15	(33)
Black households	43	(70)	25	(20)
Spanish American households	NA		14	(44)

SAMPLE: All households whose major source of income was welfare that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, and those reporting racial/ethnic discrimination.

DATA SOURCES: Baseline and Periodic Interviews, Initial Household Report Form.

Table IV-5

PERCENTAGE OF HOUSEHOLDS THAT REPORTED SEARCHING
OUTSIDE THEIR ORIGIN NEIGHBORHOOD, BY RACE/ETHNICITY

RACE/ETHNICITY	PITTSBURGH		PHOENIX	
	PERCENTAGE OF HOUSEHOLDS THAT REPORTED SEARCH- ING OUTSIDE THEIR ORIGIN NEIGHBORHOOD	SAMPLE SIZE	PERCENTAGE OF HOUSEHOLDS THAT REPORTED SEARCH- ING OUTSIDE THEIR ORIGIN NEIGHBORHOOD	SAMPLE SIZE
All Households	74%	(686)	74%	(645)
White households	73	(530)	75	(405)
Black households	77	(156)	75	(60)
Spanish American households	NA		71	(180)

SAMPLE: All households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, and those living in their own homes or in subsidized housing.

DATA SOURCES: Baseline and Periodic Interviews.

Table IV-6

PERCENTAGE OF HOUSEHOLDS THAT AVOIDED SEARCHING IN SOME NEIGHBORHOODS
BECAUSE THEY EXPECTED DISCRIMINATION, BY RACE/ETHNICITY AND EXTENT OF SEARCH

RACE/ETHNICITY	SEARCHED OUTSIDE NEIGHBORHOOD OF RESIDENCE AT ENROLLMENT		DID NOT SEARCH OUTSIDE NEIGHBORHOOD OF RESIDENCE AT ENROLLMENT		TOTAL	
	Percentage Avoiding Some Neighborhoods	Sample Size	Percentage Avoiding Some Neighborhoods	Sample Size	Percentage Avoiding Some Neighborhoods	Sample Size
PITTSBURGH						
Total	18%	(506)	10%	(179)	16%	(685)
White households	16	(386)	6	(143)	13	(529)
Black households	23†	(120)	25**	(36)	24**	(156)
PHOENIX						
Total	10%	(475)	5%	(167)	9%	(642)
White households	12	(302)	4	(101)	10	(403)
Black households	13	(45)	[7]	(14)	12	(59)
Spanish American households	5**	(128)	8	(52)	6	(180)

SAMPLE: All households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits and those living in their own homes or in subsidized housing.

DATA SOURCES: Baseline and Periodic Interviews.

NOTE: Brackets indicate percentages that are based on 15 or fewer observations.

† Chi-square test of the difference between white and black or Spanish American households significant at the 0.10 level with one degree of freedom.

** Chi-square test of the difference between white and black or Spanish American households significant at the 0.01 level with one degree of freedom.

Table IV-7

PERCENTAGE OF HOUSEHOLDS THAT REPORTED SOME FORM OF DISCRIMINATION,
BY EXTENT OF SEARCH AND RACE/ETHNICITY

HOUSEHOLD GROUP	PITTSBURGH		PHOENIX	
	PERCENTAGE OF HOUSEHOLDS THAT REPORTED SOME FORM OF DISCRIMINATION	SAMPLE SIZE	PERCENTAGE OF HOUSEHOLDS THAT REPORTED SOME FORM OF DISCRIMINATION	SAMPLE SIZE
<u>All Households that Searched Only in Origin Neighborhood</u>	30%	(179)	22%	(170)
White households	28	(143)	17	(103)
Black households	36	(36)	[0]	(15)
Spanish American households	NA		37*	(52)
<u>All Households that Searched Outside Origin Neighborhood</u>	63%	(507)	36%	(474)
White households	61	(387)	35	(301)
Black households	68	(120)	36	(45)
Spanish American households	NA		40	(128)

SAMPLE: All households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits and those living in their own homes or in subsidized housing.

DATA SOURCES: Baseline and Periodic Interviews.

NOTE: Brackets indicate percentages that are based on 15 or fewer observations.

* Chi-square test of the difference between white and black or Spanish American households significant at the 0.05 level with one degree of freedom.

black households that looked outside their origin neighborhoods were more likely to report having encountered discrimination than households that confined their search to their own neighborhoods. However, Spanish American households in Phoenix reported discrimination difficulties with the same frequency regardless of whether they searched inside or outside their neighborhoods. The incidence of reported discrimination for Spanish American households that said they searched only in their origin neighborhoods is quite high relative to white and black households in this category. This finding may reflect the heterogeneous nature of the origin neighborhoods of Spanish American households (see Atkinson, Hamilton, and Myers, 1979).

It has already been shown that searching outside the origin neighborhood greatly increased the probability that a household encountered discrimination of some kind. Table IV-8 examines the relationship between reported discrimination and a number of other indicators of search effort. In general, movers that reported discrimination searched longer, saw more rental units, and made more telephone inquiries. However, the exact nature of the relationship is not apparent from this data. That is, it is not clear whether increasing one's search effort increased the likelihood of encountering discrimination, or whether encountering discrimination was an obstacle which led searchers to increase their search effort.

If discrimination is really an obstacle for searchers, then households reporting discrimination should fare less well in terms of outcomes of the search process than those not reporting discrimination. Table IV-9 examines moving rates for searchers at both sites. In Pittsburgh, households that reported discrimination were less likely to have moved overall than those that did not report discrimination (60 percent versus 66 percent, respectively). It is interesting to note, however, that this finding holds only for white searchers.¹ In general, reported discrimination was not related to the

¹The difference in moving rates between white and black searchers reporting discrimination in Pittsburgh was small. But notice that among searchers not reporting discrimination, black households were less likely to move than white ones. Since there is little reason to believe that black searchers are less likely than white searchers to report any nonracial forms of discrimination, this difference in moving rates may indicate that racial discrimination went unnoticed or unreported by black households in Pittsburgh. If this was the case, discrimination may have generally operated as a barrier to mobility for both racial groups in Pittsburgh's housing market. Alternatively, this finding may simply be an artifact of the racial differences in rate of attrition at that site (MacMillan, 1978).

Table IV-8

INDICATORS OF SEARCH EFFORT FOR HOUSEHOLDS THAT MOVED BY INCIDENCE OF REPORTED DISCRIMINATION AND RACE/ETHNICITY

INCIDENCE OF REPORTED DISCRIMINATION	SEARCH TIME (DAYS)			NUMBER OF DWELLINGS VISITED			NUMBER OF TELEPHONE INQUIRIES MADE		
	MEAN	STANDARD DEVIATION	SAMPLE SIZE	MEAN	STANDARD DEVIATION	SAMPLE SIZE	MEAN	STANDARD DEVIATION	SAMPLE SIZE
PITTSBURGH									
All White Households That Moved	93.71	131.37	(332)	7.06	11.91	(341)	16.35	26.19	(341)
Households that reported some type of discrimination	125.09	156.82	(166)	11.56	15.46	(167)	27.52	31.65	(167)
Households that did not report any type of discrimination	62.32**	89.71	(166)	2.73**	3.31	(174)	5.64**	12.28	(174)
All Black Households That Moved	125.46	133.68	(87)	7.31	9.60	(90)	13.48	19.27	(90)
Households that reported some type of discrimination	164.42	148.13	(53)	10.04	11.24	(55)	18.82	22.57	(55)
Households that did not report any type of discrimination	64.74**	75.86	(34)	3.03**	3.13	(35)	5.09**	6.67	(35)
All Households That Moved	100.30	132.32	(419)	7.11	11.46	(431)	15.75	24.91	(431)
PHOENIX									
All White Households That Moved	34.32	78.76	(333)	6.92	10.15	(339)	11.50	19.78	(339)
Households that reported some type of discrimination	46.76	98.82	(100)	11.53	13.59	(102)	21.74	28.72	(102)
Households that did not report any type of discrimination	28.98†	67.92	(233)	4.93**	7.44	(237)	7.10**	11.93	(237)
All Black Households That Moved	52.49	87.77	(49)	6.90	14.02	(51)	4.76	8.66	(51)
Households that reported some type of discrimination	[93.91]	91.80	(11)	[9.54]	8.91	(13)	[8.08]	9.73	(13)
Households that did not report any type of discrimination	40.50†	84.02	(38)	6.00	15.38	(38)	3.63	8.10	(38)
All Spanish American Households That Moved	45.92	97.18	(153)	4.77	6.51	(153)	6.94	11.38	(153)
Households that reported some type of discrimination	57.16	116.51	(61)	5.97	4.74	(61)	11.18	14.37	(61)
Households that did not report any type of discrimination	38.38	81.56	(91)	3.98†	7.37	(92)	4.13**	7.76	(92)
All Households That Moved	39.29	85.30	(534)	6.31	9.76	(543)	9.59	17.14	(543)

SAMPLE All households that moved and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits and those living in their own homes or in subsidized housing.

DATA SOURCES Baseline and Periodic Interviews

NOTE. Brackets indicate means that are based on 15 or fewer observations.

† Two-tailed t-test of the difference between households that reported some type of discrimination and households that did not report any type of discrimination significant at the 0.10 level.

* Two-tailed t-test of the difference between households that reported some type of discrimination and households that did not report any type of discrimination significant at the 0.05 level.

** Two-tailed t-test of the difference between households that reported some type of discrimination and households that did not report any type of discrimination significant at the 0.01 level.

Table IV-9
 PERCENTAGE OF HOUSEHOLDS THAT MOVED BY INCIDENCE
 OF REPORTED DISCRIMINATION AND RACE/ETHNICITY

INCIDENCE OF REPORTED DISCRIMINATION	PITTSBURGH		PHOENIX	
	PERCENTAGE OF HOUSE- HOLDS THAT MOVED	SAMPLE SIZE	PERCENTAGE OF HOUSE- HOLDS THAT MOVED	SAMPLE SIZE
<u>All Households</u>	63%	(697)	84%	(651)
Households that reported some type of discrimination	60	(379)	84	(213)
Households that did not report any type of discrimination	66†	(318)	84	(438)
<u>All White Households</u>	64	(538)	84	(408)
Households that reported some type of discrimination	60	(283)	82	(125)
Households that did not report any type of discrimination	69*	(255)	84	(283)
<u>All Black Households</u>	57	(159)	84	(61)
Households that reported some type of discrimination	57	(96)	76	(17)
Households that did not report any type of discrimination	57	(63)	86	(44)
<u>All Spanish American Households</u>	NA		85	(182)
Households that reported some type of discrimination			87	(71)
Households that did not report any type of discrimination			84	(111)

SAMPLE: All households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, and those living in their own homes or in subsidized housing.

DATA SOURCES: Baseline and Periodic Interviews.

† Chi-square test of the difference between households that reported some type of discrimination and households that did not report any type of discrimination significant at the 0.10 level with one degree of freedom.

* Chi-square test of the difference between households that reported some type of discrimination and households that did not report any type of discrimination significant at the 0.05 level with one degree of freedom.

likelihood of moving in Phoenix. Black searchers that reported discrimination were somewhat less likely to have moved than black searchers that did not. However, sample sizes are too small to warrant a meaningful interpretation of this result.

Reported discrimination might further be expected to be associated with the destination of households that moved. Table IV-10 examines the success of households that expressed a desire to move out of their neighborhoods in realizing this ambition. Both white and black movers that reported discrimination in Pittsburgh were less likely to say that they had moved out of their neighborhoods.¹ There was no evidence of a relationship between reported discrimination and the ability to move out of the perceived neighborhood of origin in Phoenix.

IV.4 CONCLUSIONS

More than half the households that searched for rental units in Pittsburgh and a third of those in Phoenix reported encountering at least one form of discrimination during their search. Not only were the overall rates of reported discrimination higher in Pittsburgh, but each specific type of discrimination was reported with greater frequency. There is also some evidence that being discriminated against had greater impact on the outcomes of the search process for households in Pittsburgh. Searchers that reported discrimination at that site were somewhat less likely to have moved than those that did not. Furthermore, movers that initially expressed a desire to move out of their neighborhoods were less likely to have done so if they said they had experienced discrimination. The relatively greater incidence and impact of discrimination in Pittsburgh may be a function of the tighter housing market there. This situation affords landlords and rental agents greater choice of tenants while curtailing the options of searchers, especially those with characteristics viewed as undesirable by many landlords.

¹Although discrimination generally may restrict the mobility of disadvantaged households, racial discrimination does not appear to have directly restricted the mobility of black searchers in Pittsburgh. Black households reporting racial discrimination were no less likely than other black searchers to see neighborhoods of low minority concentration or to move to such neighborhoods if they searched in them. See the discussion of racial discrimination in Chapter 2 of this report.

Table IV-10

PERCENTAGE OF HOUSEHOLDS THAT EXPRESSED A DESIRE TO MOVE OUT OF THEIR ORIGIN NEIGHBORHOODS THAT DID MOVE OUT, BY REPORTED DISCRIMINATION AND RACE/ETHNICITY

HOUSEHOLD GROUP	PITTSBURGH		PHOENIX	
	PERCENTAGE OF HOUSEHOLDS THAT MOVED OUT OF THEIR ORIGIN NEIGHBORHOOD	SAMPLE SIZE	PERCENTAGE OF HOUSEHOLDS THAT MOVED OUT OF THEIR ORIGIN NEIGHBORHOOD	SAMPLE SIZE
<u>All Households</u>	77%	(180)	80%	(253)
Households that reported some type of discrimination	72	(113)	81	(96)
Households that did not report any type of discrimination	85†	(67)	80	(157)
<u>All White Households</u>	78	(138)	82	(154)
Households that reported some type of discrimination	75	(83)	83	(58)
Households that did not report any type of discrimination	84	(55)	82	(96)
<u>All Black Households</u>	71	(42)	76	(25)
Households that reported some type of discrimination	63	(30)	[88]	(8)
Households that did not report any type of discrimination	[92]	(12)	71	(17)
<u>All Spanish American Households</u>	NA		77	(74)
Households that reported some type of discrimination			77	(30)
Households that did not report any type of discrimination			77	(44)

SAMPLE: All households that moved, that expressed a desire to move out of their origin neighborhood, that said they searched outside their origin neighborhood, and that were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing.

DATA SOURCES: Baseline and Periodic Interviews.

NOTE: Brackets indicate percentages that are based on 15 or fewer observations.

† Chi-square test of the difference between households that reported some type of discrimination and households that did not report any type of discrimination, significant at the 0.10 level with one degree of freedom.

Discrimination because of the presence of children emerged as the most commonly reported problem for all three racial/ethnic groups. The reported incidence of racial/ethnic discrimination was actually lower than might have been expected, given the extent of residential segregation in the two cities. This suggests that households' perceptions of racial/ethnic discrimination may not be a good indicator of the problem. However, black searchers in Pittsburgh and Spanish American searchers in Phoenix did report experiencing some form of discrimination more often than nonminority households. While it is possible that at least some of this difference may be attributed to landlords' use of excuses for not renting to minority households, there is no evidence from Demand Experiment data to indicate that this occurred.

There is reason to believe that one of the reasons that reported incidence of racial discrimination was relatively low is that some households avoided neighborhoods because they expected discrimination. Black households were more likely than white households to say they had avoided certain neighborhoods because of such expectations. This difference was most pronounced for households looking outside the boundaries of their original, familiar neighborhoods

A number of services were made available to households enrolled in the Demand Experiment. All households at each site had access to an equal opportunity lawyer whose assistance was offered free of charge. However, only a handful of households contacted the lawyers with complaints about racial/ethnic discrimination. The Housing Information Program which was open to almost all enrolled households discussed strategies for dealing with discrimination. But minority households that attended were neither more likely to report experiencing discrimination nor more likely to contact the lawyers about such encounters. These facts indicate that the availability of complaint-response support services alone is likely to be an insufficient remedy for the problem of racial discrimination.

REFERENCES

- Abt Associates Inc., Working Paper on Early Findings, Cambridge, Mass., 1975.
- Atkinson, Reilly, William Hamilton, and Dowell Myers, Economic and Racial/Ethnic Concentration in the Housing Allowance Demand Experiment, Cambridge, Mass., Abt Associates Inc., January 1979 (revised June 1980).
- Denton, J.H., Report of Consultant, Summary Report, Appendix J, San Francisco, National Committee Against Discrimination in Housing (NCDH), 1970.
- Harris, L., "Harris Overlay on Time Black Poll," unpublished paper of study No. 2014, March 1970.
- Housing Affairs Letter, The Weekly Washington Report on Housing, No. 78-16, April 21, 1978.
- Kain, John F., and John M. Quigley, "Housing Market Discrimination, Homeownership, and Savings Behavior," in John F. Kain, Essays on Urban Spatial Structure, Cambridge, Mass., Ballinger Publishing Co., 1975.
- King, Thomas and Peter Mieszkowski, "Racial Discrimination, Segregation, and the Price of Housing," Journal of Political Economy, May/June 1973.
- MacMillan, Jean, Mobility in the Housing Allowance Demand Experiment, Cambridge, Mass., Abt Associates Inc., June 1978 (revised June 1980).
- Merrill, Sally R., Hedonic Indices as a Measure of Housing Quality, Cambridge, Mass., Abt Associates Inc., December 1977 (revised June 1980).
- Pettigrew, Thomas F., "Attitudes on Race and Housing: A Social-Psychological View," in Segregation in Residential Areas, edited by Amos H. Hawley and Vincent P. Rock, 1973.
- U.S. Bureau of the Census, Census of Population and Housing, 1970.
- Wolfe, Marian F. and William L. Hamilton, "Evidence of Discrimination," Appendix I in Jacksonville: Administering a Housing Allowance Program in a Difficult Environment, Cambridge, Mass., Abt Associates Inc., 1976.
- Yinger, John, "An Analysis of Discrimination by Real Estate Brokers," Discussion Paper 252-75, Madison, University of Wisconsin, Institute for Poverty Research, February 1975.
- _____, "Prejudice and Discrimination in the Urban Housing Market," Discussion Paper D77-9, Department of City and Regional Planning, Harvard University, July 1977, revised January 1978 (also forthcoming in Issues in Urban Economics II, edited by Peter Mieszkowski and Mahlon Straszheim).

APPENDIX V
TYPICAL AND WINDFALL SEARCHERS

The most common model of household searching and moving behavior assumes that a family looks at alternative dwellings after making a decision that it would like to move. The decision to search for new housing and the subsequent decision to move may be made for any of a wide variety of reasons; changes in household size, income, or workplace location; shifts in neighborhood composition; rent increases; eviction or nonrenewal of lease, etc. Most empirical research on this topic divides households into two groups: movers and non-movers. Little attention has been paid to the possibility that some households may decide to look for alternative housing but may not actually move during a given period of observation. Equally little attention has been given to the possibility that some households may inadvertently find out about desirable new housing without making a conscious choice to conduct a housing search.

This latter group was first described by Peter Rossi in his early study Why Families Move (1955). Rossi termed these households "windfall" movers. He discovered their existence through responses to home interview surveys; almost one-third of the households interviewed said they had moved because they had simply come across a place they liked better than their previous dwelling. For the present study, the "windfall" category has been broadened from that used by Rossi¹ to include households that did not move as well as movers; a household that inadvertently heard about a housing opportunity may or may not have decided to take the new dwelling once they had seen it.

There is evidence to suggest that windfall searchers as well as more typical searchers are present in the Demand Experiment sample. There was a group of households in the sample that looked at only a few units, relied exclusively on friends or relatives for their housing information, and had a very high mobility rate compared to other searchers. It is hypothesized that many of the households in this group are windfall searchers, that is, that they looked at an alternative dwelling only because they happened to hear about

¹Rossi's sample included only movers.

a particularly attractive housing opportunity.¹ Naturally, the moving rate of households in this group would be high.

Identifying households in the windfall group in the Demand Experiment is difficult because Periodic Interview questions were not designed to distinguish these households from more typical searchers. A major problem is distinguishing windfall searchers, who found out about an alternative dwelling through chance, from searchers that planned to move and were prepared to carry out an extensive housing search but changed their minds after seeing only a few units or were unusually lucky or efficient in finding a unit.

Three different definitions of windfall and typical searchers have been tested using data from the Demand Experiment. These definitions are shown in Table V-1. For all three definitions, classification is based on responses to Periodic Interview questions about housing search. Each of these definitions is likely to improperly classify some households as either typical or windfall searchers. In the analysis presented in Chapter 3, the most restrictive definition of windfall searchers (Definition 1) has been used. This definition classifies the smallest number of households as windfall searchers. It therefore minimizes the possibility that any typical searchers have been categorized in the windfall group.

Results using each of the three definitions may be compared to test the sensitivity of observations made about differences between the two groups to the way in which the groups are defined. Searchers have been classified as windfall or typical on the basis of the housing information sources used during search, the number of dwellings visited, and the number of telephone inquiries made. The hypothesis is that because windfall searchers are not actively seeking new housing they will have obtained information only from friends and relatives or perhaps from such sources as vacancy signs or notices on bulletin boards which might be encountered by chance. Typical searchers, on the other hand, are likely to have obtained information from more formal sources such as newspapers or real estate agents as part of their housing search. Likewise,

¹Households that encountered a windfall opportunity but did not report conducting a search on the Periodic Interviews because they did not pursue that opportunity (by going to look at the available dwelling, for example) are not counted as searchers.

Table V-1

ALTERNATIVE DEFINITIONS OF TYPICAL AND WINDFALL SEARCHERS

COMPONENTS OF DEFINITION	DEFINITIONS OF WINDFALL SEARCHERS			DEFINITIONS OF TYPICAL SEARCHERS		
	Definition 1	Definition 2	Definition 3	Definition 1	Definition 2	Definition 3
Housing information sources used	Used only friends and relatives	Used only friends and relatives	Did not use newspapers or real estate agents	Used one or more sources other than friends and relatives	Used one or more sources other than friends and relatives	Used newspapers or real estate agents
	<u>and</u>		<u>and</u>	<u>or</u>		<u>or</u>
Number of dwellings visited during search	Visited no more than one dwelling	---	Visited no more than one dwelling	Visited two or more dwellings	---	Visited two or more dwellings
	<u>and</u>		<u>and</u>	<u>or</u>		<u>or</u>
Number of telephone inquiries made during search	Made no more than two telephone inquiries	---	Made no more than two telephone inquiries	Made three or more telephone inquiries	---	Made three or more telephone inquiries

windfall searchers seem likely to have seen only a few dwellings or made only a few telephone calls in response to chance encounters with housing opportunities, while typical searchers, unless they have just begun to search or were unusually lucky or efficient in finding a unit, are likely to have looked at several dwellings or made several telephone inquiries.

Certain attitudes, such as dissatisfaction with current dwelling or interest in moving, are expected to be associated with households in the typical searcher group.¹ Windfall searchers might not have these attitudes, however. Windfall households may have been satisfied with their housing but have decided that it was worthwhile to investigate a particularly attractive alternative that they happened to hear about. Table V-2 shows that, as expected, typical searchers were more likely than windfall searchers to have been dissatisfied with their original housing and more likely to have expressed an interest in moving on the Baseline Interview. This is the case for all three definitions of typical and windfall searchers, although the statistical significance of the differences between the two groups varies according to which definition is used.

A distinguishing characteristic of windfall searchers compared with typical searchers under all three definitions is their significantly higher probability of moving (Table V-2). This is consistent with the expectation for windfall households. If these households had not planned to move and only looked at a new dwelling because it seemed too good an opportunity to pass up, then it seems reasonable that they would have a higher moving rate than households that began to search because they wanted to move but had no specific unit in mind.

Another way to measure the difference between typical and windfall searchers is to compare the cumulative percentage of households that moved after visiting an increasing number of alternative dwellings (Figure V-1). For all three definitions of typical searchers, the curves indicating the cumulative percentage of households that moved look very similar.

¹See MacMillan (1978) for an analysis of the importance of these attitudes in predicting search and moving behavior.

Table V-2

ATTITUDES TOWARD MOVING PRIOR TO SEARCH AND MOVING RATES AMONG TYPICAL
AND WINDFALL SEARCHERS UNDER ALTERNATIVE DEFINITIONS

CHARACTERISTIC	DEFINITION 1 ^a		DEFINITION 2 ^a		DEFINITION 3 ^a	
	Typical Searchers	Windfall Searchers	Typical Searchers	Windfall Searchers	Typical Searchers	Windfall Searchers
Percentage that were dissatisfied with original housing	39%* (449)	18% (38)	40%** (419)	18% (68)	40%** (431)	18% (56)
Percentage that were dissatisfied with original neighborhood	29 (441)	16 (38)	29 (416)	19 (68)	29 (431)	20 (55)
Percentage that were interested in moving if they had an additional \$50 per month to spend for rent	70 (355) ^b	63 (27) ^b	70 (330) ^b	68 (50) ^b	70 (339) ^b	63 (43) ^b
Percentage that moved	52** (453)	74 (38)	51** (421)	72 (68)	51* (435)	70 (56)

SAMPLE: All Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES: Baseline and Periodic Interviews.

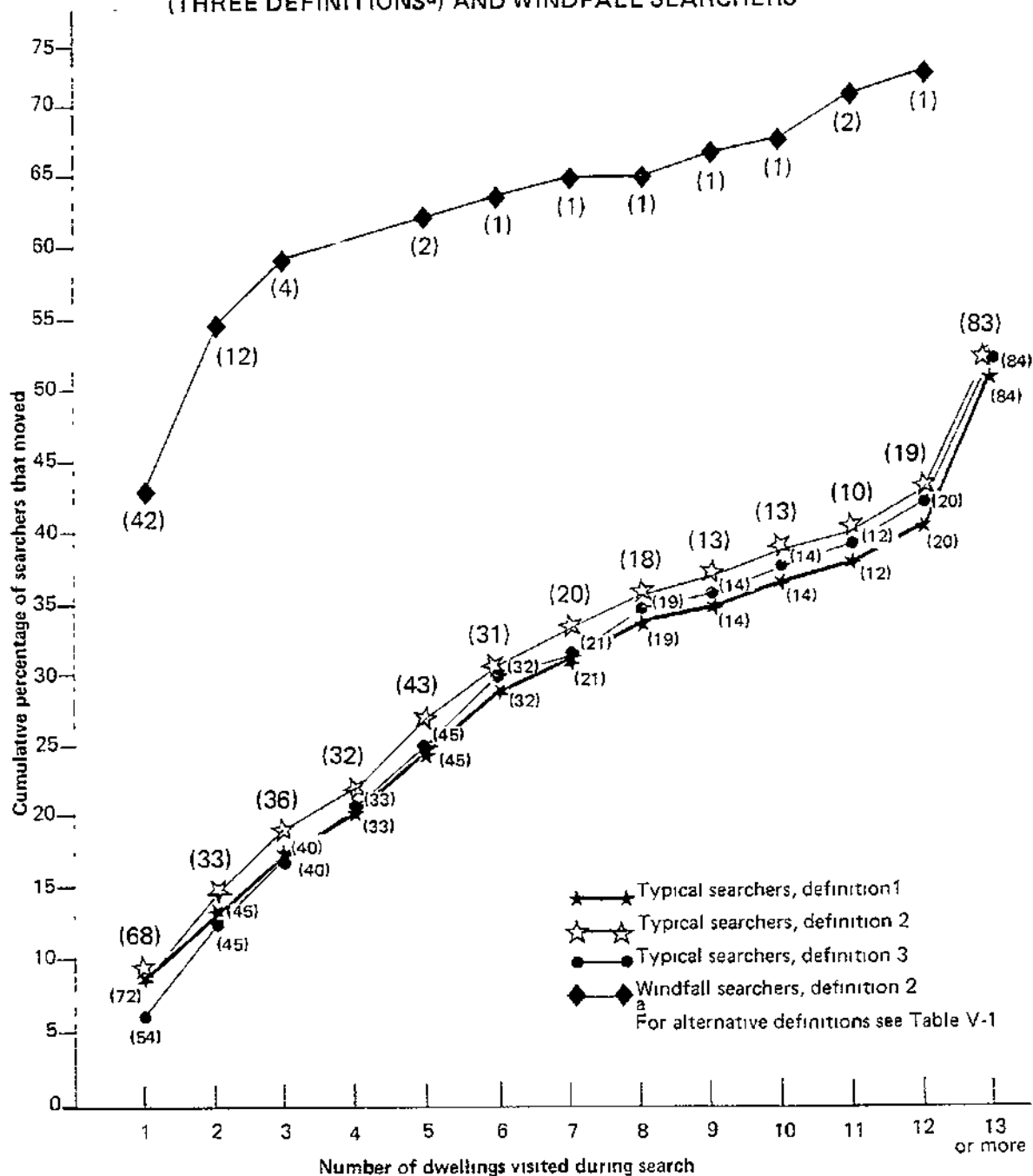
a. For alternative definitions see Table V-1.

b. Households for which the origin of the last move differed from the residence at the time of the Baseline Interview have been excluded from the sample.

* Chi-square test of the difference between typical and windfall searchers significant at the 0.05 level with one degree of freedom.

** Chi-square test of the difference between typical and windfall searchers significant at the 0.01 level with one degree of freedom.

Figure V-1
 CUMULATIVE PERCENTAGE OF SEARCHERS THAT MOVED
 BY NUMBER OF DWELLINGS VISITED DURING SEARCH FOR TYPICAL SEARCHERS
 (THREE DEFINITIONS^a) AND WINDFALL SEARCHERS



SAMPLE All Pittsburgh households that searched for new housing and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES Baseline and Periodic Interviews

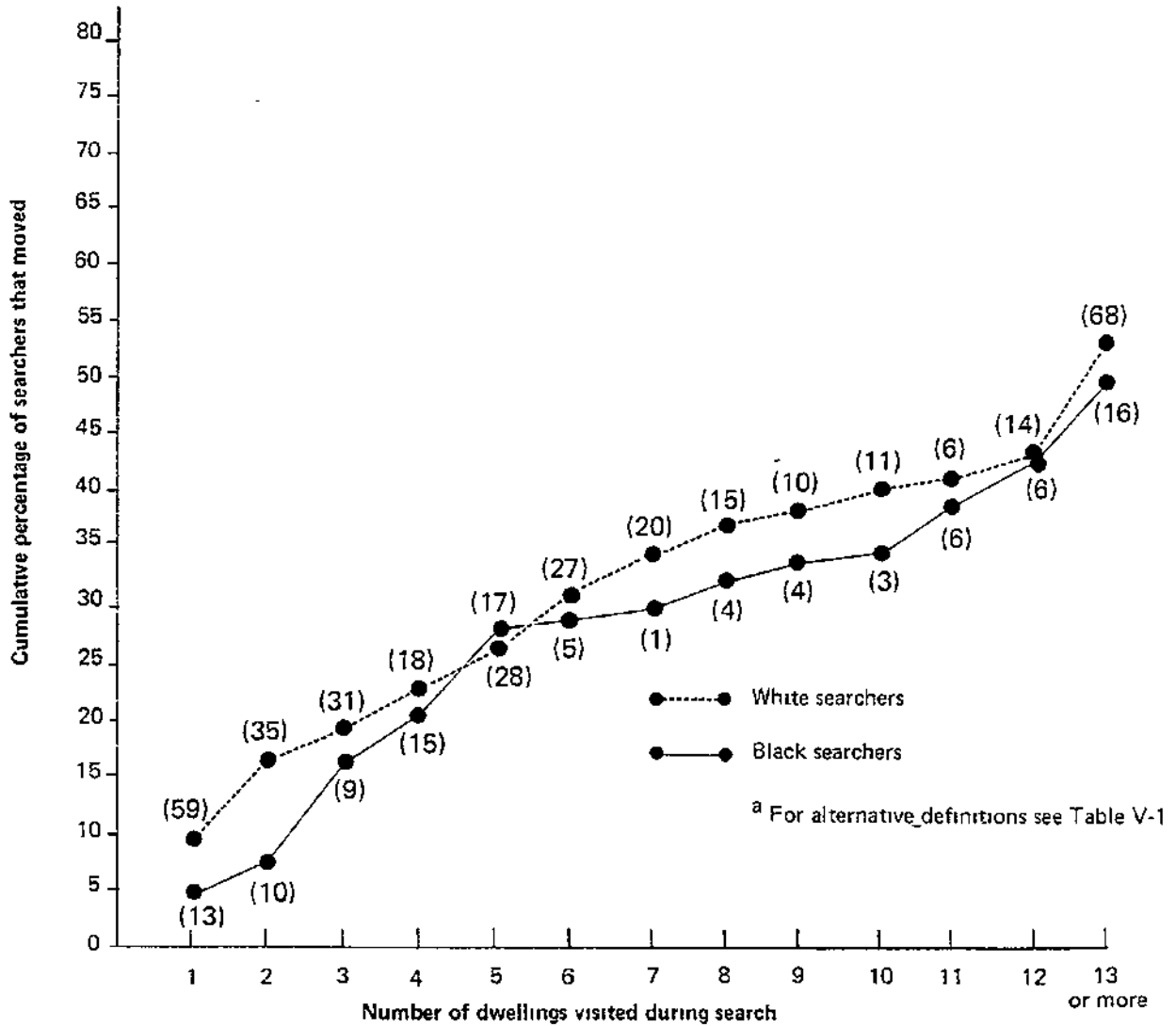
A comparison of the cumulative percentage curves for windfall and typical searchers under Definition 2¹ shows that the difference in the two groups arises with the first dwelling visited. The difference between the percentage of windfall searchers that moved after seeing only one dwelling and the percentage of typical searchers that moved after seeing one dwelling is approximately 35 percentage points. After the first dwelling, the increase in the percentage of households that moved after seeing an additional dwelling unit is roughly equal and the initial difference between the two groups is maintained.

The conclusions reached in Chapter 3 of this report about differences in the role of information sources for black and white searchers hold under all three definitions of typical and windfall searchers. The cumulative percentage of households that moved at different levels of search effort among typical searchers under the three definitions are displayed in Figures V-2, V-3,² and V-4. Typical black and white searchers are similar in all three cases.

¹Using Definition 1 or Definition 3, windfall searchers are defined as those households that looked at only one unit, so a curve cannot be plotted for these households. Under Definition 2, windfall searchers are defined as those households that used only friends and relatives as information sources, but looked at any number of units. In fact, however, as Figure V-1 shows, almost all of the windfall searchers by this definition looked at only one unit.

²Figure V-2 is identical to Figure 3-3 in Chapter 3:

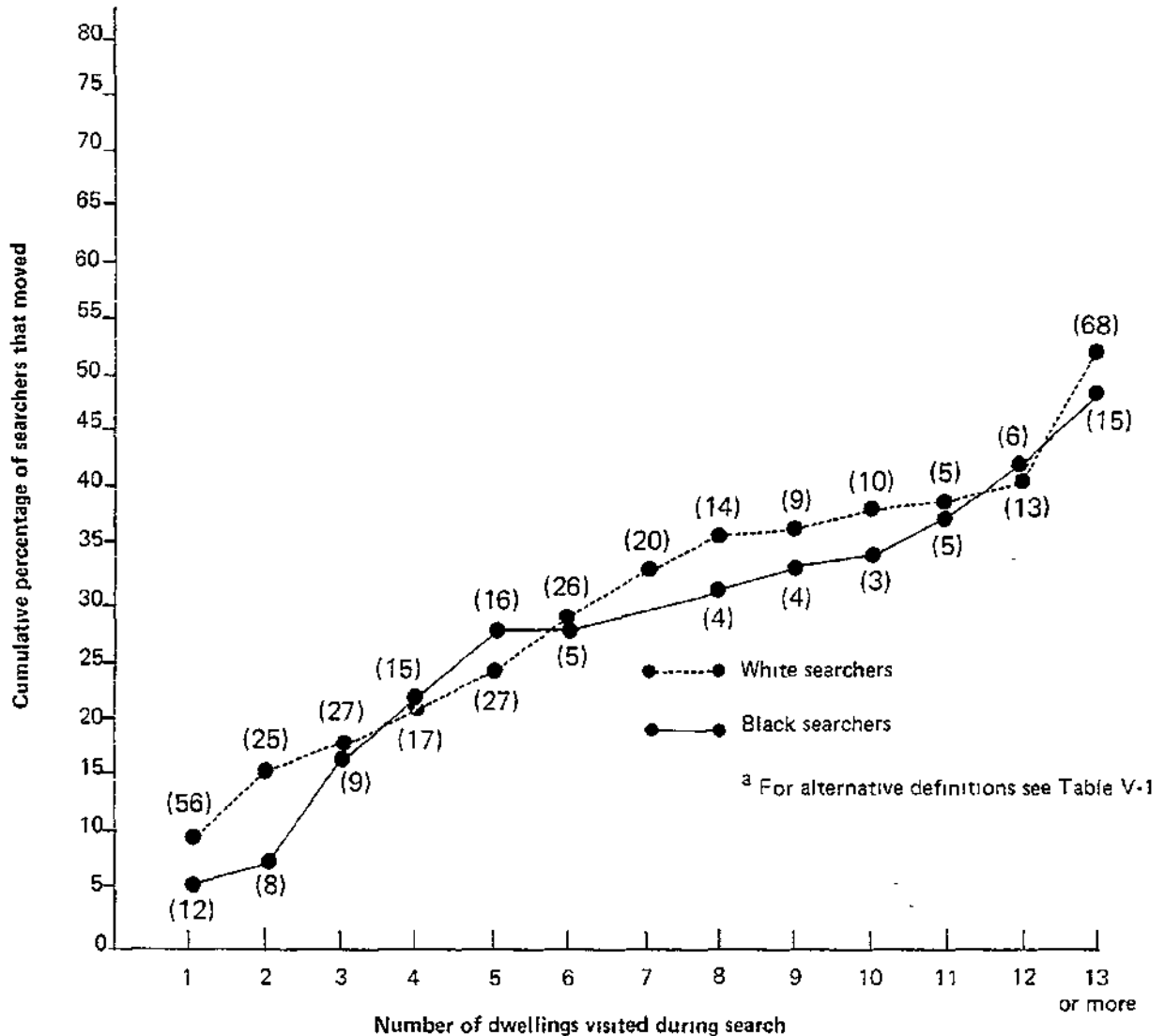
Figure V-2
 CUMULATIVE PERCENTAGE OF SEARCHERS THAT MOVED
 BY NUMBER OF DWELLINGS VISITED DURING SEARCH,
 FOR WHITE AND BLACK TYPICAL SEARCHERS (DEFINITION 1^a)



SAMPLE All Pittsburgh households that were typical searchers by definition 1 and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known.

DATA SOURCES. Baseline and Periodic Interviews

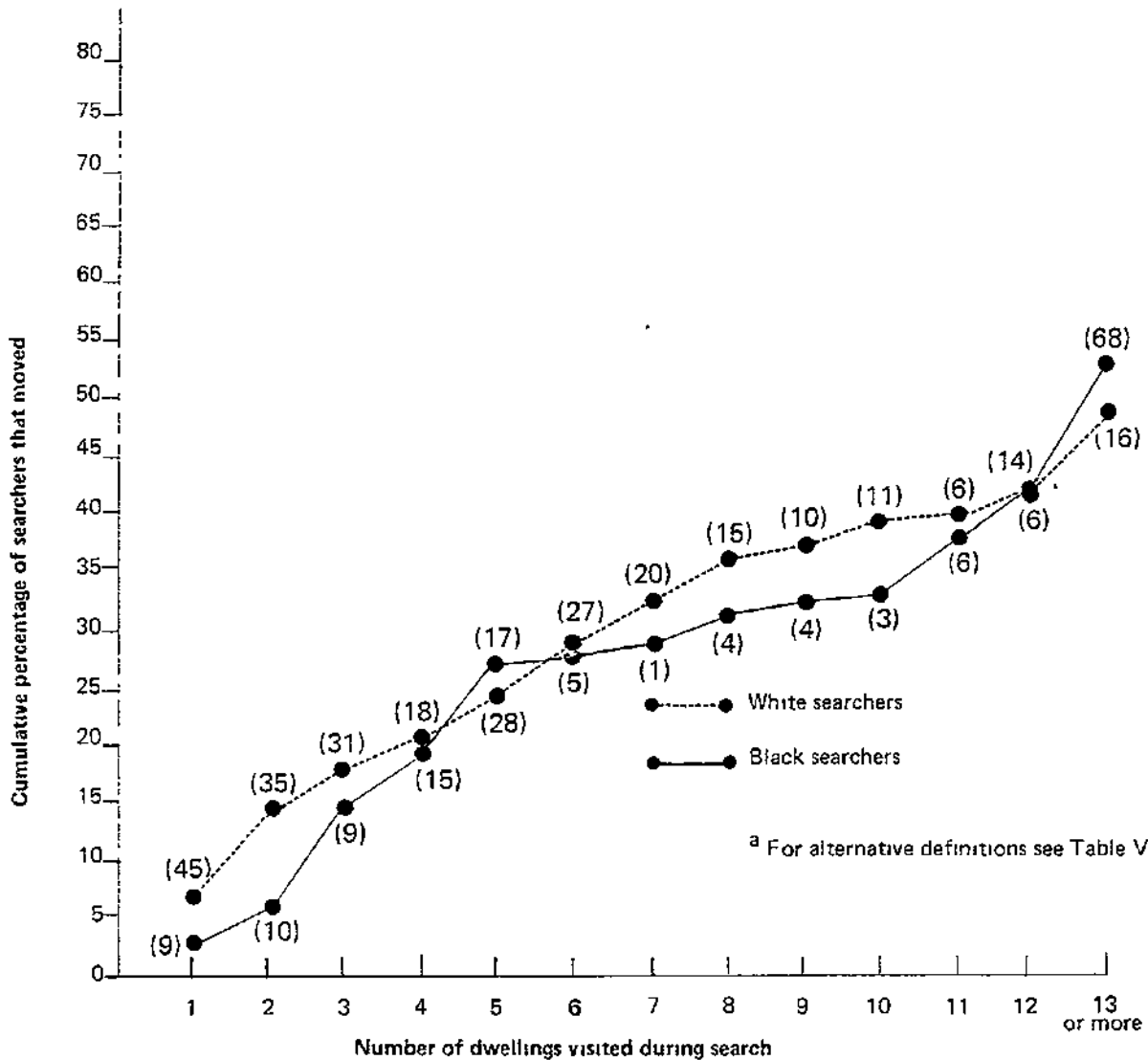
Figure V-3
 CUMULATIVE PERCENTAGE OF SEARCHERS THAT MOVED
 BY NUMBER OF DWELLINGS VISITED DURING SEARCH,
 FOR WHITE AND BLACK TYPICAL SEARCHERS (DEFINITION 2^a)



SAMPLE All Pittsburgh households that were typical searchers by definition 2 and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known

DATA SOURCES Baseline and Periodic Interviews

Figure V-4
 CUMULATIVE PERCENTAGE OF SEARCHERS THAT MOVED
 BY NUMBER OF DWELLINGS VISITED DURING SEARCH,
 FOR WHITE AND BLACK TYPICAL SEARCHERS (DEFINITION 3^a)



SAMPLE All Pittsburgh households that were typical searchers by definition 3 and were active at two years after enrollment, excluding those with enrollment incomes over the eligibility limits, those living in their own homes or in subsidized housing, those whose search activity was confined to the first six months after enrollment, and those whose origin neighborhood for their last move is not known

DATA SOURCES Baseline and Periodic Interviews

REFERENCES

MacMillan, Jean, Mobility in the Housing Allowance Demand Experiment,
Cambridge, Mass., Abt Associates Inc., June 1978 (revised June 1980).

Rossi, Peter, Why Families Move, Glencoe, Ill., The Free Press, 1955.

