URBAN RENEWAL: PATTERNS OF POPULATION AND HOUSING CHANGE

Thesis for the Degree of Ph. D. MICHIGAN STATE UNIVERSITY Carole Ellis Wolff 1966 THESIS





This is to certify that the

thesis entitled

URBAN RENEWAL: PATTERNS OF POPULATION AND HOUSING CHANGE

presented by

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has been accepted towards fulfillment of the requirements for

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## ABSTRACT

#### URBAN RENEWAL: PATTERNS OF POPULATION AND HOUSING CHANGE

## by Carole Ellis Wolff

The research reported in this dissertation attempted to measure the effects of a government program--urban renewal--on patterns of change in housing supply and the character and distribution of the population in two major cities. The patterns of ecological change observed in the two renewal cities (Washington, D. C. and St. Louis, Missouri) were compared with those changes which occurred in a third city (Cincinnati, Ohio) which did not enter the renewal program until late in 1959.

The study was designed as a "natural" experiment. The independent variable (urban renewal) occurred in two cities (the experimental cities) but did not occur in a third city (the control). Comparable data on selected population and housing variables were taken from the 1950 and 1960 Censuses of Population and Housing. Before and after comparisons were made on these variables for both the experimental and control cities.

In addition to the routine use of medians and percentages, a measure of change in the dependent variables was

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introduced. This measure was composed of changes in the value of a variable from 1950 to 1960 for each census tract. These were summed and a mean difference and standard deviation of the difference computed for each city. Differences in the direction and magnitude of change on these variables could then be compared for the three cities.

The basic hypothesis of the research was one of "no difference" between the experimental cities and the control in changes in the condition and size of the housing supply and in the character and distribution of the population.

The two renewal cities (St. Louis and Washington, D. C.) experienced decreases in the proportion of substandard and overcrowded housing, while in the control city (Cincinnati) substandard and overcrowded housing increased. While the proportion of non-white occupied housing increased in all three cities, home ownership among Negroes was more widespread in the experimental cities than in the control. The reason for this is related to a difference in population change between the renewal and non-renewal cities. The proportionate increase in Negro population was roughly the same for all three cities, but the two experimental cities lost from a fourth to a third of their 1950 white population while Cincinnati's declined only seven percent. There was also a general improvement in the quality of the dwelling units occupied by Negroes. The proportion of substandard

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and overcrowded units among non-white occupied housing de- $\sqrt{2}$  clined substantially in the renewal cities and increased substantially in the control city.

In the renewal cities, the income levels of the population did not increase as much as in the control city, and one renewal city actually experienced a major decline in skilled manual and white collar workers. These and related data suggest that renewal contributes to the exodus of middle class population from the central city.

This accelerated exodus of white, middle class residents from the renewal cities appears to be the result of a redistribution of population within the experimental cities. Many tracts in all three cities experienced large increases in populations. But in the control city, the new arrivals in these tracts more often came from outside the central city. In the renewal cities, they came more often from elsewhere in the central city.

Population redistribution within the city appeared to take the following form:

 Large numbers of lower status Negroes displaced from the renewal tracts moved to other tracts of predominantly Negro occupancy in 1950 where the resident population was low in income and education and where a high proportion of the housing was in a deteriorating condition. 4

2) Negroes of average income and education who lived in the "receiving tracts" mentioned in (1) in 1950 moved, in large numbers, to a second set of tracts where the 1950 residents were of average income and education, but predominantly white and where the housing was in good condition. By 1960, they had converted these tracts to largely Negro occupancy, but otherwise, the characteristics of the population remained relatively unchanged.

3) Finally, the whites displaced in the invasionsuccession cycle described in (2) moved, in turn, to a third set of tracts where the residents were predominantly white in 1950 and remained so in 1960 and where the population was well above average in income and education.

This considerable distribution of population within the renewal cities resulted in one other major difference between the experimental cities and the control city. In the two renewal cities, the segregation of non-white population within the central city increased between 1950 and 1960, while it decreased in the control city.

# URBAN RENEWAL: PATTERNS OF POPULATION AND HOUSING CHANGE

By Carole Ellis Wolff

> Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

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## CHAPTER I

#### INTRODUCTION TO THE PROBLEM

### Introduction

The 20th century in the United States has been characterized by the phenomenal growth of metropolitan areas-large concentrations of population around one or more cities of over 50,000 population.<sup>1</sup> In 1960, 63% of the U. S. population lived in one of the 212 Standard Metropolitan Statistical Areas.<sup>2</sup> And slightly less than half of that 63% lived in the metropolitan rings, outside the central city.<sup>3</sup> Thus,

<sup>2</sup>U. S. Bureau of the Census, U. S. Census of Population: <u>1960</u>, <u>op. cit</u>., table 101, p. 237. Since 1900 there has been a steady increase in the number of SMSA's and the proportion of the population living in them. There were 52 in 1900 with 31% of the population and 162 in 1950 with 56.8%. See Murray Gendell and Hans L. Zetterberg, <u>A Sociological Almanac for the United States</u> (New York: Charles Scribner's Sons, 1964, 2nd edition), Table 9.14, p. 93.

<sup>3</sup>Gendell and Zetterberg, ibid.

<sup>&</sup>lt;sup>1</sup>The term, Standard Metropolitan Area, was introduced by the Bureau of the Census to refer to a county containing a city of 50,000 or more, plus contiguous counties which, according to certain criteria, are essentially metropolitan in character and are socially and economically integrated with the central city. In 1960, this concept was renamed, Standard Metropolitan Statistical Area. See <u>U. S. Census of</u> Population: <u>1960</u>. <u>General Social and Economic Characteristics</u>, <u>United States Summary</u>. Final Report PC(1)-C. (Washington, D. C.: Government Printing Office, <u>1962</u>), p. XXXI. Leo F. Schore, in "Metropolitan Growth and Decentralization." <u>American Journal of Sociology</u>, 63 (September 1957), pp. 171-180, gives an historical perspective on metropolitant

over the past 60 years, the nation has become more and more metropolitan and, within the metropolitan areas, increasingly suburban--if suburban is defined as anything within the SMSA, but outside of the central city.<sup>4</sup> This progressive deconcentration of home, work and shopping center was underscored by the discovery that almost all of the 25 largest central cities lost population during the 1950-1960 decade. Schnore suggests that this may be due to the failure of large cities to annex adjacent territory and population and to the fact that new migrants to the large metropolitan areas are coming directly to the metropolitan rings rather than, as in the past, migrating first to the central city and then diffusing outward. The rings, consequently, are being fed by streams of migrants from outside the area and by ex-residents of the central city.

The literature on urban research since the early 1950's has reflected the decentralization of population, housing,

<sup>4</sup>Schnore, <u>op. cit.</u>, p. 172. In 1950 over half of the population growth in the U. S. took place in the metropolitan rings.

<sup>5</sup>Schnore, <u>op. cit</u>. In this article, Schnore cites Donald J. Bogue and Emerson Seim, "Components of Population Change in Suburban and Central City Populations of Standard Metropolitan Areas, 1940 to 1950," <u>Rural Sociology</u>, 21 (September-December 1956), pp. 265-275, to the effect that during the 1940-1950 decade, city and suburban populations reproduced at or above replacement levels, leading one to the conclusion that the loss of city population in the subsequent decade was more likely due to out-migration.

and industry. The Census developed the Standard Metropolitan Area concept for the 1950 Census and Bogue, Schnore, Taeuber and others have been researching and documenting the overall changes taking place in metropolitan America.<sup>6</sup> The use of high speed computers has made it possible to compare the changes in all cities of a certain size with changes in all other cities in different size categories, so that generalizations about patterns of structure and change in cities can now be made in a way that was not possible only a short time ago. Most of the studies of suburban life are post-World War II

<sup>6</sup>Schnore, <u>op. cit.</u>; see also some of Schnore's other articles: "The Growth of Metropolitan Suburbs," American Sociological Review, 22 (April 1957), pp. 165-73; "The Separation of Home and Work: A Problem for Human Ecology," <u>Social</u> Forces, 32 (May 1954), pp. 336-43; "Components of Population Change in Large Metropolitan Suburbs," <u>American Sociological</u> Review, 23 (October 1958), pp. 570-73. Some of Donald Bogue's contributions to the study of metropolitan decentralization include: Metropolitan Decentralization: A Study of Differential Growth (Oxford, Ohio: Scripps Foundation for Research in Population Problems, 1950); Components of Population Change, 1940-1950 (Miami, Florida: Scripps Foundation for Research in Population Problems, 1957); Population Growth in Standard Metropolitan Areas, 1900-1950 (Washington, D. C .: Government Printing Office, 1953). Also relevant are: Amos H. Hawley, The Changing Shape of Metropolitan America: Deconcentration Since 1920 (Glencoe: Free Press, 1956); Henry S. Shrycock, Jr., "Population Redistribution within Metropolitan Areas: Evaluation of Research," Social Forces, 35 (December 1956), pp. 154-59; Bernard Lazerwitz, "Metropolitan Community Residential Belts, 1950 and 1956," American Sociological Review, 25 (April 1960), pp. 245-52. Many of these relatively recent studies compare central city and suburban populations as in the following article by Karl and Alma Taeuber, "White Migration and Socio-Economic Differences Between Cities and Suburbs," American Sociological Review, 29 (October 1964), pp. 718-29.

and more books with "suburb" in the title come off the press

#### The Problem in the Context of Recent Urban Research

In the 1950's and '60's, the central city was studied largely in comparison with the rest of the metropolitan area. Much has been learned about the changes in the central city through these comparisons. We know that, in general, the large central cities are losing population, particularly the white, middle class population, and are gaining Negro residents.<sup>6</sup> We know, too, that overcrowding, which was

<sup>7</sup>Some of the books reflecting this post-war interest in our growing suburbs are: J. R. Seeley, R. A. Sim, E. W. Loosley, <u>Crestwood Heights</u> (New York: John Wiley and Sons, 1956); Benjamin Chinitz, ed., <u>City and Suburb: The Economics of Metropolitan Growth</u> (Englewood Cliffs, New Jersey: Prentice Hall, 1964); Robert Wood, <u>Suburbia: Its People and Their Politics</u> (New York: Houghton, 1959); Wilfred Owen, <u>The Metropolitan Transportation Problem</u> (Washington, D. C.: Brookings 1956); William Dobriner, <u>Class in Suburbia</u> (Englewood Cliffs, Prentice Hall, 1963).

<sup>6</sup>The Taeubers, <u>op. cit</u>., suggest that migrants are of higher status than non-migrants, that large cities contribute to their own suburbs and to other metropolitan areas more highstatus persons than they lose; the end result is that the socioeconomic level of the central cities is diminishing and that of the suburbs increasing. In another article, "The Changing Character of Negro Migration," <u>American Journal of Sociology</u> (January 1965), pp. 429-41, the same authors report that nonwhite migrants to a number of large cities are also of higher status than Negro non-migrants and of equal or higher educational attainment than the non-migrant white population. particularly bad in 1950, has been alleviated due to the massive building activities in the suburbs and that vacancy rates, which were close to crisis levels in 1950, have increased to a comfortable 7.7% across the country.<sup>9</sup> The ecologists would argue that these changes are the result of "natural" ecological processes--of supply and demand in housing, of space and economical operation for industry in the suburbs, and of increasing dependence on the family car, better freeways, and the declining efficiency of forms of public transportation.

What happens when a government program sets out to "interfere" with these natural ecological processes is the subject of this dissertation. What happens when a conscious and "artificial" attempt is made to interfere with the market in housing and urban land values in an effort to prevent the exodus of the white middle class to the suburbs and the deterioration of residential property values in the central city?<sup>10</sup> In contrast to much of the recent urban research,

<sup>9</sup>See Ben J. Wattenberg, and R. M. Scammon, <u>This USA</u> (New York: Doubleday, 1965), pp. 520. Also, for a study of changes in housing in six metropolitan areas and two central cities, see Beverly Duncan and Phillip Hauser, <u>Housing a</u> Metropolis-Chicago (Glencoe, Illinois: The Free Press, 1960).

 $^{10}{\rm The}$  "write-down" is a device, incorporated into the Housing Act of 1949, which allows local urban renewal agencies to purchase slum areas in the central core where land is expensive because of its location and potential use, clear and prepare these areas for development, and then sell them at a reduced price to redevelopers who agree to build in accordance with the plans for that area. The government reimburses the local agency for 2/3 of the loss incurred.

the focus of this study is on the central city and a measurement of the effects of the Urban Renewal Program on changes in the population and housing within it.

The Urban Renewal Program was part of the Housing Act of 1949, legislation which was intended to encourage large scale construction of housing to alleviate the shortages caused by 15 years of depression and war. After the war, the men returned to marry and establish families. The GI Bill, low interest FHA and VA loans, and the post-war prosperity made it possible for these new families to seek their own housing-an important change from the pre-war pattern of doubling up with parents and other relatives. In addition, unattached individuals, such as students, young professionals, and middle aged spinsters, sought independent living quarters from their families of orientation. The Census reports that the number of primary unrelated individuals (single heads of households living alone or with some unrelated person) increased 78% from 1950 to 1963--which represents a demand for some 3.7 million housing units.<sup>11</sup> Not only was there not enough housing, but that which was available immediately after the war was in very bad condition. At the time of the 1940 Census, 40% of all the housing units in the U.S. had no bathtub or shower, a third had no flush toilet, almost half cooked on wood, coal, or oil stoves, and 78% used wood or coal as heating fuel. By contrast, in 1960, only 12%

<sup>11</sup>Wattenberg and Scammon, op. cit., p. 38.

of all housing units had no bath or shower, 10% no flush toilet, 5% continued to use wood, coal or oil stoves for cooking and 16% still heated with wood or coal.<sup>12</sup> Only 51% of all housing units were classified as standard in quality by the Census in 1940; in 1950 the percent had risen to 63%, in 1960 to 81%. Between the last two censuses, the percentage of dilapidated housing decreased from 9.8% to 5.2% in 1960. Duncan and Hauser, in their study of six metropolitan areas, found that the improvement in housing quality was due mainly to new construction in the suburbs, rather than to demolition or rehabilitation of older dwellings.<sup>13</sup> This corresponds with Wattenberg and Scammon's observation that by 1966, half of all housing units in the U. S. will be of post-war construction (roughly 30 million housing units).<sup>14</sup>

The Urban Renewal Administration was only one of several agencies formed by the government to repair the cities and rehouse the population. In terms of financing, acres of land affected, or number of housing units built, it was not even a major program. But, while other parts of the housing program (i.e., the low interest loans) primarily affected the metropolitan rings (because this was where new housing could be mass produced on large plots of vacant, relatively

<sup>12</sup>Wattenberg and Scammon, <u>op. cit</u>., p. 246.
<sup>13</sup>See Duncan and Hauser, <u>op. cit</u>.
<sup>14</sup>Wattenberg and Scammon, <u>op. cit</u>., p. 245.

cheap land), urban renewal occurred almost entirely within the central cities.

The first Housing Act of 1937 provided some money for mortgages, but was primarily a public housing program. As housing became more plentiful, the desirability of public housing among potential occupants decreased and real estate and construction interests could lobby more effectively against it. The Housing Act of 1949, while containing some provision for additional low-cost public housing, was a much broader program designed to facilitate private home construction and to eliminate slums and blighted areas. The declaration of national housing policy in the Housing Act reads:

The Congress hereby declares that the general welfare and security of the Nation and the health and living standards of its people require housing production and related community development sufficient to remedy the serious housing shortage, the elimination of sub-standard and other inadequate housing through the clearance of slums and blighted areas, and the realization as soon as feasible of the goal of a decent home and a suitable living environment for every American family, thus contributing to the development and redevelopment of communities and the advancement of the growth, wealth, and security of the Nation.

The Urban Renewal Program, established by this second Housing Act, was originally designed as a program of "spot" clearance of sub-standard and inadequate housing and of new residential construction on cleared slum sites. Over half of the acreage had to be devoted to residential use. Because of the existing housing shortage in the early 1950's, the slum clearance program, with its subsequent dislocation of low income families, drew severe criticism. The supply of low income

housing was inadequate for the demand. Weak housing codes and the impossibility of enforcing them contributed to the fact that blight appeared to be increasing faster than redevelopment. In the 1954 amendments to the Housing Act, better provisions were made for the relocation of families and the notion of rehabilitating or conserving existing structures was introduced. But despite the fact that local urban renewal agencies were made formally responsible for the relocation of families from the renewal areas, follow-up studies consistently find that only a small proportion of families come to the agency for relocation help and, of those, many are relocated into other substandard housing and most are forced to pay higher rents for their new location. In response to criticism, more emphasis was also placed on overall planning. By this time, however, local governing bodies and business groups had become more familiar with the renewal program and its possibilities. The 1954 Act also included some support for non-residential uses in renewal areas (up to 10% of the grants-in-aid).

By 1961, downtown businessmen were pressing for more help from the renewal program and central city mayors were worried about their declining tax bases. The 1961 amendments made the Urban Renewal Program more of a downtown development/ program than a housing program. Up to 30% of the grants-inaid could be used for non-residential purposes, and housing, particularly for the low-income population, was all but

forgotten. As Kaplan, Greer, and many others have observed, renewal areas are no longer selected because they represent the most blighted residential sections of the city; the basis for choice is the potential, "higher" use of the area.<sup>15</sup>

In summary, from the first Housing Act in 1937 to the present, there has been a shifting emphasis: from a stress on slum clearance and the provision of housing, particularly for the low-income population, to an increasing emphasis on non-residential construction and overall planning for the redevelopment of the central city.

In the written documents and the public speeches of official spokesmen for the Urban Renewal Administration today, several aims of a renewal program in the city core are specified or implied: 1) to improve the downtown area so as to attract new business and old shoppers to the central city, thereby increasing the tax base of the financially strapped cities; 2) to provide attractive and convenient "in-town" housing for middle and upper class constituents (which also means increased revenues for the city in the long run); and 3) to relieve the city of at least part of its burden of services to a lower income, and largely Negro, resident

<sup>15</sup>Scott Greer, <u>Urban Renewal and American Cities: The</u> <u>Dilemma of Democratic Intervention</u> (New York: Bobbs-Merrill Company, Inc., 1965).

population.<sup>16</sup> In terms of the ecological changes documented by Schnore, Bogue, the Taeubers, and others, the aims of renewal are to reverse some of the trends observed between 1940 and 1956: to decrease the concentration of Negroes in the central city, to attract back part of the higher status (and problem-free) white population, and to prevent a complete decentralization of places to work and shop. If we are to understand the possibilities and potentialities of planned change in an increasingly complex society, it is important to know, as precisely as possible, what the actual effects of an experiment in this type of change have been.

Several sociologists have been suggesting the type of research reported on in this dissertation. Donald Bogue, editor of a volume entitled, <u>Needed Urban and Metropolitan</u> <u>Research</u>, called for fewer community case studies and more comparative urban research.<sup>17</sup> With programs like renewal in

<sup>17</sup>Donald J. Bogue, ed., <u>Needed Urban and Metropolitan</u> <u>Research</u> (Miami, Ohio: Scripps Foundation Studies in Population Distribution, 1953), No. 7.

<sup>&</sup>lt;sup>1e</sup>The appelation, "Negro Removal," has been given to urban renewal by the civil rights movement. While there is no question but what the Negro has been disproportionately affected by renewal programs, this author does not believe that the primary motivation for relocating large numbers of Negro families is one of simple prejudice. Because the urban lower class today is predominantly Negro, Negroes are very much involved with all of the major social problems facing the city--crime, prostitution, education, welfare. It is the problems--rather than the people--that the city fathers are trying to evict through renewal. The term, "Negro removal," however, does have a factual basis. About two-thirds of all persons relocated from renewal project areas have been Negro.

mind, he emphasized that social planning must rest on a knowledge of the facts. Joseph Lohman wrote the chapter on the need for research into the redevelopment and control of slums and blighted areas. Relative to renewal, he suggested that there is a need to measure all of the effects, favorable and unfavorable, which could be attributed to the renewal program.<sup>18</sup> Specifically, he suggested taking a sample of redeveloped areas and 1) comparing the population residing in those areas before and after redevelopment and 2) comparing the resident population with those in adjacent areas which weren't redeveloped.

Lohman made another proposal which was less directly related to renewal. He suggested a test of several competing hypotheses which attempt to explain R. D. McKenzie's observation that population growth rates were inversely related to distance from the Central Business District and that the cores of large cities were actually losing population. Warren Thompson confirmed this observation by computing growth rates for census tracts grouped by one or two miles intervals from the center of the city outward. Is the loss of central city population due to a strong outpouring of white population in response to a non-white invasion? Is it due to a "a displacement of residential land uses by more intensive land uses, able to pay a higher economic rent on the land?"

<sup>18</sup>Bogue, ibid., p. 36.

Or could it be that, in cities built before the automobile to accommodate higher densities of population, the exodus merely represents the effort of population to reach a new density equilibrium appropriate to the present modes of transportation?<sup>19</sup> Lohman proposed that all three competing hypotheses be preferably contained in a single study so that the relative contributions of each might be measured. He felt that this research should also try to discover what types of people left the inner city tracts and what kinds of people remained.

Finally, Leo Schnore, in his article on "Metropolitan Growth and Decentralization," calls for more research into the demographic composition of different parts of the metropolitan area and the migrant streams that flow between them-into the redistribution of residential population. Only out of an understanding of the processes of change can a meaningful theory of urban growth be developed.<sup>20</sup>

## Statement of the Problem

The present study derives some of its basic hypotheses from the work of Schnore, Bogue, Taeuber, and others of the ecological school. It has also been influenced by the literature on urban renewal, which will be reviewed in a

<sup>19</sup>Bogue, <u>ibid</u>., p. 20.
<sup>20</sup>Schnore, <u>op. cit</u>., p. 177.

later chapter. The focus is not on the renewal process itself, but on the effects of this program on the distribution and character of the central city population and on the nature of the housing supply in the central city. The study differs from most others in the area of urban sociology that the author is acquainted with in that:

 it is quasi-experimental in design; that is, it is a natural experiment with an independent variable (urban renewal) "naturally" occurring in two of three cities (the experimental cities) and not occurring in a third (the control city). Before and after comparisons are made for both the experimental and the control cities.

2) it uses a comparative approach in which the cities are matched, not only on size, but on the type of population, the nature of the labor force, the relative age and condition of the housing, and the general location of the cities.

 it uses, as the major analytical tool, a measure of change in the dependent variables with the census tract as the unit of analysis.<sup>21</sup>

Three large cities, all border cities between South and North and older cities in the eastern half of the United States, were chosen. They are of approximately the same size, and all have relatively large Negro populations. Two of the cities were major participants in the urban renewal program during the 1950's (the experimental cities-St. Louis, Missouri and Washington, D. C.); the third city (the control city--Cincinnati, Ohio) did not begin to participate in the program until late in the decade and, at the time of the 1960 Census,

<sup>21</sup>Both the use of an experimental design and the use of means and standard deviations of the differences on selected population and housing variables are exploratory in this study.

had only one small project in the execution phase. Two of the cities, one experimental (St. Louis) and one control (Cincinnati), were guite similar in the age and condition of their housing, the occupational make-up of their population, and the educational and income level of the residents. In terms of Hadden and Borgatta's classification of American cities based on a factor analysis of some 65 variables, the profiles of the three cities are roughly similar and St. Louis and Cincinnati are particularly alike (see Table I).22 All three are relatively high in density, percent non-white. and high on the deprivation index; all three were guite low in terms of population increase, and the percent living in single dwelling units and relatively low in average income; they were about average in the median age of the population. Where differences in the profile exist, St. Louis and Cincinnati usually differ from the District: the District has more foreign born, is residentially more mobile (with fewer persons living in the same house, 1955-1960), and has many more migrants. In view of the differences between the two experimental cities, it is not expected that the effects of renewal, if any, will be reflected to the same extent; but if both cities show similar patterns of change--and this

<sup>22</sup>See Jeffrey K. Hadden and Edgar F. Borgatta, <u>American</u> <u>Cities: Their Social Characteristics</u> (Chicago, Illinois: Rand McNally & Company, 1965). The profile includes 11 variables on which all U. S. cities over 25,000 are ranked and assigned decile scores (0-9). The variables and the three cities' rankings on them are included in the accompanying table.

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Table I. Profile of Cities \*

pattern differs from that in Cincinnati--the conclusion that this pattern of change is due to renewal will be strengthened.

In a study with an experimental design, the basic hypothesis is always one of "no difference." In the present study the null hypothesis will be applied to changes in two sets of variables at three stages of analysis. Specifically, it is hypothesized that there will be no differences observed between the experimental and control cities with respect to

the types of change:

- in the condition and size of the housing supply, and
- in the character of the population (race, median income, median education)

when

- (a) the data are summed for each city as a whole,
- (b) the mean changes (on a census tract by census tract
- basis) are computed for the city as a whole, and
- (c) changes in the renewal tracts alone are compared with changes in a selected group of "non-renewal" tracts which experienced major changes in 4 or more population and housing variables.

One additional hypothesis and different type of analysis was attempted. One of the most important effects which many authors familiar with urban renewal claim has occurred is that the program has simply moved the "slums" from one area of the city to another.<sup>23</sup> Martin Anderson claims that the program has aggravated the housing shortage for lower income groups by destroying more low-rent housing than it created.<sup>24</sup>

<sup>&</sup>lt;sup>23</sup>"Slums," for the purpose of the research here, will be defined as an area of overcrowded or substandard housing occupied by persons of low education and income.

<sup>&</sup>lt;sup>24</sup>Martin Anderson, <u>The Federal Bulldozer</u> (Cambridge, Massachusetts: Massachusetts Institute of Technology Press, 1964).

His basis for this claim: in 1950, there were 1,850,000 dilapidated dwelling units in the U. S. (by Census definition); the Bureau of the Census found that 90% of the occupants of this housing paid less than \$40 per month rent and that 77.6% of the families and individuals in nonfarm dilapidated housing earned less than \$1,000 a year. Renewal has occurred chiefly in neighborhoods where the housing is deteriorated, if not dilapidated, so that many dislocated families would be in this deprived segment of the population. In contrast, the rent distribution of private residential construction (which does not include public housing) in urban renewal areas (8292 units completed in 1962) began at over \$100 a month, with a median of \$195 in 1962.25 Alvin Schorr echoes the same idea.26 He says that renewal has created a problem in the low income housing market in two ways: 1) housing has not been available for relocatees at the time they are displaced so they crowd "temporarily" into another neighborhood, converting it into a "slum": and 2) redevelopment has replaced the slums with more middle and high income housing than public housing units, further depleting the housing stock available to the poor. Few displaced families have ever returned to their former neighborhood. Robert Weaver, former head of the Urban Renewal

25Ibid.

<sup>26</sup>Alvin Schorr, <u>Slums and Social Insecurity</u> (Washington, D. C.: Social Security Administration, Report No. 1).
Administration, also recognized that relocation frequently "created additional slums and brought blight into new areas."<sup>27</sup> Speaking of the District, he acknowledged that ". . . some of the older residential areas were adversely affected. Southwest Washington was cleared only at the price of creating the need for additional clearance in parts of Northwest Washington and the spread of blight in a segment of the Northeast."<sup>28</sup>

Renewal was not intended to be a welfare program, although many liberals supported it in the hopes that it would provide better housing for the poor and, as if by magic, decrease crime, delinquency and prostitution. Slums are more than old housing--they represent a location for certain illegitimate occupations, a place to live for persons who, because of racial discrimination, have limited choice of residences, and a place to live for people who choose <u>not</u> to spend what money they do have on housing. As long as there is a demand for inexpensive housing and as long as the demand exceeds the supply, physical slums cannot be eliminated. Redevelopment has been predominantly concerned with the upgrading of land use and may continue to pursue this objective, clearing first one area and then another until the slums, its people and its problems are beyond the city limits.

<sup>27</sup>Robert C. Weaver, <u>The Urban Complex: Human Values in</u> <u>Urban Life</u> (New York: Doubleday, 1964), p. 53.

<sup>28</sup>Ibid., p. 54.

It is important to know, therefore, in evaluating the effects of the urban renewal program, whether the lower income groups and the physical conditions in which they usually live are simply being shifted from one area of the city to another, or whether some improvement in the housing available to this group is occurring in the process. This hypothesis can neither be simply stated nor easily tested; however, a compromise is better than no test at all.

When clearance for renewal occurs, large numbers of people are displaced and large scale changes occur in terms of the number of housing units in a census tract, their condition and the number and type of residents. If those displaced are relocated throughout the city and not moved en masse to certain parts of the city, then no changes of equal magnitude, but opposing direction, would occur in the areas of the city not directly affected by renewal. If, on the other hand, those displaced tend to move to certain sections of the city in relatively large numbers, then we might expect to find several census tracts undergoing large scale changes in several housing and population variables and on some of these variables the changes should be in an opposing direction from those observed in the renewal tracts. It is hypothesized, then, that there will be no census tracts in the renewal cities experiencing changes equal in magnitude but opposite in direction to those changes observed in the renewal tracts.

Census data from the 1950 and 1960 Census will be used to test the hypotheses. Comparable information on selected population and housing variables was collected for each census tract in each of the three central cities. The census tract was the basic unit of analysis. Changes in these census tracts over the decade will be compared for the experimental cities, which had several renewal projects enter the executive phase early in the decade, and the control city, which did not have a project enter the execution stage until late in 1959.<sup>29</sup>

#### Outline of the Dissertation

The remaining chapters of this dissertation will discuss:

the methodology of the study, including a description of the three cities, the characteristics of the housing and the population which will serve as the dependent variables, and the statistics used to analyze the data (Chapter II);

 2) other literature which relates to the basic hypotheses of the study (Chapter III);

3) the basic findings of the study (Chapters IV and V);

 an interpretation and discussion of these findings as they relate to the basic hypotheses (Chapter VI); and

<sup>29</sup>This information was communicated to the author in letters from the Urban Renewal Agencies in each of the three cities.

5) an overall summary of the dissertation, including a critical discussion of the different approach and methods used in this study and some suggestions for other research in this general area (Chapter VII).

mani<sup>34</sup> Bef reach enter measurements in melacial population and housing far this were taken from the 1260 and 1260 Consist<sup>34</sup> This difference alied the experimental effice bacause a considerable amount of clearance and rescelences took place within then between the two Consulat. A third city was labeled the control city Because it was not a major perficipantion the urbon canwal program in the 1950 s and the little remewal that took place did not enter the amountion phase until labe in 1958.

<sup>2</sup>The term is strilbuted to Daniel Katt (Zeon Pestimeer and Daniel Katz. <u>Repeatch Hethods in the Mehaviaral Stinners</u> How York: Hryden, 1955) by Abraham Kagtan (<u>The Conduct as</u> <u>Inoutry</u> San Francisco: Chandler Publishing Co. 1984) the concept refers the term "model 'experiment'. Whatever the word the concept refers to an experiment in which changes me premoded by an independent variable introduced, not by the assentian but by the policy maker by practitioner. Kaplan sizes as exangles the relocation of the Japanese in Chiffornis and the detenergies the notes, she often more clear and drastic than could even be produced in the laboratory. On the other hand, we have problem of controls is more series by On the other hand, we have a stringer in the induced by the Spins be well. See Explan, by 156.

<sup>31</sup>G. S. Bureau of the Centum, <u>H.S. Consum Di Population and Boundard</u>, <u>1960</u>, <u>Copart Reacts</u>, Finel Report MC (1) - 20 11. 166. (Mashington, D.C.: D.S. Dovernment Printing Office, 1982) and B. S. Bureau of the Consum, <u>U.S. Centum of accellation</u>, 1982. [1]. <u>III</u>, <u>Consum Tract Conting U.S. Centum of accellation</u>, 1982. [2]. <u>III</u>, <u>Consum Tract Conting</u>, <u>Final Report Photos</u>, 1982. [3]. <u>III</u>, <u>Consum Tract Conting</u>, <u>Final Report Photos</u>, 1982.

### CHAPTER II

#### METHODOLOGY

The design of this study is that of the natural experiment.<sup>30</sup> Before and after measurements on selected population and housing variables were taken from the 1950 and 1960 Census.<sup>31</sup> Two cities were called the experimental cities because a considerable amount of clearance and redevelopment took place within them between the two Censuses. A third city was labeled the control city because it was not a major participant in the urban renewal program in the 1950's and the little renewal that took place did not enter the execution phase until late in 1959.

<sup>30</sup>The term is attributed to Daniel Katz (Leon Festinger and Daniel Katz, <u>Research Methods in the Behavioral Sciences</u>, New York: Dryden, 1953) by Abraham Kaplan (<u>The Conduct of</u> <u>Inquiry</u>, San Francisco: Chandler Publishing Co., 1964). Kaplan prefers the term "social experiment." Whatever the word, the concept refers to an experiment in which changes are produced by an independent variable introduced, not by the socientist, but by the policy maker or practitioner. Kaplan gives as examples the relocation of the Japanese in California and the desegregation of schools in the southern U.S. The resulting changes, he notes, are often more clear and drastic than could ever be produced in the laboratory. On the other hand, the problem of controls is more serious as well. See Kaplan, p. 164.

<sup>31</sup>U. S. Bureau of the Census, U.S. Census of Population and Housing: 1960. Census Tracts. Final Report PHC (1) - 27, 131, 166. (Washington, D.C.: U.S. Government Printing Office, 1962), and U. S. Bureau of the Census, U.S. Census of Population, 1950, Vol. III, Census Tract Statistics. Final Report PHC(1)-11, 47, 59. (Washington, D.C.: U.S. Government Printing Office, 1952.)

#### Description of the Sample

The sample consists of all census tracts<sup>32</sup> within three cities. Two of the cities, Washington, D. C. and St. Louis, Missouri, were classified as "leading urban renewal cities" between 1949 and 1960 by HHFA on the basis of the amount of Federal funds spent or reserved for renewal activity in those cities up to 1960. Washington ranked 4th in total Federal funds spent (16.1 million). 5th in Federal funds reserved but unspent (40.4 million) and 3rd in funds spent per capita (\$20.90). St. Louis was 8th in total Federal Funds spent (8.6 million), 6th in Federal funds reserved but unspent (37.0 million), and 7th in funds spent per capita (\$11.50).33 These two cities, therefore, have been called the "experimental" cities because they have been exposed to the experimental condition--urban renewal. The third city, Cincinnati, Ohio, differed in that it did not undergo major renewal during the 1950-60 decade. It has been called the "control" city because it did not undergo the experimental condition.

<sup>32</sup>With the exception of those tracts which only contain a public institution. Where the tract is a mixture of public and private uses, it has been included because in the census, group quarters are not counted as occupied housing units and are not included in the housing inventory. Where population characteristics are being compared, however, some caution will be called for because the population in group quarters is included in the population figures.

<sup>33</sup>The figures on which this discussion is based are from Harold Kaplan, <u>Urban Renewal Politics</u>: <u>Slum Clearance in</u> <u>Newark</u> (New York: Columbia University Press, 1963), p. 3.

There were several reasons for the selection of these particular cities. Washington, D. C., was the first city decided upon because the author had been involved in research on renewal in that city and the observations made in the course of the research led to the formation of the basic hypotheses of this thesis. Since the District is one of the more atypical cities in the U. S. -- because of the large white collar labor force, the emphasis on public administration and service industries, the largest proportion of Negroes of any U. S. city, the existence in 1950 of large areas of underdeveloped land within the central city, and the lack of home rule--it was felt that a second city of similar size and equally broad participation in the urban renewal program should be chosen. And since the urban renewal program has been intimately involved with the Negro population in the cities, it was felt that the second city should be relatively similar to Washington in the proportion non-white.

Three variables alone--size, participation in urban renewal, and the proportion non-white--narrowed the field of choice considerably. Table II provides information on the extent of the renewal programs in the execution stage as of December 31, 1959 for all cities of 500,000-999,000 and a few smaller ones in the eastern half of the U. S.<sup>34</sup>

<sup>&</sup>lt;sup>34</sup>The cities in the western U. S. were either not large enough, had too few non-whites, or were not sufficiently dilapidated to require much help from the Urban Renewal Administration.

A Comparison of Potential Experimental and Control Cities Table II.

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city 5	City popula- tion 1950	SMSA popula- tion 1950	Percent non-white central city 1950	Acres in re- newal tract	Gross project costs	<u>In renewal tr</u> Substd. dwelling units	racts only Std. dwelling units
Vewark	438,776	-438,776	17.2	42.6	\$9,270,000	1008	205
Cincinnati	503, 998	904,402	15.6	57.7	9,603,000	1802	56
Pittsburgh	676,806	2,213,236	12.3	95.4	29,143,000	2127	591
roledo	303,616	395, 551	8.3	127.4	3, 539, 000	378	98
Sirmingham	326,037	558,928	39.9	167.2	8,400,000	554	186
Kansas City	586,175	814,357	14.1	169.7	11,625,000	712	211
Baltimore	949,708	1,337,373	23.8	193.9	31, 793, 000	2222	1477
cleveland	914,808	1,465,511	16.3	197.5	14,648,000	845	687
Washington	802,178	1,464,089	35.4	549.0	129,248,000	4559	1316
St. Louis	856, 796	1,681,281	18.0	655.9	75,602,000	8649	237
Atlanta	331, 314	671,797	36.6	688.4	30, 292, 000	3670	216

The information in this table was taken from Urban Renewal Project Characteristics. June 30, 1950, Housing and Hame Finance Agency, Urban Renewal Administration, Washington 25, D. C. The data represent a summation of acreage, costs, and dwelling units for all projects in a given project had reached the planning, execution, or completion stage is given in the Urban Renewal Project Directory, December 31, 1959, Housing and Home Finance Agency, Urban Renewal Adminis-tration, Washington, D. C. city which had entered the execution stage prior to December 31, 1959. Whether a particular

Detroit, Chicago, and New York were too big. Atlanta, with a large acreage involved in renewal, had a fairly modest gross project cost in comparison with St. Louis and Washington. It is also considerably smaller than either of these cities, both in terms of central city population and in terms of the SMSA as a whole. Atlanta has a high proportion of Negroes, but it was felt that its position as a definitely southern city, albeit a progressive one in race matters, might affect the results of renewal in a way that would not be true for a more northern city.

The two cities chosen as the experimental cities were of almost identical size, with large Negro populations and urban renewal projects begun in the early 1950's. They constituted two of the three cities with the greatest acreage affected and the largest budgets for renewal. If the same patterns of change occurred in these two cities, despite some important differences between them, renewal could be the cause.

On the other hand, changes occurring in both renewal cities could simply represent the "normal" patterns of change in large American cities during the 1950's. So a control city was chosen--one which was similar to the two renewal cities in as many ways as possible, but which differed principally in that it was not a major participant in the urban renewal program during the 1950's. Newark and Toledo were eliminated as potential control cities because of their

small size. Toledo also had a relatively small Negro population and Newark, it was felt, might be unpredictably affected by its proximity to New York City and its central position in the megalopolis of the northeastern U. S. Pittsburgh is below average (for the 25 largest cities) in proportion non-white, and while fairly low in acreage affected by renewal, it is about average in gross project costs for cities in its size category. The control city chosen was second from the bottom in terms of acreage affected and 4th lowest in gross project costs. Furthermore, Cincinnati and one of the experimental cities, St. Louis, were remarkably similar on many other variables which, conceivably, could affect changes in population and housing characteristics.

In the classical experiment, the subjects in the experimental and control group should be as much alike as possible. In a natural experiment such as this, we could only match the subjects--the three cities--on as many crucial variables as possible. If the renewal cities do not differ in any systematic way from the control city on variables which might be related to population and housing changes, then a possible relationship between different patterns of change and the experimental condition can be entertained. If the renewal program has had a unique impact on housing and population changes in the city, it would be expected that the patterns of change in the District of Columbia and St. Louis would be similar to each other and that both would differ from the patterns observed in Cincinnati.

The three cities, first of all, are roughly similar in size, are above average in the proportion of the population which is Negro, and are all "border" cities between North and South.<sup>35</sup> In 1950, Washington, D. C. had a population of 802,000, St. Louis, 857,000, and Cincinnati, 504,000. During the 1940-1950 decade, all three central cities gained in population: St. Louis by 5.0%, Cincinnati by 10.6%, and D. C. by 21.0%. In the first two cities the change was completely due to natural increase as both experienced a net loss in migration (-3.6% in St. Louis, -1.3% in Cincinnati). Washington's net migration rate was +4.7%.<sup>36</sup> Migration has always played a bigger part in Washington's growth because it was the nation's capitol. In the metropolitan area, in the 1940's, migration contributed more to overall growth than did reproductive changes; but in the central city, natural increase accounted for three times as much of the population increase as migration did. The reverse was true for St. Louis and Cincinnati: in both the metropolitan area as a whole and in the central city, natural increase was more important than migration in the area's growth.<sup>37</sup>

<sup>35</sup>During the 1940's, the non-white net migration rate to all three cities was almost identical: Cincinnati, 26.2; St. Louis, 28.5; and Washington, D. C. 28.8. See Bogue, <u>Components</u> of Population Change, 1940-1950, op. cit., Appendix Table III.

<sup>36</sup>Bogue, <u>Components of Population Change, 1940-1950</u>, <u>op. cit</u>., Table II.

<sup>37</sup>Ibid.

The three cities are similar in that they have a greater percentage of Negroes than the average for the 25 largest cities. In 1950, the District of Columbia was 35.4% non-white, St. Louis 18%, and Cincinnati, 15.6%; the 25 city average was 13.9%. In 1960, Washington was 54.8% Negro, St. Louis, 28.8%, and Cincinnati, 21.8%; and the 25 city average was 20.7%. Similarly, the three cities were <u>below</u> average in the growth rate of their Negro population. While non-whites in the 25 largest cities increased 55.3% on the average, D. C's non-white population increased 47.3%, St. Louis', 39.9%, and Cincinnati's, 39.4%.

Changes in the population and housing characteristics of a city could be related to many different factors, among them the age and condition of the existing housing structures in the city, the occupational make-up of the city, and the educational and income level of its residents. In 1950 the cities were not identical on these characteristics; but two of them (St. Louis and Cincinnati) were quite similar. This means that one experimental and one control city are not substantially different on these variables. The second experimental city differs from both of them, which would only strengthen the conclusion that renewal is an important independent variable if both St. Louis and Washington, D. C. evince similar patterns of change during the decade despite their differences in occupational distribution and housing characteristics.

One factor on which Cincinnati is more similar to St. Louis is in the age of its housing supply: 81.8% of Cincinnati's housing was built prior to 1930; 89.4% of St. Louis' housing was built before that time; but only 61% of D. C.'s housing was that old. In fact, 22.3% of the District's housing was built in the 1940's compared with 3.8% in St. Louis and 8.5% in Cincinnati. This was apparently due to the great demand for living quarters for the enlarged government work force during World War II. On the basis of age alone, the housing supply in Washington was less in need of renewal than in either Cincinnati or St. Louis.

A second factor which could influence housing changes during the decade is the condition of the existing housing supply in 1950. Again, the control city is more similar to one of the experimental cities (St. Louis) than the two renewal cities are to each other. In 1950, 28.47% of the housing units in St. Louis and 30.48% of those in Cincinnati were classified as substandard by the Census; by comparison only 12.40% of the units in the District were so classified.

Population and housing changes in a city could also be influenced by the occupational distribution of the labor force. While the two renewal cities differ from each other in occupational structure (see Table XXI), there are no systematic differences in occupational distribution between the two renewal cities and the control. Washington differs most strongly from St. Louis and Cincinnati in its high

City	1950		1960
St. Louis			
Number Reporting	251,915		222,738
Year Built:			
1940	3.8%	1959 <b>-M</b> arch '60	.43%
1930-39	6.8%	55-58	1.84%
1920-29	18.9%	50-54	5.10%
1919 & earlier	70.5%	40-49	4.65%
		39-before	88.00%
D. C.			
Number Reporting	220,325		247,840
Year Built:			·
1940	22.3%	1959-60	1.6%
1930-39	17.8%	55-58	4.0%
1920-29	21.1%	50-54	10.3%
19 <b>19</b> & earlier	39.9%	40-49	20.9%
		39-before	63.2%
Cincinnati			
Number Reporting	157,380		147,106
Year Built:			
1940	8.5%	1959-60	1.1%
1930-39	9.6%	55-58	3.7%
1920-29	16.1%	50 <b>-</b> 54	6.7%
1919 & earlier	65.7%	40-49	9.2%
	•	39-before	79.3%

Table	III.	Age	of	Housing	Structures	in	Three	Cities,	1950
		and	196	0 (In p	ercents)				

Source: U. S. Census of Population and Housing, op. cit., Table 3, 1950 and Table H-1, 1960. percentage of clerical and professional personnel and in its low percentage of operatives and kindred workers: 31.1% of the city's male work force is in professional and clerical occupations; 47.3% in white collar jobs. St. Louis and Cincinnati are primarily industrial cities with the greatest concentration of the labor force in skilled and semiskilled occupations (craftsmen, foremen, and operatives): 35.5% of the male work force in St. Louis and 39.6% in Cincinnati are in white collar jobs. Conversely, 42.5% and 53.1% of the labor force in Cincinnati and St. Louis are engaged in manual occupations (excluding service workers and private household employees) as compared with only 38.5% in the District in such occupations.

The figures for women in the labor force reflect the same differences. In St. Louis and Cincinnati 52.1% of the women work in white collar jobs whereas in D. C. 67.1% are so employed. Conversely, 26.6% and 22.5% of the women in the former cities are in manual occupations as compared with only 7.3% in Washington, D. C.<sup>38</sup>

As for changes in the occupational distribution during the decade, all three cities increased in the percentage of the labor force engaged in professional and technical occupations and all three declined in the percent in clerical and sales occupations. There were no radical changes in the

<sup>&</sup>lt;sup>38</sup>U. S. Census of Population and Housing, op. cit., Table 2, 1950 and Table P-3, 1960.

distribution of the labor force in any of the three cities.

The 1960 Census provides information on the percent of the labor force employed in different types of industry. Assuming no radical shifts between 1950 and 1960, Table IV provides a further description of Washington as primarily an administrative center and of St. Louis and Cincinnati as predominantly engaged in manufacturing.

# <u>Data</u>

The basic sources of data are the Census publications from 1950 and 1960.<sup>39</sup> The PHC(1) series was used and comparable information was taken from the 1950 and 1960 publications. There were no changes in census tract boundaries for these cities during the decade. However, in Washington, D. C., 1950 census tracts 23, 52, 54, 57, 73, 74, 76, 77, 78, 88 and 95 were subdivided at the time of the Institutional tract 23.2 was omitted and the 1960 Census. subdivided tracts were renumbered from 1 to 123; consequently, while there were 95 numbered in 1950, there were 123 numbered tracts in 1960. Where the data could be summed, 1950-1960 comparisons were made between the original 1950 tract and the sum of the 1960 tracts into which the original tract was subdivided (see Appendix A). Where the data could not be summed (as in median rent or education), the value for the

<sup>39</sup>See Footnote no. 31.

Employment by Industry in Three Cities, 1960 Table IV.

Percent employed in type of industry	Wash., D. SMSA*	. c. city	St. LK SMSA	ouis City	Cinci SMSA	nnati City
Mining	* *	1		I I I	1.0	1.0
Construction	6.2	5.0	4.9	3.5	5.4	5.0
Manufacturing	7.5	6.2	33.0	31.5	33.0	29.4
Railroad		-	2.7	2.5	2.2	1.8
Other Transportation	2.7	2.5	3.2	3.5	2.7	2.6
Wholesale Trade	2.2	1.6	3.8	3.7	3.9	3.9
Retail Trade	10.5	8°9	11.5	10.6	12.0	11.1
Private Household	3.7	5.5	2.2	3.2	2.5	3.4
Education	5.7	5.2	4.3	3.3	4.0	4.4
Other Professional	6.9	6.3	3.7	3.5	4.1	4.6
Public Administration	26.9	26.9	4.7	5.5	3.9	4.8
*SMSA means Standard	Metropolitan	Statisti	cal Area.			

<u>1960</u>, <u>op. cit</u>., Table P-3.

U. S. Census of Population and Housing:

\*\*--- indicates less than 1%.

Source:

original 1950 tract was compared with each of the tracts which resulted from its subdivision. In Cincinnati, there were 110 tracts in 1950; in 1960, one tract--number 86--was subdivided into two and one new tract was annexed, making a total of 112 tracts in 1960. In St. Louis, no changes were made in the tracts; one institutional tract was omitted.

A few changes were made in the classification of information in the Census itself. In the following cases, changes were made so that the 1950 and 1960 information were <u>not</u> comparable:

1) Residential mobility was measured for a five year period preceding the 1960 census, whereas it was only obtained for a one year period preceding the 1950 census. Respondents were asked at the time of the 1960 census whether they had lived in the same house in 1955, or, in the case of the 1950 census, in 1949. Using this measure, we would expect more mobility in 1960 than 1950 because of the greater time span included in the question asked by the census.

2) A second measure of residential mobility appeared for the first time in the 1960 census. This measure refers to households rather than persons. The question was asked whether the household had moved into the unit between 1958-59, between 1954-57, or earlier.

3) In the 1950 census, the item, "number of housing units reported on," differs slightly from the item, "all housing units in tract." In the 1960 census, the two items are the same.

4) Rent comparisons, by race, presented a problem because a) no gross rent was available in the 1950 census and b) nothing but gross rent for non-whites was available in the 1960 census.<sup>40</sup> Only differences in contract rent for the total population in a census tract may be compared for the two years, and contract rental differences between the races may be compared for 1950, but no direct racial comparisons can be made for 1960 nor can differences in rents within each racial group between 1950 and 1960 be established.

In the following case, a change in the classification of information was made, but, according to the Census, a combination of items in the 1960 census are the equivalent of a single item in 1950:

5) The 1950 item, "housing units with no private bath or dilapidated" is the equivalent of the 1960 items, "dilapidated," "sound, lacking other plumbing facilities," and "deteriorating, lacking other plumbing facilities."

The population characteristics used in the study are described in the Code Book for Deck 3 and Deck 1 (columns 4-33) (see Appendix B). The housing characteristics used are described in the Code Book for Deck 2 and Deck 1

<sup>&</sup>lt;sup>40</sup>Contract rent is the price agreed upon by landlord and lessee, regardless of furnishings, utilities, or services. Gross rent is the contract rent plus the average monthly cost of utilities and fuels if these are in addition to the contract rent.

(columns 35-58). Most of the analysis makes use of seven population variables and five housing variables. The seven population variables are:

- 1) median school years completed (total population) -3:6-8<sup>41</sup>
- 2) median school years completed (non-whites) -- 3:9-11
- 3) median family income (non-whites) -- 3:12-16
- 4) non-white population--3:19-23
- 5) total population--3:24-28
- 6) median family income (total population) -- 3:25-29
- 7) percent non-white--3:50-53

These variables were selected, out of all the information available in the Census, as those which would best describe the population in socio-economic and racial terms. For the sake of simplicity, the median was used rather than working with the proportion of people in given income and education categories. The five housing variables are:

- 1) median contract rent (total population) -- 3:29-31
- 2) percent of housing substandard--1:59-61
- 3) percent non-white occupied housing units--2:43-45
- 4) percent overcrowded housing units--2:46-48
- 5) percent non-white occupied overcrowded housing units--2:49-51

These were chosen because they reflected best several important characteristics of the housing supply which, conceivably, could be affected by urban renewal. For instance, the condition of the housing (whether substandard or not) and the degree of overcrowding were factors which the Urban Renewal Program specifically intended to alter. Occupancy by race and income level were also important in the aims and results of the renewal program.

<sup>41</sup>Deck 3, columns 6-8.

Census data have been used by the demographers for some time. Generally, however, the data are used to compare large areas: concentric zones, central city vs. suburban rings, cities of various size, urban vs. rural, etc. It is relatively infrequent that the data are manipulated on a census tract basis, as in the construction of ecological correlations.<sup>42</sup> Leslie Kish<sup>43</sup> did so when he studied differentiation within the concentric zones of metropolitan areas. He observed that zonal gradients obscure a great deal of information and found that there was more differentiation between tracts in the inner zones than in those farther out. The same criticism can be made of census tracts which are heterogeneous in character; but the tracts cover a much smaller area and population, and are originally drawn to be as homogeneous as possible. Consequently, they are not quite as arbitrary a unit as the concentric zone.

Aside from the difficulty of within-tract heterogeneity, there are three other qualifications about the use of census

<sup>43</sup>"Differentiation in Metropolitan Areas," <u>American</u> Sociological <u>Review</u>, 19 (August 1954), pp. 388-398.

<sup>&</sup>lt;sup>42</sup>Donald L. Foley, "Census Tracts and Urban Research," <u>Journal of American Statistical Association</u> (December 1953), pp. 733-42, documents five different ways in which census data can and have been used: 1) descriptive use: incidence of a single factor; 2) descriptive use: two or more separate incidence patterns overlapping each other; 3) time-series use: in which changes, by tracts, are reported for stated periods of years; 4) analysis of relationships: using ecological correlation; and 5) statistical index form: as in the indices of social rank and familism constructed by Eshref Shevky and Wendell Bell, <u>Social Area Analysis</u> (Stanford: Stanford University Press, 1955).

data in this study. First, there is great variability around the mean population per census tract, particularly in the experimental cities, and, in those cities, particularly in This has implications for the use of medians in the 1950. analysis. In order to minimize the error in copying data by hand from the census reports and in order to keep the task of this thesis within manageable proportions, census tract medians for family income, education, and rent were used instead of the computation of proportions in various income, education, and rental categories. There is a loss of precision incurred in this practice which is most serious when a "median of medians" is computed for all census tracts in a given city without weighting the medians for differences in population size. Where changes in the median value of one of these variables are being measured for each census tract, the author feels that the error is not as serious, since we can treat the median in this instance as a "score" on each variable. Second, while the Census has sharpened and refined its categories of housing quality, there has been no systematic validation of the "dilapidated" and "deteriorated" concepts. 44 And third, in the Census measurement of residential mobility (the number of persons living in a different house within the central city), there is no way to distinguish inter-tract from intra-tract mobility. If this had been

<sup>&</sup>lt;sup>44</sup>The author is indebted to Donald L. Foley, <u>op. cit</u>., for bringing this to her attention.

available, a more precise test of some of the hypotheses would have been possible.

### Concepts and Definitions

Several words are used throughout this dissertation which have a precise operational definition. The words and their definitions are:

- substandard housing unit: housing units in the 1950 Census that were classified as dilapidated or having no bath and those in the 1960 Census that were classified as dilapidated, or sound--lacking other plumbing facilities--, or deteriorating--lacking other plumbing facilities.
- overcrowded housing unit: housing units that had over 1.01 persons per room.
- 3) a significant or major change: since tests of statistical significance are rarely made in this dissertation, these two words are used interchangeably to refer to a 1950-60 change in a given variable for a particular census tract which exceeds  $\pm 1$  or 2 standard deviations from the mean change (or mean difference) on that variable for the city. Where statistical significance is meant, it will be so stated.
- 4) renewal tracts--those tracts, any part of which was involved in an official urban renewal project which entered the execution phase between January 1, 1950 and December 31, 1959.

# Methods of Analysis

The data are analyzed in three stages. In the first stage, the information on selected variables are summed for the city as a whole and expressed in the form of medians and percentages. The three cities can then be compared in 1950 and in 1960 or changes in these summary measures can be compared for each city.

In the second stage, changes in the value of selected variables for each census tract are summed and a mean difference and standard deviation of the difference computed. The formulas used for the mean and standard deviation of the differences are:

$$\overline{\mathbf{x}} = \frac{\Sigma(\mathbf{X}_{i1950} - \mathbf{X}_{i1960})}{N} \text{ or } \frac{\Sigma d}{N} \text{ and } \delta^2 = \frac{\Sigma d^2 - \frac{(\Sigma d)^2}{N}}{N-1}$$

where  $X_{i1950}$  refers to the value of a variable for a particular census tract in 1950 and X i1960 refers to the value of the same variable for the same census tract in 1960. N is the number of comparisons, or, in other words, the number of paired census tracts for which values of the variable are known in both 1950 and 1960. Both the mean and the standard deviation of the difference are used descriptively in the analysis. That is, the mean expresses the average change of a particular variable which occurs in the census tracts of one of the three cities. T-tests can be used to test the significance of the difference between the mean changes in the renewal and control cities. The standard deviation tells something about the distribution of these changes--whether the tracts are relatively uniform in the magnitude of change on this variable or whether there are wide differences among the tracts in the way in which they change on this variable. Furthermore, it would be of substantive interest if the two

Ţ( Ĵ! b Ŀ F £. 3 1 V renewal cities were observed to have much larger standard deviations on some of the variables which might plausibly be affected by renewal and the control city was observed to have a much smaller standard deviation on these variables. F tests can be used to test the significance of the difference between variables in the renewal and control cities.

One other use is made of the standard deviation in the analysis. If a variable is normally distributed, two-thirds of the cases should fall within  $\pm 1$  standard deviation of the mean and 95% of the cases should fall within  $\pm 2$  standard deviations of the mean. Therefore, those tracts which fall outside the first standard deviation are relatively unusual in the magnitude of their change on a particular variable; those which fall outside the second standard deviation are very unusual in the size of the change on that variable. It is assumed that the renewal tracts--and perhaps those tracts serving as "receiving" areas for those displaced by renewal--will fall in these categories of major or significant change. Furthermore, if the change in a variable is not normally distributed, this will be recognizable because more of the tracts will fall in the extreme categories on either the plus or minus side of the distribution.

In the third stage of analysis, the changes in the values of selected variables are averaged for the renewal tracts alone so that the effects of urban renewal on those areas which are formally a part of the program can be directly measured.

One additional step in the analysis is taken to correspond with the added, more substantive hypothesis discussed in the preceding chapter. Those tracts which experienced major changes on four or more of the twelve selected population and housing variables--excepting those classified as renewal tracts--were grouped together, labeled non-renewal tracts, and the changes observed therein compared with the changes observed in the renewal tracts.

### CHAPTER III

# REVIEW OF THE LITERATURE

The demographic literature from which the hypotheses were derived was discussed in Chapter I. In this chapter, literature directly related to renewal and its effects will be surveyed in an attempt to predict which null hypotheses will be rejected and which sustained. Those who have studied the urban renewal program have made many observations-some substantiated by research and others by experience-which might suggest the direction of differences in the types of changes in the renewal and control cities if urban renewal has, in fact, had an impact on the development of the central city. This chapter, therefore, will be organized around the two basic null hypotheses and the findings at each level of analysis that the applicable literature leads us to expect.

1. There will be no differences between the experimental cities and the control with respect to the types of change in the condition and size of the housing supply.

The first level of analysis is concerned with overall changes in each city. According to the Bureau of the Census, the number of substandard dwelling units, nationwide, decreased between 1950 and 1960. Duncan and Hauser, in the

latter part of the decade, reported on changes in the housing inventory between 1950 and 1956 in six selected metropolitan areas.<sup>45</sup> For two of the six Standard Metropolitan Areas--Chicago and Philadelphia--data are also given separately for the central city. The housing situation in the six SMSA's improved, guantitatively and gualitatively, during the seven year period, despite the concern that "the demolition entailed in urban renewal will exacerbate the depression and warinduced housing shortage in metropolitan areas."<sup>46</sup> The size of the housing inventories increased anywhere from 10% to 40%, with the growth rate between 17-26% for most of the SMSA's. As a result, vacancy rates in five of the six areas increased. According to the authors the improvement in the housing stock was due almost entirely to new construction (from 10 to 40 new units per 100 1950 dwellings) rather than demolition (one to three per 100 1950 dwellings). The number of new housing units gained by the conversion of formerly singlefamily units was offset by the number of units lost through merging several units within a single structure (as frequently happens in rehabilitation). However, most of the new construction was in the suburban rings; the growth rate for housing in the two central cities was closer to 5%.

<sup>48</sup>Ibid., p. 5.

<sup>&</sup>lt;sup>45</sup>Beverly Duncan and Philip Hauser, <u>Housing a Metropolis--</u> <u>Chicago</u> (Glencoe, Illinois: The Free Press, 1960). The six were: Boston, Chicago, Detroif, Los Angeles, New York, and Philadelphia.

There was an improvement in housing quality, too. The proportion of units classified as substandard dropped substantially in each SMSA--from a third to a half of them and by 1/12 in New York City. This, it should be noted, may be entirely due to the volume of new construction, rather than to any substantial demolition of substandard units. There was an overall decrease in room crowding for both whites and non-whites though the rate in 1956 for non-whites was still four times that of whites. The improvement in overcrowding in non-white occupied units may be due to the general loosening of the housing market and to the fact that non-whites have been able to "spread out" more in the central city as a result of the huge out-migration of whites to the suburbs. According to Robert Weaver, the white exodus and the non- $\mathcal{I}$ white in-migration to the central city has resulted in a larger, more diversified and better quality housing stock being turned over to non-whites.<sup>47</sup> Finally, home ownership became more prevalent in each SMSA; in four of the cities rental housing decreased both numerically and proportionately.

Not everyone is in agreement with Robert Weaver that the changing racial composition of the cities necessarily results in improved housing for Negroes, particularly where urban renewal has led to the large scale dislocation of many Negro families. Relocation efforts connected with renewal were

<sup>&</sup>lt;sup>47</sup>Weaver, <u>op. cit</u>.

criticized for failing to accurately appraise the existing housing supply in terms of the family size, composition and budget of the population to be moved; the restrictions which race and ethnicity place on a group's potential housing market were often ignored, it was charged. The Housing and Home Finance Agency, as early as 1953, warned communities that slum clearance "could result in a worsening instead of the desired improvement, of the housing conditions of Negro and other racial minority families if the administration of these programs resulted in decreasing the living space presently available in any community to such groups."<sup>48</sup>

Only a limited number of predictions can be based on Duncan and Hauser's study since they were mainly concerned with changes in the metropolitan areas rather than the central cities. Since the central cities in the present study are somewhat smaller than those studied by Duncan and Hauser, we might expect renewal to have a slightly more noticeable effect and the growth rates might be slightly higher, particularly in the renewal cities. In line with the trend in the other six SMSA's, a general improvement in the quality of housing might also be expected in the cities in this study: substandard housing should decrease, at least propprtionately, and overcrowded housing should decline. If Weaver is correct, there should also be general improvement in the quality of

<sup>&</sup>lt;sup>48</sup>" Living Space Available to Racial Minority Families," Housing and Home Finance Agency, Local Public Agency Letter No. 16, February 2, 1953.

non-white occupied housing units. On the other hand, if those more critical of renewal are correct, the depletion of low income housing available to Negroes through renewal and the construction of luxury housing to replace it should result in increased overcrowding among non-whites. Essentially, the two opposing arguments can be stated this way: 1) if renewal is "successful," it will result in fewer whites leaving the city and, as a consequence, in limited improvements, if any, in Negro-occupied housing; 2) if it is not "successful," the relocation process itself will hasten the white exodus from the central city, thus opening more of the better quality housing stock to Negro occupancy. Morton Grodzins, in fact, argues for the latter; he feels that urban renewal programs, by displacing large numbers of Negro families, have had the  $\sqrt{}$ effect of hastening the succession of adjacent residential areas to all-Negro occupancy.49

The second and third levels of analysis emphasize changes which occur in the census tracts within a city. Those tracts cleared for renewal during the decade might be expected to be very different in 1960 from what they were in 1950; other tracts which served as receiving areas for those displaced--<u>if</u> there was a tendency for many people to resettle in the same area--should also show some important differences over the decade. The literature on relocation

<sup>&</sup>lt;sup>49</sup>Morton Grodzins, <u>The Metropolitan Area as a Racial</u> <u>Problem</u> (Pittsburgh: Pittsburgh Press, 1963).

and urban renewal suggest some findings which may be expected at this stage of the analysis.

Several authors have pointed out that those displaced by renewal are frequently relocated in other substandard housing, or if the housing is better, the price is generally higher.<sup>50</sup> A private study in Philadelphia in 1957 found 70% of the relocated families living in housing where the standards did not meet those of the housing code; the comparable figures given by the Urban Renewal Administration varied from 8% to 35%.<sup>51</sup> A study done by the University of Southern California between 1955 and 1958 found that of 41 cities engaged in renewal, 26 did not provide any assistance for families trying to relocate. In those, of 25,000 families displaced, 70% entered substandard housing in the same or adjacent neighborhoods. In the 15 cities where help was provided, 17,000 families were moved, a third ending up in substandard housing.<sup>52</sup> Gans, too, was critical of the relocation aspects of renewal.<sup>53</sup> He pointed out that the West Enders in Boston had to bear the financial burdens of higher

<sup>51</sup>Alvin Schorr, <u>op. cit</u>.

<sup>52</sup><u>Ibid</u>., p. 64.

<sup>&</sup>lt;sup>50</sup>For instance, see P. Marris, "A Report on Urban Renewal in the United States" in Leonard Duhl, <u>The Urban</u> <u>Condition: People and Policy in the Metropolis</u> (New York and London: Basic Books, Inc., 1963), pp. 113-134; Herbert Gans, <u>The Urban Villagers</u> (Glencoe, Illinois: The Free Press, 1962).

<sup>&</sup>lt;sup>53</sup>Herbert Gans, "The Failure of Urban Renewal: A Critique and Some Proposals," <u>Commentary</u>, 39 (April 1965), pp. 30-36.

rentals for new apartments that were often no better than the ones they left behind.<sup>54</sup>

Frequently, those they left behind were not always in the worst possible shape. Gans found the same thing in Boston that Kaplan had noted in Newark--clearance areas were chosen not because they had the worst slums, but because they offered the best sites for luxury housing.<sup>55</sup> The original goal of redevelopment officials in Newark had been "midele income housing on cleared slum sites." 56 Neither of the two goals sought -- slum clearance or the provision of middle income housing within the city--proved attainable. Developers and the Federal Housing Authority were unwilling to build or invest in middle income housing on a small area of cleared land in the midst of a Negro ghetto because they felt that it was a bad economic risk. The Federal Division of Slum Clearance, on the other hand, was unwilling to finance a clearance of the entire ghetto and a building of a "city within a city." So the renewal authority was forced to compromise. In finding sites that were acceptable to FHA and the developers they had to bypass the worst blighted

<sup>54</sup>A study of the West Enders by Chester Hartman in the November 1964 issue of the <u>Journal of the American Institute</u> of <u>Planners</u> found that median rents rose from \$41 to \$71 per month after a move. Cited in Gans, <u>ibid</u>.

<sup>55</sup>Forty percent of the West Enders had lived in good housing.

<sup>&</sup>lt;sup>56</sup>Harold Kaplan, <u>Urban Renewal Politics:</u> <u>Slum Clearance</u> <u>in Newark</u> (New York: Columbia University Press, 1963), p. 15.

areas and clear instead neighborhoods which were adjacent to relatively middle class areas and which were, themselves, in only a moderately rundown condition.

There is one other observation about the relocation process that is relevant to the first hypothesis. Alvin Schorr suggested that people prefer to live in the same neighborhood. He cited a study done by Chapin 25 years ago where 90% of a group of slum residents in Minneapolis relocated within a radius of one mile. A very recent study of mid-century urban renewal found the same thing among those who relocated without official help.<sup>57</sup>

On the basis of these studies, we would expect that the renewal tracts in Washington, D. C. and St. Louis were not the worst tracts in terms of overcrowded and substandard housing in 1950; that if luxury housing did in fact replace the slums, the increase in rents in renewal tracts would be well above the city average; that non-renewal tracts with a large proportion of substandard housing in 1950 would experience sizeable increases in population due to those relocated from the redevelopment areas; and that tracts adjacent to the renewal areas would also experience large increases in population over the decade.

2. There will be no differences between the experimental and control cities with respect to the types of change in the character of the population.

<sup>57</sup>Schorr, <u>op. cit</u>., p. 64.

Both the demographic and the renewal literature attest to the increasing non-white population in our central cities and the continual movement of middle income whites to the suburbs; many cities appear to be moving toward a pattern of segregation between the central city and the metropolitan  $\checkmark$ rings.<sup>58</sup> Morton Grodzins reports that the increase in nonwhites in the 14 largest central cities between 1940 and 1950 averaged 67.8% as opposed to 3.7% for whites.<sup>59</sup> In the succeeding decade the pattern was much the same: the average increase in non-whites for the 25 largest cities was 55.3% as opposed to a 4.3% loss in the white population.

At the same time that cities were becoming increasingly Negro, non-whites were also becoming increasingly segregated from whites <u>within</u> the city. McEntire found that the residential segregation of non-whites increased between 1940 and 1950 in both St. Louis and Washington, D. C., as well as in several other major U S. cities.<sup>60</sup> He suggested that this may have been due to the housing shortage following the war; if so, then a reversal of this trend should be observed in

<sup>59</sup>Grodzins, <u>op. cit</u>. <sup>60</sup>McEntire. <u>op. cit</u>.

<sup>&</sup>lt;sup>58</sup>According to Donald Bogue, <u>Components of Population</u> <u>Change</u>, <u>op. cit</u>., p. 34, the net migration gain of the suburban rings in all SMSA's was only 4.8% non-white. However, from the standpoint of patterns of Negro migrants to the metropolitan areas, it is significant that 21.6% of all nonwhite migration to these areas during the 1940's went to the suburban rings.
the 1960 data for the major cities.<sup>61</sup>

The question is: did renewal retard or facilitate the mass movement of whites from city to suburb and did it have any appreciable effect on the segregation of Negroes within the city? Both Weaver and Grodzins imply that renewal has indirectly led to increased residential segregation within the city.<sup>62</sup>

The third stage of analysis focuses on the changes in the renewal tracts themselves. Almost all of the authors writing on renewal have remarked on the disproportionate numbers of non-whites affected by the renewal process. Duncan and Hauser reported that "a standard dwelling with non-white occupants is somewhat more likely to be demolished than is a standard dwelling occupied by whites. A substandard dwelling occupied by non-whites is somewhat more likely to be demolished than is a substandard dwelling with white occupants."<sup>63</sup> Whether owner or renter occupied, nonwhite housing in the cities is more likely to be dilapidated

<sup>63</sup>Duncan and Hauser, <u>op. cit.</u>, p. 85.

<sup>&</sup>lt;sup>61</sup>According to Karl E. Taeuber, southern cities continued to increase in segregation while northern cities declined somewhat between 1950 and 1960. See his article, "Negro Residential Segregation, 1940-1960: Changing Trends in the Large Cities of the U. S.," paper read at the Annual Meetings of the American Sociological Association, 1962.

<sup>&</sup>lt;sup>62</sup>The segregation of Negroes in the city from whites in the suburbs is not the same as segregation of Negroes and whites <u>within</u> the city. Even though non-white population constitutes an increasingly large proportion of the city population, it is theoretically possible for them to be evenly distributed throughout the city.

or lacking certain plumbing facilities. Davis McEntire cites official statistics on 115 renewal projects in 77 cities: 43,000 families had been relocated by the end of 1957 of whom more than 30,000 were non-white. Public housing within urban renewal projects up to 1957 were tenanted almost entirely (97%) by non-whites.<sup>64</sup>

If the renewal tracts in St. Louis and Washington are "typical," we would expect that the majority of persons in the affected tracts would be Negro and that, if any of the projects are completed by the 1960 Census, any large low income population in the renewal tracts would probably indicate occupants of public housing and these we would expect to be non-white.

# Summary of the Expected Effects of Renewal on Population and Housing Change

Expectations concerning the short-run effects of renewal would differ, depending upon the perspective one takes for predictions. Central city mayors, their city councils, and officials of local renewal agencies would have looked for an improvement in the quality of housing in the city, as older and dilapidated dwellings are demolished and replaced by new apartments and town houses. The relocation agencies could assure the mayor that those displaced persons coming to the agency for relocation were placed in housing that was standard

<sup>&</sup>lt;sup>64</sup>McEntire, <u>op. cit.</u>, p. 338.

in quality, though frequently higher in price than the home in the slums. As the new in-town apartments were finished and new occupants settled in, the above-mentioned officials would probably predict that their city would lose fewer of its white middle class population than cities which did not make the effort to renew. As for the Negro population, it may be that the city officials thought that eliminating the slums would discourage the in-migration of non-whites to the central city, that some of those displaced would leave the city altogether, and that many of those remaining would accept relocation in public housing, thereby improving the quality of their housing and assuring their resettlement in already Negro neighborhoods.

The predictions of sociologists and others who studied various aspects of the renewal process would be somewhat different. Most would probably agree with the city officials that, proportionately, housing in the central city would improve as a result of renewal, if only because of the elimination of many substandard dwellings. Even without much demolition, the proportion of substandard dwellings would probably decrease due to the large apartment complexes which were built in most big cities during the 1950. Overcrowding-so typical of slum areas--would be expected to decline overall, but this would not be a consequence of renewal alone. The opening up of tracts of new homes in the suburbs would take much of the pressure off of central city housing; this

could be called a "pull" factor. At the other end, the displacement of large numbers of Negro families would almost certainly mean the invasion by Negroes of formerly white neighborhoods, which would serve as a "push" factor in white migration to the metropolitan rings. This would open up more homes and neighborhoods to Negro occupancy which, alleviating the pressure for housing among Negroes, would lead to a decline in overcrowding in non-white occupied housing. The difference, here, between the renewal and nonrenewal cities would be one of degree rather than direction of change. At the same time, this author would expect that overcrowding would increase in other neighborhoods in the city, at least in the short run, because most displaced families do not go to the relocation agencies for help, cannot or choose not to spend much of their income on housing, and therefore seek out areas where cheap housing is available. Whenever the demand for inexpensive housing is high, landlords will appear who are willing to subdivide houses and reap the profits that overcrowding provides. Renewal destroys a good part of the market in cheap housing, but does nothing to eliminate the demand for the commodity.

For the 1960 Census, it could also be predicted that the number of housing units would not grow as rapidly in the renewal cities because, while many older units had been demolished, many of the projected new units would not have been completed.

As for the loss of white population from the central cities, most scholars would probably not be as hopeful as the city officials. There are too many factors attracting people to the suburbs--good schools, lower taxes, cheaper and newer homes, more space--and these perquisites of sub->> urban life have generally been open only to whites. The question is: does renewal contribute to or retard this outward migration? Most of the sociological literature would define renewal as a "push" factor in accelerating the loss of white population, particularly in the short run. The displacement of 20-40,000 people, approximately two-thirds of them non-white, is bound to have an impact on a community. That many people will seriously overcrowd any existing Negro neighborhood. It seems reasonable to assume that those residents of the receiving areas who can afford to do so will move on to less crowded territory. If the number of Negroes in the city remains the same, or increases slightly, they will be forced to seek housing in formerly white neighborhoods. An invasion of middle class white areas by middle class Negroes fleeing a lower class invasion of 20,000 in their own neighborhoods is likely to be on such a large scale that whites throughout the city would react with concern for the values of their property. This would give an additional "push" to the many other factors pulling whites toward the suburbs.

#### CHAPTER IV

### TESTS OF THE NULL HYPOTHESIS

In this chapter the basic findings relating to the hypotheses of the study will be described. The chapter is structured as follows: The first two stages of analysis will be discussed in order. In the first stage, changes in the population and housing variables for the city as a whole are compared for the renewal cities and the control. In the second stage, the average changes on the population and housing variables for the census tracts in each city are compared. Within each stage, the data relevant to the two basic null hypotheses will be described, first that data relating to the null hypothesis concerning changes in the housing variables, and second, that relating to the null hypothesis concerning changes in the population variables.

# Stage 1: City-wide Comparisons

#### Housing variables

Three of the housing variables--the percent of substandard and the percent of overcrowded housing units and the percent of non-white occupied substandard units--showed the predicted differences between the renewal and control cities.

Both Washington, D. C. and St. Louis, Missouri, had higher median rates of substandard and overcrowded housing in 1950 than did the control city; and both the renewal cities showed a reduction in these median rates between 1950 and 1960, while Cincinnati's rates on both variables increased over the decade (see Table V). While the increase in overcrowding for Cincinnati is a very slight one, the trend is upheld by the computations of the mean percents on these variables.

Differences can also be observed in the changes in the standard deviations around the means of substandard housing: in the two renewal cities, the standard deviations decrease slightly, while in Cincinnati the increase in the standard deviation is significant beyond the .01 level of confidence.<sup>65</sup> The standard deviation of the mean percent of non-white occupied substandard units decreased in both renewal cities (significantly in the District: F < .05) and increased significantly in the non-renewal city (F < .01). The range of scores around the means for overcrowding were remarkably stable.

The housing variables which did not show a different pattern of change in the experimental and control cities

<sup>&</sup>lt;sup>65</sup>A value of F was computed with 100 degrees of freedom in both the numerator and the denominator. The table of the F Distribution to which the value was referred is found in Helen M. Walker and Joseph Lev, <u>Statistical Inference</u> (New York: Holt, Rinehart, and Winston, 1953), Table X, pp. 466-469.

Table Va. Summary : Variable:	Statistics s: Washing	for All Tracts, gton, D. C.	1950 and	1 1960, on S	elected Hous	ing
	Med: 1950	ians 1960	Mear 1950	15 1960	Stand deviat 1950	ard ions 1960
Percent of substandard housing units	9.4	4.3	15.094	10.962	14.786	14.294
Percent of non- white occupied housing units	33.5 (69)*	64.9 (92)	29.483	45.267	31.419	38.600
Percent of overcrowded housing units	13.6	11.3	14.505	13.672	9.754	9.749
Percent of non- white occupied overcrowded units	27.9 (68)	20.8 (90)	20.313	16.077	15.021	12.919
Median contract rent, total population**	\$5 <b>3</b>	\$73 (116)	I	I	I	I
Percent non- white substandard units	30.4 (68)	9.0 (86)	21.622	9.030	21.539	12.267
*Numbers in par involving non-white sufficient non-white are based are: Wash 1960, 128. Cincinna	renthesis J s, fewer tj e populatio nington, D ati, Ohio:	refer to the N o racts are usuall on. Unless othe . C.: 1950, 95; 1950, 110; 196	n which t Y involve rwise sta 1960, 12 0, 112.	the median i ed because n ated, the N' 23. St. Lou	s based; on ot all tract s on which t is, Mo.: 19	variables s have a he statistics 50, 128;

\*\*Note that this is a median of medians; it is simply an approximation to the median contract rent for the city as a whole.

Variables:	St. Lou	is, Missouri				
	<b>Medi</b> 1950	ans 1960	Mear 1950	us 1960	Stand deviat 1950	ard ions 1960
Percent of substandard housing units	15.8	11.3	27.252	19.699	27.612	21.796
Percent of non- white occupied housing units	41.1 (33)*	70.0 (38)	11.899	18.707	26.854	32.759
Percent of overcrowded housing units	17.1	14.4	20.143	15.918	10.778	8.920
Percent of non- white occupied overcrowded units	37.5 (33)	27.6 (38)	9.003	8.215	15.750	13.362
Median contract rent, total population**	\$29 (120)	\$58 (114)	I	I	I	I
Percent non- white substandard units	67.1 (32)	30.9 (38)	14.840	11.453	28.830	24.001

Summary Statistics for All Tracts, 1950 and 1960, on Selected Housing

Table Vb.

\* See footnote (\*), Table Va.
\*\* See footnote (\*\*), Table Va.

Table Vc. Summary Variable	Statistics s: Cincinr	for All Tracts, 1ati, Ohio	1950 and	1 1960, on <b>S</b> el	lected Hous	ing
	<b>Med</b> i 1950	ians 1960	Mea1 1950	1 <b>s</b> 1960	Stand deviat 1950	lard :ions 1960
Percent of substandard housing units	2.2	8°.	5.853	18.861	9.132	23.648
Percent of non- white occupied housing units	23.4 (27)*	56.4 (35)	9.324	17.242	23.133	31.080
Percent of overcrowded housing units	13.3	13.5	16.426	16.532	11.383	11.121
Percent of non- white occupied overcrowded units	30.2 (26)	24.3 (35)	6.533	8.560	12.576	13.940
Median contract rent, total population**	\$36 (103)	\$63 (100)	1	I	I	I
Percent non- white substandard units	12.1 (23)	26.2 (35)	3.949	11.915	10.426	24.749

**\*\*See footnote (\*\*), Table Va.** \*See footnote (\*), Table Va.

were: the percent of non-white occupied housing units, the percent of non-white occupied overcrowded units, and the median contract rent. In all three cities the percent of non-white occupied housing units, whether computed in medians or means, increased and so did the standard deviations around the means. The difference between the absolute values of the medians and their matching means is due to the degree of segregation of the Negro, particularly in St. Louis and Cincinnati. In roughly three-fourths of the tracts in these two cities there are no non-white occupied units.<sup>66</sup> The median and the means on this variable in the District are much closer together because a little over 2/3 of the tracts in both 1950 and 1960 had non-white occupied housing units.

In all three cities, the median percent of non-white occupied overcrowded units went down. However, the <u>mean</u> percent and the standard deviation went down in the experimental cities, but went up slightly in the control city. In Cincinnati the difference between the 1950 and 1960 means on this variable is somewhat greater than the difference between the two means on overcrowding in general, which suggests that the reason for the increase in overcrowding in Cincinnati is due to pressure in non-white occupied units.

<sup>&</sup>lt;sup>66</sup>When the means were computed, all the tracts with zero values on this variable were averaged into the mean; for means computed only on those tracts with sufficient non-white occupants, see Table IX.

This is confirmed by the information in Table V, which shows a much higher rate of overcrowding in non-white occupied tracts.

Finally, in all three cities the median rent went up and no differences at this stage can be determined between the renewal and non-renewal cities.

In summary, the null hypothesis is clearly rejected at the first level of analysis for three of the housing variables (the percent substandard, the percent overcrowded, and the percent of non-white occupied substandard units) and tentatively rejected for a fourth (the percent of non-white occupied overcrowded units). It clearly cannot be rejected for two of the variables: the percent of non-white occupied units and median contract rent.

Other information about the general housing situation in the three cities will be helpful in the later discussion and interpretation of these findings. Proportionately more new building took place in the District than in either St. Louis or Cincinnati: of those units reporting, 15.9% had been built during the 1950's in the former city, 7.4% and 11.5%, respectively, in St. Louis and Cincinnati. Concomitantly, Washington's total housing supply increased 14.3% over the decade. This can be compared with an increase of only 5% in Chicago and Philadelphia, as reported by Duncan and Hauser.<sup>67</sup> St. Louis' supply actually declined by less

<sup>&</sup>lt;sup>67</sup>Duncan and Hauser, <u>op. cit</u>.

than 1%; and Cincinnati's increased 4.47%. While the actual number of new units were very close in Cincinnati and St. Louis, Cincinnati had a smaller number of housing units to begin with and St. Louis demolished a large number of its housing stock during renewal.

There is further support for the contention that renewal restricts the housing supply through demolition and inadequate reconstruction: the vacancy rates in 1960 were lower in the two renewal cities (2.99% in D. C. and 3.92% in St. Louis) and slightly higher in the non-renewal city (4.20% in Cincinnati).

There is also some support for Robert Weaver's assertion that renewal and the exodus of whites from the city opened up a greater variety of housing to Negroes. Table VI gives the percent of owner-occupied units that are occupied by nonwhites. In all three cities home ownership among non-whites about doubled. It is more likely that this is the result of a general increase in the number of Negroes inhabiting the central cities, and of other social forces at work during the 1950's.

First, the potential for Negro home ownership was widened by increasing educational and job opportunities and an improvement in family income for non-whites. Second, the FHA and VA programs initiated after the war opened up housing opportunities in the suburbs for whites confined to the overcrowded cities during the depression and war. As vacancy

	Washingto 1950	n, D. C. 1960	Cincin 1950	inati 1960	st. I 1950	ouis 1960
Percent owner- occupied	32.28	29.98	37.93	40.39	34.79	38.16
Percent non-white owner occupied	26.16	47.69	5.50	10.64	8.11	16.97
Percent non-white renter-occupied	28.73	42.64	20.47	73.46	19.52	28.70

Changes in Owner and Renter-occupied Units in Three Cities, 1950 and 1960 Table VI. rates increased following the housing boom, better opportunities for Negroes as well as whites appeared in the urban housing market. Finally, during the 1950s, there was increasing utilization of government-underwritten mortgages by nonwhites. Weaver noted that the proportion of all FHA and VA loans going to non-whites had increased from 2.3 to 2.2, respectively, in 1950 to 2.5 and **3**.7 in 1960. Whereas 18% of all non-white mortgage-holders in 1950 had VA and FHA loans, 29% had such loans in 1960. Also, over the decade, there was an increase of 254,000 non-white home owners holding conventional mortgages.<sup>68</sup> The Executive Order for Equal Opportunity in Housing, signed by Kennedy in 1962, helped to strengthen open-occupancy policies which had been formally adopted in many cities and states and specifically banned any discrimination in housing covered by FHA and VA mortgages.

Urban renewal, however, may be responsible for the difference in the ratio of owner-to-renter occupied units among non-whites. In a city which was only 22% non-white in 1960 (Cincinnati), 73% of all rental housing was occupied by nonwhites and only 11% of the owner-occupied units were owned by Negroes. In D. C., a greater percentage of owner-occupied units than of rental units were occupied by Negroes and in St. Louis the proportion in rental units was not quite double that in owner-occupied units. The reason for this may lie in

<sup>68</sup>Weaver, <u>op. cit</u>., pp. 263-264.

the fact that Cincinnati did <u>not</u> experience the great outmigration of white population that the two renewal cities did over the decade (see Stage 1: Population).

### Population variables

Differences between the renewal and control cities were observed on three of the population variables--median family income for the total population, non-white median family income, and the total population per tract. The medians of total population per tract were much higher in the renewal cities in both 1950 and 1960. Both the medians and the means suggest a greater average decrease in the per tract population in the renewal cities and there are significant decreases in the standard deviations (F < .01) for St. Louis and D. C., suggesting that the population was more normally distributed among the census tracts in 1960 and much more skewed (toward the over-populated end) in 1950.<sup>69</sup> In the control city, the difference in average tract population is very small and there is very little change in the standard deviation over the decade. Since the difference in tract size existed in 1950, that cannot be attributed to renewal; it may be that Cincinnati, as a city, was tracted by the Census later than

<sup>&</sup>lt;sup>69</sup>Another indication of skewness and its direction is the difference between the median and the mean in each census year; in 1950, the mean is further from the median and considerably higher than it, indicating large extreme values, and in 1960, the mean and the median are very close together, indicating a more balanced distribution.

St. Louis and Washington and that, therefore, the average tract population is closer to the size recommended by the Bureau of the Census. It is the change between 1950 and 1960 in the experimental cities and the lack of change in the control city which may be attributed to the renewal process.

The difference in family income, both for the total population and for the non-white population, is one of degree rather than direction between the renewal and control cities. The median "median family income" for the total population increased 49% in the District, 51% in St. Louis, but 97% in Cincinnati; similarly, the median "median family income" for non-whites increased 79% in the District, 106% in St. Louis, but 162% in Cincinnati. A possible explanation for this difference in degree is that renewal aggravated the exodus of middle class families and converted a greater number of the city's tracts to lower income residences. Cincinnati, on the other hand, did not lose as much of its middle class population and consequently reflects more accurately the increased affluence of both whites and non-whites in the 1960's. This interpretation is somewhat strengthened by the fact that 15.8% of all families in Cincinnati had incomes over \$10,000 while only 10.8% of those in St. Louis did. However, the differences discussed here are partly a matter of the distribution of income groups rather than a description of

Table VIIa.	Summary Variabl	Statistics es: Washin	s for All Tracts 1gton, D. C.	, 1950 an	d 1960,	on Selected	Population	
		<b>Med</b> 1950	lians 1960	<b>Mea</b> 1950	ns 1960	195(	standard sviations 0 1960	
Median educ total popul	ation,* ation	12.1	11.3	1	I		1	
Median educ non-whites*	ation *	8.8 (58)	9.9 (92)	ı	I	I	I	
Median fami income, non	ly* -white	\$2150 (51)	\$3852 (89)	I	I	I	I	
Total popul	ation	6970	6182	8368	6133	. 562	5 2734	
Median fami total popul	ly income ation*	\$2995	\$ <b>4</b> 458	I	I	1	I	
Percent non-white**	*	25.13	53.70	33.83	50.48	32.	48 37.46	
*Note tha family i	t these and ncome and	re medians education	of medians; the I for non-whites	y are sim and for	ply appr the tota	oximations ( 1 population	to the medi n.	an
**Numbers volving sufficie see the	in parentl non-white nt non-wh footnote	heses refer s, fewer tr ite populat to Table Va	to the N on wh acts are usuall ion. For the N	ich the m Y involve 's on whi	edian is d becaus ch all o	based; on t e not all t ther statis	variables i racts have tics are ba	n- a sed,
***The medi and .03%	an percen in Cinci	t non-white nnati.	: in 1940 was 12	.14% in t	he Distr	ict, .25% i	n St. Louis	

Table VIIb.	Summary Sta Variables:	atistics fo St. Louis	or All Tracts, s, Missouri	1950 and	<b>1</b> 1960,	on Selected Pop	ulation
		Median	Su	Mear	S C	Stan devia	dard tions
		1950	1960	1950	1960	1950	1960
Median educa total popula	ıtion,* Ition	8.7	8.8	I	I	I	ı
Median educa non-white**	ıtion	8.1 (22)	8.8 (39)	I	I	I	1
Median famil income, non-	-y* white	\$1567 (20)	\$3232 (36)	I	I	I	1
Total popula	ltion	6641	5897	7119	5859	6843	3368
Median famil income, tota population*	Y- LI	\$3101 (116)	\$4683 (125)	ı	ı	I	I
Percent non-white***		.30	.40	12.534	21.645	26.787	34.337

\*, \*\* and \*\*\* see Table VIIa.

Table VIIc.	Summary Sta Variables:	tistics f Cincinna	ior All Tracts, Iti, Ohio	1950 and	l 1960, oi	n Selected Popu	llation
		Media 1950	<b>ins</b> 1960	Mean 1950	ls 1960	Stand deviat 1950	lard :ions 1960
Median educa total popula	ttion,* ttion	9.4	9.4	I	I	I	1
Median educa non-white**	ition	8.4 (16)	8.9 (36)	ı	I	ı	I
Median famil income, non-	ly* -white	\$1554 (11)	\$4070 (30)	I	I	I	I
Total popula	ition	4477	4144	4582	4487	2219	2100
Median fami: income, tota population*	۲ ۱۱	<b>\$2904</b>	\$5716 (111)	I	I	I	I
Percent non-white***		.75	16.2	10.471	19.639	23.226	31.699

\*, \*\* and \*\*\* see Table VIIa.

the income level of the cities.<sup>70</sup> It is further strengthened by shifts in the occupational composition of the city populations as opposed to the relative similarity of the labor force for the SMSA's (see Appendix C). St. Louis declined in the proportion of skilled craftsmen and foremen, while Cincinnati increased considerably in this fairly well paid segment of the blue collar group; the proportion of service workers and semi-skilled operatives increased in St. Louis and decreased in Cincinnati. While the white collar portion of the labor force (including professional and technical personnel, managers, officials and proprietors, and clerical and sales) went from 30.9% to 29.8% in Cincinnati, it decreased from 27.8% to 24.6% in St. Louis.

No differences were observed between the experimental and control cities in the percent non-white and the median education of the total population and of the non-white population. When the true medians for the three cities are examined, however, there is a difference: Washington's population decreased in average education from 12.0 in 1950 to 11.7 in 1960; St. Louis' population increased only slightly from 8.7 to 8.8; but Cincinnati's average education went up from 9.0 to 9.7, a difference which fits in with the findings discussed in the preceding paragraph.

<sup>&</sup>lt;sup>70</sup>The true median family income for 1950 and 1960 in the three cities was: Washington: 1950, \$2975; 1960, \$5993; St. Louis: 1950, \$2718; 1960, \$5355; Cincinnati: 1950, \$2644; 1960, \$5701.

On the surface there appears to be no real difference between the experimental and control cities in terms of changes in the percent non-white: the median percent over all census tracts increased in all three cities. The interesting difference is between St. Louis and Cincinnati, and Washington, D. C. Because Washington has had a much higher proportion of Negroes, more census tracts in that city have had a high non-white population. St. Louis and Cincinnati, though relatively high in the proportion non-white among major cities, follow more the pattern of southern cities where Negro families are scattered in little pockets throughout the city; in both these cities there are many tracts with .1% or less non-white, whereas in D. C., there are sizeable Negro populations in almost all tracts (see Appendix D). Consequently, the median non-white population per tract in St. Louis and Cincinnati is very low. The discrepancy between the means and medians suggest how skewed the distribution is. It may be that Cincinnati is becoming more like the northern cities in the distribution of its non-white population. It appears (from the closeness of the mean and median in 1960) that it at least became less segregated in 1960 than it was in 1950. This is confirmed by the following table (Table IX).

By comparing Table VIII with Table IX, it can be seen that there are some very real differences between the renewal and non-renewal cities and the patterns of change in the white and non-white population. First, all three cities were

Cities	Percent 1950	non-white 1960	Perce non-w	nt change i hite popula	.n ition	Percent o white pop	change in pulation
Washington, D. C.	35.4	54.8		47.3		-33	3.3
St. Louis	18.0	28.8		39.9		-2	1.0
Cincinnati	15.6	21.8		39.4		I	7.6
25 largest cities	13.9	20.7		55.3		- 7	1.3
Source: Grodzins, <u>op.</u> Table IX. Proportion Given Perce	cit. of Total N nt of Non-1	on-white Pop white	pulation	Living in	Census	s Tracts v	vith a
	75+	50-74 8	25-49	10-24	1-9	1%	All tracts
Washington, D. C.							
1950 1960	46.63 70.73	22.06 18.20	2 <b>3.3</b> 4 6.50	4.98 3.80	2.85 .66	.15	100% 100%
St. Louis							
1950 1960	64.34 73.55	18.74 18.70	8.44 3.39	<b>4</b> .61 2.02	3.35 2.13	.52	100% 100%
Cincinnati							
1950 1960	64 <b>.2</b> 0 55 <b>.3</b> 8	11.15 28.25	9.41 5.63	7.18 5.37	7.28 5.01	.79	100% 100%

-

Table VIII. Changes in the Proportion of Non-White in Three Cities, 1950-1960

below the 25-city average in the growth rate of their nonwhite population. St. Louis and Cincinnati were practically identical in the percentage change of the non-white population. Where the three cities differed was in the percentage change in the white population: while all three lost white population during the decade, the size of the loss in the two renewal cities was much greater than that in the control. Cincinnati was much closer to the 25-city average in the percentage loss of its white population; D. C. and St. Louis lost a third and a fourth respectively of their white population. This would appear to be fairly strong confirmation that renewal accelerates the exodus of whites from the central city.

However, other possible causes of the same phenomenon must be considered, and, if warranted, eliminated.

The loss of white population is extreme in comparison with the average for the 25 largest cities. Something must differentiate St. Louis and Washington from other cities of the same size. One possibility, which might affect the movement of population from the central city, is density. Table X shows that the two experimental cities were much more dense than the control and, concomitantly, the metropolitan ring of the control city was more densely settled than the corresponding rings of the experimental cities. Perhaps the vacuum created by low density suburbs and the pressure of extreme density in the central cities led to the shift of population.

For these three cities only, there is a direct relationship between the 1950 density and the loss of population during the 1950-1960 decade, and an inverse relationship between the density of the suburban rings and the loss of central city population. However, the physical location of these three cities must be considered in the comparisons. Washington and St. Louis are both situated so that their suburban hinterlands are "expandable"; that is, there is open land around these metropolitan areas into which population can flow freely. Cincinnati, on the other hand, is hemmed in by the hills of Kentucky to the south and the Dayton SMSA on the north. This may explain why the Cincinnati SMSA was more dense than either of the others in both 1950 and 1960.

This direct relationship between density and population change is not upheld when all of the 25 largest cities are examined. In Table XI there is a rough correlation between the direction of population change (loss or gain) and density. This relationship, however, is explained by the fourth column in the table which indicates the amount of land annexed to the central cities between 1950 and 1960. All of the cities which gained in population during the 1950's, with the exception of New Orleans, experienced annexation over the decade. All of the cities which lost population, with four exceptions, experienced no annexation during the decade. In three of the four exceptions, the additional parcels of land were quite small. Within the two groups of cities--those which lost population and those which gained--there is no

SMSA	Area in square miles	Population	Density	Percentage increase in population over preceding decade
		1950		
Cincinnati SMSA	730	904,402	1,239	14.9
city only	75.1	503,998	6,711	10.6
remainder of SMSA	655	400,404	611	20.8
St. Louis SMSA	2,520	1,681,281	667	17.4
city only	61	856,796	14,046	5.0
remainder of SMSA	2,459	824,485	335	33.8
Washington SMSA	1,488	1,464,089	984	51.3
city only	61	802,178	13,151	21.0
remainder of SMSA	1,417	592,589	418	117.1
Cincinnati SMSA city only remainder of SMSA	730 77 653	<u>1960</u> 1,071,624 502,550 569,074	1,468 6,501 871	18.5 -0.3 42.1
St. Louis SMSA	3,187	2,060,103	646	19.8
city only	61	750,026	12,296	-12.5
remainder of SMSA	3,126	1,310,077	419	59.0
Washington SMSA	1,485	2,001,897	1,348	36.7
city only	61	763,956	12,524	-4.8
remainder of SMSA	1,407	1,136,726	808	92.0

: Cities
Largest
25
the
in
Change
Population
and
Density
XI.
Table

Cities in descending order of densitv.	Population change 1950-60,	White popu- lation change,	Annexed land, 1950-1960,	Acreage in
1950	in percents	1950-1960	in square miles	renewal
North City		L 7	I	7 207
NEW JULY CILY	+ • + I		1	T•03#
Newark	-7.6	-26.8	I	42.6
Chicago	-1.9	-12.8	16.7	761.4
San Francisco	-4.5	-14.4	I	478.3
Boston	-13.0	-17.1	I	69.2
<b>Philadelphia</b>	-3.3	-13.3	I	2819.2
Buffalo	-8.2	-15.3	I	160.8
St. Louis	-12.5	-24.0	I	655.9
Detroit	-9.7	-23.5	I	446.1
Washington, D. C.	-4.8	-33.3	1	549.0
Milwaukee	+16.3	9.9	+41.1	56.8
Pittsburgh	-10.7	-15.4	1	95.4
Cleveland	-4.2	-18.6	+6.2	197.5
Baltimore	-1.1	-15.6	I	193.9
Minneapolis	-7.4	-5.7	+2.7	248.8
Indianapolis	+11.5	4.0	+16.0	0
Cincinnati	-0.3	-7.6	+2.2	57.7
Seattle	+19.1	15.9	+17.7	0
Denver	+18.8	15.4	+4.2	93.9
San Antonio	+43.9	43.7	+91.0	0
Kansas City	+1.3	-2.3	+89.8	169.7
Los Angeles	+25.8	19.4	+3.9	135.7
Dallas	+56.4	45.4	+167.9	0
Houston	+57.4	53.1	+168.1	0
New Orleans	+10.0	1.2	I	0

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apparent relationship between density of the central city and the size of the gain or loss. Some of the more densely settled cities lost a smaller proportion of their white population than did either St. Louis or Washington.

It is perhaps significant that most of the cities which gained in population and which were able to annex adjoining areas during the 1950's were in the southern and western parts of the U.S. In comparison with the older cities of the east, these are newer cities in sections of the country which have been industrializing and developing major urban centers largely since World War II. Houston and Dallas are partially products of the space age, moving from 14th and 22nd among U. S. cities in 1950 to 7th and 14th by 1960. Some of these cities--unlike Newark, Boston, Philadelphia, and Cincinnati, for example--have fairly open hinterlands in which to expand; and the Texas cities are particularly favored by easy annexation laws within the state. Because of their relative youth, it is not surprising that these rapidly growing cities were less involved with the renewal program than the older and more densely settled cities of the east.

In the case of the three cities studied, the loss of population was related, not only to the density of the central city, but also to the lower density of the surrounding metropolitan rings. In order to test the possibility that it is the difference in density between central city and suburban ring which leads to a change in population, the 1950 and 1960

densities for city and ring were computed for those eastern cities which were considered for inclusion in the present study.

In seven of the eleven cities the density of the SMSA increased; in four, where new counties were included in the SMSA in 1960, density decreased. In all eleven central cities, density decreased, and in all eleven metropolitan rings, density increased.<sup>71</sup> There is no apparent connection between the density of the ring in 1950 and the size of the decrease in density in the central city over the decade.

A second factor which could be responsible for the extreme loss of white population in the two experimental cities is the proportion of Negroes in the city or a dramatic change in their proportion of the population. Housing may prove to be the most difficult area for integration in the U. S. and it is possible that a significant increase in Negro population may send a large number of whites scurrying for the suburbs. From an examination of the three cities studied neither the proportion of Negroes nor the change in this proportion appear to explain the difference in the loss of white population between the experimental cities and the control. Cincinnati and St. Louis are roughly similar in the percent non-white in 1950, yet Cincinnati lost significantly fewer whites over the decade. St. Louis and the District were very

<sup>&</sup>lt;sup>71</sup>In all but three of the 25 largest cities, central city density decreased between 1950 and 1960. The exceptions were Los Angeles, Denver, and New Orleans.

ä 93 Ľ Ē. Γ. 0 C different in the percent non-white, yet they both lost large proportions of their white population. Cincinnati and St. Louis were almost identical in the proportionate change in non-white population over the decade, yet they differed significantly in the loss of white population. This same lack of relation was upheld by a comparison of the percent nonwhite and the extent of population change in the eleven cities considered for inclusion in this study.

The third possible factor affecting the differences in the loss of white population between the experimental and control cities is the independent variable in this study. There is some additional support for concluding that the extent of renewal (as measured by the amount of acreage affected by renewal projects in execution as of December, 1959) may be a contributing factor in the loss of white population. It is possible that the actual number of Negroes in a city, or an increase in the proportion of Negroes, may escape the notice of white residents as long as the minority population and any growth in it are contained in separate neighborhoods. There may be some invasion of white neighborhoods adjoining Negro enclaves, but this would probably not affect whites in other neighborhoods further away. However, the large scale movement of Negroes around the city--such as occurred in Washington and St. Louis following the relocation of 20,000 to 30,000 people--would attract the attention of white property owners and perhaps set off, in reaction, a large scale flight to the suburbs. Also, such massive dislocation of a visible minority

would (and did in the experimental cities) mean invasion on a grand scale and of more and distant neighborhoods than would have occurred as a result of simple population growth in the minority community.

If this interpretation is correct, one would expect that the larger the area affected by renewal, the greater the number of families displaced; and if a sizeable proportion of these families are Negro, it would be expected that a correspondingly large displacement of white population would follow.

Table XI indicates that the two experimental cities differ from the control and from most of the other 25 largest cities in the amount of acreage involved in renewal in these cities. St. Louis and Washington rank third and fourth in acreage in renewal, outranked only by two much larger cities, Chicago and Philadelphia. For the eleven eastern cities which are roughly similar in size and proportion non-white, there appears to be a general relationship between the amount of acreage involved in renewal and the direction and magnitude of population change (see Table XII). When one considers the number of complicating factors, the differences in size and density and the fact that the renewal projects in the several cities are in different stages of execution and completion, it is somewhat surprising to find so direct a relationship.

In summary, neither density nor the percent non-white appear to account for the loss of white population from the

Cities in Ascending order of renewal acreage, 1950	Population change 1950-60, in percents	White population change, 1950-1960
Newark	-7.6	-26.8
Cincinnati*	-0.3	-7.6
Pittsburgh	+0.8	-15.4
Toledo	+7.5	-0.2
Birmingham	+4.6	+4.9
Kansas City	+1.3	-2.3
Baltimore	-1.1	-15.6
Cleveland*	-4.2	-18.6
Washington D. C.	-4.8	-33.3
St. Louis	-12.5	-24.0
Atlanta*	+47.1	+43.2

Table XII. The Extent of Renewal and Population Change

\*Cincinnati and Cleveland annexed 2.2 and 6.2 square miles respectively over the decade; Atlanta annexed 91.3 square miles. central cities. Both high density and extensive participation in the urban renewal program are characteristic of the older eastern cities and would thus seem to be functions of the age of a city. When factors such as size, age, and percent non-white are roughly controlled for, as in the comparison of the eleven cities considered for inclusion in this study or in the comparison of the three actually chosen, a relationship between the extent of renewal and the loss of central city population appears.

Not only did the renewal cities lose more of their white population; the non-white population that was left behind seemed to be more segregated from the whites within the central city--another prediction from the literature that appears to be upheld by the data. In Table IX it can be seen that in Washington and St. Louis, the percent of the Negro population living in tracts of over 75% non-white occupancy increased; in Cincinnati, this proportion decreased. While the Negro population in all three cities declined in tracts with a lesser percent non-white, Cincinnati had a greater proportion of its Negro population living in such tracts in 1960. While all the growth in the non-white population in the renewal cities was in the most heavily non-white tracts, the growth in Cincinnati was in the tracts with 50-74% non-white.

In summary, the null hypothesis regarding differences on selected population variables at the first level of analysis can be rejected for changes in the median family income of

both the total population and the non-white population and for changes in the average per tract population. Using the city-wide medians based on census tracts, the null hypothesis could not be rejected for changes in the median education of both the total population and the non-white population or for changes in the percent non-white. When the true medians for education (based on individuals rather than census tracts) are compared, the hypothesis of no difference can be rejected. Regardless of the measures used, the null hypothesis could not be rejected for changes in the percent non-white; however, on two other population variables, important differences between the renewal and the control cities were found. The renewal cities lost considerably more of their white population and the remaining Negro population became more segregated within the central city.

# <u>Population and housing variables in</u> <u>non-white occupied tracts</u>

Since renewal disproportionately affects the non-white population, one place to test for differences between the experimental and control cities would be in those tracts with sizeable non-white populations. Table XIII gives the same summary statistics for those tracts. Differences between the renewal and control cities appear on five variables: the percent of substandard units, of overcrowded units, of non-white occupied substandard and overcrowded units, and the percent non-white. In the renewal cities, the percent of substandard

	Means		Standard deviations	
Percent of	1950	1960	1950	1960
Substandard housing units	20.066	12.027	14.482	14.490
Non-white occupied housing units	40.592	61.865	30.136	31.772
Overcrowded housing units	18.507	16.631	8.416	8.931
Non-white over- crowded units	27.968	21.972	9.828	9.929
Non-white occupied substandard units	29.769	12.342	19.905	12.837
Non-white	5 <b>7.2</b> 55	66.849	26.070	29.254
Total population	9,574	6,606	6,719	2,628

Table XIIIa. Summary Statistics for Non-white Occupied Tracts, 1950 and 1960, on Selected Population and Housing Variables: Washington, D. C.
Percent of	Mean 1950	ns 1960	Star devia 1950	ndard ntions 1960
Substandard housing units	50.072	28.205	28.569	21.721
Non-white occupied hou <b>sing</b> units	46.154	63.015	34.875	28.686
Overcrowded housing units	30.387	22.860	8.914	8.048
Non-white overcrowded units	34.924	27.673	7.549	7.935
Non-white occupied substandard units	57.563	38.578	27.655	29.899
Non-white	68.895	70.792	25.839	25.720
Total population	10,142	8,138	2,865	3,176

Table XIIIb. Summary Statistics for Non-white Occupied Tracts, 1950 and 1960, on Selected Population and Housing Variables: St. Louis, Missouri

Percent of	<b>Mea</b> r 1950	ns 1960	Star devia 1950	ndard ations 1960
Substandard housing units	13.460	34.225	13.978	28.770
Non-white occupied housing units	37.988	55.177	33.036	31.591
Overcrowded housing units	23.492	24.494	11.185	11.178
Non-white over- crowded units	26.618	27.394	10.478	10.291
Non-white occupied substandard units	16.088	35.118	15,735	31.472
Non-white	74.720	65 <b>.43</b> 4	21.244	26.476
Total population	7,609	5,018	2,394	1,544

Table XIIIc. Summary Statistics for Non-white Occupied Tracts, 1950 and 1960, on Selected Population and Housing Variables: Cincinnati, Ohio

housing units in non-white occupied tracts declined considerably, both for the general population and for non-whites, while the reverse was true of Cincinnati. Similarly, the proportion of overcrowded units--among the general population and among non-whites--went down in the experimental cities and went up in Cincinnati. While the average percent nonwhite increased in the non-white occupied tracts of the experimental cities, the average percent non-white in such tracts decreased in the control city. This corresponds to the findings in Table IX of increased segregation in the renewal cities.

No differences between the renewal and non-renewal cities were found on two variables: changes in the average tract population and the percent of non-white occupied units. In all three cities, the average tract population, in non-white occupied units, declined, suggesting a spreading out of the Negro population within the city. And, in all three cities, in tracts with sizeable non-white populations, the percent of non-white occupied housing units went up.

# Stage 2: Census Tract Analysis

# Housing variables

The second level of analysis focuses on the mean changes, by census tract, of selected population and housing variables in the three cities (see Tables XIV and XV). Significant differences in the direction and size of changes in three

variables were found between the renewal and non-renewal cities. Tracts in Washington and St. Louis exhibited an average decrease in the percent of substandard housing units, in the percent of overcrowded housing units and in the percent of overcrowding in non-white occupied housing units; tracts in Cincinnati exhibited average increases on all three variables.<sup>72</sup>

No differences were observed between the experimental and control cities in terms of mean changes in the proportion of non-white occupied housing and in rent.<sup>73</sup> Since several tracts in each city lacked rent information in one of the two years, the mean changes are artificially deflated and the standard deviations artificially inflated in Table XIV; for a more accurate appraisal of the average change in this variable, by census tract, see Table XVI. In that table the average change is still about the same in the three cities; what is different is the size of the standard deviation. In the renewal cities, the average deviation around the mean increase in rent was significantly greater ( $\mathbf{F} \leq .01$ ) than in the control city. This suggests that there were no really

<sup>&</sup>lt;sup>72</sup>T-tests of differences between means were significant beyond the .01 level.

<sup>&</sup>lt;sup>73</sup>Generally, means based on a sample of medians would not be statistically sensible. However, if we treat the median contract rent in a particular census tract as a "score" on that variable and are interested in the average change in that score from 1950 to 1960, then the mean difference of pairs of medians makes substantive sense.

major shifts in median rents in the census tracts of Cincinnati that could not be accounted for by inflation; from Figure 1, it can be seen that the tracts are more normally distributed around the mean in the control city and more skewed in the direction of large increases in rent in the experimental cities.

In summary, the null hypothesis concerning mean changes in selected housing variables can be rejected for three variables: 1) the percent of substandard housing, and 2) the percent of overcrowded housing, both among the general population, and 3) among non-whites; it cannot be rejected for two variables: median contract rent and the percent of nonwhite occupied housing units. However, a null hypothesis predicting no differences between the standard deviations around the mean changes in the renewal and control cities can be rejected for one variable: median contract rent.

# Population variables

There are significant differences between the mean changes on four population variables in the renewal and nonrenewal cities. The census tracts in the renewal cities lost significantly more population on the average, gained significantly more non-whites (Table XV) and failed to gain as much in terms of median family income for both the general population and for non-whites only.<sup>74</sup>

 $<sup>^{74}</sup>$ In all cases, the values of T are significant beyond the .01 level.

In only one case is the difference between the standard deviations of the mean change significant. The tracts in the two renewal cities have much larger deviations around the mean change in number of non-white residents than is true of Cincinnati. Since Cincinnati and St. Louis experienced the same percentage increase in Negro population over the decade, this difference in the variances must be due to the large scale dislocation of Negro population as a result of urban renewal.

No differences were observed on three variables at this stage of the analysis: median education, for the total population and for non-whites only, and the percent non-white (see Table XV).

In summary, the null hypothesis for the second stage of analysis can be rejected for three housing variables, all three of which were clearly or tentatively rejected at the first stage: the percent of substandard housing, and the percent of overcrowded housing, both among the general population and among non-whites.<sup>75</sup> The null hypothesis at the second stage can also be rejected for four population variables (total population, non-white population, and median

<sup>&</sup>lt;sup>75</sup>The mean and standard deviation of the differences for non-white occupied substandard housing was computed for tracts with non-white occupants in at least one of the two years; there was an average <u>loss</u> of Negro-occupied substandard units in the renewal cities and a large average gain in such housing in the control city. The null hypothesis for this variable was rejected at stage 1 and, on the basis of the Computation just described, can be rejected at stage 2.

Table XIV.	Means	and	Standard	Deviations of	Differences	uo	Selected	Housing
	Variab	les	Between	1950 and 1960				

Variables	Washing X	jton, D.C. SD	st. I X	oùis SD	Cinci X	nnati SD
Percent of substandard housing units	2.988	11.346	7.553	13.598	-13.215	17.618
Percent of non- white occupied housing units	-17.308	24.575	-6.808	22.925	-8.157	20.714
Percent of over- crowded housing units	1.491	5.465	4.225	5.786	134	5.601
Percent of non- white occupied overcrowded units	3.311	12.354	.788	12.473	-2.163	11.090
Median contract rent, total population	-19.495	25.025	-20.773	15.639	-20.903	18.578
Percent non- white sub- standard units	9.834	18.302	3.387	19.148	-8.109	20.051
= N	03	)G*	4	.28	11	Ţ
*Where the data cou of several 1950 tra comparisons 95; whe compared with the v 123 comparisons.	ld be summed acts were tr ere data cou value for ea	l, those 19 ceated as a uld <u>not</u> be a tch of its a	60 tracts c unit, maki summed, the subdivisior	reated out ng the numb value for s in 1960,	of the subd er of 1950- the 1950 tr making a to	ivision 1960 act was tal of

Means and Standard Deviations of Differences on Selected Population Variables Between 1950 and 1960 Table XV.

Variables	Washin X	gton, D. C. SD	st. I X	ouis SD	cinc X	innati SD
Median education, total population	.245	1.556	268	1.710	235	1.666
Median education non-white	-1.404	5.470	-1.324	3.478	-1.639	3.611
Median family income, non-white	-1563.593	2427.426	-652.085	1453.739	-929.585	1762.693
Total non-white population	-1370.947	3449.905	-473.562	2171.062	-275.072	1335.020
Total population	427.610	2528.090	791.437	1546.054	85.288	1523.548
Median family income, total population	-1392.065	1172.680	-1807.796	1323.059	-3132.090	1802.149
Percent non-white	18.819	23.771	-9.111	21.385	-9.435	19.951
= N	6	Ω*	~ 1	128		111
*Where the data co several 1950 trac 95; where data co the value for eac	uld be summ ts were tre uld <u>not</u> be h of its su	ed, those 19 ated as a ur summed, the bdivisions j	)50 tracts o bit, making value for t	the number the number the 1950 the ting a tot	t of the su r of 1950-6 ract was co al of 123 c	bdivision of O comparisons mpared with omparisons.

Variables	Washington, D. C. X SD	St. Louis X SD	Cincinnati X SD
Percent of overcrowded housing units N =	4.174 8.975 62	4.419 7.044 26	2.541 13.262 24
Median education total population N =	.114 1.179 121	034 .820 122	027 .639 109
Median education non-white N =	193 1.160 68	11 .54	030 .68 14
Median family income, non-whites N =	.43.704 666.100 61	-837.928 738.261 14	-1931.800 656.841 10
Median contract rent, total population N =	22.756 14.425 115	-24.064 12.732 108	-23.498 5.871 97
Median family income, total population -14 N =	.95.941 979.196 120	-1544.315 947.099 114	-2676.680 1110.875 97

Means and Standard Deviations of Differences on Selected Variables

Table XVI.

This table is based on mean differences where paired tracts with no information in e/ither 1950 or 1960 have been eliminated. The N varies with each variable and city.

family income for both the total population and non-whites only); on three of these (non-white population is the exception) the null hypothesis was also rejected at Stage 1. The exception is significant, for while there were no important differences between the added Negro populations in the renewal and control cities as a whole, there were important differences in the shifting around of the Negro population within each central city.

## Skewed distributions

One other way of looking at the changes which occurred in the population and housing variables of three cities is to study the distribution of census tracts around the mean change in the value of a variable (see Figures 1 and 2). Examination of both tables suggests that in the renewal cities there are more extreme changes in <u>both</u> directions from the mean, while in the control city the great majority of the extreme changes are in one direction--that of increasing the proportion of substandard, non-white occupied, and overcrowded housing units.<sup>76</sup> The same trend appears among the population

Number of changes exceeding  $\pm 1$  or 2 Standard Deviations of

 $<sup>^{76}</sup>$ The trend is strongest on the housing variables. 40-45% of the major changes, by census tract, in the renewal cities were in a positive direction; that is, almost as many tracts made dramatic changes in one direction as in the other. In Cincinnati, on the other hand, only 27% of the tracts with significant changes over the decade changed in a positive direction.

variables, though to a lesser extent. These trends would seem to support the contention that urban renewal is, to some extent, a moving of the slums from one part of the city to another. Major improvements in the quality of housing in one area are accompanied by major deterioration in the quality of housing elsehwere in the city.

The distribution of tracts around the mean percent of sub-standard housing units is quite different in the renewal and control cities. In the renewal cities, those tracts which exceeded the 1st and 2nd standard deviations were more often at the plus end of the distribution, meaning that more tracts experienced significant losses in the proportion of substandard units. On the other hand, those tracts in Cincinnati which exceeded the 1st and 2nd standard deviations were all at the minus end of the distribution, meaning that those tracts experienced major increases in substandard housing.

Similarly, in the proportion of non-white occupied units, the tracts in all three cities were skewed to the negative end of the distribution, but a few tracts in the renewal cities experienced major losses in the proportion of such

Five Housing	Varia	ables for	Three	Cities.*	
-		+1 or 2	SD's	-1 or 2	SD's
St. Louis		29		36	65
Washington, I	э. с.	54		85	139
Cincinnati		16		57	13

The same tract may be counted more than once if it experienced major changes on more than one variable.

units (three of the ten in Washington were renewal tracts and three of the five in St. Louis) and only one in Cincinnati did--the tract which began renewal at the end of 1959.

The two renewal cities, on the average, decreased in the proportion of overcrowded housing, whereas the control city increased slightly. While the standard deviations on this variable were very similar in all three cities, many more tracts in the renewal cities were at the extreme ends of the distribution (beyond  $\pm$  1 or 2 standard deviations). In St. Louis 15 tracts experienced major decreases in overcrowding; 12 major increases (21% of all tracts); in D. C., 17 experienced major decreases (42% of all tracts); but in Cincinnati, eight tracts showed major decreases and 12 major increases (18% of all tracts).

There are differences in the distribution of tracts around the mean on several of the population variables as well. The reader may recall that the average increase in median family income is much greater in Cincinnati than in the experimental cities, although the standard deviations are not greatly different. This suggests that the increases in income in the two renewal cities are reduced--in the averages--because of a number of tracts which changed in the opposite direction. Data in Figure 2 confirm this. The distribution around the mean in Cincinnati is skewed in the negative direction (toward increases in median family income), whereas in Washington and St. Louis the tracts were more normally distributed.



housing variables: Washington, D.C.



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Figure 2a. Distribution of census tracts around the mean difference on selected population variables: Washington, D.C.





Cincinnati, Ohio.

Increases in non-white population was typical of all three cities. The average increase was unusually large for the District and larger in the two renewal cities than in the control city. The standard deviation for changes in the non-white population was quite large for D. C., and much larger in both D. C. and St. Louis than in Cincinnati. The renewal tracts in the experimental cities were prominent among those tracts which lost large numbers of Negro resiin St. Louis five of the six tracts with changes dents: greater than -1 standard deviation were renewal tracts; in D. C. two of the five were. More of the tracts experienced extreme gains in non-white population in the renewal cities; fewer of those in Cincinnati did (13% in St. Louis, 20% in the District, 10% in Cincinnati).

At the same time that the average tract in the three cities was gaining in non-white population, the average tract was losing in terms of overall population. Again, the renewal cities were more similar to each other than they were to the control city: both St. Louis and Washington lost considerably more population per tract than did Cincinnati. Washington, again, experienced a wider variety of and more extreme changes, as indicated by the larger standard deviation. The two renewal cities differed from the control city in that the distributions of the tracts in the former were much more skewed toward losses of population, whereas the Cincinnati tracts were about evenly split; all of the

renewal tracts in the experimental cities, save one, were included in those tracts which suffered major losses of population.

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#### CHAPTER V

THE RENEWAL TRACTS AND THE PATTERN OF RELOCATION

While the inferences concerning the effects of urban renewal on changes in the city as a whole are somewhat indirect, those changes in the census tracts affected can be observed much more directly. This chapter will, first, describe the major changes which occurred in those tracts identified by each city's urban renewal agency as undergoing some renewal effort during the decade, and second, attempt to document the pattern of invasion and succession which occurred in city neighborhoods as a result of the massive dislocation of families in the renewal areas.<sup>77</sup>

### Stage 3: The Renewal Tracts

## Summation of changes in all renewal tracts

In both Washington and St. Louis, the renewal tracts are clustered together on the fringes of the central business district in the central part of each city. Table XVII shows the overall changes which occurred in that part of each city;

<sup>&</sup>lt;sup>77</sup>These tracts were identified in letters to the author from staff members in the Urban Renewal agencies in the three cities. In Washington, D. C., the tracts were: numbers 64, 65, 66, and 67; in St. Louis: numbers 94, 102, 105, 106, 107, 113, 114, and 120; and in Cincinnati: number 2.

the data in the table are based on a summation of information from all the tracts involved in renewal. In both cities, the proportion of substandard housing in the renewal tracts declined, although the relative decrease was not great in St. Louis: two-thirds of the 11,800 remaining housing units in St. Louis' renewal tracts were still substandard. Similarly, the proportion of overcrowded housing units decreased. In the renewal tracts of both cities, the proportion of non-white occupied housing units decreased at a time when the city-wide trend was in the opposite direction. Overcrowding remained fairly high and even increased slightly among non-white occupied units in the District. And the vacancy rate increased considerably in the renewal tracts in both cities.

With respect to changes in the characteristics of the population of the renewal tracts--in both renewal cities, the size of the population in the renewal tracts declined, 83% in D. C. and 55% in St. Louis. In D. C. the proportion nonwhite was exactly the same, before and after renewal; in St. Louis, the proportion declined from 54% to 42% in 1960. The average education of whites and non-whites in these tracts increased--by a great deal in the District and more modestly in St. Louis. This, too, was in opposition to the overall trend in Washington where the average education for the city declined. Rents, on the average, doubled in St. Louis and almost tripled in D. C. Gains in median family income were remarkably slight; only in St. Louis did the increase in the

median income for the total population in the renewal tracts approximate that for the city as a whole.

### Description of changes in each renewal tract

Each of the renewal tracts differed somewhat in the types of changes which occurred over the decade since in some, public housing supplanted the older structures, in others luxury or middle income housing was rebuilt in their place, and in some no rebuilding had yet occurred at the time of the Census. In the following paragraphs, the detailed changes in each renewal tract will be described.

The reader will recall that a "major" change is defined as one which is greater than  $\pm 1$  or 2 standard deviations from the mean difference of a given variable for a particular city. For example, all four renewal tracts in Washington, D. C. experienced a major decrease in the total population of each tract. Census tracts 64 and 65 were over two standard deviations from the average change in size of population, on a census tract basis, for the District; census tracts 66 and 67 were over one standard deviation from this average change.<sup>78</sup> In the District, tract 64 experienced major changes on population and housing variables; major shifts occurred on only

<sup>&</sup>lt;sup>78</sup>This was a decline, on the average, of 428 persons per tract. The mean difference is positive because the 1960 figure is subtracted from the 1950 figure. Census tract 64 lost 7860 people, number 65 declined by 5976, number 66 lost all but 99 of a 1950 population of 4440 and number 67 went from 5455 to 2360.

Variables	1950	1960
Percent of substandard housing units	$\frac{2949}{6073} = 49\%$	$\frac{125}{1216} = 10\%$
Percent of non-white occupied units	$\frac{3524}{5878} = 60\%$	$\frac{537}{1103} = 49\%$
Percent of overcrowded units	$\frac{1796}{5878} = 31\%$	$\frac{267}{1103} = 24\%$
Percent of non-white occupied overcrowded units	$\frac{1287}{3524} = 37\%$	$\frac{232}{537}$ = 43%
Percent of all occupied housing units	$\frac{5878}{6073} = 96.79\%$	$\frac{1103}{1216} = 90.71\%$
Total population	25,490	4218
Negro population	16 <b>,264</b>	2662
"Median of medians"		
Education	8.1	10.8
Income non-white	2071	2948
Education non-white	7.0	8.9
Income	2169	2869
Rent	34.5	92

Table XVIIa. Summation of Changes in Renewal Tracts:\* Washington, D. C.

\* Tracts 64-67.

Variables	1950	1960
Percent of substandard housing units	$\frac{15264}{19573} = 78\%$	$\frac{7854}{11800} = 67\%$
Percent of non-white occupied units	$\frac{9723}{19063} = 51\%$	$\frac{3869}{10444} = 37\%$
Percent of overcrowded units	$\frac{7210}{19063}$ = 38%	$\frac{2919}{10444}$ = 28%
Percent of non-white occupied overcrowded units	$\frac{3802}{9723}$ = 39%	$\frac{1183}{3869}$ = 31%
Percent of all occupied housing units	$\frac{19063}{19573} = 97.39\%$	$\frac{10444}{11800} = 88.51\%$
Total population	69,807	31,427
Negro population	37,592	13,084
"Median of medians"		
Education	7.6	8.0
Income non-white	1368	1582
Education non-white	7.1	7.4
Income	1592	2502
Rent	15.0	34.0

Table XVIIb. Summation of Changes in Renewal Tracts:\* St. Louis, Missouri

\* Tracts 94, 102, 105, 106, 107, 113, 114, 120.

three or four variables in tract 65-67.

Washington, D. C. Census tract 64 lost 82% of its 1950 population. In 1960, the tract was 62% Negro, as opposed to 95% non-white in 1950, and the socioeconomic status of the area had risen considerably: the median family income had increased (over one standard deviation from the average change) from \$1859 to \$4817; the average education went up (over two standard deviation from the average change) from 7.1 to 12.1; and the median contract rent changed from \$27 to \$127 a month. The increased socioeconomic level of the 1960 population is apparently due to the new white residents, most of whom moved in between 1958-60. There are several reasons for this inference: 1) the non-white median family income only changed from \$1779 to \$2764; 2) the non-white median education, while showing a substantial increase (up one standard deviation), went only from 6.9 to 9.1, nowhere near the median for the tract as a whole; and 3) the white residents are "new" because none of them over the age of five lived in the same house in 1955; 44% moved there from another house within the city and the other 56% moved there from outside the city. On the other hand, 76% of the non-white population in the tract moved, since 1955, from a different house in the central city; only 6% of the non-white population over five in the tract lived in the same house in 1955. For those who moved from another house in the District, there is no way of knowing whether they moved from another house in the renewal tract or from elsewhere in the District.

In terms of housing, the number of units in tract number 64 decreased from 2372 to 622. There was a significant decrease in substandard housing (over two standard deviations from the mean); 60.8% of the units in 1950 were substandard; in 1960, only 10.3% were. There was a significant decline in the percent of non-white occupied housing units (beyond the second deviation) and in the percent of overcrowded housing units (beyond the first standard deviation), but there was a major increase in the percent of non-white overcrowded units (beyond the second standard deviation). While Negroes constituted 62% of the 1960 population, they lived in only 35% of the occupied housing units and 85% of the overcrowded units were occupied by non-whites. But, the vacancy rate was a comfortable 17% in 1960, suggesting that most of the housing available was open to whites in the upper income brackets.

Census tract number 65 lost all but 1% of its population over the decade. In 1950 it had been a predominantly white area (62%); in 1960, 42 of the 60 people living in the tract were Negro. Because of the small number of residents in 1960, no data were available on income, education, or rent. There were only ten housing units in the tract in 1960, apparently "left overs" from before redevelopment since five of them were classified as substandard. Tract number 65, therefore, was between the demolition and construction stages of the renewal process at the time of the census so that no Comparisons can be made between old and new residents. All of

the old residents were dislocated. The old residents were of lower education (the median years of school for the tract was 8.1, for non-whites, 7.0), and low income (the median family income for the total population was \$2414, for nonwhites, \$2185), and their average rent was relatively low (\$37 a month). Half of the housing units in 1950 were substandard, 30% overcrowded. Tract number 65, then, was a deteriorated neighborhood of lower income whites and nonwhites, fairly typical of those frequently chosen for renewal.

Tract number 66 lost almost all of its 1950 population. Like number 65, it was a predominantly white (61%), lower socio-economic status neighborhood where the average education was 8.3 years (7.1 for Negroes), the average family income, \$2490 (\$2026 for Negroes), and the average rent, \$39 a month. In 1950, 28% of the housing units were overcrowded (40% of those occupied by non-whites), and 36% were substandard. Also like number 65, number 66 was in the "in-between" stages of renewal at the time of the census. The few remaining families had moved to the area from elsewhere in the central city sometime between 1954 and 1960 (81.8%); a fifth had lived there prior to 1954.

Tract 67 experienced a major decrease in total population and substandard housing (from 39% in 1950 to 8% in 1960); it lost 50% of its housing units and 57% of its people. Overcrowding decreased both among whites and non-whites. The Population in 1950 was low in education (8.0 average for the

population, 6.8 for Negroes), low income (\$1924 for the population, \$2136 for Negroes), and low in median rent (\$32 a month). The population was 58% Negro in 1950, 64% in 1960. In both 1950 and 1960 the Negro population had a higher family income than the whites. The increase in family income, however, was below the average for all census tracts. The increase in the level of education (among white and non-white), on the other hand, was significant (over one standard deviation from the mean change). The 1960 population does not appear to be radically different from the 1950 population. But there has been considerable shifting since four-fifths of the occupied units were taken over by new tenants within the two years preceding the census, 52% of the residents moved in from another house in the central city, 9% had been living in the same house since 1955, and the remaining 38% came from outside the city.

St. Louis, Missouri. In St. Louis, six tracts (94, 102, 105, 106, 107, and 120) began to participate in the renewal program well in advance of the census; two others (113, 114), entered the execution stage in December 1959. The only major change which occurred in these tracts was that they lost a large part of their population. The tract 113 population declined from a 1950 total of 18,492 to 12,749 in 1960, a 31% drop; tract 114 lost over half (55%) of its 1950 population of 6,193.

Both tracts had a white population (113: 99%; 114: 83%) that was low in education (113: 8.1, 114: 7.6), median family income (113: \$2371; 114: \$1982), and rent (\$13 and \$11 a month, respectively). A very high proportion of the housing units in both areas were classified as substandard (113: 80.9%; 114: 89.8%) and a little over a third in each tract were overcrowded. In both tracts, the population was more "mobile" than the average (median) for the city: a greater than average percent of the population over one year old had lived elsewhere in the city a year preceding the census (10.1% in 113, 11.9 in 114) and a smaller than average percent had lived in the same house in 1949 (84.9% in 113, 82.0% in 114). In Washington, D. C., the reverse was true. All of the renewal tracts were above the median in terms of the percent of the population living in the same house at the time of the census and one year preceding the census.

Tract 94 was made up of a non-white population (98% in 1950) and remained 90% non-white in 1960. It declined from a population of 4475 in 1950 to only 259 in 1960. This was a "left over" population, not newcomers to a rebuilt area, since 60% had been living there at least five years at the time of the census. The population was similar in characteristics to the other renewal tracts--very low in education (7.0), income (\$1510) and rent (\$16). The area declined significantly in the proportion of substandard (from 77% to 41%) and overcrowded (from 40.4% to 23.5%) housing units. There were 112 housing units remaining in 1960, a fourth of them

vacant. This suggests that the relocation and demolition process was still going on at the time of the census.

Tract 102 was also a largely Negro tract (95%) with a very large population in 1950 (11,648) which was more than halved by 1960 (4,926).<sup>79</sup> The population was a poor one (\$1382 in 1950; \$1315 in 1960) and was significant in that it actually declined in median income over the decade (over one standard deviation from the mean change). This decline was apparently due to some poor whites living in the tract, since the median income for non-whites increased slightly (to \$1425). The 1960 residents were very similar to those in 1950 in terms of their lack of education, their low salaries and the cheapness of their housing. Overcrowding declined considerably over the decade (from 38% to 25%), but the percent of substandard housing remained high, declining from 81% to 70%. In 1960, there were 1738 housing units in the tract, a decrease from the 2964 units in 1950. There is the possibility that some of these may be new low income units because 40% Of the units in the tract were occupied between 1958-60-which is well above the median for St. Louis.

Tract 105 was a predominantly Negro area (87% in 1950) Which lost about 70% of its 1950 population (over two standard deviations from the mean change both in its total population and in the number of Negro residents). The educational level

 $<sup>^{79}</sup>$ The decrease in total population and in Negro population were both beyond the second standard deviation from the mean.

of the residents was low in 1950 (7.2), even lower in 1960 (6.7). The median family income went up slightly for the area over the decade (from \$1157 to \$1325),<sup>80</sup> rents more than doubled (from \$16 to \$37); but the median family incomes of non-whites went down to \$938, the lowest, by far, of any tract in St. Louis.

In 1950, 100% of the housing in this tract was classified by the census as substandard. There was a major decrease in such housing over the decade (over one standard deviation from the mean change), but in 1960 77% of the units were still substandard. The standard housing must therefore either be new housing or renovated older structures; and since renovation is expensive and the population did not change in character over the decade, the suggestion is that new low income housing was built to replace the older structures. There was a significant decline in the proportion of the housing units Occupied by non-whites (from 92.6% in 1950 to 65.7% in 1960). There was also a major decline in the proportion of overcrowded units--from 37% in 1950 to 20% in 1960. It appears from the data that the new or renovated housing went chiefly to white occupants since the proportion of substandard units among non-white occupied units was 90.7% in 1960. In both 1950 and 1960, tract 105 received more of its residents from Outside the city than was typical of census tracts in the city.

<sup>&</sup>lt;sup>80</sup>A significantly small change when the average in-Crease for the census tracts was an increase of \$1808 in Median family income.

This suggests that the neighborhood may be a "receiving" area for new migrants from rural areas; such an interpretation is strengthened by the extremely low educational and income level of the population in both 1950 and 1960.

Tract 106 had a 1950 population of 12,186 which was halved by 1960. Sixty-three percent of the earlier population was Negro, 75% of the later.<sup>81</sup> The people in this tract were not at the bottom though they were relatively low in education (7.8), income (\$1815) and rent (\$17). The 1960 population differed very little, on the average, from the 1950 population. The average income went up about \$700, the average education only .2 of a point.

Three-fourths of the housing in 106 was substandard in 1950, a figure which declined significantly by 1960 to 48%. Overcrowding was higher in this tract (39.1%) than in all but six other tracts in St. Louis. In 1960, it graduated to the second most overcrowded tract (35.1). People were still moving into housing in the tract in the few years preceding the census (40% of the units were occupied by new residents between 1958-60), though a third of the units were occupied by people who had lived there prior to 1954.

Tract 107 was also a predominantly Negro tract (91% in 1950) which had lost all but 19% of its 1950 population by

<sup>&</sup>lt;sup>81</sup>The size of the tract's loss of population and of its **Negro** population specifically was greater than two and one **st**andard deviations, respectively.

1960. The educational level of the tract was low and decreased slightly over the decade. The average family income was low (\$1463) and hardly changed at all over the decade (\$1550 in 1960). The income of Negroes in the tract in 1960 was higher than that of whites (\$1740). Rent was lower in this tract in 1960 than in any other tract in St. Louis. Practically all of the housing in the tract was substandard, both in 1950 and 1960 (94% and 90% respectively). Overcrowd-ing was higher than 106 in 1950 and was still way above the . median in 1960.<sup>62</sup> Since 19% of the remaining units were vacant, this tract could still have been in the relocation and demolition phases of renewal at the time of the census. Almost half of the housing units in the tract were occupied by the residents prior to 1954.

Tract 120 had a larger white population (64%) in 1950 than in 1960 (53%), and a relatively small base population (3082), of which it lost about two-thirds by 1960. The educational level of this tract was higher than any of the. Other renewal tracts in St. Louis (8.5 in 1950, 9.6 in 1960) and increased to a 1960 level that was above the median for all tracts in the city. The median income went up, but was still considerably below the median for the city. The median rent also increased significantly (over one standard deviation from the mean change in median rent) to \$56 a month, much

<sup>&</sup>lt;sup>82</sup>Though the decline in overcrowding was above the first standard deviation.

higher than the 1960 rents in any of the other renewal tracts.

In 1950, 89% of the housing was substandard, in 1960, 62%. A third of the units in 1950 were overcrowded but only 9% were in 1960, a major decrease (over two standard deviations) in overcrowding, both among non-whites and the population as a whole. However, in 1960 21% of non-white occupied housing was still overcrowded.<sup>83</sup> This tract also experienced a major decline in the percent of housing units occupied by non-whites (from 66% to 25%). The tract was unusual in its mobility prior to the 1950 census. Nineteen percent of the residents had lived elsewhere in the city in 1949 (well above the median for St. Louis census tracts) and only 58% were living in the same house (well below the median for the city). This meant that 23% of the 1950 population had come to the area from outside the city. The same thing was true of the tract in 1960--a higher than average proportion had moved to their 1960 residence from another house within the central city in the last five years preceding the census and only 23% (compared with a median of 47.6%) had lived in the same house in 1955. The trend for residential mobility within the city was accentuated among the non-white residents of the tract. On the other hand, the same proportion or more

 $<sup>^{83}</sup>$ This is a consequence of the fact that while the number of housing units increased the number of non-white occupied units decreased, yet the non-white population declined only 53%.

of the non-white residents lived in the same house in 1949 or 1955. The difference, therefore, is that more of the white residents of the tract apparently moved to the area from outside the central city.

<u>Cincinnati, Ohio</u>. Cincinnati's tract 2 was the only tract in that city affected by urban renewal during the 1950's. Like many of the other renewal tracts it was predominantly Negro (80% in 1950), declined significantly in Negro population (over two standard deviations), in the proportion nonwhite (58% in 1960), and in total population (from 7933 to 496). Like the other tracts, its population was low on education (7.5), income (\$1568) and median rent (\$16 a month).

The tract was above average in overcrowding (33.8% in 1950; 32.1% in 1960) and, percentage-wise, changed little on this characteristic over the decade. A 21% vacancy rate suggests that clearance was still in progress. This is further supported by the fact that all of the remaining housing was classified as substandard (whereas only 13% was in 1950).<sup>84</sup>

<u>Summary of changes in renewal tracts</u>. Major changes in three of the variables were consistently associated with the tracts affected by renewal; a decrease in overcrowding, loss of population, and loss of non-white population. Three of the four renewal tracts in Washington, D. C., and five of the eight in St. Louis, all experienced a major decrease in

<sup>&</sup>lt;sup>84</sup>There were 12 other tracts with a higher percent of substandard housing, only five others with as large a percent of non-white.
the percent of overcrowded housing units in the tracts.<sup>85</sup> All of the tracts in the District, seven of the eight in St. Louis and the one in Cincinnati sustained a major decrease in the size of the tract's population.<sup>86</sup> In St. Louis, particularly (five out of eight tracts), in D. C. to a lesser extent (two out of four tracts) and in Cincinnati, there was a major decrease in the non-white population of the renewal tracts.<sup>87</sup> In all three cities the renewal tracts did not necessarily represent the most dilapidated tracts in the city. In two tracts in the District, in the one in Cincinnati, and in only three of the eight in St. Louis was there a sizeable decline in the percent of substandard housing.

# Patterns of Relocation

What has happened to all of the people displaced by renewal? The renewal tracts in the District lost 21,272 persons, those in St. Louis, 38,380. If others who have studied renewal are right, most of these people did not leave the metropolitan area, probably most did not even leave the central city. If Schorr is right, they were within a mile of their former home. In this study it will be impossible

<sup>&</sup>lt;sup>85</sup>In five of the eight tracts, the change was over two standard deviations from the mean.

<sup>&</sup>lt;sup>88</sup>In nine of the 12, the change was over two standard deviations from the mean.

<sup>&</sup>lt;sup>87</sup>In six of the eight, the change was over two standard deviations from the mean.

to answer this question definitively because of the nature of the data. However, working from a null hypothesis, it could be argued that if, in fact, slum clearance really succeeded in ridding the city of slum residents and their housing, then no unusual effects should be observed in the changes in census tracts elsewhere in the city. If not, then there should be some reaction to this massive dislocation some place in the city. There is already some indication that this reaction has taken place--the standard deviations of change on certain housing and population variables are much bigger in the renewal cities than in the control. In this section, the author will attempt to trace, in more detail, the displaced population.

First, the object of the search are 20-40,000 people in cities where the average tract population is roughly 4-6,000. Since approximately 60% of these are lower income Negroes and since we know that the renewal cities became more segregated during the decade, we would not expect to find them scattered evenly throughout the central city and suburbs. Rather, because of the low status of the displaced population, we would expect to find certain neighborhoods in the city serving as "receiving" areas for the bulk of the relocatees.

One way, then, to try to locate these receiving areas is to find those tracts which grew most rapidly in population and see if their 1960 population resembles in any way the 1950 population of the renewal tracts. This was done by

taking all those tracts which were beyond the -1 or -2 standard deviations from the mean change in total tract population and summing up some of the key housing and population characteristics for those tracts.

The tracts which increased most in overall population during the 1950's were--with one exception--tracts with a very small proportion of substandard housing units, and this proportion decreased over the decade. In Washington, 4% of the housing in these tracts in 1950 was substandard, 1% in 1960; in St. Louis (if tract 104 is omitted) 2% was substandard in 1950, 1% in 1960; (if tract 104 <u>is</u> counted the percentages are 35.8% and 9% respectively); in Cincinnati, the proportion of substandard units was 7% in 1950 and 1% in 1960. And in all three cities, the percent of non-white occupied housing units in this group of tracts was below the median for census tracts in the city, both in 1950 and 1960.

Evidently, these tracts have not received their new population from the clearance areas. Apparently, a substantial amount of new building--probably apartments--took place in these tracts because the number of new housing units increased considerably in all three cities. This may have attracted middle class newcomers to the city or it may have provided an area for middle class whites and Negroes to move to after their original neighborhoods were invaded by lower class Negroes and whites from the renewal areas.

Against the first possibility is the fact that both renewal cities lost such a large part of their white population and the fact that a smaller than average proportion of these tracts' new population came from outside the city and a larger than average proportion of the new population moved there from elsewhere in the city (see Table XVIII). For the second possibility is the fact that in the 14 of these 24 tracts which had non-white occupants in 1960 the median education of the Negroes was equal to or higher than the median education of the total population. This suggests that middle class Negroes are leading the "invasion" of white neighborhoods while lower class Negroes invade formerly middle class Negro areas.

A second step in tracing the displaced residents of renewal areas is to look at those tracts which grew most rapidly in <u>non-white</u> population and see if their 1960 populations resembled in any way the 1950 population of the renewal tracts. But these tracts, also, were low in the proportion of substandard housing and they, too, decreased in this proportion in the renewal cities, increasing slightly in Cincinnati. The average education was right at or slightly above the median in Cincinnati. In Washington, the median income was well above the average for the District, in St. Louis it was just below the median for the city in 1950 and somewhat further below the median in 1960. In Cincinnati, the median for this group of tracts was just above the city median in

1950 and a little below it in 1960. The education of nonwhites in this group of tracts was well above the average for non-whites in all three cities in both Census years.

Consequently, the tracts which experienced the greatest increases in non-white population were not receiving a large number of lower income, lower educated Negroes but were tracts which were attracting the more middle class Negroes. This set of tracts, however, was very low in the proportion of Negroes in 1950 and was well above the median in percent of non-white occupied tracts in 1960. In this way, this second set of tracts differs from the first: in the first group there was no major change in the percent of non-white occupied housing from 1950 to 1960; in the second group, an almost complete cycle of invasion and succession took place between 1950 and 1960, from few, if any non-whites, in 1950 to 70-80% non-white in 1960. The residents of this second group of tracts differed from the first in yet another way: they were not quite as high in average education and income as the population in the first group of tracts.<sup>88</sup> What this suggests is that high status whites and Negroes moved into the first group of tracts, with little change in the character of these neighborhoods -- in terms of the proportion of nonwhite occupied and substandard dwellings and in terms of the educational and income level of the neighborhoods. Middle

<sup>&</sup>lt;sup>88</sup>With one exception: the 1950 residents of this second group of tracts were higher in average education than the 1950 residents of the first group.

status Negroes moved into the second group of tracts, raising the average education of non-whites in these neighborhoods, converting them to predominantly Negro occupancy, but keeping the proportion of substandard dwellings low.<sup>89</sup> This makes sense in light of the fact that higher status persons in the first group are less likely to be threatened by Negro neighbors than are persons of more marginal status. In this second group, the proportion living in the same house (1955 and 1960) in St. Louis and Cincinnati is well below the median percent for each city. Conversely, the proportion who had previously lived in another house in the central city was much higher than the median percent for each city, the District included.

There is one other major contribution to this discussion in Table XVIII. If one compares the first and second rows of the table for the control city and the one experimental city which matches it, it can be seen that the census tracts in the renewal city which experienced major increases in total population had a (slightly) smaller proportion of residentially stable people than the city average, a much greater proportion of new residents from other parts of the city than was typical, and a very small proportion of new residents from outside the city limits. The census tracts in the control city which experienced major increases in total population had a larger proportion of residentially stable people than was true for

<sup>&</sup>lt;sup>89</sup>In the renewal cities, the proportion substandard decreased in this group of tracts; in Cincinnati it increased to roughly 8%.

Table XVIII. Residential Mobility Within Three Central Cities, 1955-1960

	Dercent	in Sam	e House	Percen	t in Di	fferent	Derren	t from (	litside
				House,	Centra	1 City	the Ce	ntral Ci	ty
	Wash- ington	St. Louis	Cincin- nati	Wash- ington	St. Louis	Cincin- nati	Wash- ington	St. ( Louis r	lincin- ati
<b>City-wide median</b> for all census tracts	39.2	47.6	47.2	36.8	38.5	39.2	24.0	13.9	13.6
Summation of tracts with major gains in total population	35.8	47.5	51.0	39.5	44.4	30.6	24.7	8.1	18.4
Summation of tracts with major gains in non-white population	40.0	33.6	31.0	42.8	50.9	52.7	17.2	15.5	16.3
Summation of renewal tracts	7.4	40.0	34.2	53.8	43.9	49.7	38.8	16.1	16.1
Summation of non- renewal tracts	36.2	29.5	38.9	39.5	55.5	47.5	24.3	15.0	17.6

the city as a whole, a much smaller proportion of new residents from elsewhere in the city than was typical, and a <u>much</u> greater proportion of new residents from outside the city. It would appear that the tracts which grew most rapidly in Cincinnati did so as a result of migration to the city from outside whereas the comparable tracts in St. Louis grew more as a result of internal migration within the city.

The displaced residents of the renewal areas are still, in a sense, "at large" in the city. One other method was used in an attempt to uncover them. Earlier in this chapter, it was pointed out that the renewal tracts experienced major changes on a number of variables: in addition to significant losses of population, the proportion of overcrowded and substandard housing decreased, and the character of the population often changed. Since the people who were relocated would still be poor, they would require housing which was inexpensive and marginal in quality, and overcrowding might be necessary in order to obtain sufficient housing at a realistic price. Consequently, the "receiving" areas would probably change in many ways in response to the new population.

In an effort to pick out these potential "receiving" areas, the author selected all of the tracts which experienced "major" changes in four or more variables over the decade.<sup>90</sup>

<sup>&</sup>lt;sup>90</sup>In the District, three of the four renewal tracts were included in this list and in St. Louis five of the eight were.

The renewal tracts which had experienced four major changes or more were grouped together with the rest of the renewal tracts (see Table XVII) and the remaining non-renewal tracts were grouped together. Then some of the basic data for the tracts within each group were summed. The summations for the non-renewal tracts can be seen in Table XIX.

This third group of tracts differs from the first two: 1) in having a much higher proportion of substandard housing in 1950 and 1960; 2) (with the exception of St. Louis in 1950) in having a higher proportion of non-white occupied housing units in 1950 and 1960; 3) in having a lower median education in both 1950 and 1960 (in St. Louis all three sets of tracts had the same median education in 1950); and 4) in having a lower median income in both 1950 and 1960. These "non-renewal" tracts also had a higher than average proportion of overcrowded housing, particularly among nonwhites--roughly a third of non-white occupied housing in these tracts in all three cities was overcrowded.

In terms of the character of the housing and the people, these tracts are more likely to be the recipients of the relocatees than either of the preceding groups. The data in Table XVIII provide further support for this interpretation. A smaller than average proportion in the non-renewal tracts lived in the same house in 1955 and 1960; and a larger than average proportion moved there from another house in the central city. In St. Louis fewer old residents remained in

Variables	1950	1960
Percent of substandard housing units	<u>9529</u> 59015 = 16.1%	$\frac{6239}{63576} = 9.8\%$
Percent of non-white occupied units	$\frac{18557}{57418}$ = 32.3%	$\frac{33803}{61138}$ = 55.3%
Percent of overcrowded units	$\frac{9996}{57418} = 17.4\%$	$\frac{10033}{61138} = 16.4\%$
Percent of non-white occupied overcrowded units	$\frac{5865}{18557} = 31.6\%$	$\frac{8248}{33803} = 24.4\%$
Percent of all occupied housing units	$\frac{57418}{59015} = 97.29\%$	$\frac{61138}{63576}$ = 96.16%
Total population	242161	200740
Negro population	84071	129006
"Median of medians"		
Education	12.1	10.6
Income non-white	2400	3890
Education non-white	8.8	9.9
Income	3011	4567
Rent	53	71

Table XIXa. Summation of Changes in the "Non-renewal" Tracts:\* Washington, D. C.

\*Tracts 1,2,23,24,30,36,47,48,53,55,57,59-63,68,72,75-77,81 84,85,87,92,93,95,96,98,104,105,112,122,123. The "nonrenewal" tracts are those which experienced major changes on four or more variables.

Variables	1950	1960
Percent of substandard housing units	$\frac{8625}{31207} = 27.6\%$	$\frac{5456}{31411}$ = 17.4%
Percent of non-white occupied units	$\frac{5844}{30657}$ = 19.1%	$\frac{20274}{29149} = 69.6\%$
Percent of overcrowded units	$\frac{6209}{30657}$ = 20.3%	$\frac{7408}{29149}$ = 25.4%
Percent of non-white occupied overcrowded units	$\frac{2076}{5844}$ = 35.5%	$\frac{6253}{20274}$ = 30.8%
<b>Percent</b> of all occupied housing units	$\frac{30657}{31207} = 98.23\%$	$\frac{29149}{31411} = 92.8\%$
Total population	102402	103258
Negro population	21919	78873
"Median of medians"		
Education	8.9	8.9
Income non-white	1720	4140
Education non-white	8.8	9.5
Income	3038	4023
Rent	33	59

Table XIXb. Summation of Changes in the "Non-renewal" Tracts:\* St. Louis, Missouri

\* Tracts 27-31,33,35,56,57,98,104. The "non-renewal" tracts are those which experienced major changes on four or more variables.

Variables	1950	1960
Percent of substandard housing units	$\frac{9323}{26491} = 35.2\%$	$\frac{7483}{26378}$ = 28.4%
Percent of non-white occupied units	$\frac{5401}{25775}$ = 21.0%	$\frac{13130}{24823}$ = 52.9%
Percent of overcrowded units	$\frac{5970}{25775}$ = 23.2%	$\frac{5218}{24823}$ = 21.0%
Percent of non-white occupied overcrowded units	$\frac{1798}{5401} = 33.3\%$	$\frac{3265}{13130}$ = 24.9%
<b>Percent</b> of all occupied housing units	$\frac{25775}{26491} = 97.29\%$	$\frac{24823}{26378} = 94.10\%$
Total population	86120	74939
Negro population	19209	48228
"Median of median <b>s</b> "		
Education	9.5	9.2
Income non-white	1434	4732
Education non-white	8.4	9.3
Income	2870	4195
Rent	31	54

Table XIXc. Summation of Changes in the "Non-renewal" Tracts:\* Cincinnati, Ohio

<sup>\*</sup>Tracts **3**,6-9,14,38-41,66,67,69,77,80,87. The "non-renewal" tracts are those which experienced major changes on four or more variables. 1960 and more new residents moved there from elsewhere in the city than was true for any other group of tracts.

More can be learned about these tracts which experienced four or more major changes over the decade by comparing them with the renewal tracts in Washington and St. Louis. The renewal and non-renewal tracts were different in 1950, underwent different kinds of changes over the decade and were not as different from each other in 1960 as they had been in 1950. The most obvious differences between the renewal and nonrenewal tracts in 1950 were:

- considerably more of the housing in the renewal tracts was substandard;
- many more of the housing units in the renewal tract were occupied by Negroes;
- more of the units in the renewal tracts were overcrowded;
- over half of the population in the renewal tracts in 1950 was Negro whereas a third or less of the population in the non-renewal'tracts was non-white;
- 5) the population in the renewal tracts in 1950 was of substantially lower education, and income, and they paid, on the average, much lower rent.

The types of changes which occurred in the renewal and nonrenewal tracts were quite different. Some of the important differences in the types of changes which occurred between 1950 and 1960 were:

- the number of dwelling units in the renewal tracts decreased by 33-80%, while those in the non-renewal tracts increased slightly;
- the percent of non-white occupied units decreased in the renewal tracts, and increased considerably in the non-renewal tracts;

- the percent of overcrowded units decreased in the renewal tracts and increased or remained about the same in the non-renewal tracts;
- the population decreased drastically in the renewal tracts and either increased or remained the same in the non-renewal tracts;
- 5) the non-white population decreased both numerically and proportionately in the renewal tracts and increased numerically and proportionately in the non-renewal tracts. In the District, the 1960 non-white population of the non-renewal tracts were half again as large as the 1950 population; in St. Louis, the 1960 Negro population was over two and one-half times greater than the 1950 non-white population;
- 6) with the substantial increase in non-white population in the non-renewal tracts (and the substantial loss of a similar population from the renewal tracts) it is not surprising to find that the population of the former tracts decreased (or remained the same) in terms of their average education, whereas the educational level in the latter tracts went up overall. Furthermore, while the median rent in the renewal tracts doubled and almost tripled, the median rents in the non-renewal tracts went up by a third to three-fourths.

The tracts in Cincinnati which experienced four or more major changes between 1950 and 1960 and which were not involved in renewal activities during the decade resembled the nonrenewal tracts in St. Louis and Washington in several ways:

- while a relatively large proportion of the housing units in Cincinnati's non-renewal tracts were substandard the proportion was much smaller than in the renewal tracts of the two experimental cities;
- the proportion of non-white occupied housing units increased considerably over the decade;
- 3) the <u>number</u> of overcrowded units occupied by nonwhites increased in the non-renewal tracts in all three cities while the number of such units in the renewal tracts declined;
- 4) the number of non-white residents more than doubled in the Cincinnati tracts and the proportion non-white increased to roughly 64%.

Where Cincinnati's non-renewal tracts differed from the experimental cities (particularly St. Louis) was in the type of migration patterns within and to the city. More of the population remained in the same house in Cincinnati than in St. Louis; fewer moved to the non-renewal tracts from elsewhere in the central city than was true for St. Louis; and more migrated to these tracts from outside the city than was true for St. Louis.

When the three groups of tracts--those experiencing major gains or losses in total or non-white population and those experiencing major changes in more than four variables--are plotted on census tract maps of the three cities, some patterns begin to emerge. Many of these patterns are typical of all three cities, and many of them are typical of St. Louis and Cincinnati, apart from Washington, suggesting, first of all, a fairly circumscribed impact for programs such as renewal, and secondly, remarkable similarity in patterns of change for large American cities.

The first and more obvious pattern is that of major population loss in the cores of the three cities and major population growth at the peripheries. This substantiates McKenzie's and Thompson's observations, though it does not provide an answer to the reasons behind this phenomenon. In all three cities, some of the core tracts which lost population were the renewal tracts; but, also in all three, many were not. So renewal is not the answer. For the cities



114 104 . 8-D 125 (PT.) 120 8-C 8-B 124 GC-1 8-E Lung a 121 8-A 7.0 123 8-1 122 7-D 7-E 7-F 9-0 7-A 9-A 138 VE-7 10.5 26-D 139 26-0 26-E 160 12-0 11-4 21.0 5-C =19-B 12 161 5-B 10-C 5.4 25 21-4 21.0 62 1 = -19-A .... 12.4 18-D = 18-C 1597 22-B 22-0 163 13-3 22-D 13-E 34 18-A 4-D 23-B = 4-C = 17-C 3 4-8 23 13-0 168 167 23-E +555 TT AVE 17-A 17-8 17-D 23-C 3-1 13-8 3-1 24 B 161 24-C 24-D 172 16-E 3.0 13-D 16-B 13-A 3-0 MAPLE WOO 3-C 1 170 13-A 16-C 16-D 24-171 14-3 15-B ..... 3-B -19 15-G 15-A ..... 14-A 14·C 15-C ALCONS. 196 3-A \*\*\*\* 15-E 15-F 2-D 10-0 2-8 . 2-E 1-C 1-D # 2-A 95 197 ST. LOUIS, MO. see page 140 Map Key: 1-E

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201



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Map Key: see page 140



involved in this study, one other potential answer can be eliminated--the loss of core population was not due to a non-white invasion of formerly white areas. Most of these areas had sizeable non-white populations in 1950 which they lost over the decade; none of them increased substantially in non-white population; in some of these tracts the proportion of whites actually increased. A second hypothesis suggested that the loss of population was due to a displacement of residents by commercial and other more intensive land There is support for this in two of the three cities uses. in this study; in Cincinnati, the number of dwelling units declined in four of the five tracts which lost population (excluding the renewal tract); and in Washington, in all four tracts (excluding the renewal tracts) where it was possible to compare the number of dwelling units in 1950 and 1960.<sup>91</sup> The third hypothesis suggested by Lohman (see Chapter I) -that the loss of population in the central city represents an effort on the part of the population to seek a new density appropriate to contemporary methods of transportation--cannot be rejected since none of the data, as analyzed in the present study, is applicable to it.

Another pattern is that in both Cincinnati and St. Louis some predominantly white tracts experienced major increases in population and some tracts experienced major increases in

<sup>&</sup>lt;sup>91</sup>The other tracts which lost population were halves of tracts which were split after the 1950 Census, so an accurate comparison is not possible.

the number of non-white; but no tracts experienced both a major increase in the size of the population and in the number of non-white. This may be due to the fact that the District has such a high percentage of non-whites and that some of the fringe areas of the District that were formerly undeveloped and that were built up during the 1950's are heavily Negro areas.

Third, in neither St. Louis nor Cincinnati was a major increase in population combined with several other major changes; in other words, the areas which gained population just attracted more of the same type of population already resident there. Areas of increasing non-white population, however, frequently experience other changes in the character of the housing and population. One such change was an increase in overcrowding.<sup>92</sup> In the census tracts of all three cities, great gains in the non-white population were always accompanied by major increases in overcrowding. Great losses of population were likewise accompanied by decreases in overcrowding (in tracts with minuses and check marks).

The areas of all three cities which just showed gains in population appeared to attract new people to the neighborhood who were similar to those already residing there. There were few major changes in these tracts in either education, income or rent. Over half of these tracts in St. Louis and Cincinnati were all white; a little over a fourth were in D.C.

<sup>&</sup>lt;sup>92</sup>This occurred in all of the tracts with a plus and a check mark in St. Louis, all in Cincinnati, and nine of the 12 in D. C.

Those tracts which both lost population and experienced other major changes were considerably below the city medians in residential stability for the five years preceding the Census; this was particularly true of the renewal cities. Concomitantly, in the renewal cities these tracts were above average in the proportion of 1960 residents who had moved there from elsewhere in the city; Cincinnati was below average in this regard. This suggests that these areas of declining population, which are also characterized by low income, education, and rent, may be serving as temporary way stations for those displaced from renewal areas. This interpretation is suggested by: 1) the fact that the 1960 population in these areas matched the 1950 population of the renewal tracts; 2) relatively few people were long term residents of the area (31% in St. Louis and 36% in D.C.); 3) the fact that the area is adjacent to the renewal areas; and 4) the unusual number of people who moved there from elsewhere in the city (51% in St. Louis, 39% in Washington).

#### CHAPTER VI

#### INTERPRETATION OF THE FINDINGS

In this chapter an effort will be made to summarize and interpret all the findings in relationship to the major hypotheses and the relevant literature. Following the pattern of earlier chapters, changes in the housing variables will be discussed first, then those observed in the population variables. A third section will discuss the redistribution of population within the cities. The final section will point out some of the similarities, or regularities in the patterns of change, which seemed to be true for all three cities or for the two which were very closely matched on a number of variables.

### The Housing Variables

It was hypothesized that there would be no difference between the renewal and control cities in terms of changes in the size and condition of the housing supply. Duncan and Hauser had found a relatively modest increase (about 5%) in housing supplies in Chicago and Philadelphia between 1950 and 1956. The rate of growth in Washington was almost three times as high, due primarily to an increase of 25,000 rental units over the decade. Rental units constitute a greater

portion of the total housing stock in the District because of the "temporary" nature of many of the jobs in the labor force there; another factor could also be the relative youth of much of the labor force. The number and proportion of rental units decreased in both St. Louis and Cincinnati as increased prosperity enabled the more stable work force to purchase their own homes. In this, the latter two cities followed the trend in the six SMSA's studied by Duncan and However, St. Louis differed from Cincinnati in the Hauser. overall growth in its housing supply; while Cincinnati's increased 4.5%, St. Louis' housing supply actually decreased by about 10,000 units. About 8,000 of these units were demolished in the renewal tracts. Washington lost a little over half that amount in its renewal areas and engaged in more building activity. Thus, it appears that in one renewal city, extensive demolition resulted in a restriction of the housing supply which was only partially offset by the loss of population over the decade. Both renewal cities had fewer vacant housing units than did the control city in 1960; but the vacancy rate in none of the three approached that "comfortable 7%" which Wattenberg and Scammon described for the U.S. as a whole.<sup>93</sup>

<sup>&</sup>lt;sup>93</sup>However, many of the vacant housing units in the U.S. are in the rural areas and others of general population decline such as the mining towns in Kentucky.

Two consistent differences between the renewal and the control cities were that in both of the renewal cities the proportion of substandard and of overcrowded housing declined and in the control city substandard and overcrowded housing increased. This difference held true at both stages of the analysis no matter what descriptive statistic was used. This corresponds with Duncan and Hauser's findings in Chicago and Philadelphia, two cities which were involved with the renewal program early in the 1950's. In the control city, substandard housing--particularly and overcrowded housing to a lesser extent--did not just increase in certain restricted areas of the city, but became more general, increasing in many tracts throughout the city. Conversely, in the renewal cities, substandard and overcrowding did not just decline in the renewal areas, but generally throughout housing in the city. It is possible that the improvement of a fairly large area under public auspices encourages and makes economically feasible private development on the fringes of the renewal area. This may be why many of the areas where four or more major changes have occurred or where there has been a serious loss of population are in tracts which are adjacent to the official renewal areas (see Figures 3a,b,c).<sup>94</sup> Consequently, while

<sup>&</sup>lt;sup>94</sup>This interpretation is confirmed for Washington, D.C. Helen Mason, in a Master's Thesis for Catholic University, reported that the Northwest section of the District lost more of its 1950 population than any of the other three sections of the city except the Southwest--which was the renewal area. In Figure 3 all the tracts which showed major losses in population (except those in the renewal area) were in the

renewal itself may not be directly responsible for many of the changes taking place in our cities, the federally subsidized program can be of sufficient size and impact that it makes it possible for private capital to "carry on."

Kaplan's work on the politics of renewal strengthens this interpretation; private developers were unwilling to invest in a relatively small cleared area that was threatened by surrounding blight. Newark had to compromise by selecting for renewal an area which was less deteriorated but more promising, in terms of its surroundings, for long term investment. This was not true for Washington and St. Louis--the areas chosen were badly deteriorated, overcrowded and overpopulated-chiefly because the renewal tracts covered an extensive territory which, in both cases, was adjacent to the central business district and, in Washington, the Capitol and other federal office buildings. With luxury apartments and tree-filled malls dotting the landscape, many businessmen were less reluctant to invest in the upgrading of <u>their</u> property.

In addition to these overall changes in the housing inventory of the cities which took part in the renewal program, there were also many changes occurring in the renewal tracts themselves. In the renewal areas of both Washington and

Northwest. The reason for the population decline, according to Miss Mason, was a shift from residential to commercial land use in the neighborhood. See Helen S. Mason, "A Sociological Analysis of Selected Aspects of Urban Development in Washington, D.C., Master's Thesis, Catholic University, Washington, D.C., May 1962.

St. Louis the proportion of substandard and overcrowded housing declined as they did in each city as a whole. In St. Louis the proportion of substandard housing remained high in the renewal area, even though some 8,000 substandard units had been removed from the inventory. This may be because demolition was incomplete at the time of the census. The high vacancy rate (12%) in the area, when compared with a city-wide rate of about 3%, suggests that many homes were still being evacuated.

Other changes in the renewal areas also diverged from the predominant pattern in the experimental cities. While, generally, the proportion of non-white occupied housing went up in all three cities, the proportion of non-white occupancy declined in the renewal areas. In Washington this appears to have been due to a slightly higher proportion of white than Negro residents who were not displaced during renewal and to a much higher rate of white in-migration to the area from outside the city. Since some of the luxury apartments in Washington were ready for occupancy in 1959, they were undoubtedly the destination of the white in-migrants. In St. Louis, more whites than non-whites were displaced, but, like Washington, the area was fed by a sizeable in-migration of whites from outside the central city; some of these came to luxury housing in one of the tracts, others to "integrated" public units in another tract.

Finally, median rents went up considerably in the renewal tracts, doubling or almost tripling over the decade. This was in opposition to a standard average increase in all three cities of \$22 to \$24. Because of the extreme increases in rents in some of the tracts in the renewal cities, the standard deviations around the mean changes in the two cities were about three times higher than that around the mean change in rents in Cincinnati.

Another area of difference between the renewal and control cities was in the condition of housing available to Negroes in the central city. Robert Weaver had argued that renewal would result in a general improvement in the quality of such housing and he was right--at least for the cities in the present study. Independently of renewal, more Negroes during the 1950s were educationally, occupationally, and financially in a better position to purchase homes than previously; and more took advantage of the low-interest FHA and VA loans. Thus, home ownership among Negroes doubled in all three cities in the present study over the 1950-1960 decade. However, in the renewal cities, the ratio of ownerto-renter occupied units among non-whites improved whereas in the control city, it deteriorated.<sup>95</sup> In Washington, a greater proportion of owner- than of renter-occupied units

<sup>&</sup>lt;sup>95</sup>Miss Mason, <u>op. cit</u>., reports that, according to the Census of 1953, Negroes were buying homes in the District at a faster rate than the white people.

were occupied by Negroes; in St. Louis, the proportion in rental units was not quite double that in owner-occupied units; but in Cincinnati, the proportion of non-whites in rental units was seven times higher than their proportion in owner-occupied units. The reason for this difference must be the fact that Cincinnati did <u>not</u> experience the great out-migration of white population that the two renewal cities did over the decade: Washington lost a third and St. Louis a fourth of their white population between 1950 and 1960; Cincinnati's white population only declined 7.6%.

Along with the improvement in home ownership among nonwhites, in the renewal cities, there was a general improvement in the quality of the dwelling units: the proportion of substandard and overcrowded units among those occupied by Negroes declined substantially in both of the renewal cities and increased substantially in the control.<sup>96</sup>

## The Population Variables

It was also hypothesized that there would be no difference between the renewal and control cities in terms of changes in the character and distribution of the population residing in them. In at least one way, the three cities were remarkably

<sup>&</sup>lt;sup>96</sup>This pattern for overcrowding was observed in the means for 1950 and 1960, the 1950 and 1960 means in the non-white occupied tracts and in the mean differences; the only exception was in the comparison of medians where overcrowding declined in all three cities. This is probably explained by the general increase in all three cities of non-white occupied housing.

similar. All three experienced major losses of population in the inner part of the city and major increases in population at the peripheries. This substantiates McKenzie and Thompson, who found that some of the larger cities were losing population at the center and were growing fastest in the outer frings. In the three cities in this study, this loss of population was not due, as some have suggested, to a non-white invasion of formerly white areas. In some of these inner city tracts there was a substantial loss of Negro population and in some the proportion of whites actually increased. Many of these tracts bordered on the renewal areas and on the downtown sections of the cities and in many of them the number of dwelling units decreased considerably--suggesting a possible change in land use patterns from residential to commercial. These border areas would be, in the Chicago school's terminology, the zone of transition; it may be that as the metropolitan area grows outward, the city core increases in size.

One of the main hopes of the renewal program was that it would retard the out-migration of middle class and predominantly white residents to the suburbs. The data in the present study provide strong evidence to the contrary. The two renewal cities lost proportionately more of their white population than did the control city, even though they experienced roughly similar in-migrations of Negro population. This is what Grodzins predicted--that renewal would accelerate the succession of many city tracts to non-white occupancy.

That the renewal cities also lost more of their middle class is supported by several kinds of evidence. First, Cincinnati's median family income (for both the general population and for non-whites only) increased significantly more than the median incomes in either renewal city.<sup>97</sup> Second, a much greater proportion of Cincinnati families made over \$10,000 a year than was true for its matching city, St. Louis. Third, the average education declined in Washington, increased only slightly in St. Louis, but went up in Cincinnati. And finally, the labor force statistics indicate that the proportion of skilled blue collar workers increased in Cincinnati, while decreasing in St. Louis; service workers and semi-skilled operatives increased in St. Louis while decreasing in Cincinnati; and the proportion of white collar personnel decreased more over the decade in St. Louis than it did in Cincinnati.

Another overall difference between the renewal and control cities was in the general distribution of population within each city. The average tract population was higher in the renewal cities and higher still in the renewal tracts themselves. But renewal apparently lowered the extreme concentrations of population; and, judging from the much smaller standard deviations in 1960 in both St. Louis and Washington, spread out the population more evenly throughout the city.

<sup>&</sup>lt;sup>97</sup>This is based on the computations of mean differences. The census tracts in the renewal cities were also normally distributed around the average change in family income, while those in Cincinnati were skewed in the direction of large increases.

In addition to the overall changes in population in the cities, there were also many changes which occurred in the renewal tracts themselves. The renewal tracts were among those which lost major portions of their population between 1950 and 1960. The average education of residents in the renewal areas in 1960 was up over what it was in 1950, the median family income increased slightly. There is something puzzling in this. One of the housing changes in the renewal tracts was an unusual increase in average rent. This means that, while the 1960 resident population is--on the average-of only slightly higher status, they are paying-on the average--much higher rents. Since the averages involved are medians, it is difficult to conclude anything other than that many families living in renewal areas after renewal are paying out a greater proportion of their income for rent than the families who previously lived there. Several of the relocation studies have found that this is what happens to families displaced from renewal areas: they move to better quarters but pay higher rents. In both St. Louis and Washington, some public housing was built within the renewed areas and people similar in many ways to the former residents moved into them. It is possibly the case that public housing-while a good bargain--is nevertheless considerably more expensive than a two-room unit in a crowded tenement.

Negroes, according to Duncan and Hauser and many other students of renewal, have been disproportionately affected

by renewal programs. This was true in the present study-roughly 60% of those in the areas chosen for renewal were non-white; the relocation of many of that 60% led, in turn, to a sizeable exodus of whites from the experimental cities. With Negroes thus able to "spread out" a bit within the city, it is not surprising that the average tract increase in nonwhites was significantly greater in both renewal cities than in the control. The standard deviations on this variable were also significantly greater than in Cincinnati, which could be interpreted to mean that there were larger dislocations of Negro population in the renewal cities. Despite the ability to "spread out" in the renewal city, it nevertheless appears that Negroes became more segregated, not only within the metropolitan areas, but within the central cities as well. A greater proportion of the total non-white population lived in tracts of maximum Negro concentration in 1960 than in 1950 in Washington and St. Louis; the reverse was true for Cincinnati. The trend in Cincinnati is that predicted by Davis McEntire of the basis of his findings of increased segregation in major American cities between 1940 and 1950. At the time, he felt that the reason for this increased segregation was the huge migration of non-whites to the cities during the war and the housing shortage which accompanied both the war and the depression. With all the building activity in the 1950's, it was reasonable to expect a loosening of the housing market for both. But this same activity took place in

Washington and St. Louis. Why should increased segregation be associated with renewal?

There are several possible answers, all of which are tentative guesses. One--it may be that Cincinnati is more of a "northern" city and that both Washington and St. Louis are more identified with Southern traditions. Southern cities, the Tauebers found, increased in segregation between 1940 and 1960 while Northern cities declined somewhat on this variable during the 50's. This still leaves the question--what is there about "Southern traditions" that is leading to increased racial segregation in the cities; traditionally, Negroes were <u>more</u> scattered throughout the city in the south. Another tentative interpretation might be that as other forms of racial separation break down (in education, voting, and jobs) in the South, residential segregation may become more important.

A second possible answer to the question of why increased segregation in the renewal cities may be more closely related to the renewal process itself. The Housing and Home Finance Agency warned that slum clearance could result in a worsening of the housing conditions of minority groups through a restriction of the living space available in any community to such groups. In the renewal cities, we know that the number and proportion of non-white occupied units increased, that overcrowding in these units decreased and that the quality of these units was much improved. But it could still be true

that Negroes were informally restricted to certain parts of the city. It may also be true that Negroes at different income levels were differently affected by renewal and the consequent opening up of housing throughout the city. Since most of the demolished housing was substandard in quality and most of the new housing is for a middle class market, it may be that the lower class Negro is more restricted than ever in his choice of housing in the central city. The data in Table XX suggest that Negroes of all income levels were very circumscribed in their choice of housing in the late 40's and early 50's and that the freer housing market benefited primarily the upper income Negroes.

# Relocation

Renewal programs in most cities have involved the displacement of many families from the condemned homes to new quarters elsewhere in the city. Quite a few studies of renewal have focused on aspects of relocation--the quality of housing moved into, the amount of rent paid in the new housing, the proportion of those displaced who received formal help in relocaing, etc. In this study, the focus of interest was on the redistribution of population within the city--not just the relocatees, but those who they, in turn, may have displaced. This intra-city migration is difficult to trace and may only be done indirectly with Census data. Therefore, the results reported on in this section are <u>very</u> tentative and exploratory.

A

	Median % substandard 1950 1960	Median % overcrowded 1950 1960
Washington, D.C.:	:	
1st Quartile*	43.3 27.9	34.2 23.6
2nd Quartile	31.9 17.0	26.6 24.1
3rd Quartile	30.1 3.4	30.0 24.2
4th Quartile N=	10.5 1.6 (51) (89)	23.4 11.4 (51) (89)
Cincinnati:		
1st Quartile	53.1 55.5	42.9 35.4
2nd Quartile	24.7 66.8	33.8 28.8
3rd Quartile	10.2 18.2	34.8 22.2
4th Quartile N=	8.1 8.3 (11) (30)	19.1 17.7 (11) (30)
St. Louis:		
<b>1st Quartile</b>	74.5 70.8	38.1 31.1
2nd Quartile	76.5 46.0	38.7 31.5
3rd Quartile	45.8 16.5	36.6 24.5
4th Quartile N=	21.9 4.3 (22) (31)	26.1 21.6 (22) (31)

Table XX.	Substandard and Overcrowded Housing in Non-white
	Occupied Tracts, by Income Quartiles

<sup>\*</sup>The first quartile is the lowest one.
On the other hand, certain patterns in the data are so clear that the author feels they warrant serious attention.

In attempting to trace the movement of population within the city, the place to start is with the population of the renewal tracts themselves. In 1950, the renewal tracts in Washington and St. Louis were heavily Negro areas of rundown, substandard and overcrowded housing; rents were low and the educational and income level of the population was low. Following renewal these same tracts in 1960 had lost a lot of the population, and a good portion of their dwelling units, and had proportionately fewer Negroes, overcrowded housing units, and, in some cases, substandard units. The object of search, then, was a sizeable low income Negro population that would need to settle in somewhat rundown areas of relatively low rent.

As a first possibility, those tracts which experienced a major increase in population over the decade were investigated. The thought was that perhaps these 20-40,000 people would show up en masse in several other tracts in the city. But the population in this group of tracts were well above average in income and education, the housing was in excellent condition and many of the tracts were predominantly white. The proportion of Negro occupancy in these tracts changed very little from 1950 to 1960 and where Negroes did live, they were higher in education than the white residents. Many people in these tracts had moved there during the five years preceding the Census from elsewhere in the central city.

These mobile people may have represented the forefront of the lower class Negro invasion: the middle class whites would be moving out of neighborhoods into which the more average middle class Negroes were moving and the above average Negroes in these tracts might be doing the same thing. It is also possible that many of these "upper" class Negroes are moving to the area from outside the SMSA. Bernard Lazerwitz<sup>98</sup> found that Negro in-migrants to northern and border cities were similar in education to the resident white non-migrants and that migrants in general (both white and non-white) exceeded the white non-migrant population in both educational and occupational status. This indicates a change in the type of Negroes coming to such cities.

A second possibility was to investigate those areas which had experienced a major increase in <u>non-white</u> population over the decade. But most of the housing in these neighborhoods had been in good condition in 1950 and improved, percentagewise, over the decade. The residents were of average income and education and well above average when compared with the non-white averages for the cities. The main change in these neighborhoods was from a white to a predominantly non-white population. A good proportion of the new residents in these neighborhoods had also moved from elsewhere in the central city. It is possible that many of the white families who

<sup>98</sup>Bernard Lazerwitz, <u>op. cit</u>.

moved from this second set of tracts moved into the set of tracts discussed in the preceding paragraph; many, too, were undoubtedly part of the 24-33% who left the city. But the evidence for the first half of that statement is particularly strong. The census tracts in St. Louis in that first set of tracts which had experienced major increases in total population had a much greater proportion of new residents from other parts of the city than was typical for tracts in that city and a very small proportion of new residents from outside the city limits. The evidence that this invasion-succession pattern is related to renewal is seen in the fact that in the matching control city, the same set of tracts (which had experienced major gains in population) had more old residents, a much smaller proportion of new residents from other parts of the central city, and a much greater proportion of new residents from outside the city--a completely different migratory pattern.

There was one other possibility. The renewal tracts had changed in many different ways between 1950 and 1960. Perhaps the receiving tracts for the relocatees would also change in many ways in the opposite direction. A group of tracts was selected which had experienced four or more major changes on the selected population and housing variables, and the 1950 and 1960 populations in these tracts were compared with those in the renewal areas. The housing in these "non-renewal" tracts was in worse condition in both 1950 and

1960 (in terms of substandard and overcrowded dwellings) than either of the other two groups of tracts and the population was below average in education and income. In St. Louis this group of tracts gained more new residents from elsewhere in the central city than any other group of tracts. The number of dwelling units in these tracts increased slightly (possibly due to the conversion of single family houses into multi-family units), overcrowding increased or remained the same, the size of the population increased or remained the same and the proportion of non-whites went up substantially. The average education of the resident population went down and rents, relatively, increased very little. One other argument buttresses the possibility that the "non-renewal" tracts may be the major recipients of families displaced by renewal--in all three cities many of these tracts are close to the renewal tracts. Marris and Schorrs indicated that displaced families often relocate within a mile of their former home.

### Changes Independent of Renewal

Several patterns of change in the population and housing variables were observed in all three cities or in the two cities (one experimental and one control) which were closely matched. These changes, then, were independent of urban renewal.

One of the most general changes, which is also true of most other large American cities studied in the last two decades, is an increase in the non-white population (absolutely and proportionately) and in the proportion of non-white occupied housing units -- a consequence of the continuing migration of Negroes to our urban areas, of the general exclusion of non-whites from the suburbs, and of the migration of whites outward from the central city and directly to the suburban fringe from outside the SMSA. Concomitantly, overcrowding in non-white occupied units went down, on the average, in all three cities although there was still considerably more overcrowding among non-white occupied units than among whites. All of this coincides with Duncan and Hauser's findings for Chicago and Philadelphia. While overcrowding was slightly higher in the renewal cities than in the control, the differentiation of "scores" on overcrowding was very similar in all three cities and changed little over the decade. Along with the decrease in overcrowding among non-whites went a general decrease in the average tract population in non-white occupied tracts. In the renewal cities, there was a general thinning out of population throughout the city; but this thinning out of the non-white population occurred in all three cities.

St. Louis and Cincinnati shared two other similar patterns: in neither city was a major increase in the population of a census tract associated with major changes on several (three) other variables except for one instance in each city where that major population increase was non-white. What this

apparently means is that the tracts which grew most during the 1950's were those where new building occurred and new residents moved in who were very similar to those already there. All of these tracts were on the fringes of the city where open land is most apt to be available. Secondly, census tracts which experienced major increases in non-white popylation always experienced an increase in overcrowding.

In summary, urban renewal in Washington, D.C. and St. Louis has had several discernible effects on the development of those cities during the 1950's. As hoped, a general improvement in the housing stock occurred in both cities and this was accompanied by a general improvement in the quality of housing available to members of minority groups. Renewal also resulted in a considerable redistribution of population within the central city and appeared to accelerate the exodus of middle class whites from the central city and the segregation of Negroes in the metropolitan area as a whole and within the city itself.

#### CHAPTER VII

# SUMMARY, CRITICISMS, AND SUGGESTED FUTURE RESEARCH

## Summary of the Thesis

The research reported on in this dissertation attempted to measure the effects of a government program--urban renewal--on changes in the housing supply and the character and distribution of the population in two major cities. Urban renewal was, in effect, an attempt to interfere with the basic pattern of ecological change in larger American cities. Most such cities were losing population to their suburbs, growing faster in the metropolitan rings than in the central city, gaining steadily in Negro population, and becoming increasingly the home of the poor, the aged, and the minority groups. It was the hope of the Urban Renewal Administration and of many who supported the program that renewal would succeed in attracting the white middle class, their business and their taxes back to the city. In this study, the patterns of ecological change in two cities which took part in the renewal program from the early 1950's on were compared with the changes which occurred in a third city which did not enter the program until late in 1959.

The study was quasi-experimental in design. That is, it was a natural experiment with an independent variable

(urban renewal) "naturally" occurring in two of the three cities (the experimental cities) and not occurring in a third city (the control city). Before and after comparisons on selected population and housing variables were made for both the experimental and the control cities.

The sample included all of the census tracts in three central cities, each a border city between South and North in the eastern half of the United States. Two of the cities, one experimental (St. Louis, Missouri) and one control (Cincinnati, Ohio), were very similar in the age and condition of their housing, the occupational make-up of their population, and the educational and income level of the residents. All three (Washington, D.C. was the third) were approximately the same size and had relatively large Negro populations.

The 1950 and 1960 Censuses of Population and Housing were the chief source of data. Comparable information was taken from the 1950 and 1960 publications.

The data was analyzed in three stages. In the first stage, the information on selected population and housing variables was summed for the city as a whole and expressed in the form of medians and percentages. The three cities could be compared in 1950 or 1960 or changes in these measures could be compared for each city.

In the second stage, changes in the value of selected variables for each census tract were summed and a mean difference and standard deviation of the difference computed for each city. Differences in the direction and magnitude of change on these variables could then be compared for the three cities.

In the third stage of the analysis, the changes in the values of selected variables were averaged for the renewal tracts alone so that the effects of the urban renewal program on those areas which were formally a part of the program could be directly measured.

The basic hypothesis of the research was one of "no difference" between the experimental and the control cities. Specifically, it was hypothesized that there would be no differences observed between the experimental and control cities with respect to the types of change:

in the condition and size of the housing supply, and
 in the character and distribution of the population
 When:

- (a) the data are summed for each city as a whole
- (b) the mean changes (on a census tract by census tract basis) are computed for each city as a whole, and
- (c) the mean changes for the renewal tracts alone are compared.

On the housing variables, the two renewal cities experienced decreases in the proportion of substandard and overcrowded housing, while in the control city substandard and overcrowded housing increased. In the one experimental city which was matched with the control, the housing supply declined by about 10,000 units due to the extensive demolition connected with renewal while the control city's housing stock increased 4%. The actual amount of new building in the two cities was practically identical. Both renewal cities had fewer vacancies than the control city in 1960, even though vacancy rates varied from 8% to 14% in the renewal tracts.

While the proportion of non-white occupied housing increased in all three cities, home ownership among Negroes was much more widespread in Washington and St. Louis than in the control city. The reason behind this is related to a difference in population change between the experimental and control cities. While the proportionate increase in Negro population was roughly the same for all three cities (and almost exactly the same for the matched cities), the two renewal cities lost from a fourth to a third of their 1950 white population while Cincinnati's declined only 7.6%. In addition to the improvement in home ownership among non-whites, there was also a general improvement in the quality of the dwelling units available to minority groups: the proportion of substandard and overcrowded units among non-white occupied housing declined substantially in the renewal cities and increased substantially in the control.

Finally, many changes occurred in the renewal tracts themselves. There was a general improvement in the quality of housing in these areas, the proportion of non-white occupancy decreased, and median rents doubled or almost tripled over the decade.

On the population variables, the three cities experienced major losses of population in the central core and major

increases in population at the peripheries. This loss of population was not due, as some have suggested, to a nonwhite invasion of formerly white areas; in some of the inner city tracts there was a substantial loss of Negro population and in some the proportion of whites actually increased. The renewal cities, as opposed to the control, lost proportionately more of their white population, even though they experienced roughly similar in-migrations of Negro population. They also lost more of their middle class population as indicated by their relatively modest increases in median family incomes, as compared with substantial increases on this variable for Cincinnati's white and non-white population; by the decline or stability of the average education of their population, as compared with a definite increase in the level of education in Cincinnati; and, in St. Louis only, by a greater loss of skilled blue collar and white collar residents and a greater gain in service workers and semi-skilled operatives.

This accelerated exodus of white, middle class residents from the renewal cities appears to be the result of a considerable redistribution of population within the experimental cities. Many tracts in all three cities experienced large increases in the size of their populations. In Cincinnati, the new arrivals were more often from outside the central city. In Washington and St. Louis, they were more often from elsewhere in the central city. The people in these tracts were predominately white, well above average in income and

education and the proportion of Negro occupancy in these tracts had changed very little from 1950 to 1960. The Negroes in these tracts were higher in average education than the whites. It is possible that the new arrivals in this group of tracts were running from a Negro invasion of their old neighborhoods.

Many tracts in the renewal cities had, in fact, experienced very large increases in non-white population. These were neighborhoods where the residents were about average in income and education, where the housing was in good condition in 1950 and in even better, proportionately, in 1960, and where the residents were predominantly white in 1950, but predominantly Negro in 1960. A complete cycle of invasion and succession had occurred in these tracts--from practically zero non-white occupancy in 1950 to 70-80% non-white in So it is even more conceivable that people moved from 1960. this group of tracts to the first group. Apparently, then, these middle class Negroes were themselves running before an invasion of lower class Negroes who were being moved out of the renewal areas--or possibly just taking advantage of increasing housing opportunities to get themselves out of the slums. The former argument is favored because it provides an initial "motive" for the whites to move in the first place.

In fact, there was a third group of tracts, from which the more average Negroes could have fled and to which the

displaced lower class Negroes could have gone. These tracts were close to the renewal areas, had a sizeable non-white population in 1950 which increased substantially in 1960, and had housing that was in worse condition in both 1950 and 1960 than either of the other two groups of tracts. The population in these tracts was below average in its level of education and income and the level of education decreased over the decade. A greater proportion of new residents in this group of tracts had moved there from another house in the city than for any of the three groups of tracts. All of this adds up to fairly strong support for the idea that these are the "receiving" areas to which those displaced by renewal moved, setting off a chain reaction which culminated in a considerable redistribution of population within the city.

All of this movement of population resulted in another major difference between the renewal and control cities. In the two renewal cities, the segregation of non-white population within the central city increased between 1950 and 1960, while decreasing in Cincinnati. A greater proportion of the total non-white population lived in tracts of maximum Negro concentration in 1960 than in 1950 in Washington and St. Louis, while the reverse was true for Cincinnati.

### Limitations of the Study

There are several precautions which the author should emphasize. First, while many of the findings were supported

by Duncan and Hauser's research in Chicago and Philadelphia, it would not be good to generalize the findings here to other large American cities. The two renewal cities studied followed many of the same patterns of change, but also diverged at important points. Differences in racial composition, age of city, nature of the labor force, the relative importance of migration and natural increase in changes in city size--all of these factors could appreciably affect the impact of an urban renewal program.

Second, this research was restricted to the central city. Urban renewal, so far, is essentially a central city program. Its effects are probably more discernable in the city, rather than outside of it. However, there have undoubtedly been repercussions throughout the metropolitan area. Too many factors would have to be controlled if the effects were to be weighed in such a limited number of SMSA's. A fully adequate study of the effects of renewal on changes in the total metropolitan area would require a large number of SMSA's-preferably all of a given size in the U.S.--which could be grouped according to the extent of their participation in the renewal program. Another difficulty with using the whole metropolitan area in such a small sample is that of defining where the area ends. If the Census definition were used, it is conceivable that two of the SMSA's might be densely settled in all of the counties adjacent to the major city while one of the SMSA's had one or more largely undeveloped

counties which still were "essentially metropolitan in character and socially and economically integrated with the central city." This could seriously bias the results. If all SMSA's were included, these local differences would probably balance each other. The city, on the other hand, has arbitrary, but very operational, politically meaningful, and well understood boundaries.

A third limitation was set by the nature of the data. Because of the interest in the redistribution of population in this research, it is unfortunate that greater detail about intra-city mobility is not provided in the Census. While the inferences about such mobility are fairly strongly supported by the data, the migration of large numbers of people from one particular area of the city to another is still <u>inferential</u> and not as concretely documented as the author would like.

A final limitation was set by choice. Some of the findings could have been documented in greater depth by studying, as Duncan and Hauser did, the "components of change" in the housing inventory--whether fluctuations in the size of the housing supply in various parts of the city were due to demolition, new construction, conversion (of single family homes to multi-family units), or merger (of multi-family units into single family homes).

# Suggestions for Further Research

The limitations of <u>this</u> study lead quite naturally to new ideas for research in this and related areas. One possibility was referred to above--doing the same thing on a much larger scale, controlling chiefly for size of city and extent of involvement in the urban renewal program. A second would include an investigation of the differences between renewal and non-renewal cities in terms of the components of change in the housing inventory in terms of changes in the property values, assessments, and land uses in a) the renewal tracts, b) those tracts adjacent to the renewal area, and c) the city as a whole.

A third possible project would be to find out who the people are and where they are coming from who are moving into the renewal areas. Are those who come from outside the city moving from that city's own suburbs or migrating from other metropolitan areas? What age groups are being attracted to the central city and what is their occupational and class background? Will these new residents be relatively stable or will there be a high turnover of population in the inner city tracts? Will renewal, in the long run, still succeed in bringing middle class whites back to the city?

Another question that merits investigation is: What is responsible for the apparent association between increased segregation and renewal? Perhaps the massive dislocation of population creates the kind of pressure on the housing market

which realtors can use to "block bust" and informally encourage racial homogeneity in city neighborhoods. Perhaps the changing racial balance in cities makes integration more difficult.

Finally, there is a great deal to be learned about patterns of residential mobility, both within cities and within metropolitan areas. Are there pathways which particular families follow as their social position changes? Why do some neighborhoods "turn" when Negroes begin to move in, while others "integrate"? Can we predict what effects open occupancy and consequently "open" suburbs will have on housing in the central city? Many new programs and many new laws may bring about radical changes in the city of the future. BIBLIOGRAPHY

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APPENDICES

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APPENDIX A

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CODE NUMBERS ASSIGNED TO CENSUS TRACTS IN WASHINGTON, D.C., 1960\*

\* 1950 tracts were numbered 1-95 as given. The subdivisions of 1960 were collapsed at the time of the 1950 census. Thus, CT 52 in 1950 is equal to CTs 52 and 53 in 1960. \*\* Tract 23.2, an institutional tract, was omitted.

Census		Census		Census	
Tract	Assigned	Tract	Assigned	Tract	Assigned
Number	Number	Number	Number	Number	Number
1-a	1	8-b	44	17-a	87
<b>1-</b> b	2	8-c	45	17-b	88
1-c	3	8-d	46	17-c	89
<b>1-</b> d	4	8-e	47	17-d	90
<b>1</b> -e	5	8-f	48	18-a	91
1-f	6	9-a	49	18-ъ	92
1-g	7	9-b	50	18-c	93
2-a	8	9-c	51	18-d	94
2-b	9	9-d	52	18-e	95
2-c	10	9-e	53	19-a	96
2-d	11	10-a	54	19-b	97
2-е	12	10-b	55	19-c	98
3-a	13	10-c	56	20-a	99
3-b	14	10-d	57	20-ъ	100
3-c	15	10-е	58	20-c	101
3-d	16	1 <b>1-</b> a	59	21-a	102
3-е	17	11-b	60	21-b	103
3-f	18	11-c	61	21-c	104
3-a	19	11-d	62	21-d	105
4-a	20	11-e	63	22-a	106
4-b	21	12-a	64	22-b	107
4-c	22	12-b	65	22-c	108
4-d	23	12-c	66	22-d	109
5-a	24	12-d	67	23-a	110
5-b	25	13-a	68	23-b	111
5-c	26	13-b	69	23-c	112
5-d	27	13-c	70	23-d	113
5-e	28	13-d	71	23-e	114
6-a	29	14-a	72	24-a	115
6-b	30	14-b	73	24-b	116
6-c	31	14-c	74	24-c	117
6-d	32	15-a	75	24-d	118
6-e	33	15-b	76	24-e	119
6-f	34	15-c	77	25-a	120
6-a	35	15-d	78	25 <b>-</b> b	121
7-a	36	15-e	79	25-e	122
7-b	37	15-f	80	25-d	123
7 <b>-</b> c	38	15 <b>-</b> a	81	26-a	124
7-d	39	16-a	82	26-b	125
7-e	40	16-b	83	26-0	126
7-f	41	16-0	84	26-d	127
7-9	42	16-d	85	26-e	128
, y 8-a	43	16-0	86		790
U d	ŦŪ	10 C	00		

CODE NUMBERS ASSIGNED TO CENSUS TRACTS IN ST. LOUIS, MISSOURI, 1950 & 1960

Census Tract	Assigned	Census Tract	Assigned	Census Tract	Assigned
Number	Number	Number	Number	Number	Number
1	1	39	39	76	76
2	2	40	40	77	77
3	3	41	41	78	78
4	4	42	42	79	79
5	5	43	43	80	80
6	6	44	44	81	81
7	7	45	45	82	82
8	8	46	46	83	83
9	9	47	47	84	84
10	10	48	48	85	85
11	11	49	49	86a	86
12	12	50	50	86b	87
13	13	51	51	87	88
14	14	52	52	88	89
15	15	53	53	89	90
16	16	54	54	90	91
17	17	55	55	91	92
18	18	56	56	92	93
19	19	57	57	93	94
20	20	58	58	94	95
21	21	59	59	95	96
22	22	60	60	96	97
23	23	61	61	97	98
24	24	62	62	98	99
25	25	63	63	99	100
26	26	64	64	100	101
27	27	65	65	101	102
28	28	66	66	102	103
29	29	67	67	103	104
30	30	68	68	104	105
31	31	69	69	105	106
52	52	70	70	106	107
33	33	71	/1	107	108
34 75	34 7 C	12	16	108	109
35	35	13	13	109	110
36	36 77	14	14	110	111
১/ 70	37	15	15	111**	112
<b>ఎ</b> ర	38				

CODE NUMBERS ASSIGNED TO CENSUS TRACTS IN CINCINNATI, OHIO, 1960\*

\*
1950 tracts are numbered 1-110 as given.
\*\*
Tract 111 was a newly annexed tract added in 1960.

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APPENDIX B

### CODE BOOK--DECK 1

Column

<u>number</u> <u>Description</u>

- 1-3 tract number
- 4-8 persons over 5 resident in 1960 <u>OR</u> persons over 1 resident in 1950
- 9-13 number in same house, 1955 & 1960 <u>OR</u> number in same house, 1949 & '50
- 14-18 number in different house, central city, 1955 & 1960 OR number in different house, central city, 1949 and 1950.
- 19-23 non-white persons over 5 resident in 1960 <u>OR</u> over 1, 1950.
- 24-28 non-white persons in same house 1955 & 1960 <u>OR</u> in same house 1949-50.
- 29-33 non-white persons in different house, central city, 1955 & 1960 <u>OR</u> non-white persons in different house, central city, 1949 & 1950.
- 34-37 housing units with no private bath or dilapidated (1950) OR housing units (1960) that are: 1) dilapidated, or 2) sound, lacking other plumbing facilities, or 3) deteriorating, lacking other plumbing facilities.
- 38-42 number of housing units reported on (1950 only)
- 43-45
- 46-50 all housing units in tract
- 51-54 non-white housing units with no bath or dilapidated (1950) <u>OR</u> non-white housing units (1960) that are:
  1) dilapidated, or 2) sound, lacking other plumbing facilities, or 3) deteriorating, lacking other plumbing ing facilities.
- 55-58 number of non-white housing units reported on (1950 only)

Column

number Description

59-61	percent =	no priv	vate	bath c	or dilap	bidated	
		number	of	housing	units	reporting	(1950)

<u>OR</u>

- 62-64 percent = <u>number in different house, central city</u> persons over 5 (1960) or persons over 1 (1950)
- 65-67 percent = <u>number in same house</u> persons over 5 (1960) or over 1 (1950)
- 68-70 percent = non-white persons in different house non-white persons over 5 (1960) or over 1 (1950)
- 71-73 percent = non-white persons in same house non-white persons over 5 (1960) or over 1 (1950)

74-77

 78-80
 Deck identification:
 78. . . Deck no. 1, 2, or 3

 79. . year:
 0 . . . 1950

 1 . . . 1960
 80. . . place: x. . .Washington,

 D.C.
 y. . . St. Louis,

 Missouri
 z. . .Cincinnati,

 Ohio
 0

#### CODE BOOK--DECK 2

Column

number Description

- 1-3 tract number
- 4-8 number of all housing units in tract
- 9-13 total occupied units
- 14-18 number of non-white occupied housing units
- 19-22 number of housing units with over 1.01 persons per room
- 23-26 number of non-white housing units with over 1.01 persons per room
- 27-30 number moved into unit 1958-60 (1960 only)

31-34 number moved into unit 1954-57 (1960 only)

- 35-38 number of non-white moved into unit 1958-60 (1960 only)
- 39-42 number of non-white moved into unit 1954-57 (1960 only)
- 43-45 percent = non-white occupied housing units total occupied housing units in tract
- 46-48 percent = number of housing units with over 1.01 persons per room total occupied housing units in tract
- 49-51 percent = number of non-white housing units with <u>over 1.01 persons per room</u> total non-white occupied housing units
- 52-54 percent = number moved into unit 1958-1960 all occupied units
- 55-57 percent = <u>number moved into unit 1954-57</u> all occupied units
- 58-60 percent = <u>number non-white moved into unit 1958-60</u> all occupied units
- 61-63 percent = <u>number non-white moved into unit 1954-57</u> all occupied units
- 64-66 percent = <u>number non-white moved into unit 1958-60</u> all non-white occupied units

67-69	norcont = <u>number non-white moved into unit 1954-57</u>
	all non-white occupied units
70-73	percept = total occupied units
	number of all housing units in tract
78-80	Deck identification. (See Deck 1.)

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#### CODE BOOK--DECK 3

Column	
number	Description

- 1-3 tract number
- 4-5 median persons per unit
- 6-8 median school years completed (total population)
- 9-11 median school years completed (non-whites)
- 12-16 median family income (non-whites)
- 17-18 non-white median persons per unit
- 19-23 non-white population
- 24-28 total population
- 29-31 median contract rent, total population (1950 and 1960)
- 32-34 non-white median contract rent, 1950 <u>or median gross</u> rent, 1960
- 35-39 median family income (total population)
- 40-44 total population, 1940 (in 1950 deck only)
- 45-49 non-white population, 1940 (in 1950 deck only)
- 50-53 percent =  $\frac{\text{non-white population}}{\text{total population}}$
- 54-57 percent =  $\frac{\text{non-white population, 1940}}{\text{total population, 1940}}$
- 58-60 median gross rent, total population (1960 only)

78-80 Deck identification (See Deck 1.)

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APPENDIX C
Table XXIa.	Occupational Distribution of the Labor Force,
	For the City and Standard Metropolitan Statis-
	tical Area, 1950 and 1960:* Washington, D.C.

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		Male			Femal	Le
Occupation	Ci	ty	SMSA	C	ity	SMSA
	1950	1960	1960	1950	1960	1960
Professional & technical personnel.	14.7	15.2	21.4	12.2	13.5	15.6
Managers, officials & proprietors.	10.1	8.1	12.6	3.3	3.4	3.9
Clerical.	16.4	15.0	12.2	46.2	37.9	43.2
Sales workers.	6.1	4.4	6.4	5.4	3.9	6.1
Craftsmen & foreman.	16.2	12.2	16.4	1.1	9.7	.9
Operatives & kindred workers.	13.1	12.3	9.7	5.6	4.4	3.7
Private household workers.			.3	11.0	10.8	8.2
Service workers except the above.	12.6	12.8	8.0	13.5	14.4	10.7
Laborers, except mine.	9.2	8.8	5.9	.6	1.0	1.0
Occupation not reported.	1.4	10.8	7.0	1.3	10.2	7.5

\*Source: U.S. Bureau of the Census, U.S. Censuses of Population and Housing: 1950 and 1960, <u>op. cit</u>.

		Male			Femal	e
Occupation	Ci	ty	SMSA		ty	SMSA
	1950	1960	1960	1950	1960	1960
Professional & technical personnel.	6.9	7.4	10.3	9.3	10.0	11.6
Managers, officials & proprietors.	9.4	6.5	10.9	3.3	2.7	3.1
Clerical.	11.7	10.7	9.1	32.3	30.0	33.5
Sales workers.	7.5	5.6	7.5	7.2	6.6	8.1
Craftsmen & foreman.	19.3	17.4	20.9	2.2	1.4	1.3
Operatives & kindred workers.	23.9	24.3	21.2	23.2	17.0	14.6
Private household workers.	.2			6.8	7.2	5.8
Service workers, except the above.	9.4	9.7	6.2	12.4	14.3	13.4
Laborers, except mine.	9,9	8.9	7.3	1.2	.8	.7
Occupation not reported.	1.8	9.4	6.5	2.0	10.0	7.9

Table XXIb. Occupational Distribution of the Labor Force, For the City and Standard Metropolitan Statistical Area, 1950 and 1960:\* St. Louis, Missouri

\*Source: U. S. Bureau of the Census, U.S. Censuses of Population and Housing: 1950 and 1960, <u>op. cit</u>.

Table XXIc. Occupational Distribution of the Labor Force, For the City and Standard Metropolitan Statistical Area, 1950 and 1960:\* Cincinnati, Ohio

		Male			Femal	e
Occupation	Ci	ty	SMSA	Ci	ty	SMSA
	1950	1960	1960	1950	1960	1960
<b>P</b> rofessional & technical personnel.	9.3	11.5	12.0	11.5	12.0	11.8
Managers, offici'als & proprietors.	12.5	9.6	11.3	3.8	3.3	3.2
Clerical.	9.1	8.7	8.9	28.5	28.9	32.4
Sales workers	8.7	7.2	8.0	7.6	6.8	8.5
Craftsmen & foreman.	12.5	16.6	19.5	2.5	1.4	1.4
Operatives & kindred workers.	21.7	20.2	20.3	19.1	13.0	13.5
Private household workers.	• 4	1.0	1.0	9.8	8.0	6.5
Service workers, except the above.	9.0	8.5	6.2	14.8	14.5	13.0
Laborers, except mine.	8.3	8.5	6.7	.9	•1	
Occupation not reported.	1.1	9.0	6.9	1.3	11.3	9.1

\*Source: U. S. Bureau of the Census, U.S. Censuses of Population and Housing: 1950 and 1960, <u>op. cit</u>. APPENDIX D

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Number of cens tracts where t percent non-wh is:	sus the Washin nite D.C. 1950	ngton, 1960	<b>st.</b> : 1950	Louis 1960	Cinci 1950	nnati 1960
009	0	0	46	46	22	31
.1 - 5.0	29	27	51	35	56	35
5.1 - 20.0	15	12	9	11	16	17
20.1 - 50.0	23	18	7	6	7	6
50.1 - 80.0	14	26	6	14	4	11
80.1 - 95.0	8	20	6	10	1	6
95.1 - 99.9	6	20	3	6	4	6
Total number of tracts	95	123	128	128	110	112

Table XXII. Racial Imbalance in the Census Tracts of Three Central Cities

APPENDIX E

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Table XXIIIa. Identif ± 1 or D.C.	ication Number 2 Standard Dev	c of the Censu viations on Se	s Tracts with Me lected Housing V	an Changes Exce 'ariables: Wash	seding nington,
Housing Variables		ω	tandard Deviatio	ns	
	+1	+2	-1	-2	zl
<b>Percent</b> of substandard housing units	2,32,45 46,49,57 63,72,75, 108	9,35,47, 48,64,67 76	10,37,51, 54,55,58 60-62	61,84	123
Percent of non-white occupied housing units	1,58,60, 61,92,93	59, 64-66	19,21,22, 25,29,36 72,73,75, 103-105, 111-113, 116,117, 119,122	23, 24, 95, 96	123
Percent of overcrowded housing units	2,18,43 61,64,65, 68-70,76	59, <b>6</b> 0-63, 66, 98	22-24,36, 46,71-73, 75,92+95, 100,103, 104,112	71,81,84, 85,96,97, 102,105	123
Percent of non-white overcrowded housing units	18, 56, 57, 59, 62, 70	115	30,36,51, 77-84,88, 105	64	62
Median contract rent, total population	10, 62, 89		1,13,14, 53,123	2,8,9,11, 12,59,64	115

Missouri					
Housing Variables		Sta	ndard Deviation	SI	
	+1	+2	-1	-2	zl
Percent of substandard housing units	<b>48,105,</b> 106,109	94,106	57,64		128
Percent of non-white occupied housing units	105,108 125	94,120	42,57,62, 63	27-35, 54,56, 65	128
Percent of overcrowded housing units	68-70,98 102,107, 118,121, 123	48,94,105, 108,120, 122	2,26,31, 33,34,35, 57	27-30, 104	128
Percent of non-white overcrowded housing units	107,120		104	109	S 6
Median contract rent, total population		13	8,14,120	68	108

Identification Number of the Census Tracts with Mean Changes Exceeding ± 1 or 2 Standard Deviations on Selected Housing Variables: St. Louis, Table XXIIIb.

rable XXIIIc. Identifi ± 1 or 2 Ohio	cation Number Standard Devi	of the Census ations on Sele	Tracts with Mea scted Housing Va	n Changes Exc riables: Cin	eeding cinnati,
Housing Variables	4	Star 42	ndard Deviations		Z
	7+	71	<b>T</b>	5	5
Percent of substandard housing units			1,4,6,8-12 14,28,92	2,7,15, 16,17	111
Percent of non-white occupied housing units		N	14,15,32, 34,66,69	38-41, 67,68, 77,87	111
Percent of overcrowded housing units	1,5,9,80	6-8,89	24,38-41, 66-69	77,87, 109	111
Percent of non-white overcrowded housing units	7		23, 77		24
Median contract rent, total population	3,7,77	80, 86, 87	47-49,53, 57,60,75, 101,103	6,46, 63,82	97

Table XXIVa. Identifi ± 1 or 2 Washingto	cation Number c Standard Devia on, D.C.	of the Census tions on Sele	Tracts with Mea ected Population	un Changes Exceedi 1 Variables:	бu
Donulation Variables		Stal	ndard Deviations		
	+1	+2	T-	-2	N
Median education, total population	24,29,36, 78,88,89, 92,96	30, 84	1,8,9,23, 26,55,60, 63,67-69	2,59,64	121
Non-white median education	30, 33, 36	84	63, 64, 67, 80, 87	77	68
Non-white median family income	30,44,45, 48,68,76, 77,81,85	34	72,86,87, 95,118	93, 98, 101	61
Non-white popu- lation	47,48,59, 65	64	22,25,104, 112-113, 116	21,85-87, 92-96,87- 102,120-123	95
Total population	47-49, 54, 56, 60, 66, 67	53, 55, 57, 61, 64, 65	13	77-84,92-96, 97-102,120-123, 85-87	95
Median family income, total population	2,30,45,47 48,62,68,76, 85,110,117, 120	34,77	26,53,64, 91,93,98, 119,122	8,11,12, 15,16,59, 123	120
Percent of non-white	1,2,55-58, 60,61,92	53, 59, 64	19,21,26,36, 37,75,84,95, 104,105,111, 112-113,116, 117,122	22-25,96, 119	95

Table XXIVb. Identifi( ± 1 or 2 Missouri	cation Number Standard Devi	of the Census ations on <b>S</b> elf	Tracts with Mea ected Population	n Changes Exc Variables:	eeding St. Louis,
Population Variables		Star	Idard Deviations		
7	+1	+2	-1	-2	ঘ
Median education, total population	27,44	26, 28, 36	1,10,104	N	122
Non-white median education	35, 98, 105		56,95	104	20
Non-white median family income	102,105		35, 56, 66		14
Non-white popu- lation	103,106	94,102, 105,107	27, 30, 32, 56, 57, 62, 63	28,29,31, 33-35,54, 65,104	128
Total population	96-98,103, 109,111, 114,124	94,102, 105-107, 113	2,9,10, 73	1,104	128
Median family income, total population	93,98,99, 102-105, 107		9,13,14, 38,45,68, 73,121-123		116
Percent of non-white	125		45,57,62, 63	27-35, 54, 56, 65	128

Table XXIVc. Identifi ± 1 or 2 Ohio	cation Number Standard Devi	of the Census Lations on Sele	Tracts with Me cted Populatio	ean Changes Excee on Variables: Cir	eding ncinnati,
Population Variables		Stan	dard Deviation	St	
	+1	+2		-2	zI
Median education, total population	3,19,22, 23,35,38, 40,42,69	<b>33, 66-68</b> 80	2,47,62, 79,82,84, 89,98,100, 102,108	6,29,83, 101	109
Non-white median education	3, 67		34,44		14
Non-white median fà <b>m</b> ily'income		м	55		10
Non-white popu- lation	8	2,4,5	32,40,41, 66,87	38,39,67- 69,77	111
Total population	4,6-9,14, 15,28	2,5,87	63,77,83, 110,112, 103	46,99,100, 109	111
Median family income, total population	9,16	3,77,80, 87	49,50,62, 71,72,101, 102,103	48,65	67
Percent of non-white	0		14,21,32, 34,66	38-41,67-69, 77,87	111

APPENDIX F

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	Decač	le		
10 1910-20	1020-30	1930-40	1940-50	1950-60
6 28.4	17,5	44.0 7.0	51.3	36.7
8 52.2 5 17.5	11.5 38.0	56.2 64.5	21.0 117.1	-4.8 92.0
3 13.5	19.3	5.3	17.4	19.8
4 12.5 3 15.8	6.3 46.5	-0.7 14.6	5.0 33.8	-12.5 59.0
0 6.5	20.2	4.1	14.9	18.5
6 10.4 6 0.4	12.4 34.0	1.0 8.6	10.6 20.8	-0.3 42.1
, <u>Population Growt</u> Scripps Foundatic	th in Standar on for Popula	cd Metropoli ition Resear	t <mark>an Areas, 1</mark> ch, December	<u> 300-1960,</u> , 1953).
n of Population Bé s)	etween Centra	I City and	Ring, 1950 a	nd 1960
Central	City 1060	1000	Ring	
0.61 0.85	38.2	0.61 0.61		
0 02	U UN			
20.0	JO • 4	7.10	00	٥
55.7	46.9	44.3	53	4
<pre> . <u>Population Grow</u> . Scripps Foundati n of Population B .s) .s) .38.0 .38.8 .55.7 .</pre>		th in Standar on for Popula etween Centra 38.2 36.4 46.9	th in Standard Metropolit on for Population Researd etween Central City and 1 etwe Central City and 1 1960 38.2 62.0 38.4 61.2 46.9 44.3	thin Standard Metropolitan Areas, 1onfor Population Research, Decemberon for Population Research, Decemberetween Central City and Ring, 1950 a)tube1950 (1950) (1960) (1960) (1960) (1960) (1950) (

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Population Increase Over Five Decades in Three SMA'S (in percents) Table XXV.

SMA	Proportion non-white in the SMSA	Proportion non-white in the ring
Washington	24.34	6.09
St. Louis	14.31	6.14
Cincinnati	11.96	3.40

Table XXVII. Non-white Population in the Ring and Central City, 1960 (in percents)

