

*DIFFERENTIAL DECLINE: THE NEIGHBORHOOD CONTEXT OF
ABANDONMENT*

David W. Bartelt and George Leon

ABSTRACT

Existing research explains housing abandonment in the broad context of urban decline or the narrow micro-economics of housing sub-markets. In both cases, abandonment is assumed to be a singular process across a city. In this paper, the neighborhood context of abandonment is examined with the view that abandonment varies with a neighborhood's historical ecology. Data from the Philadelphia License and Inspection records, the U. S. Census Bureau, Pennsylvania Industrial Directories, and from financial institutions provide evidence linking abandonment to job access, racial transition, mortgage investment and population decline in neighborhoods having different historical and contemporary ecological positions in the city.

INTRODUCTION

A specific pattern of neighborhood abandonment is presented here linking a series of ecological processes, specifically industrial job loss, racial transition and low levels of in-migration and displacement. The metropolitan area of Philadelphia, PA-Camden, NJ is the selected site for this study of the patterns and consequences of economic transition and decline. Housing abandonment is a historical process (not necessarily cyclical) that cannot be characterized along a singular dimension, i.e., the relative amount of abandonment by area. This paper uncovers three distinct varieties of housing abandonment, clearly distinguishable from one another by the historical, economic and ecological forces playing upon a community. It distinguishes between abandonment linked to job loss in the industrial sector, abandonment characteristic of wholesale movement out of the ghetto combined with little in-migration, and finally, abandonment that is a part of the process of displacement accompanying gentrification.

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This paper presents theoretical arguments and evidence establishing the significance of these major types of neighborhoods for the abandonment process. It presents evidence based upon Philadelphia records of long-term vacancy and the relationships of these data to the above typology. It points to further analyses necessary to adequately depict the underlying relationships of neighborhood type, urban economic and ecological processes and the housing process.

ABANDONMENT AND THE URBAN PROCESS

Traditionally, housing has been viewed as a service provided through a network of social relationships. It includes investors, realtors, landlords, owners, renters and the larger social forces affecting them (Bartelt, 1979a, 1979b, 1978; Beyer, 1965). The empirical literature on abandonment is sparse. Most of it is based upon a central city concept of abandonment and links landlord problems and the depressed nature of housing to the conditions of populations tending to live in core neighborhoods. That approach is derived from the Chicago school of urban analysis. Advocates of that train of thought liken the urban environment to a natural ecology in which population groups occupy territories that may be invaded by competing subgroups. Variations of this perspective have been applied to models of neighborhood change (Park, 1936a; 1936b).

Burgess (1925) envisioned urban housing arranged in a set of concentric rings around a central business district. Higher classes are constantly moving to newer and better housing at the periphery of the city, while immigrants move to the older stock near the center. Lowry and others (Lowry, 1960; Ratcliff, 1949; Fisher and Winnick, 1951) extend the notion of a "filtering" housing stock to the abandonment issue. If the outward movement of higher classes exceeds the rate at which new arrivals to the city occupy the older stock, the oldest units become vacant. Hoyt (1939) contended that the "softening" of the market is due to the emphasis on new suburban construction. Inner-city vacancies are inevitable given suburban construction (Alonso, 1971).

The traditional ecological model predicts housing abandonment as a necessary corollary of the filtering process, at least when the associated conditions of decreased lower-class migration to the city is accompanied by continuing outward movement of mobile populations. The empirical evidence does not consistently support the argument.

Most studies of abandonment examine the rental housing market. Abandonment is associated with low income rental housing and is thought to be the consequence of a "rent gap" between rent received and the sum of costs plus income. (Sternlieb, 1966; Grigsby et al., 1970; National Urban League, 1971; Linton and Coston, 1971). The gap between income and cost is cited as an explanation for the deterioration of property conditions and the long cycle of property decline to the point where the property is unrentable. Salins (1980) argues that rent regulations and controls contribute to the gap. He states that an "ecology of destruction" is generated from the combined effects of a large welfare tenantry, a soft housing market and the net effects of code enforcement, rent regulations and rent delinquency.

Sternlieb and Burchell (1973) contest the argument that it is the worst housing that is abandoned. In Philadelphia, the Department of Licenses and Inspections estimates that over 60 percent of abandoned structures would be habitable without substantial repairs (HADV, 1972). This indicates that properties need not decline to the deteriorated levels implied in the rent gap model before they are abandoned.

Stegman (1972) notes in this regard that landlords and other inner-city investors expect a differential return on their properties, upwards of 25 percent in many cases, if they are to retain them (Sternlieb, 1966). Sternlieb and Burchell (1973) argue that it is landlord expectations about the market, not necessarily the realities of that market, that generate abandonment. Thus, it is not so much housing decline itself that generates abandonment, but the context of expected future markets. It is the neighborhood housing context in particular which leads to the sell-off of properties to increasingly marginal owners, who in turn "milk" the property to the point of walking away from them (Salins, 1980).

Bartelt (1979a) contends that the rent level theory of housing condition does not hold up to scrutiny. In particular, he argues that investment capital decisions regarding property value, rather than the net income-expenses ratio, are pivotal in determining property condition and abandonment.

A key variable in the link of investments to neighborhood characteristics is race. While no persuasive evidence has been offered to link race as a causal variable in the housing abandonment process, an association between non-white neighborhoods and housing abandonment has been shown (Salins, 1980; Sternlieb, 1966; Sternlieb and Burchell, 1973). Several classic studies show long-term increases in property values in areas of racial transition (Duncan and Duncan, 1957; Laurenti, 1960; Rapkin and Grigsby, 1960). A more recent study in Philadelphia indicates that no direct relationship between the racial characteristics of neighborhoods and abandonment exists (HADV, 1972).

If no direct relationship can be said to exist, several studies suggest that race is an important factor in investment and community decision-making. Salins (1980) notes the link between areas of minority housing and the unwillingness of banks and other lending institutions to extend mortgages and loans for the acquisition, maintenance and rehabilitation of properties (Bradford and Marino, 1977; Ratcliff, 1980; Tower, 1980). While analyses of "redlining" do not automatically imply a similar causal argument to abandonment, it seems clear that limitation or denial of housing credit leads to declines in the quality of housing and, one suspects, to abandonment as well.

The research on race and relationship of investment capital to housing conditions suggests an alternative dynamic to the traditional ecological analysis. In particular, the causal focus shifts from different populations competing for scarce housing (as consumers) to the distribution of the quality of housing as a reflection of differentials in capital investment.

Molotch (1976) argues that a land-use map of the city is a representation of the mosaic of human interests within the capital sector. Neighborhoods are, from this perspective, sites for capital investment (Molotch, 1979). Harvey and Chatterjee (1974) also apply this general perspective to the analysis of housing finance, uncovering differentials in the quality and cost of financing by neighborhood social and economic characteristics. Pearce (1979) demonstrates the pivotal role of the real estate exchange agents in the financing process.

Implied in the Molotch argument is a recognition of different segments of the investment capital system. In terms of empirical analyses of housing, the focus has been on the distribution of residential capital. A coexisting and, at times, competing force in urban development is industrial capital. The distribution of industry has been particularly examined with respect to neighborhood differentials, and implicitly to housing characteristics, in the works of Hershberg, Burstein, Erickson and Greenburg (1979), Ericksen and Yancey (1979) and Yancey and Ericksen (1979). These works, taken as a whole, argue persuasively that neighborhood persistence, ethnic change and housing values are outcomes of populations responding to the differentials in job location across the city. As jobs persist, communities remain stable; as jobs change, communities change; as jobs decline, so do the communities around them.

If that argument holds, then housing abandonment follows as a consequence of industrial decline. The greater the decline in industrial job access in older industrial neighborhoods, the greater the likelihood of abandonment. Ginzberg and Vojta (1981) present data suggesting that industrial job loss is in part a reflection of macroeconomic shifts from industrial to service sector economies. Thus, the industrial job loss hypothesis should hold only for those neighborhoods experiencing decline, not for those making the transition to a different job base.

In the case of transitional job locations, the increase in service sector employment should, logically, be followed by a displacement of older working-class families by new service-sector employees. This seems to be the process underlying the gentrification movement (Laska and Spain, 1980). If the transition is significant, and the corresponding population shifts pronounced, the heightened expectations regarding a reversal of downward-moving housing markets may lead to a form of speculative abandonment. That process consists of landlords holding housing stock vacant and allowing the tax delinquency of the property to aid in financing its conversion to housing for higher class residents. While the property is not abandoned, distinguishing it from other vacant and boarded up properties from the street is difficult.

This review of literature related to housing abandonment and the roots of the ecology of housing deterioration suggests three sources of abandonment pressures: racial differences in investment patterns, industrial job changes, and the pressures accompanying gentrification. It should also be clear that the literature linking the concept of "rent gap" is subsumed by this literature (which in effect identifies the potential sources of rent gaps), as well as being somewhat self-contradictory (noting that housing abandonment does

not occur in the areas of poorest housing). The conceptual frame is shifted from the micro-economics of property income to the social and economic organization of the city. Housing abandonment is a case of differential decline; the differential decline of neighborhoods as housing investment sites by virtue of the type and nature of the population. The remainder of this paper presents preliminary analysis based on this framework.

THE LOCATION OF HOUSING ABANDONMENT IN PHILADELPHIA

To begin the process of examining this model of urban dynamics as it pertains to housing abandonment, data were obtained on residential structures vacant for longer than three years at several different times. Information was also obtained concerning tax delinquent status, demolition, mortgage lending patterns and job loss over a 45-year period (1928-1972). The information was mapped by census tract and abandonment patterns were compared to job loss and disinvestment. The patterns emerging suggest further work, but three major types of abandonment present themselves for further analysis.

Philadelphia, especially in the eyes of its residents, is split into several major areas, identified in the main by compass directions (e.g. North Philadelphia, South Philadelphia, the Northeast, etc.). For this paper, the salient identifying features of the maps are: "Center City" which runs from river to river in a band across the narrowest segment of the intra-river segment of the city; West Philadelphia, which is west of the Schulykill River and North and South Philadelphia lying to the north and south of Center City. The city is also perceived as being bisected by a north-south line running along Broad Street. Broad Street intersects the upper northwestern boundary of the city. These areas are identified on Map 5, which serves to identify the relative locations of the target neighborhoods.

In 1972, 35,044 residential structures were considered abandoned-three or more years unoccupied. If those structures were distributed uniformly across the city's 364 census tracts, each tract would contain slightly more than 96 abandoned structures. These structures were not uniformly distributed across the city. Abandonment was concentrated in the older, central parts of the city. In fact, 32 percent of all tracts in 1972 contained 96 or more abandoned structures, and some contained nearly 1,000.

In 1974, the total number of abandoned structures declined to 27,588 and in 1977 to 21,204. However, between 1974 and 1976, a total of 5,200 structures were demolished, with some tracts having as many as 300 buildings demolished. (Data are unavailable for 1972-74). Demolition accounts for much of the apparent reduction in abandonment between 1974 and 1977. When the number of demolished structures is summed with the number of abandoned structures in 1977, the figure is very close to the total number of abandoned structures in 1974--26,404 and 27,588, respectively. Map 1 displays the sum of structures demolished between 1974 and 1976 and abandoned in 1977 by census tracts. The highest concentration, with more than 500 abandoned structures, were located in seven tracts east of Broad Street in North Philadelphia, two tracts west of Broad

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Street in North Philadelphia, a tract in West Philadelphia, and a tract southwest of the central business district. Adjacent to these tracts were areas of abandonment with 100 to 500 vacant structures. The center itself had a lower degree of abandonment, as did the tracts farther from the center. The incidence of demolition is highest in the areas of most concentrated abandonment.

THE LOCATION OF MANUFACTURING JOBS

A measure of access to manufacturing jobs is the number of jobs within one mile of a given census tract. Map 2 displays this access in Philadelphia in 1928. In that year, one-half of all tracts had 4,000 or more manufacturing jobs. The greatest concentration occurred in the center of the city, and in North Philadelphia, particularly east of Broad Street. Between 1928 and 1972, job access increased in the more suburban tracts and the concentration of jobs in the center diminished. The median tract lost access to 1,000 jobs between 1928 and 1972. Map 3 shows the net loss of jobs between those years. Comparing Map 3 with Map 1 reveals that the pattern of job-access loss is similar to that of abandonment. In lower North Philadelphia, east of Broad Street, the tracts with the most extensive abandonment were adjacent to the tracts experiencing the greatest job loss. In general, the tracts that had the greatest number of jobs in 1928 lost the greatest number by 1972.

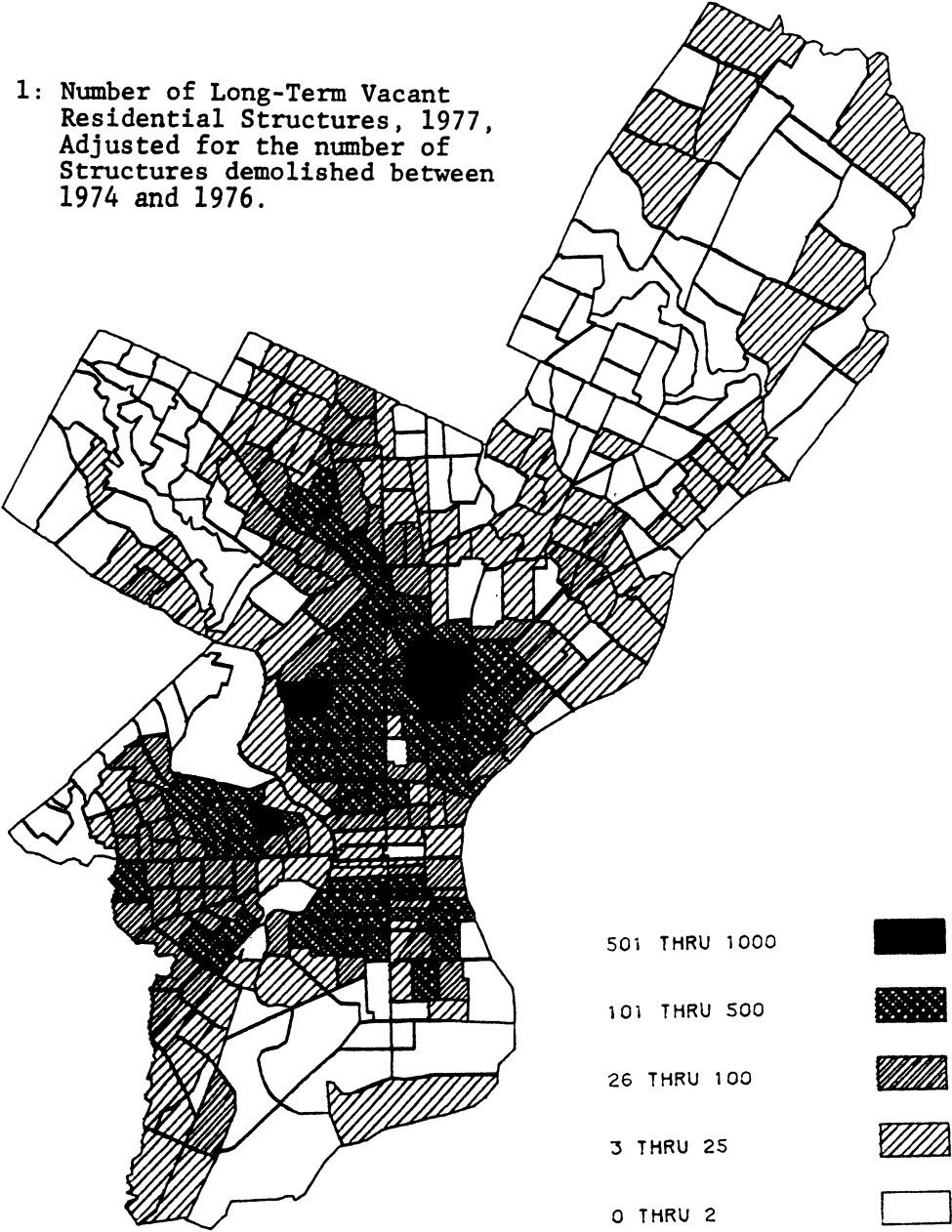
THE LOCATION OF MORTGAGES

Map 4 displays the amount of Federal Housing Administration (FHA) and conventional mortgages per tract in 1977 in thousands of dollars. The most concentrated investment was in the far northeast, the center, and a section of South Philadelphia. Smaller areas of concentrated investment were in the northwest and east of Fairmount Park. Comparing Map 1 with Map 4 reveals that investment occurred both north and south of the heavily abandoned area slightly south of the center.

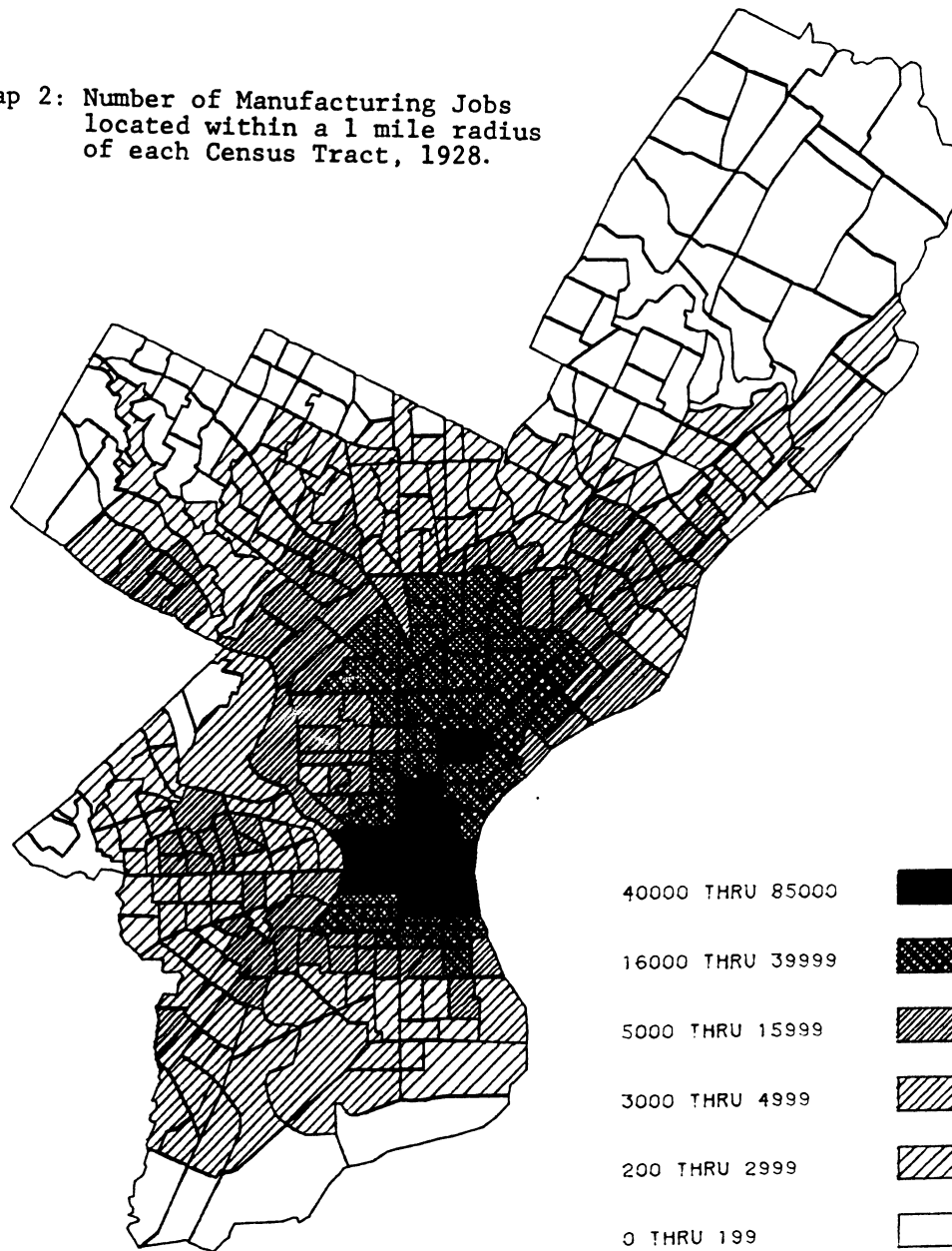
The smaller area of investment in the Fairmount section was buttressed to the north by an area of concentrated abandonment, but mortgages were conspicuously absent from the sections of lower North Philadelphia experiencing high vacancy rates. Similarly, little investment took place in parts of West Philadelphia hardest hit by abandonment. North Philadelphia was a patchwork of investment and abandonment in 1977.

From the evidence, it is clear that patterns of abandonment, manufacturing job access and investment are related. Areas that have experienced a great loss of jobs are near areas of concentrated abandonment. The relationship between investment and abandonment, however, is less clear. Abandoned areas may be near either heavy investment or the lack of investment, depending upon the section of the city examined. Other features of the city's historical geography are interacting with the relationships between abandonment, job access and investment and must be investigated to unravel the causes and consequences of abandonment.

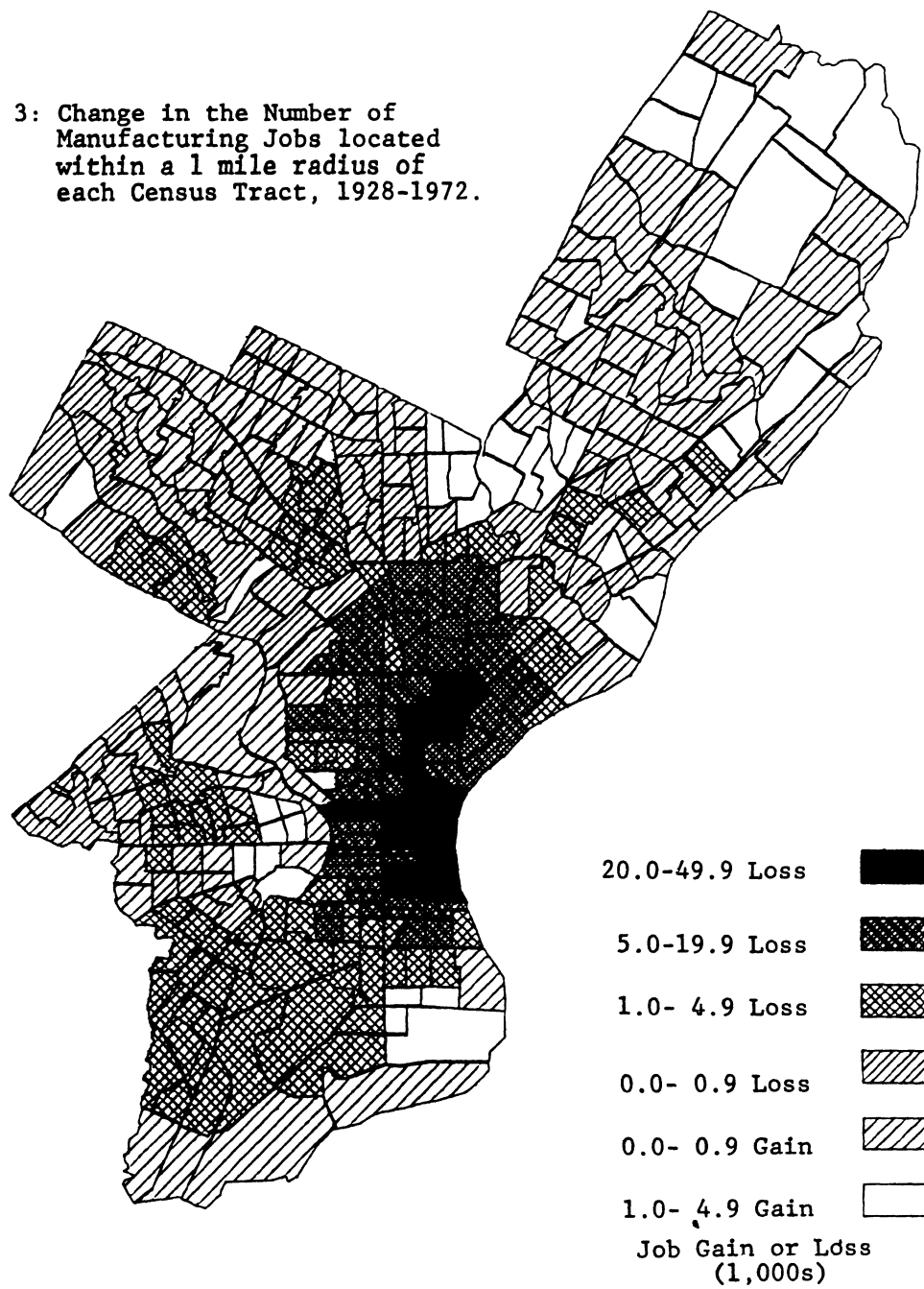
Map 1: Number of Long-Term Vacant Residential Structures, 1977, Adjusted for the number of Structures demolished between 1974 and 1976.



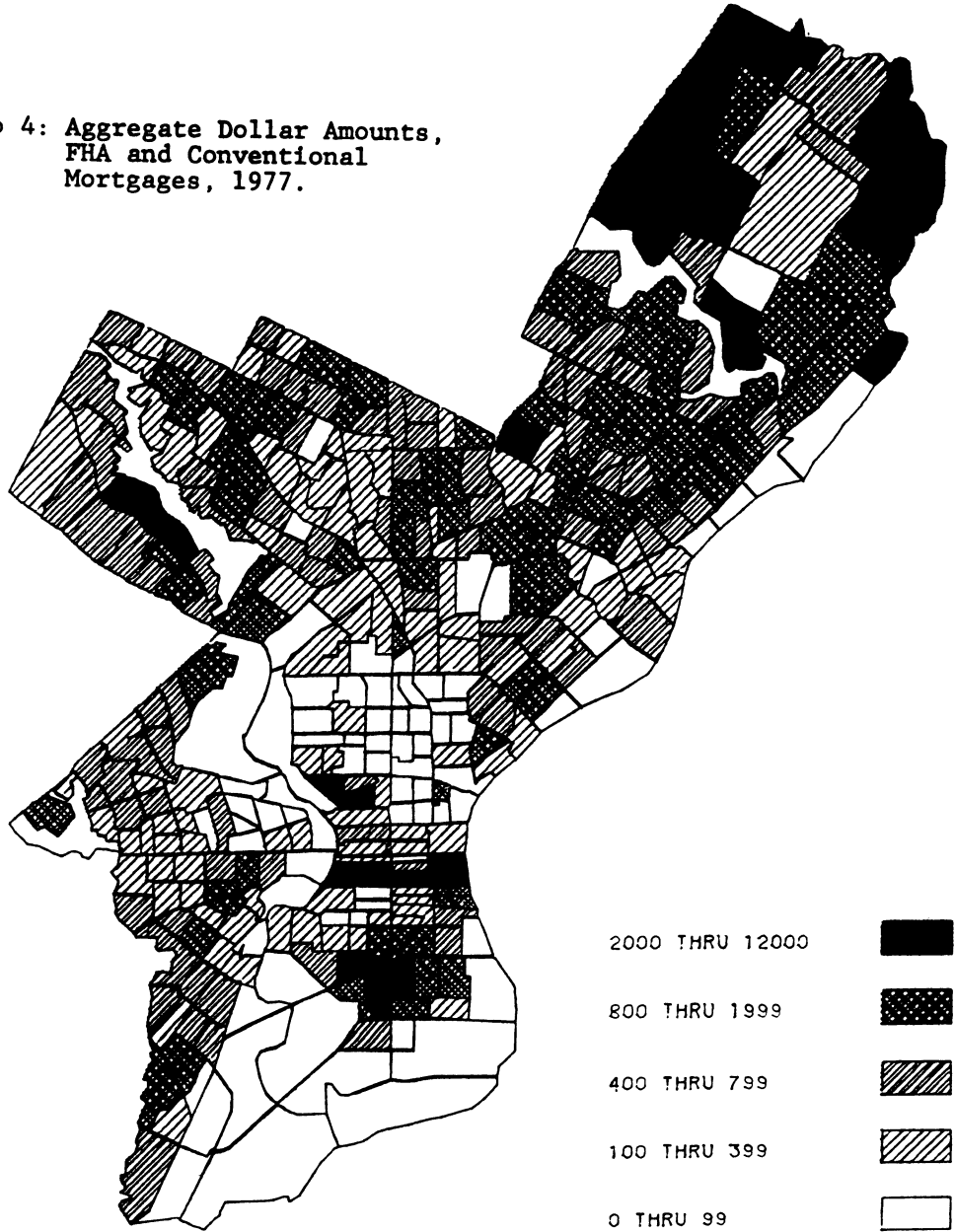
Map 2: Number of Manufacturing Jobs located within a 1 mile radius of each Census Tract, 1928.



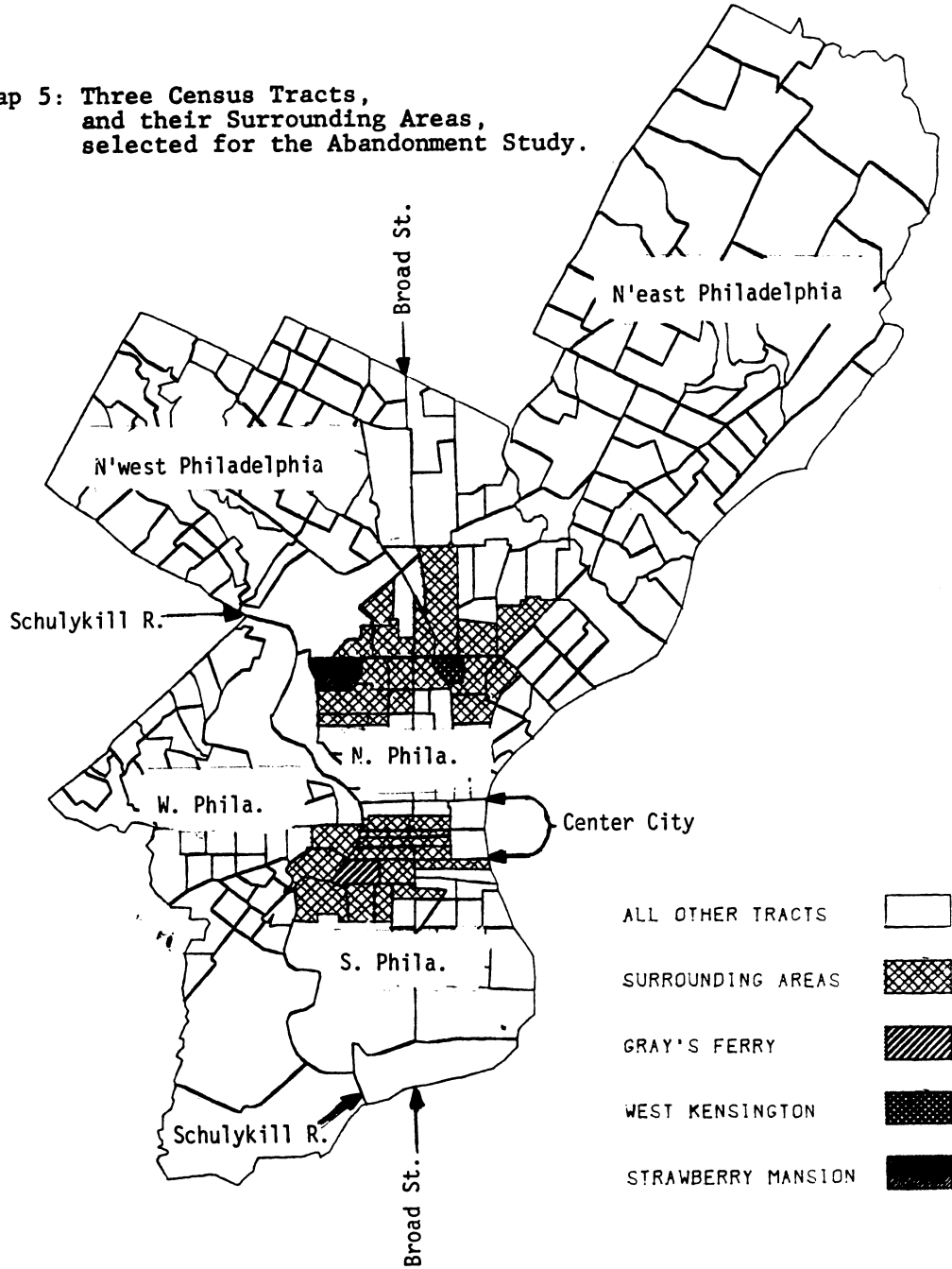
ap 3: Change in the Number of
Manufacturing Jobs located
within a 1 mile radius of
each Census Tract, 1928-1972.



Map 4: Aggregate Dollar Amounts,
FHA and Conventional
Mortgages, 1977.



**Map 5: Three Census Tracts,
and their Surrounding Areas,
selected for the Abandonment Study.**



A CONTRAST OF THREE AREAS

Three areas of the city having extensive abandonment are now examined. For each area, a single tract was selected, and the characteristics of adjacent and nearby tracts were averaged for comparison. (Map 5 provides a guide to these locations.) Tract 169 is in the "Strawberry Mansion" section of North Philadelphia, east of and adjacent to Fairmount Park, and bordered by Lehigh Avenue to the north. The surrounding tracts, excluding the Park, form a crescent north, east and south of tract 169. Tract 164 is east of Broad Street, in a section of the city called West Kensington. This area is in the heart of the old industrial part of North Philadelphia. The surrounding tracts examined here completely encircle tract 164. Tract 13 is southwest of center city. As we examined the characteristics of the tracts surrounding tract 13, we found it necessary to divide them into two groups, north and south of the tract respectively.

Each of these areas is considered in turn with respect to abandonment in its neighborhood context: population loss, racial change, access to the manufacturing jobs' base, and access to mortgage credit.

Before examining the selected tracts and their surrounding neighborhoods, certain characteristics of the data should be noted. The data on abandonment, which came from City of Philadelphia License and Inspection records, demonstrate a highly skewed distribution, so the median number of long-term vacant structures per tract was used as a comparison. The median for the city was 34 in 1972, 16 in 1974 and only 8 in 1977. Comparing these median figures to those found in the three neighborhoods examined provides a sharp contrast between these areas and the rest of the city.

Population data were obtained from the decennial census counts, as were data on racial change. Manufacturing jobs' data were obtained from a geo-coded count of industrial jobs taken from the 1928 and 1972 Pennsylvania Industrial Directories. Access to jobs was determined by counting the number of jobs within one mile of each tract centroid for each year. Because of skewness in the distribution, the median is used for cross-neighborhood and neighborhood to city comparisons.

Mortgage data were obtained from Home Mortgage Disclosure Act (HMDA) statements from 1977. These data were obtained from 48 banks and savings and loan associations located in Philadelphia. They were aggregated into a master file of mortgage lending for the city and its surrounding metropolitan area. This allowed the compilation of totals on a tract-by-tract basis. This is the basis on which the HMDA forms are completed by the banks.

STRAWBERRY MANSION

Table 1 illustrates the extent of long term vacancies in each of the areas examined, and for the city as a whole. Abandonment was severe in Strawberry Mansion during the '70s, with nearly 1000 vacancies in 1972, well above even the tracts in the surrounding neighborhood. What little abatement occurred by 1977 was due mainly

to demolition.

Table 1. Number of Long Term Vacant Structures per Tract by Area of the City

Area of City	1972	1974	1977
Strawberry Mansion	976.00	953.00	803.00
Surrounding Tracts	373.89	322.56	295.00
West Kensington	774.00	705.00	439.00
Surrounding Tracts	676.62	591.62	409.12
Grays Ferry	280.00	267.00	202.00
Adjacent Tracts (South)	434.60	391.00	305.20
Adjacent Tracts (North)	102.89	85.89	57.22
Entire City (Mean)	141.31	111.24	85.50
Entire City (Median)	34.00	16.00	8.00

Figures 1 and 2 display the changes in total population of the affected areas from 1930 to the present. Most striking are the shifts that have occurred in Strawberry Mansion. After gently declining between 1939 and 1950, this tract's population grew 50 percent by 1960, followed by a rapid decline over the subsequent 20 years to a lower level than any time during the previous five decades. In the surrounding tracts, population growth levels were lower than the central tract, but larger than the city average. They demonstrate a rise in population until 1950, followed by decline to the present. Strawberry Mansion's sudden increase in 1960 is not present in the surrounding area, and thus indicates an anomalous situation of sudden, severe crowding followed by drastic population loss.

Figures 3 and 4 depict the extent of racial change in the selected areas over the same five decades. Comparing Figures 1 and 3 shows the link between the sudden increase of 1960 with a dramatic change in racial composition. The turnover was in marked contrast to both the surrounding area and the city as a whole, which show a rapid, but generally, smooth change in the percentage of the population which is black.

Table 2 provides data on access to manufacturing jobs by the selected tracts and their surrounding neighborhoods. Access from this neighborhood was almost twice that of the city median in 1928, but significantly lower than the more industrialized areas of the city. While access decreased somewhat by 1972, the city as a whole showed much greater decline. Surrounding tracts had greater access to jobs in 1928 than the city or than the core Strawberry Mansion tract, but also experienced a greater decline in access than the core tract in 1972.

Table 3 compares neighborhoods on the basis of their access to mortgage capital. It presents both the total number of mortgages

and the aggregate amount of mortgage dollars per tract. The median city tract has 25 mortgages totalling \$400,000--an average of \$16,000 per mortgage. Strawberry Mansion shows an average number of mortgages, but a low amount of mortgage investment, averaging just under \$2,500 dollars. The surrounding areas received even fewer mortgages, but with a slightly higher value.

Strawberry Mansion represents a neighborhood showing some of the classic symptoms of racial transition. It is a formerly white community, probably white collar by its relatively low access to industrial jobs (compared to the industrial communities of West Kensington and Gray's Ferry), with a mobile white population. With the onset of black migration into the community, a rather rapid out-migration of whites is followed by substantial over-crowding, followed in turn by out-migration of mobile blacks. This is a familiar model of neighborhood abandonment, but it is not representative of the entire spectrum of abandonment.

WEST KENSINGTON

West Kensington has experienced heavy abandonment, and even greater levels of aggregate demolition than Strawberry Mansion. While the surrounding area was not affected to the same degree, the contrast between the central tract here and the surrounding area is not as dramatic as is the case in Strawberry Mansion. As might be expected, the population shifts in this area are much less dramatic than in other areas. West Kensington shows an initial population level, in 1930, lower than Strawberry Mansion and one that remained stable until 1950. It dipped slightly during the 1950-1960 decade, rising slightly by 1970 and showed a major loss only during the past decade. Surrounding tracts showed a more consistent picture of decline, indicating that aggregate population loss is not the best indicator of abandonment.

In terms of racial transition, the pattern for this neighborhood paralleled that of Strawberry Mansion, but at a lower level of initial and terminal proportions black. There was a ten-year lag in the decade of greatest transition. The peripheral tracts remained racially stable until 1950, and then changed rapidly, but not as rapidly as the central tract.

West Kensington is markedly different from Strawberry Mansion with respect to job access. This neighborhood is an industrial neighborhood. Its access to industrial jobs was high, and its decline in access dramatic over the 1928-1972 time period. This held true for the central tract and the surrounding area. Access to mortgage capital reflected the decline as West Kensington received only a handful of loans, averaging under \$7,000, with the surrounding tracts faring slightly better at about \$11,000 per mortgage.

Thus, while both Strawberry Mansion and West Kensington evidence economic declines that are consistent with the overall transition from industrial job base to some other, smaller base, the neighborhood dynamics seem to be different. In the case of West Kensington, the job-providing industries of the late 19th and early 20th centuries, are drastically diminished. While the economic status

Table 2. Number of Manufacturing Jobs per Tract Within One Mile of Selected Tracts and Surrounding Areas, 1928 and 1972

Area of City	1928	1972	Change 1928-1972
Strawberry Mansion	9072.00	8836.00	-236.00
Surrounding Tracts	16695.00	11123.72	-5571.28
West Kensington	37459.00	17858.00	-19601.00
Surrounding Tracts	29474.66	14276.46	-15198.20
Grays Ferry	16950.00	15090.00	-1860.00
Adjacent Tracts (South)	17124.50	9706.90	-7417.60
Adjacent Tracts (North)	44147.78	23872.11	-20275.67
Entire City (Mean)	11557.95	6767.39	-4790.56
Entire City (Median)	4666.08	3639.12	-1026.96

Table 3. Number and Dollar Amounts of Mortgages (FHA + Conventional) Per Tract by Area of the City*

	Total Number	Dollar Amounts	Average Mortgage
Strawberry Mansion	23.00	56.50	2.46
Surrounding Tracts	17.11	96.98	5.67
West Kensington	6.00	40.68	6.78
Surrounding Tracts	54.37	625.86	11.51
Grays Ferry	27.00	251.88	9.33
Adjacent Tracts (South)	29.80	288.51	9.68
Adjacent Tracts (North)	43.56	1883.67	43.24
Entire City (Mean)	45.63	974.56	21.36
Entire City (Median)	25.00	400.00	16.00

*Numbers of mortgages are raw numbers; dollar amounts are in (\$000s)

POPULATION, SELECTED TRACTS, 1930-1980

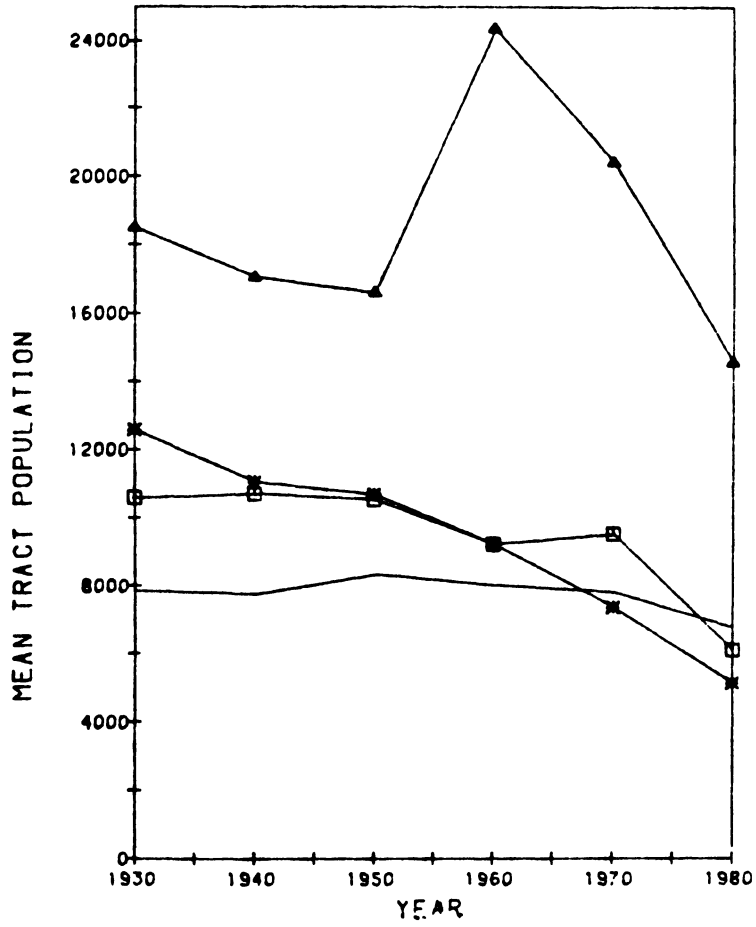


FIG. 1

Legend:

- City
- West Kensington
- *— Gray's Ferry
- △— Strawberry Mansion

POPULATION. SURROUNDING AREAS. 1930-1980

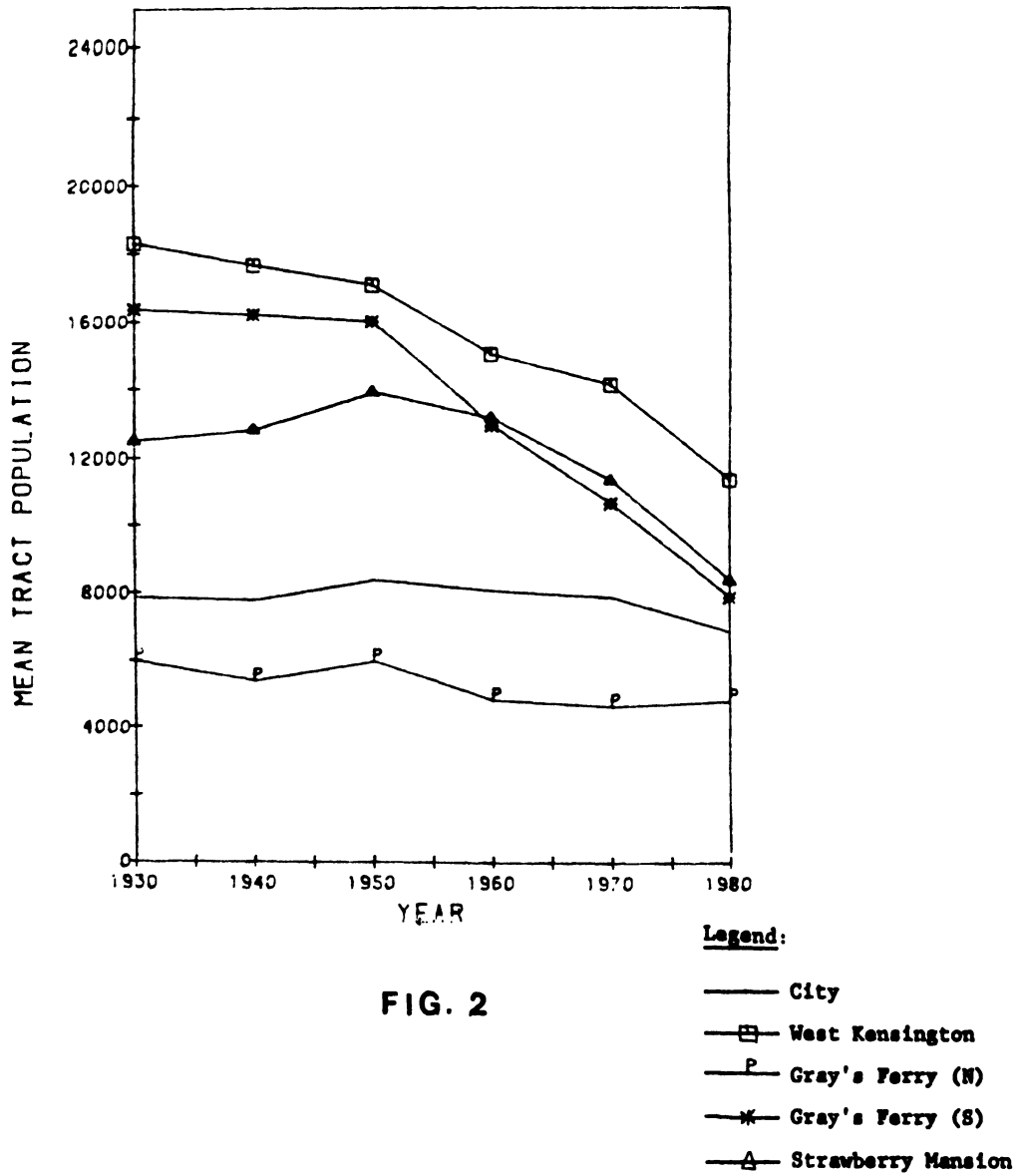


FIG. 2

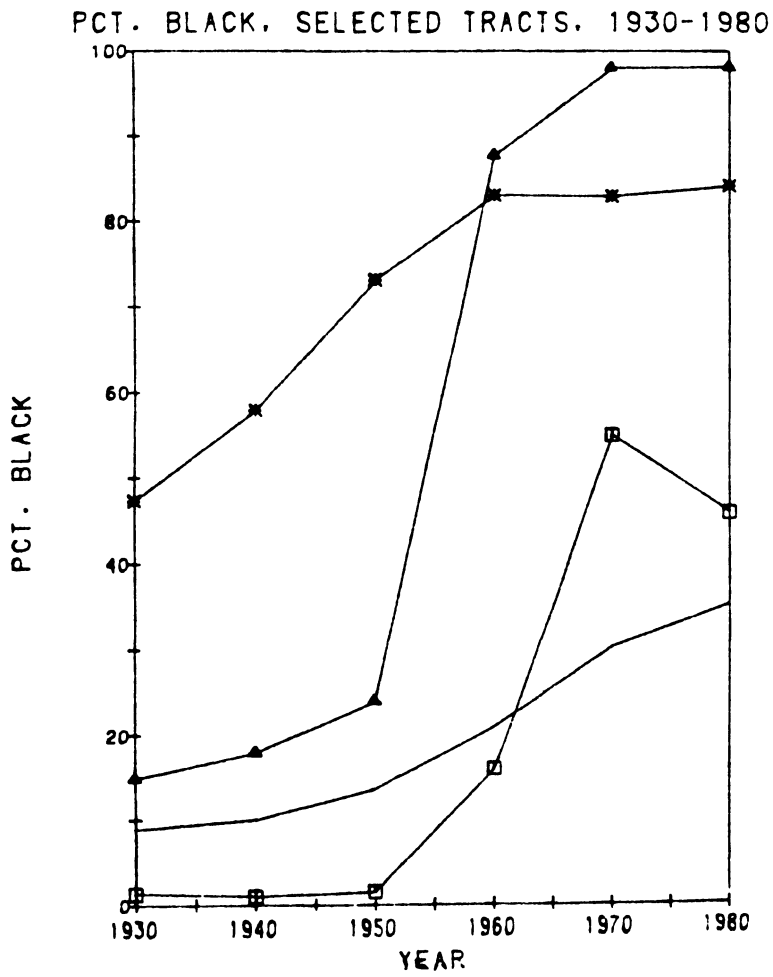


FIG. 3

Legend:

- City
- West Kensington
- *— Gray's Ferry
- △— Strawberry Mansion

PCT. BLACK. SURROUNDING AREAS, 1930-1980

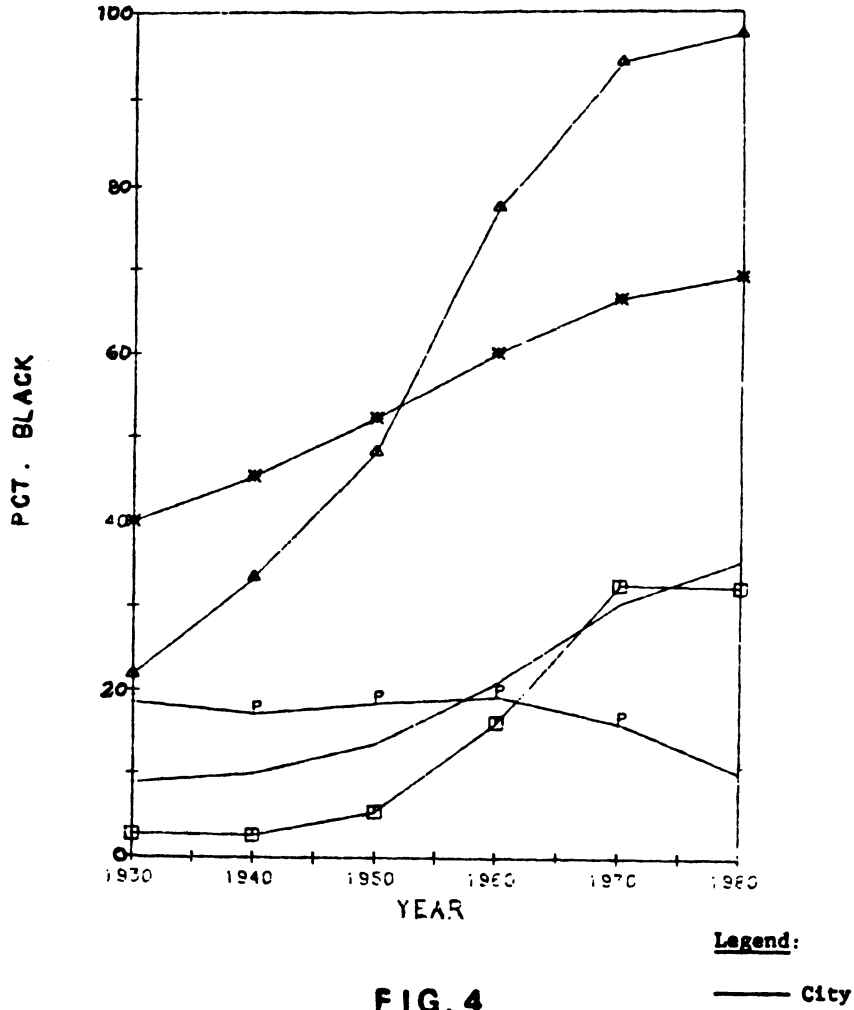


FIG. 4

of Strawberry Mansion residents showed declines, these were declines based on family income and the dynamics of racially restricted opportunity structures. West Kensington is more similar to a mill town gone bust.

GRAY'S FERRY

In comparison to Strawberry Mansion and West Kensington, Gray's Ferry seems only moderately abandoned. However, nearly 300 structures were abandoned in 1972, twice the mean and almost ten times the median for the city. The rationale for dividing the tracts around Gray's Ferry into a northern and a southern group becomes clear upon examination of Table 1. While the areas south of the upper border of Gray's Ferry (South Street) are similar in levels of abandonment to the central tract (slightly higher on average), the area to the north is well below the city mean. Thus, unlike either West Kensington or Strawberry Mansion, Gray's Ferry shows a marked division between itself and at least a part of the surrounding community.

This contrast is found also in the levels of population in the area. Gray's Ferry itself declined steadily over the years since 1930. Examination of the surrounding tracts shows, however, that the northern area remained comparatively stable, while the southern tracts rapidly lost population between 1950 and 1980. Proportionately, Gray's Ferry also had a much higher black population in 1930 than the other neighborhoods. The black population rose rapidly until 1960, remaining stable since then.

The discrepancy between northern and southern surrounding areas makes itself apparent again as the northern tracts, a part of southwestern Center City, began with a lower proportion black and declined over subsequent years, while the southern tracts were comparable to the central Gray's Ferry tract in their origins and increase. Two important points are derived from this. First, as one of the oldest black neighborhoods in the city, this tract would have been expected to rank highest in abandonment if one were to adopt a classic filtering perspective. Second, proximity to abandonment does not necessarily contribute to high levels of abandonment, as the northern contiguous tracts seem to indicate. Rather, it is some combination of race, displacement and economic shift that seems to emerge as a link to abandonment.

In examining changes in access to manufacturing employment, Gray's Ferry ranks between Strawberry Mansion and West Kensington. This number remains somewhat stable from 1928 to 1972. Confounding the picture is the fact that the central city tracts, those to the north of Gray's Ferry, showed a pattern of severe decline. An additional piece of data is significant: the downtown section of Philadelphia went through a steady and dramatic transition from an industrial and warehousing base to a retail and office base during this period. What has clearly occurred is economic transition, not just industrial decline. This has not, however extended itself uniformly across the city's neighborhoods. Gray's Ferry obtained an average number of mortgages, but a smaller than average value. Again, the split between southern and northern neighborhoods is striking. While the southern tracts received fewer mortgages at

about the same value, the northern areas demonstrated a remarkably robust level of dollar investment averaging twice the city median. Obviously, Gray's Ferry is on the borderline of recent gentrification activity. The question remains as to the significance of this activity for housing abandonment.

DISCUSSION

The data reveal that there is no general pattern of the characteristics examined for heavily abandoned tracts and their surrounding areas. The population declined in all of the areas, but only in Strawberry Mansion has it drastically fluctuated. All three individual tracts have experienced a great degree of racial transition, but at different rates.

The tracts surrounding Strawberry Mansion showed as great a racial transition as their central tract, but a lower degree of abandonment. Gray's Ferry and the tracts to its south experienced similar rates of racial change and abandonment. To the north, both racial change and abandonment remained low. West Kensington increased its proportion of black population more than its surrounding tracts, and also experienced more abandonment. Thus racial turnover is associated with abandonment, but cannot be determined to cause abandonment. Strawberry Mansion's population greatly increased with its growth in proportion black population and was virtually all black before its total population declined.

The loss in access to manufacturing jobs may be linked to consequent racial transition and eventual abandonment in some of the tracts. West Kensington showed parallel patterns of job-access loss, racial transition and abandonment with those in the surrounding areas. The peripheral tracts, however, experienced all three processes to a milder degree.

The tracts surrounding Strawberry Mansion showed patterns of job access loss, racial transition and abandonment similar to those found in the tracts south of Gray's Ferry. These areas experienced a degree of racial transition similar to West Kensington, but greater than West Kensington's surroundings. However, they underwent less job loss and abandonment than either West Kensington or its peripheral tracts. Job access does not appear to be directly related to racial transition, but does appear to predict abandonment in these areas.

Examination of Strawberry Mansion, Gray's Ferry and the tracts to the north of Gray's Ferry contradicts this pattern. Strawberry Mansion had access to the fewest jobs in 1928, lost access to the fewest, but had the highest rate of abandonment of all the areas studied. The opposite is true for the tracts north of Gray's Ferry. They had the highest job access in 1928, the highest loss in access, but the lowest degree of abandonment. Gray's Ferry itself had fair job access in 1928, experienced little decline, but had more abandonment than the southern tracts that lost access to a greater number of jobs.

The distribution of mortgages is more straightforward. In all cases, except for the tracts north of Gray's Ferry, both the number

and the average size of loans was lower than that for the city as a whole in 1977. This supports the notion that abandonment is related to disinvestment, but the limited time frame of this data cannot disclose cause and effect.

The overall relationships among abandonment, racial change, job access and investment vary across different parts of the city. This suggests that the observed characteristics are interacting with other, unobserved, forces to produce various forms of the abandonment process. At least three types of abandonment occur, two of which are associated with old, industrial neighborhoods, and the third type associated with old residential areas.

In West Kensington and the area north of Gray's Ferry, abandonment is associated with the loss of access to industrial jobs. Conversely, neighborhood stability in these areas depended upon local employment opportunity, so that demand for housing declined as industries closed or moved out, depressing property values.

The expected pattern of decline for old industrial neighborhoods, then, is one of decreasing owner-occupancy and socio-economic status, increasing racial change and renter occupancy, tax-delinquency and eventual abandonment. However, in the section north of Gray's Ferry, abandonment is followed by investment--either for refurbishing existing units, or for the future value of the land itself. These properties may or may not be abandoned at the time of acquisition. "Abandonment" in these areas is actually long-term vacancy not accompanied by tax-delinquency--the property is being held in anticipation of a return on investment.

Why does this occur in the area north of Gray's Ferry, but not in West Kensington? The former is adjacent to the center of the city and, therefore, proximate to a concentration of professional and white-collar jobs. Access to jobs has shifted from manufacturing to service-sector jobs for those areas close to the center. West Kensington, farther from the center, experienced a loss, rather than a change in type of job-access. Further, proximity to the center provides access to the transportation hub and a concentration of commercial and cultural activities. Overall, abandonment and revitalization in old industrial neighborhoods is intimately linked to the city-wide decline in manufacturing activity and the growth of service jobs in the center.

A third pattern of abandonment emerges in non-industrial areas, epitomized by Strawberry Mansion. There, residential stability was never linked with access to industrial jobs. Instead, such areas were once peopled by white-collar workers employed in the center, who eventually moved to the suburbs or other parts of the city. These older neighborhoods were then increasingly populated by blacks and poorer residents and the population and racial shifts occurred more dramatically than in the old industrial neighborhoods. An increase in renter-occupancy and a decrease in socio-economic status and property upkeep over time can be observed. Tax-delinquency and abandonment follow a drop in population. Demolition is heaviest in these areas.

Underlying all of the models of abandonment is the notion that housing supply surpasses demand. This is due to the increase in the number of new units in suburban areas, out-migration from the city, and the cessation of in-migration by white ethnics and blacks. Important, however, is the fact that different parts of the city are differentially sensitive to decreasing demand.

Policies of both the private and public sectors should be examined. Lack of investment in areas other than that north of Gray's Ferry may indicate "disinvestment" rather than a lack of demand for mortgages. Further, as mentioned in the literature review, public efforts of "urban renewal" and code enforcement may aggravate the very problems that they are designed to alleviate. Of course, it may be argued that "disinvestment" and "urban renewal" are responses to, and not causes of, decline in an area. The authors feel that public and private policies are responses to decline and strong influences upon the future plight of declining neighborhoods. Such policies interact with historical and ecological characteristics, and may result in eventual revitalization or abandonment and demolition. Unfortunately, it is difficult to produce hard evidence of either "disinvestment" or the concrete effects of renewal efforts.

CONCLUSION

Abandonment and revitalization, are viewed as processes that emerge in areas of the city with a variety of historical ecologies. Public and private policies directed toward a given area both respond to and interact with these processes.

There is currently no single definition of abandonment in the literature or among policy makers. Abandonment is identified with long-term vacancy. Depending upon the historical ecology of neighborhood, the term "abandonment" may refer to different rates of vacancies, that may or may not be accompanied by tax-delinquency, and eventually demolition or revitalization. "Abandonment" takes on different meanings in different parts of the city.

The relationships of individual neighborhoods are products of the historical development of the city and the region as a whole--the movement of industry, suburban growth, transportation networks and the like. These regional developments are, in turn, nested in the larger system of cities and national economic development. Abandonment is a characteristic of old industrial cities. Abandonment and revitalization in specific neighborhoods are products of the place of these neighborhoods in the historical development of the city. The focus on micro-economics of housing, therefore, will largely fail to capture the historical context and structural significance of housing abandonment. Much more research is needed to confirm the expectations described in this paper.

REFERENCES

- Alonso, W. A theory of the urban land market. In L. Bourne (Ed.), *The Internal Structure of the City*. New York: Oxford University Press, 1971.

Housing and Society, Vol. 13, No. 2, 1986

Bartelt, D. *The sociology of economic relations: The case of rental housing*. Ph.D. dissertation. Temple University, 1978.

Bartelt, D. The city and capital growth: an extension of Molotch's growth machine model. Paper presented at NSF/AAAS, Chautaugua Seminar, Boulder, Colorado, 1979a.

Bartelt, D. Institutional racism and the rental housing market. *Housing and Society*, 1979b, 3, 48-60.

Bartelt, D. *Redlining in Philadelphia*. Philadelphia: Institute for the Study of Civic Values (mimeo), 1979c.

Beyer, G. *Housing and Society*. New York: Macmillan, 1965.

Bradford, C. and Marino, D. *Redlining and Disinvestment as a Discriminatory Practice in Residential Mortgage Loans*. Washinton, D.C.: United States Department of Housing and Urban Development, 1977.

Burgess, E. The growth of the city. In R.E. Park, E.W. Burgess and R.D. McKenzie (Eds.), *The City*. Chicago, IL: University of Chicago Press, 1925.

Duncan, O.D. and Duncan, B. *The Negro Population of Chicago: A Study of Racial Succession*. Chicago: University of Chicago Press, 1957.

Ericksen, E. and Yancey, W.L. Work and residence in industrial Philadelphia. *Journal of Urban History*, 1979, 5.

Fisher, B. and Winnick, L. A reformulation of the filtering concept. *Journal of Social Issues*, 1951, 7, 47-85.

Ginzberg, E. and Vojta, G. The service sector of the U.S. economy. *Scientific American*, 1981, 244, 48-55.

Grigsby, W. G., et. al. *Housing and Poverty: An Abstract*. Philadelphia: Institute for Environmental Studies of the University of Pennsylvania, 1970.

HADV, (Housing Association of the Delaware Valley). *Housing Abandonment: The Future Forgotten*. Philadelphia: Housing Association of the Delaware Valley, 1972.

Harvey, D. Government policies, financial institutions and neighborhood change in United States cities, in Harloe, *Captive Cities*, 1977, 123-140.

Harvey, D. and Chatterjee, L. Government and financial institutions and the structuring of urban space. *Antipode*, 1974, 6, 64-86.

Hershberg, T., Burstein, A., Ericksen, E., Greenberg, S., and Yancey, W. A tale of three cities: Blacks and immigrants in Philadelphia: 1850-1880, 1930 and 1970. *Annals of American Academy of Political and Social Science*, 1979, 441, 55-81.

- Hoyt, H. *The Structure and Growth of Residential Neighborhoods in American Cities*. Washington, D.C.: Federal Housing Administration, 1939.
- Laska, S. and Spain, D. *Back to the City*. New York: Pergamon, 1980.
- Laurenti, L. *Property Values and Race*. Berkeley: University of California Press, 1960.
- Linton, M. and Coston, Inc. *A Study of the Problems of Abandoned Housing*. Washington, D.C.: U.S. Department of Housing and Urban Development, 1971.
- Lowry, I. S. Filtering and housing standards. *Land Economics*, 1960, 36, 362-370.
- Molotch, H. The city as a growth machine: toward a political economy of place. *American Journal of Sociology*, 1976, 82, 309-332.
- Molotch, H. Capital and neighborhood in the United States. *Urban Affairs Quarterly*, Spring, 1979.
- National Urban League and Center for Community Change. *The National Survey of Housing Abandonment*. New York: National Urban League, 1971.
- Park, R. E. Human ecology. *American Journal of Sociology*, 1936a, 42, 1-15.
- Park, R. E. Succession: an ecological concept. *American Sociological Review*, 1936b, 1, 171-179.
- Pearce, D. Gatekeepers and homeseekers: institutional patterns in racial steering. *Social Problems*, 1979, 26, 325-342.
- Rapkin, C. and Grigsby, W. *The Demand for Housing in Racially Mixed Areas*. Berkeley: University of California Press, 1960.
- Ratcliff, R. Banks and corporate lending: an analysis of the impact of the internal structure of the capitalist class on the lending behavior of bankers. *American Sociological Review*, 1980, 45, 553-570.
- Ratcliff, R. U. *Urban Law and Economics*. New York: McGraw-Hill, 1949.
- Salins, P.D. *The Ecology of Housing Destruction*. New York: New York University Press, 1980.
- Stegman, M. *Housing Investment in the Inner City*. Cambridge: MIT Press, 1972.
- Sternlieb, G. *The Tenement Landlord*. New Brunswick, N.J.: Urban Studies Center of Rutgers University, 1966.

Housing and Society, Vol. 13, No. 2, 1986

Sternlieb, G. and Burchell, R.W. *Residential Abandonment*. New Brunswick: Transaction, 1973.

Tower, J. The mounting evidence of mortgage redlining. *Urban Affairs Quarterly*, 1980, 15, 488-501.

Yancey, W.L. and Erickson, E.P. The antecedents of community: The economic and institutional structure of urban neighborhoods. *American Sociological Review*, 1979, 44, 253-262.