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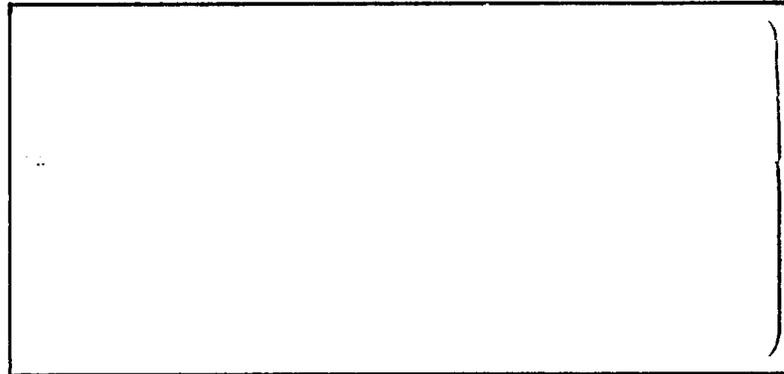
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**Unemployment and Underemployment
Institute**

T. T. Williams, Director

INTERNATIONAL ECONOMIC DEVELOPMENT PROGRAM



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THE EFFECTS OF NEIGHBORHOOD QUALITY, INCOME
AND RACIAL COMPOSITION OF RESIDENTS ON THE
VALUE OF SINGLE FAMILY DWELLING UNITS
IN NEW ORLEANS
(Final Report)

BY

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FOREWORD

The Unemployment and Underemployment Institute was created to coordinate all international economic development activities of the 211(d) grant at Southern University.

In 1972, the Agency for International Development (AID) approved a five year grant to Southern University to strengthen and increase its capacity in economic/ agricultural economics to enhance Southern's capabilities to contribute to the resolution of problems of rural unemployment and underemployment in developing countries.

The general objectives of the Institute are (a) to develop and coordinate the activities of the University for greater participation in international economic development programs; (b) to make available the capacities and expertise thus developed to public and private agencies involved in industrial development programs; and (c) to conduct research, seminars, and workshops on domestic and international development problems including cooperatives, manpower utilization, small farmers, housing, population, nutrition, leadership training, and community development.

In keeping with objective (a), the University supports several faculty members working towards advanced degrees in the area of economic development and related disciplines, supports undergraduate scholarships to foreign and U. S. nationals in the Department of Agricultural Economics and Economics, provides travel to professional seminars for faculty, foreign exposure to development experiences, and special training on techniques of program design and evaluation.

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Results of research projects consistent with the objectives of this program are published under the Institute's Faculty-Staff Research Paper Series. Papers published under this series reflects the diversity of interests and specialties of our faculty and staff.

The above activities of the Institute demonstrate the capacities and expertise of Southern University developed through the 211(d) program. As a result of the 211(d) grant, the Unemployment-Underemployment Institute at Southern University is in a position to offer expert and technical personnel to private and public agencies involved in international economic development programs.

T. T. Williams
Director

THE EFFECTS OF NEIGHBORHOOD QUALITY AND RACIAL COMPOSITION OF RESIDENTS ON THE VALUE OF SINGLE FAMILY DWELLING UNITS IN NEW ORLEANS

CHAPTER I

INTRODUCTION

Factors Affecting the Value of Housing in New Orleans

To appreciate the housing conditions in New Orleans, one needs to understand the factors responsible for the city's development and decay. These factors include the geographical and physical location of the city, economic condition, social mores of the population, and racial composition of the residents.

Historically, New Orleans is one of the oldest cities in the United States. It was ruled at one time or another by such foreign sovereigns as France and Spain. The cultural influences of these sovereignties are particularly pronounced in the areas of architectural design of homes and public buildings, which for the most part, however, are presently in a condition of widespread disrepair, obsolescence and decay.

Geographically, New Orleans is located near the Gulf of Mexico. It has a humid semi-tropical climate. A major part of New Orleans is below sea level, surrounded by a network of levees that protect it from the waters of the Mississippi River, Intra-coastal Waterway, Lake Borgne, and Lake Ponchartrain.

Flooding occurs in areas where drainage facilities and pumping stations are inadequate. In addition, the salt air blowing from the gulf accelerates structural deterioration of the homes. The above conditions are compounded by soil subsidence

in some parts of the city, leaving housing foundations hanging several inches above the ground. This is especially true in the newer subdivisions. In reclaiming and developing these former swamplands, drainage and pumping stations had to be installed. As water was pumped out, and the water table lowered, the soil compacted causing subsidence.

New Orleans is considered a melting pot of several ethnic groups from Europe, Africa, Latin America, and Europe. Unfortunately, because of unequal opportunities in education and employment, the non-Caucasian ethnic groups have not advanced as fast as the Caucasians and, as a result, a larger percentage of them are relatively poor and are often subject to discriminatory practices. The social rejection of these groups is due to the popular belief (supported by statistics) that the poor have a higher crime rate, disease rate, illegitimate birth rate, and live different life styles. Consequently, as the poor were isolated over the years, low income housing for them developed in a more or less segregated fashion and attempts to locate them (to avoid "ghettoization") closer to better neighborhoods have been met with resistance among the residents and politicians representing them.

There is evidence that there was widespread housing discrimination in the past, and that it continues to a limited extent up to the present time. Bonham¹ estimated that 58.8% of black families and 23.4% of white families live in substandard

¹Bonham, G. S., "Discrimination and Housing Quality", Growth Change, 3(4), October, 1972.

housing. Of the 35.4% difference, 27.3% was due to racial discrimination and only 8.1% was due to income and household size differences. The Regional Planning Commission² observed that subtle but pervasive social pressures and real estate dealer practices discourage middle income blacks from moving into predominantly white and better neighborhoods. In some cases when blacks do move in, white families leave even though moving involves financial loss. These practices, according to the Louisiana Advisory Committee to the U. S. Commission on Civil Rights³, have caused New Orleans blacks to pay disproportionately higher rents for lower quality housing and to make excessive down payments when purchasing homes.

The above factors have important implications on the value of housing in New Orleans. The French-Spanish architecture in residential homes may possess aesthetic values, but it is doubtful whether this results in an increase in the market value of the home, particularly if the structure is in disrepair and is located in a relatively old neighborhood. The humid, semi-tropical climate and soil subsidence accelerate structural deterioration thus increasing the cost of repairs and maintenance. Because the city is located below sea level, protected by a network of levees and kept relatively dry by pumping stations, public services are costly and this is reflected in

²Regional Planning Commission, Regional Housing Study, New Orleans, Jefferson, and St. Bernard Parishes.

³Louisiana Advisory Committee to the U. S. Commission on Civil Rights, "The Quest for Housing: Study of Housing Conditions in New Orleans" Times Picayune, October 17, 1974.

property and real estate taxes or increased housing prices when these services are provided for by developers. The effects of social rejection of the poor (and their isolation in housing projects) on increased crime, delinquency, and vandalism are social costs that everybody has to pay. Lastly, housing discrimination is expensive to those whites who are anxious to sell their homes often at a reduced price when blacks move into a neighborhood, and expensive to blacks who have to pay a premium to acquire homes in an integrated and relatively pleasant neighborhood.

Considerations of the above factors suggest the difficulty of estimating the value of single family residential units in New Orleans. It involves the determination of the individual contributions of various quantitative and qualitative characteristics of the neighborhood including economic, social and physical factors as well as the structural quality of the residential unit itself.

Review of Literature

In almost every city in the United States, there is an observed relationship between sub-standard housing on one hand and low income of residents and high percentage of black population on the other. This relationship seems obvious enough -- blacks have traditionally been denied economic and educational opportunities, causing them to settle for menial and low-paying jobs, and thus limiting their opportunity and ability to acquire housing outside unpleasant neighborhoods. Although, this line of reasoning seems to be a fair statement of the facts, it leaves two interesting questions unanswered: (1) Do blacks live in substandard housing because they are blacks or because they are poor?, or (2) Do blacks prefer to live in black neighborhoods even

when they can afford to purchase or are allowed to live in integrated and more pleasant neighborhoods?

It was only after the racial upheaval in the early 1960's leading to the burning of areas in Watts and Newark that urban renewal was given serious considerations, resulting in increased funding for research in the area of housing and discrimination. Results of these studies started to appear in the late 1960's and early 1970's. Notable among these are the works of Kain and Quigley⁴ who studied the City of St. Louis, Missouri, and found that there is evidence of discrimination in the fact that blacks pay eight percent more for rental units and five percent more for identical housing units than do whites. Bonham found similar results in a study of major metropolitan areas in U. S. including that of New Orleans. He concluded that "when important differences between white and non-white households are simultaneously controlled, there remain a large color difference in housing quality which are considered measures of discrimination..."⁵. A study by Bailey⁶ seem to contradict the above findings. He concluded that non-Caucasian slum dwellers do not pay more for equivalent housing in white neighborhoods. In fact, his findings seem to indicate the opposite. King⁷ essentially

⁴Kain, J. F. & J. M. Quigley, "Housing Market Discrimination, Home Ownership, and Savings Behavior", American Economic Review, 4(2), June, 1972.

⁵Bonham, G. S., op. cit.

⁶Bailey, M. J., "The Effects of Race and Other Demographic Factors On the Value of Single Family Homes", Land Economics, 4(2), May, 1966.

⁷King, T. A., "Racial Discrimination, Segregation and Price of Housing", Journal of Political Economy, 81(3), May - June, 1973.

supported the findings of Kain and Quigley in that his estimates show that blacks pay about 9% more than whites for housing, and rents in integrated areas are lower by 7% than predominantly black areas. Lapham⁸ on the other hand seemed to agree with Bailey's conclusion in that he did not discover significant differences in black-white housing costs. He argued that difference in price alone is not an evidence of discrimination, but may, in fact, be due to differences of the structural units, quality of neighborhood, or the size of the family. In a similar study, Scheitinger⁹ concluded that price decline following Negro occupancy did not prove to be universal, that sale prices during the early stages of Negro entry in a neighborhood were typically low, and that there is price and financing discrimination among blacks.

Aside from the economic consequences of discrimination, Kain and Quigley¹⁰ indicated that "persistence, thick skin, and willingness to spend an enormous amount of time house-hunting are minimum requirements for non-whites to move into white neighborhoods. These psychics and transaction costs may be far more significant than the out-of-pocket costs".

⁸Lapham, V., "Do Blacks Pay More for Housing", Journal of Political Economy, 79(6), November - December, 1971.

⁹Scheitinger, E. F., "Race and Residential Market Values in Chicago",

¹⁰Kain, J. F. and J. M. Quigley, op. cit.

Objectives of the Study

The objective of this study is to estimate the value of single family housing units in New Orleans. It proceeds on the assumption that the value of single family housing units is a function of the income of residents, appearance and the physical condition of the environment or neighborhood, and racial composition of residents. Because of the known inaccuracy of structural housing quality estimates of the Bureau of Census and because of the lack of funds to hire competent appraisers for an expanded study of structural housing quality, this variable was not included.

CHAPTER 2

DATA AND DATA ACQUISITION

Data

Primary and secondary data were needed to estimate the value of single residential housing units in New Orleans. The primary data include different aspects of neighborhood quality such as street condition, appearance of the yard, residential environment, presence or absence of other structures and residential location. Each of these broad dimensions of neighborhood quality were further subdivided into different categories and each category was rated in a scale of one to five.

Secondary data include owners' estimate of the value of housing unit, and racial composition of residents in the neighborhood. Quality of structures as reported by the Bureau of Census, such as presence or absence of plumbing, air conditioning or heating units, or sound, unsound and dilapidated ratings were not included in this study, although previous studies indicate the importance of these as explanatory variables in determining the value of housing units.

Acquisition of Data

Because of the diversity of the neighborhoods in New Orleans, a stratified random sample of one hundred twenty-seven blocks were chosen as study areas. This procedure of selecting samples seemed to be the most appropriate because of the heterogeneity of neighborhoods in terms of racial composition of residents, age of the neighborhood, proximity to the central business district, proximity to commercial, educational and cultural centers and the availability and adequacy of government

services and public utilities.

Data on the different dimensions of neighborhood quality were collected on the months of June, July, and August, 1972, by previously trained enumerators and results recorded on a survey questionnaire similar to that used in Los Angeles by Pascucci and North (11). See Table 1.

Secondary data on income were obtained from the 1970 Census on Population and Housing and the value of residential units and the racial composition of neighborhoods were obtained from the New Orleans Block Statistics.

Table 1 below is a copy of the questionnaire used by the enumerator in evaluating twenty-three dimensions of housing quality in New Orleans.

**Table 1: Instructions for Collection of Housing Quality
Data in New Orleans Field Survey**

INSTRUCTIONS: Each enumerator will be provided with a set of recording sheets which are drawn basic block outlines. The following procedures should be observed in recording the required data specified below.

- Step 1: Drive around the block. Record the number of parcels in each block face.
- Step 2: Sketch in the boundaries of land parcels and alleys in the block.
- Step 3: Write in the names of streets on each block face and indicate the orientation of the diagram.
- Step 4: Record the following data for each land parcel in the block. Entries for each parcel should be entered in a vertical column in the order specified below.

A. Street Condition

_____ 1. excellent condition

- _____ 2. good condition
- _____ 3. adequate condition
- _____ 4. minor repairs needed
- _____ 5. major repairs needed

B. Street Pattern

- _____ 1. regular
- _____ 2. irregular

C. Street Light

- _____ 1. adequate
- _____ 2. inadequate

D. Street Traffic

- _____ 1. Light
- _____ 2. Heavy

E. Sidewalks and Curbs

- _____ 1. none
- _____ 2. paved
- _____ 3. unpaved

F. Accessibility to Community Facilities

- _____ 1. difficult

- _____ 2. good
- _____ 3. excellent

G. Yard Condition

- _____ 1. paved, well-kept or landscaping not needed
- _____ 2. in need of maintenance
- _____ 3. neglected or overgrown

H. Presence of Litter

- _____ 1. non-apparent
- _____ 2. minor accumulations
- _____ 3. heavy and obnoxious accumulations

I. Presence of Garbage

- _____ 1. non-apparent
- _____ 2. minor accumulations
- _____ 3. heavy or obnoxious accumulations

J. Vegetation

- _____ 1. luxuriant
- _____ 2. landscaped
- _____ 3. neat, well-kept
- _____ 4. unkempt
- _____ 5. bare/overgrown

K. Litter in Alleys and Catwalks

- _____ 1. none
- _____ 2. minor accumulations
- _____ 3. heavy or obnoxious accumulations

L. Dwelling Types

- _____ 1. 80% - 100% single family units
- _____ 2. 60% - 80% single family units
- _____ 3. 40% - 60% single family units
- _____ 4. 20% - 40% single family units
- _____ 5. 0% - 20% single family units

M. Vacant Lots

- _____ 1. none
- _____ 2. few
- _____ 3. several
- _____ 4. many
- _____ 5. very many

N. Land Use

- _____ 1. strictly residential
- _____ 2. residential-commercial
- _____ 3. residential-commercial-industrial

_____ 4. light industrial-commercial

_____ 5. heavy industrial

O. Pool and Patio

_____ 1. widespread

_____ 2. many

_____ 3. several

_____ 4. few

_____ 5. none

P. Availability of Public Transport

_____ 1. none

_____ 2. present

Q. Lot and Home Size

_____ 1. very large

_____ 2. large

_____ 3. medium

_____ 4. small

_____ 5. very small

R. Accessory Buildings

_____ 1. none

_____ 2. sound condition

_____ 3. need minor repair

_____ 4. need major repair

S. Garage

_____ 1. none

_____ 2. sound

_____ 3. need minor repair

_____ 4. need major repair

T. Parkway

_____ 1. none

_____ 2. good condition

_____ 3. poor condition, need minor repair

_____ 4. neglected, overgrown

U. Land Use

_____ 1. single family dwelling

_____ 2. multiple dwelling

_____ 3. single & multiple dwelling

_____ 4. industrial

_____ 5. institutional

_____ 6. vacant lot, utilized

_____ 7. vacant lot, empty

V. Location

- _____ 1. amid better housing
- _____ 2. amid medium quality housing
- _____ 3. amid poor quality housing
- _____ 4. light industrial nearby
- _____ 5. heavy industrial nearby

W. Location with Respect to Public Services

- _____ 1. close
- _____ 2. fairly close
- _____ 3. far
- _____ 4. very far

CHAPTER 3

ANALYTICAL PROCEDURES AND RESULTS

Two widely known statistical techniques were used in this study: factor or principal component analysis and stepwise regression analysis. Factor analysis was used to develop indices of housing quality from enumerators subjective evaluation of several neighborhood characteristics. Stepwise regression analysis was used to determine the individual contribution of the different variables known to influence the value of housing in New Orleans. Detailed discussion of these techniques and their application in this study follows immediately below.

Factor Analysis

The purpose of factor or principal component analysis is to compress a massive set of data into fewer highly related clusters or groups. It starts with a simple matrix of correlation among whole set of items. Here, no dependent variable is indicated and nothing is assumed about the cause-effect relations of any one of them to another. There is then a method by which clusters are identified and a set of weight determined so that a weighted sum of items in any one cluster forms a new variable or factor. These weights are called factor loadings which constitute an index describing the characteristics displayed by the original variables and used in this study as independent variables in a regression analysis.

The major advantages of this analysis are: (1) the large number of independent variables is reduced into a smaller number of related or aggregated sets while retaining the influence of all the original variables, (2) the smaller number of aggregated

variables or factors increases the degrees of freedom in regression analysis, (3) multicollinearity among the independent variables is eliminated, and (4) some unobserved traits of the data may be revealed as a result of the procedure.

The defects of the analysis are: (1) aggregating the variables into factors does not change the fundamental subjective nature of the data, and (2) the additive nature of the analysis may cause two highly correlated items with opposite effects to cancel out thus excluding them in the relevant factors.

In this study, five factors were developed from the twenty-three original variables representing different neighborhood quality dimensions. See Table 1.

Table 1: Rotated Factor Loadings of Neighborhood Quality Variables

Neighborhood Variables	Factors				
	1	2	3	4	5
1. Street Widths	.97723				
2. Street Pattern	.98521				
3. Street Light	.98468				
4. Street Traffic	.98188				
5. Sidewalk & Curbs	.95851				
6. Accessibility to Community Facilities	.98128				
7. Yard Condition		.79720			
8. Presence of Litter		.80620			
9. Presence of Garbage		.87597			
10. Condition of Vegetation		.60903			
11. Litter in Alley & Catwalks		.88435			
12. Dwelling Type			-.57978		
13. Vacant Lots			-.53009		
14. Land Use			-.63550		
15. Presence of Pool & Patio			.56868		
16. Availability of Public Transportation				-.51517	

Table 1 Continued

17. Lot and Home Size	.56500		
18. Accessory Buildings		-.79579	
19. Garage		.79820	
20. Condition of Parkway		.55366	
21. Residential Use			-.57928
22. Location			.78108
23. Proximity to Industrial Location			.84466

Table 2: Factors and Variance of Neighborhood Variables

Factor	Designation	Percent of Variance	Cumulative Percent of Variance
1	Street Condition	33.69	33.69
2	Yard Condition	19.67	53.36
3	Residential Environment	12.28	65.64
4	Other Structures	10.55	76.19
5	Residential Class	12.33	88.52

The five factor solution summarized in Table 2 accounts for 88.52% of the variance among the twenty-three original variables and seems to provide the most meaningful description of the neighborhood quality dimensions affecting housing values in New Orleans. Each of the five factors appear to represent a separable and intuitively meaningful quality description of the neighborhood.

The first factor known as Street Condition accounts for 33.69% of the total variance of the correlation matrix and loads heavily on street widths, street light,

street pattern, street traffic, sidewalks and curbs, and accessibility to community facilities. Street condition is described as either paved or unpaved, sound or unsound, in need of major or minor repair. Street pattern may be described as either regular or irregular. Street light may be adequate or inadequate and street traffic may be light or heavy. Accessibility to community facilities indicates whether a neighborhood is conveniently located with respect to schools, churches, shopping centers, libraries, etc.

The second factor known as Yard Condition accounts for 19.67% of the total variance of the correlation matrix appearance of the yard, presence or absence of litter and garbage, condition of vegetation and cleanliness of alleys and catwalks. The condition of a yard may be either well-kept, landscaped or completely paved, or in need of maintenance with neglected or overgrown weeds. Presence or absence of garbage and litter may be either non-apparent, or present with heavy or obnoxious accumulation. The condition of vegetation may be described as either luxuriant, landscaped, neat and well-kept, or unkept, bare or overgrown.

The third factor known as Residential Environment includes the type of dwelling in the neighborhood, presence or absence of vacant lots, land use, presence or absence of pool and/or patio, presence of bus stops, and the sizes of lots and homes. Dwelling type indicates the ratio of single family residential housing to multiple family housing units or apartments. Presence or absence of pool and/or patio may be indicated as widespread, many, several, few or none, while the size

of lots and homes may be indicated as very large, large, medium, small or very small. This factor accounts for 12.28% of the variance of the original correlation matrix.

The fourth factor designated as Other Structures includes the condition of accessory buildings, garage and parkway. The condition of accessory buildings may be described as sound, or in need of major or minor repair; the condition of garage may be described as sound, in need of repair or dilapidated; while parkway condition may be described as good, poor, or neglected. This factor accounts for 10.55% of the variance of the original correlation matrix.

The fifth factor designated as Residential Class includes land use and location in the neighborhood. Land use may be classified as strictly residential, residential-commercial, residential-commercial-industrial, light industrial-commercial, or heavy industrial. A neighborhood location may be amid better housing, amid medium quality housing, amid poor quality housing, light industrial nearby, light industrial-commercial nearby, or heavy industrial nearby. This factor accounts for 12.33% of the variance of the original correlation matrix.

Stepwise Regression Analysis

Stepwise regression analysis is a multiple regression and correlation technique which starts with a simple regression between a dependent variable and one independent variable, and by continuous iteration, includes additional independent variables sequentially in the order of their contribution to the goodness of fit of the regression (change in R^2) until all the significant variables are entered into the equation.

In this study, owners' estimate of housing value was made the dependent variable while income, neighborhood quality variables (factors 1, 2, 3, 4, 5) and percentage of black residents in the neighborhood were the independent variables. Symbolically, the above variables were functionally related as follows:

$X_1 = f(X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, X_{10})$ where:

X_1 = owners' estimate of housing value,

X_2 = mean annual income of residents in the block,

X_3 = factor 1 or street condition,

X_4 = factor 2 or yard condition,

X_5 = factor 3 or residential environment,

X_6 = factor 4 or other structures,

X_7 = factor 5 or residential class,

X_8 = dummy variable designated as zero, representing neighborhood with 75% - 100% black and designated as black neighborhood,

X_9 = dummy variable designated as one, representing neighborhood with 25% - 74.9% black and designated as integrated neighborhood, and

X_{10} = dummy variable designated as one, representing neighborhood with 0 - 24.9% black and designated as white neighborhood.

The result of the analysis is shown in Table 3.

Table 3: Summary of Regression Equations Relating Owners' Estimate of Housing Value To Income, Neighborhood Quality Indices and Percentage of Black Population in the Neighborhood

Dependent Variable	Intercept	Regression Coefficient ^a									R	R ²	ΔR^2
		X ₂	X ₃	X ₄	X ₅	X ₆	X ₇	X ₈	X ₉	X ₁₀			
1. X ₁	8221.93440	1.62941 (.16240)		-256.24628 (75.27172)				intercept	703.41646 (1928.64674)	2752.15408 (1661.25066)	.8276	.6849	.6849
2. X ₁	8902.52440	1.60845 (.15821)	147.49449 (63.21924)	-271.12678 (73.49256)				intercept	1542.04061 (1910.08264)	3171.39280 (1625.82591)	.8401	.7055	.6209
3. X ₁	8829.71880	1.60023 (.157821)	140.19835 (63.28067)	-269.31386 (73.25756)		-72.38074 (58.59307)		intercept	1276.38218 (1915.70174)	2929.08044 (1632.13196)	.8435	.7115	.6357
4. X ₂	8996.86192	1.58671 (.15771)	149.84089 (63.60240)	-284.24802 (74.09039)	82.30578 (68.41724)	-71.17456 (58.43084)		intercept	1304.0368 (1910.22856)	2958.93236 (1627.54026)	.8467	.7169	.6054
5. X ₁	9185.05416	1.59350 (.15891)	152.06639 (64.01056)	-291.48608 (75.50531)	93.63281 (71.55125)	-75.02064 (80.87667)	-46.0419 (80.87667)	intercept	1810.66274 (1728.06820)	3277.46908 (1728.06826)	.8475	.7217	.6048

^a Figures in parenthesis are standard errors of estimate.

Interpretation of Results

Three major groups of data were used as independent variables in the regression analysis: (1) mean annual family income of residents in the block, (2) factor weighted neighborhood quality indexes, and (3) racial composition of residents.

Using equation 5 as the predictive equation, the results show that on the average, \$1.00 increase in household income is associated with \$1.59 increase the owner's estimate value of housing unit.

The coefficients of the neighborhood quality indexes may be interpreted as market value of a unit of each type of neighborhood quality. With the effects of income and racial composition held constant, Street Condition (factor 1 or X_3) and Residential Environment (factor 3 or X_5) add to the market value of the home by \$152 and \$94 respectively. On the other hand, Yard Condition (factor 2 or X_4), Other Structures (factor 4 or X_6) and Residential Class (factor 5 or X_7) reduce the value of the home by \$291, \$15 and \$46 respectively. If the mean values of values of X_3 to X_7 are multiplied by their respective coefficients, and their product summed, the net effect of neighborhood quality is to reduce value of housing by \$44. The reason for this is - while good road conditions and pleasant environment have positive effects, other factors such as litter and garbage on the yards, unsound and dilapidated structures and garages and proximity of the neighborhoods to commercial and industrial sites exert greater negative effects.

Excluding the effects of income and neighborhood quality, equation 6 shows that the value of housing in integrated neighborhoods is \$1811 more than that of black neighborhoods and the value of housing in white neighborhoods is \$3277 more

than that of black neighborhoods.

Considering the simultaneous effects of income and neighborhood quality, the average value of single family dwelling units in black, integrated and white neighborhoods are shown below: See also Figure 1.

Table 3: Comparative Value of Single Family Residential Housing Units in New Orleans, By Race

Racial Composition	Intercept	Adjustment due to Income	Adjustment due to Neighborhood Qlty.	Market Value
Black Neighborhood	\$ 9185	\$ 9712	- \$44	\$18853
Integrated Neighborhood	\$10995	\$15126	- \$44	\$26077
White Neighborhood	\$12462	\$19445	- \$44	\$31863

The above results show that on the average, the value of housing in black neighborhoods is \$7224 less than that of integrated neighborhoods and about \$13010 less than that of white neighborhoods.

It should be pointed out that not all of the independent variables in equation 6 are significant. At 5% level of significance, the coefficients of X_5 , X_6 , X_7 , and X_9 are not statistically significant.

The importance of the independent variables in improving the goodness of fit (increase in R^2) is indicated by the order of their inclusion in the stepwise procedure. Listed in the order of their importance in explaining the value of single family

residential dwelling units, these variables are as follows: X_2 , X_4 , X_3 , X_6 , X_5 , and X_7 . The variables representing racial composition of neighborhood were "forced" into the analysis regardless of their significance as explanatory variables.

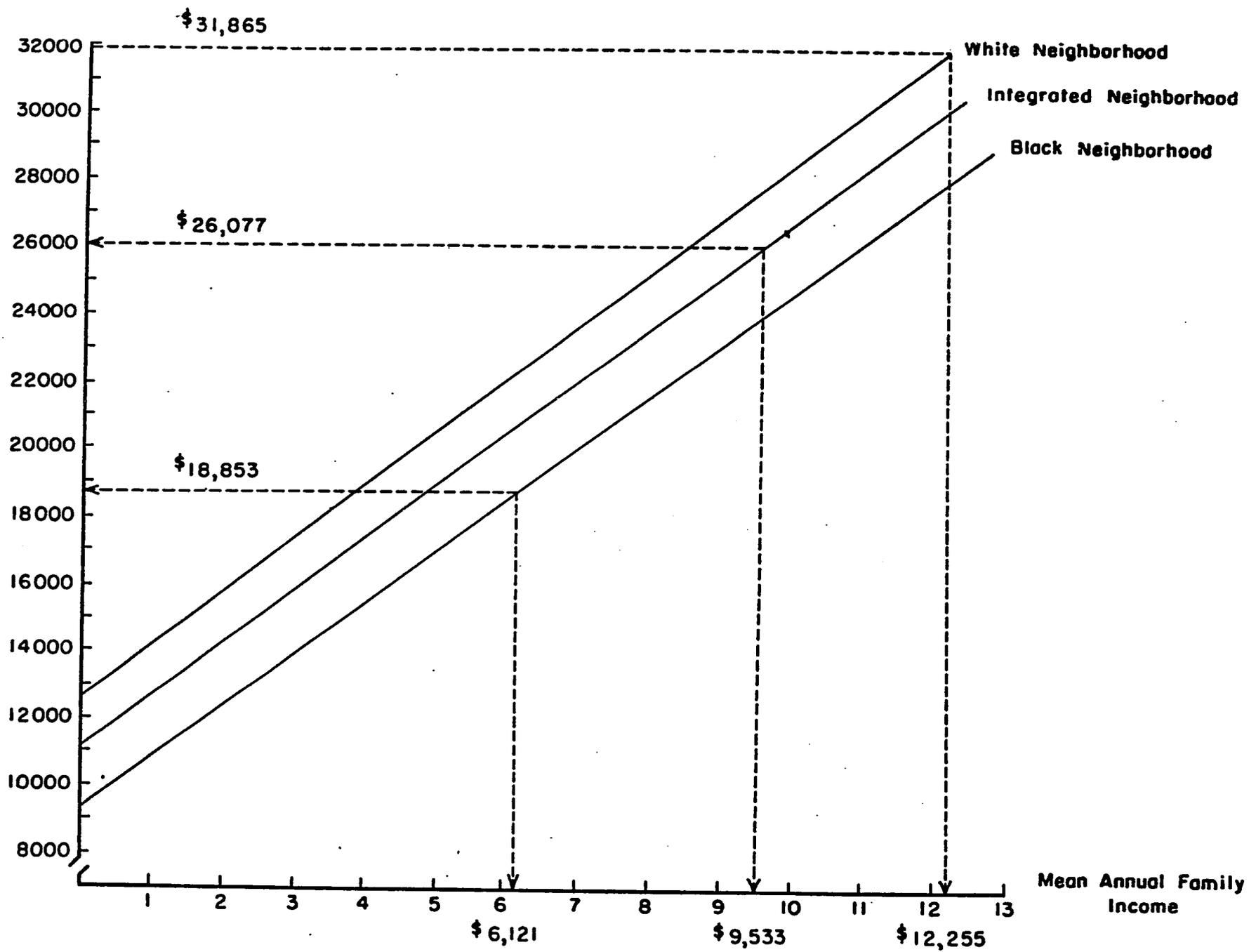


FIGURE 1: HOUSING VALUE BY RACE AND INCOME GROUPS

SUMMARY AND CONCLUSIONS

The history, geographical condition, physical condition of the soil, economic and social characteristics of the population influence the kind of neighborhood and housing in New Orleans.

The architectural influence of the French and Spanish in residential and public housing is widespread throughout the city. It is dubious, however, if their aesthetic beauty is reflected in their market values, especially when these homes are in a condition of disrepair and are located in old decaying neighborhoods.

The humid and semi-tropical climate and proximity to the Gulf of Mexico, Lake Ponchartrain, Lake Borgne, and the Mississippi River contribute to rapid structural deterioration (caused by salt air blowing into the city) and soil subsidence caused by constant pumping of underground water from what originally were swamped areas. These physical conditions are reflected in terms of upkeep and maintenance of the homes, higher real estate and property taxes for levee and drainage construction and installation of pumping stations all over the city. When these facilities are installed by developers, the costs are usually shifted to homeowners in the form of increased prices for homes and real estate. In addition, the fact that the city is located in the hurricane belt and is below sea level causes flood and hurricane insurance to be relatively more expensive here than in other areas.

Isolation of the poor in certain neighborhoods is costly to society in terms of increased crime, delinquency and vandalism. Racial discrimination is costly to whites when they have to move out of a neighborhood for reasons other than economic.

Also, it is expensive for blacks to move into integrated, relatively more pleasant neighborhoods when they have to pay a premium in terms of increased cost of the home and unfavorable financing arrangements.

Within the above framework, the objective of this study is to estimate the value of single family residential housing units in New Orleans. The corollary to this objective is to determine the effects of economic, physical and social factors on the value of housing. In this study, the economic factors are represented by mean annual family income; the physical factors are represented by five neighborhood quality indexes; and the social factors are represented by the racial composition of residents in the neighborhood.

Through the use of factor analysis and step-wise regression analysis, the following conclusions can be drawn:

1. Income is the most significant variable in influencing the value single family housing units in New Orleans. A dollar increase in the income of a homeowner is associated with a dollar and fifty-nine cents increase in the value of his home.
2. The net effect of neighborhood quality is to reduce the value of housing unit by \$44. Although good roads and pleasant environment exert positive influences on the value of the home, such factors as litter and garbage all over the yards, overgrown weeds, unsound and dilapidated garages and other structures, and the proximity of study areas to commercial and industrial sites exert greater negative effects.
3. With the income and neighborhood quality effects constant, there remains a difference on the value of homes by racial composition of residents in the neighborhood. For example, homes in black neighborhoods are, on the average, \$1811 less than that of similar homes in integrated neighborhoods, and \$3277 less than that of similar homes in white neighborhoods. These differences may be interpreted as measures of discrimination.

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