1996

Background Research snd Recommendations to Improve the Quality of Life in the City of Central Falls, Rhode Island

Abhijit Brahmachari
University of Rhode Island

BACKGROUND RESEARCH AND RECOMMENDATIONS TO IMPROVE THE QUALITY OF LIFE IN THE CITY OF CENTRAL FALLS, RHODE ISLAND

BY

Abhijit Brahmachari

A Research Project Submitted in

Partial Fulfillment of the Requirements

for the Degree of

Master of Community Planning

UNIVERSITY OF RHODE ISLAND

1996

MASTER OF COMMUNITY PLANNING

RESEARCH PROJECT

OF

ABHIJIT BRAHMACHARI

Approved:
Major Professor

Farhad Atash

Acknowledged:
Acting Director

Farhad Atash

ABSTRACT

The purpose of this report is to provide the background research and strategies to improve the quality of life of the City of Central Fall, Rhode Island. The content of the report is divided into three broad sections. The first section presents an overall profile of Central Falls. Various chapters in this section are further subdivided into two broad categories of 'socio-demography' and 'physical characteristics', and include an in-depth analysis of available secondary data for the 1970s, the 1980s, and the 1990s.

The second section of report is a case-study. In this section a part of Central Falls is chosen for a detailed analysis of socio-demographic and physical characteristics. In the third section the findings of the two earlier sections are used to formulate policy recommendations for improving the quality of life in Central Falls. The report concludes that in spite of existing adverse economic situations, theories of city planning may be applied to formulate long-term policy recommendations to improve the quality of life in the City.

ACKNOWLEDGMENTS

This research project would never be completed without the help and support provided by Dr. Farhad Atash, who also is the primary reader of this project. I would also like to thank Dr. Howard Foster, Jr., and Ms. Alma Felix Green for their thoughtful and timely comments on the first and second drafts of the thesis.

I would like to thank the friendly staff at the City Hall of Central Falls, especially Mr. John McAlmont, the former director of the planning department, for providing with necessary data and for helping in research of city records. I would also like to thank Ms. Derry Riding of the Department of Planning, Rhode Island for providing with necessary data.

I would like to thank my parents for their love and good wishes from overseas, without which living in a foreign land would have been much more difficult, let alone the thesis. Finally, I would like to thank Sarada for her continuous help, support, and encouragement in going through the sleepless nights of planning school.

Dedicated to

Mum and Bapi, and Doto and Jethu

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

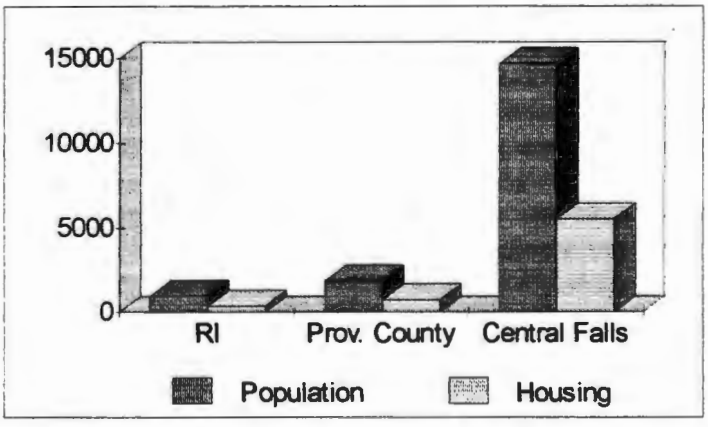
LIST OF MAPS

1.1 Problem Statement

The City of Central Falls is one of the 8 cities and 31 towns in the State of Rhode Island. The 1.2 square mile city is situated in the north-eastern part of the State (See Map 1), and, has social and physical characteristics significantly different, almost in every aspect, from the majority of the state.

According to the 1990 Census of Population and Housing, the population density of the City is about 15,000 persons per square mile, which is approximately fifteen times more than the population density of Rhode Island (957 per square mile), and about ten times more than the population density of the Providence County (1444 per square mile) within which the City caters its significant presence (See Figure 1.1). Similarly, while the housing density of the State of Rhode Island in 1990 stayed at 361 units per square mile (or, 17 units in 10 Acres), the City housed an outstanding 5535 units per square mile - 15 times more than the State, and more than nine times as much as the housing density of the County (589 units per square mile).

Figure 1.1: Population and Housing Densities (Counts per Square Mile) of Rhode Island, Providence County, and the City of Central Falls, 1990.



Central Falls houses about 2% of the state population while its share of land is about 0.01% of the total land area of the State. In addition to such differences in population and housing densities, the social characteristics of population and housing of the City is also notably different from the rest of the State. The proportion of Hispanic (28%) and the foreign born (27.7%) population of the City surpass the state figures (4.5% and 9.5% respectively) by many times, and so does the population who are below the poverty line (City - 22.3%, State - 9.6%).

The difference also exists in the home-ownership status - the owner/renter ratio of the State is 7:5, while the City's ratio is 1:3.

The difference between the State, and the City exists in almost every social and physical condition. Compared to the low-density residential character of the communities of the State, the City offers a living environment which is more urbane. The physical difference brings its social impacts, and vice-versa, but the fact of the matter is that a potential home buyer of Rhode Island probably will not consider Central Falls as a place to live, unless, he or she has any other sentimental and/or business interest.

Table 1.1: Population and Housing Characteristics of the City of Central Falls, Providence County, and the State of Rhode Island, 1990.

Characteristics	Rhode Island	Providence	Central Falls
Total Land Area (Sq M)	1045.00	413.00	1.20
Total Population	1000464	596270	17637
Total number of Housing Units	377977	243224	6643
Population Density (per Square Mile)	960.30	1444.00	14697.50
Housing Density (per Square Mile)	361.70	588.92	5535.83
% Hispanic Population	4.50%	8.00%	28.00%
% Foreign Born	9.50%	12.50%	27.70%
% Below Poverty Line	9.60%	11.90%	22.30%
Per Capita Income	$14,981.00	$13,871.00	$8,940.00
% Elderly Population (65 Yrs. and older)	11.60%	13.10%	22.20%
% Family Below Poverty Line	6.80%	8.90%	18.70%
% Structures Built between 1980 and 1990	15.10%	12.80%	8.40%
Owner/renter Ratio	7:5	1:1	1:3

Source: United States Bureau of Census, Department of Commerce, 1990.

Table 1.1 shows that the City has a multi-cultural population and the density of housing units of the City is more than other communities in Rhode Island. The City also has its historical heritage, and a mixed land-use divided into distinct categories. Central Falls has almost everything a city can possibly offer to its residents. The 1.2 square mile city has its own residential districts, historic districts, commercial strips, industrial districts, scenic waterfront along Blackstone River, and an asset of multi-cultural population. But, in spite of the available resources, the City fails to provide adequate municipal services to its neighborhoods. This,

The author feels that a short term face lifting may be undertaken but will not provide permanent solution for the City's problems. Based on the experience of working as a member of a consultant team for the City, it was felt that long term improvements of its neighborhoods could be achieved through the applications of appropriate urban revitalization and redevelopment strategies.

1.2 Research Objectives and Significance

The objectives of the research study are as follows;

i) **Present a profile of the City of Central Falls as it relates to socio-demographic and physical characteristics.**

Socio-demographic characteristics to be analyzed will be divided into three sub-sections: population, race/ethnicity, and income. The physical characteristics to be analyzed will also be divided into two sub-sections: land use and housing.

ii) **Prepare recommendations to improve the living conditions in the study area** (See Map 1) **and the whole City, taking into account the availability of affordable housing, minimum housing standards, and the proportions of built up and open spaces.**

The "study area" is bounded by Rand Street to the South, Cowden Street to the North, Illinois Street to the East, and Lonsdale Avenue to the West. According to the preliminary research performed, the study area has the highest concentration of boarded-up and/or abandoned properties in Central Falls. It is also visually observed that this area is impacted most by poverty and gang activities. On the other hand, the study area includes the historic district along Rand Street, the commercial strip along Dexter Street, manufacturing activities at Rand and Dexter, and it abuts the High School of Central Falls.

The study, thus, will first present the crucial indicators behind the image of the City, and then will apply planning/urban design methodologies to the study area, as well as the whole City. Central Falls may be an exception in Rhode Island, but similar conditions may be found in parts

together with severe economic hardship, encourages drug and gang related activities. Central Falls has been cited as a crime scene by the media more than any other city and town of Rhode Island.

A tour of the City confirms the necessity of immediate strategies to revitalize its neighborhoods - some more than the others. To an outsider, the city-scape does not provide a pleasant backdrop. The skeleton of long gone industrial prosperity, dilapidated houses, neglected road surfaces, apprehensive glance of the residents are all a tourist gets to see. In many occasions, while surveying the boarded-up/abandoned properties of the City, the author had been rudely interrogated by the residents and the shop-owners regarding the purpose of the survey and denied permission to take photographs even when the properties were owned by the City.

As a part of summer internship, working for Women's Development Corporation, a Providence based non-profit housing consultant, the author had the opportunity to survey the existing housing stock and the available unused open spaces of the City. Based on the acquired expertise in planning and designing and experience in working for various communities of Rhode Island, the author feels that the available housing and open spaces need major improvements to cater to the present needs of the residents.

Amongst the various social and physical problems that the City has, lack of affordable housing for the low and moderate income population, non-conforming land-uses, lack of usable open spaces, and quality of life are addressed in this study. Preliminary observations confirm that i) the available abandoned, city-owned housing units can be refurbished and be made available to the low and moderate income population, ii) available open spaces may be landscaped, and new open spaces may be developed by demolishing dilapidated houses, iii) policies may be created to provide more rental units for the income-eligible residents with the help of federal and state subsidies, and iv) residents may be educated in areas such as health, hygiene, and minimum housing standards.

of Providence, Pawtucket, and Woonsocket, and also in the larger cities, such as New York, Philadelphia, and Chicago. The recommendations derived from this study, therefore, may also be applicable to the similar areas in other cities.

1.3 Methodology

As the objectives of the research proposal is divided into two distinct sections, the means to meet the end is also conceived as two parallel streams of thought. On completion of both, individual findings from each of the sections will be grouped to form the final recommendations of the study.

In the first section, physical and social characteristics of the City will be analyzed using the secondary data to determine the trend of development within the City compared to other communities in Rhode Island (Providence County, and the State of Rhode Island) during the past three decades (data to be used are 1970, 1980 and 1990 Census Figures, and other state, and local figures).This section will subsequently be divided into two sub-sections. First sub-section will analyze the socio-demographic characteristics while the second sub-section will analyze the physical characteristics, both being divided into several chapters.

In the second section an in-depth analysis of the physical form of the study area will be performed. This section will analyze housing, land-use, zoning, and the distributions of built-up and open spaces. Analyses performed in this section will be based on primary data collected by the author through the research of the city records. Similar to the first section, this section will also be divided into different chapters. The chapters of both the sections will be organized according to the following outline.

1.4 Organization of the Study

The study is divided into five chapters. Following this introduction (Chapter 1), the Second Chapter examines the socio-demographic characteristics of the City of Central Falls. This chapter on socio-demography is divided into three sections, which are population, race/ethnicity, and income.

The Third Chapter of the study examines the physical characteristics of the City. This chapter is divided into two sections. The first section examines the existing land-use of the City, while the second section presents a profile of housing condition of the City.

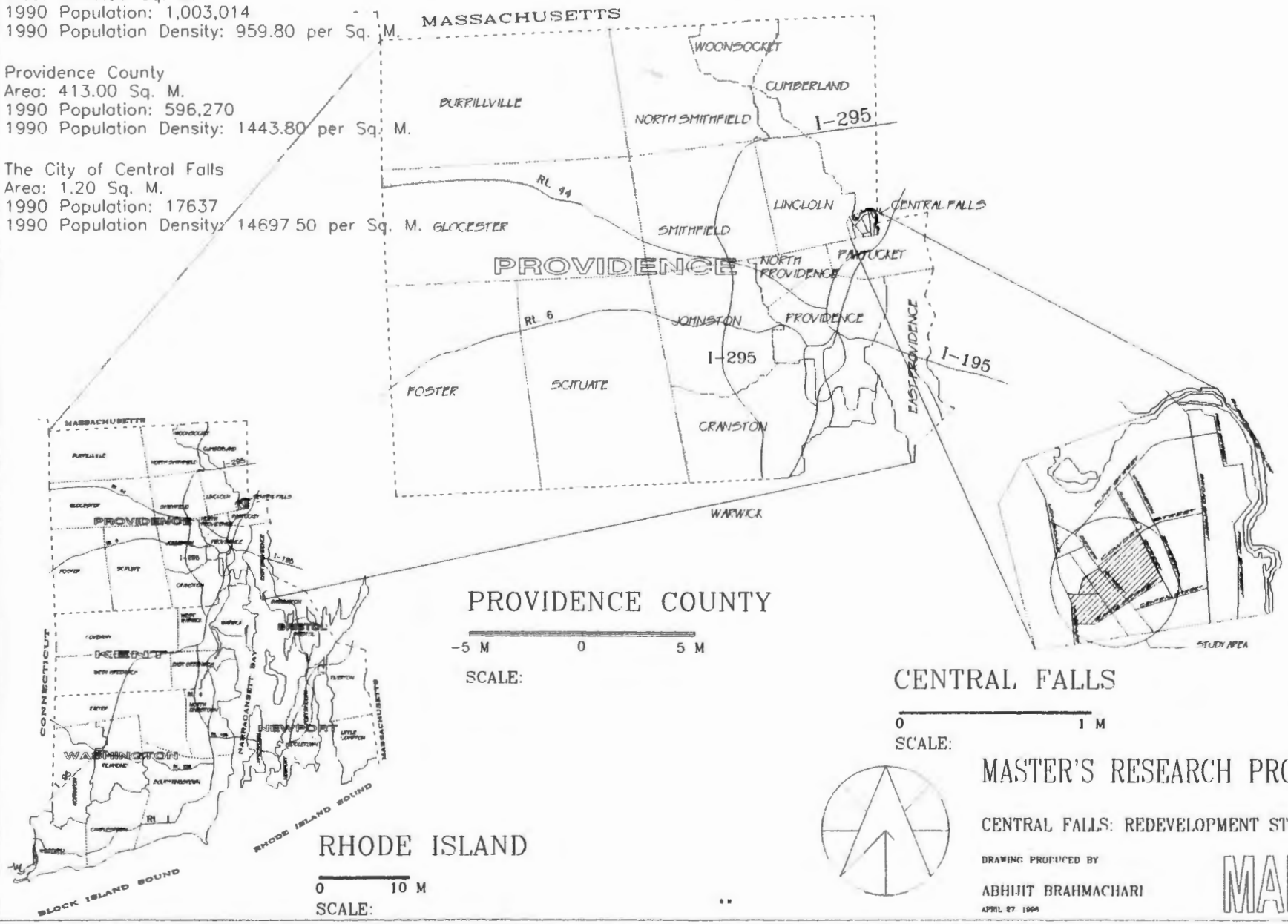
The Fourth Chapter is a case study. In the case study, an in-depth analysis of socio-demographic and physical characteristics of the study area is presented. While the earlier chapters present a comparative analysis, the case study is a descriptive analysis of available primary as well as secondary data.

The Fifth and final chapter presents a set of recommendations to improve the quality of life in the City. The recommendations are divided into two primary categories of land-use and housing, as they relate to the quality of life. Apart from these two primary categories, this chapter also suggests design and implementation of an urban design plan for the City.

The State of Rhode Island
Area: 1045.00 Sq. M.
1990 Population: 1,003,014
1990 Population Density: 959.80 per Sq. M.

Providence County
Area: 413.00 Sq. M.
1990 Population: 596,270
1990 Population Density: 1443.80 per Sq. M.

The City of Central Falls
Area: 1.20 Sq. M.
1990 Population: 17637
1990 Population Density: 14697.50 per Sq. M.



PROVIDENCE COUNTY

-5 M 0 5 M

SCALE:

CENTRAL FALLS

0 1 M

SCALE:

RHODE ISLAND

0 10 M

SCALE:

MASTER'S RESEARCH PROJECT

CENTRAL FALLS: REDEVELOPMENT STRATEGY

DRAWING PRODUCED BY

ABHIJIT BRAHMACHARI

APRIL 27 1996

MAP 1

2.1.1 Introduction

This chapter presents a demographic profile of the City of Central Falls. In various analyses presented in this chapter comparisons have been made between the demographic characteristics of the City and the State of Rhode Island and Providence County using the 1970, 1980, and 1990 Census Reports.

The analysis of population is divided into five sections. It begins with a 'general discussion' of demography of the City, the County, and the State, considering the published population counts between 1900 and 1990. This follows by analyses of 'Population Density', 'Population Density Trend', 'Non-White Population' and 'Age-Sex Distribution'.

2.1.2 General Discussion

The research reveals that the demographic experience of this 1.2 square mile City of Central Falls did not follow the demographic trends of Rhode Island or Providence County. Compared to the steady growth of population of the State and the County between 1900 and 1990, the City shows an irregular trend.

Table 2.1: Population Counts of Central Falls, Providence County, and Rhode Island, 1900-1990.

	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990
Central Falls	18167	22754	24174	25898	25248	23550	19858	18716	16995	17637
Providence County	-	-	475190	540016	550298	574973	568778	580261	571349	596270
Rhode Island	428556	542610	604397	687497	713346	791896	859488	947725	947154	1003014

Source: US Department of Commerce, Bureau of Census. 1900 - 1990.

Over the period between 1900 and 1990 the population of the State of Rhode Island increased steadily from 428,556 in 1900 to 1,003,014 in 1990 (See Table 2.1 and Figure 2.1). The population of Providence County also shows an upward trend during the period of 1920 to 1990. Although the rate of increase in population in the County has not been as high as the rate in which the population of the State increased, the population of the County never showed a downward trend. The county population increased from 475,190 in 1920 to 574,973 in 1950 (See Table 2.1). The population of the County remained stagnant over the next three decades through

1980 (See Figure 2.2). The curve again showed an upward trend during the 1980s, culminating with a population count of 596,270 in 1990.

Figure 2.1: Trend in Population, The State of Rhode Island, 1900-1990

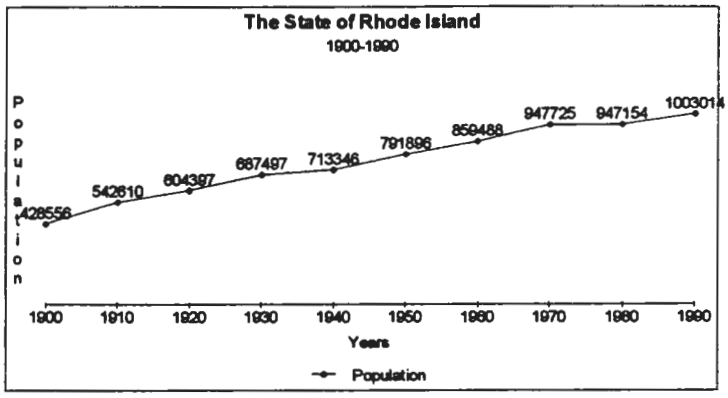


Figure 2.2: Trend in Population, Providence County, 1920-1990

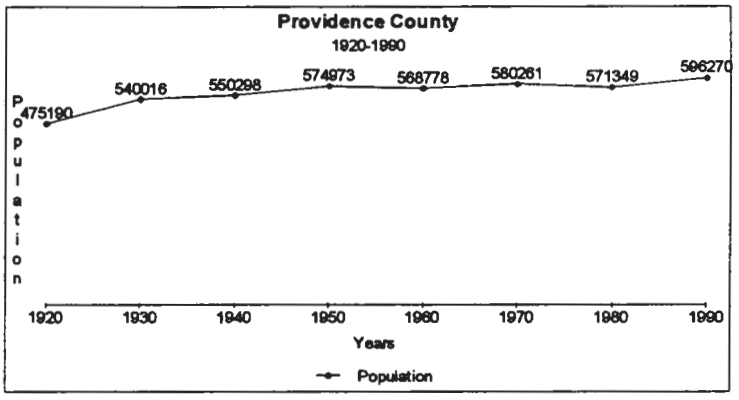
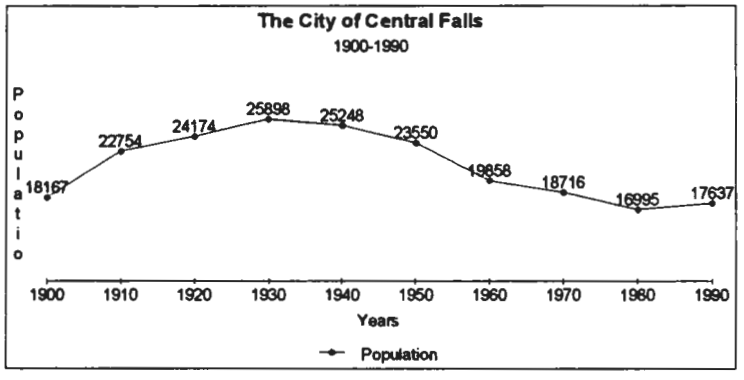


Figure 2.3: Trend in Population, Central Falls, 1900-1990



Compared to the population trend in the State and the Providence County, the City experienced a trend which is very different (See Figure 2.3). The population of the City showed an upward trend between 1900 and 1930 with counts of 18,167 in 1900 to 25,898 in 1930 (See

Table 2.1). The trend slowed down sharply during the 1930s, and went downward through the end of the 1970s with a population of 16,995 in 1980. The trend again reversed at that point and the 1990 census reports a total population count of 17,637.

This analysis shows that while the population of the State of Rhode Island doubled between 1900 and 1990, the population of Central Falls declined. Two major reasons may be stated for decline in population: I) growing crime and air pollution of the central city, and, II) growth of automobile use. As a result of the continuous growth of commercial and industrial activities within the city those who could afford moved to the sub urban areas. The added attraction was the innovation of the automobile providing easy access to the commercial and industrial areas from suburban residences.

2.1.3 Population Density

Although it is true that the demographic trend of the city has been irregular with extensive downward trend compared to the steady upward growth of the State and the County, the population density within the City of Central Falls has always been exorbitantly high compared to the State and the County.

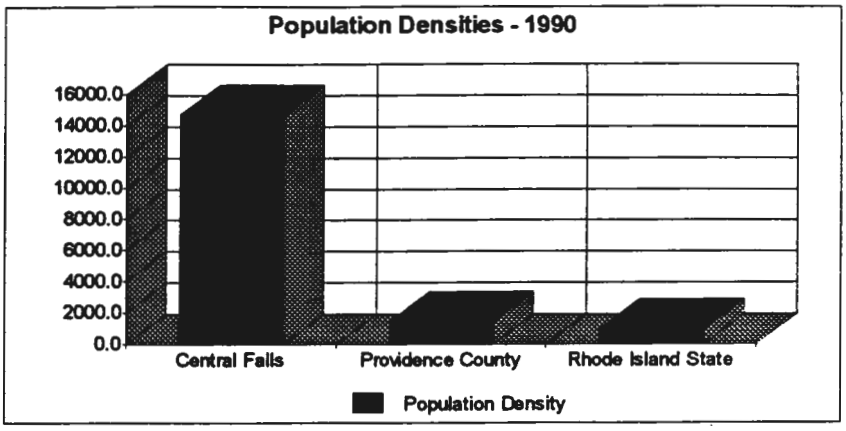
Table 2.2: Population Densities of the State of Rhode Island, Providence County, and the City of Central Falls, 1990

	Population	Area Sq M	Population Density per Sq M
Central Falls	17637	1.20	14697.5
Providence County	596270	413.00	1443.8
Rhode Island State	1003014	1045.00	959.8

Source: US Department of Commerce, Bureau of Census. 1990.

The City of Central Falls is limited to a land area of only 1.2 square mile. The City is bounded by the Town of Cumberland to the North, the Town of Lincoln to West, and the City of Pawtucket to the South and the East (See Map 1). Compared to the total available land area of the State (1045.00 square mile), the City has an insignificant share of only 0.1% of land although it accommodates an estimated 2% of the total population of the State. As a result, the population density of the City is 15 times higher than the population density of the State (See Table 2.2 and Figure 2.4).

Figure 2.4: Population Densities of the State of Rhode Island, Providence County, and the City of Central Falls, 1990



This difference exists not only with the State but also in comparison with Providence County. A similar analysis reveals that the City houses about 3% of the total population of the County with an approximate share of 0.3% of land area. This results in a density 10 times greater than the density of the County (See Figure 2.4).

2.1.4 Population Density Trend

It is not only the enormous density of population that makes the City different from the State, the trend of change in density within the City, too, has been abnormally different from the rest of the State during the past three decades under consideration.

Table 2.3: Population Densities of the State of Rhode Island, Providence County, and the City of Central Falls, 1970-1990

	1970	1980	% Change	1990	% Change
Rhode Island State	906	906.4	0.04	959.8	5.89
Providence County	1405	1383	-1.57	1443	4.34
Central Falls	15596.7	14162.5	-9.20	14697.5	3.78

Source: US Department of Commerce, Bureau of Census. 1970 - 1990.

As mentioned before (2.1.2), the trend in population density of the State has never shown a downward trend recently. The population density of the State increased by .04%, and 5.89% during the 1970s and the 1980s respectively. The population density of the County, on the other hand, decreased by approximately 1.5% during the 1970s, but it increased during the

1980s by approximately 4.5%. Although, there has been a decrease in density during the 1970s, the rate of change of density for both the state and the county were similar from 1970 to 1990.

On the contrary, the population density of the City decreased between 1970 and 1990. According to the 1970 Census, the population density of the City was 15,596.7 per Square Mile. Over the next ten years the density decreased by 9.2%, with an estimated density of 14162.5 in 1980. The density again increased over the next ten years by 3.78%, with an estimated population density of 14,697.5 per Square Mile in 1990. However, the over the period of twenty years between 1970 and 1990, the population density of the City decreased from 15,596.7 per Square Mile in 1970 to 14,697.5 per Square Mile in 1990.

2.1.5 Non-White Population

Perhaps, the most striking change in demographic feature of the City during the three decades under consideration is the increasing percentage of the non-white population. The percentage of non-white population increased from .06% in 1970 to 22.6% in 1990, compared to the 3.4% and 8.4% for the State respectively (See Table 2.4).

Table 2.4: White and Non-White Population of the City, County and the State, 1970-1990.

	1970			1980			1990		
	White	Non-White	%Non-White	White	Non-White	%Non-White	White	Non-White	%Non-White
Central Falls	18598	118	0.6	16036	959	5.6	13656	3981	22.6
Providence Co	557925	22336	3.8	530459	40890	7.2	522953	73317	12.3
Rhode Island S	914757	31968	3.4	896692	50462	5.3	918830	84184	8.4

Source: US Department of Commerce, Bureau of Census. 1970 - 1990.

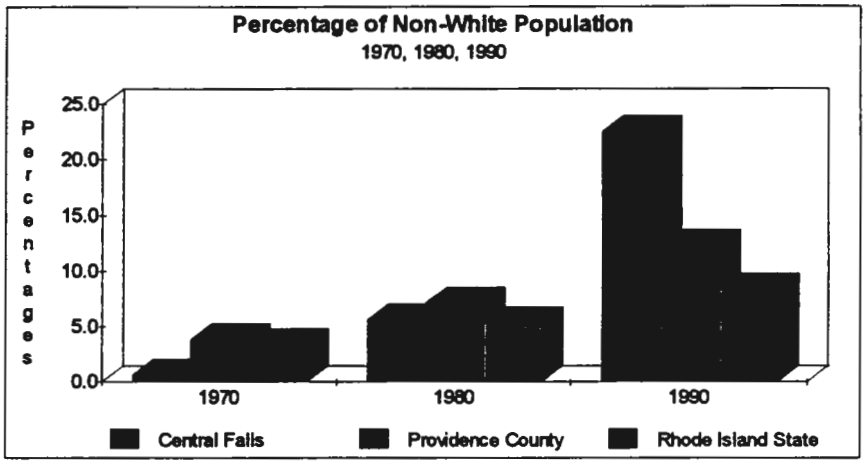
During 1970, the non-white percentage of population of the City was below the comparable percentages of the State or the County which were approximately 6 to 8 times more than the City. During the course of the next 20 years the non-white percentage increased for both the State and the County by approximately two to three times indicating similar growth pattern in non-white percentages. In comparison, the non-white percentage of population of the City grew from 0.6% in 1970 to 5.6% in 1980 to 22.6% in 1990.

The City of Central Falls is different from the State and the County from various points of view of which the percentage of non-white population is one of the most important. The

following chapters of the report further analyzes the characteristics of the non-white population in greater detail.

This difference creates different social and physical environment within the City. The physical difference creates social difference and the vice-versa. This enormous (compared to the State, and the County) percentage of non-white population definitely plays a vital role in the economy of the City and calls for an in-depth analysis in doing any plan for the City. Figure 2.5 shows this difference graphically.

Figure 2.5: Percentage of Non-White Population of the State, County, and the City, 1970 - 1990.



2.1.6 Age-Sex Distribution

The age-sex distribution analysis presented in this chapter is based on population densities of Central Falls divided into male and female, and age cohorts of 5 year periods. The analyses are presented graphically while the actual numbers can be found in the Appendices I through IX. Essentially, the following analysis shows the trend of non-white population of the city during 1970 to 1990.

Figure 2.6 shows the age-sex distribution of the non-white population of the City in 1970. A close inspection of the graph reveals that the distribution of the non-white population of the City in 1970 does not represent a close-knit family structure. This may have been caused by a substantial number of unrelated renter population. This figure may be compared with Figure 2.7, representing the distribution of the white population density of the city. The uniformity of the graph represent a stable and normal demographic situation. Also to be noted are the numbers in

the Y Axis for both the figures representing the population densities for individual cohorts (negative signs for the female cohorts may be disregarded).

The following two figures, Figures 2.8 and 2.9, represent a gradual transformation of the non-white population of the City over the next two decades of the 1980s and the 1990s. The first item to be noted here is the numbers in the Y Axis. These numbers suggest that the densities of the individual age cohorts of the non-white population of the City increased dramatically during this period. Also to be noted is the gradual uniformity of the distribution. Compared to the situation in 1970 (Figure 2.6), it may be asserted that, the non-white population of the City in 1990 became more stable with decreased number of unrelated non-family individuals.

2.1.7 Conclusion

The information presented in this chapter is intended to highlight the demographic differences between Central Falls and the State of Rhode Island and Providence County. The differences highlighted in this chapter are the most important ones while other differences may also be found. Further analysis may be undertaken in this subject. A set of nine appendices (I through IX) is attached to this study and may be used as a basis for further research. On the other hand, the appendices may help the reader perceive various arguments presented in the report.

Figure 2.6

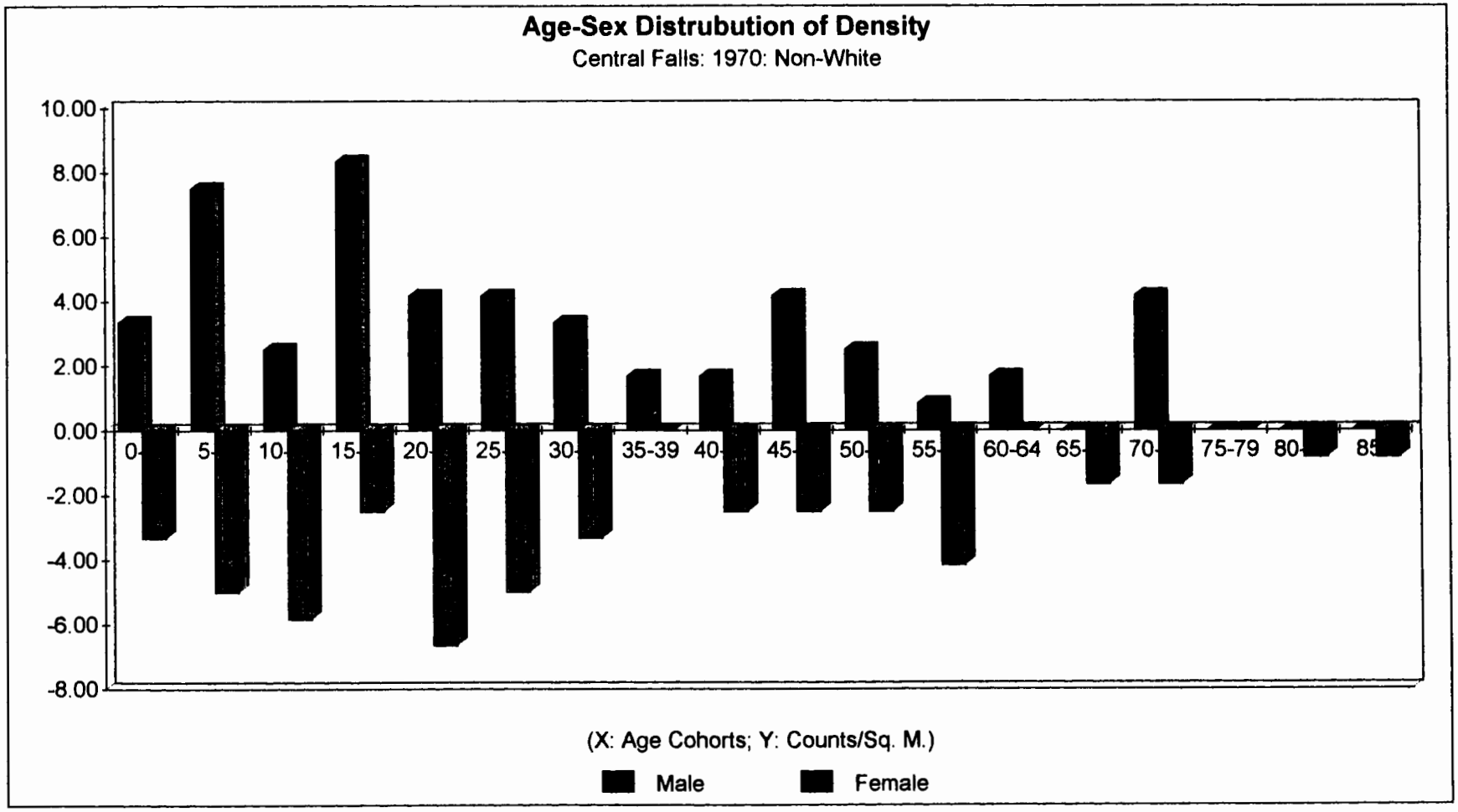
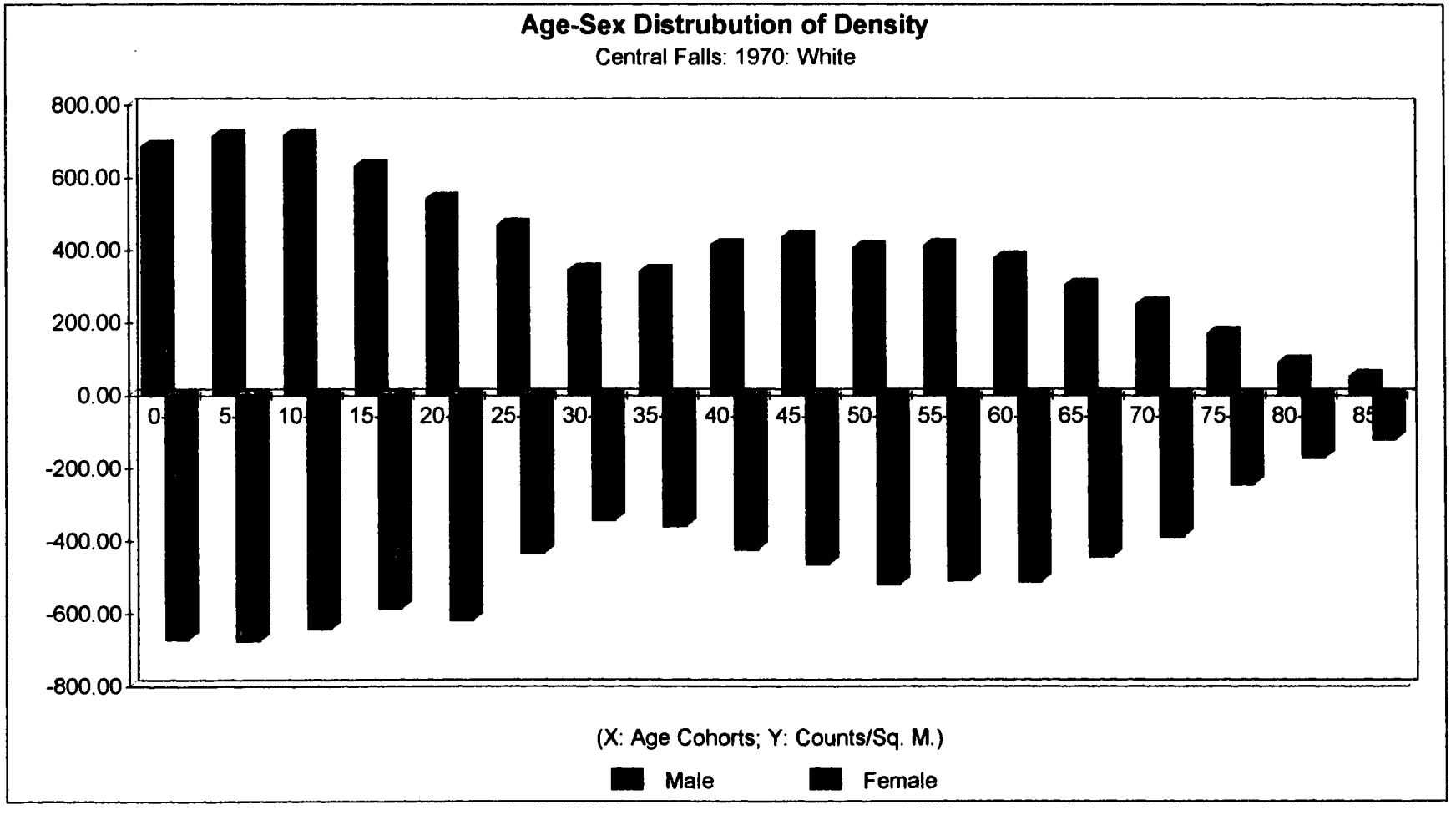

Age-Sex Distrubution of Density
Central Falls: 1970: Non-White
10.00
8.00
6.00
4.00
2.00
0.00
-2.00
-4.00
-6.00
-8.00
0
5
10
15
20
25
30
35-39
40
45
50
55
60-64
65
70
75-79
80
85
(X: Age Cohorts; Y: Counts/Sq. M.)
Male
Female

Figure 2.7


Age-Sex Distrubution of Density
Central Falls: 1970: White
800.00
600.00
400.00
200.00
0.00
-200.00
-400.00
-600.00
-800.00
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
(X: Age Cohorts; Y: Counts/Sq. M.)
Male
Female

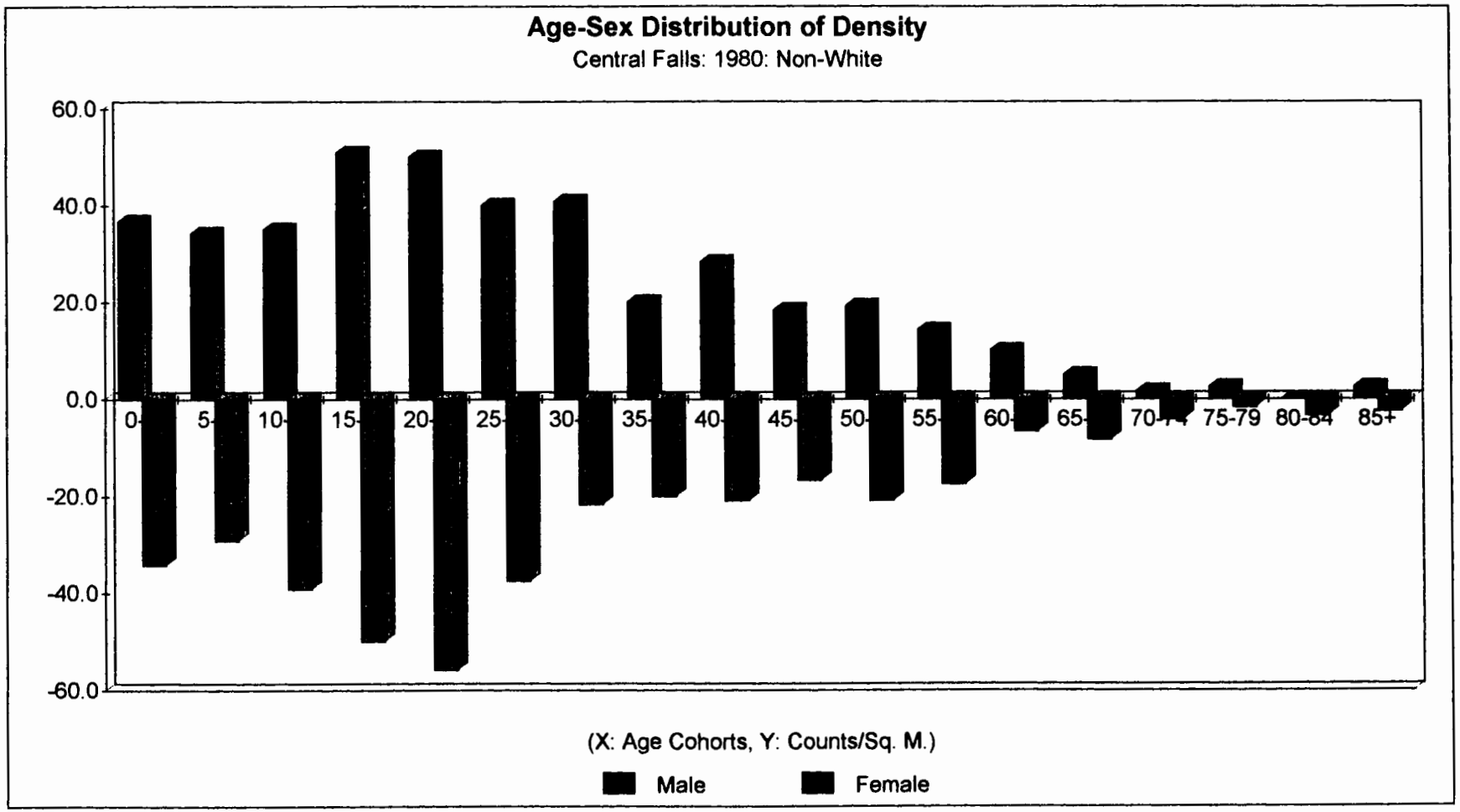
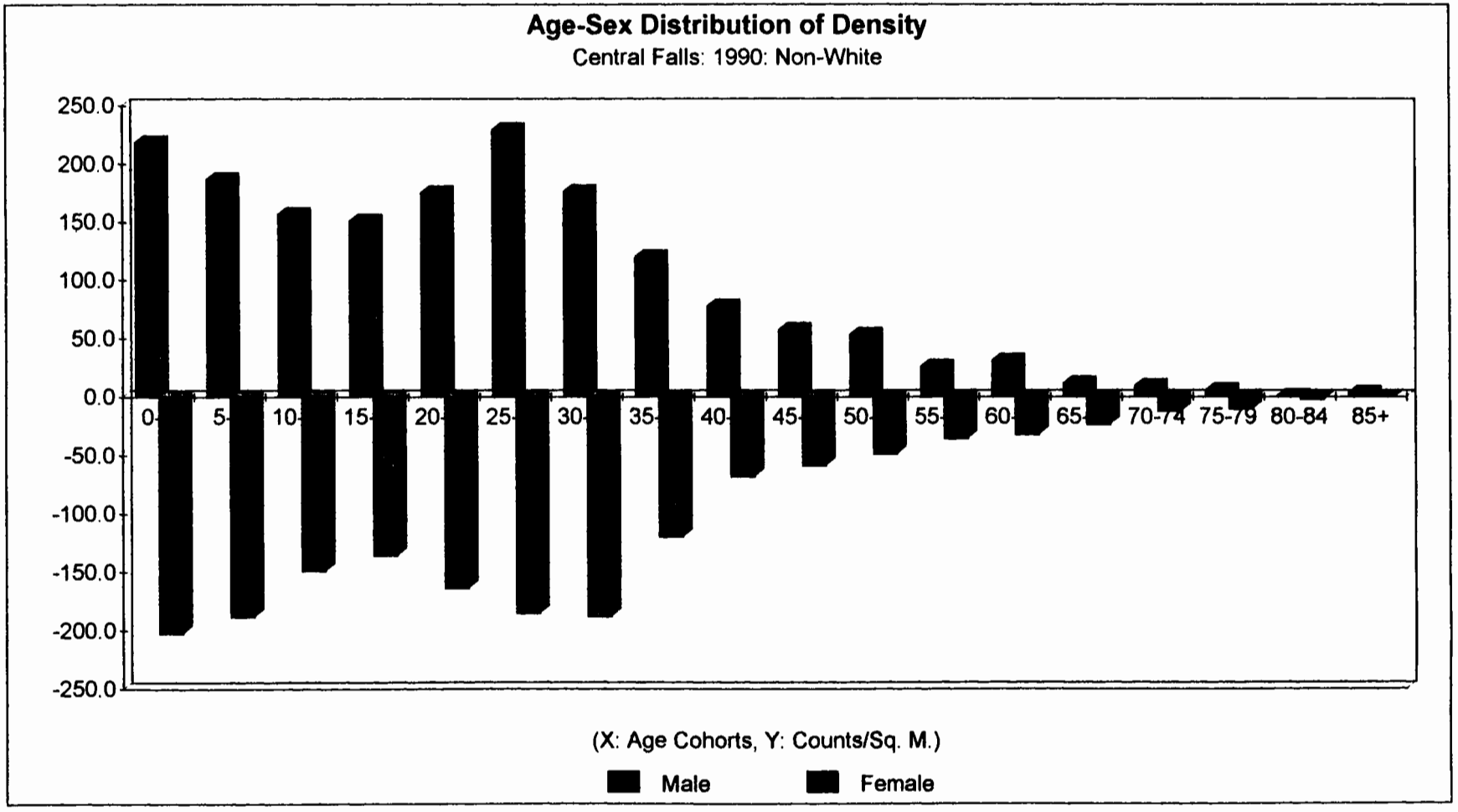

Age-Sex Distribution of Density
Central Falls: 1980: Non-White
60.0
40.0
20.0
0.0
-20.0
-40.0
-60.0
0
5
10
15
20
25
30
35
40
45
50
55
60
65
75-79
85+
(X: Age Cohorts, Y: Counts/Sq. M.)
Male
Female

Figure 2.9


Age-Sex Distribution of Density
Central Falls: 1990: Non-White
250.0
200.0
150.0
100.0
50.0
0.0
-50.0
-100.0
-150.0
-200.0
-250.0
0-
5-
10-
15-
20-
25-
30-
35-
40-
45-
50-
55-
60-
65-
70-74
75-79
80-84
85+
(X: Age Cohorts, Y: Counts/Sq. M.)
Male
Female

2.2.1 Introduction

In this section, unlike the previous, where an overall demographic profile of Central Falls was presented, a few important demographic characteristics of the City is highlighted. Essentially, this section examines the densities of the Afro-Americans, the Asians, the Pacific Islanders, the Central Americans, the Southern Americans, the Dominicans, and the other segments of population with various ethnic backgrounds. Central Falls, with its high percentage of population from different ethnic groups, distinguishes itself from its neighbors and the rest of the State.

Such a study on ethnicity might not have to be incorporated in this study had it been a study of Exeter, Hopkinton, South Kingstown, North Kingstown, or any other community in the southern Rhode Island. These communities are pre-dominantly White. For example, approximately 97% population of the Washington County is White. This, along with a strong rural character of the southern Rhode Island create a difference from its northern counter-parts.

A major share of the northern communities of the State is densely populated and multi-cultural. The City of Central Falls, in 1990, does not only fall in this category but also houses a substantial share of the segments of population other than White. With a total land area of only 1.20 square mile, a negligible 0.1% of the total land area of the State, the City houses an approximate 5.0% of the total non-white population of the State. A tour of the City confirms the assertion and demands comprehensive analysis.

Primarily, this section is divided into two parts. The first part analyzes the Afro-American, the Asian, and the Pacific Islander sub-groups, while the latter part examines the segments of population with Hispanic origin. Similar to the previous section (2.1), the analyses presented here are also based on the US Census data for 1980 and 1990.

2.2.2 Afro-American Population

The City of Central Falls experienced a substantial growth of the Afro-American population between 1980 and 1990. Although the overall population density of the City in 1980 (14162 persons per square mile) was approximately 15 times higher than the density of the State

(906 persons per Square Mile) and approximately 5 times higher than the Providence County (1383 persons per Square Mile), the percentage of the Afro-American population of the City in 1980 (0.79%) was one-third of the State percentage (2.89%) and one-fourth of the County percentage (4.01%) in 1980.

Table 2.5: Afro-American Population of the State of Rhode Island, 1980 and 1990.

	The State of Rhode Island			
	Area in Sq. M. 1045.00	Population Counts	Population Density	% of Total Population
1980		27361	26.18	2.89%
1990		37986	36.35	3.79%

Source: US Department of Commerce, Bureau of Census, 1980-1990.

Within the course of the next ten years, the density of the Afro-American population of the State grew from approximately 26 persons per square mile in 1980 to approximately 36 persons per square mile in 1990 constituting a growth of approximately 30% over the course of ten years (See Table 2.5). Similarly, the density of the Afro-American population of the Providence County increased from approximately 56 persons per square mile in 1980 to approximately 78 persons per square mile in 1990, thus, constituting a growth of about 30% over the period of ten years between 1980 and 1990. (See Table 2.6)

Table 2.6: Afro-American Population of the Providence County, 1980 and 1990.

	Providence County			
	Area in Sq. M. 413.00	Population Counts	Population Density	% of Total Population
1980		22929	55.52	4.01%
1990		32140	77.82	5.39%

Source: US Department of Commerce, Bureau of Census, 1980-1990.

Compared to the experiences of the State and the County, the City of Central Falls experienced a much higher growth. The density of the Afro-American population of the City grew from approximately 112 persons per square mile in 1980 to a substantial 455 persons per square mile in 1990. Compared to an approximate 30% growth of the Afro-American population of the

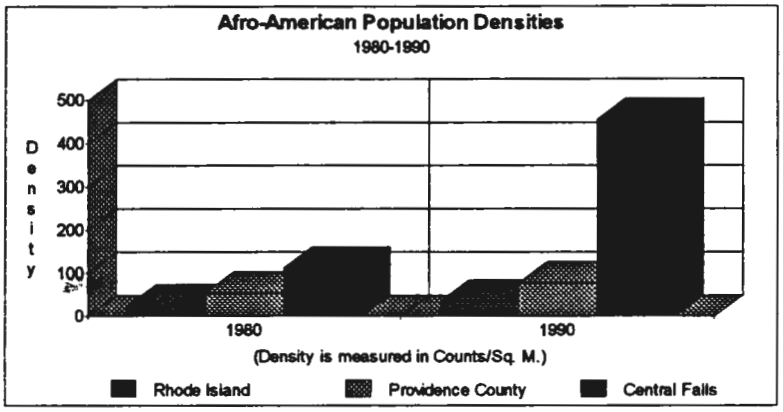
State and the County, Central Falls experienced 300% growth of the Afro-American population - 10 times higher than the State and the County. (See Table 2.7)

Table 2.7: Afro-American Population of the City of Central Falls, 1980 and 1990.

	City of Central Falls			
	Area in Sq. M. 1.20	Population Counts	Population Density	% of Total Population
1980		134	111.67	0.79%
1990		546	455.00	3.10%

Source: US Department of Commerce, Bureau of Census, 1980-1990.

Figure: 2.10: Densities of the Afro-American population of the State of Rhode Island, the Providence County, and the City of Central Falls, 1980 and 1990.



2.2.3 Asian Population

The Asian population of the State of Rhode Island has always been significantly low compared to the more dominant racial sub-groups, such as the Whites, the Afro-Americans, and the Hispanics. With a total count of only 3,483 in 1970, the Asians constituted only 0.36% of the total population of the State in 1970 (947,725).

Table 2.8: Asian/Pacific Islander Population of the State of Rhode Island, 1980 and 1990.

		The State of Rhode Island			
		Area in Sq. M. 1045.00	Population Counts	Population Density	% of Total Population
1980	Asian		5012	4.80	0.53%
	PI*		179	0.17	0.02%
	Total		**5191**	**4.97**	0.55%
1990	Asian		17411	16.66	1.74%
	PI*		204	0.20	0.02%
	Total		**17615**	**16.86**	1.76%

* Pacific Islanders

Source: US Department of Commerce, Bureau of Census, 1980-1990.

Between 1970 and 1980 the population of the State decreased by 0.04% with count of 947,154 in 1980. The Asian population of the State, however, increased by approximately 44% during the same decade with a count of 5,012 in 1980. During the course of the next ten years the population of the State increased by approximately 4% with a total population of 1,003,464 in 1990, while, the Asian population of the State again increased by another incredible 247% with a total of 17,411 in 1990. (See Table 2.8)

Table 2.9: Asian/Pacific Islander Population of the Providence County, 1980 and 1990.

		Providence County			
		Area in Sq. M. 413.00	Population Counts	Population Density	% of Total Population
1980	Asian		3128	7.57	0.55%
	PI*		140	0.34	0.02%
	Total		**3268**	**7.91**	0.57%
1990	Asian		13620	32.98	2.28%
	PI*		126	0.31	0.02%
	Total		**13746**	**33.28**	2.31%

* Pacific Islanders

Source: US Department of Commerce, Bureau of Census, 1980-1990.

Similar to the experience of the State, the Asian population of the Providence County grew from 1,315 in 1970 to 3,128 in 1980 and 13,620 in 1990. This constituted a growth of 37% during the 1970s and an incredible 335% during the 1980s. During the same two decades, however, the total population of the Providence County increased only by 2.75%. Even though the Asian population during the 1980s grew by more than 300% , according to the US Census Report of 1990, the Asian population constitutes only 2.31% of the total population of the County. (See Table 2.9)

Table 2.10: Asian/Pacific Islander Population of the City of Central Falls, 1980 and 1990.

		City of Central Falls			
		Area in Sq. M. 1.20	Population Counts	Population Density	% of Total Population
1980	Asian		40	33.33	0.24%
	PI*		40	33.33	0.24%
	Total		**80**	**66.67**	0.47%
1990	Asian		72	60.00	0.41%
	PI*		0	0.00	0.00%
	Total		**72**	**60.00**	0.41%

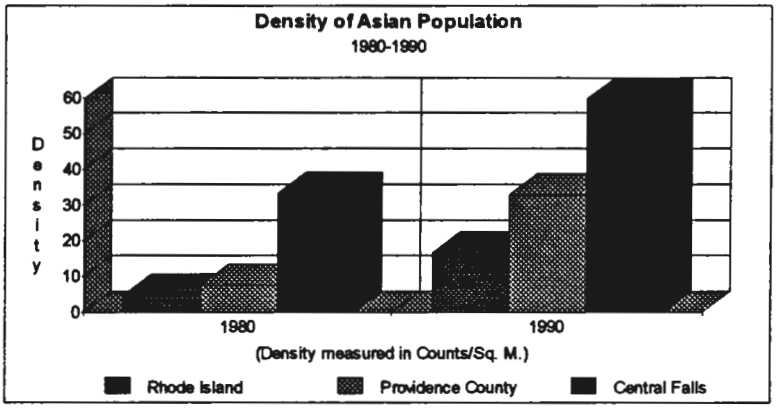
* Pacific Islanders

Source: US Department of Commerce, Bureau of Census, 1980-1990.

Unlike the Afro-American segments, the percentage of the Asian population of Central Falls, in comparison with the State and the County, has been significantly low. According to the 1970 Census, Central Falls housed only 4 residents with Asian ethnic background. The number, however, increased to 40 in 1980, and 72 in 1990. According to the 1990 Census the Asian population of the City constitutes only a negligible 0.41% of the total population (See Table 2.10).

Evidently, the percentages of the Asian population during the periods under consideration have been significantly low throughout the State including Central Falls. It is, however, interesting to note that the rate of growth of the Asian population of the State is several times higher than the overall rate of growth of the State.

Figure: 2.11: Densities of the Asian Population of the State of Rhode Island, the Providence County, and the City of Central Falls, 1980 and 1990.



2.2.4 Hispanic Population

Perhaps the most important of all ethnic groups present in the City is the population with Hispanic background. According to the 1990 Census, the Hispanics comprise approximately 30% of the total population of the City. Out of a total of sixteen sub-groups of the Hispanic population residing in the State, the most dominants sub-groups residing in the City are the Mexican, the Puerto-Rican, the Cuban, the Dominican, the Guatemalan, and the Colombian.

According to the 1990 Census the percentage of the Hispanic population of all sub-groups of the State constitutes 4.5% of the total population of the State with a total count of

43,932. It is important to note that a major share of the Hispanic population of the State lives within the Providence County. The 1990 Census states that the total population with Hispanic origin of the Providence county is 39,252 which constitutes a substantial 90% of the total Hispanic population of the State. In 1990 the Hispanic population of the Providence County constitute about 6.5% of the total population of the County. (See Table 2.11)

Table 2.11: Hispanic Population of the State of Rhode Island, Providence County and the City of Central Falls, 1980 and 1990.

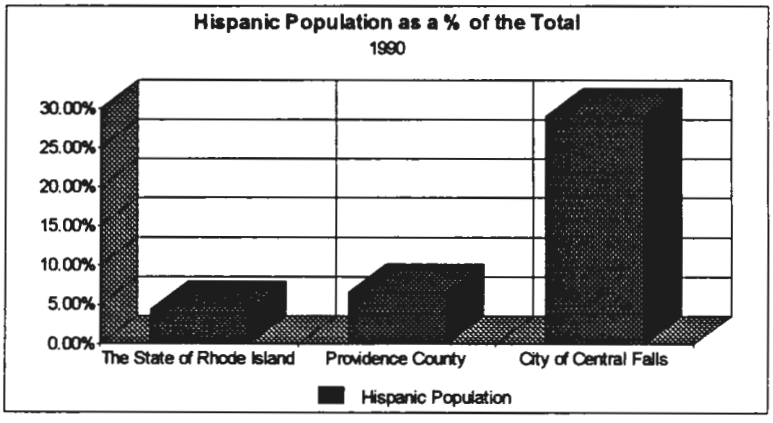
	State of Rhode Island	Providence County	City of Central Falls
Total Population	1003464	596270	17637
Total Hispanic Population	43932	39252	5115
Hispanic Population as a % of the Total	4.38%	6.58%	29.00%
Density of Hispanic Population*	42.04	95.04	4262.5

Density is measured in Population per Square Mile

Source: US Department of Commerce, Bureau of Census, 1980-1990.

Compared to the State and the County, the percentage of population with Hispanic origin of the City is significantly higher. According to the 1990 Census, the Hispanics constitute approximately 30% of the total population of the City with a total count of 5,115.

Figure: 2.12: Percentages of the Hispanic Population of the State of Rhode Island, the Providence County, and the City of Central Falls, 1980 and 1990.



The comparison between the City and the County and the State becomes unusually distinct when we consider the density of the Hispanic population. With a total land area of 1045 square mile, the density of the Hispanic population of the State is about 43 persons per square mile. In comparison, the density of the Hispanic population in the Providence County is

estimated at 95 persons per square mile constituting a density more than twice as much as the density of the State. With a total land area of 413 square mile, approximately 40% of the total land area of the State, the County houses approximately 90% of the total Hispanic population of the State.

Compared to the State and the County, the density of the Hispanic population of the City is 4263 persons per square mile, which is 100 times more than the density of the State. With a total land area of only 1.2 square mile, a negligible 0.1% of the total land area of the State, the City houses more than 11% of the total Hispanic population of the State.

2.2.5 Conclusion

One of the most important reasons behind the distinct socio-economic character of the City of Central Falls is probably its diverse ethnic characteristics. The multi-cultural population of the city brings a social character which is distinctly different from its neighbors and the rest of the State, and vice-versa. Similar to an architectural design, where each project is a unique experiment based on site characteristics, historic characteristics, choice of client etc., a plan of Central Falls has to be unique, and has to reflect its unique social characteristics. Therefore, recommendations for the city demands a thorough socio-economic analysis. In addition to the tables and figures used in the section, Appendices X through XII present the demographic characteristics in greater detail.

While the demographic characteristics of the City is presented in this section, the next section presents an economic profile of the City in comparison with the State, and the County.

2.3.1 Introduction

In the previous two sections of this report a few important characteristics of the City of Central Falls were presented as they relate to the demography and ethnicity. However, it is not the overwhelming differences in the demography and/or the ethnicity which can only be accountable for the present socio-economic situation of the City. Besides these factors, one of the most, if not the most, important indicator is the annual dollar earning capabilities of the residents of the City. Even though it is difficult to affirm whether or not the economic factors have caused the demographic situation, or the vice-versa, the two indicators are strongly dependent on each other. Similar to its demographic counterparts, the economic indicators of the City also are more challenging to its residents than that of the rest of the State.

Once booming with the economic prosperity associated with the mill-businesses, Central Falls' economic situation now is one of the most depressed in the State. Considering any economic indicator, the City's position in the State is one of the last. In this chapter the economic conditions of the City and the State are compared using the indicators of 'household income.' The analyses presented in this section, similar to the previous two sections are based on the 1980 and 1990 Census data. The discussion begins with an analysis of the Median Annual Household Income of the City, and then presents a detailed discussion on the Income Distribution of the State, the County, and the City.

2.3.2 Median Household Income

Between the 1980 and the 1990, the Median Household Income in the State of Rhode Island, including Providence County, increased by an approximate 100%. According to the US Census Reports of the 1980 and the 1990, the Annual Median Household Income of the State increased from $ 16,097 in 1980 to $ 32,174 in 1990.

The Median Household Income in the Providence County in 1980 was estimated at approximately 92.15% of the Median Household Income of the State. During the course of the next ten years the Median Household Income of the County increased from $14,834 in 1980 to $29,058 in 1990, with an estimated growth of 95.89%.

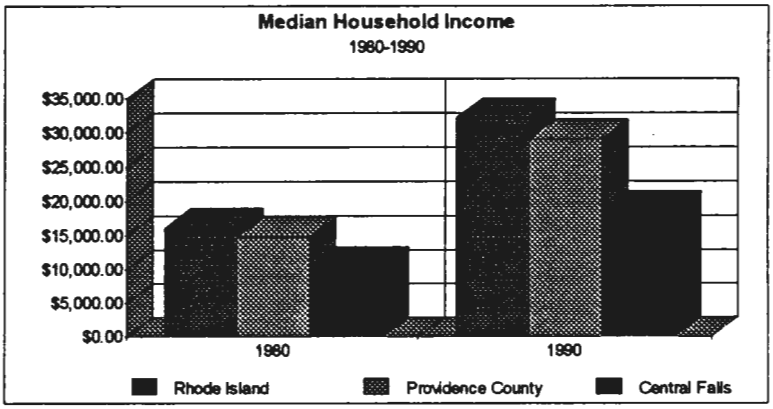
Table 2.12: Median Household Income of the State of Rhode Island, the Providence County, and the City of Central Falls, 1980 and 1990.

MEDIAN HOUSEHOLD INCOME	Rhode Island	Providence County		City of Central Falls		
			% of the State		% of the County	% of the State
1980	$16,097.00	$14,834.00	92.15%	$10,524.00	70.95%	65.38%
1990	$32,174.00	$29,058.00	90.32%	$18,617.00	64.07%	57.86%
Rate of Increase in 10 Years	99.88%	95.89%		76.90%		

Source: US Department of Commerce. Bureau of Census, 1980-1990.

According to the Census Reports of the 1980, and the 1990, the Median Household Income of the County remained at approximately 90% of the State. Furthermore, while, between 1980 and 1990 the Median Household Income of the State rose by an approximate 100%, the income of the County increased by 95%. Therefore it may be stated that the Median Household Income of the Providence county is not only lower than the State, the difference between the State and the County is increasing (See Table 2.12).

Figure 2.13: Median Household Income of Rhode Island, Providence County, and Central Falls, 1980 and 1990.



In comparison with the State and the County, the Median Household Income of Central Falls is significantly low. According to the 1980 Census, the Median Household Income in the City was estimated at about 70.95% of the Providence County and 65.38% of the State of Rhode Island. Between 1980 and 1990, the Median Household Income of the City increased from $10,524 in 1980 to $18,617 in 1990, with an estimated growth of approximately 76.90%.

According to the Census Reports of the 1980 and the 1990, the Median Household Income of the City remained at an approximate 65% to 70% of the Median Household Income of the County. Over the same period of time, while the Median Household Income of the County increased by about 95.89%, the Median Household Income of the City increased by only 76.90%. Therefore, it may well be stated that the Median Household Income of the City is not only lower than the County and the State, the differences between the City and the rest of the State is increasing.

Table 2.13: Income Distribution of the Households, 1980.

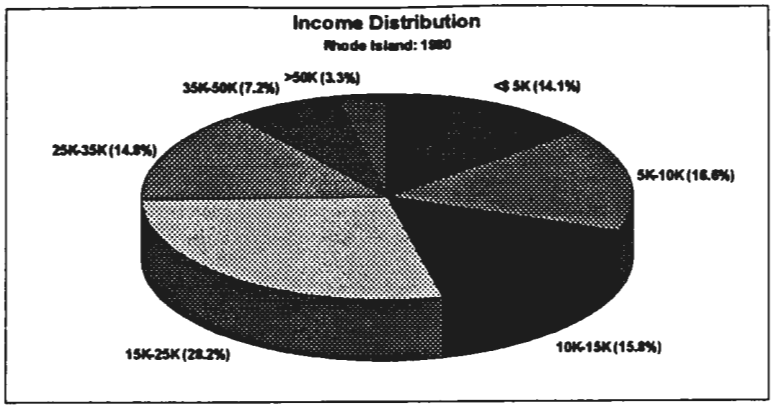
HOUSEHOLD INCOME	1980					
	State of Rhode Island		Providence County		City of Central Falls	
	Household Count	Percent Household	Household Count	Percent Household	Household Count	Percent Household
Less than $ 5,000	47,581.00	14.06%	34,111.00	16.30%	1,609.00	24.43%
$ 5,000 to $ 9,999	56,138.00	16.59%	37,698.00	18.02%	1,580.00	23.99%
$ 10,000 to $ 14,999	53,601.00	15.84%	33,864.00	16.19%	1,052.00	15.97%
$ 15,000 to $ 24,999	95,344.00	28.18%	56,157.00	26.84%	1,586.00	24.08%
$ 25,000 to $ 34,999	50,053.00	14.79%	28,156.00	13.46%	481.00	7.30%
$ 35,000 to $ 49,999	24,307.00	7.18%	13,106.00	6.26%	232.00	3.52%
$ 50,000 and Above	11,316.00	3.34%	6,131.00	2.93%	46.00	0.70%
TOTAL HOUSEHOLDS	338,340.00	100.00%	209,223.00	100.00%	6,586.00	100.00%

Source: United States Department of Commerce. Bureau of Census, 1980.

2.3.3 Income Distribution

The following analyses show that the reflection of a low median household income is apparent in all categories of households in the City. During this analyses the total number of households of the State, the County, and the City are divided into a few groups based on the household income. Essentially, in the following analyses, a percent distribution of the total number of households in the State, the County, and the City is estimated, and then each individual category is compared with others.

Figure 2.14: Distribution of Household Income of Rhode Island, 1980.

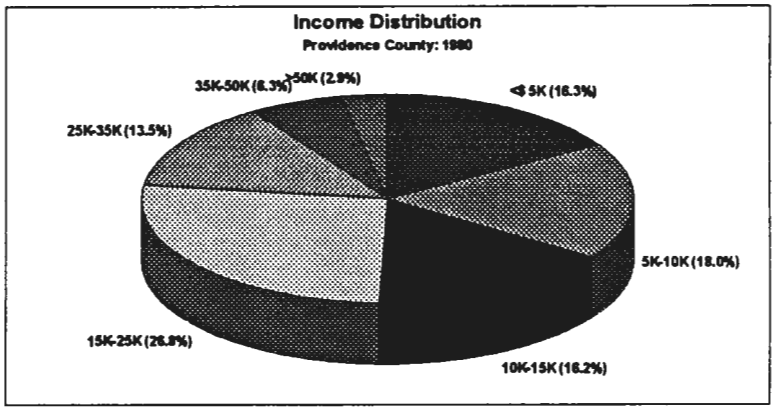


The Income Distribution analysis is performed for 1980 and 1990.

2.3.3.1 Income Distribution: 1980

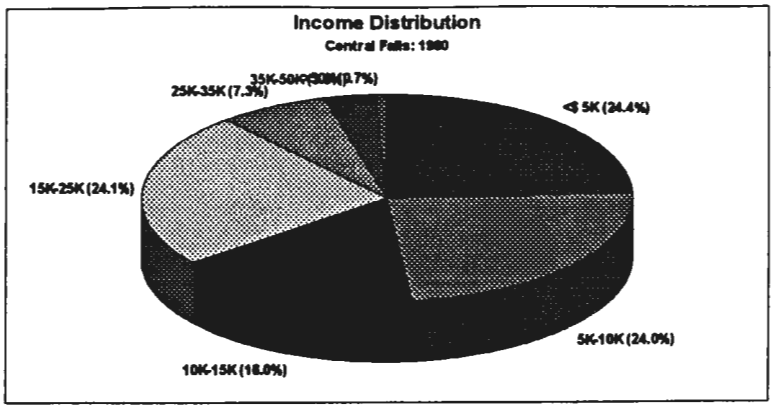
According to the 1980 Census, approximately 20% of the total households of the State had an annual income less than or equal to $10,000. Compared to the State the percentage of the total households earning $10,000 or less for the Providence County was approximately 35%. Whereas, for the City of Central Falls the percentage is even higher and is estimated at approximately 50%.

Figure 2.15: Distribution of Household Income of Providence County, 1980.



In 1980 approximately 25% of the total households of the State earned an annual income of $25,000 or more. Compared to the State, approximately 20% of the total households of the Providence County earned an annual income of $25,000 or more. In comparison only 10% of the total households of the City had an annual earning of $25,000 or more.

Figure 2.16: Distribution of Household Income of Central Falls, 1980.



According to the 1980 Census, approximately 3.5% of the total households of the State had an annual income of $50,000 or more. Compared to the State, approximately 3% of the total households of the Providence County had an annual income of $50,000 or more. In comparison Central Falls had less than 1% of the total households earning $50,000 or more.

Table 2.14: Income Distribution of the Households, 1990.

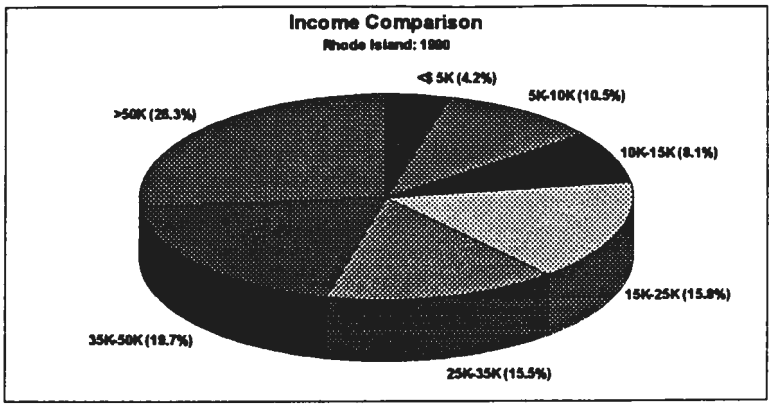
HOUSEHOLD INCOME	1990					
	State of Rhode Island		Providence County		City of Central Falls	
	Household Count	Percent Household	Household Count	Percent Household	Household Count	Percent Household
Less than $ 5,000	15,653.00	4.15%	11,182.00	4.96%	593.00	9.15%
$ 5,000 to $ 9,999	39,408.00	10.45%	27,799.00	12.33%	1,125.00	17.37%
$ 10,000 to $ 14,999	30,521.00	8.09%	20,362.00	9.03%	931.00	14.37%
$ 15,000 to $ 24,999	59,757.00	15.85%	37,498.00	16.63%	1,364.00	21.06%
$ 25,000 to $ 34,999	58,348.00	15.47%	34,742.00	15.41%	992.00	15.31%
$ 35,000 to $ 49,999	74,120.00	19.66%	42,492.00	18.84%	863.00	13.32%
$ 50,000 and Above	99,273.00	26.33%	51,424.00	22.80%	610.00	9.42%
TOTAL HOUSEHOLDS	377,080.00	100.00%	225,499.00	100.00%	6,478.00	100.00%

Source: United States Department of Commerce. Bureau of Census, 1990.

2.3.3.2 Income Distribution: 1990

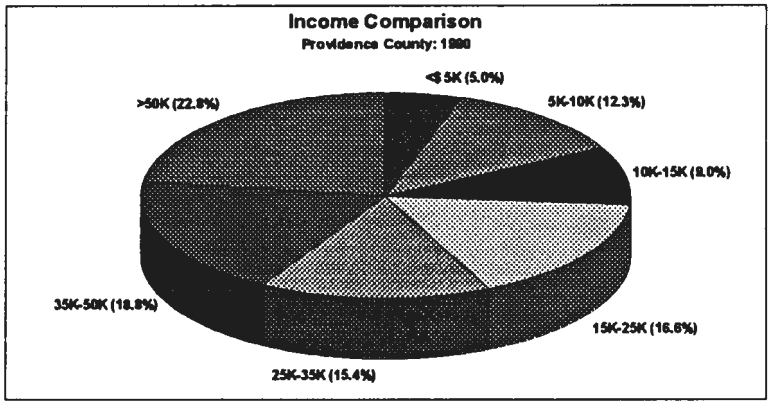
According to the 1990 Census, approximately 15% of the total households of the State earned an annual household income of $10,000 or less. Compared to the State, an estimated 17% of the total households of the Providence County earned $10,000 or less. In comparison approximately 27% of the total households of the City of Central Falls earned an annual household income of $10,000 or less.

Figure 2.17: Distribution of Household Income of Rhode Island, 1990.



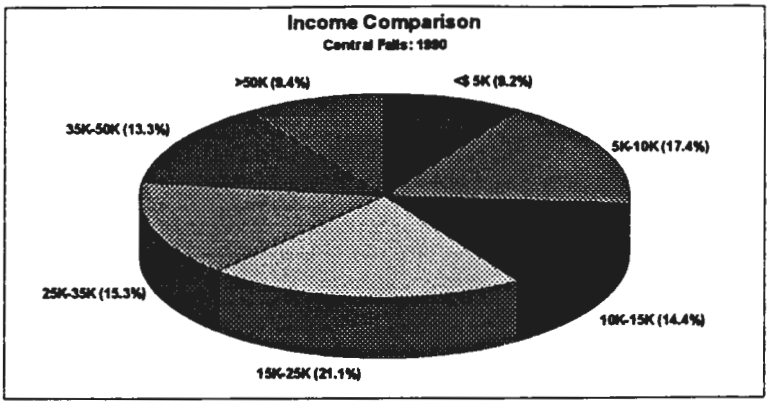
According to the 1990 Census more than 60% of the total households of the State earned an annual household income more than $25,000. Compared to the State, an approximate 50% of the total households in the County earned an annual household income of $25,000 or more. In comparison an approximate 30% of the total households of the City earned $25,000 or more.

Figure 2.18: Distribution of Household Income of Providence County, 1990.



In 1990, an approximate 26.33% of the total households of the State earned an annual income of $50,000 or more. Compared to the State, an approximate 22.80% of the total households of the Providence County earned $50,000 or more. In comparison less than 10% of the total population of the City earned an annual income of $50,000 or more.

Figure 2.19: Distribution of Household Income of Central Falls, 1990.



2.3.4 Conclusion

The study has thus far demonstrated that the City of Central Falls is different from the rest of the State considering the economy, the demography, and the ethnicity. It has also been established that such differences are increasing making the living condition in the City more and more difficult. It will be unjust to hold the economy responsible for the demography or the vice-versa, however, they are directly related to each other.

In the following two chapters the effects of such social-demographic situation of the City on its physical environment is discussed. The discussion on the physical environment of the City is further sub divided into two subsections of land-use, and housing.

3.1.1 Introduction

The land-use coverage of the City of Central falls is rather unique in its diversity. Although this small city occupies only 1.2 square miles of land, it has specific areas designated for uses, such as industrial, commercial, and recreational etc. In addition to the specifically designated land-usage, the City also has areas designated for mixed-uses.

Several attempts were made in the past by different organizations to analyze the diverse land-uses of Central Falls. In 1961, the Planning Commission of Central Falls, in its 'Comprehensive Community Plan of Central Falls' published the first land-use analysis of the City. This analysis, however, used only the major[1] land-use categories. The 1975 land-use survey, performed by the students of Rhode Island College, provided a build-out analysis of the City in greater detail. In this analysis, residential and industrial land-uses were further broken down into their sub-categories.

The most comprehensive land-use analysis of the City, however, had not been done until 1986. The students of the Department of Community Planning and Area Development of the University of Rhode Island, as part of their Spring 1986 Studio, performed a thorough land-use analysis of Central Falls. These analyses were done in substantial detail and the present Comprehensive Plan of the City, in its Land-use element, has used the results of this survey as the latest available land-use information of the City.

This chapter of the study analyzes the chronological land-use activities of Central Falls using the results of the three land-use surveys stated above. The analysis begins with a discussion of land-use activities in 1961. This is followed by an examination of the land-use activities of the city in 1975. The analysis ends with a review of the land-use activities in 1986. The analysis presented in this chapter is illustrated by a land-use map drawn by the author using the AutoCAD program. Using the existing land-use map of the City as source, the information is painstakingly plotted on this map with the help of a 400' grid. While the information presented in the map may not be used for legal matters, the map is prepared with utmost care to represent the existing land-use.

[1]Residential, Industrial, Commercial, and Roads

3.1.2 Land-use activities, 1961

The 1961 survey administered by the Central Falls Planning Commission was rather general, and only the broad categories of land-uses were analyzed. The land-use categories used in this survey were **residential**, **industrial**, **commercial**, **roads**, and **other uses**. According to this survey, approximately 37% of the total land area of the City was 'residential' and the residential land-use was the largest of all other uses. This survey also stated that the second largest category of land-use of the City was 'roads' which occupied approximately 20% of the total land area. The 'industrial', and 'commercial' uses took up approximately 14% and 5% respectively (see Table 3.1).

Table 3.1: Land-Use, Central Falls, 1961.

Land-use	% of Total Land Area
Residential	37.20%
Industrial	13.70%
Commercial	5.20%
Roads	20.50%
Other Uses	23.20%
Total	**100%**

Source: Central Falls Planning Commission, Comprehensive Community Plan, July 1968.

3.1.3 Land-use activities, 1975

The 1975 land-use survey, however, was performed in greater detail. In this survey, conducted by the students of the Rhode Island College, several new land-use categories were introduced. In addition, the residential, and institutional categories of land-uses were further divided into their sub categories.

According to the 1975 survey 37% (approximately the same proportion as in 1961) of the total land area of the City was residential. The 3-family residential use took up the largest share with approximately 12% of the total land area of the City. Similar to the situation in 1961, in 1975 the second largest land-use category of the City was 'roads' with an estimated 20% land coverage.

The 1975 survey of land-use introduced two new land-use categories for the city which were 'services' and 'institutional'. While the services category took up 2.45%, the institutional category, divided into four sub-categories, occupied 4.65% of the total land area of the City.

Table 3.2: Land-Use, Central Falls, 1975

Land-use	% of Total Land Area
Residential	37.31%
1 Family	8.71%
2 Family	8.92%
3 Family	12.45%
4 Family	3.81%
Multi-family	3.41%
Residential Garages	1.21%
Services	2.45%
Commercial	5.70%
Industrial	12.38%
Institutional	4.65%
Governmental	0.68%
Quasi-public	2.45%
Public Education	0.74%
Public Parking	0.78%
Recreational	2.13%
Transportation and Public Utilities	1.38%
Cemetery	2.96%
Vacant Land	9.29%
Roads	20.48%
Total	**99.90%**

Source: Rhode Island College, Community Profile Series #1, "In the wake of the Mills", January 1983.

3.1.4 Land-use activities, 1986

By far, the most comprehensive land-use analysis of Central Falls was performed in 1986 by the students of the Department of Community Planning and Area Development, URI. In comparison to the available results from the surveys conducted in 1961 and in 1975, the 1986 survey provides land-use information in greater detail. An excerpt from the 'Land-use and Zoning' section of the 'Community Development Plan', prepared on the basis of the survey, ascertains the intricacies of the methodology adopted for the 1986 survey.

> "Data on lot area and frontage was collected from the Assessor's plat maps. The information was gathered for use in the zoning analysis. The name or description of company was collected for manufacturing, commercial and services where possible. This information would indicate the types of economic activity in Central Falls. The land-

use code was developed as an adaptation of Chapin's Two-Digit Land Use Coding System. Modifications to this system were based on knowledge of the types of land uses and activities in Central Falls from previous studies and preliminary field survey."

Table 3.3: Single-Use and Mixed-Use Parcels of Land, Central Falls.

	Acres	% of Total Area of Central Falls
Single-use Parcels	760.80	93.02%
Mixed-use Parcels	57.08	6.98%
Total	**817.88**	**100%**

Source: Dept. of Community Planning and Area Development. URI. 1986. Community Development Plan.

Table 3.4: Land-Use distribution of Mixed-Use Parcels, Central Falls.

Mixed Land-use	Acres	% of Total Area of Central Falls
Residential/All uses	**31.15**	**3.81%**
Res./Ind.	9.84	1.20%
Res./Comm.	12.09	1.48%
Res./Comm./Commty. Svcs.	0.11	0.01%
Res./Svcs.	5.89	0.73%
Res./Trans. & Utilities	0.25	0.03%
Res./Community Svcs.	2.56	0.31%
Res./Commty. Svcs./Svcs.	0.41	0.05%
Industrial/All uses	**22.19**	**2.72%**
Ind./Comm.	10.54	1.29%
Ind./Comm./Community Svcs.	7.41	0.91%
Ind./Svcs.	4.24	0.52%
Commercial/All Uses	**3.63**	**0.44%**
Comm./Svcs.	0.47	0.06%
Comm./Community Svcs.	1.67	0.20%
Comm./Trans. & Utilities	1.49	0.18%
Svcs./Community Svcs.	**0.11**	**0.01%**
Total	**57.08**	**6.98%**

Source: Dept. of Community Planning and Area Development. URI. 1986. Community Development Plan.

According to the 1986 survey, the land-use activities of the City may be divided into two broad categories. These two broad categories are **single-use** parcels, and **mixed-use** parcels of land. Although the majority of the parcels of land of the City are designated as single-use parcels, the mixed use parcels, situated mostly along Broad Street, Dexter Street, and Lonsdale Avenue offer diversity and also take part in the economic activities of the City. Out of a total of 817.88 acres of land, the mixed-use parcels occupy 57.08 acres or 6.98% of the total land area.

Mixed-use parcels

The 1986 survey identifies as many as fourteen different categories of mixed land-uses grouped in four headings based on the dominant use. The four categories are **residential/all uses, industrial/all uses, commercial/all uses, services/community services**. Out of the four categories, 'residential/all uses' occupy the largest share of 31.15 acres with an estimated 3.81% land coverage. The 'residential/all uses' is further divided into 7 sub categories.

The second largest category of mixed-use parcels is 'industrial/all uses' which occupies 22.19 acres with 2.72% land coverage. The 'industrial/all uses' category too is divided into three sub-categories with corresponding land coverage.

Table 3.5: Land-Use Distribution of Single-Use Parcels, Central Falls.

	Acres	% of Total Area of Central Falls
Residential	289.50	35.39%
Single Family	59.96	7.32%
Two Family	82.93	10.14%
Three Family	93.74	11.46%
Multi-Family	52.88	6.47%
Industrial	64.30	7.86%
Transportation & Utilities	18.78	2.30%
Commercial	30.64	3.74%
Services (Offices)	13.34	1.63%
Public Institutions & General Commty. Services	54.14	6.62%
Recreational	9.42	1.15%
Roads	167.67	20.51%
Vacant Land & Buildings, Wetlands	113.01	13.82%
Total	**760.80**	**93.02%**

Source: Dept. of Community Planning and Area Development. URI. 1986. Community Development Plan.

Single-use parcels

Out of a total of 817.88 acres of land, the single-use parcels occupy 760.80 acres or 93.02% of the total land area, which presumably is lower than the state average. According to the 1986 survey, the single land-use categories of the City were divided into ten major categories. The 1986 survey further divided the residential land-use into sub-categories of single-family, two-family, three-family, and multi-family. In combination, the residential land-use

occupies the largest share of 289.50 acres of land with an estimated land coverage of 35.39%. (See Map 2[2])

Similar to the 1961 and the 1975 surveys, the 1986 survey too indicates that the second largest category of land-uses is the 'roads' which occupies 167.67 acres or 20.51% of the total land area.

Industrial and commercial land-uses of Central Falls occupy substantial acreage. According to the 1986 survey, the industrial areas occupies 64.30 acres of land while the commercial areas constitute 30.64 acres. It is interesting to note that the industrial and commercial activities, with few exception, are developed as strip land-uses along Broad Street, Dexter Street, and Lonsdale Avenue (see Map 3).

3.1.5 Land-Use Changes, 1961-1986

A comparison of land-use activities of Central Falls show that the City has not undergone almost any land-use changes during the last three decades. It does indicate, however, that the residential use has increased by 2% from 37.20% in 1961 to 39.20% in 1986. At the same time, we can see that both the commercial and industrial uses decreased by approximately 1% to 3%. It reflects the results of the 1980s real-estate boom when portions of commercial and industrial lands were converted into residential with a consequential increase of mixed land-uses.

Table 3.6: Land-Use Changes, Central Falls, 1961-1986.

	Percent of Total Area		
	1961	1975	1986
Residential	37.20%	38.52%	39.20%
Commercial	5.20%	5.70%	4.18%
Industrial	13.70%	12.38%	10.52%
Roads	20.50%	20.50%	20.50%
Other	23.20%	22.90%	25.60%
Total	**100.00%**	**100.00%**	**100.00**

Source: Dept. of Community Planning and Area Development. URI. 1986. Community Development Plan.

This study also shows that the road coverage of the City remained unchanged during the last three years. It may be asserted that the City has already been built to its potential leaving no room for the sub-divisions requiring more road coverage. Ironically, with an almost stagnant

[2] The Land-use categories shown in the map do not exactly correspond to the categories of the 1986 survey. The map, however, provides an overall land-use pattern of the city.

built-up situation, the socio-demographic indicators of the City changed substantially during the period under consideration.

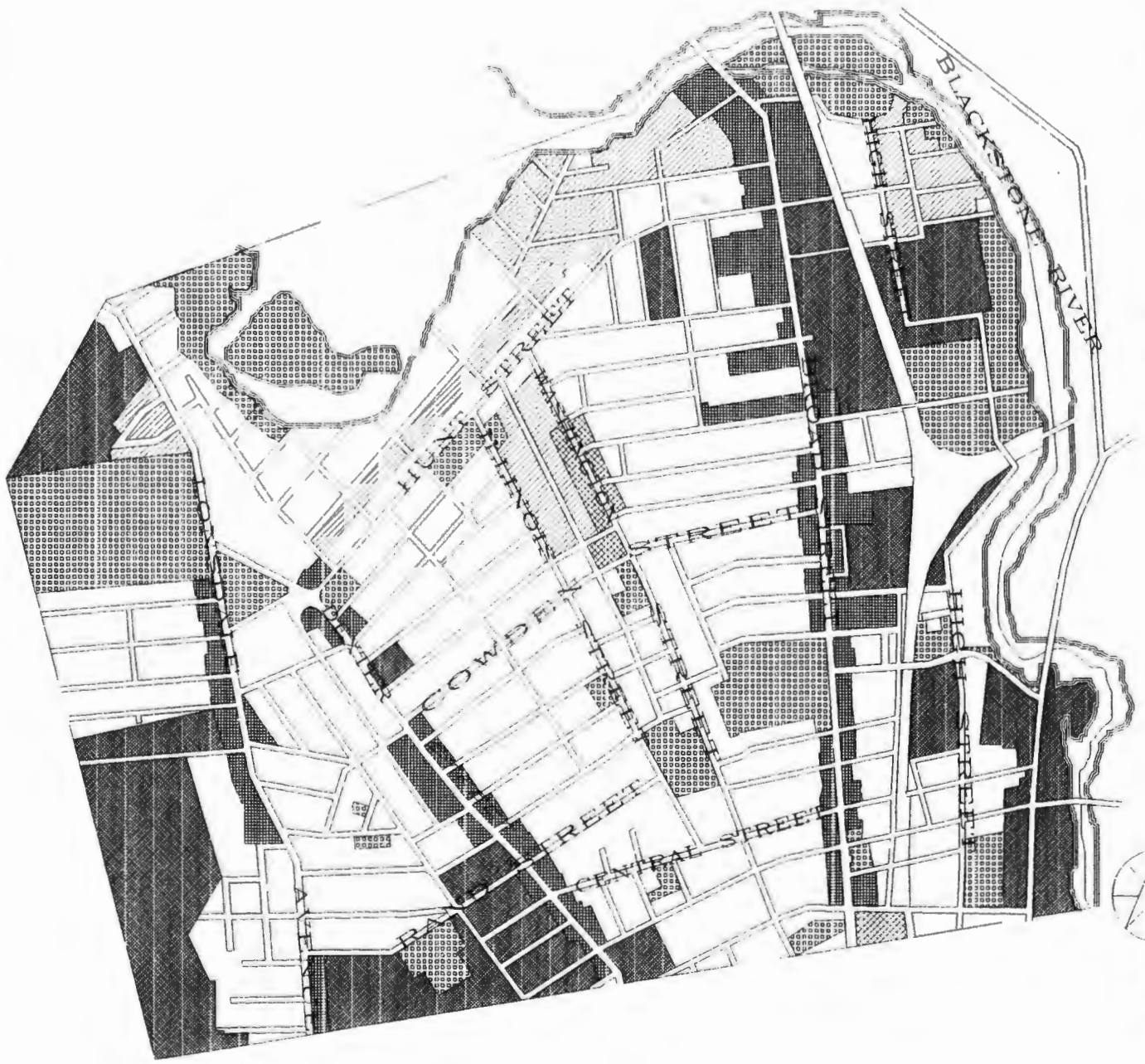
The City, however, has responded to the socio-demographic changes in a different way. In this process, the residential neighborhoods remained residential but the residential units have been constantly sub-divided to accommodate more families - one-family residential units have become two-family residential, two-family residential units have become multi-family residential and so on. Since these changes were not made in a planned way, the population densities of the residential neighborhoods, and the City, became unusually high, the number of school-age children exceeded the capacity of the school district, and the City failed to provide necessary services to its residents. It is to be noted that the school system of Central Falls has been taken over by the State.

3.1.6 Conclusion

Similar to the land-use situation, the analysis of the housing situation of the City reveals characteristics which are not common to the state. In the next chapter of this report housing situation of the city is analyzed. The housing analysis will be the concluding chapter for the analysis of physical indicators as well as the profile of Central Falls.

Land-Use Map, 1995

The City of Central Falls, R.I.



- Low Den. Res. < 8 Units/Acre
- Med./High Den. Res. 8-21 Units/Acre
- Neighborhood Commercial
- General Commercial
- Industrial
- Institutional/ Public Land

MASTER'S RESEARCH PROJECT

CENTRAL FALLS: REDEVELOPMENT STRATEGY

500 Ft 0 500 Ft 1500 Ft

Scale

DRAWING PRODUCED BY:

ABHIJIT BRAHMACHARI

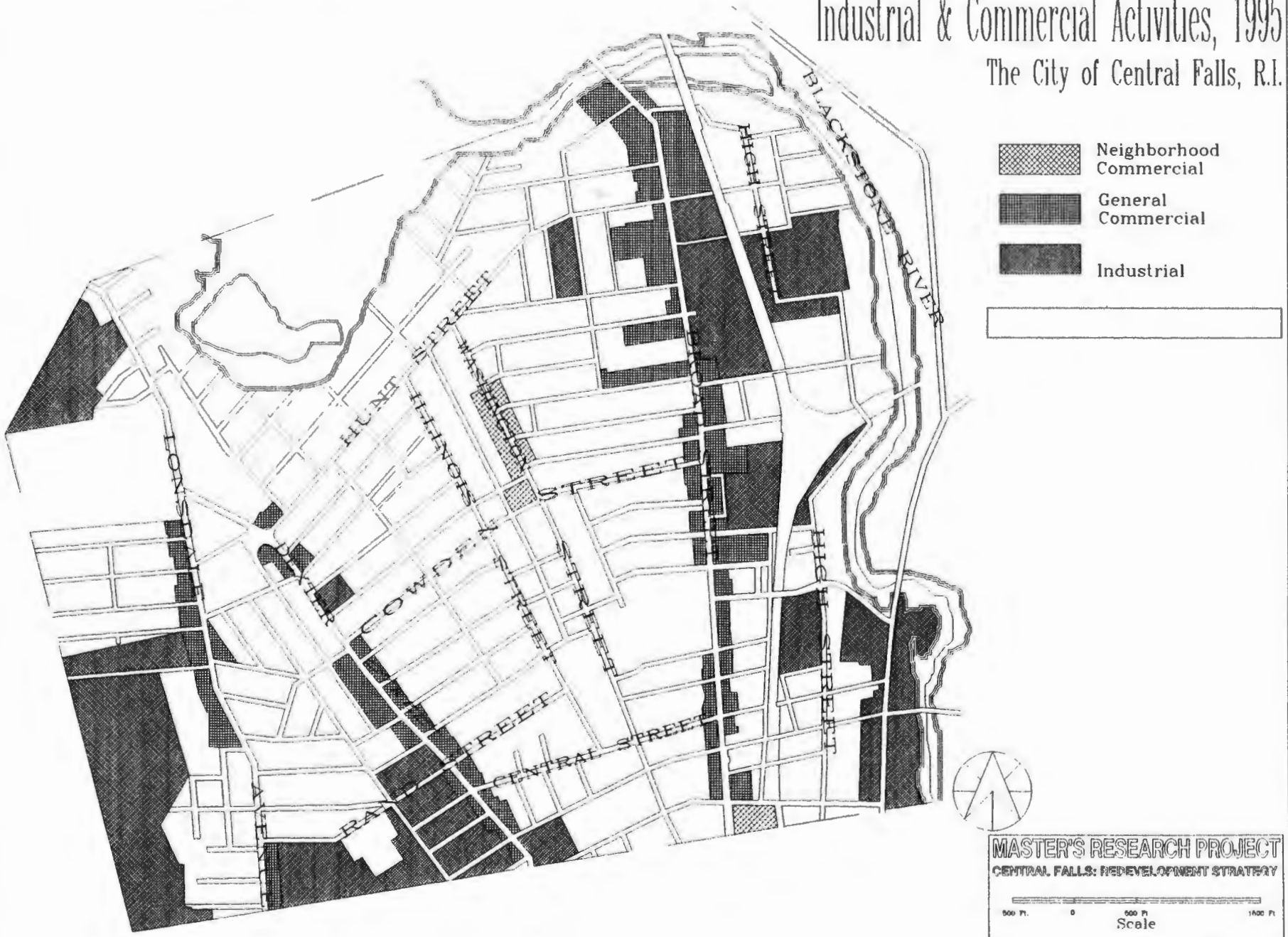
APRIL 27, 1998

MAP 2

Source: Comprehensive Plan, Central Falls.

Industrial & Commercial Activities, 1995

The City of Central Falls, R.I.



MASTER'S RESEARCH PROJECT

CENTRAL FALLS: REDEVELOPMENT STRATEGY

500 Ft. 0 500 Ft 1000 Ft

Scale

DRAWING PRODUCED BY:

ABHIJIT BRAHMACHARI

APRIL 27, 1996

MAP 3

Source: Comprehensive Plan. Central Falls.

3.2.1 Introduction

It is not only the unusual social attributes that screens the City from the rest of the state, the associated physical characteristics, too, if analyzed, reveal more differences. It will be unjust to blame the social attributes being the cause of the physical characteristics, or, the vice-versa, but they are, indeed, mutually dependent on each other. In this chapter, the analysis exposes the visible signs of deterioration of housing of this small, historic city of Rhode Island.

First, special attention is given to the overall housing conditions of the City. Similar to the earlier sections of the report, the analysis presented here are based on secondary data sources. The two major sources of information used in this section are the US Census reports, 1970 through 1990, and the Comprehensive Plan of the City.

The analysis of housing, as presented in this section, are divided into few categories which are, owner-renter relationship, physical conditions of housing, financial characteristics, affordability gap, and utility characteristics.

3.2.2 Owner Renter Relationships

A crucial indicator of housing situation of a community is its ratio of owner and renter population. It may be stated that a property is better maintained while it is enjoyed fully by its owner. The enjoyment may either come from its use, or from appropriate financial value (rent). On the other hand, an owner, developing a property fully for the renters will probably limit budget towards the materials usage only to the extent it is required by the local building code. This is true from the maintenance/management point of view too. Over the course of the last three decades the percentages of renter population of the City has been exorbitantly high compared to its owner population. The results of such distribution are revealed in the analysis of physical conditions of housing (3.2.3).

Table 3.7: Owner-Renter Relationship of Rhode Island, Providence County, and Central Falls, 1970.

	1970					
	Rhode Island		Providence County		Central Falls	
		% of total		% of total		% of total
Owner Occupied Unit	168923	53.38%	99810	50.05%	1676	24.48%
Renter Occupied Unit	123042	38.88%	89944	45.11%	4813	70.29%
Vacant Unit	14536	4.59%	9298	4.66%	358	5.23%
Vacant - seasonal & migratory	9976	3.15%	349	0.18%	0	0.00%
Total	**316477**	**100.00%**	**199401**	**100.00%**	**6847**	**100.00%**
Owner-Renter Ratio	1.37		1.11		0.35	

Source: US Department of Commerce, Bureau of Census, 1970.

According to the 1970 Census, approximately 53% of the total housing units of the State of Rhode Island was owner-occupied. The Providence County experienced similar situation having an approximate 50% of its total housing units occupied by the owner. In stark comparison with the State and the County, Central Falls had only 24% of its total housing units occupied by the owner. The owner-renter ratio of the City in 1970 was 100:285 while the similar ratios for the State and the County were 100:73 and 100:90 respectively (See Table 3.7).

Table 3.8: Owner-Renter Relationship of Rhode Island, Providence County, and Central Falls, 1980.

	1980					
	Rhode Island		Providence County		Central Falls	
		% of total		% of total		% of total
Owner Occupied Unit	199075	53.42%	110988	49.22%	1648	22.13%
Renter Occupied Unit	139515	37.44%	98710	43.78%	4938	66.32%
Vacant Unit	24043	6.45%	14948	6.63%	858	11.52%
Vacant - seasonal & migratory	10039	2.69%	843	0.37%	2	0.03%
Total	**372672**	**100.00%**	**225489**	**100.00%**	**7446**	**100.00%**
Owner-Renter Ratio	1.43		1.12		0.33	

Source: US Department of Commerce, Bureau of Census, 1980.

The situation, for the State and the County remained unchanged in 1980. According to the 1980 Census, 53% and 50% of the total housing units of the State and the County were owner-occupied. For the City, however, the already low percentage of 1970 became lower with an estimated 22% owner-occupied units. The overall housing situation of Central Falls, with as

low as only 22% owner-occupied units, was hit even harder with an increased vacancy rate from 5.23% in 1970 to 11.52% in 1980. During the same decades, however, both the County and the State had a vacancy rate of 5%-6% approximately. Accordingly, owner-renter ratio of the of the City became even lower with an estimated 100:303 in 1980 (See Table 3.8).

Table 3.9: Owner-Renter Relationship of Rhode Island, Providence County, and Central Falls, 1990.

	1990					
	Rhode Island		Providence County		Central Falls	
		% of total		% of total		% of total
Owner Occupied Unit	224792	54.22%	121071	49.78%	1575	21.47%
Renter Occupied Unit	153185	36.95%	105291	43.29%	5068	69.07%
Vacant Unit	24542	5.92%	16009	6.58%	688	9.38%
Vacant - seasonal & migratory	12053	2.91%	853	0.35%	6	0.08%
Total	**414572**	**100.00%**	**243224**	**100.00%**	**7337**	**100.00%**
Owner-Renter Ratio	1.47		1.15		0.31	

Source: US Department of Commerce, Bureau of Census, 1990.

During the 1980s, the housing situation of Central Falls became even worse with an estimated 21.47% owner-occupied units in 1990. Owner-renter ratio of the City went further down with 100:322 in 1990 while both the State and the County experienced healthier ratios of 100:68 and 100:87 respectively (See Table 3.9).

3.2.3 Physical Conditions of Housing

The overall physical conditions of the housing stock of this City are not very well praised in the Comprehensive Plan of the City. According to the Plan, more than three thousand of the total stock of approximately seven and a half thousand housing units of the City does not have appropriate heating system while more than four hundred units lack a full bathroom.

Considering the degree of inappropriate systems and utility facilities, the Planning Department, in its Comprehensive Plan, identified units with severe and moderate problems. According to the Plan, 232 housing units of the City suffer from severe physical problems in at least one or more of the following categories; a) plumbing, b) heating, c) electricity, d) upkeep, e)

common areas not satisfying safety standards. The City has also identified another 831 units with moderate physical problems regarding the items stated above.

The City also identifies that the recurring problems with the utility systems are due to lack of maintenance and scheduled replacement of the systems. The problem seems to be more prevalent in the units with absentee landlord. The Plan also blames that "rapid rise of housing costs in the 1980s made the situation worse. Properties purchased by investors at prices inflated beyond the rent paying ability of the local population are the greatest risk. High rents are needed by the owner to make high mortgage payments. The rents being unobtainable, maintenance is either deferred or canceled. The immediate result is a slow deterioration in the living conditions of the tenants. The long-term effect is the destruction of the housing stock. It is not only the poverty stricken residents to blame for the housing situation, the City has identified 241 elderly homeowners in Central Falls with income not enough for proper maintenance.[3]

3.2.4 Financial Characteristics

The poor upkeep of property and unsatisfactory maintenance of systems not only present unpleasant visual experience but also have immense effect on the property value. Reiterating my argument in the introduction of this chapter, physical characters and property values are mutually dependent and directly affect one another.

In this section of the report financial characteristics of the selected housing stock of the City is compared with the situations in the State and the County. The analysis presented here are not based on the one hundred percent of the housing stock but only on the 'specified owner-occupied units[4]'.

According to the 1970 Census, approximately 8% of the total housing units in the State was priced at an estimated $10,000 or less. Similar to the State, Providence County, in 1970, had an estimated 7% of the specified owner-occupied units with value of $10,000 or less.

[3] Comprehensive Plan
[4] This term is used in the Census Reports to identify the units for which real estate assessments have been performed.

However, in comparison with the state and the county, a substantial 24% of the specified owner-occupied units of the City, in 1970, was priced at $10,000 or less.

Table 3.10: Financial Characteristics of Specified Owner-Occupied Housing Units of Rhode Island, Providence County, and Central Falls, 1970.

	1970					
	Rhode Island	% of total	Providence County	% of total	Central Falls	% of total
Less that $10,000	10259	7.81%	5118	7.18%	89	23.92%
$10,000 to $14,999	28738	21.87%	16453	23.08%	130	34.95%
$15,000 to $19,999	41035	31.24%	23886	33.50%	98	26.34%
$20,000 to $24,999	24396	18.57%	13013	18.25%	40	10.75%
$25,000 to $34,999	16624	12.65%	8363	11.73%	11	2.96%
$35,000 and above	10322	7.86%	4465	6.26%	4	1.08%
Total	**131374**	**100.00%**	**71298**	**100.00%**	**372**	**100.00%**
Median Value	$18,200		$17,900		$13,500	

Source: US Department of Commerce, Bureau of Census, 1970.

On the flip side, approximately 20% of the total specified owner-occupied units of the State and the County, in 1970, were valued at $25,000 or more. In comparison, only 4% units of the City units enjoyed such status. As a normal consequence, while the median value of housing units for the State and the County was approximately $18,000, the median value for the City was estimated at $13,500 only (See Table 3.10).

Table 3.11: Financial Characteristics of Specified Owner-Occupied Housing Units of Rhode Island, Providence County, and Central Falls, 1980.

	1980					
	Rhode Island	% of total	Providence County	% of total	Central Falls	% of total
Less that $25,000	12645	7.89%	743	4.27%	114	17.81%
$25,000 to $49,999	79093	49.37%	6308	36.24%	440	68.75%
$50,000 to $99,999	59946	37.42%	8915	51.22%	80	12.50%
$100,000 to $149,999	6129	3.83%	1026	5.89%	5	0.78%
$150,000 to $199,999	1435	0.90%	236	1.36%	1	0.16%
$200,000 and above	949	0.59%	179	1.03%	0	0.00%
Total	**160197**	**100.00%**	**17407**	**100.00%**	**640**	**100.00%**
Median Value	$133,500		$45,100		$37,000	

Source: US Department of Commerce, Bureau of Census, 1980.

Between 1970 and 1980, the median value of housing units more than doubled all over the State. Central Falls, too, experienced increase in property value. However, the relative position of the city, related to the state and the county remained almost unchanged.

While an approximate 60% of specified owner-occupied units of the State and the County, in 1980, were priced at $20,000 or less, a substantial 86% of the total specified owner-occupied units of the City were priced at $20,000 or less. On the other hand, in 1980, 40% to 60% of the specified units of the State and the County were priced at $50,000 or more while the City had only 14% of the specified owner-occupied units priced at $50,000 or more. Also, while the median value of housing units of the State and the County, in 1980, was estimated at above $45,000 the median value for the City was $37,000 (See Table 3.11).

Table 3.12: Financial Characteristics of Specified Owner-Occupied Housing Units of Rhode Island, Providence County, and Central Falls, 1990.

	1990					
	Rhode Island		Providence County		Central Falls	
		% of total		% of total		% of total
Less that $40,000	1680	0.95%	963	1.07%	24	6.19%
$40,000 to $79,999	12018	6.81%	6960	7.74%	92	23.71%
$80,000 to $124,999	62069	35.17%	35175	39.09%	193	49.74%
$125,000 to $149,999	36754	20.82%	19659	21.85%	56	14.43%
$150,000 to $199,999	35562	20.15%	16879	18.76%	17	4.38%
$200,000 to $249,999	12750	7.22%	5262	5.85%	1	0.26%
$250,000 to $299,999	6676	3.78%	2501	2.78%	3	0.77%
$300,000 to $399,999	5025	2.85%	1592	1.77%	2	0.52%
$400,000 to $499,999	1694	0.96%	468	0.52%	0	0.00%
$500,000 and above	2266	1.28%	516	0.57%	0	0.00%
Total	**176494**	**100.00%**	**89975**	**100.00%**	**388**	**100.00%**
Median Value	$133,500		$127,400		$100,200	

Source: US Department of Commerce, Bureau of Census, 1990.

Between 1980 and 1990, the property/unit value sky-rocketed throughout the country as the median values more than tripled all over the State of Rhode Island. Central Falls was no exception. However, the gap between the City and the rest of the State still remained substantial.

During 1990, an approximate 45% of the total specified owner-occupied units of the State and the County were priced at $125,000 or less. In comparison approximately 80% of the City units remained under $125,000. On the higher side, while about 30% of the units of the State and the County were priced at over $150,000 the City had only 6% in that category. Median value had its effect too. While the specified owner-occupied units of the City had a median value of $100,000 the rest of the state experienced a value of approximately $130,000 (See Table 3.12).

3.2.5 Affordability Gap

Considering the prevailing financial characteristics of the owner and renter-occupied housing units and the median income of the residents, the City, in its Comprehensive Plan, has put together an analysis called 'affordability gap'. Essentially, the study identifies the reasons behind low owner-occupied units and high renter-occupied units of the City. Accordingly, the analysis is divided into two categories; affordability of the owners, and affordability of the renters.

Affordability of the owners: This analysis is based on the median sale price of a house, median income of the residents, income needed to purchase a house at the median sale price, and the appropriate down-payment @ 10% of the principal. The figures, according to the 1989 data, are as follows;

Median House sale price:	**$106,000**
Median income:	**$27,780**
Income need to purchase:	**$47,210**
Down-payment @ 10%:	**$10,600**

The analysis shows that while the income needed to buy a units is $47,210 the median income of the City is $27,780 only. This explains why the city has an overwhelming number of renter households.

Affordability of the Renters: In this category, the picture is not so bleak. The 1990 data presented in Rhode Island Housing's Comprehensive Housing Assistance Strategy (CHAS) show the following.

Average monthly rent for a 2 BR unit: $477.00

Income needed to rent: $19,080

Median renter income: $20,016

According to this analysis, the residents of the City probably are more likely to be a renter than a owner.

3.2.6 Utility Characteristics

In this analysis the focus is the physical size (number of rooms) of the housing units. It is not only the financial characteristics, the visual decay, or the abnormally high renter percentages, the actual size of housing units in this City, in comparison with the State and the County are lower.

Table 3.13: Utility Characteristics of Housing Units of Rhode Island, Providence County, and Central Falls, 1990.

	1990					
	Rhode Island		Providence County		Central Falls	
		% of total		% of total		% of total
1 Room	5379	1.30%	3896	1.60%	144	1.96%
2 Rooms	14844	3.58%	10398	4.28%	567	7.73%
3 Rooms	44211	10.66%	28892	11.88%	1363	18.58%
4 Rooms	77865	18.78%	47898	19.69%	1590	21.67%
5 Rooms	97558	23.53%	60601	24.92%	2191	29.86%
6 Rooms	78264	18.88%	44186	18.17%	983	13.40%
7 Rooms	44746	10.79%	22646	9.31%	214	2.92%
8 or more Rooms	51705	12.47%	24707	10.16%	285	3.88%
Total	**414572**	**100.00%**	**243224**	**100.00%**	**7337**	**100.00%**

Source: US Department of Commerce, Bureau of Census, 1990.

The percentage of small size units is more in this City than the State and the County. According to the 1990 Census of Housing, approximately 15%-16% of the total housing units of the State and the County has 3 rooms or less. In comparison, more than 25% of all units of the City is in this category. On the other hand, while approximately 40% of all housing units of the State and the County has 6 or more rooms, the City has only 18% in this category (See Table 3.13).

3.2.7 Conclusion

Considering all available data sources, one of the greatest needs of this city is affordable, decent, safe, and sanitary family housing for the low and moderate-income households. However, much progress in housing may not be achieved without considering the associated social attributes.

4.1 Introduction

In previous chapters the distinguishing characteristics of the City of Central Falls have been highlighted. In the analysis of socio-demographic and physical characteristics of the City, comparisons were presented in relation to the State of Rhode Island and the Providence County, chronologically distributed over a period of three decades from 1970 to 1990. As revealed in the earlier chapters, Central Falls is quite different from the County and the State.

This chapter takes another step forward in scrutinizing various social and physical attributes of a part of the City. This Study Area is selected on the basis of a survey jointly administered by the City of Central Falls *and Women's Development Corporation (WDC).* WDC is a Providence based private, non-profit organization with approximately 15 years of experience in developing and managing federally subsidized housing for the low and moderate-income population of the State of Rhode Island. Contracted by the City, The WDC is working as a consultant in developing numerous housing units in Central Falls for the low and moderate income population. As a secondary objective, the WDC is also planning to develop usable open space for the residents of the City. The above mentioned survey was performed to identify the areas within the City with the maximum need for subsidized housing.

The author had the opportunity to be directly involved in this survey. The indicators selected for the survey were a) concentration of boarded-up houses, and b) on-site survey of the physical characteristics of the deteriorating houses throughout the City. As a result of the survey an area within the City was identified with the highest concentration of boarded-up houses. Density of boarded-up houses was delineated by visual inspection of a map showing boarded up houses. Incidentally, the physical characteristics of the houses within the same area were found to be more deteriorated than the other areas of the City. The identified area is bounded by Cowden Street, Moore Street, and Kendall Street to the North, Illinois Street to the East, Rand Street to the South, and Lonsdale Avenue to the East.

For the purpose of the analysis presented in this chapter various indicators of social and physical characteristics of this area are collected and investigated. Unlike the previous sections, based on **comparative** analysis of the City in relation to the State and the County, a **descriptive**

approach is used. The analysis begins with a description of the study area, and is subsequently followed by a review of selected socio-demographic and physical characteristics. The socio-demographic indicators used are property value, and type of houses. The analysis of physical characteristics include land-use analysis, zoning analysis, and figure-ground analysis.

4.2 Study Area

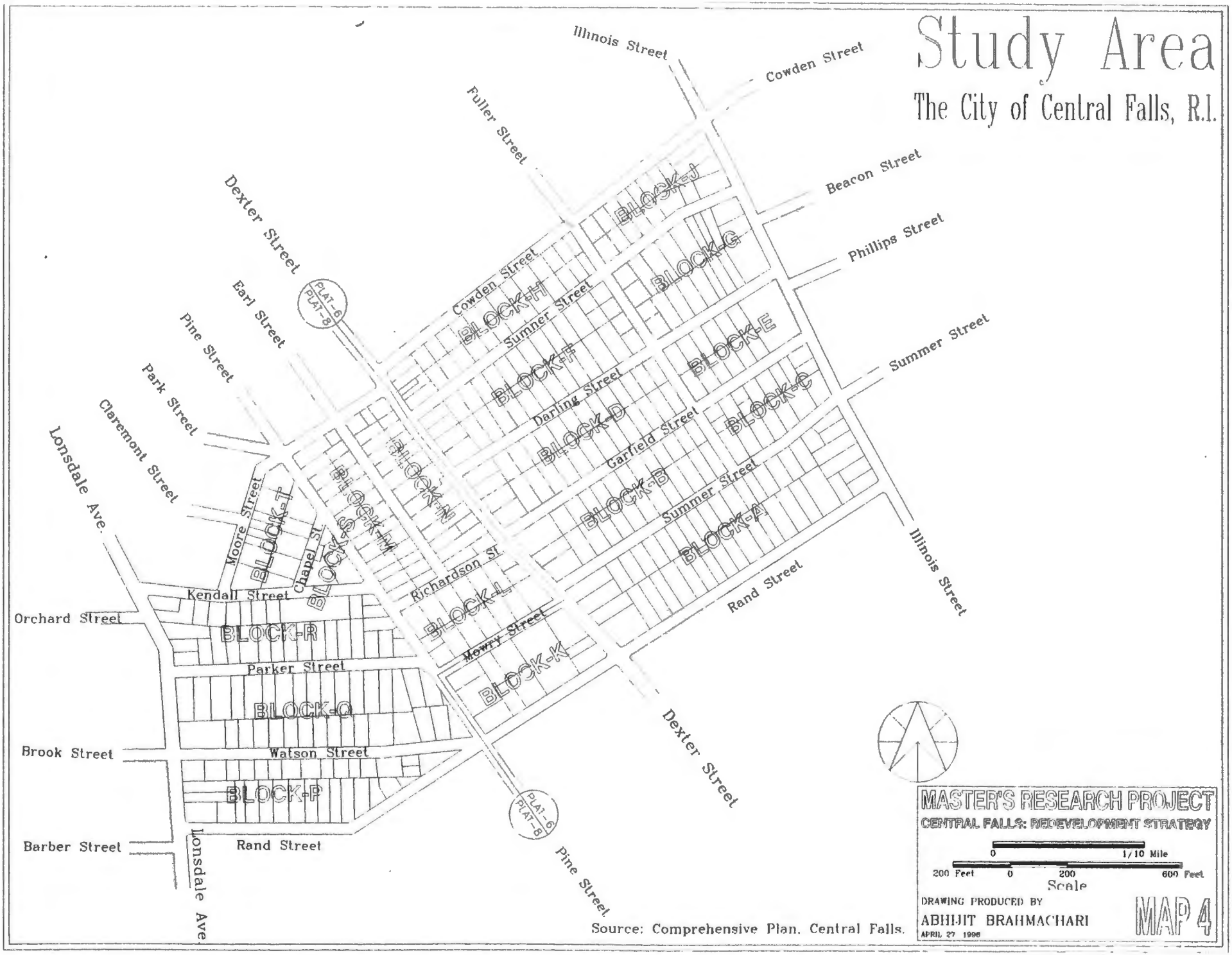
As mentioned before, the study area is bounded by Cowden Street to the North, Illinois Street to the East, Rand Street to the South, and Lonsdale Avenue to the West (See Map 4). The study area is 73.35 acres (0.1 Square Mile)[5], approximately 10% of the total land area of the City. For the purpose of this analysis, the study area is divided into 18 blocks, A through T (letters 'I' and 'O' are not used for possible confusion with numbers '1' and '0').

The study area occupies parts of the Tax Assessor's Plat # 6 and Plat # 8. There are 414 lots in the study area of which 240 are in Plat # 6 while the rest are in Plat # 8. The blocks are defined solely by the street pattern and therefore are of various sizes. Block S is the smallest with about 22,000 SF while Block A is the largest with more than 300,000 SF of land area. (See Table 4.1 for selected information, a detailed description of the Plats and Lots within the area is presented in Appendix XIII)

The street pattern of the study area is based on a gridiron system. While most of the streets are originally laid maintaining the grid system, a noticeable break in harmony is found in the western side, possible reason being natural features such as topography. The streets within the study area occupy 680,171.40 SF of land which is 21.3% of the whole area.

A study of the lot numbering sequence on the Tax Assessor's maps of the City confirms that a substantial number of lots were created as requested by the owners by subdividing small lots to even smaller percales of land. In a few instances triangular lots are created with almost unusable acute angles. It may be affirmed that the subdivisions lacked long-term planning.

[5]The acreage is computed directly from the AutoCAD drawings and may not be used for legal purposes. The drawings are digitized manually with utmost care and satisfactorily represent the actual situation. According to the US Census of Population and Housing, 1990, Central Falls has a total land area of 1.20 square mile, while, according to the Map of Central Falls, digitized by the Author, the total land area, computed automatically by the software, is 1.255 (4% error) square mile.



Source: Comprehensive Plan, Central Falls.

Table 4.1: Plat/Lot Distribution of the Study Area.

						% of Total Study Area
	Block	Plat #	Area (in SF)	# of Lots	Area/Lot	
	A	6	303994.10	44	6908.90	
	B	6	160050.13	26	6155.77	
	C	6	91763.66	18	5097.98	
	D	6	172938.05	30	5764.6	
	E	6	95963.14	13	7381.78	
	F	6	191492.06	31	6177.16	
	G	6	143533.64	21	6834.93	
	H	6	130216.96	30	4340.56	
	J	6	94433.02	20	4721.65	
	K	6	113982.94	7	16283.27	
	L	8	102669.49	16	6416.84	
	M	8	110519.09	13	8501.46	
	N	8	113491.05	25	4539.64	
	P	8	168554.42	34	4957.48	
	Q	8	242865.19	36	6746.25	
	R	8	177416.91	30	5913.89	
	S	8	22063.01	6	3677.16	
	T	8	79055.28	14	5646.80	
Lot Area			2515001.40	414	6074.88	78.7%
Street Area			680171.40			21.3%
Total Area			**3195172.82**			**100%**

Source: Primary research of the City Records, 1996, and Map 4.

4.3 Socio-Demography:

The socio-demographic analysis of the study area is based on the City Records. This actually is an analysis of land/building value and building type used to imply socio-demographic characteristics. Most of the information presented in this section is based on the Field Cards of the City for the years of 1994, 1995, and 1996. Typically a field card is a compilation of different characteristics of an individual lot. A field card does not only provide architectural and structural characteristics of individual houses in a lot, it also provides information on zoning, assessed property value, and ownership information of the particular lot. Typically a field card is added to the file of a particular property whenever property value assessment is done for a particular property for resale or for any other purpose. Out of a total of 414 lots of the study area about 40 lots were assessed during the years of 1994, 1995, and 1996. These 40 lots were chosen to form

a 10% sample[6] of the study area. (Selected information for the discussion on the following topics on socio-demography is provided as individual tables, however, detailed information of the sample is attached as Appendix XIV.)

Property Value

A critical indicator of social characteristics of a neighborhood is the property value. Typically, the number of abandoned properties and dilapidated houses or presence of any other forms of nuisance in the neighborhood substantially determine the trend in property value of the whole neighborhood. As mentioned earlier, the concentration of boarded up houses in the study area is highest in the City and the consequential effect on the property value is very apparent.

The analysis indicates that the average lot size is 6074.88 SF and 50% of all houses of the sample are 3 Family Residential Houses. The term property value, as indicated in this study, includes the value of the land as well as the value of the structure.

Table 4.2: Distribution of Property Value.

Property Value (Land and House)	Percentage of Properties
Under $50,000	5.3%
$50,000 to $74,999	44.7%
$75,000 to $99,999	36.8%
$100,000 and Higher	13.2%
Average Land Area	**6074.88 SF**
Average Value	**$80,120.00**

Source: City Records, 1996, and Map 4.

Out of a total of the 40 properties of the case study cluster, 50% are valued at $75,000 or less including approximately 6% of the properties valued at less than $50,000. On the higher side, the rest of the 50% properties are valued at $75,000 or more with only approximately 13% of the properties valued at more than $100,000. On the average, therefore, a 6,000 SF lot, with a

[6]This is a sample of lots assessed for various real estate reason. Thus, these are a cluster of marketable properties.

residential house in the study area is priced at approximately $80,000. It is to be noted here that these figures are based on only the properties assessed during 1994, 1995, and 1996. It may be assumed that the sample did not include the severely dilapidated houses of the neighborhood.

Type of Properties

In this section a simple statistical estimate of the types of properties of the study area is computed. In this procedure percentage distribution of the types of properties of the sample is computed first. Then the percentages are applied to the actual total number of properties of the study area.

Table 4.3: Distribution of Type of Property.

Category	Percentage of Properties based on Sample	Estimated Number of Properties
1 Family	5.3%	22
2 Family	21.0%	87
3 Family	50.0%	207
4 Family	13.2%	55
Others	10.5%	43
Total	**100%**	**414**

Source: City Records, 1996, and Map 4.

According to these estimates, 50% of all properties of the study area are 3-family residential properties with a total estimated number of 207. The study area has only 22 single-family properties constituting only 5.3% of all properties. In addition, the study area has 87 two-family properties and 55 four-family properties.

4.4 Physical Characteristics

The information required for the analysis of the physical characteristics of the study area are collected from the various maps produced for the previous chapters of the research project. In addition, the figure ground map is produced manually to represent the analysis of solids and voids of the study area.

Land-use Analysis

From the analysis of land-use of the study area, it is easy to determine that the existing land-use activities within the area clearly divide the study area in two distinct residential pockets divided by commercial and industrial activities along Dexter Street which dissects the study area almost in equal proportions. The study area also includes scattered parcels of institutional/public use on the eastern as well as the westerns sides of the study area (See Map 5).

A significant amount of the study area, having only approximately 73 acres of land, is dedicated for transportational uses. Intricate network of streets within the study area occupies a substantial 21% of the available land area with a consequential formation of residential blocks of size as small as only 22,000 SF.

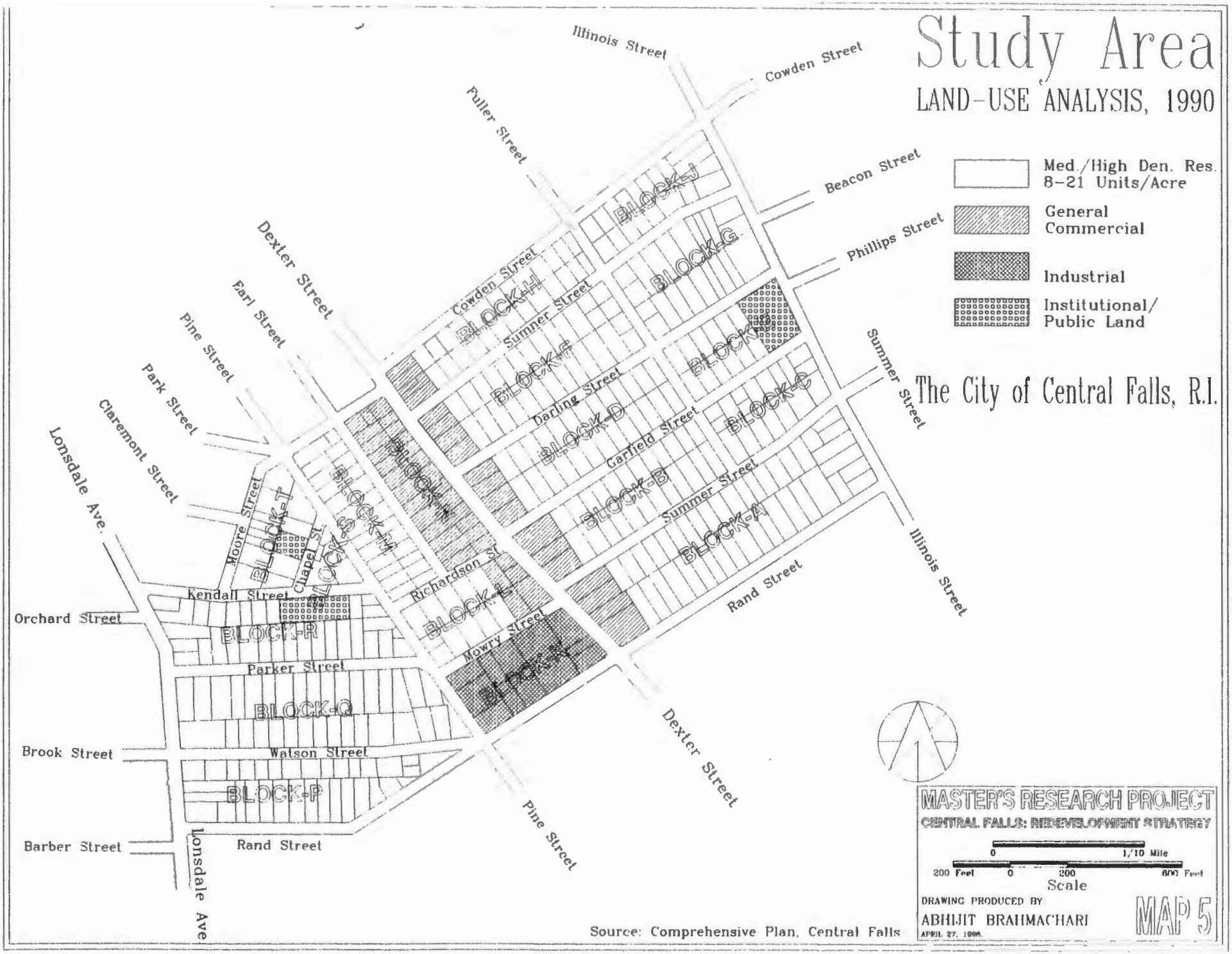
Table 4.4: Land-Use Distribution, 1996.

Land-use Category	Area Occupied (in SF)	% of Total land Area	Number of Lots	Average Lot Size (in SF)
Med./High Den. Residential 8-21 Units/Acre	2,069,014.23	64.7%	351	5894.62
General Commercial	273,332.91	8.6%	49	5578.22
Industrial/ Manufacturing	113,941.87	3.7%	11	10358.35
Institutional/ Public Land	58,712.39	1.8%	3	19570.79
Roads	680,171.40	21.2%	-	-
Total	**3,195,172.82**	**100%**	**414**	**7717.80**

Source: City Records, 1996, and Map 5.

The land-use activities of the area are substantially dominated by medium/high density residential land-use. According to the land-use map of the City, medium/high density residential use is defined as areas with 8 to 21 housing units per acre. Approximately 65% of the total land of the study area falls under this category.

An interesting land-use element of the study area is the co-existence of manufacturing, general commercial, and residential land-uses next to each other with very low to almost no buffer between the non-compatible uses. The land-uses along Dexter Street are the prime examples of such activities. General commercial and industrial land-uses occupy approximately 8.6%, and 3.7% of the study area respectively.


Study Area
LAND-USE ANALYSIS, 1990
Med./High Den. Res. 8-21 Units/Acre
General Commercial
Industrial
Institutional/ Public Land
The City of Central Falls, R.I.
Illinois Street
Cowden Street
Fuller Street
Beacon Street
Phillips Street
Dexter Street
Farl Street
Pine Street
Park Street
Claremont Street
Lonsdale Ave.
Summer Street
Darling Street
Garfield Street
Moore Street
Chapel St.
Richardson St.
Kendall Street
Orchard Street
Mowry Street
Parker Street
Rand Street
Brook Street
Watson Street
Barber Street
BLOCK-A
BLOCK-B
BLOCK-C
BLOCK-D
BLOCK-E
BLOCK-F
BLOCK-G
BLOCK-H
BLOCK-I
BLOCK-J
BLOCK-K
BLOCK-L
BLOCK-M
BLOCK-N
BLOCK-O
BLOCK-P
BLOCK-Q
BLOCK-R
BLOCK-S
BLOCK-T
MASTER'S RESEARCH PROJECT
CENTRAL FALLS: REDEVELOPMENT STRATEGY
0
1/10 Mile
200 Feet
0
200
600 Feet
Scale
DRAWING PRODUCED BY
ABHIJIT BRAHMACHARI
APRIL 27, 1998.
MAP 5
Source: Comprehensive Plan, Central Falls

Zoning Analysis

The zoning analysis of the study area reveals conflicts between zoning and actual land uses. The areas of conflict are not so apparent for the residential uses, however, parts of commercial and all industrial activities of the City directly contradicts the city zoning ordinances (See Map 6).

According to the zoning ordinance, 5.7% of the total land, 180916.71 SF on the eastern corner of the study area, is zoned R-2[7], and apparently there are no conflicts with the actual land-uses. Lots along parts of Darling Street and Summer Street and Garfield Street in entirety are zoned R-4[8]. A wind-shield survey of the actual land-use along Garfield Street supports the ordinance. Approximately 22% of the total land area of the study area falls under this category. The majority of the study area, however, is zoned R-3[9]. An approximate 62% land of the study area is zoned as R-3.

Table 4.5: Zoning distribution, 1996.

Zoning Category	Area Occupied (in SF)	% of Total land Area
Residential, R-2	180916.71	5.7%
Residential, R-3	1998427.90	62.5%
Residential, R-4	719050.43	22.5%
Commercial, C-2	296777.79	9.3%
Total	**3195172.83**	**100%**

Source: City Records, 1996, and Map 6.

The conflict, however, is most apparent with the general commercial and industrial land-uses. According to the zoning ordinance, only the lots along Dexter Street and having access from Dexter Street are zoned commercial. In reality, however, the lots on the eastern side of Earle Street have commercial activities. On the other hand, while the zoning does not allow any industrial activity within the study area, the Block K, in entirety, is used for industrial activities.

[7]R-2: Lots for single and two-family construction only.
[8]R-4: Lots where up to four-family residential houses may be constructed.
[9]R-3: Lots where up to three-family residential houses may be constructed.

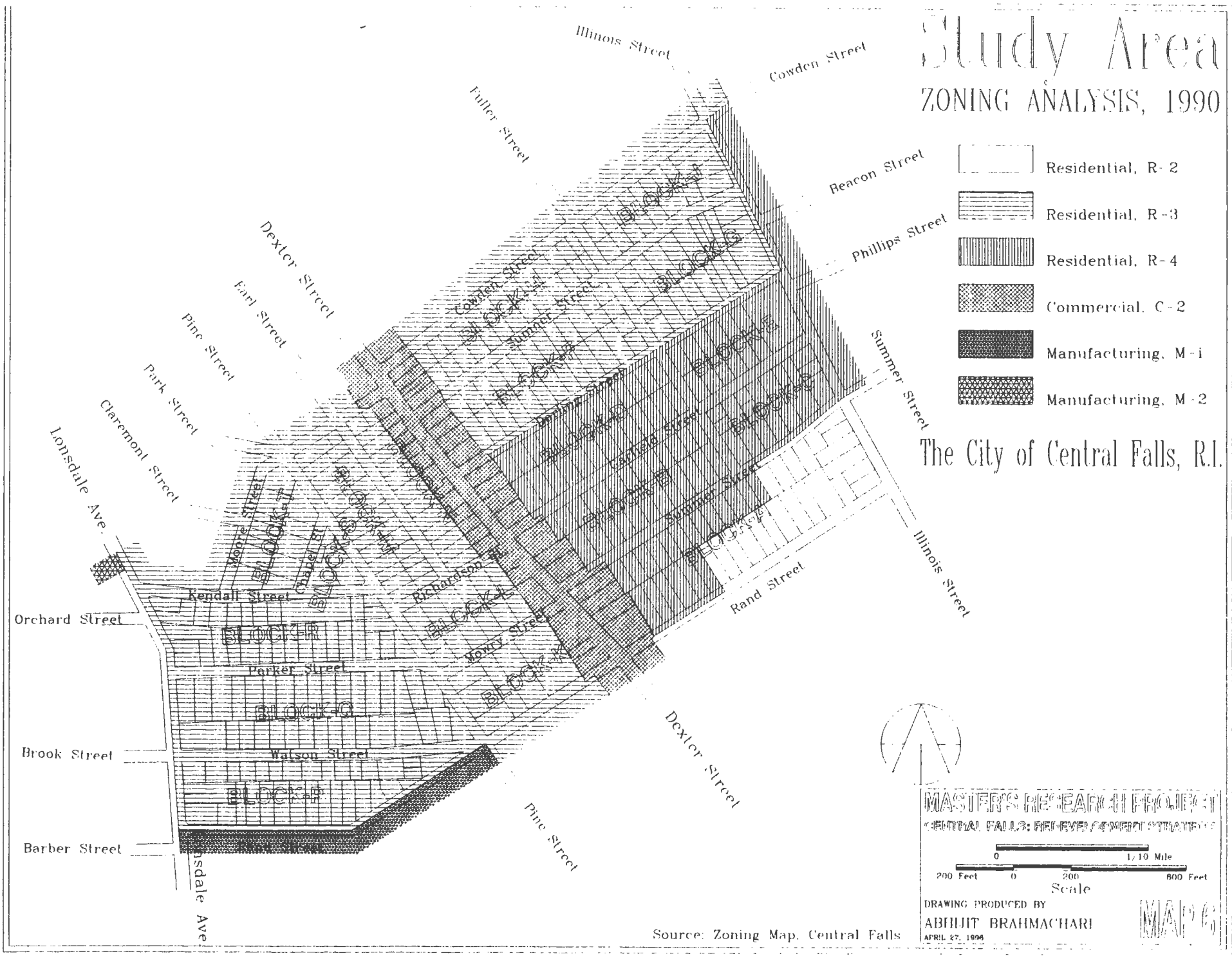

Illinois Street
Cowden Street
Fuller Street
Beacon Street
Phillips Street
Dexter Street
Earl Street
Pine Street
Park Street
Claremont Street
Lonsdale Ave.
Summer Street
Illinois Street
Rand Street
Kendall Street
Orchard Street
Parker Street
Brook Street
Watson Street
Barber Street
Dexter Street
Pine Street
Lonsdale Ave.
Study Area
ZONING ANALYSIS, 1990
Residential, R-2
Residential, R-3
Residential, R-4
Commercial, C-2
Manufacturing, M-1
Manufacturing, M-2
The City of Central Falls, R.I.
MASTERS RESEARCH PROJECT
CENTRAL FALLS: REDEVELOPMENT STRATEGY
0
1/10 Mile
200 Feet
0
200
800 Feet
Scale
DRAWING PRODUCED BY
ABHIJIT BRAHMACHARI
APRIL 27, 1994
MAP 6
Source: Zoning Map, Central Falls

Figure-Ground Analysis

A Figure-Ground Analysis of an area is a method of visually identifying the distributions of solid masses versus open areas. Typically, in a figure ground analysis of an area the houses and buildings are colored black and the voids or open spaces are left white. This allows the observer easily identify the concentration of mass and also concentration of open areas (See Map 7).

This figure-ground analysis is done with the help of two maps, Map 7 and Map 8. In Map 7 the existing situation of the study area is presented. This map confirms the intensity of land-use activities of the study area. The intensity, however, is maximum along Dexter Street. These are the commercial land-uses along Dexter Street.

The Map 8 is a conceptual map. This map is produced to show what the solid/void balance would look like had the study area been zoned for quarter acre lots only. The lot sizes in this map are approximately 10,000 SF to 12,000 SF. The houses in this map are assumed to be in two floors with approximately 1,600 SF to 2,000 SF of total floor area and 800 SF to 1,000 SF of footprints. Although it is not the intention to transform the existing land-use situation into the situation as shown in Map 8, the map is produced to compare the situation of the study area with one of the predominant forms of zoning for the rest of the state.

According to this figure ground analysis, Block K has the maximum percentage of built up spaces. From the visual examination more than 50% of the total land area of Block K is built up. A comparison with the land-use map (see Map 5) confirms that this is the only block in the study area with industrial land-use. A further comparison with the zoning map (see Map 6) confirms that the block is not zoned as industrial area. This figure ground analysis also confirms that the intensities of residential land-uses are maximum in the blocks B, D, and F along Summer, Garfield, and Darling streets. This, however, is supported by the zoning ordinance. According to the zoning ordinance, this is the only area in the study area where up to four-family residential houses may be constructed.

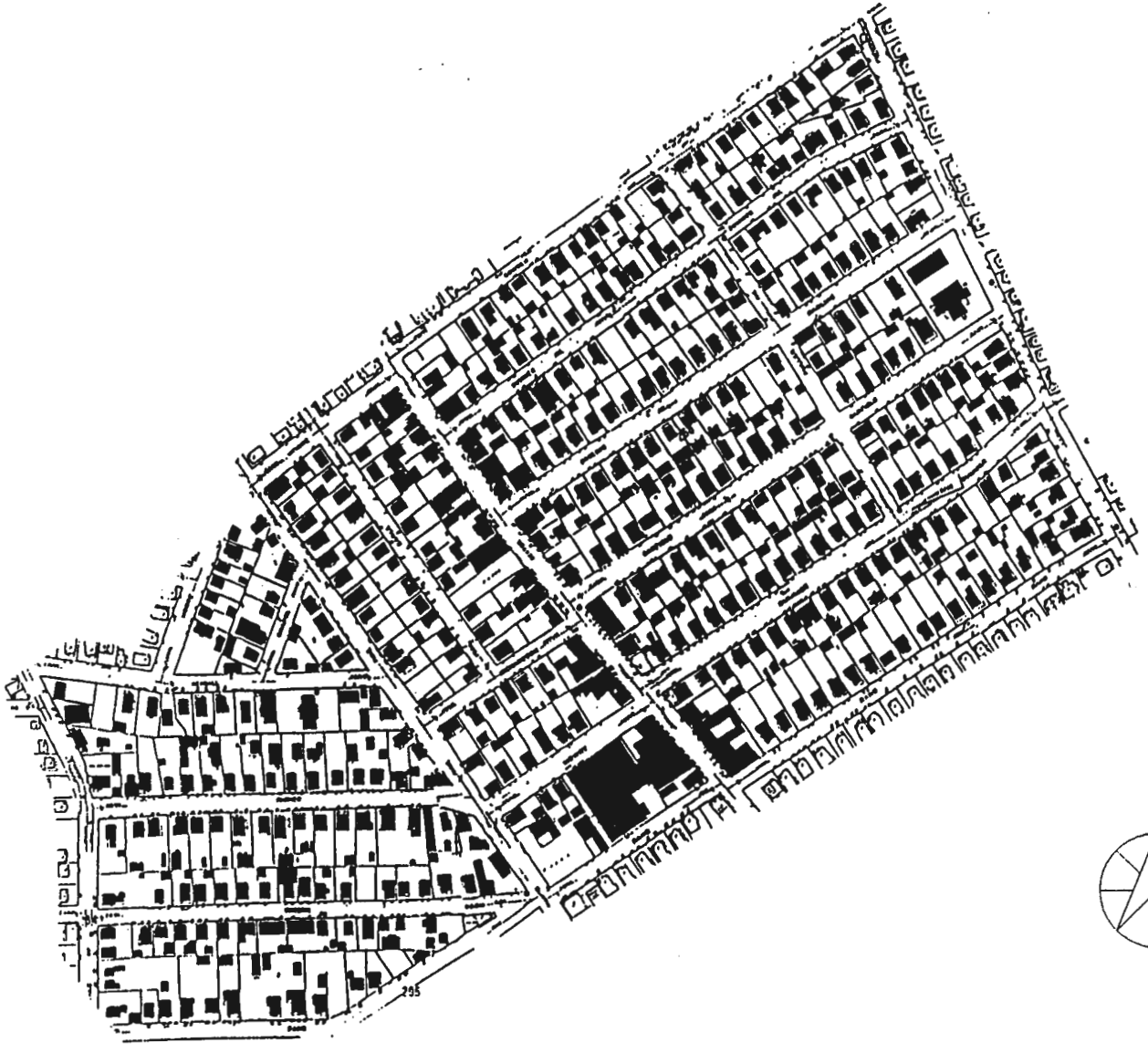
Study Area

FIGURE-GROUND STUDY

Solid

Void

The City of Central Falls, R.I.



Source: Sand-Borne Map

MASTER'S RESEARCH PROJECT

CENTRAL FALLS: REDEVELOPMENT STRATEGY

0 1/10 Mile

200 Feet 0 200 800 Feet

Scale

DRAWING PRODUCED BY:

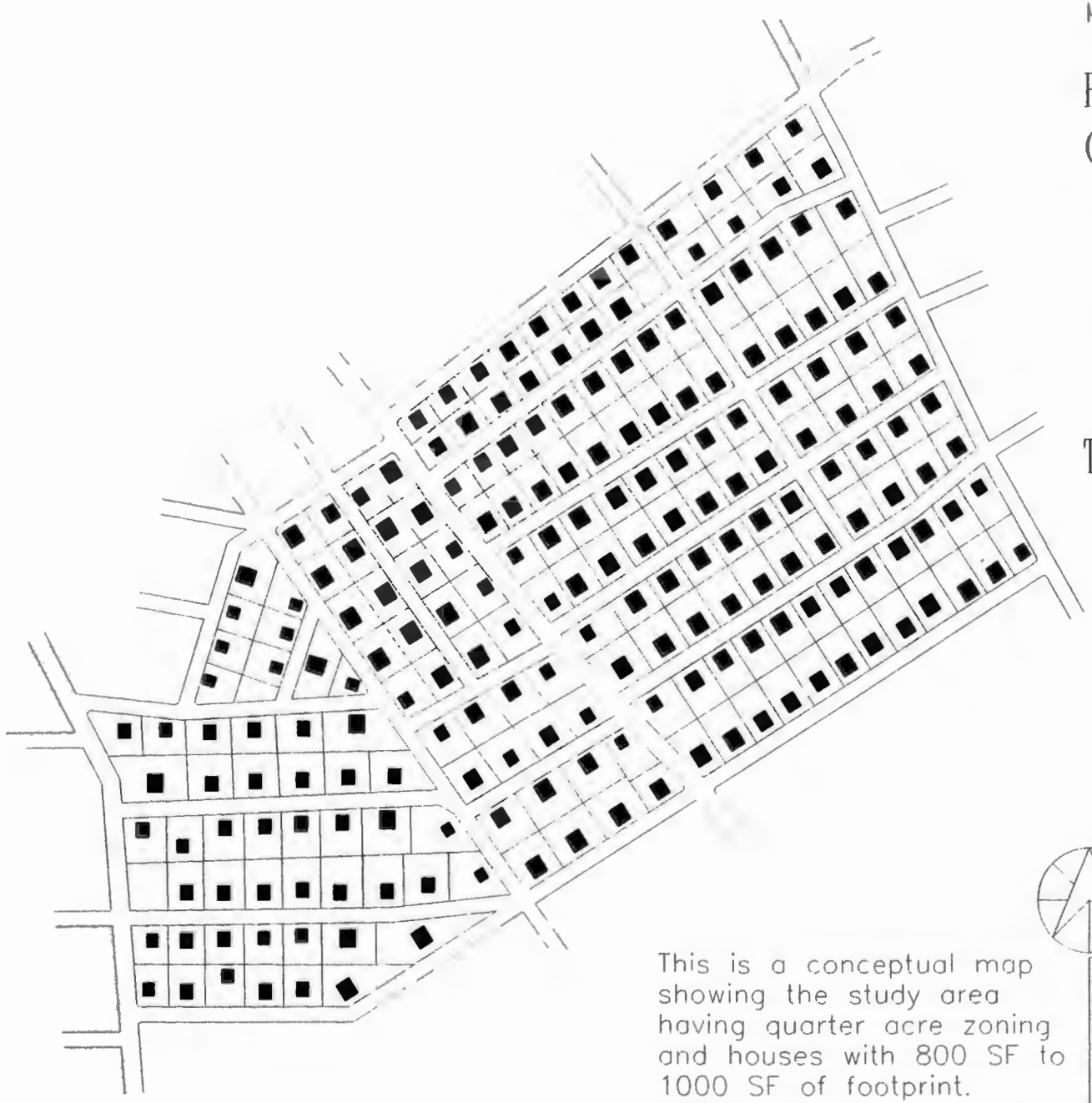
ABHIJIT BRAHMACHARI

APRIL 27, 1998

MAP 7

Study Area

FIGURE-GROUND STUDY
Conceptual Map



Solid

Void

The City of Central Falls, R.I.

This is a conceptual map showing the study area having quarter acre zoning and houses with 800 SF to 1000 SF of footprint.
This may not be confused with the existing situation.

MASTER'S RESEARCH PROJECT

CENTRAL FALLS: REDEVELOPMENT STRATEGY

0 1/10 Mile

200 Feet 0 200 600 Feet

Scale

DRAWING PRODUCED BY

ABHIJIT BRAHMACHARI

APRIL 27, 1998

MAP 8

4.5 Conclusion

In this case study, the author attempted to present only some of the attributes of the study area which might be interesting from the point of view of city planning and urban development. If time permitted, the case study could have been performed in a block-by-block or in a house-by-house basis. This case study, however, may also be looked as a ground work for further research in the subject, or in similar subjects. The information provided as appendices to various chapter of this research project may also be used for basic information for further research.

Unquestionably, the study area, and also the City in its entirety, provide a very interesting case study of city planning, as it relates to high density neighborhoods. Although the city has been thoroughly built physically, tools of city planning can still offer ways of improving quality of life in the city.

The following chapter proposes a few recommendations to improve the quality of life in the study area as well as in the city in the long run. It is to be noted here that none of the recommendations, if implemented, will change the quality of life within the city dramatically in a short period of time. These recommendations, however, are conceived as policies for long-term planning.

5.1 Summary of Findings

The preceding analysis served to distinguish Central Falls from the other cities and towns in Rhode Island. It is to be noted here that the intentions behind the analysis presented in the earlier chapters of this study were not meant to demean the City of Central Falls in any way, neither was it an attempt to merely apply the statistical tools of the City and Regional Planning in the perspective of social and physical attributes of the City.

From the inception of this study, the author discussed the existing situation of the City with various residents of Rhode Island, including former residents of Central Falls and professionals involved in city and regional planning. For the most part, however, only negative and neutral comments about the City were encountered. Subsequently initial research regarding the City confirmed that few studies were made in the past to highlight the historic, social, and other attributes of the City, and most of these studies took a qualitative approach only. One of the principal intentions behind this project was, thus, to quantify the social as well as physical attributes of the City. Such quantifiable evidences were presented in the earlier chapters of this study.

In this chapter, however, a few policy recommendations are made. These recommendations, if adopted, may not change the quality of life within the city immediately. The recommendations are conceived as tools for long range planning with an intention of making the city safer, more sanitary, and more decent in the long run. If successfully executed, it is hoped that the recommendations will have positive effect on the city with a consequential increase in the property value.

According to the earlier analysis, housing density of this City is 15 times more than the State, population density, too, is approximately 15 times more than the State, the median household income is approximately little more than half of the state average, and the percentage of renter population is twice as much as the state figure. In author's opinion, therefore, the results of any improvement plan for Central Falls, if successfully implemented, will essentially reduce these differences to the extent possible. In other words, the author believes that any improvement plan for the city should be approached as a process of reducing these differences.

If successfully carried out, the policies based on the above mentioned approach will eventually improve the quality of life within the city. The recommendations presented in this chapter, thus, is based upon two goals derived directly from this philosophy:

- balancing social and physical differences between the city and the state; and
- promoting carefully regulated physical improvements within the city

5.2 Recommendations

Although the recommendations are essentially directed towards an overall improvement of quality of life within the city, for the purpose of clarity they are divided into three broad categories. In the first category the ways of improving overall housing situation is discussed, while the later two categories discuss policies on land-use and zoning, and possible implementation of an urban design plan.

5.2.1 Housing Situation

The recommendations on housing are based on a few findings of the housing analysis presented in the Chapter 3. As mentioned earlier the median value of a house in Central Falls in 1990 was $100,200, while the median for the state in 1990 was $133,500 (see Table 3.12). Also, while only approximately 22% housing units of the City are occupied by owner, about 55% of all housing units in the state are owner-occupied (see Table 3.9).

Again, according to the comprehensive plan of the City the median sale price of a house in the city is $106,000. The plan also suggests that while the income needed to buy a $106,000 house is $47,210, the median income in the city is only $27,780. Therefore, in order to improve the housing situation the City should consider the following:

- improving dollar earning capabilities of the residents - this includes trade related training;
- improving owner/renter ratio from the existing 31:100 to 50:100 in the next 15 to 20 years; and
- physical improvements of the houses to increase the property values.

As we can see, the improvements of the overall housing situation of the City depend on the economic condition, on the property value, and on the balance of the owner/renter ratio. It is to be noted here that under the prevailing circumstances within the City, these goals may not be

achieved in a short period of time. Instead policies are to be made to improve the situation slowly but steadily.

- In the author's opinion, special attention is to be given to the minimum housing standards. To this end, the City should take advantage of the Community Development Block Grant (CDBG) program. If funds can be acquired, it may be made available to the income eligible owners as low interest loans to improve the physical appearance of their property.
- Policies may be carefully formulated to give incentives to the non-resident owners to live in their properties. These incentives may include a low-interest loan program as stated above. If successfully implemented, the new owner-occupied units of the City will help balance the owner/renter ratio. An improved percentage of owners will also indirectly improve the physical conditions of the city.
- Special educational programs may be developed to educate the owners about the proposed incentives for living in their properties, and to educate the renters about their privileges regarding minimum housing standards.
- It is recommended that the City investigates the structural situation of the abandoned, dilapidated, city-owned houses of Central Falls. It is recommended for the situations where such structures are grouped together next to each other, that City considers demolishing such structures for creating large and usable open space for the residents of the City. Further research may be undertaken for cost analysis for demolishing such structures versus refurbishing the dilapidated structures. If successfully executed, such action will provide much needed open space for the residents and at the same time will reduce the existing population and housing densities.

5.2.2 Land-Use and Zoning Situation

The land-use/zoning recommendations are based on the findings of chapters on land-use and case-study. In chapter 3, we have seen that a substantial amount of land in the City is being used for industrial, commercial, and service related purposes. While the residential land-uses take up 35% land, the above mentioned land-uses, in combination, take up approximately 15% land (see Table 3.5). Similar to the unusual balance of owners and renters of the City, the balance of residential, commercial, industrial, and service land-uses of the City, too, is unusual in Central Falls. In addition, only 50% of all residential land-uses of the City is single-family or two-family residential houses, the other 50% being in the three-family or multi-family category (see Table 3.5).

The analysis of the study area reveals additional information on non-conforming land-uses. The zoning analysis of the study area (see Table 4.5) shows that only residential (R-2, R-3, and R-4) and commercial (C-2) uses are allowed in the study area. The analysis of land-use (see Table 4.4), however, shows that Block k, in entirety, is being used as industrial/manufacturing purposes.

A study of the plat and lot maps of the City shows irregularity in sequence of numbering the lots. This reveals evidences of numerous sub-divisions of already small lots. In addition, it is found that the zoning ordinance of the City was written in the 1960s and has not been modified substantially to fit today's purposes. It is also found that the zoning categories of the City are not quantifiable. For example, according to the zoning ordinance, R-1 designates the area where only single-family residential houses can be built, but it does not specify neither the minimum lot sizes nor the maximum lot coverage. It is also found that the zoning ordinance does not specify the FAR's[10] for individual type of lots.

The recommendations in land-uses, thus, are directed towards increasing single family houses in the City, reducing non-conforming land-uses, revising the zoning ordinance, and

[10]FAR (Floor Area Ratio) is defined as ratio of the total floor area in all floors and the total lot size of a property.

renumbering the existing lot numbering scheme of the city. The recommendations in this chapter are as follows.

- It is recommended that the City reviews its existing zoning ordinance, and publish new or modified zoning ordinance to fit the existing and the future needs of the City. It is recommended that the new zoning ordinance of the City quantifies the categories of use, and introduces 'minimum lot size' and 'maximum lot coverage' for all new construction and also for addition/alteration to existing structures. It is recommended that the new ordinance allows only single-family residential houses for the whole City and neighborhood commercial structures only in the selected areas within the City. It is also suggested that such activities are allowed only in the lots larger than or equal to 6,000 SF. It is also suggested that the new ordinance allows addition/alterations to the existing dilapidated/boarded-up houses only when the proposed modified structure meets the 'minimum lot size' and 'maximum lot coverage' and use standards as specified in the zoning ordinance. Evidently, such an ordinance will initiate 'taking' related cases and therefore sufficient background research has to be done to prove the purposes of such ordinance.
- Although Central Falls is built almost to its capacity, it is strongly recommended that the City strictly controls use and size of all new constructions and all addition/alteration to the existing structures. It is recommended that the City executes a **moratorium** on all new constructions, renovation, and subdivision within the limit of the City until the current zoning ordinance is reviewed and rewritten to reflect the present situation of the City.
- It is recommended that the City reviews the extent of non-conforming land-uses within the City. The block K within the study area (see Chapter 4: Case Study) has already been identified as an area with non-conforming land-use, and it is believed that similar study for the whole City may identify more areas with non-conforming land-uses. Once non-conforming land-uses are identified, it is recommended that the City researches the city records to check if any form of 'zoning change' or 'variance'

applies to the subject lot(s). If affirmative, the case is to be clearly mentioned in the new zoning ordinance or in a list of variances offered by the City in the past. If negative, legal action is to be taken to solve the situation. It is also recommended that the City does not allow any new variance or zoning change in the next 15 to 20 years.

- It is recommended that the City considers creating open space by demolishing city-owned boarded-up/dilapidated structures where applicable. This action may be taken only where a few structures of these category are situated next to each other.
- During the research for the case study it was found that the sequence of lot numbering for individual plats of the City often are not in order[11]. It may be asserted that such irregularity in lot numbering occurred due to the continuous sub division activities of the lots. It is recommended that the City takes initiatives in re-numbering the lots as, according to the earlier recommendations in this chapter, no more sub-divisions are to be allowed before the new zoning ordinance is published.

5.2.3 Urban Design Plan

It is strongly recommended that the City applies for grants to hire a nationally recognized Urban Design Consultant to prepare a long term physical development plan for the City. The plan, if prepared, should incorporate careful design of usable open space, careful adoption of color scheme, design of street signage, design of traffic flow pattern, improvement of street surfaces, careful reduction of lost open spaces[12]..

The recommendations of the urban design plan may be implemented experimentally in a small part of the City. Implementation of the plan for the rest of the City may be based on the results of the experiment as state above. Care must be taken in choosing consultant. It is recommended that the chosen consultant has architects, city planners, and urban designers in staff and has experience in similar projects.

[11]For example, the lot numbers for the Block G in Plat 6 of the city are 179, 456, 325, 180, 4, 183, 369, 368, 371, 370, 372, 453, 308, 184, 428, 470, 185, 187, and 186.
[12]Unusable open spaces.

5.3 Conclusion

The analysis and recommendations presented in this study are on very sensitive issues of Central Falls, and of Rhode Island. It is to be noted here that the purpose of this academic exercise was not to demean Central Falls in any way. Rather, the analysis was conceived as a set of quantifiable background research that may be used for acquiring grants for the betterment of the quality of life in the City.

	City of Central Falls																	
	Area 1.20 Sq M	1970																
		White						Non-White						Total				
		Male		Female		Total		Male		Female		Total		Male		Female		Total	
			Density		Density		Density		Density		Density		Density		Density		Density		Density
0-4		822	685.0	805	670.8	1627	1355.8	4	3.3	4	3.3	8	6.7	826	688.3	809	674.2	1635	1362.5
5-9		857	714.2	810	675.0	1667	1389.2	9	7.5	6	5.0	15	12.5	866	721.7	816	680.0	1682	1401.7
10-14		859	715.8	772	643.3	1631	1359.2	3	2.5	7	5.8	10	8.3	862	718.3	779	649.2	1641	1367.5
15-19		758	631.7	703	585.8	1461	1217.5	10	8.3	3	2.5	13	10.8	768	640.0	706	588.3	1474	1228.3
20-24		650	541.7	744	620.0	1394	1161.7	5	4.2	8	6.7	13	10.8	655	545.8	752	626.7	1407	1172.5
25-29		563	469.2	522	435.0	1085	904.2	5	4.2	6	5.0	11	9.2	568	473.3	528	440.0	1096	913.3
30-34		414	345.0	413	344.2	827	689.2	4	3.3	4	3.3	8	6.7	418	348.3	417	347.5	835	695.8
35-39		409	340.8	432	360.0	841	700.8	2	1.7	0	0.0	2	1.7	411	342.5	432	360.0	843	702.5
40-44		496	413.3	509	424.2	1005	837.5	2	1.7	3	2.5	5	4.2	498	415.0	512	426.7	1010	841.7
45-49		522	435.0	558	465.0	1080	900.0	5	4.2	3	2.5	8	6.7	527	439.2	561	467.5	1088	906.7
50-54		488	406.7	625	520.8	1113	927.5	3	2.5	3	2.5	6	5.0	491	409.2	628	523.3	1119	932.5
55-59		495	412.5	612	510.0	1107	922.5	1	0.8	5	4.2	6	5.0	496	413.3	617	514.2	1113	927.5
60-64		454	378.3	616	513.3	1070	891.7	2	1.7	0	0.0	2	1.7	456	380.0	616	513.3	1072	893.3
65-69		364	303.3	533	444.2	897	747.5	0	0.0	2	1.7	2	1.7	364	303.3	535	445.8	899	749.2
70-74		301	250.8	487	389.2	788	640.0	5	4.2	2	1.7	7	5.8	306	255.0	489	390.8	775	645.8
75-79		205	170.8	294	245.0	499	415.8	0	0.0	0	0.0	0	0.0	205	170.8	294	245.0	499	415.8
80-84		110	91.7	207	172.5	317	264.2	0	0.0	1	0.8	1	0.8	110	91.7	208	173.3	318	265.0
85+		63	52.5	146	121.7	209	174.2	0	0.0	1	0.8	1	0.8	63	52.5	147	122.5	210	175.0
		8830	7358.3	9788	8140.0	18598	15498.3	60	50.0	58	48.3	118	98.3	8890	7408.3	9828	8188.3	18718	15596.7

Densities are measured in 'Population per Square Mile'.

Appendix II: Age-Sex Distribution of Population

	Area 1.20 Sq M	The City of Central Falls																	
		1980																	
		White						Non-White						Total					
		Male		Female		Total		Male		Female		Total		Male		Female		Total	
			Density		Density		Density		Density		Density		Density		Density		Density		Density
0-4		520	433.3	561	467.5	1081	900.8	44	36.7	41	34.2	85	70.8	564	470.0	602	501.7	1166	971.7
5-9		480	400.0	526	438.3	1006	838.3	41	34.2	35	29.2	76	63.3	521	434.2	561	467.5	1082	901.7
10-14		577	480.8	572	476.7	1149	957.5	42	35.0	47	39.2	89	74.2	619	515.8	619	515.8	1238	1031.7
15-19		639	532.5	712	593.3	1351	1125.8	61	50.8	60	50.0	121	100.8	700	583.3	772	643.3	1472	1226.7
20-24		753	627.5	806	671.7	1559	1299.2	60	50.0	67	55.8	127	105.8	813	677.5	873	727.5	1686	1405.0
25-29		614	511.7	583	485.8	1197	997.5	48	40.0	45	37.5	93	77.5	662	551.7	628	523.3	1290	1075.0
30-34		450	375.0	445	370.8	895	745.8	49	40.8	26	21.7	75	62.5	499	415.8	471	392.5	970	808.3
35-39		354	295.0	382	318.3	736	613.3	24	20.0	24	20.0	48	40.0	378	315.0	406	338.3	784	653.3
40-44		317	264.2	321	267.5	638	531.7	34	28.3	25	20.8	59	49.2	351	292.5	346	288.3	697	580.8
45-49		316	263.3	394	328.3	710	591.7	22	18.3	20	16.7	42	35.0	338	281.7	414	345.0	752	626.7
50-54		428	356.7	470	391.7	898	748.3	23	19.2	25	20.8	48	40.0	451	375.8	495	412.5	946	788.3
55-59		417	347.5	516	430.0	933	777.5	17	14.2	21	17.5	38	31.7	434	361.7	537	447.5	971	809.2
60-64		415	345.8	538	448.3	953	794.2	12	10.0	8	6.7	20	16.7	427	355.8	546	455.0	973	810.8
65-69		388	306.7	493	410.8	881	717.5	6	5.0	10	8.3	16	13.3	374	311.7	503	419.2	877	730.8
70-74		281	234.2	486	405.0	767	639.2	2	1.7	5	4.2	7	5.8	283	235.8	491	409.2	774	645.0
75-79		177	147.5	391	325.8	568	473.3	3	2.5	2	1.7	5	4.2	180	150.0	393	327.5	573	477.5
80-84		113	94.2	282	235.0	395	329.2	0	0.0	4	3.3	4	3.3	113	94.2	286	238.3	399	332.5
85+		107	89.2	232	193.3	339	282.5	3	2.5	3	2.5	6	5.0	110	91.7	235	195.8	345	287.5
		7326	6105.0	8710	7258.3	16036	13363.3	491	409.2	468	390.0	959	799.2	7817	6514.2	9178	7648.3	16995	14162.5

Densities are measured in 'Population per Square Mile'.

	The City of Central Falls																	
	Area 1.20 Sq M	1990																
		White						Non-White						Total				
		Male		Female		Total		Male		Female		Total		Male		Female		Total	
			Density		Density		Density		Density		Density		Density		Density		Density		Density
0-4		559	465.8	558	465.0	1117	930.8	262	218.3	243	202.5	505	420.8	821	684.2	801	667.5	1622	1351.7
5-9		481	400.8	449	374.2	930	775.0	224	186.7	226	188.3	450	375.0	705	587.5	675	562.5	1380	1150.0
10-14		404	336.7	396	330.0	800	666.7	188	156.7	179	149.2	367	305.8	592	493.3	575	479.2	1167	972.5
15-19		387	322.5	417	347.5	804	670.0	181	150.8	163	135.8	344	286.7	568	473.3	580	483.3	1148	956.7
20-24		555	462.5	589	490.8	1144	953.3	210	175.0	197	164.2	407	339.2	765	637.5	786	655.0	1551	1292.5
25-29		655	545.8	661	550.8	1316	1096.7	275	229.2	223	185.8	498	415.0	930	775.0	884	736.7	1814	1511.7
30-34		606	505.0	583	485.8	1189	990.8	211	175.8	226	188.3	437	364.2	817	680.8	809	674.2	1626	1355.0
35-39		424	353.3	443	369.2	867	722.5	144	120.0	144	120.0	288	240.0	568	473.3	587	489.2	1155	962.5
40-44		360	300.0	312	260.0	672	560.0	93	77.5	82	68.3	175	145.8	453	377.5	394	328.3	847	705.8
45-49		261	217.5	282	235.0	543	452.5	69	57.5	71	59.2	140	116.7	330	275.0	353	294.2	683	569.2
50-54		239	199.2	273	227.5	512	426.7	64	53.3	59	49.2	123	102.5	303	252.5	332	276.7	635	529.2
55-59		245	204.2	313	260.8	558	465.0	31	25.8	43	35.8	74	61.7	276	230.0	356	296.7	632	526.7
60-64		287	239.2	382	318.3	669	557.5	37	30.8	39	32.5	76	63.3	324	270.0	421	350.8	745	620.8
65-69		293	244.2	380	316.7	673	560.8	14	11.7	29	24.2	43	35.8	307	255.8	409	340.8	716	596.7
70-74		205	170.8	404	336.7	609	507.5	11	9.2	15	12.5	26	21.7	216	180.0	419	349.2	635	529.2
75-79		159	132.5	338	281.7	497	414.2	7	5.8	13	10.8	20	16.7	166	138.3	351	292.5	517	430.8
80-84		106	88.3	278	231.7	384	320.0	1	0.8	3	2.5	4	3.3	107	89.2	281	234.2	388	323.3
85+		80	66.7	292	243.3	372	310.0	4	3.3	0	0.0	4	3.3	84	70.0	292	243.3	376	313.3
		6306	5255.0	7350	6125.0	13656	11380.0	2028	1688.3	1955	1629.2	3981	3317.5	8332	6943.3	9305	7754.2	17637	14697.5

Densities are measured in 'Population per Square Mile'.

	Providence County																	
	Area 413.00 Sq M	1970																
		White						Non-White						Total				
		Male		Female		Total		Male		Female		Total		Male		Female		Total	
			Density		Density		Density		Density		Density		Density		Density		Density		Density
0-4		21784	52.7	20955	50.7	42739	103.5	1277	3.1	1236	3.0	2513	6.1	23061	55.8	22191	53.7	45252	109.6
5-9		24396	59.1	23135	56.0	47531	115.1	1299	3.1	1313	3.2	2612	6.3	25695	62.2	24448	59.2	50143	121.4
10-14		25402	61.5	24612	59.6	50014	121.1	1295	3.1	1276	3.1	2571	6.2	26697	64.6	25888	62.7	52585	127.3
15-19		24324	58.9	23849	57.7	48173	116.6	1144	2.8	1174	2.8	2318	5.6	25468	61.7	25023	60.6	50491	122.3
20-24		20636	50.0	22237	53.8	42873	103.8	927	2.2	1064	2.6	1991	4.8	21563	52.2	23301	56.4	44864	108.6
25-29		16351	39.6	16633	40.3	32984	79.9	786	1.9	820	2.0	1606	3.9	17137	41.5	17453	42.3	34590	83.8
30-34		12493	30.2	13285	32.2	25778	62.4	630	1.5	739	1.8	1369	3.3	13123	31.8	14024	34.0	27147	65.7
35-39		12905	31.2	13851	33.5	26756	64.8	585	1.4	668	1.6	1253	3.0	13490	32.7	14519	35.2	28009	67.8
40-44		15982	38.7	17501	42.4	33483	81.1	630	1.5	708	1.7	1338	3.2	16612	40.2	18209	44.1	34821	84.3
45-49		17505	42.4	19292	46.7	36797	89.1	499	1.2	588	1.4	1087	2.6	18004	43.6	19880	48.1	37884	91.7
50-54		16638	40.3	19014	46.0	35652	86.3	407	1.0	492	1.2	899	2.2	17045	41.3	19506	47.2	36551	88.5
55-59		15429	37.4	17949	43.5	33378	80.8	352	0.9	409	1.0	761	1.8	15781	38.2	18358	44.5	34139	82.7
60-64		12721	30.8	16521	40.0	29242	70.8	265	0.6	306	0.7	571	1.4	12986	31.4	16827	40.7	29813	72.2
65-69		10207	24.7	14209	34.4	24416	59.1	223	0.5	287	0.7	510	1.2	10430	25.3	14496	35.1	24926	60.4
70-74		7933	19.2	12181	29.5	20114	48.7	165	0.4	228	0.6	393	1.0	8098	19.6	12409	30.0	20507	49.7
75-79		5475	13.3	8755	21.2	14230	34.5	123	0.3	148	0.4	271	0.7	5598	13.6	8903	21.6	14501	35.1
80-84		3018	7.3	5397	13.1	8415	20.4	60	0.1	93	0.2	153	0.4	3078	7.5	5490	13.3	8568	20.7
85+		1780	4.3	3570	8.6	5350	13.0	47	0.1	73	0.2	120	0.3	1827	4.4	3643	8.8	5470	13.2
		264979	641.6	292946	709.3	557925	1350.9	10714	25.9	11622	28.1	22336	54.1	275693	667.5	304568	737.5	580261	1405.0

Densities are measured in 'Population per Square Mile'.

Appendix V: Age-Sex Distribution of Population

	Providence County																	
	Area 413.00 Sq M	1980																
		White						Non-White						Total				
		Male		Female		Total		Male		Female		Total		Male		Female		Total	
			Density		Density		Density		Density		Density		Density		Density		Density		Density
0-4		14541	35.2	14155	34.3	28696	69.5	2217	5.4	2176	5.3	4393	10.6	16758	40.6	16331	39.5	33089	80.1
5-9		16073	38.9	15395	37.3	31468	76.2	2083	5.0	1933	4.7	4016	9.7	18156	44.0	17328	42.0	35484	85.9
10-14		19800	47.9	19042	46.1	38842	94.0	2145	5.2	2020	4.9	4165	10.1	21945	53.1	21062	51.0	43007	104.1
15-19		24061	58.3	24365	59.0	48426	117.3	2324	5.6	2445	5.9	4769	11.5	26385	63.9	26810	64.9	53195	128.8
20-24		24450	59.2	26004	63.0	50454	122.2	2117	5.1	2441	5.9	4558	11.0	26567	64.3	28445	68.9	55012	133.2
25-29		20252	49.0	21176	51.3	41428	100.3	1928	4.7	1910	4.6	3838	9.3	22180	53.7	23086	55.9	45266	109.6
30-34		17983	43.5	18492	44.8	36475	88.3	1525	3.7	1533	3.7	3058	7.4	19508	47.2	20025	48.5	39533	95.7
35-39		13699	33.2	14740	35.7	28439	68.9	1008	2.4	1168	2.8	2176	5.3	14707	35.6	15908	38.5	30615	74.1
40-44		11354	27.5	12446	30.1	23800	57.6	914	2.2	1065	2.6	1979	4.8	12268	29.7	13511	32.7	25779	62.4
45-49		11891	28.8	13163	31.9	25054	60.7	766	1.9	897	2.2	1663	4.0	12657	30.6	14060	34.0	26717	64.7
50-54		14574	35.3	16343	39.6	30917	74.9	795	1.9	855	2.1	1650	4.0	15369	37.2	17198	41.6	32567	78.9
55-59		15584	37.7	17957	43.5	33541	81.2	608	1.5	704	1.7	1312	3.2	16192	39.2	18661	45.2	34853	84.4
60-64		13702	33.2	16787	40.6	30489	73.8	440	1.1	654	1.6	1094	2.6	14142	34.2	17441	42.2	31583	76.5
65-69		11493	27.8	15391	37.3	26884	65.1	355	0.9	473	1.1	828	2.0	11848	28.7	15864	38.4	27712	67.1
70-74		8173	19.8	13201	32.0	21374	51.8	222	0.5	335	0.8	557	1.3	8395	20.3	13536	32.8	21931	53.1
75-79		5595	13.5	10184	24.7	15779	38.2	142	0.3	232	0.6	374	0.9	5737	13.9	10416	25.2	16153	39.1
80-84		3255	7.9	7208	17.5	10463	25.3	93	0.2	150	0.4	243	0.6	3348	8.1	7358	17.8	10706	25.9
85+		2239	5.4	5691	13.8	7930	19.2	76	0.2	141	0.3	217	0.5	2315	5.6	5832	14.1	8147	19.7
		248719	602.2	261740	682.2	530459	1284.4	19758	47.8	21132	51.2	40890	99.0	268477	650.1	302872	733.3	571349	1383.4

Densities are measured in 'Population per square Mile'.

Appendix VI: Age-Sex Distribution of Population

	Area 413.00 Sq M	Providence County															
		1990															
		White						Non-White						Total			
		Male		Female		Total		Male		Female		Total		Male		Female		Total	
			Density		Density		Density		Density		Density		Density		Density		Density		Density
0-4		16744	40.5	15772	38.2	32516	78.7	4176	10.1	3952	9.6	8128	19.7	20920	50.7	19724	47.8	40644	98.4
5-9		15619	37.8	14556	35.2	30175	73.1	3819	9.2	3705	9.0	7524	18.2	19438	47.1	18261	44.2	37699	91.3
10-14		14029	34.0	13691	33.2	27720	67.1	3337	8.1	3228	7.8	6565	15.9	17366	42.0	16919	41.0	34285	83.0
15-19		17371	42.1	17293	41.9	34664	83.9	3745	9.1	3521	8.5	7266	17.6	21116	51.1	20814	50.4	41930	101.5
20-24		22336	54.1	22582	54.7	44918	108.8	3970	9.6	3852	9.3	7822	18.9	26306	63.7	26434	64.0	52740	127.7
25-29		22733	55.0	22785	55.2	45518	110.2	3737	9.0	3662	8.9	7399	17.9	26470	64.1	26447	64.0	52917	128.1
30-34		22138	53.6	22929	55.5	45067	109.1	3406	8.2	3530	8.5	6936	16.8	25544	61.8	26459	64.1	52003	125.9
35-39		19406	47.0	19827	48.0	39233	95.0	2720	6.6	2759	6.7	5479	13.3	22126	53.6	22586	54.7	44712	108.3
40-44		16997	41.2	17205	41.7	34202	82.8	1988	4.8	2067	5.0	4055	9.8	18985	46.0	19272	46.7	38257	92.6
45-49		12871	31.2	13918	33.7	26789	64.9	1353	3.3	1497	3.6	2850	6.9	14224	34.4	15415	37.3	29639	71.8
50-54		10595	25.7	11858	28.7	22453	54.4	1117	2.7	1247	3.0	2364	5.7	11712	28.4	13105	31.7	24817	60.1
55-59		10557	25.6	12134	29.4	22691	54.9	838	2.0	1066	2.6	1904	4.6	11395	27.6	13200	32.0	24595	59.6
60-64		11994	29.0	14582	35.3	26576	64.3	734	1.8	920	2.2	1654	4.0	12728	30.8	15502	37.5	28230	68.4
65-69		11898	28.8	15372	37.2	27270	66.0	562	1.4	740	1.8	1302	3.2	12460	30.2	16112	39.0	28572	69.2
70-74		9028	21.9	13660	33.1	22688	54.9	386	0.9	549	1.3	935	2.3	9414	22.8	14209	34.4	23623	57.2
75-79		6638	16.1	11539	27.9	18177	44.0	229	0.6	346	0.8	575	1.4	6867	16.6	11885	28.8	18752	45.4
80-84		3669	8.9	8461	20.5	12130	29.4	111	0.3	186	0.5	297	0.7	3780	9.2	8647	20.9	12427	30.1
85+		2548	6.2	7618	18.4	10166	24.6	79	0.2	183	0.4	262	0.6	2627	6.4	7801	18.9	10428	25.2
		247171	598.5	275782	667.8	522953	1266.2	36307	87.9	37010	89.6	73317	177.5	283478	686.4	312792	757.4	596270	1443.8

Densities are measured in 'Population per Square Mile'.

Appendix VII: Age-Sex Distribution of Population

	State of Rhode Island																	
	Area 1045.00 Sq M	1970																
		White						Non-White						Total				
		Male		Female		Total		Male		Female		Total		Male		Female		Total	
			Density		Density		Density		Density		Density		Density		Density		Density		Density
0-4		37061	35.5	35449	33.9	72510	69.39	1817	1.7	1708	1.6	3525	3.4	38878	37.2	37157	35.6	76035	72.8
5-9		42128	40.3	40191	38.5	82319	78.77	1775	1.7	1780	1.7	3555	3.4	43903	42.0	41971	40.2	85874	82.2
10-14		43228	41.4	41635	39.8	84863	81.21	1707	1.6	1719	1.6	3426	3.3	44935	43.0	43354	41.5	88289	84.5
15-19		42458	40.6	39982	38.3	82440	78.89	1723	1.6	1517	1.5	3240	3.1	44181	42.3	41499	39.7	85680	82.0
20-24		46795	44.8	37479	35.9	84274	80.64	2281	2.2	1408	1.3	3689	3.5	49076	47.0	38887	37.2	87963	84.2
25-29		28797	27.6	28010	26.8	56807	54.36	1357	1.3	1155	1.1	2512	2.4	30154	28.9	29165	27.9	59319	56.8
30-34		22425	21.5	22632	21.7	45057	43.12	1161	1.1	1058	1.0	2219	2.1	23586	22.6	23690	22.7	47276	45.2
35-39		22421	21.5	23133	22.1	45554	43.59	953	0.9	958	0.9	1911	1.8	23374	22.4	24091	23.1	47465	45.4
40-44		26368	25.2	28120	26.9	54488	52.14	852	0.8	897	0.9	1749	1.7	27220	26.0	29017	27.8	56237	53.8
45-49		27989	26.8	30128	28.8	58117	55.61	688	0.7	752	0.7	1440	1.4	28677	27.4	30880	29.6	59557	57.0
50-54		25750	24.6	28715	27.5	54465	52.12	516	0.5	617	0.6	1133	1.1	26266	25.1	29332	28.1	55598	53.2
55-59		23098	22.1	26233	25.1	49331	47.21	425	0.4	512	0.5	937	0.9	23523	22.5	26745	25.6	50268	48.1
60-64		18942	18.1	23550	22.5	42492	40.66	336	0.3	404	0.4	740	0.7	19278	18.4	23954	22.9	43232	41.4
65-69		14656	14.0	19942	19.1	34598	33.11	291	0.3	362	0.3	653	0.6	14947	14.3	20304	19.4	35251	33.7
70-74		11275	10.8	16864	16.1	28139	26.93	223	0.2	303	0.3	526	0.5	11498	11.0	17167	16.4	28665	27.4
75-79		7743	7.4	12180	11.7	19923	19.07	149	0.1	196	0.2	345	0.3	7892	7.6	12376	11.8	20268	19.4
80-84		4290	4.1	7529	7.2	11819	11.31	85	0.1	126	0.1	211	0.2	4375	4.2	7655	7.3	12030	11.5
85+		2468	2.4	5093	4.9	7561	7.24	60	0.1	97	0.1	157	0.2	2528	2.4	5190	5.0	7718	7.4
Total		447892	428.6	466865	446.8	914757	875.37	16399	15.7	15569	14.9	31968	30.6	464291	444.3	482434	461.7	946725	906.0

Densities are measured in 'Population per Square Mile'.

Appendix VIII: Age-Sex Distribution of Population

	The State of Rhode Island																	
	Area	1980																
	1045.00	White						Non-White						Total				
	Sq M	Male		Female		Total		Male		Female		Total		Male		Female		Total	
			Density		Density		Density		Density		Density		Density		Density		Density		Density
0-4	1045.00	26188	25.1	25166	24.1	51354	49.1	2699	2.6	2639	2.5	5338	5.1	28887	27.6	27805	26.6	56692	54.3
5-9	1045.00	28914	27.7	27600	26.4	56514	54.1	2544	2.4	2407	2.3	4951	4.7	31458	30.1	30007	28.7	61465	58.8
10-14	1045.00	35362	33.8	33756	32.3	69118	66.1	2803	2.5	2449	2.3	5052	4.8	37965	36.3	36205	34.6	74170	71.0
15-19	1045.00	41902	40.1	42101	40.3	84003	80.4	2869	2.7	2901	2.8	5770	5.5	44771	42.8	45002	43.1	89773	85.9
20-24	1045.00	41536	39.7	43011	41.2	84547	80.9	2756	2.6	2928	2.8	5684	5.4	44292	42.4	45939	44.0	90231	86.3
25-29	1045.00	35225	33.7	36248	34.7	71473	68.4	2421	2.3	2321	2.2	4742	4.5	37646	36.0	38569	36.9	76215	72.9
30-34	1045.00	32688	31.3	33342	31.9	66030	63.2	1895	1.8	1895	1.8	3790	3.6	34583	33.1	35237	33.7	69820	66.8
35-39	1045.00	25270	24.2	26388	25.3	51658	49.4	1307	1.3	1428	1.4	2735	2.6	26577	25.4	27816	26.6	54393	52.1
40-44	1045.00	20333	19.5	21606	20.7	41939	40.1	1180	1.1	1351	1.3	2531	2.4	21513	20.6	22957	22.0	44470	42.6
45-49	1045.00	20467	19.6	22140	21.2	42607	40.8	971	0.9	1130	1.1	2101	2.0	21438	20.5	23270	22.3	44708	42.8
50-54	1045.00	24229	23.2	26841	25.7	51070	48.9	981	0.9	1045	1.0	2026	1.9	25210	24.1	27886	26.7	53096	50.8
55-59	1045.00	25416	24.3	28689	27.5	54105	51.8	766	0.7	877	0.8	1643	1.6	26182	25.1	29566	28.3	55748	53.3
60-64	1045.00	21926	21.0	26211	25.1	48137	46.1	534	0.5	780	0.7	1314	1.3	22460	21.5	26991	25.8	49451	47.3
65-69	1045.00	17914	17.1	23495	22.5	41409	39.6	432	0.4	573	0.5	1005	1.0	18346	17.6	24068	23.0	42414	40.6
70-74	1045.00	12716	12.2	19734	18.9	32450	31.1	278	0.3	420	0.4	698	0.7	12994	12.4	20154	19.3	33148	31.7
75-79	1045.00	8429	8.1	14975	14.3	23404	22.4	190	0.2	297	0.3	487	0.5	8619	8.2	15272	14.6	23891	22.9
80-84	1045.00	4819	4.6	10351	9.9	15170	14.5	128	0.1	193	0.2	321	0.3	4947	4.7	10544	10.1	15491	14.8
85+	1045.00	3267	3.1	8437	8.1	11704	11.2	96	0.1	178	0.2	274	0.3	3363	3.2	8615	8.2	11978	11.5
Total	1045.00	426601	408.2	470091	449.8	896692	858.1	24650	23.6	25812	24.7	50462	48.3	451251	431.8	495903	474.5	947154	906.4

Densities are measured in 'Population per Square Mile'.

Appendix IX: Age-Sex Distribution of Population

	The State of Rhode Island																	
	Area 1045.00 Sq M	1990																
		White						Non-White						Total				
		Male		Female		Total		Male		Female		Total		Male		Female		Total	
			Density		Density		Density		Density		Density		Density		Density		Density		Density
0-4	1045.00	30185	28.9	27883	26.7	58048	55.5	4910	4.7	4083	3.9	8993	8.6	35075	33.6	31966	30.6	67041	64.2
5-9	1045.00	28682	27.4	26707	25.6	55389	53.0	4245	4.1	4352	4.2	8597	8.2	32927	31.5	31059	29.7	63986	61.2
10-14	1045.00	26780	25.6	25494	24.4	52274	50.0	3587	3.4	3567	3.4	7154	6.8	30367	29.1	29061	27.8	59428	56.9
15-19	1045.00	30971	29.6	31655	30.3	62626	59.9	3991	3.8	3840	3.7	7831	7.5	34962	33.5	35495	34.0	70457	67.4
20-24	1045.00	37188	35.6	37726	36.1	74914	71.7	4452	4.3	4230	4.0	8682	8.3	41640	39.8	41956	40.1	83596	80.0
25-29	1045.00	37770	36.1	37780	36.2	75550	72.3	4514	4.3	4461	4.3	8975	8.6	42284	40.5	42241	40.4	84525	80.9
30-34	1045.00	40465	38.7	41180	39.4	81645	78.1	4100	3.9	3953	3.8	8053	7.7	44565	42.6	45133	43.2	89698	85.8
35-39	1045.00	35647	34.1	36127	34.6	71774	68.7	3337	3.2	3258	3.1	6595	6.3	38984	37.3	39385	37.7	78369	75.0
40-44	1045.00	31453	30.1	32328	30.9	63781	61.0	2186	2.1	2270	2.2	4456	4.3	33639	32.2	34598	33.1	68237	65.3
45-49	1045.00	24523	23.5	26456	25.3	50979	48.8	1667	1.6	1763	1.7	3430	3.3	26190	25.1	28219	27.0	54409	52.1
50-54	1045.00	19775	18.9	20575	19.7	40350	38.6	1545	1.5	1670	1.6	3215	3.1	21320	20.4	22245	21.3	43565	41.7
55-59	1045.00	18833	18.0	21212	20.3	40045	38.3	1050	1.0	1304	1.2	2354	2.3	19883	19.0	22516	21.5	42399	40.6
60-64	1045.00	20789	19.9	24193	23.2	44982	43.0	752	0.7	1023	1.0	1775	1.7	21541	20.6	25216	24.1	46757	44.7
65-69	1045.00	20130	19.3	25507	24.4	45637	43.7	691	0.7	882	0.8	1573	1.5	20821	19.9	26389	25.3	47210	45.2
70-74	1045.00	15304	14.6	21985	21.0	37289	35.7	469	0.4	648	0.6	1117	1.1	15773	15.1	22633	21.7	38406	36.8
75-79	1045.00	10895	10.2	18283	17.5	28978	27.7	269	0.3	422	0.4	691	0.7	10964	10.5	18705	17.9	29669	28.4
80-84	1045.00	5900	5.6	12986	12.4	18886	18.1	136	0.1	224	0.2	360	0.3	6036	5.8	13210	12.6	19246	18.4
85+	1045.00	3937	3.8	11746	11.2	15683	15.0	113	0.1	220	0.2	333	0.3	4050	3.9	11966	11.5	16016	15.3
Total	1045.00	439007	420.1	479823	459.2	918830	879.3	42014	40.2	42170	40.4	84184	80.6	481021	460.3	521993	499.5	1003014	959.8

Densities are measured in 'Population per Square Mile'.

Appendix X: Race Distribution of Population

	1980								
	State of Rhode Island			Providence County			City of Central Falls		
	Area in Sq. M.	Population	Population	Area in Sq. M.	Population	Population	Area in Sq. M.	Population	Population
	1045.00	Count	Density	413.00	Count	Density	1.20	Count	Density
White		900408	861.63		533375	1291.46		16026	13355.00
Black		27361	26.18		22929	55.52		134	111.67
AI, E, A *		3204	3.07		1737	4.21		85	70.83
Asian		5012	4.80		3128	7.57		40	33.33
PI **		179	0.17		140	0.34		40	33.33
Others		10990	10.52		10040	24.31		670	558.33
Total		947154	906.37		571349	1383.41		16995	14162.50

* American Indian, Eskimo, Aleut

** Pacific Islander

Densities are measured in Population per Square Mile

Appendix XI: Race Distribution of Population

	1990								
	State of Rhode Island			Providence County			City of Central Falls		
	Area in Sq. M.	Population	Population	Area in Sq. M.	Population	Population	Area in Sq. M.	Population	Population
	1045.00	Count	Density	413.00	Count	Density	1.20	Count	Density
White		919073	879.50		524420	1269.78		13940	11616.67
Black		37986	36.35		32140	77.82		546	455.00
AI, E, A *		4267	4.08		2579	6.24		25	20.83
Asian		17411	16.66		13620	32.98		72	60.00
PI **		204	0.20		126	0.31		0	0.00
Others		24523	23.47		23385	56.62		3054	2545.00
Total		1003464	960.25		596270	1443.75		17637	14697.50

* American Indian, Eskimo, Aleut

** Pacific Islander

Densities are measured in Population per Square Mile

HISPANIC POPULATION	1990								
	State of Rhode Island			Providence County			City of Central Falls		
	Area in Sq. M. 1045.00	Population Counts	Population Density	Area in Sq. M. 413.00	Population Counts	Population Density	Area in Sq. M. 1.20	Population Counts	Population Density
Total Hispanic Population		**43932**	**42.04**		**39252**	**95.04**		**5115**	**4262.50**
Mexican		2267	2.17		1458	3.53		91	75.83
Puerto Rican		12494	11.96		11104	26.89		1509	1257.50
Cuban		1062	1.02		782	1.89		12	10.00
Other Hispanic		28109	26.90		25908	62.73		3503	2919.17
Dominican		**9374**	**8.97**		**9060**	**21.99**		**248**	**206.67**
Central American		**5595**	**5.35**		**5402**	**13.08**		**602**	**501.67**
Costa Rican		17	0.02		10	0.02		-	0.00
Guatemalan		4083	3.91		4004	9.69		543	452.50
Honduran		208	0.20		174	0.42		-	0.00
Nicaraguan		141	0.13		136	0.33		-	0.00
Panamanian		244	0.23		187	0.45		29	24.17
Salvadoran		902	0.86		891	2.16		30	25.00
Other Central American		-	-		-	-		-	-
South American		**6956**	**6.66**		**6529**	**15.81**		**2295**	**1912.50**
Argentinean		204	0.20		144	0.35		-	-
Chilean		86	0.08		49	0.12		-	-
Colombian		5161	4.94		5031	12.18		2241	1867.50
Ecuadorian		396	0.38		361	0.87		-	-
Peruvian		426	0.41		391	0.95		-	-
Venezuelan		164	0.16		87	0.21		46	38.33
Other South American		519	0.50		466	1.13		8	6.67
All Other Hispanic		**6184**	**5.92**		**4897**	**11.86**		**358**	**298.33**
Total Non Hispanic Population		**959532**	**918.21**		**557018**	**1348.71**		**12522**	**10435.00**
Total Population		**1003464**	960.25		**596270**	**1443.75**		**17637**	**14697.50**

Densities are measured in "Population in Square Mile".

Block A

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
303994.10	**44**	**6**

Lot Numbers

82, 444, 85, 419, 418, 420, 421, 382, 86, 87, 443, 88, 89, 90, 91, 102, 92, 93, 94, 95, 176, 96, 97, 98, 481, 426, 100, 337, 338, 103, 104, 105, 106, 107, 108, 109, 110, 112, 113, 114, 343, 489, 494

Block B

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
160050.13	**26**	**6**

Lot Numbers

340, 339, 117, 118, 119, 448, 120, 121, 122, 123, 124, 452, 125, 126, 136, 137, 138, 139, 469, 140, 345, 141, 142, 143, 145, 146

Block C

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
91763.66	**18**	**6**

Lot Numbers

127, 128, 129, 130, 314, 131, 347, 132, 346, 348, 349, 350, 133, 318, 317, 134, 326, 135

Block D

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
172938.05	**30**	**6**

Lot Numbers

324, 147, 148, 149, 150, 151, 306, 152, 153, 154, 155, 156, 157, 158, 159, 167, 495, 342, 384, 385, 386, 387, 388, 169, 389, 390, 391, 392, 383, 393

Block E

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
95963.14	**13**	**6**

Lot Numbers

160, 161, 162, 401, 400, 163, 164, 381, 397, 398, 399, 166, 451

Block F

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
191492.06	**31**	**6**

Lot Numbers

171, 170, 172, 313, 173, 174, 175, 441, 374, 375, 376, 177, 377, 378, 178, 298, 468, 188, 189, 190, 486, 192, 473, 193, 194, 312, 195, 197, 493, 492

Block G

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
143533.64	**21**	**6**

Lot Numbers

179, 456, 325, 180, 431, 181, 4, 183, 369, 368, 371, 370, 372, 453, 308, 184, 428, 470, 185, 187, 186

Block H

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
130216.96	**30**	**6**

Lot Numbers

476, 487, 202, 436, 204, 205, 206, 465, 207, 208, 209, 210, 423, 211, 212, 226, 227, 228, 229, 230, 231, 232, 328, 233, 234, 235, 203, 236, 238, 237

Block J

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
94433.02	**20**	**6**

Lot Numbers

213, 214, 215, 216, 217, 218, 219, 220, 417, 221, 327, 415, 416, 222, 373, 223, 471, 224, 479, 225

Block K

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
113982.94	**7**	**6**

Lot Numbers

250, 251, 81, 424, 425, 429, 433

Block L

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
102669.49	**16**	**8**

Lot Numbers

313, 74, 249, 73, 72, 71, 70, 69, 68, 66, 65, 64, 63, 62, 61, 325

Block M

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
110519.09	**13**	**8**

Lot Numbers

75, 163, 253, 287, 121, 160, 159, 158, 157, 156, 272, 155, 154

Block N

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
113491.05	**25**	**8**

Lot Numbers

77, 78, 79, 80, 118, 285, 81, 117, 116, 115, 114, 113, 112, 111, 109, 110, 87, 86, 85, 167, 84, 83, 82, 254, 302

Block P

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
168554.42	**34**	**8**

Lot Numbers

5, 7, 315, 329, 23, 6, 22, 9, 21, 20, 19, 18, 17, 245, 16, 173, 15, 14, 257, 321, 13, 12, 133, 300, 301, 8, 295, 296, 297, 298, 299, 10, 11, 256

Block Q

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
242865.19	**36**	**8**

Lot Numbers

44, 137, 43, 274, 42, 41, 40, 39, 268, 38, 37, 36, 35, 34, 273, 311, 310, 32, 33, 303, 304, 31, 263, 30, 251, 29, 28, 201, 27, 291, 26, 25, 250, 24, 337, 276

Block R

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
177416.91	**30**	**8**

Lot Numbers

174, 172, 283, 171, 170, 292, 169, 168, 166, 282, 164, 60, 320, 59, 4, 58, 280, 57, 56, 55, 54, 53, 52, 51, 49, 48, 333, 45, 284

Block S

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
22063.01	**6**	**8**

Lot Numbers

238, 265, 237, 316, 239, 324

Block T

Area (Square Feet)	Number of Lots	Situated in the Tax Assessor's Plat #
79055.28	**14**	**8**

Lot Numbers

240, 236, 235, 183, 234, 233, 232, 231, 230, 229, 242, 228, 227, 226

Plat	Block	Lot	Street Address	Type	Value	Condition	# of Fls.	# of BR	# of Bath	# of Rooms	Roof	Heat
6	A	88	57 Rand	2 Fam.	$95,000	Avg.	2	5	2	12	Gable/Hip	Steam on Oil
6	A	90	49 Rand	2 Fam.	$121,500	Avg.	1.5	4	1	8	Gable/Hip	Hot Water on Gas
6	A	95	84 Illinois	1 Fam.	$ 74,900	Avg.	1.5	3	2	7	Gable	Steam on Oil
6	A	96	88 Illinois	1 Fam.	$70,700	Avg.	1.5	3	2	6	Gable	Hot Water on Oil
6	A	114	140 Summer	4 Fam.	$83,200	Avg.	3	5	4	16	Gable	Steam on Oil
6	C	132	126 Illinois	3 Fam.	$109,700	Avg.	3	5	3	-	Gable	Hot Air on Gas
6	B	137	66-70 Garfield	3 Fam.	$89,900	Avg.	3	5	3	-	Gable/Hip	Hot Air on Gas
6	D	167	44-46 Fuller	3 Fam.	$103,600	Avg.	2.5	5	3	15	Gable	Hot Water on Gas
6	G	179	39 Darling	4 Fam.	$73,200	Avg.	2	5	4	-	Gable	Hot Air on Gas
6	G	180	27 darling	3 Fam.	$80,600	Avg.	3	5	3	-	Flat	Hot Water on Oil
6	G	184	36 Summer	2 Fam.	$78,600	Avg.	1.5	3	2	-	Gable/Hip	Hot Water on Gas
6	G	186	77 Fuller	3 Fam.	$62,600	Avg.	2.5	5	3	-	Gable/Hip	Hot Air on Gas
6	H	212	100 Fuller	2 Fam.	$118,800	Avg.	3	5	3	-	Gable/Hip	Hot Air on Gas
6	J	213	59 Sumner	3 Fam.	$92,700	Avg.	2.5	5	3	-	Gable/Hip	Hot Air on Gas
6	H	237	741 Dexter	2 Fam.	$74,100	Avg.	2	4	2	9	Gable/Hip	Hot Water on Oil
6	J	327	224-240 Cowden	3 Fam.	$79,500	Avg.	3	5	3	15	Flat	Hot Air on Gas
6	H	328	338 Cowden	4 Fam.	$69,100	Avg.	-	5	4	-	Flat	Hot Water on Gas
6	B	340	587 Dexter	Apt.	$47,300	Avg.	2	5	2	-	Flat	Hot Water on Gas
6	C	346	130 Illinois	3 Fam.	$78,300	Avg.	3	5	3	-	Flat	Hot Air on Gas
6	F	376	59 Darling	4 Fam.	$72,100	Avg.	3	5	4	16	Flat	Hot Air on Gas
6	D	387	68 Darling	2 Fam.	$73,400	Avg.	2	4	2	8	Gable/Hip	Hot Water on Gas
6	D	393	649 Dexter	Small Business	$77,800	Avg.	1	-	2	-	Shed	Hot Air on gas
8	P	6	317 Rand	3 Fam.	$70,700	Avg.	2.5	5	3	-	Gable/Hip	Hot Water on Oil
8	Q	24	71 Watson	2 Fam.	$66,600	Avg.	2	5	2	10	Gable/Hip	Steam on Gas
8	Q	35	18-20 Parker	3 Fam.	$90,700	Avg.	2.5	5	3	-	Gable/Hip	Hot Water on Gas
8	Q	37	26-28 Parker	3 Fam.	$45,700	Avg.	2.5	4	3	-	Gable/Hip	Hot Water on Gas
8	R	52	41-43 Parker	3 Fam.	$72,400	Avg.	2	5	3	14	Gable/Hip	Hot Air on Gas
8	N	84	702-706 Dexter	Combination	$70,800	Avg.	3	4	2	-	Gable/Hip	Hot Air on Gas
8	N	117	35 Earle	3 Fam.	$79,500	Avg.	2.5	5	3	-	Gable/Hip	Hot Air on Gas
8	M	122	26-30 Earle	4 Fam.	$70,700	Avg.	2.5	5	4	-	Gable/Hip	Steam on Oil
8	M	127	66 Earle	3 Fam.	$64,400	Avg.	2.5	5	3	-	Gable/Hip	Hot Air on Gas
8	M	154	663 Pine	3 Fam.	$145,800	Avg.	3	5	3	-	Gable/Hip	Hot Water on Gas
8	M	158	627 Pine	3 Fam.	$79,900	Avg.	2.5	5	3	-	Gable/Hip	Hot Air on Gas
8	R	168	44-46 Kendall	3 Fam.	$78,900	Avg.	3	5	3	15	Gable/Hip	Hot Air on Gas
8	R	174	705 Lonsdale	3 Fam.	$83,800	Avg.	3	5	3	15	Gable/Hip	Hot Air on Gas
8	S	238	9 Kendall	3 Fam.	$64,100	Avg.	2	5	3	9	Gable/Hip	Steam on Gas
8	L	313	563 Pine	Combination	$74,000	Avg.	2	4	2	-	Flat	Steam on Oil
8	S	316	622 Pine	2 Fam.	$60,100	Avg.	2	5	2	-	Gable/Hip	Hot Air on Gas

Two of the 40 lots in the sample are vacant, and therefore, are not included in this list.

BIBLIOGRAPHY

Central Falls Planning Commission, July, 1968. Comprehensive Community Plan.

Central Falls Planning Commission, 1993. Comprehensive Plan.

Department of Community Planning and Area Development, URI, Spring, 1986. Community Development Plan.

Rhode Island College, January, 1983. Community Profile Series # 1, "In the Wake of the Mills."

United States Bureau of Census, Department of Commerce, 1900. Census of Population and Housing.

United States Bureau of Census, Department of Commerce, 1910. Census of Population and Housing.

United States Bureau of Census, Department of Commerce, 1920. Census of Population and Housing.

United States Bureau of Census, Department of Commerce, 1930. Census of Population and Housing.

United States Bureau of Census, Department of Commerce, 1940. Census of Population and Housing.

United States Bureau of Census, Department of Commerce, 1950. Census of Population and Housing.

United States Bureau of Census, Department of Commerce, 1960. Census of Population and Housing.

United States Bureau of Census, Department of Commerce, 1970. Census of Population and Housing.

United States Bureau of Census, Department of Commerce, 1980. Census of Population and Housing.

United States Bureau of Census, Department of Commerce, 1990. Census of Population and Housing.