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An Analysis of a Spatial Relationship between Homeownership and Crime A Case of the North End of Providence, Rhode Island

By Masatoshi Nakahata

A Research Project Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Community Planning

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Master of Community Planning Research Project of Masatoshi Nakahata

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ABSTRACT

This research project examines the spatial relationship between homeownership and crime. The first chapter states the Problem Statement, Objective and Significance of the study, and Organization of the study.

The second chapter discusses previous literature related to the study. The four related fields of the literature discussed are, 1) urban neighborhood and crime, 2) built-social environment of urban neighborhood and crime, 3) homeownership and built social environment of urban neighborhood, and 4) homeownership and crime in urban neighborhoods.

The third chapter inventories the existing conditions of the North End. It begins with the historical context of the North End. Then, it discusses the population characteristics of the North End, housing characteristics of the North End, and socio-economic characteristics of the North End. The end of this chapter shows the general characteristics of the North End, or summary of findings.

The fourth chapter shows the crime statistics of the North End in 2003. It mainly shows the types of crime and the rate and number of each crime in the North End in 2003; the comparison of those data with Providence; and the definitions of each crime.

The fifth chapter examines the spatial relationship between the homeownership and the crime patterns of the North End in 2003. This study approaches it by examining a series of spatial relationships between the tenure condition and crime patterns within the North End.

The last chapter discusses the summary of findings, shortcomings of the study, suggestions for the further study, and conclusion.

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CHAPTER 1 INTRODUCTION

1.1. Problem Statement

What is "quality of life"? Although many studies have attempted to define it, opinion about the concept of the quality of life is diverse. Analysis of the various studies, however, reveals that there are several factors which are commonly accepted as fundamental elements for the quality of life. They include; 1) Attitudes (perception of well being, community participation), 2) Economic Security (income, education, state of economy), 3) Physical Well Being (safety, health), 4) Living Conditions (housing, land use), and 5) Living Environment (quality of air, water, etc.).

Among these elements, however, safety (in the category of physical well being) must take a significant role for the quality of life since the issue of safety is so deeply rooted in the United States. In a historical context, as a common knowledge of many people, the United States has had an alarmingly high crime rate compared to other industrialized countries. Despite recent declines in crime, concerns about crime have still been important for many people (DeFrance & Smith, 1998). It might be said that perception of safety and quality of life can never be separated.

On the one hand, feeling of safety can fill one's life with satisfaction of living in a neighborhood he resides. It has been indicated that higher levels of satisfaction with the neighborhood environment lead to higher levels of perceived safety (Baba & Austin, 1989). Feeling of unsafe, or a fear of crime, on the other hand, could cause residents to suffer both physical and psychological distress. Being fearful of crime can be as problematic for an individual as being a victim of or witness to crime (Schweitzer at el. 1999). And few can live in satisfaction under a fear of crime. It might, therefore, be reasonable to say that a relationship exists between fear, neighborhood satisfaction, and quality of life (Marshall, 1991).

The neighborhood satisfaction would, however, never be built by anyone but only by residents who actually reside within the neighborhood. Although the government is the

one which takes an important role in improving social, physical and economic conditions of neighborhood, in the reality, few people consider about other people's neighborhood except those who actually live there.

Homeownership is, as many previous studies have demonstrated, one of the factors which can have a positive impact on the neighborhood satisfaction in terms of safety. People who live in their own homes are thought to be more inclined to be concerned about the neighborhood they reside and to make efforts to keep their surrounding neighborhood livable and safe (Skogan 1981). Whereas, renters often little care over their living arrangement and their neighborhood since they are likely more mobile and are likely to have a choice of leaving their house once they found a deterioration within their neighborhood. Further, in the study of Schweitzer at el (1999), they demonstrated that the percentage of homeowners was negatively correlated with actual crime; whereas, the residents on higher crime block are more likely to be renters.

1.2. Objective of the Study

This study intends to examine the spatial relationship between the homeownership and crime using the case study approach. The case study is conducted in the North End of Providence, Rhode Island. This area is chosen as the case study area since it demonstrates significant concern about the turnover of housing to absentee landlords in recent years. From the perspective of positive impact of homeownership and negative impact of renters on the safety of neighborhoods, this study aims to examine the spatial relationship between homeownership and crime in the North End of Providence in 2003.

1.3. Significance of the Study

One of the most significant elements in quality of one's life is safety. Without a feeling of the safety in a neighborhood, an elderly woman may not be able to walk on the street alone; a mother of kids may not let them play outside; and few people may be found on the street once it gets dark outside. Whereas, the feeling of safety gives people a positive attitude toward their neighborhood. With this feeling of safety throughout the

neighborhood, one might find more people on the street. One might find more outdoor activities within the neighborhood. Eventually one might feel that the neighborhood has become a more livable place for its residents.

Many studies have shown the significance of homeownership for the neighborhood's safety and for the residents' quality of life, but few studies have attempted it from a quantitative view point. This study intends to quantitatively analyze the spatial relationship between homeownership and crime in the North End of Providence.

1.4. Method of the Study

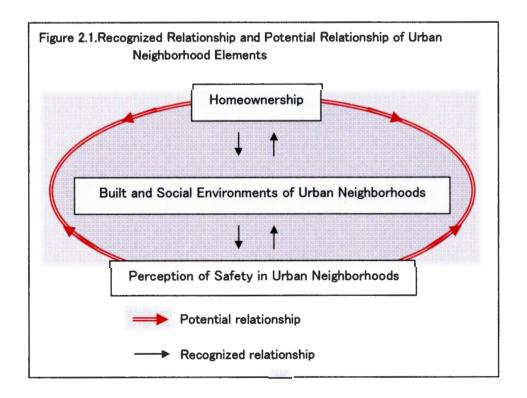
This study was divided into several tasks in order to accomplish its objective.

- 1. The literature on relationship between homeownership and safety in urban neighborhoods was reviews and analyzed.
- The general characteristics and existing spatial pattern of tenure condition of the North End in 2003 were inventoried.
- 3. The crime record in the North End in 2003 was spatially analyzed
- 4. Lastly, the spatial relationship between homeownership and crime in the North End was investigated.

CHAPTER 2 LITERATURE REVIEW

2.1. Introduction

To date, there has not been an adequate amount of empirical research that simultaneously examines perceptions of safety in neighborhoods and housing tenure (Austin 2002), though it is a largely accepted idea that the homeownership is generally has a stabilizing influence on a neighborhood. There are, however, many studies examining the relationship between both built and social environment of neighborhoods and perception of safety in the neighborhoods. At the same time, the literature presents the positive impacts of homeownership on both built and social environments of neighborhoods. It may, therefore, be reasonable to assume that there might also potentially be a relationship between homeownership and perception of safety in neighborhoods as Figure 2.1 shows.



Based on the possibility above, despite the fact that there are no large amount of empirical researches examining a relationship between perception of safety in

neighborhoods and homeownership, it seems worth reviewing the literature of related field:

- a) The relationship between built-and-social environment of neighborhoods and crime in the neighborhoods;
- The relationship between homeownership and built-and-social environment of neighborhood;
- The relationship between homeownership and perception of safety in neighborhoods.

The section following this Introduction begins with presenting the literature of "urban neighborhoods and crime" since urban areas and crime have been thought to have a strong tie in each other.

2.2. Urban Neighborhoods and Crime

The United States is a huge and diverse nation with various differences between its regions. There have been many significant changes in the traditional character and nature of American neighborhoods through its history that have been generated by development in the political, economic, and social dynamics of urban areas. (Robert and Harold)

Phrase, "urban areas," here, seems to have a common idea. What the urban areas usually tend to have in common is that each is densely populated; its infrastructure (streets, sidewalks, buildings) is older and more likely to be in disrepair; its population will contain greater concentrations of minorities (both ethnic and racial), low-income families, and persons and families on welfare. Urban communities, on the other hand, offer amenities as well. They are convenient, diverse, active, and in many instances vibrant.

Further, many studies have shown the characteristics of urban society. Sociologists have studied the multiple aspects of urban existence in some detail. In their book the Subculture of Violence, Wolfgang and Ferracuti note: Urban life is commonly characterized by population density, spatial mobility, ethnic and class heterogeneity, reduced family functions, and greater anonymity.

The growth of urban area, or urbanization, has, however, brought serious problem of crime within. As it is well accepted by many people, crime is more likely in urban area than suburban or rural areas. It is well reported that rates for most crimes are highest in the big cities (*Barbara*). Throughout history, residents of urban areas have continually expressed fears about many conditions of their everyday life (Robert and Harold).

To the issues of crime, especially in the urban areas, various federal programs have tested what worked in restoring to communities a sense of safety. Theses programs helped train police, improve equipment for local officials, establish or upgrade criminal justice planning for state and local governments, and generate citizen crime prevention efforts. The Law Enforcement Assistance Administration has been credited with bringing citizens actively into the fight against crime. Federal agencies such as the Department of Labor, the Department of Housing and Urban Development, and the Department of Health and Human Services have also been actively involved into the crime prevention programs.

Various studies have examined the context of the fact that urban areas have higher crime rate than suburban area. The explanations that have been offered for urban areas having higher rates of crime than suburban have usually centered around the larger number of criminal opportunities available, a greater likelihood of association with those who are already criminals, a more impersonal life that offers greater freedom, and in many cases, the harsher conditions of slum life—often in sharp and visible contrast to the affluence of nearby areas. That these factors operate differently with regard to more serious offenses, suggests that the relationship between the rate of crime and the degree of urbanization is a very complicated one (Barbara).

Coulton and Pendey's (1992) and many other also argue that the context of urban crime may be caused by the fact that urban areas in the Unite States are increasingly marked by concentrated poverty, which isolates residents from labor markets, and exposes them to crumbling infrastructure, crime, and violence

2.3. Built Environment of Urban Neighborhoods and Crime

Physical conditions of neighborhoods and urban settings have been linked to both emotional and behavioral outcomes of neighborhood residents. Housing and neighborhood quality, for example, have been identified as a predictor of psychological well-being (Lawton 1997).

Skogan and Maxfield (1981) argue that physically deteriorating neighborhood conditions had a negative influence on perceptions of safety. Deteriorated neighborhood conditions increased concerns of safety, but they also decreased levels of satisfaction with the neighborhood physical environment which raised concerns about safety issues.

Defensible Space

There are studies investigating the effect of the built environment on crime and the fear of crime. Oscar Newman formulated a theory of *defensible space* as a means of reducing crime in urban areas. The theory stated that spaces that convey likelihood of observation and difficulty of escaping are less apt to attract potential criminals. Since then, his theory has been examined and supported by numerous research studies. At the neighbourhood level, spatial settings are favorite subjects in defensible space theory. Certain physical objects such as fences and hedges can be regarded as physical barriers, and neighbourhood watch signs symbolize people watching out for each other. However, even though the defensible space perspective has been quite popular among researchers in the field, some scholars have criticized the theory that it ignores the social aspect of crime prevention. According to them, when there is a strong sense of community among the residents, the physical aspects of the space may be more effective in deterring crime than when the residents do not know and trust one another.

Broken Window

Another area of research into the impact of the built environment on crime has been stimulated by the "broken window" thesis of James Q. Wilson and George Kelling, which states that neighbourhoods characterised by signs of neglect and decay such as trash accumulation, uncared for building exteriors, and broken windows are evidence that residents of the area feel vulnerable and have begun to withdraw from community involvement and upkeep. These indicators may serve as a signal to would-be criminals

that residents are not likely to respond to criminal activity, making the area less risky for criminal activity. The physical deterioration also results in a greater fear of crime among the resident. Increased fear of crime results in greater withdrawal and diminution of the sense of community, which then makes crime even more likely.

Land Use

Jacobs focuses on diverse land use, arguing that neighbourhoods with different functions, that is, residential, commercial, institutional, and leisure, may be safer than single functional areas. Multi-functional areas attract a continual flow of people throughout the day and evening, ensuring informal surveillance. In contrast, criminal activity is likely to occur in places that are quiet and deserted. Land and housing might also take on symbolic value and become psychologically rooted in individuals' identity as objects of emotional attachment.

Housing Quality

Austin (2002) argues that housing quality had a positive effect on satisfaction with the local physical environment, which had an impact on perceptions of safety. Housing quality also has a direct impact on perception of safety. He also argues that residents who are more satisfied with the physical environment in their neighborhoods and the people in their neighborhoods are more likely to express higher levels of perceived safety.

2.4. Social Environment of Urban Neighborhoods and Crime

Social environments in neighborhoods appeared to affect residents' perception of the conditions of their neighborhood and their attitudes about crime. Rountree and Land (1996) contend that the relationship between neighborhood's demographic conditions and perception of safety are particularly pronounced in heterogeneous neighborhoods. Residents of neighborhoods that had experienced dramatic changes in racial, youth, and elderly composition expressed higher levels of fear than those from areas with less change. Fear was higher in these locales because social and physical problems had arisen not in response to the change itself, but in response to the past change in racial composition of the neighborhood (Taylor & Covington, 1993). Lane and Meeker (2000) similarly argue that a portion of the fear of crime that residents of a neighborhood

exhibited is attributable to concern over diversity and the perceived increasing heterogeneity of the neighborhood.

Researches in this field have identified a number of social factors that influence fear of crime and perceptions of safety. Major social factors in attitudes on crime and safety include sex, age, socioeconomic status, education, and race.

- a) <u>Sex:</u> Researches have generally indicated that women experienced higher levels of fear of crime than men (Perkins & Taylor, 1996). Also a portion of expressed fear of crime was altruistic in both genders, but the focus of concern might be different as men reported worrying about women and women reported worrying about children (Gilchrist at el. 1998).
- b) <u>Age:</u> As people age, they view themselves as being less capable of dealing with problems through their own initiative. Lance and Arthur identify the potential elements of elderly being in the fear of crime as physical limits to the actions they can take such as running to avoid assault and social isolation and economic deprivation which lead to vulnerability. Other studies also show that older individuals express higher levels of fear of crime although studies of the actual rates of victimization among them have not been defined clearly.
- c) <u>Socioeconomic status:</u> Socioeconomic status of individuals has been thought to be associated with perceptions of safety. Austin, Woolever, and Baba (1994) found a significant positive relationship between education and increased feeling of perceived safety. In addition, there are studies which argue that higher status in social position was associated with lower levels of fear.
- d) <u>Education:</u> Researches have identified that the level of crime in a community is significantly related to it members' education. It is argued that crime is more prevalent in areas where residents have lower levels of education.
- e) <u>Race:</u> A relationship between fear of crime and the racial composition of place has been widely studied and argued. Ted at el. (1997) has, however, demonstrated

that actual racial composition has no consequence for the fear of crime when other relevant factors are controlled.

As shown above, these factors –sex, age, socioeconomic status, education, and race – have been identified as the major social factors which can influence fear of crime and perception of safety of individuals. It should, however, be noted that none of those results are universally accepted ideas and more research is needed to confirm more consistent results.

2.5. Homeownership and Built-and-Social Environment of Urban Neighborhoods

The assumption that homeownership is beneficial is widely held. Policy makers and citizens assume that homeownership is a social good that creates better property owners, neighbors and citizens. Social scientists share many of these assumptions. The past literature has examined a multitude of economic, social and psychological outcomes, and demonstrates, in general, that homeownership is connected to decreased residential mobility, increased household financial stability, and improved property maintenance (Rossi & Weber, 1996; Scanlon, 1998). Housing tenure is, however, unequally distributed in the Unties States. Minorities and the poor are more likely to live in homes with structural deficits and overcrowding (Leonard & Lazer, 1992).

The sociology of architecture has examined links between housing quality and well-being, suggesting that housing indeed can impact the satisfaction and health of inhabitants (Van Vliet, et al, 1987). Homeownership is also said to give people a greater sense of control over their lives. Rohe and Stegman (1994) argue that homeownership makes major contribution to one's overall satisfaction with life, as a sign that one has "made it." Their research had identified that home buyers were found to have higher levels of life satisfaction, compared to renters. Further, Adrienne and Yip (2000) argue that homeownership will foster a sense of belonging in the community as well as contributing to social stability.

William at el. (2002) describe these positive impacts of homeownership as an interesting way, which is "Access to Opportunity." In the article, they argue that potential individual

impacts of homeownership, such as wealth creation and improved psychological health, may alter one's opportunity set by altering how one perceives the local opportunity structures and what one sees as feasible choices. Potential social impacts of home ownership, such as fostering greater participation in voluntary organizations and political affairs, may alter the opportunity structure itself.

Furthermore, Beverlyn's (2002) view is that homeownership is a key measure for understanding race and gender inequality in urban areas. Homeownership, from a social perspective, is an important form of wealth that determines the hierarchical order of group in society. Unlike household income, homeownership is an asset linked to spatial resources such as better schools and community services and a generally safer environment.

2.6. Homeownership and Crime in Urban Neighborhoods

As mentioned in the beginning of this Chapter, the relationship between homeownership and crime in urban neighborhoods has not been elaborated in the literature, compared to the relationships of other factors. However, based on the literature discussed in above sections which are "built-and-social environment of neighborhood and crime" and "homeownership and built-and-social environment of crime," one might be able to make one assumption. That is, since, according to the literature, there exists a relationship between the condition of built-and-social environment of neighborhoods and crime, and there also exists a relationship between homeownership and built-and-social environment of neighborhoods, there might, therefore, exist a relationship between homeownership and crime in neighborhoods.

This assumption is supported to some extent in the past literature. For example, Wesley and Michael in Coping with crime (1981) have found out in their research that people who own houses are more likely to install special locks and bars, reflecting their ability to make such physical modification against criminal activities. Also, a study by Schweitzer at el. revealed that "The residents of higher crime blocks are more likely to be renters, nonwhite, lower income, and new to the block."

Furthermore, as many studies have identified, homeowners tend to be involved both physically and socially in their neighborhoods. This may be a result of the facts that homeowners are less mobile than renters, they have made one of the biggest purchases in their life by purchasing a home, and they may be able to feel their neighborhood as their "hometown." The combination of these visible and invisible elements might make homeowners tend to take care of their surrounding places more seriously than renters do. Homeowners therefore might make effort to make their surrounding place safer as Taub et al. argues that fear of crime has a stronger effect among homeowner's perception of safety compared to renters.

Next chapter will present the existing conditions of the North End of Providence. It begins with a brief history of the North End. Secondly, it shows the demographic characteristics of the North End by using the 2000 census data. Thirdly, it shows the housing characteristics of the North End by, also, using the 2000 census data. Lastly, it presents the crime statistics of the North End in 2003.

CHAPTER 3

EXISTING CONDITIONS OF THE NORTH END

3.1. Introduction

This chapter presents the existing conditions of the North End of Providence. The North End is composed of the two neighborhoods, the Charles and Wanskuck neighborhood. Therefore, all the North End data presented in this study refers to the combined data of Charles and Wanskuck data (Map 3.1a, Map 3.1b).

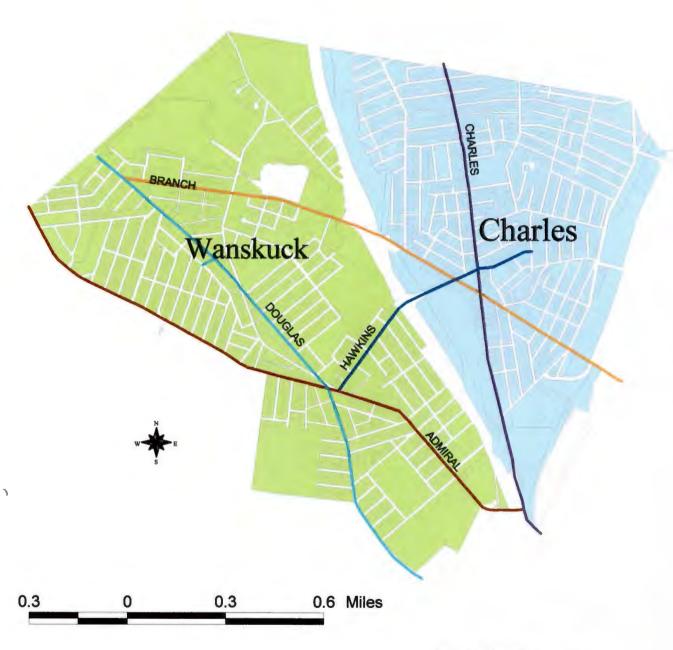
The main purposes of this chapter are, first, to present how the North End has changed between 1990 and 2000 and, second, to present the characteristics of the North End by comparing it with the City of Providence characteristics. It begins with brief history of the North End. Secondly, it shows the demographic characteristics of the North End. Thirdly, it shows the housing characteristics of the North End. Fourthly, it presents other notable characteristics of the North End in 2000. Lastly, this chapter ends with the summary of the overall characteristics of North End of Providence.

3.2. The North End Historical Context

The North End, Providence, Rhode Island, consists of two neighborhoods, Charles (Census Tract 29) and Wanskuck (Census Tract 27 and 28), and is located in the north edge of Providence. Prior to the 19th century, the North End was a sparsely settled rural area with only a few farms and houses.

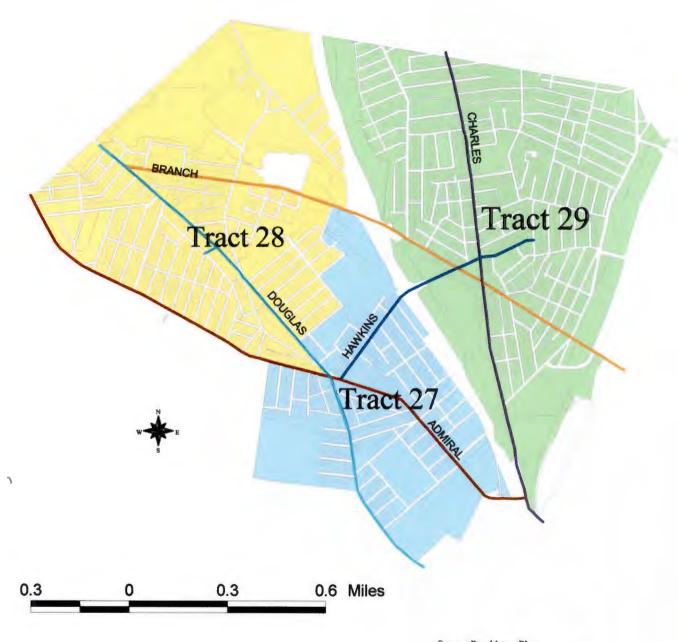
Just after the mid-19th century, business began arriving in the area of the North End seeking to capitalize on the natural resources of the West River and its clear-watered pond. The Wanskuck Company, established in 1862 in the North End, began as a major manufacturer of woolens for the Civil War, and was the driving force in the physical and social evolution of the Wanskuck neighborhood. The textile company constructed several two-family dwellings south of Branch Avenue in order to house its workers.

Map 3.1a. Charles and Wanskuck Neighborhood



Source: Providence Plan Created by Masatoshi Nakahata, 2004

Map 3.1b. Composition of The North End by Census Tract



Source: Providence Plan Created by Masatoshi Nakahata, 2004 Furthermore, the company's need for labor brought skilled English workers and mostly unskilled Irish and French Canadian workers to the area. As the Wanskuck Company grew increasingly successful over the next 50 to 60 years, residential and commercial growth followed in the developing village.

Charles has also grown rapidly in conjunction with Wanskuck. The Silver Spring Bleaching and Dyeing Company, established in 1864, was a driving force in the physical and social development of the Charles neighborhood. It attracted all types of workers, including many immigrants, to the area. Capitalizing on the demand for new housing, developers constructed many one- and two-family homes along Charles Street, Branch Avenue and Silver Spring Street towards the end of the 19th century.

By the turn of the 20th century, the North End had grown to have an extremely diverse population of Irish, English, German, Scottish, and Italian Immigrant families. Italian residents, in particular, became a large part of the community and numbered in the thousands by the first decade of the century. The growing population, combined with the rapid development of the area, served as the major factors behind North Providence's decision to return the North End to the city of Providence in 1874.

Neighborhood growth continued into 20th century, spurred mostly by the extension of street car service into the North End. By the 1930s, the North End was a densely settled working and middle class area for residents employed both inside and outside the neighborhood.

With the close of the Silver Spring Bleaching and Dyeing Company in 1939 and Wanskuck Company in 1957, the North End was no longer a site of major industry. Though the North End today is primarily a residential and commercial area, the city government has attempted to market the area near Silver Spring Street as a viable industrial park. That overall effort has been somewhat successful in that there are significant manufacturing and commercial uses occupying the southern part of the neighborhood.

Hopkins Square, at the intersection of Branch Avenue and Charles Street, remains the center of commercial and transportation activity for the neighborhood. Also, the nearby

DaVinci Center for Community Progress provides the area with various kinds of services including day care, programs for elderly residents, and English as a Second Language (ESL) classes for residents from non-English speaking countries.

3.3. The Population Characteristics of The North End

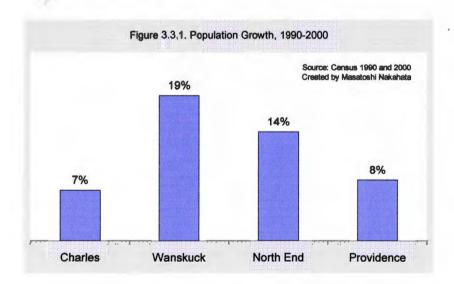
3.3.1. Population Change

3

KEY FINDING: According to the 1990 and 2000 census, while the population in Providence increased 8% from 1990 to 2000, the population of the North End increased further by 14%. The North End made up 10% of the City's population in 2000 (Table 3.3.1, Figure 3.3.1).

Table 3.3.1. Overall Population Change, 1990-2000

Total Population						
	1990	2000	%Change 1990-2000			
Charles	5,962	6,361	7%			
Wanskuck	9,448	11,270	19%			
North End	15,410	17,631	14%			
Providence	160,728	173,618	8%			

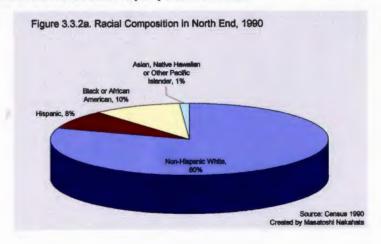


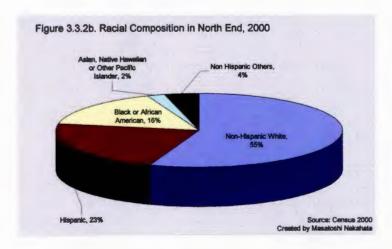
3.3.2. Racial Composition Change

KEY FINDING: The primary racial change of the North End between 1990 and 2000 was due to the large increase of Hispanic population. While Hispanic population consisted of 8% of total population in the North End in 1990, it went up to 23% in 2000. On the other hand, the rate of White population in the North End declined largely from 80% in 1990 to 55% in 2000. The share of Black or African American population also grew from 10% in 1990 to 16% in 2000 (Table 3.3.2., Figure 3.3.2a, Figure 3.3.2b).

Table 3.3.2. Population Racial Composition, 1990 and 2000

	North End		Providence	
	1990	2000	1990	2000
Non-Hispanic White	80%	55%	65%	46%
Hispanic	8%	23%	16%	30%
Black or African American	10%	16%	15%	15%
Asian, Native Hawaiian or Other Pacific Islander	1%	2%	6%	6%
Non Hispanic Others	0%	4%	0%	3%



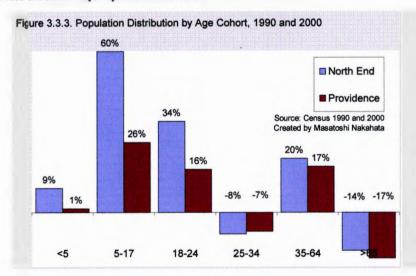


3.3.3. Change in the Distribution of Population by Age Group

KEY FINDING: A major finding in the age group compositions is that the number of people in both age groups of "5 to 17" years old and the age of "18 to 24" years old increased largely in the North End by 60% and 34%, respectively, during the 1990 to 2000 period. Although a similar trend can be seen in Providence in which the number of population in the age group of "5 to 17" and the age group of "18 to 24" increased by 26% and 16% respectively, the increase rate in the North End was twice larger than Providence. The number of population in both the age of "25 to 34" years old and the age of "65 years and over" decreased in the North End between 1990 and 2000, -8% and -14%, respectively. A similar trend can be seen in Providence where the population in the age group of "25-34" and "65 and over" decreased by 7% and 17% respectively between 1990 and 2000 (Table 3.3.3., Figure 3.3.3).

Table 3.3.3. Population Distribution by Age Cohort, 1990 and 2000

	North End				Prov	vidence
	Number	% Share	%Change1990-2000	Number	% Share	%Change1990-2000
Total Population	17,631	100%	14%	173,618	100%	8%
Under 5 years	1,401	8%	9%	12,607	7%	1%
5-17 years	3,586	20%	60%	32,670	19%	26%
18-24 years	2,544	14%	34%	32,806	19%	16%
25-34 years	2,769	16%	-8%	27,165	16%	-7%
35-64 years	5,063	29%	20%	50,215	29%	17%
65 or over	2,268	13%	-14%	18,155	10%	-17%



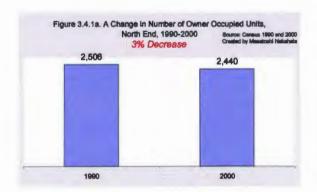
3.4. Housing Characteristics of The North End

3.4.1. Housing Tenure Change

KEY FINDING: A major finding is that while the number of owner-occupied units in Providence increased by 1% between 1990 and 2000, that of the North End decreased by 3%. Also, contrary to the owner-occupied units trend, the number of renter-occupied units largely increased by 8% in the North End in the same period. Number of total housing units was increased by 2% in both the North End and Citywide during 1990 to 2000. The number of occupied units increased in both the North End and City wide, 4% and 6%, respectively between 1990 and 2000. On the other hand the number of vacant units decreased largely by 17% and 30%, respectively (Table 3.4.1, Figure 3.4.1a, Figure 3.4.1b, Map 3.4.1a, Map 3.4.1b, Map 3.4.1c).

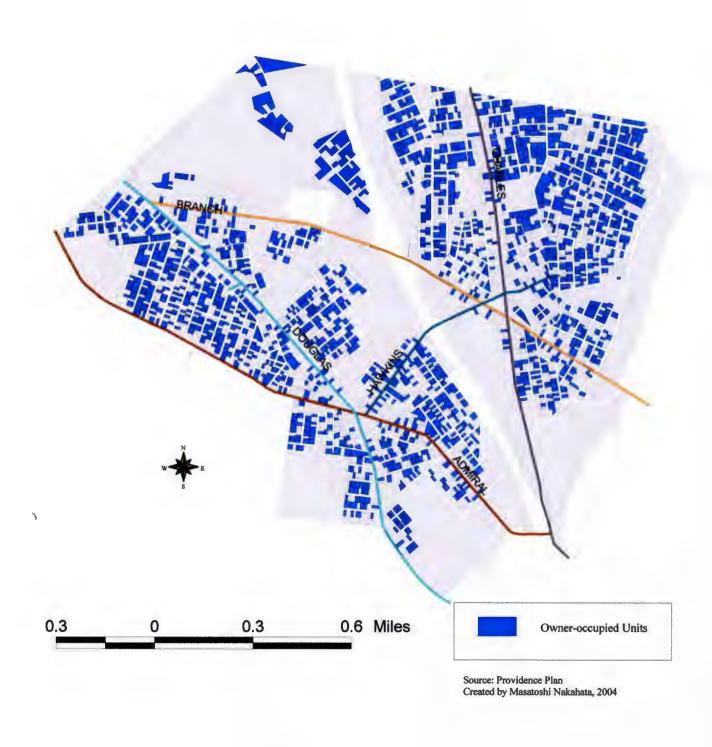
Table 3.4.1. Housing Tenure Change in North End and Providence, 1990-2000

	North End				Pro	ovidence
	1990	2000	% Change 1990-2000	1990	2000	% Change 1990-2000
Total Housing Units	7,113	7,270	2%	66,794	67,915	2%
Occupied Units	6,464	6,730	4%	58,905	62,389	6%
Owner Occupied	2,506	2,440	-3%	21,296	21,588	1%
Renter Occupied	3,958	4,290	8%	37,609	40,801	8%
Vacant Units	649	540	-17%	7,889	5,526	-30%

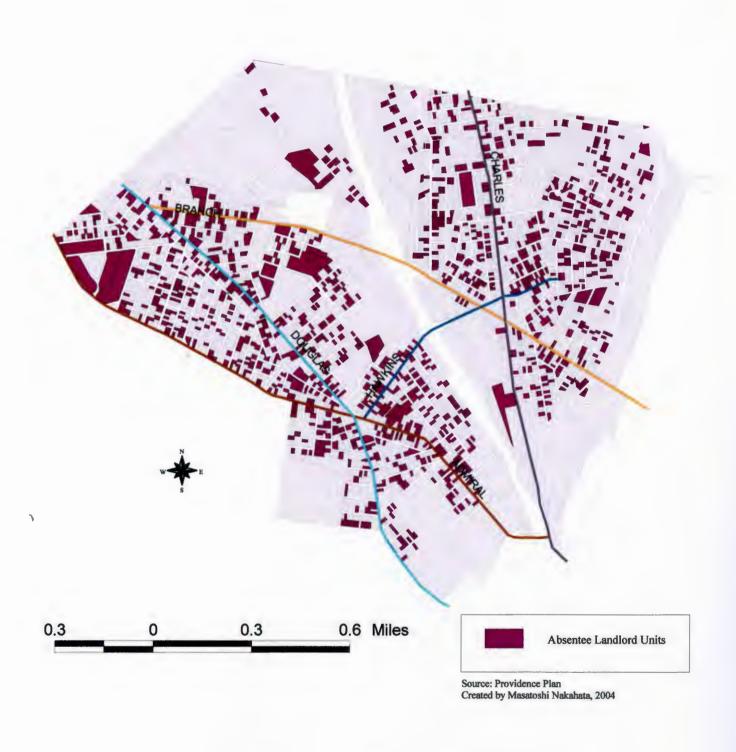




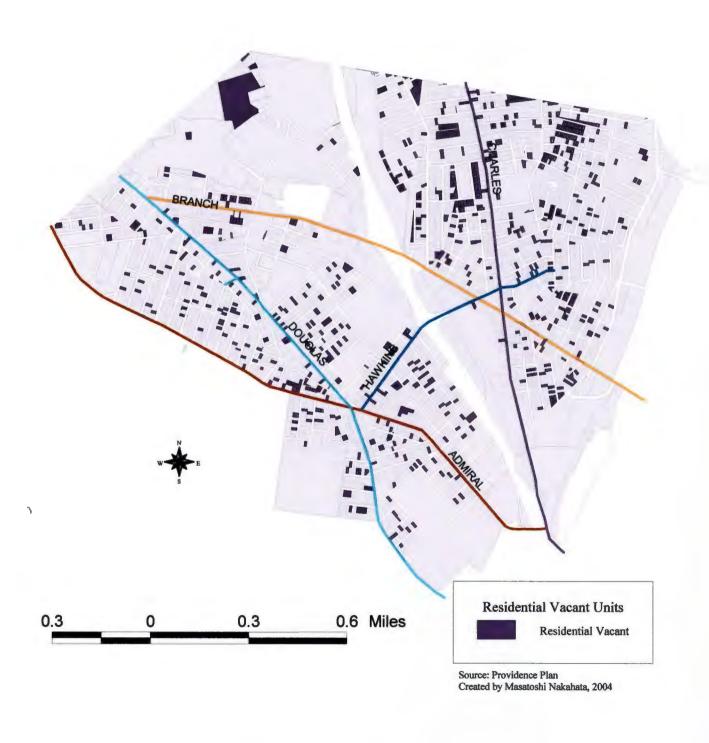
Map 3.4.1a. Owner Occupied Units in the North End, 2000



Map 3.4.1b. Absentee Landlord Units in the North End, 2000



Map 3.4.1c. Residential Vacant Units in the North End, 2000

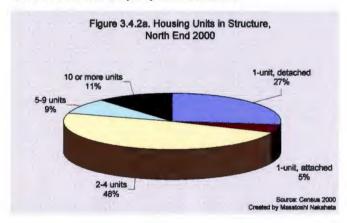


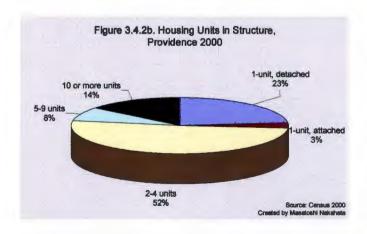
3.4.2. Housing Units in Structure

KEY FINDING: There have not been remarkable differences in terms of housing units in structure between the North End and Providence. In the North End, the housing structure of 2-5 units accounted for 48% of total housing units in 2000, which had highest rate among all the housing units in structures in the North End, followed by 1-unit-detached housing units which accounted for 27% of total housing units. These two types of housing units accounted for 75% of total housing units in the North End in 2000 (Table 3.4.2, Figure 3.4.2a, Figure 3.4.2b).

Table 3.4.2. Housing Units in Structure, 2000

	Nort	h End	Providence		
	Number	% Share	Number	% Share	
Total units	7,270	100%	67,915	100%	
1-unit, detached	1,949	27%	15,632	23%	
1-unit, attached	340	5%	2,319	3%	
2-4 units	3,506	48%	34,900	51%	
5-9 units	641	9%	5,206	8%	
10 or more units	829	11%	9,795	14%	



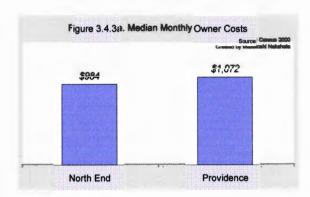


Median Monthly Owners Cost and Median Gross Rent

"Median monthly owner cost" primarily refers to the cost of the **KEY FINDING:** mortgage per month. The average of the median monthly owner costs in the North End in 2000 was \$984, which was about 10% lower than that of Providence of \$1,072 (Table 3.4.3a, Figure 3.4.3a).

Table 3.4.3a. Median Monthly Owner Costs

	North End	Providence
Median monthly owner costs	\$984	\$1,072
Source: Canque 2000 Analysis by Mas	atochi Nakahata	

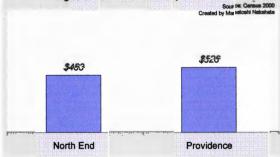


KEY FINDING: The median gross rent for rental housing units in the North End in 2000 was \$463 per month. This was about 88% of the gross rent for rental housing units in Providence in 2000 (Table 3.4.3b, Figure 3.4.3b).

Table 3.4.3b. Gross Rent

\$463	\$526
	\$463

Figure 3.4.3b. Median Monthly Gross Rent



3.5. The Socio-Economic Characteristics of the North End

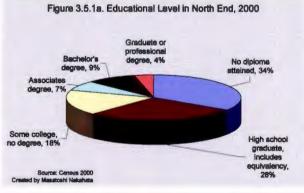
3.5.1. Education Level

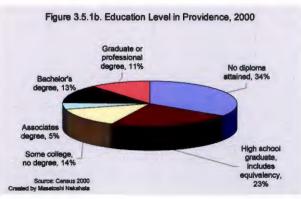
KEY FINDING: The ratio of population that has no diploma attained within the total population of 25 years and over was 34% in the North End in 2000. This is same percentage as Providence in 2000. The ratio of population of 25 years old and over that acquired either Bachelor's degree or Graduate degree (including professional degree) in the North End in 2000 was 13%. Whereas, the ratio of same category in Providence in 2000 accounted for 24%, 11% higher than that of the North End (Table 3.5.1, Figure 3.5.1a, Figure 3.5.1b).

Table 3.5.1. Educational Level, 2000

	North End		Providence	
	Number	% Share	Number	% Share
Population 25 years and over	10,277	100%	96,154	100%
No diploma attained	3,505	34%	32,904	34%
High school graduate, includes equivalency	2,894	28%	22,167	23%
Some college, no degree	1,850	18%	13,136	14%
Associates degree	715	7%	4,497	5%
Bachelor's degree	929	9%	12,569	13%
Graduate or professional degree	384	4%	10,854	11%

Source: Census 2000. Analysis by Masatoshi Nakahata





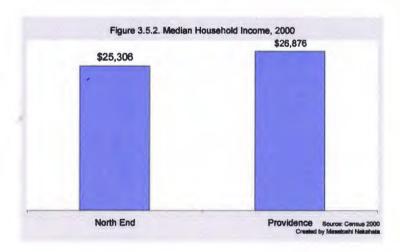
3.5.2. Household Income

KEY FINDING: Median household income for the North End in 2000 was \$25,306, which was about \$1,500 (6%) below the median household income of Providence in the same time (Table 3.5.2, Figure 3.5.2).

Table 3.5.2. Distribution of Population by Median Household Income, 2000

	North End		Providence	
	Number	% Share	Number	% Share
Household with income	6,696	100%	62,327	100%
Less than \$10,000	1,388	21%	13,430	22%
\$10,000-\$24,999	1,978	30%	15,922	26%
\$25,000-\$49,999	1,884	28%	16,546	27%
\$50,000-\$74,999	959	14%	8,143	13%
\$75,000-\$99,999	374	6%	3,917	6%
\$100,000 or more	113	2%	4,369	7%
Median HH income	\$25,306		\$26,876	

Source: Census 2000. Analysis by Masatoshi Nakahata



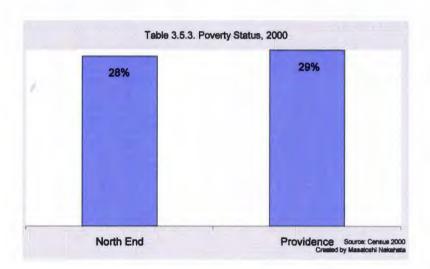
3.5.3. Poverty Status

KEY FINDING: In the North End, there were 4,595 (28%) individuals living below the poverty line, compared to the 29% in Providence in 2000. Among them, 45% were under 18 years hold and 8% were 65 year old and over (Table 3.5.3, Figure 3.5.3).

Table 3.5.3. Population with Poverty Status, 2000

	North End		Providence			
	Number	% Share		Number	% Share	
Population (with poverty status determined)	16,696	100%		160,243	100%	
Individuals below poverty	4,595	28%	100%	46,688	29%	100%
Under 18	2,083		45%	18,045		39%
65 and over	386		8%	3,271		7%
White	2,123		46%	19,347		41%
Black	746		16%	7,642		16%
Asian or Pacific Islander	24		1%	3,402		7%
Hispanic	1,830		40%	\$20,863		45%

Source: Census 2000. Analysis by Masatoshi Nakahata



3.6. General Characteristics of the North End: Summary of Findings

From the discussions about the existing conditions of the North End above, overall characteristics of the North End can be presented. They are summarized below.

North End is growing faster than Providence in terms of population: The population growth in the North End between 1990 and 2000 is 14% increase,

larger than Providence population increase of 8%.

2. North End has more Hispanic population and less White population:

Hispanic population in the North End grew to 23% of total population in the North End in 2000 from just 8% in 1990. On the other hand, White population in the North End decreased to 55% of total population in the North End in 2000 from 80% in 1990.

3. North End has more young population:

North End's population in the age of 5 to 17 year old increased 60% between 1990 and 2000. The age group of 18 to 24 year old also increased 34%. Whereas population in the age of 65 years and over decreased by 14%.

4. North End has received more renter-occupied units and less owner-occupied units: Between 1990 and 2000, North End lost owner-occupied units by 3%, but increased renter-occupied units by 8%.

- 75% of housing structures in the North End are 1-units detached or 2-4 units:
 48% of all the houses in the North End are 2-4 units and 27% are 1-units detached.
- 6. Average Rent and mortgage cost in the North End are less than Citywide: Median monthly owner cost (primarily mortgage) in the North End was about 10% lower than Providence, \$984 and \$1,072, respectively. Median monthly rent in the North End (\$463) was about 88% of the median rent of Providence (\$526).
- 7. Median household income in the North End was slightly less than that of Citywide: Median household income in the North End in 2000 was \$25,306, which is about \$1,500 below the median household income of Providence (\$26,876).

8.	Twenty eight percent of total population in the North End was below the poverty
	line:

There were 28% (4,495) of population living below the poverty line, compared to the 29% in Providence.

Next chapter will discuss the crime characteristics of the North End in 2003.

CHAPTER 4

CRIME STATISTICS OF THE NORTH END, 2003

4.1. Introduction

The causes and origins of crime have been the subjects of investigation by varied disciplines historically. Some factors which are known to affect the volume and type of crime occurring from place to place, according to the U.S Department of Justice, are:

- · Population density and degree of urbanization
- · Variations in composition of the population, particularly youth concentration
- Stability of population with respect to resident's mobility, commuting patterns, and transient factors
- · Modes of transportation and highway system
- · Economic conditions, including median income, poverty level, and job availability
- Cultural factors and educational, recreational, and religious characteristics
- · Family conditions with respect to divorce and family cohesiveness
- Climate
- Effective strength of law enforcement agencies
- · Administrative and investigative emphases of law enforcement
- Policies of other components of the criminal justice system (i.e., prosecutorial, judicial, correctional, and probational)
- Citizen's attitudes toward crime
- · Crime reporting practices of the citizenry

As shown above, various factors can be a cause of crime in our lives. This chapter shows the general crime statistics of the North End in 2003. The main purposes of this chapter are, 1) to discuss the types of crime and the rate and number of each crime in the North End in 2003, 2) to compare those data with Providence, 3) and to describe definitions of each crime by Federal Bureau of Investigation, U.S. Department of Justice. It should be reminded that this study does not deal with all the types of crime; that is, some types of crime are intentionally excluded from this study. Those excluded are "Forcible Rape"

and "Sexual Assault-Other," These data could not be gathered since these data were so sensitive that Providence Police Department could not disclose.

4.2. Types of Crimes in the North End in 2003

This section presents the types and statistics of crime in the North End in 2003. The selected types of crime data are used for this study. Some types of crime in the North End are compared with Providence data. The descriptions of definition of each crime are collected from "Uniform Crime Reports" of the Federal Bureau of Investigation, U.S. Department of Justice.

4.2.1 Criminal Homicide

Definition: a) Murder and nonnegligent manslaughter the willful (nonnegligent) killing of one human being by another. Deaths caused by negligence, attempts to kill, assaults to kill, suicides, accidental deaths, and justifiable homicides are excluded. Justifiable homicides are limited to (1) the killing of a felon by a law enforcement officer in the line of duty; and (2) the killing of a felon, during the commission of a felony, by a private citizen. b) Manslaughter by negligence the killing of another person through gross negligence. Traffic fatalities are excluded. While manslaughter by negligence is a Part 1 crime, it is not included in the Crime Index.

Table 4.2.1. (Criminal Homicide) Murder in the North End, 2003

(Criminal Homicide) Murder in the North End, 2003		
	Number	Rate/1000 Population
Providence	N/A	N/A
North End	2	0.1

Source: Providence Plan, Analysis by Masatoshi Nakahata

FINDING: There were 2 cases of the crime in the category of Murder in the North End in 2003 (Table 4.2.1, Map 4.2.1).

4.2.2. Aggravated assault

Definition: An unlawful attack by one person upon another for the purpose of inflicting severe or aggravated bodily injury; This type of assault usually is accompanied by the use of a weapon or means likely to produce death or great bodily harm. Simple assaults are excluded.

Map 4.2.1. Crime Location in the North End, Murder, 2003

Number of Case: 2

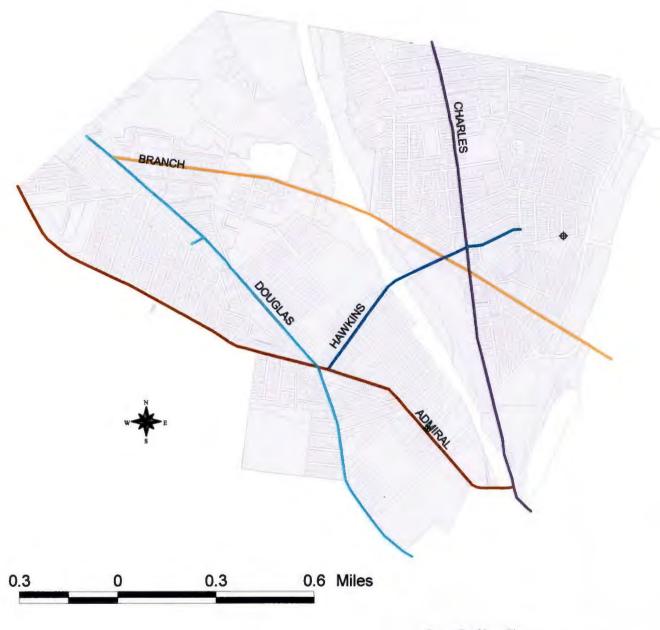


Table 4.2.2a. Assault with Firearm in the North End, 2003

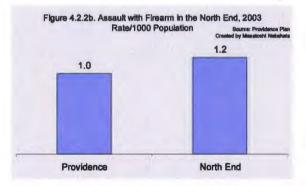
Assault with Firearm in the North End, 2003		
Number Rate/1000 Popular		
Providence	165	1.0
North End	22	1.2

Source: Providence Plan, Analysis by Masatoshi Nakahata

Figure 4.2.2a. Assault with Firearm in the North End, 2003, Rate/1000 Population

Mariton
Blackstone
College Hill
Hope
Weyland
Reservoir
Elimburst
Hertford
South Elmwood
Fox Point
Pederal Hill
Weshington Park
Mount Hope
Silver Lake
Mount Hope
Silver Lake
Mount Pleasant
Citywide
Valley
Vest End
Elmwood
North End
Smith Hill
Lower South Prov.
Claneyville
Downtown
Upper South Prov.

0.0 0.6 1.0 1.5 2.0 2.5 3.0 3.5

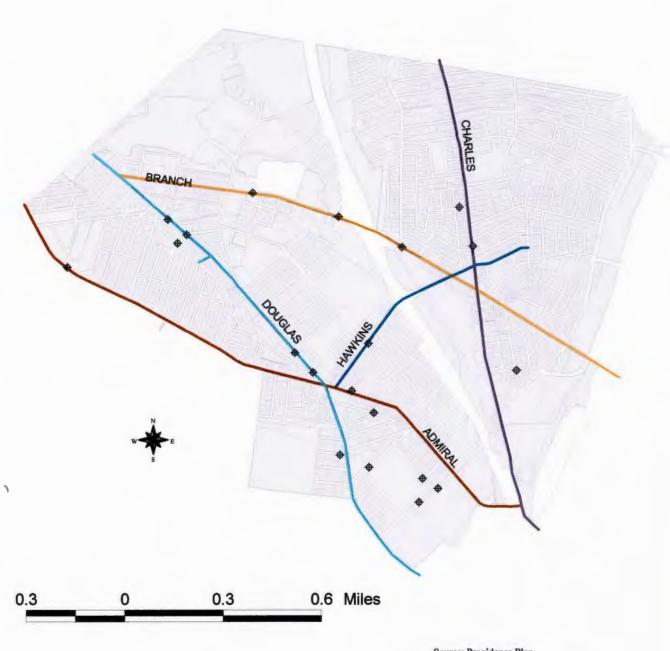


FINDING: There were 22 cases of the crime in the category of "Assault with Firearm" in the North End in 2003. The crime rate per 1000 population was 1.2, which was slightly higher than that of Providence of 1.0. The North End had the 6th highest rate of this type of crime per 1000 population in 2003 (Table 4.2.2a, Figure 4.2.2a. Figure 4.2.2b, Map 4.2.2a).

***It should be noted that, from now on, the table which shows the crime statistics of all the neighborhoods in Providence will not be presented and only the table which compare

Map 4.2.2a. Crime Location in the North End, Assault with Firearm, 2003

Number of Case: 22

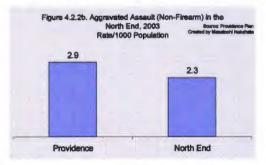


the crime statistics of the North End with Providence will be presented in order to specifically focus on the North End's crime characteristics.

Table 4.2.2b. Aggravated Assault (Non-Firearm) in the North End, 2003

Aggravated Assault (Non-Firearm) in the North End, 2003		
	Number	Rate/1000 Population
Providence	503	2.9
North End	40	2.3

Source: Providence Plan, Analysis by Masatoshi Nakahata



FINDING: There were 40 cases of the crime in the category of "Aggravated Assault (Non-Firearm)" in the North End in 2003. The crime rate per 1000 population was 2.3, which was lower than that of Providence (Table 4.2.2b, Figure 4.2.2b, and Map 4.2.2b).

4.2.3. Simple Assault

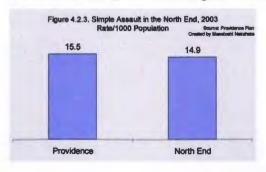
Definition: Assaults and attempted assault where no weapons are used and which do not result in serious or aggravated injury to the victim.

Table 4.2.3. Simple Assault in the North End, 2003

Simple Assault in the North End, 2003		
	Number	Rate/1000 Population
Providence	2,691	15.5
North End	263	14.9

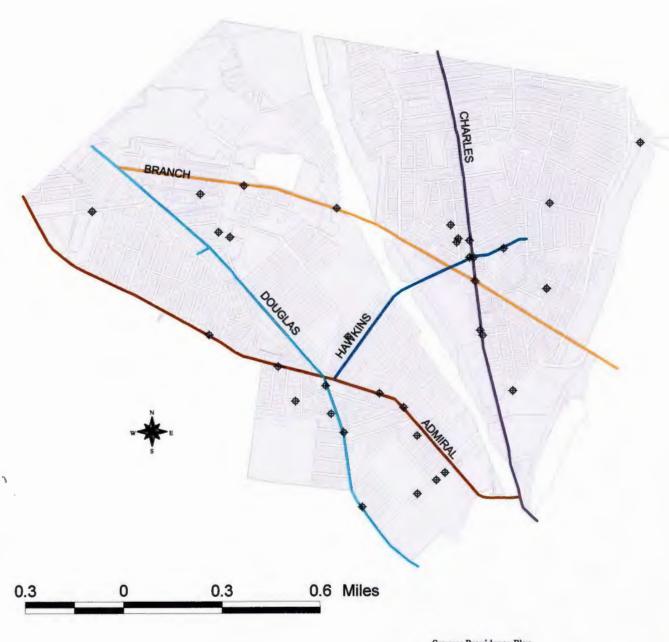
Source: Providence Plan, Analysis by Masatoshi Nakahata

FINDING: There were 263 cases of the crime in the category of "Simple Assault" in the North End in 2003. The crime rate per 1000 population was 14.9, which was slightly lower than that of Providence of 15.5(Table 4.2.3, Figure 4.2.3, and Map 4.2.3).



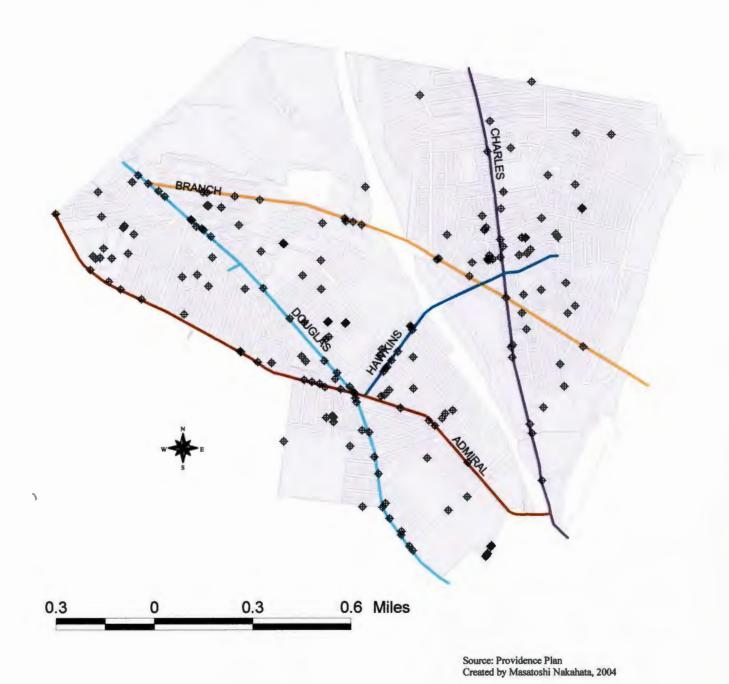
Map 4.2.2b. Crime Location in the North End, Aggravated Assault (Non-Firearm), 2003

Number of Case: 40



Map 4.2.3. Crime Location in the North End, Simple Assault, 2003

Number of Case: 263



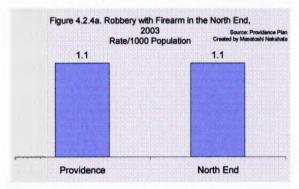
4.2.4. Robbery

Definition: The taking or attempting to take anything of value from the are, custody, or control of person or persons by force or threat of force or violence and/or by putting the victim in fear.

Table 4.2.4a. Robbery with Firearm in the North End, 2003

Robbery with Firearm in the North End, 2003		
	Number	Rate/1000 Population
Providence	199	1.1
North End	19	1.1

Source: Providence Plan, Analysis by Masatoshi Nakahata

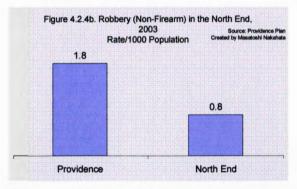


FINDING: There were 19 cases of the crime in the category of "Robbery with Firearm" in the North End in 2003. The crime rate per 1000 population was 1.1, which was same as Providence of 1.1 (Table 4.2.4a, Figure 4.2.4a, and Map 4.2.4a).

Table 4.2.4b. Robbery (Non-Firearm) in the North End, 2003

Robbery (Non-Firearm) in the North End, 2003		
	Number	Rate/1000 Population
Providence	320	1.8
North End	14	0.8

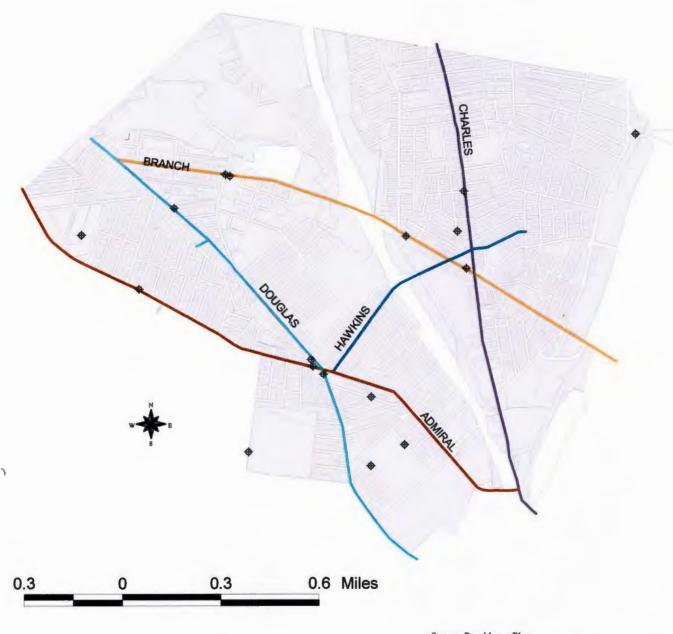
Source: Providence Plan, Analysis by Masatoshi Nakahata



FINDING: There were 14 cases of the crime in the category of "Robbery (Non-Firearm)" in the North End in 2003. The crime rate per 1000 population was 0.8, which was less than a half of Providence of 1.8 (Table 4.2.4b, Figure 4.2.4b, and Map 4.2.4b).

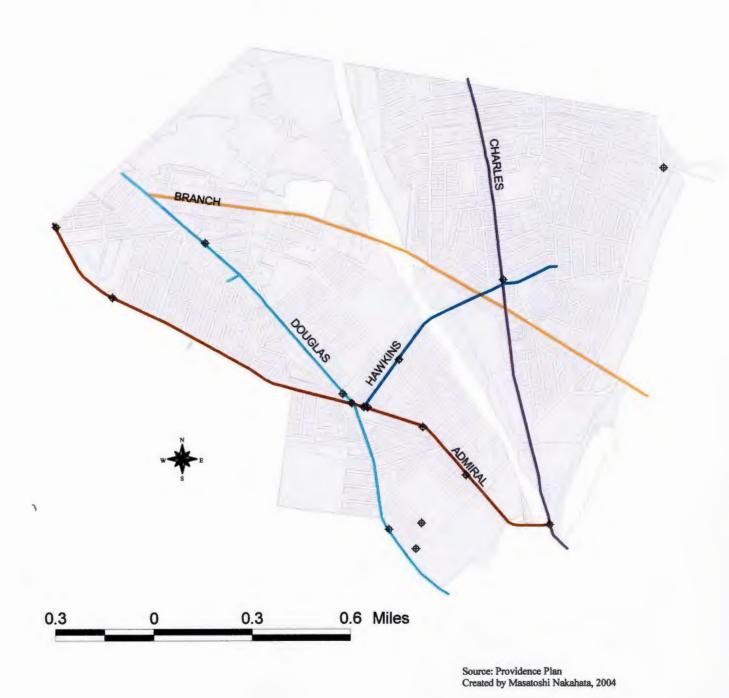
Map 4.2.4.a. Crime Location in the North End, Robbery with Firearm, 2003

Number of Case: 19



Map 4.2.4b. Crime Location in the North End, Robbery (Non-Firearm), 2003

Number of Case: 14



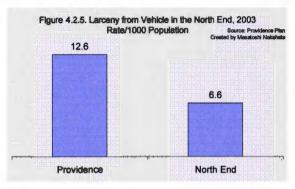
4.2.5. Larceny from Motor Vehicle

Definition: The theft of articles from a motor vehicle, whether locked or unlocked.

Table 4.2.5. Larceny from Vehicle in the North End, 2003

Larceny from Vehicle in the North End, 2003		
	Number	Rate/1000 Population
Providence	2,186	12.6
North End	117	6.6

Source: Providence Plan, Analysis by Masatoshi Nakahata



FINDING: There were 117 cases of the crime in the category of "Larceny from Vehicle" in the North End in 2003. The crime rate per 1000 population was 6.6, which was about a half of Providence of 12.6 (Table 4.2.5, Figure 4.2.5, and Map 4.2.5).

4.2.6. Shoplifting

Definition: The act of stealing goods that are on display in a store.

Table 4.2.6. Shoplifting in the North End, 2003

Shoplifting in the North End, 2003			
	Number	Rate/1000 Population	
Providence	N/A	N/A	
North End	32	1.8	

Source: Providence Plan, Analysis by Masatoshi Nakahata

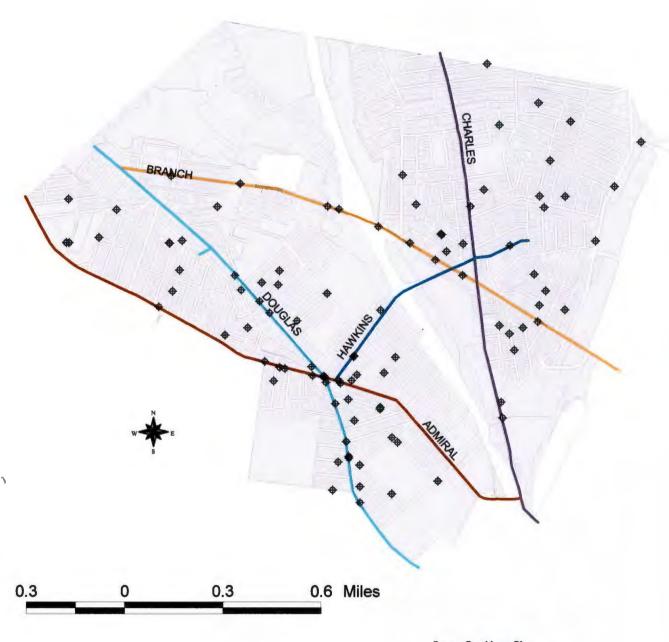
FINDING: There were 32 cases of the crime in the category of "Shoplifting" in the North End in 2003. The crime rate per 1000 population was 1.8 (Table 4.2.6, Figure 4.2.6, and Map 4.2.6).

4.2.7. Larceny

Definition: (larceny-theft (except motor vehicle theft)) the unlawful taking, carrying, leading, or riding away of property from the possession or constructive possession of another. Examples are thefts of bicycles or automobile accessories, shoplifting, pocketpicking, or the staling of any property or article which is not taken by force and violence

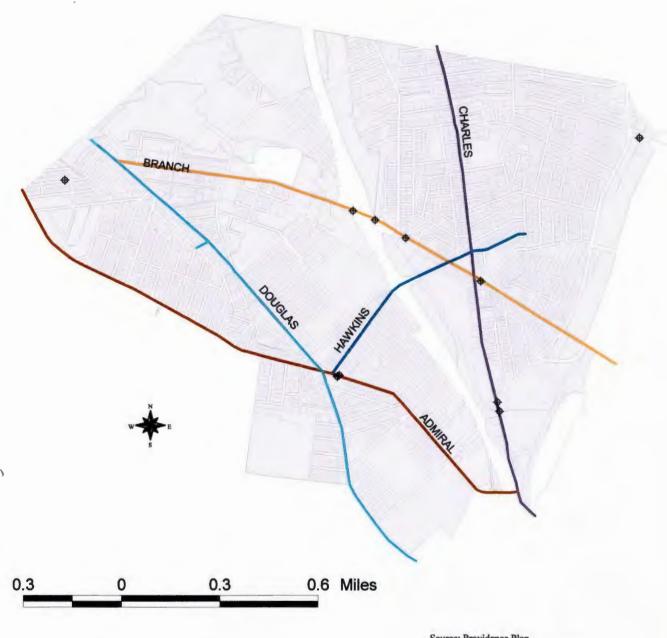
Map 4.2.5. Crime Location in the North End, Larceny from Vehicle, 2003

Number of Case: 117



Map 4.2.6. Crime Location in the North End, Shoplifting, 2003

Number of Case: 32



or by fraud. Attempted larcenies are included. Embezzlement, confidence games, forgery, worthless checks, etc., are excluded.

Table 4.2.7. Larceny in the North End. 2003

Larceny in the North End, 2003				
	Number	Rate/1000 Population		
Providence	6,725	38.7		
North End	472	26.8		

Figure 4.2.7. Larceny in this North End, 2003
Rate/1000 Population
Source Providence Plan
Crested by Massicahi Nakahata
38.7

26.8

Providence North End

FINDING: There were 472 cases of the crime in the category of "Larceny" in the North End in 2003. The crime rate per 1000 population was 26.8, which was about 30% lower than that of Providence of 38.7 (Table 4.2.7, Figure 4.2.7, and Map 4.2.7).

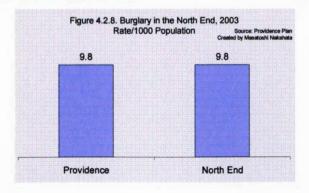
4.2.8. Burglary

Definition: The unlawful entry of a structure to commit a felony or a theft. Attempted forcible entry is included.

Table 4.2.8. Burglary (Breaking & Entering) in the North End, 2003

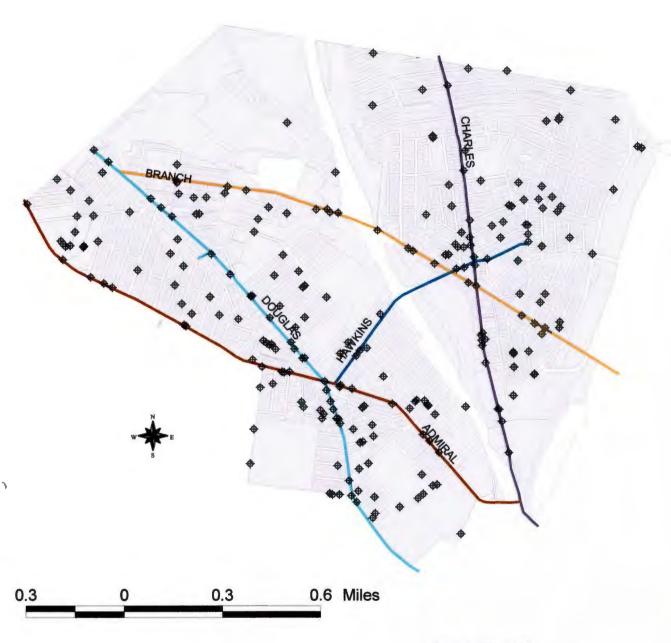
Burglary (Breaking & Entering) in the North End, 2003				
	Number	Rate/1000 Population		
Providence	1,693	9.8		
North End	172	9.8		

Source: Providence Plan, Analysis by Masatoshi Nakahata



4.2.7. Crime Location in the North End, Larceny, 2003

Number of Case: 472



FINDING: There were 172 cases of the crime in the category of "Burglary" in the North End in 2003. The crime rate per 1000 population was 9.8, which was same as Providence of 9.8 (Table 4.2.8, Figure 4.2.8, and Map 4.2.8).

4.2.9. Motor Vehicle Theft

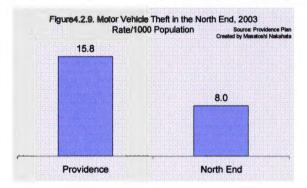
Definition: The theft or attempted theft of a motor vehicle. A motor vehicle is self-propelled and runs on the surface and not on rail. Motorboats, construction equipment, airplanes, and farming equipment are specifically excluded from this category.

Table 4.2.9. Motor Vehicle Theft in the North End, 2003

Motor Vehicle Theft in the North End, 2003				
	Number	Rate/1000 Population		
Providence	2,745	15.8		
North End	141	8.0		

Source: Providence Plan, Analysis by Masatoshi Nakahata

FINDING: There were 141 cases of the crime in the category of "Motor Vehicle Theft" in the North End in 2003. The crime rate per 1000 population was 8.0, which was about a half of Providence of 15.8 (Table 4.2.9, Figure 4.2.9, and Map 4.2.9).

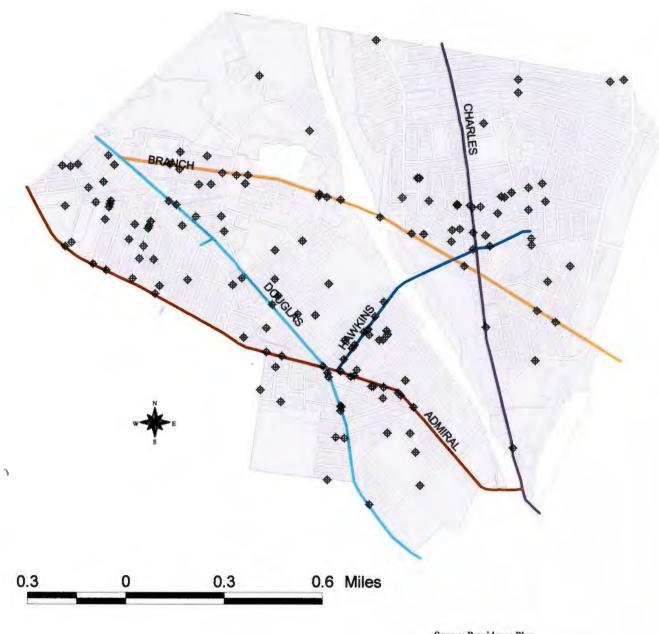


4.2.10. Drug Related

Definition: (drug abuse violations) state and/or local offenses relating to the unlawful possession, sale, use, growing, and manufacturing of narcotic drugs. The following drug categories are specified: opium or cocaine and their derivatives (morphine, heroin, codeine); marijuana; synthetic narcotics – manufactured narcotics that can cause true addiction (demerol, methadone); and dangerous nonnarcotic drugs (barbiturates, Benzedrine).

Map 4.2.8. Crime Location in the North End, Burglary, 2003

Number of Case: 172



Map 4.2.9. Crime Location in the North End, Motor Vehicle Theft, 2003

Number of Case: 141

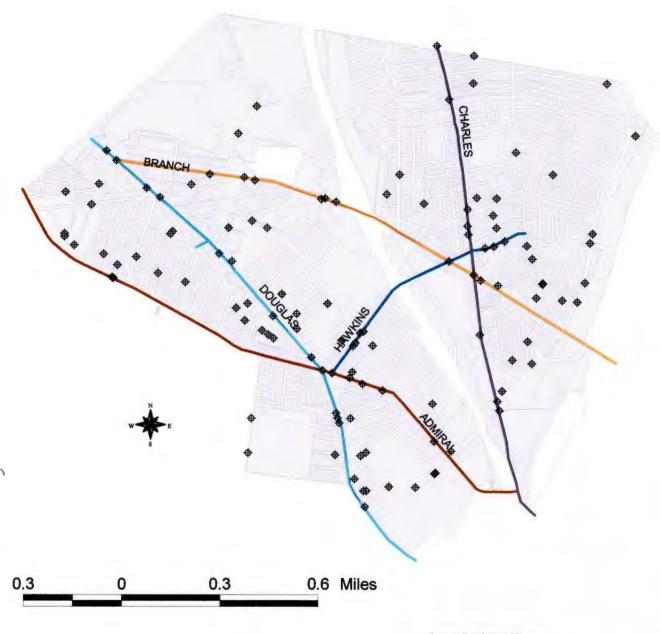
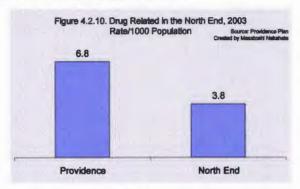


Table 4.2.10 Drug related (Possession, Sale, and Equipment) in the North End, 2003

Drug related (Possession, Sale, and Equipment) in the North End, 2003			
	Number	Rate/1000 Population	
Providence	1,181	6.8	
North End	67	3.8	

Source: Providence Plan, Analysis by Masatoshi Nakahata



FINDING: There were 67 cases of the crime in the category of "Drug Related" in the North End in 2003. The crime rate per 1000 population was 3.8, which was about 45% of Providence of 6.8 (Table 4.2.10, Figure 4.2.10, and Map 4.2.10).

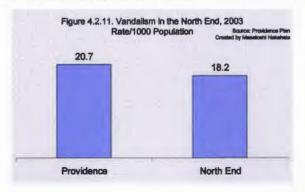
4.2.11. Vandalism

Definition: Willful or malicious destruction, injury, disfigurement, or defacement of any public or private property, real or personal, without consent of the owner or persons having custody or control. Attempts are included.

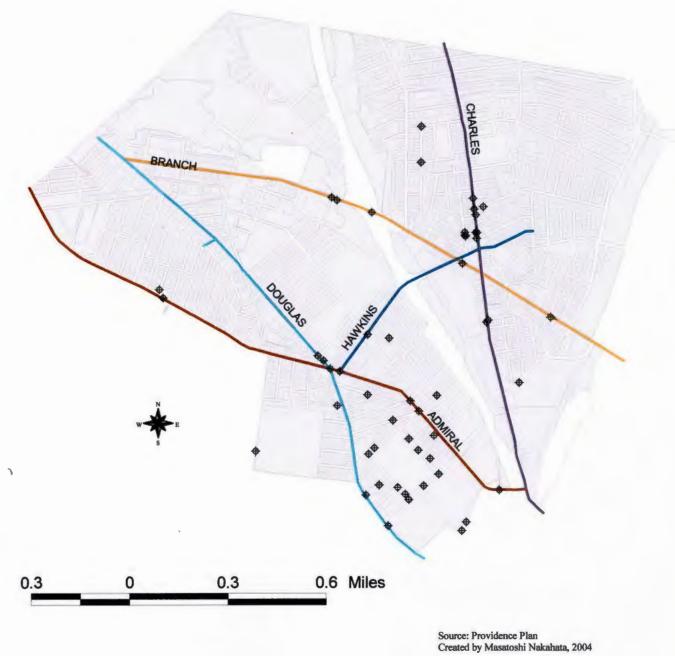
Table 4.2.11. Vandalism in the North End, 2003

Vandalism in the North End, 2003				
	Number	Rate/1000 Population		
Providence	3,594	20.7		
North End	321	18.2		

Source: Providence Plan, Analysis by Masatoshi Nakahata



Map 4.2.10. Crime Location in the North End, Drug Related, 2003 Number of Case: 67



FINDING: There were 321 cases of the crime in the category of "Vandalism" in the North End in 2003. The crime rate per 1000 population was 18.2, which was slightly less than that of Providence of 20.7 (Table 4.2.11, Figure 4.2.11, and Map 4.2.11).

4.2.12. Liquor

Definition: State and/or local liquor law violations except drunkenness and driving under the influence. Federal violations are excluded.

Table 4.2.12. Liquor in the North End. 2003

	Liquor in the North End, 20	03
	Number	Rate/1000 Population
Providence	N/A	N/A
North End	16	0.9

Source: Providence Plan, Analysis by Masatoshi Nakahata

FINDING: There were 16 cases of the crime in the category of "Liquor" in the North End in 2003. The crime rate per 1000 population was 0.9 (Table 4.2.12, Figure 4.2.12, and Map 4.2.12).

4.2.13. Weapons

Definition: All violations of regulations or statutes controlling the carrying, using, possessing, furnishing, and manufacturing of deadly weapons or silencers. Attempts are included.

Table 4.2.13. Weapons in the North End, 2003

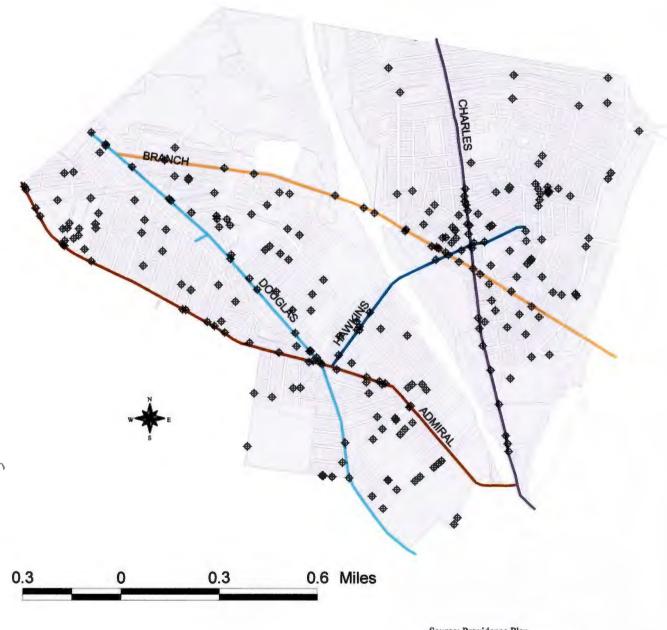
Weapons in the North End, 2003				
	Number	Rate/1000 Population		
Providence	N/A	N/A		
North End	12	0.6		

Source: Providence Plan, Analysis by Masatoshi Nakahata

FINDING: There were 12 cases of the crime in the category of "Liquor" in the North End in 2003. The crime rate per 1000 population was 0.6 (Table 4.2.13, Figure 4.2.13, and Map 4.2.13).

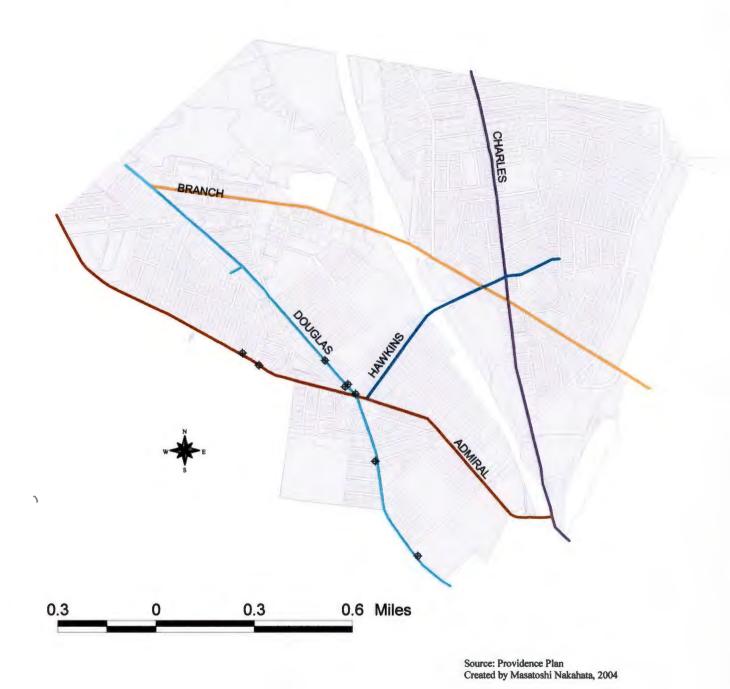
Map 4.2.11. Crime Location in the North End, Vandalism, 2003

Number of Case: 321



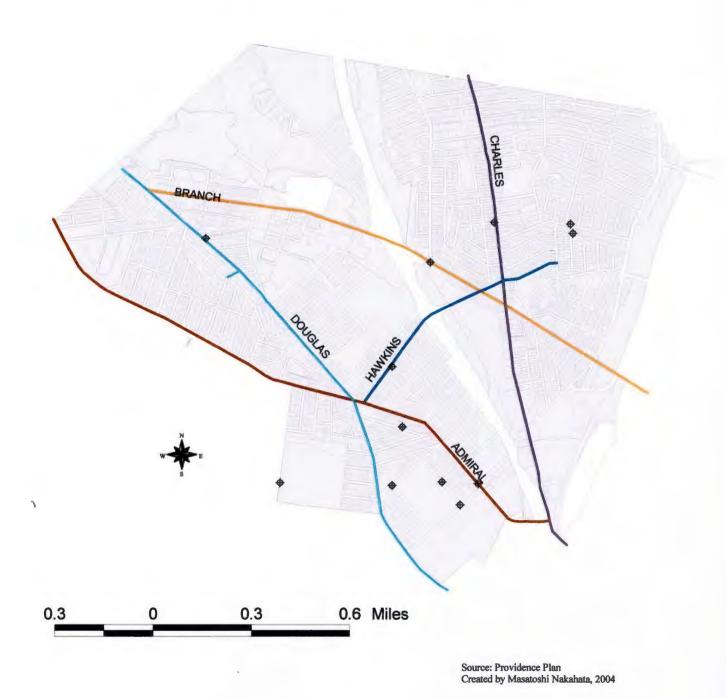
Map 4.2.12. Crime Location in the North End, Liquor, 2003

Number of Case: 16



Map 4.2.13. Crime Location in the North End, Weapon, 2003

Number of Case: 12



4.3. Overall Crime Characteristics of the North End in 2003

Table 4.3 shows the summary of the types of crime and their number of cases in the North End in 2003. The total number of the selected types of crime in the North End in 2003 was 1554 cases. Among them, "Larceny Other" accounted for the highest number in the North End in 2003 (324), followed by "Vandalism" (318) and "Simple Assault" (263). The sum of these three types of crime accounts for 905, which is nearly 60% of the total number of the selected types of crime (Table 4.3, and Map 4.3).

Table	4 2	Crimo	in	North	End	2003
10000	9		11.11	INCHES		LUUJ

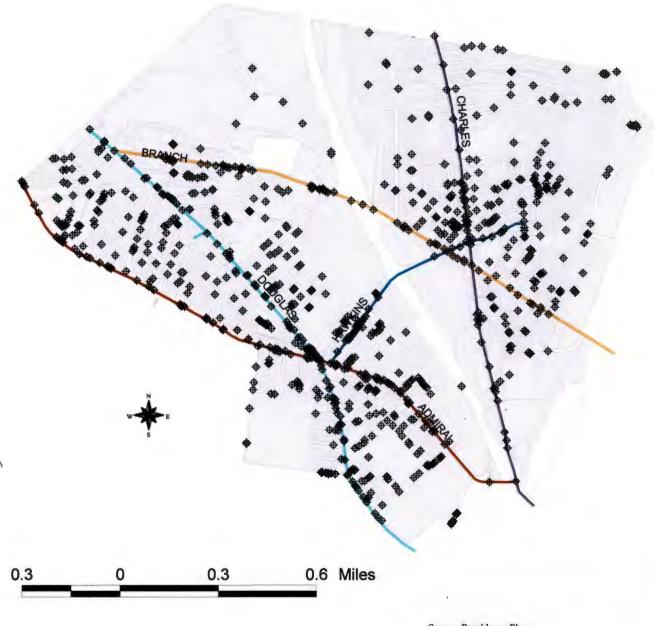
A	Murder	2
В	Assault with Firearm	20
C	Assault	39
D	Simple Assault	263
E	Robbery w Firearm	19
F	Robbery	16
1	Larceny from MV	114
J	Shoplifting	32
K	Larceny Other	324
L	Burglary	173
M	MV Theft	140
N	Drug Related	66
0	Vandalism	318
P	Liquor	16
Q	Weapons	12

Source: Providence Plan and Providence Police Department, Analysis by Masatoshi Nakahata

Next chapter will examine about the relationship between the homeownership and crime in the North End.

Map 4.3. Crime Location in the North End, Every Type of Crime, 2003

Number of Case: 1,554



CHAPTER 5

SPATIAL ANALYSIS BETWEEN HOMEOWNERSHIP AND CRIME

5.1. Introduction

This chapter will examine the spatial relationship between the homeownership and the crime patterns in the North End in 2003. This study will approach it by examining a series of spatial relationships between the tenure condition and crime patterns within the North End. The spatial relationships to be examined are as follows.

- 1) Number of crime & crime area
- 2) Tenure conditions & number of crime in each neighborhood
- 3) Tenure conditions & number of crime in the selected areas

*** It should be noted that the housing data used for this spatial analysis (i.e., number of absentee landlord units) is solely gathered from the ProvidencePlan. Therefore, the reader will find that the housing data in this spatial analysis differ from the housing data discussed in Chapter 3, which is solely gathered from the census data.

5.2. Analysis 1: Spatial Relationship between Number of Crime and Crime Area

Among over 150 streets in the North End, Charles Street had the highest number of crime cases in 2003, 144 cases of crime reported. The second highest was Admiral Street with 135, the third was Douglas Avenue with 133 cases, the fourth was Branch Avenue with 125 cases, and the fifth was Hawkins Street with 53 cases (Table 5.2, Map 5-2).

A remarkable fact is that while there were 1,554 cases of crime reported in the North End in 2003, these five streets alone accounted for 590 cases; that is, more than 1/3 of total crimes in the North End in 2003 were taken place on or along these five streets out (Map 5-2).

Map 5.2. Major Streets and Crime Locations in the North End, 2003

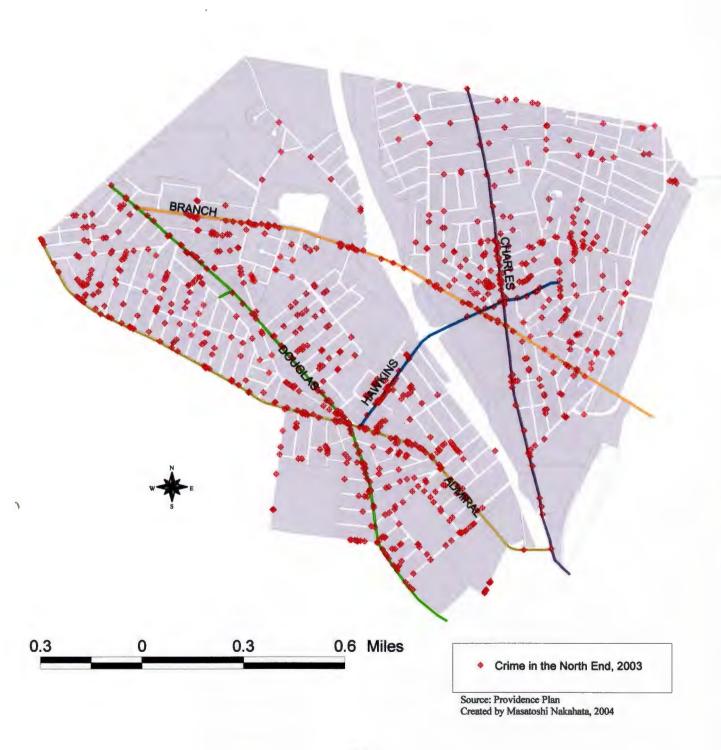


Table 5.2. Top 5 Crime-Site Streets and Types and Number of Crime in the North End, 2003

		STREET NAME					
		CHARLES	ADMIRAL	DOUGLAS	BRANCH	HAWKINS	TOTAL
	LARCENY OTHER	37	19	23	27	6	112
	SIMPLE ASSAULT	29	20	36	14	7	106
	VANDALISM	25	27	15	23	11	101
	BURGLARY	7	14	12	12	9	54
	MV THEFT	11	10	10	11	8	50
	LARCENY FR MV	1	16	11	12	3	43
	SHOPLIFTING	16	3	0	11	0	30
CRIME	DRUG RELATED	9	3	5	5	2	24
TYPE	ASSAULT	4	5	3	3	3	18
	LIQUOR	0	8	7	0	0	15
	ROBBERY	2	6	3	0	2	13
	ASSAULT W FIREARM	1	2	3	3	1	10
	ROBBERY W FIREARM	1	2	4	3	0	10
	WEAPON	1	0	1	1	1	4
	MURDER	0	0	0	0	0	0
	TOTAL	144	135	133	125	53	590

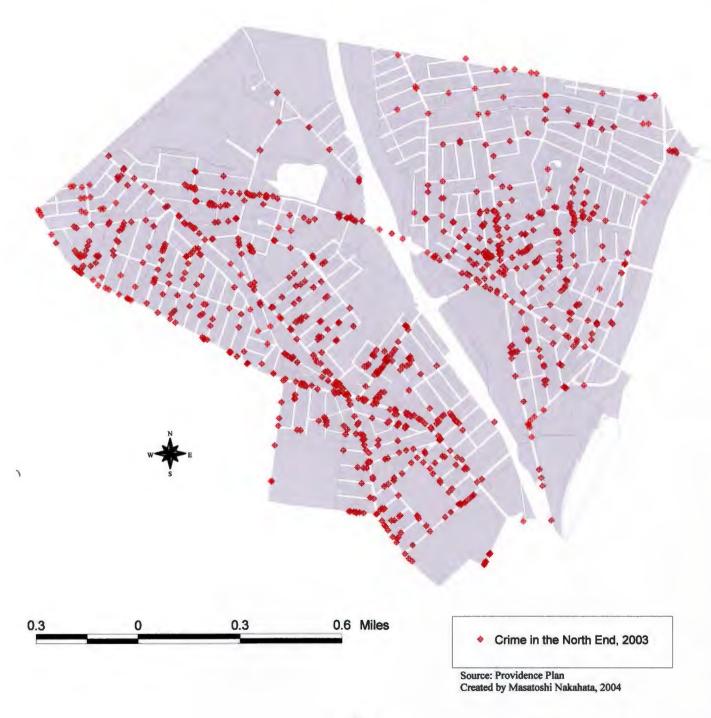
Source: Providence Police Department, Analysis by Masatoshi Nakahata

5.3. Analysis 2: Spatial Relationship between Absentee Landlord Rate and Crime

This section presents the analysis of spatial relationship between the tenure condition and crime patterns in the North End. As shown in Map 5.3.1, the crime incident areas seem fairly spread out in the whole area of the North End except those areas where number of housing units is small and an area in the north part of Charles neighborhood. As Map 5.3.2 shows, the two neighborhoods, Wanskuck and Charles, are clearly devided by the existence of Route 146. The existence of highway is very often said to be so powerful in terms of domination of built environment in the area that it could divide one neighborhood which has had one similar characteristic within the neighborhood into two neighborhoods with very different characteristics. Based on this reality, for this study, the study will first analyze each neighborhood's crime and tenure pattern, and then make a comparison between the two neighborhoods.

First, the study presents the number of crime in both Charles and Wanskuck separately (Table 5.3, Figure 5.3a).

Map 5.3.1. Crime Locations in the North End, 2003



Map 5.3.2. Highway Separating Charles and Wanskuck

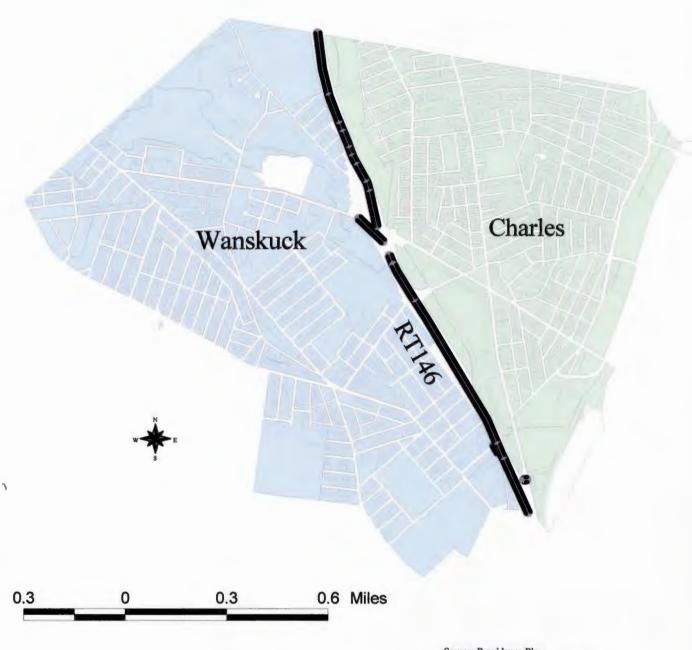
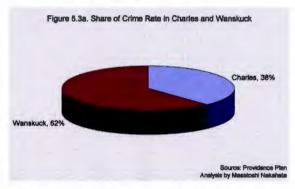


Table 5.3. Number of Crime and % of Total Crime, 2003

	Charles	Wanskuck	North End	
Number	578	963	1541	
% of Total	38%	62%	100%	

Source: Providence Police Department, Analysis by Masatoshi Nakahata



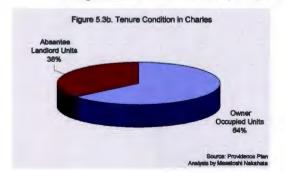
Among 1,541 cases of crime in the North End in 2003, 578 (38%) occurred in the Charles neighborhood. The rest of the crime occurred in the Wanskuck.

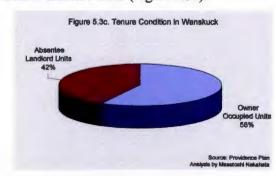
Next, the study presents the number and rate of owner occupied units and absentee landlord units in both Charles and Wanskuck (Table 5.3b).

Table 5.3b.Total Occupied Residential Units and Tenure Condition in Each Neighborhood and North End, 2003

	Charles		Wanskuck		North End	
	Number	%	Number	%	Number	%
TOTAL Occupied Residential Units	1,460	100%	1,817	100%	3,278	100%
Owner Occupied Units	931	64%	1,050	58%	1,981	60%
Absentee Landlord Units	529	36%	767	42%	1,296	40%

In Charles neighborhood, of 1,460 total occupied residential units, 931 (64%) units are owner-occupied units, whereas, 529 (36%) were absentee landlord units (Figure 5.3b). In the Wanskuck, of 1,817 total occupied residential units, 1050 (60%) units were owner-occupied units whereas, 767 (40%) were absentee landlord units (Figure 5.3c).





From the number of crime, absentee landlords and owner-occupied units in each neighborhood shown above, there is one fact which seems worth mentioning. It can be seen that the crime rate of each neighborhood seems to be, to some extent, correlated with the rate of absentee landlord units. That is, the neighborhood with the high rate of crime has the high rate of absentee landlord units within the neighborhood (Map 5.3.3). In more detail, Wanskuck neighborhood, which had 62% of total crime in the North End in 2003, had 42% of total occupied residential units as absentee landlord units. Contrary, the Charles neighborhood, which had 38% of the total crime in the North End in 2003 (24% lower than Wanskuck), had 36% of total occupied housing units as absentee landlords (6% lower than Wanskuck).

However, the above analysis does not show a clear spatial relationship between crime and homeownership in the North End. From the results, although the rate of crime in the North End was more concentrated in the Wanskuck than the Charles, Wanskuck had also bigger population than Charles; therefore, the difference in the number of crime rate might be attributed to the difference in population size of each neighborhood.

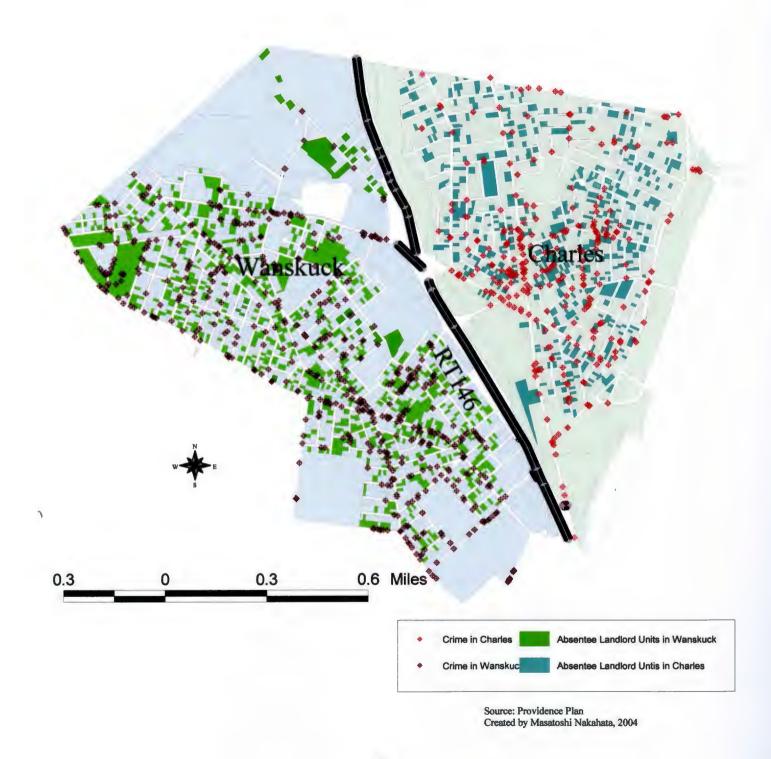
5.4. Analysis 3: Spatial Relationship between Homeownership Rate and Crime in the Selected Areas

5.4.1. Case 1: In Charles Neighborhood

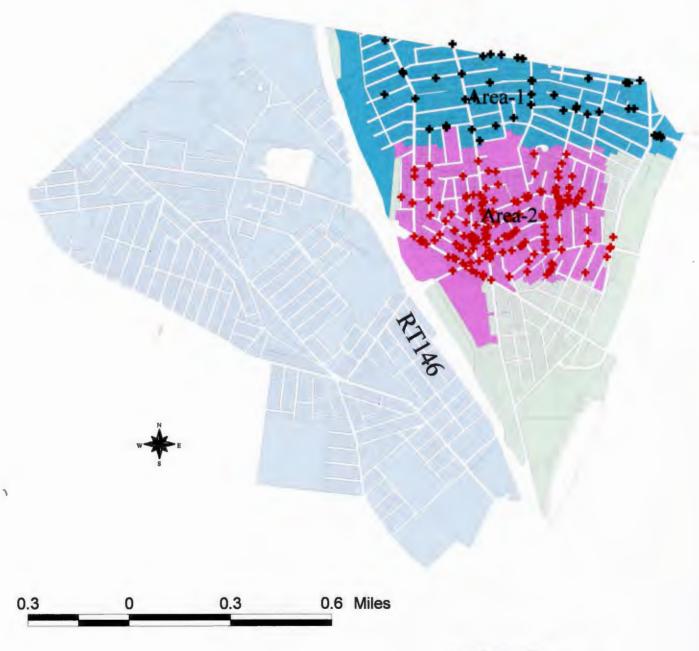
In Analysis 2, the study examined the spatial relationship of tenure conditions and crime patterns by comparing the two neighborhoods, Charles and Wanskuck. In Analysis 3, the study examines the similar issue in two smaller and more specific areas. Firstly, the study focuses on the two areas in the Charles; *Area-1* visually has a small number of crimes; *Area-2* visually has a large number of crimes (Map 5.4.1a). Secondly, the study examines the tenure conditions of the two areas. The two areas selected for this analysis are: Area-1 is in the edge of north boundary of Charles; Area-2 is in the middle part of Charles (Map 5.4.1a).

Table 5.4.1 and Map 5.4.1b shows the number of total occupied residential units in both the Area-1 and Area-2. Also, it shows the number and percentage of owner-occupied and

Map 5.3.3. Absentee Landlord Units and Crime in Each Neighborhood



Map 5.4.1a. Case Study Area-1 and Area-2



Map 5.4.1b Tenure Condition and Crime in Area-1 and Area-2, 2003

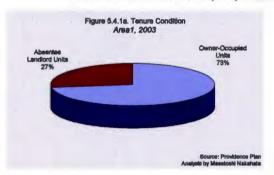


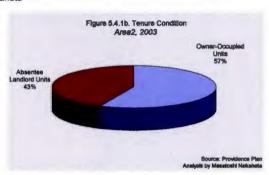
absentee landlord units in the Area-1 and 2. In addition, it shows the number of crime in both the Area-1 and 2.

Table 5.4.1. Tenure and Crime Condition in Area-1 and Area-2 in the North End, 2003

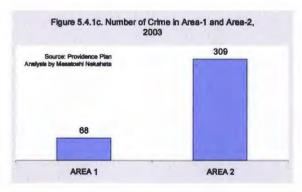
	AREA 1	AREA 2 628	
Total Residential Units	597		
Owner-Occupied Units	434	356	
Absentee Landlord Units	163	272	
% of Owner-Occupied Units	73%	57%	
% of Absentee Landlord Units	27%	43%	
# of Crime Cases	68	309	

Source: The Providence Plan, Analysis by Masatoshi Nakahata





In Area-1, there were 597 occupied residential units. Among them, 434 (73%) were owner occupied units and 163 (27%) were absentee landlord units (Figure 5.4.1a). In Area-2, there were 628 occupied residential units. Among them, 356 (57%) were owner-occupied units and 272 (43%) are absentee landlord units (Figure 5.4.1b). It is revealed that while nearly 3/4 of the total occupied residential units in Area-1 were owner-occupied units, the owner-occupied residential units in Area-2 remain just above a half, or 57%.



The number of crime in Area-1 and Area-2 also shows a significant difference. While Area-1 had only 68 cases of crime in 2003, Area-2 had 309 cases of crime in 2003

(Figure 5.4.1c). This means that the number of crime in Area-2 was four times higher than Area-1.

From above analysis, it can be concluded that one major finding between tenure condition and number of crime in the two areas is that the area with the higher rate of absentee landlord, or low rate of owner-occupied units, has the higher number of crime (in this case, it is Area-2); whereas, the area with the higher rate of owner-occupied units has the lower number of crime (in this case, it is Area-1).

5.4.2. Case 2: In Wanskuck Neighborhood

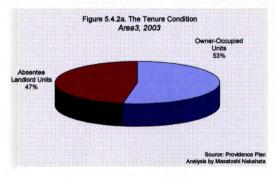
In this section, the study conducts a similar analysis of Case 1 but within Wanskuck. Firstly, the study will focus on the two areas in the Wanskuck. The two areas selected for this analysis are: Area-3 is in the south part of Wanskuck; Area-4 is in the west part of Wanskuck (Map 5.4.2a).

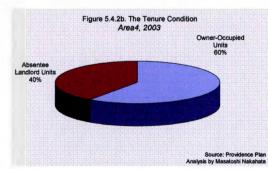
Table 5.4.2 and Map 5.4.2b show the number of total occupied residential units in both the Area-3 and Area-4. Also, it shows the number and percentage of owner-occupied and absentee landlord units in the Area-3 and 4. In addition, it shows the number of crime in both the Area-3 and 4.

Table 5.4.2. Tenure and Crime Condition in Area-3 and Area-4 in the North End, 2003

	AREA 3	798	
Total Residential Units	713		
Owner-Occupied Units	377	476	
Absentee Landlord Units	336	322	
% of Owner-Occupied Units	53%	60%	
% of Absentee Landlord Units	47%	40%	
# of Crime Cases	540	341	

Source: The Providence Plan, Analysis by Masatoshi Nakahata

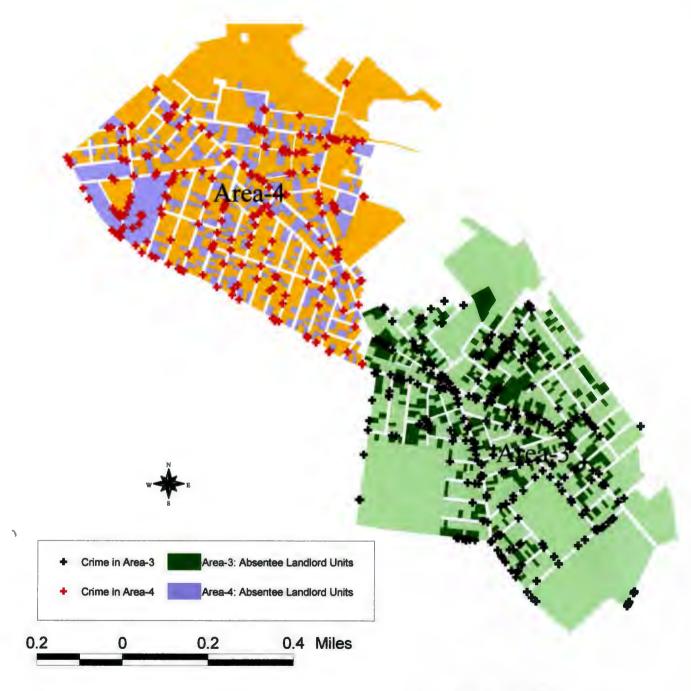




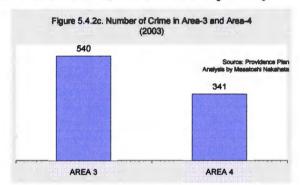
Map 5.4.2a. Case Study Area-3 and Area-4



Map 5.4.2b. Tenure Condition and Crime in Area-3 and Area-4, 2003



In Area-3, there are 713 occupied residential units. Among them, 377 (53%) were owner occupied units and 336 (47%) were absentee landlord units (Figure 5.4.2a). In Area-4, there were 798 occupied residential units. Among them, 476 (60%) were owner-occupied units and 341 (40%) are absentee landlord units (Figure 5.4.2b). It is found that the number of owner-occupied units and absentee landlord units in the Area-3 is nearly same, 53% and 47% respectively. In Area-4, there are relatively more owner-occupied units than absentee landlord units, 60% and 40% respectively.



The number of crime in Area-3 and Area-4 show a relatively big difference. While Area-3 had 540 cases of crime in 2003, Area-4 had 341 cases of crime in 2003, which is 200 less than Area-3 (Figure 5.4.2c). This means that the number of crime in Area-4 was about 43% more than Area-3.

A key finding between tenure condition and number of crime in the two areas, Area-3 and Area-4, is that the area with higher rate of absentee landlord has a large number of crime (in this case, it is Area-4); whereas, the area with the higher rate of owner-occupied units has a smaller number of crimes (in this case, it is Area-3).

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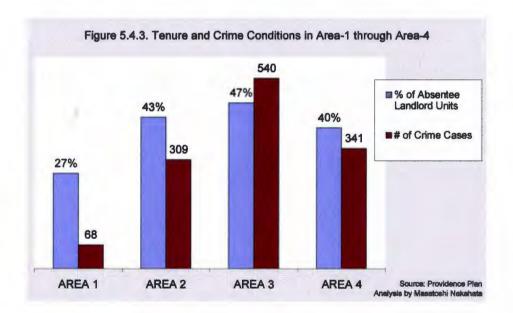
5.4.3. Combing Area-1 through -4

Lastly, the study compares the result of Area-1 through Area-4 into one table and make a comparison between them. Table 5.4.3 shows the number of total occupied residential units in Area-1 through Area-4. Also, it shows the number and percentage of owner-occupied and absentee landlord units in Area-1 through Area-4. In addition, it shows the number of crime Area-1 through Area-4.

Table 5.4.3. Tenure and Crime Condition in Area-1 through Area-4 in the North End, 2003

	AREA 1	AREA 2	AREA 3	AREA 4
Total Residential Units	597	628	713	798
Owner-Occupied Units	434	356	377	476
Absentee Landlord Units	163	272	336	322
% of Owner-Occupied Units	73%	57%	53%	60%
% of Absentee Landlord Units	27%	43%	47%	40%
# of Crime Cases	68	309	540	341

Source: The Providence Plan, Analysis by Masatoshi Nakahata



One trend can be seen for all the four areas analyzed. As similar to the analyses discussed, the area with a small rate of absentee landlord units has also a small number of crimes (Figure 5.4.3). Area-1 fits well into this trend: Area-1 which has the lowest rate of absentee landlord among the other three areas has the lowest number of crimes. On the other hand, the area with a large rate of absentee landlord units has a large number of crimes. Area-3 fits into this trend: Area-3 which has the highest rate of absentee landlord among the other three areas has the largest number of crimes.

CHAPTER 6 CONCLUSION

6.1. Summary of the Findings

From the results of a series of analyses in Chapter 5, there seems to be a spatial relationship between homeownership and crime. In the analyses of examining the relationship between the tenure condition and the crime in Chapter 5, there was one notable similar trend throughout the three analyses; *The neighborhood with high rate of crime has higher rate of absentee landlords than the neighborhood with lower rate of crime*.

In the first analysis which examines the tenure condition and crime in the two neighborhoods, Charles and Wanskuck, there was a trend that Wanskuck, which received crimes as nearly twice as Charles, had higher rate of absentee landlord units among total occupied residential units than the rate of absentee landlord units among total occupied residential units in Charles.

In the second analysis of the two selected areas in Charles, there was even more significant relationship between the tenure condition and crime. The tenure condition had a strong correlation with the number of crime in this analysis. Especially, Area-1, in which the rate of owner occupied units among total occupied residential units was high, 73%, compared to the North End average, had a very small number of crimes.

In the third analysis of the two selected areas in Wanskuck, although not significant, there was yet a similar result to both the first and second analysis described above. Area-3, which had higher rate of absentee landlords within the area than that of Area-4, also had higher number of crime than Area-4.

6.2. Shortcomings of the Study

One serious shortcoming of this study is the lack of variables to make more effective comparisons on the spatial analysis. Although the analyses in this study seem to have shown a connection between the homeownership and crime at least to some extent, there might be other potential factors which could affect the crime rate. Those potential factors include, 1) area's racial composition, 2) resident's educational level and income level, 3) family composition, 4) the condition of built environment in the area, 5) means of transportation, and many others. Although I have been able to collect some of the factors described above, those are numerical data only, and not spatial data. Without taking the variety of these variables into consideration spatially, the study of the spatial relationship between homeownership and crime can not be analyzed effectively.

6.3. Suggestion for Further Studies

For a more in-depth study, more variables would be needed. Since the cause of crime and perception of safety within a neighborhood are very complicated, a researcher who desires to find out a spatial relationship between homeownership and crime patterns would need to take into consideration not only the tenure conditions but also as many other potential variables as possible.

6.4. Conclusion

The positive impacts of the homeownership have been studied for years. Those impacts include not only the owner's care of the surrounding physical environment, such as prevention of physical deteriorations and preservation of aesthetics of housing units, but also owner's own desire to keep their community safe for themselves and for their family. Their desire would likely lead them to actively communicate with other residents and talk about safety of their neighborhood. They may try to keep their eyes on the street as much as possible so that they can prevent potential criminals by themselves. Eventually, they may create a notion of "community-pride" among the residents of the neighborhood.

Although there may not be a direct connection between the homeownership and crime and perception of safety, the homeownership may create the notion of the community-pride which would become a vital element of quality of life in the neighborhood.

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