UNDERSTANDING FAMILY HOMELESSNESS IN NEW YORK CITY

An In-Depth Study of Families' Experiences Before and After Shelter

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Executive Summary

Families are accessing homeless shelters in record numbers in cities across the United States, and New York City is no exception. After a 10-year period of relative stability, the number of homeless families in New York City grew by 22 percent in 2001 and by another 35 percent in 2002.[1] By 2003, there were more than 9,000 families living in the city's homeless shelters on any given night. In response to this record demand for family shelter, in spring 2003 the New York City Department of Homeless Services, the New York City Department of Housing Preservation and Development, the New York City Housing Authority, and the Office of the Mayor asked the Vera Institute of Justice to conduct a series of research projects on homeless families, including a study of families living in New York City's homeless shelters. The goal of this initiative was to help the city better understand why families become homeless and to provide the city with the information needed to shift away from operating costly shelter toward more cost-effective and preventive approaches to homelessness, which are less disruptive for families.

Project Goals and Key Questions

City officials needed to know more about the specific pathways that lead families into the shelter system so that they could develop targeted strategies to prevent people from becoming homeless and enter shelter. To provide a more complete understanding of the dynamics of homelessness, we sought to answer the following key questions:

- What neighborhoods do families come from immediately before they enter shelter and what characteristics distinguish these neighborhoods from others?
- What factors contribute to families entering the shelter system?
- What factors contribute to families returning to the shelter system after placement in permanent housing?

To answer these questions, we developed an approach and research design that built upon previous research and took full advantage of this unprecedented collaboration between city agencies by piecing together administrative data, staff experience, and other resources from each agency. A summary of the methods we employed and key findings for each major research question follows:

What neighborhoods do families come from immediately before they enter shelter and what characteristics distinguish these neighborhoods from others?

[1] New York City Department of Homeless Services, "Critical Activities Report – Fiscal Year 2003" (Family Services and Adult Services).

To identify the neighborhoods that produced the greatest number of homeless families, Vera conducted a geographic analysis using data from the Department of Homeless Services (DHS) on the last addresses of homeless families before they entered shelter. We supplemented this data with additional information provided by the city's Department of Housing Preservation and Development (HPD) and the New York City Housing Authority (NYCHA) resulting in a data set of almost 22,000 cases. Among other variables, we looked at how the distribution of families from these neighborhoods varied by family composition and the size of the buildings where families lived before they entered the shelter system. A series of analyses with U.S. Census and DHS data helped us to better understand what factors distinguished those neighborhoods that produced a high number of homeless families from those that produced less. Finally, we produced a series of maps to visually represent the findings. The key findings from are as follows:

- *Almost half of all eligible homeless families came from 10 community districts in New York City.*[2] These districts were primarily located in the Bronx, central Brooklyn, and northern Manhattan and represent 17 percent of all districts in the city.

- *Twelve Census tracts produced 75 or more homeless families each during the study period.* Each of these tracts is roughly the size of several square city blocks. Combined, these tracts contributed 1,257 families during the four-year study period.

- *15 Census tracts produced 50 or more eligible homeless families per 1,000 households during the four-year study period.* Tracts with high rates (50 or more families per 1,000 households) were primarily located in the Bronx, central Brooklyn, and northern Manhattan.

- *The last addresses of most families, regardless of their family composition, were concentrated in the Bronx, central Brooklyn, and northern Manhattan.*[3] For the 2003 fiscal year, 64 percent of eligible entrants to the Emergency Assistance Unit—the front door to the city's shelter system for families—were households headed by single adults; 21 percent were two-adult households; and 10 percent were two adults without children. Density maps created to visually identify the origins of eligible families by family composition revealed that there was little variation in the geographic distribution of last addresses of homeless families regardless of family composition.

- *Several neighborhood conditions were identified as strong and discrete indicators of high levels of homelessness*. The strongest indicator of the number of families a neighborhood produced was the number of people receiving public assistance in that area. In addition, the

[2] New York City's 59 community districts are based on U.S. Census data on, among other things, population and demographics of a given geographic area of the city.
[3] This analysis was based on fiscal year 2003 data, which included a total of 8,675 cases.

number of homeless families a neighborhood produced was also associated with the number of families living below the poverty line, African-American residents and vacant housing units.

- *The majority of families coming from small buildings (one to nine units) came from Queens and Brooklyn, while families from larger buildings were more concentrated in Harlem and the Bronx*.[4] Forty percent of families who entered shelter came from small buildings (one to nine units); 28 percent of families came from medium-sized buildings (10 to 49 units); and the remaining 32 percent came from large buildings (50 or more units).

- *The rates of families who entered shelter varied by the type of building.* Across the city, an average of 1.42 families per building entered the shelter system. NYCHA and Mitchell-Lama buildings produced averages of 2.52 and 2.40 families per building, respectively.[5] Other building types yielded an average of 1.30 eligible families per building.

What factors contribute to families entering the shelter system?

Vera conducted a survey of 327 randomly selected families living in emergency shelters in New York City. By capturing information on families' personal experiences and prior housing characteristics, the events and conditions they faced during the five years before they entered shelter, and their own understanding of the significance of those events, we hoped to increase understanding about the role that loss of employment, loss of public benefits, informal and formal eviction, family instability, domestic violence, health problems, substance abuse, and incarceration played in causing families to enter the shelter system. To do this, we developed a comprehensive survey instrument that incorporates closed and open-ended questions, as well as a life-history calendar that collects retrospective data on the frequency, timing, and nature of the key events during the five years before families entered emergency shelter. We analyzed the data using descriptive techniques and extensive multivariate analyses. The key findings from this study are as follows:

- *Most heads of homeless families reported having a relatively stable housing history before they entered shelter*. Fifty-two percent lived in either one or two residences during the five years prior to entering shelter; only 12 percent of families lived in five or more residences. In addition to living in relatively few residences during this time, the majority of respondents were the leaseholder for their residence at some point during these five years.

[4] From the case file of 22,037, this analysis was based on a subset of 20,015 cases that excluded cases with missing building size codes.
[5] Mitchell-Lama is affordable housing for moderate-income families. These buildings are supervised by HPD and the federal department of Housing and Urban Development.

- *The majority of heads of households had work histories and educational levels that suggest that they are employable.* In the five years before they entered shelter, 79 percent indicated that they worked and more than half of the heads of household had at least a high school diploma.

- *Respondents also relied heavily on government assistance—in addition to work—to support their families*. Seventy-seven percent of families received some form of public assistance such as Food Stamps, Medicaid, or TANF (Temporary Assistance for Needy Families).

- *Families struggled to maintain stability in the face of a range of destabilizing life events.* The most prevalent of those events was job loss, which more than two-thirds of the people interviewed experienced in the five years before they entered shelter.

- *Informal and formal eviction was another highly prevalent—and deleterious—life event from the perspective of those involved*. Almost half of all families experienced an informal or formal eviction.

- *Despite the existence of services and resources in New York City to help families avoid eviction, most families did not fight their eviction*. In fact, across the various jarring events that families experienced during the five years prior to entering shelter, only a quarter sought and received services that might have helped them cope with these problems.

- *Certain factors and events had an immediate effect on a family's risk of entering shelter.* Experiencing homelessness, an informal or formal eviction, domestic violence, and receiving public assistance increased the likelihood of a family entering shelter within the same month of experiencing these destabilizing events. On the other hand, living in subsidized housing, being the leaseholder, and living in a residence for a longer time decreased the likelihood of entering shelter.

What factors contribute to families returning to the shelter system after placement in permanent housing?

Vera analyzed administrative data to better understand the experiences of families who return to shelter after being placed in permanent housing. This work built upon a recidivism study conducted by Dennis Culhane in 1996. We replicated and expanded this study to answer the following questions: Have recidivism rates changed since Culhane's research was conducted in the mid-1990s? What are the recidivism rates of families if the follow-up period of tracking families' experiences extends beyond two years? For those families who re-entered shelter after being placed in subsidized housing, how long did they stay in their original placement and if they left placement, why?

To answer these questions, Vera analyzed data from DHS, HPD, and NYCHA on families who exited the shelter system in 1994, 1998, and 2001. These cohorts allowed us to follow families for up to 10 years and to see how recidivism rates varied over time. To minimize the numbers of unknown exit placements, we validated exit placement codes by matching data from the housing department and housing authority. We conducted this analysis in two phases: we first looked at the re-entry patterns of all families who exited shelter and then looked at the experience of those who left shelter for subsidized housing. The key findings from phase one of these analyses are as follows:

- *Roughly one-third of families who exited shelter in 1994 returned within 10 years.*

- *The risk of returning to shelter was generally highest in the two-year period immediately following exit.*[6] However, this pattern does not hold for those who exited shelter to subsidized housing. Among those who obtained subsidized housing, risk of return was low and consistent over time.

- *Among the various exit categories, subsidized housing provided the best protection against repeat shelter use, whereas exit to unknown arrangements provided the worst protection.* Among different types of subsidized housing, NYCHA and non-EARP Section 8 placement were associated with the lowest risk of return to shelter.

- *Certain demographic risk factors accelerated shelter return*. Families headed by single fathers, families with young heads of household, families with a pregnant female member, and families with a large number of children were more prone to returning to shelter than other family types.

In addition, in phase two, we replicated the analysis on a subset of the cases of families who were placed into NYCHA subsidized housing. Specifically, we examined the differences between those families who stayed in subsidized housing and those who left. For those families who left subsidized housing, we examined the length of their stay in subsidized housing and the time of their exit. We also looked at the differences between those who left and returned to shelter and families who did not return to shelter.

- *More than half of the families who exited shelter for NYCHA subsidized housing left subsidized housing within 10 years.*

[6] We defined shelter exits as exits lasting 30 continuous days or longer. Thus, those families who left the shelter system, only to return shortly thereafter, would not be counted as exits. Length of stay was therefore operationalized as a continuous shelter spell with no temporary departures of longer than 30 days. This "30-day exit criterion" is typical in extant research. See, for example, Culhane and Kuhn 1998; Sosin, Piliavin and Westerfelt 1990; Wong and Piliavin 1996; and Wong, Culhane and Kuhn 1997.

- *The risk of exit from subsidized housing peaked at yearly intervals.* Failed annual inspections and re-certifications may have caused these spikes in exits from subsidized housing. For those families who lost subsidized housing, the risk of returning to shelter seems to have been higher.

- *Among those who left subsidized housing, certain characteristics were associated with an increased risk of returning to shelter:* having a young head of household; being a two-parent family; being a large family; earning less than $12,000 per year; exiting from public housing or EARP Section 8 (versus non-EARP Section 8); and being evicted, failing an annual apartment inspection, or failing an annual income review.[7]

The research projects and survey of homeless families the Vera Institute conducted on behalf of the New York City Department of Homeless Services, Department of Housing Preservation and Development, the New York City Housing Authority, and the Office of the Mayor aimed to provide a more complete understanding of the dynamics of family homelessness than has been possible in past efforts. We hope this work will help city agencies develop strategies to reduce family homelessness and allocate resources and target services to prevent repeat family homelessness among New York City residents.

A detailed discussion of the methods used and key findings from this work is included in the sections that follow this summary.

[7] The city's Emergency Assistance Re-housing Program, or EARP, provided Section 8 vouchers to eligible homeless families living in the shelter system. The program was discontinued in October 2004.

Acknowledgments

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Additional copies can be obtained from the communications department at the Vera Institute of Justice, 233 Broadway, 12th Floor, New York, NY 10279, (212) 334-1300. An electronic version of this report is available on Vera's web site, www.vera.org.

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Section I: What Neighborhoods Do Homeless Families Live in Immediately Before They Enter Shelter in New York City?

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Introduction

In collaboration with the Department of Homeless Services (DHS), the Department of Housing Preservation and Development (HPD), and the New York City Housing Authority (NYCHA), the Vera Institute of Justice (Vera) conducted an analysis of the geographic origins of homeless families in New York City. This analysis was guided by the following two research questions:

- What neighborhoods are producing the greatest number of homeless families?
- What characteristics distinguish those neighborhoods that produce high numbers of homeless families from those that produce fewer families?

This report provides a summary of the key findings from this analysis. For each of the research questions, it discusses the methodologies used, key findings, and the implications of those findings on the City's efforts to prevent homelessness among families. Please refer to Appendix A for all referenced figures.

What Neighborhoods Produce the Greatest Number of Homeless Families?

Through the analysis of the geographic origins of homeless families, we identified neighborhoods within New York City that have high concentrations of "last addresses" of families before they enter the family shelter system. This concentration of addresses across some neighborhoods and not others suggests that families living in the "high producing" neighborhoods may be more likely to become homeless and come into the shelter system than families living in "low producing" neighborhoods. Thus, it makes sense for the City to target its limited prevention resources to those "high producing" neighborhoods rather than using a non-specific, city-wide approach. DHS's recent release of a request for proposals to establish neighborhood-based homeless prevention services in six communities with high incidences of homelessness represents an important step in adopting a neighborhood-based prevention strategy.

One of the challenges inherent in targeting resources and services to the neighborhood level is defining the appropriate size of a neighborhood to target. In this analysis, we identified "high producing" areas on three different levels including community district (CD), census tract, and street address. The CD level is useful in identifying high-risk areas within the city. Because variation exists with regards to the geographic distribution of eligible homeless families within CDs, prevention services may also be further targeted within certain Census tracts in the CD. For example, a prevention program serving a particular CD may use an address from a "hot-spot" census tract as a secondary eligibility criteria or as a way to prioritize some families for limited prevention resources. It may be useful for the City to consider targeting prevention services to "high risk" buildings, as we found 20 addresses that contributed 10 or more families each during the study period.

Methodology

To identify the neighborhoods that are producing the greatest number of homeless families, Vera conducted a series of geographic analyses using the "last address" variable in DHS's Client Tracking System (CTS) for the time period July 1, 1999 to June 30, 2003. This field contains the addresses where families stayed immediately before they entered the family shelter system. For families with multiple shelter stays during this time period, the data set only includes the address associated with their most recent shelter stay. To supplement this information, Vera obtained building-related data for addresses contained in this file from a data match conducted by HPD.

The initial dataset for July 1, 1999 to June 30, 2003 contained 24,448 cases. This analysis was based on a subset of this file that excluded: (1) cases with a last address outside of New York City; (2) cases within the city that did not geocode; and (3) cases with a last address that are DHS homeless shelters. These exclusions resulted in a total number of 22,037 cases.

Key Findings

To identify where homeless families are coming from, Vera tabulated the last address of eligible families at three geographic levels within the city: community districts (CDs), census tracts, and street address. The key findings from these analyses are as follows:

Almost half of all eligible homeless families came from 10 community districts in New York City. These CDs are primarily located in the Bronx, central Brooklyn, and northern Manhattan. They represent 17% of all CDs in the city. Table 1 identifies these CDs and the number of eligible homeless families coming from these CDs during the study period.

Table 1. Number of Unduplicated Eligible Homeless Families by Top Ten Community District, FY 1999 – FY 2003.

Community District Number	Neighborhood(s)	Number of Eligible Homeless Families
303	Bedford/Stuyvesant	1,355
305	East New York	1,195
205	Morris Heights, University Heights, Fordham	1,193
204	Highbridge, Concourse	1,174
209	Sound View	937
110	Central Harlem	930
412	Jamaica, S. Jamaica, Hollis	913
316	Ocean Hill, Brownsville	858
201	Mott Haven, Melrose	802
203	Melrose, Morrisania, Claremont, Crotona Park East	787
	TOTAL	**10,144**

See Figure 1 for a visual representation of the number of unduplicated eligible homeless families per community district.

12 Census tracts produced 75 or more homeless families each during the study period. Each of these tracts is roughly the size of several square city blocks. Combined, these tracts contributed 1,257 families during the four year study period. Table 2 lists the neighborhoods where these 12 tracts are located and details the number of eligible homeless families coming from each tract for the study period.

Table 2. Number of Unduplicated Eligible Homeless Families for Census Tracts Contributing 75 or More Families, FY 1999 – FY 2003.

Census Tract Number	Neighborhood	Number of Unduplicated Eligible Homeless Families
017700	Claremont	145
014700	Claremont	131
038300	Fordham	128
005000	Bronx River	127
023701	Fordham	119
023900	Fordham	98
023000	Central Harlem	91
018900	Highbridge	88
040500	Bedford Park	87
032600	Coney Island	82
013300	Morrisania	81
039100	Belmont	80

See Figure 1a for a visual representation of the number of unduplicated eligible homeless families per census tract.

15 Census tracts produced 50 or more eligible homeless families per 1,000 households during the four year study period. To better understand the effects of population on the numbers of homeless families a Census tract contributed, we created a rate of eligible homeless families per 1,000 households in each tract. Those tracts with high rates (50 or more families per 1,000 households) are primarily located in the Bronx, central Brooklyn, and northern Manhattan.

Table 3. Rate of Unduplicated Eligible Homeless Families per 1,000 Households for Census Tracts Contributing 50 or More Families per 1,000 Households, FY 1999 – FY 2003.

Census Tract Number	Neighborhood	Rate of Unduplicated Eligible Homeless Families Per 1,000 Households
001100	Port Morris	103.17460
041000	Hollis	101.56250
021302	Central Harlem	72.72727
021702	Highbridge	71.42857
021900	Highbridge	68.79607
090400	Brownsville	66.66667
020200	East Harlem	64.51613
002902	Brooklyn Navy Yard	62.24066
036300	Brownsville	61.01695
037501	East Tremont	59.25926
115200	East New York	57.50000
111200	New Lots	55.92105
016700	Bathgate	55.66219
017700	Claremont	54.55229
116600	East New York	51.04712

See Figure 2 for a visual representation of the rate of unduplicated eligible homeless families per 1,000 households by Census tract.

In addition to these analyses, we examined the data to see how the geographic distribution of families differed by key variables like family composition, reasons for homelessness, and building size of the last address of families before they entered the shelter system. The key findings from this work include the following:

Last addresses of most families, regardless of their family composition, are concentrated in the Bronx, central Brooklyn, and northern Manhattan.[1] For the 2003 fiscal year, 64% of eligible entrants to the EAU were single adult-headed households; 21% were two adult households; and 10% were two adults without children. We produced kernel smoothing density maps (figures 3a – 3d) to visually identify the origins of eligible families by family composition that were independent of geographic boundaries such as tracts or community districts. These maps reveal little variation in the geographic distribution of last addresses of homeless families by family composition, including two adult families with children, single adult families with children, and two adult families without children.

[1] This analysis was based on fiscal year 2003 data, which included a total of 8,675 cases.

The reasons for families becoming homeless did not vary significantly by neighborhood.[2] During the four year study period, the two most common reasons for homelessness listed in the CTS were overcrowding, representing 39% of all cases, and eviction, which accounted for another 23% of reasons.[3] Other reasons cited (in decrease order of size) included domestic violence, family discord (not DV), unlivable conditions, financial strain, crime situation, and illegal lockout. We mapped the last addresses of families by reason code (figures 4a – 4h). These maps revealed similar patterns of geographic distribution with points representing the last addresses of eligible families primarily concentrated in the Bronx, central Brooklyn, and northern Manhattan for each reason code.

The majority of families coming from small buildings (1 – 9 units) came from Queens and Brooklyn, while families from larger buildings are more concentrated in Harlem and the Bronx.[4] We analyzed the size of the buildings where homeless families came from. Forty percent of families came from small buildings (1 – 9 units); 28% of families came from medium size buildings (10 – 49 units); and the remaining 32% came from large buildings (50 or more units). Figure 5 shows the proportion of families from each building size category varied by community district.

[2] There are some limitations to the data on reasons for homelessness. The foremost limitation is that the field is restricted to a single reason for homelessness. The reasons that any particular family applies for shelter are complex and multi-factorial. Thus, the attribution of a single reason is a simplification. The survey of homeless families will help us to better understand the complexity of reasons. This understanding will be crucial in developing prevention strategies that meet the complex needs of families at-risk of homelessness.

[3] From the case file of 22,037, this analysis was based on a subset of 18,514 cases that excluded cases with an invalid or missing reason code.

[4] From the case file of 22,037, this analysis was based on a subset of 20,015 cases that excluded cases with missing building size codes.

What Characteristics Distinguish Neighborhoods that Produce High Numbers of Homeless Families From Those that Produce Fewer Families?

Vera conducted a series of analyses to understand the spatial relationship of homelessness to specific economic, demographic, housing, and neighborhood characteristics. Building on previous work by Culhane, the analyses allow us to identify factors that have significantly impacted the number of homeless families that emerge from a given neighborhood.

The significant factors identified in the analyses below serve to identify the characteristics that impact the number of homeless families in a neighborhood. In addition, the analyses point to indicators that can be tracked in order to assess the scope of homelessness in the City and some factors that can be addressed in creating geographically administered strategies to prevent homelessness.

Methodology

The model used for the analysis is OLS regression. The regression model allowed us to see how changes in census characteristics impact the number of EAU families in a tract. The data Vera used to perform the regression analysis comes from two sources: 1) the 2000 U.S. Census and 2) Department of Homeless Services' Client Tracking System.

Given the characteristics of the data, we adjusted the data to remove outliers. The tracts that had a confirmed disproportionate impact on the analysis were excluded. As a result, the sample size was reduced from 2,217 tracts to 1,984 tracts. Then, we ran descriptive statistics to generate a profile of the census tracts in the two samples. In running the descriptive statistics of the average tract in the general sample and the excluded outlier tracts, we noted considerable differences. Table 4 (in Appendix B) provides mean statistics for the general sample of 1,984 tracts and for the outlier sample of 233 tracts. As is evident, the average tract in the 1,984 has a total population of 3,144, close to 9 families that have entered the EAU system, approximately 87 families receiving public assistance, and 634 families living below the poverty level. In contrast, the smaller sample of 233 outlier tracts have a total population of 7,599, an average of 20 families that have entered the EAU, 239 families that receive public assistance, and 1,762 families below the poverty level. Thus, in general and across the different characteristics, the outlier tracts tend to be more populated, produce a higher number of families that enter the EAU, and are more socio-economically distressed than the average tract.

Given the differences in the two samples, we conducted the OLS regression analyses on the general sample of 1,984 tracts and the outlier sample of 233 cases. The two models allow us to make predictive observations based on differing census tract profiles.

Key Findings

Based on the regression analyses we were able to determine some characteristics that are associated with the number of EAU eligible families coming from a neighborhood. These results can help the City start to understand what distinguishes neighborhoods that produce many EAU eligible families from those that produce less.

For Vera's general model, the variables that have a significant effect on the number of EAU families coming from a particular census tract are listed below in order of the magnitude of the coefficients (from bigger to smaller). The direction of the relationship is indicated in parentheses. A negative relationship means that an increase in the specific characteristic, results in a decrease in the number of EAU families. On the other hand, a positive relationship indicates that as the number of the particular variable increases, the number of EAU-eligible families found in the tract increases. Table 5 (in Appendix B) shows the model used by Vera and reports the unstandardized and standardized coefficients for each model.

1. Number of families receiving public assistance (positive)
2. Number of families below poverty level (positive)
3. Race (Black) (positive)
4. Number of vacant housing units (positive)
5. Renter occupied units (negative)
6. Population not in labor force (positive)
7. Moved in fifteen months or less (positive)
8. Number of female headed households (positive)
9. Foreign born population who immigrated January 1990 to March, 2000 (negative)
10. Median contract rent (negative)
11. Race (Latino) (negative)
12. Ratio of median contract rent to median household income (positive)
13. Number of public housing dwelling units (negative)
14. No telephone service (positive)
15. Female headed households with children that are five years or younger (positive)
16. Unemployment (positive)

The analyses also show that when controlling for other factors some variables had no impact on the number of EAU-eligible families a certain neighborhood produces.

1. Population under 18
2. Population over 64
3. No high school diploma
4. Householder over 65
5. Number of subfamilies
6. Non-institutionalized persons in group quarters
7. Severe overcrowding
8. Number of people with SSI income
9. Number of families without plumbing
10. Number of families without kitchen facilities

This model is significant and shows an R^2 of .824, which means that the combination of variables included in this model explains most or 82.4% of the variance in the number of EAU eligible entrants between census tracts.

In Vera's outlier model, there are generally fewer variables that are significant. This may be a function of a reduced sample size of 233 tracts. In this model, the significant variables are:

1. Latinos (negative)
2. Female headed households (positive)
3. Number receiving public assistance (positive)
4. Number of vacant units (positive)
5. Number with SSI income (negative)
6. No telephone service (positive)

Comparing it to the general model discussed above, in this model the number of Latinos is now negatively related to the number of EAU families. In addition, receiving SSI is significant, whereas in the previous model it was not significant. This model is also significant and has an R^2 of .864, which means that the combination of variables included in this model explains most of the variance in the number of EAU eligible entrants between the Census tracts included in the sample.

Like Vera, Culhane, Lee, and Wachter's (1996) study sought to understand the relationship between census tract variables and the number of homeless families in a census tract. Focusing on New York and Philadelphia, the authors conclude that homelessness is more visible in areas that are experiencing poverty, that have a high number of female-headed families, and have larger numbers of unemployed residents.

Table 5 (in Appendix B) details the specific results of Culhane, Lee, and Wachter's models, Vera's general model of 1,984 tracts and Vera's outlier model of 233 tracts. Vera's findings are very similar to Culhane, Lee, and Wachter's results. Like him, we found that that the following variables were significant in affecting the number of EAU families in a census tract:

- Race (Black)
- Race (Latino)
- Female headed households
- Female headed households with children that are five years or younger
- Foreign born population
- Families receiving public assistance
- Families below poverty level
- Population not in labor force
- Median contract rent
- Ratio of median contract rent to median household income
- Vacant housing units

However, there are a few differences. The primary difference between Culhane, Lee, and Wachter's models and Vera's models is that we added six variables to the model. The added variables are number of public housing dwelling units, number of people receiving SSI income, number of families that moved into their dwelling within fifteen months, number of housing units without telephone service, number of housing units without plumbing, and number of housing units without kitchen facilities. Out of these variables, three were significant:

- Number of public housing units
- Number of people who moved in 15 months or less
- Number of households without telephone service

Furthermore, whereas our results show that the following variables are not significant (in the general model) Culhane, Lee, and Wachter's results showed them as significant predictors:

- Population under 18
- Population over 64
- No high school diploma
- Number of subfamilies
- Severe overcrowding

Finally, our models show that the number of renter occupied units is significant. In Culhane, Lee, and Wachter's work, this variable is found to not be significant.

Vera's regression analyses provide empirical evidence of the neighborhood characteristics that affect the number of homeless families that enter the EAU system. Furthermore, these findings display the factors that may be addressed in reducing homelessness at the neighborhood level.

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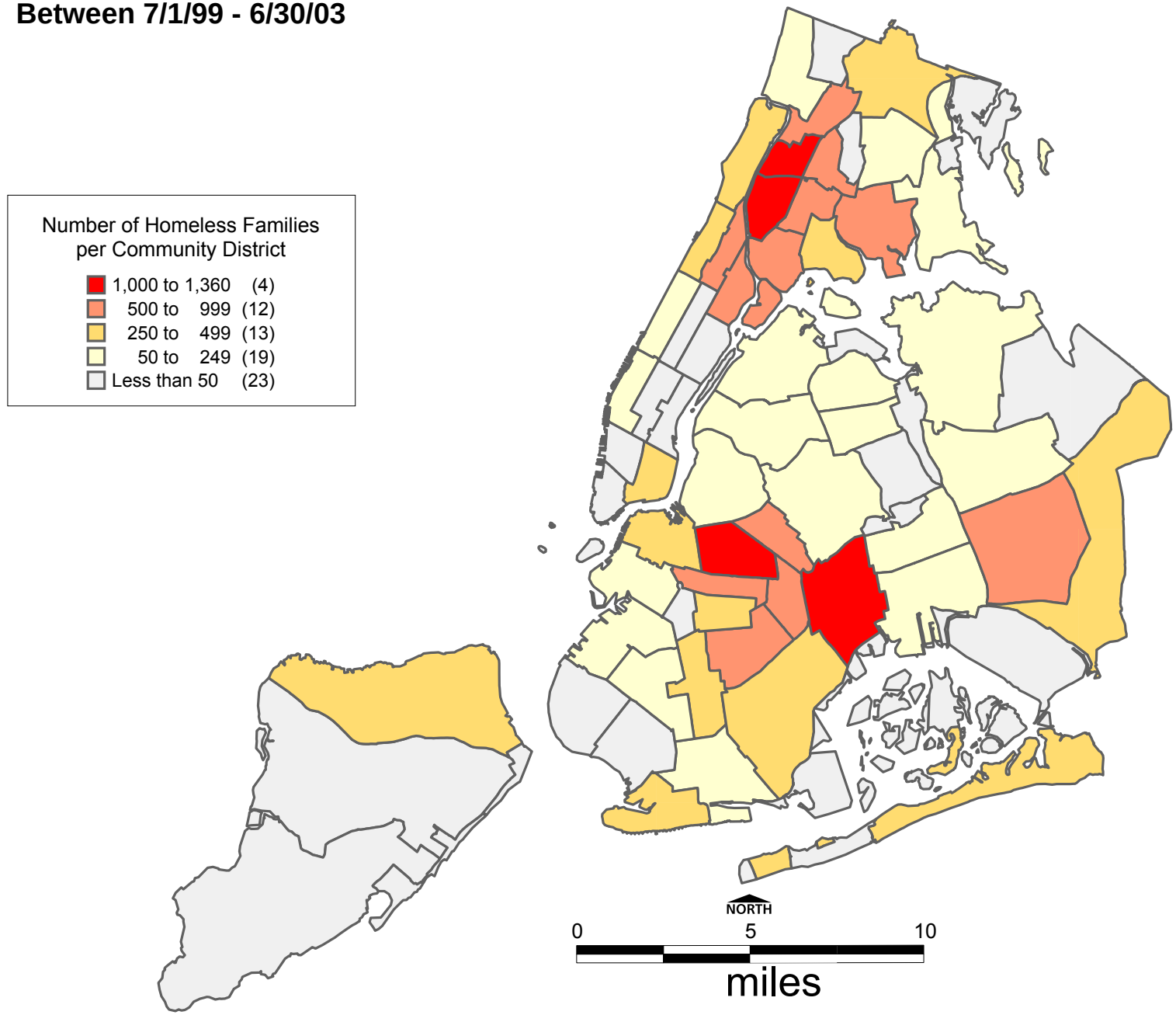
- Figure 4h. Point Map of Unduplicated Eligible Homeless Families with Illegal Lockout Reason Code.
- Figure 5. Building Size of Last Address of Unduplicated Eligible Homeless Families by Community District.

Figure 1. Count of Unduplicated Eligible Homeless Families by Community District (N=22,037)

Targeting Homelessness Prevention

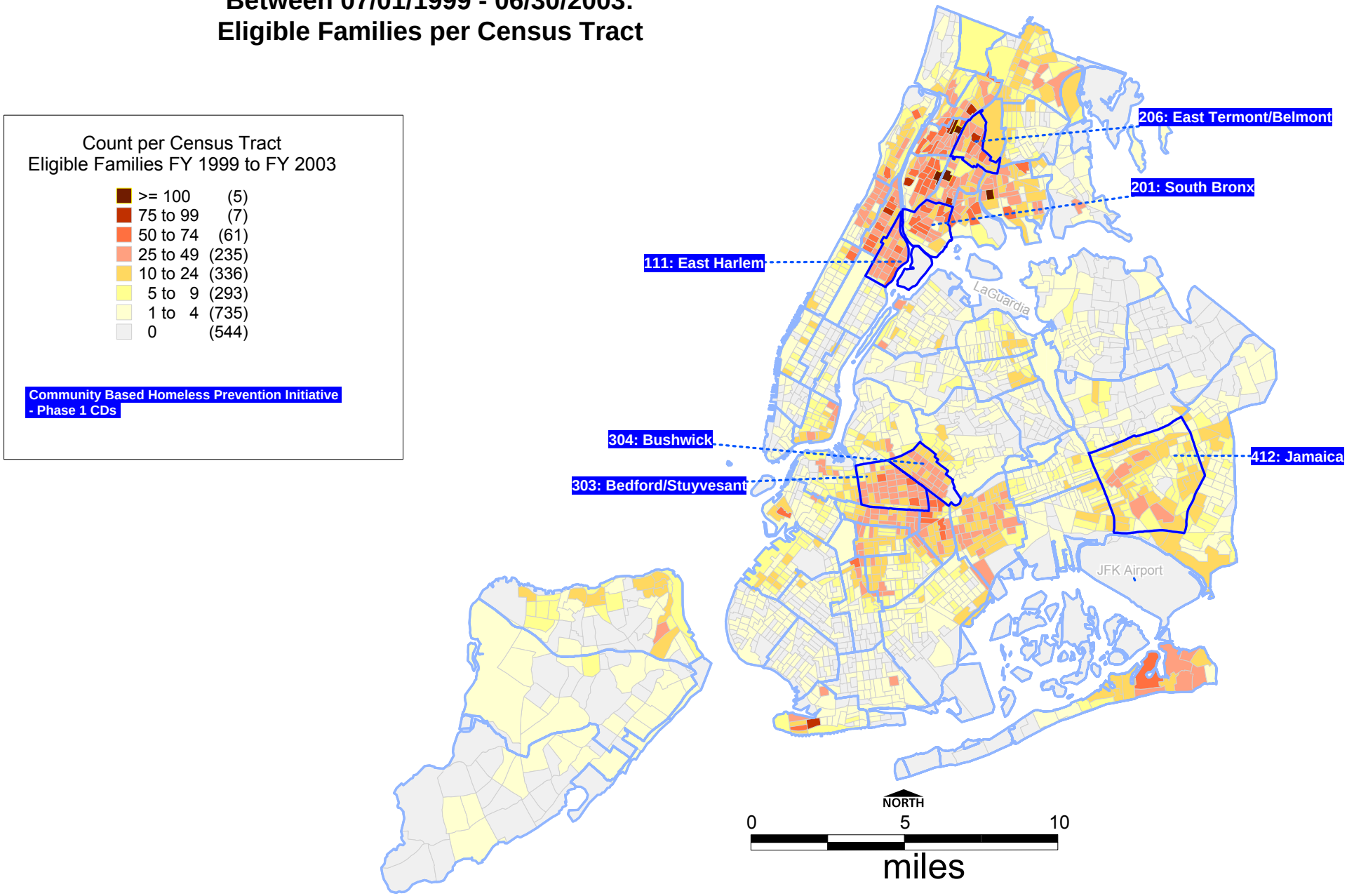
Homeless Families per Community District Between 7/1/99 - 6/30/03



Prepared by the Vera Institute of Justice
Data Source: DHS Client Tracking System (CTS)

Figure 1a. Count of Unduplicated Eligible Homeless Families by Census Tract (N=22,037)

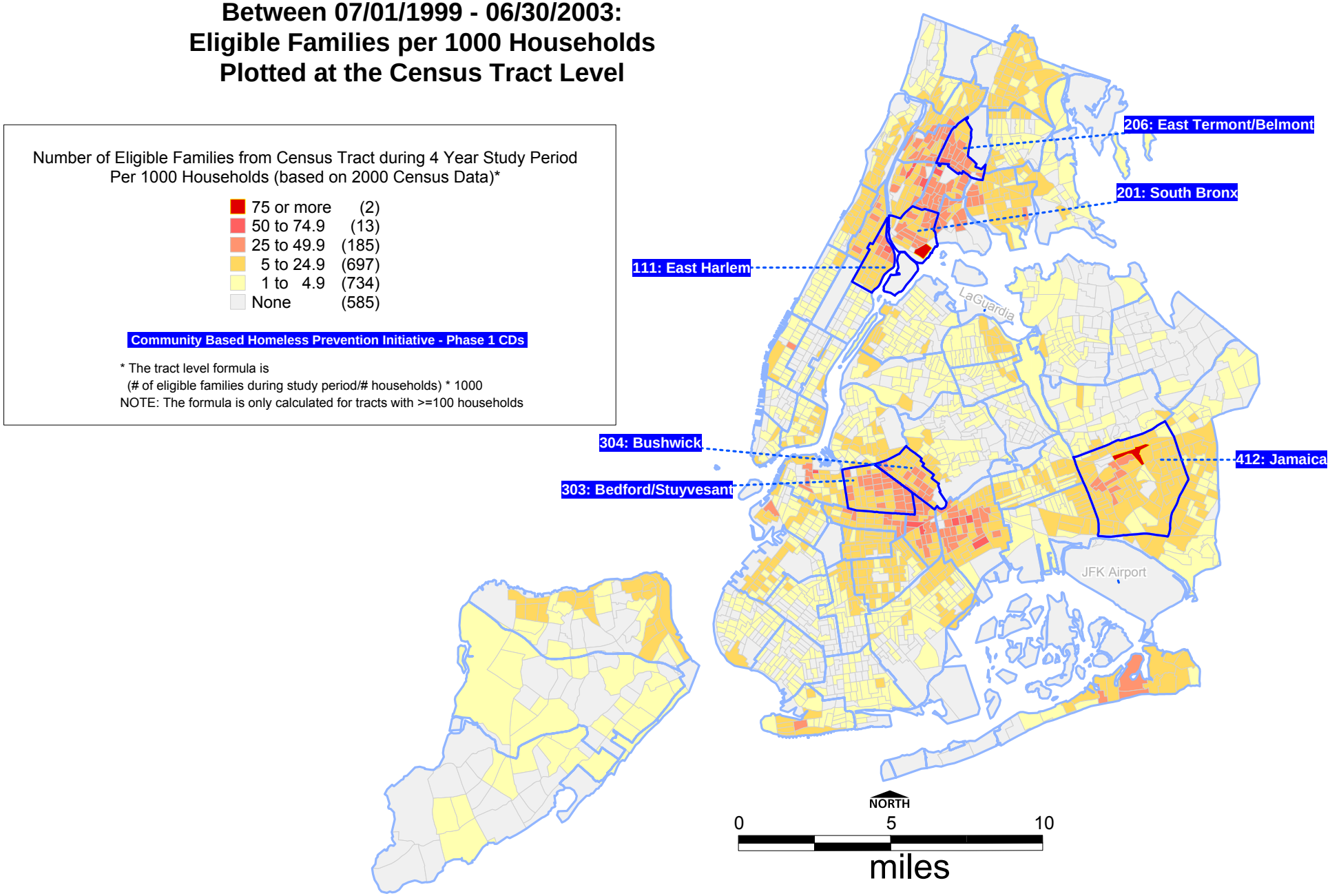
Department of Homeless Services -- Client Tracking System
Unduplicated Eligible Entries to DHS Family System
Between 07/01/1999 - 06/30/2003:
Eligible Families per Census Tract



Prepared by the Vera Institute of Justice

Figure 2. Rate of Unduplicated Eligible Homeless Families per 1,000 Households by Census Tract (N=22,037)

Department of Homeless Services -- Client Tracking System
Unduplicated Eligible Entries to DHS Family System
Between 07/01/1999 - 06/30/2003:
Eligible Families per 1000 Households
Plotted at the Census Tract Level



Prepared by the Vera Institute of Justice

Figure 3a. Density per Square Mile: All Eligible Families. (N = 8,675)

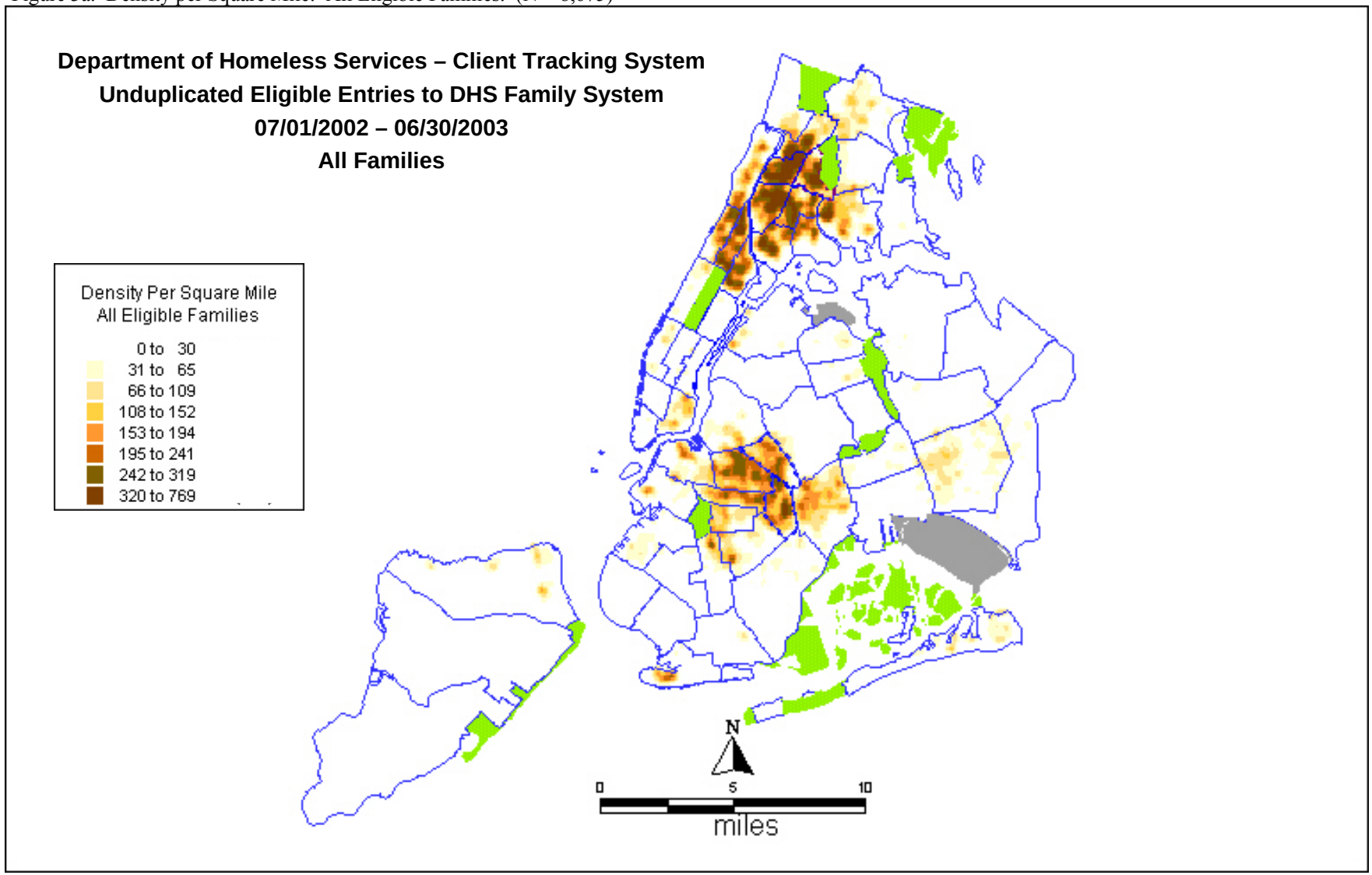


Figure 3b. Density per Square Mile: Two Adult Families with Children. (N = 1,839)

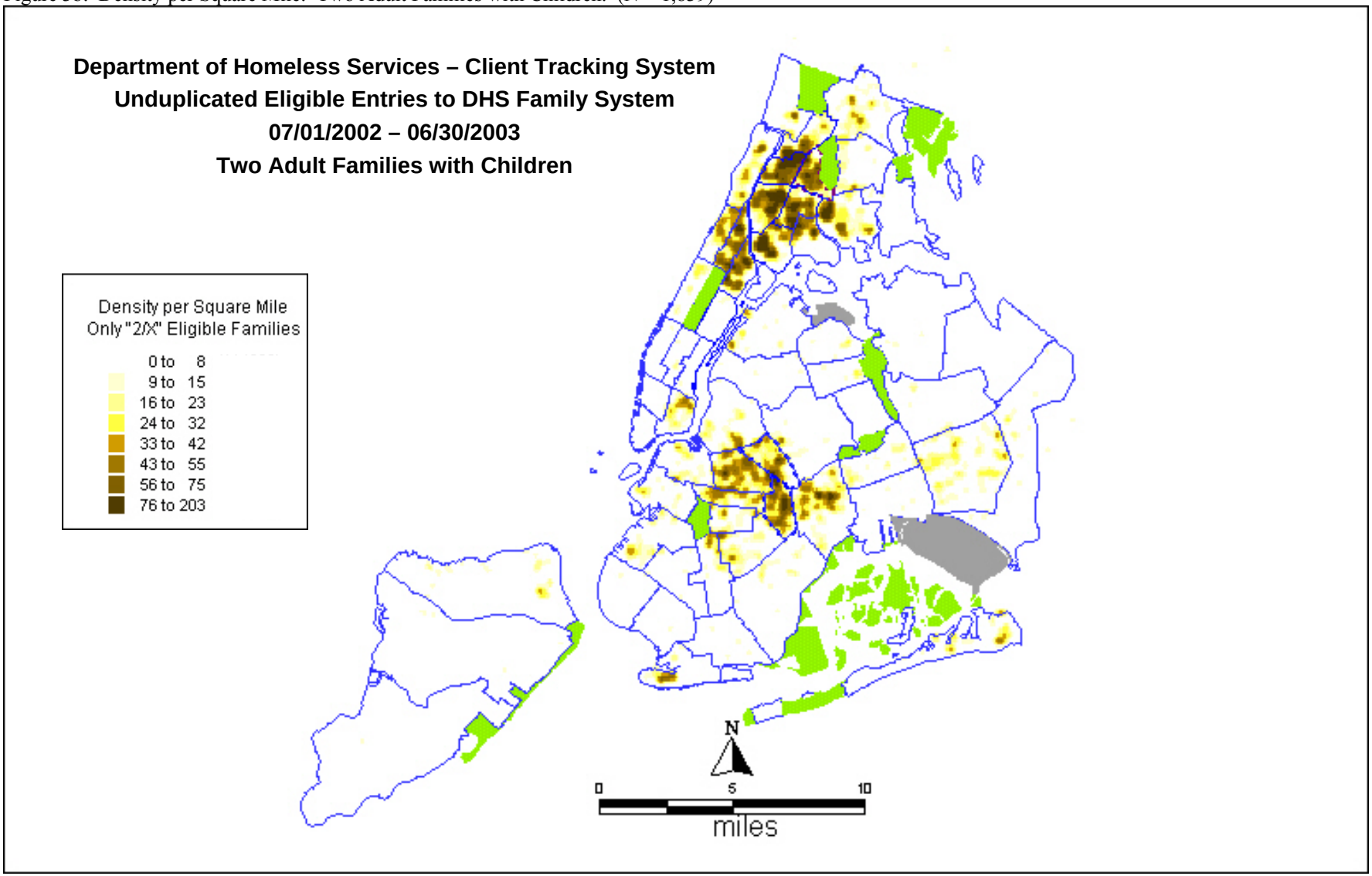


Figure 3c. Density per Square Mile: Single Adult Families with Children. (N = 5,587)

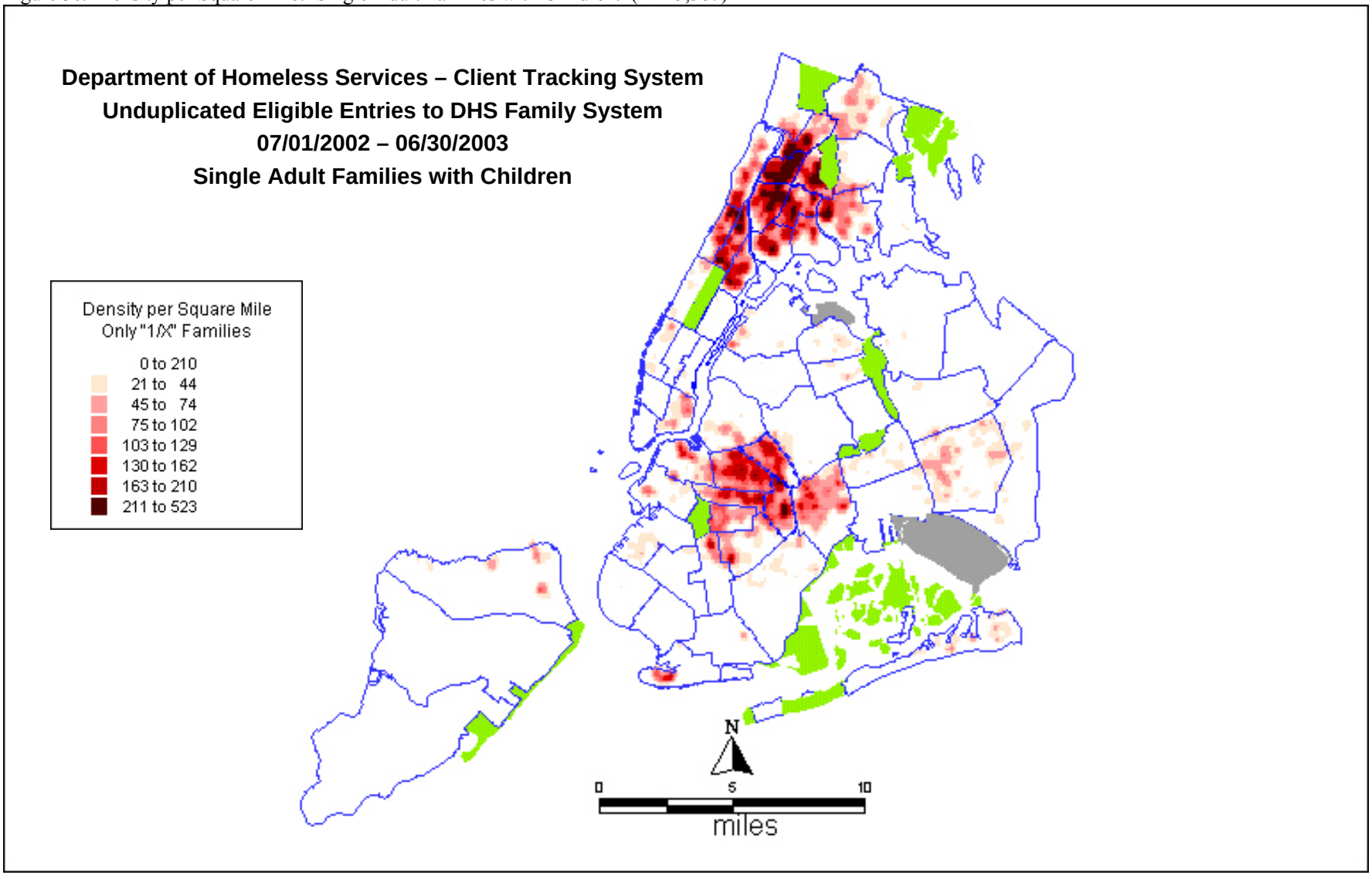


Figure 3d. Density per Square Mile: Two Adult Families without Children. (N = 827)

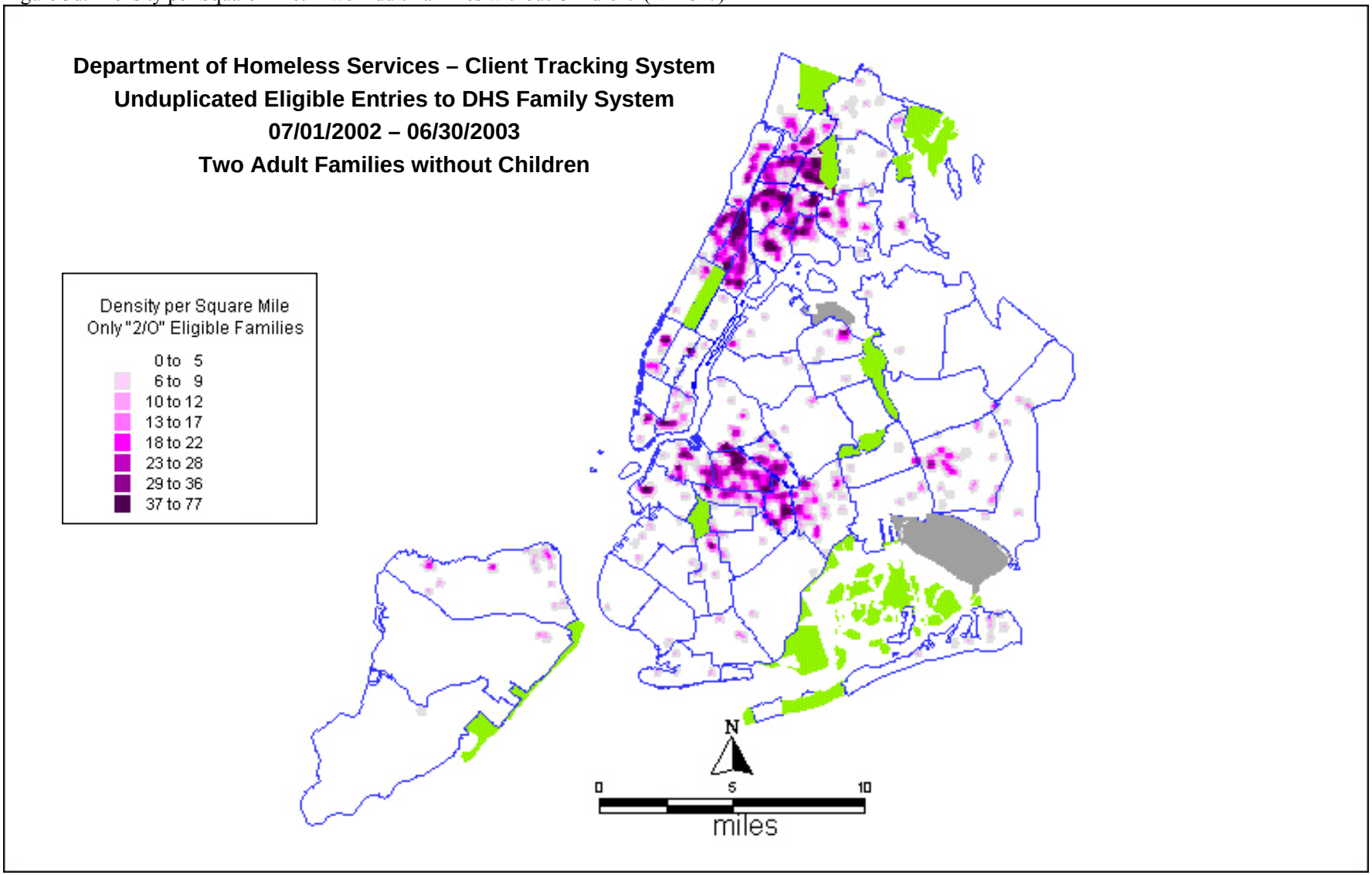


Figure 4a. Point Map of Unduplicated Eligible Homeless Families with Overcrowding Reason Code (N = 7,241)

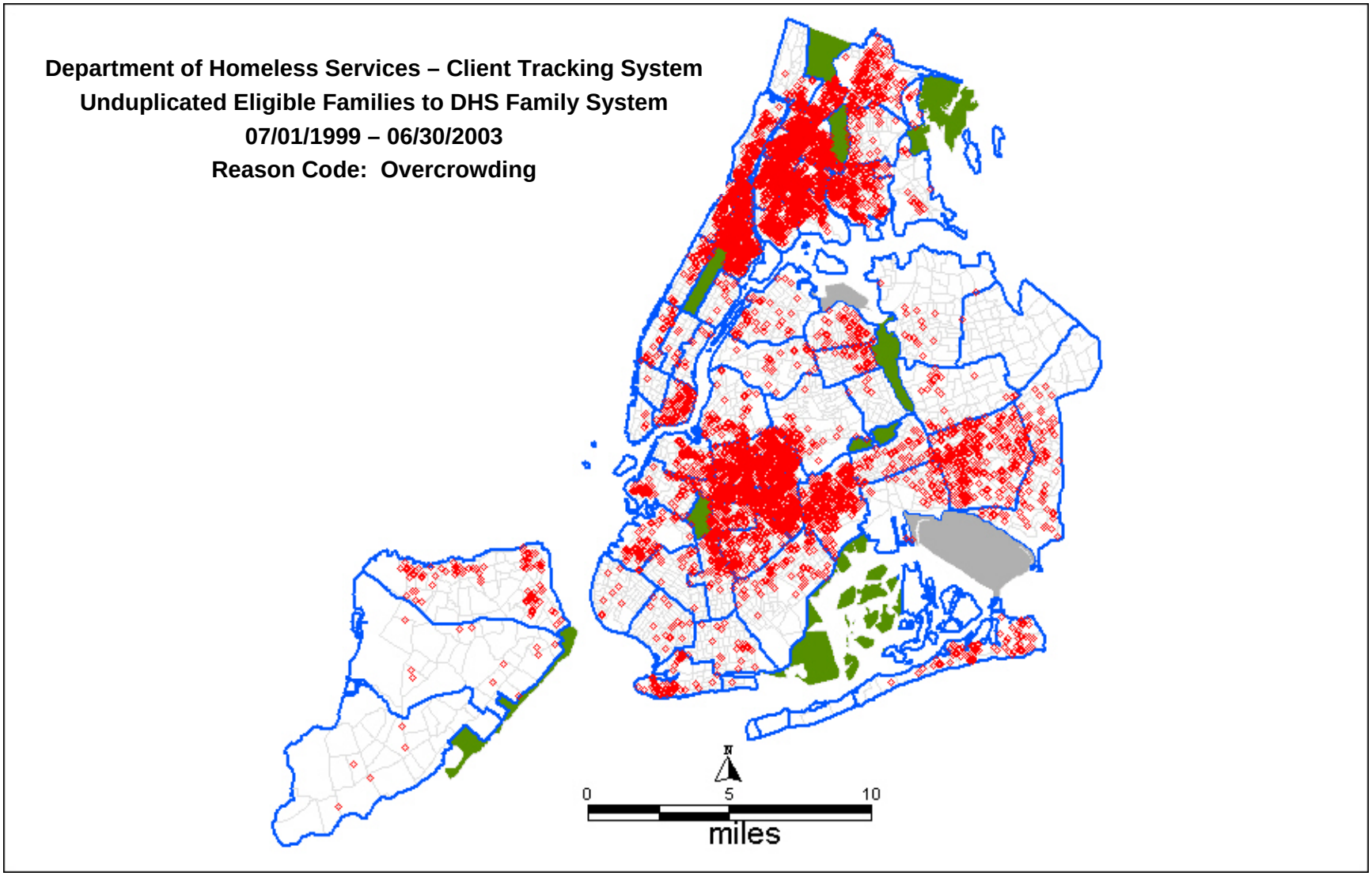


Figure 4b. Point Map of Unduplicated Eligible Homeless Families with Eviction Reason Code (N = 4,254)

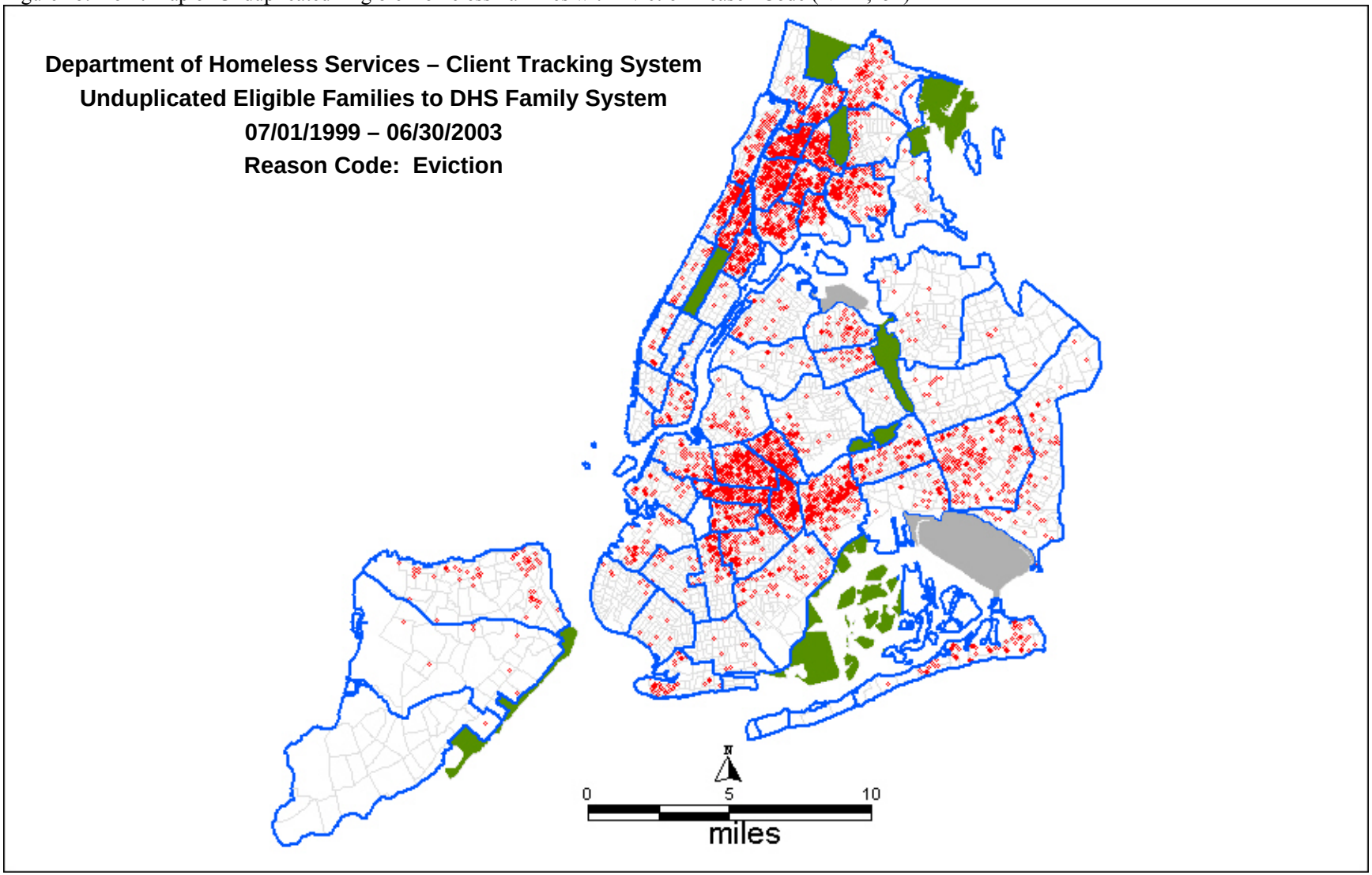


Figure 4c. Point Map of Unduplicated Eligible Homeless Families with Domestic Violence Reason Code (N = 2,564)

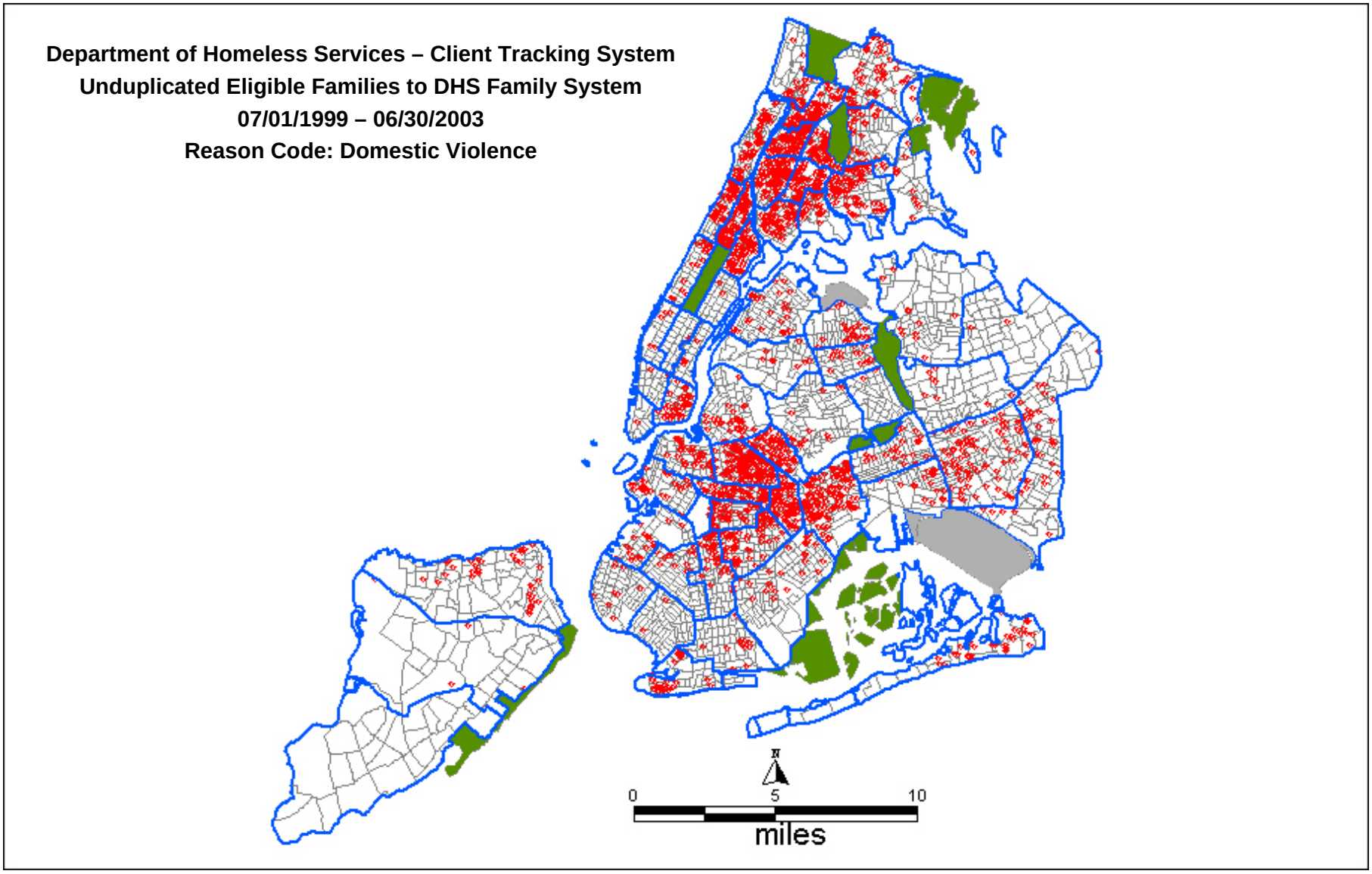


Figure 4d. Point Map of Unduplicated Eligible Homeless Families with Family Discord as Reason (N = 2,561)

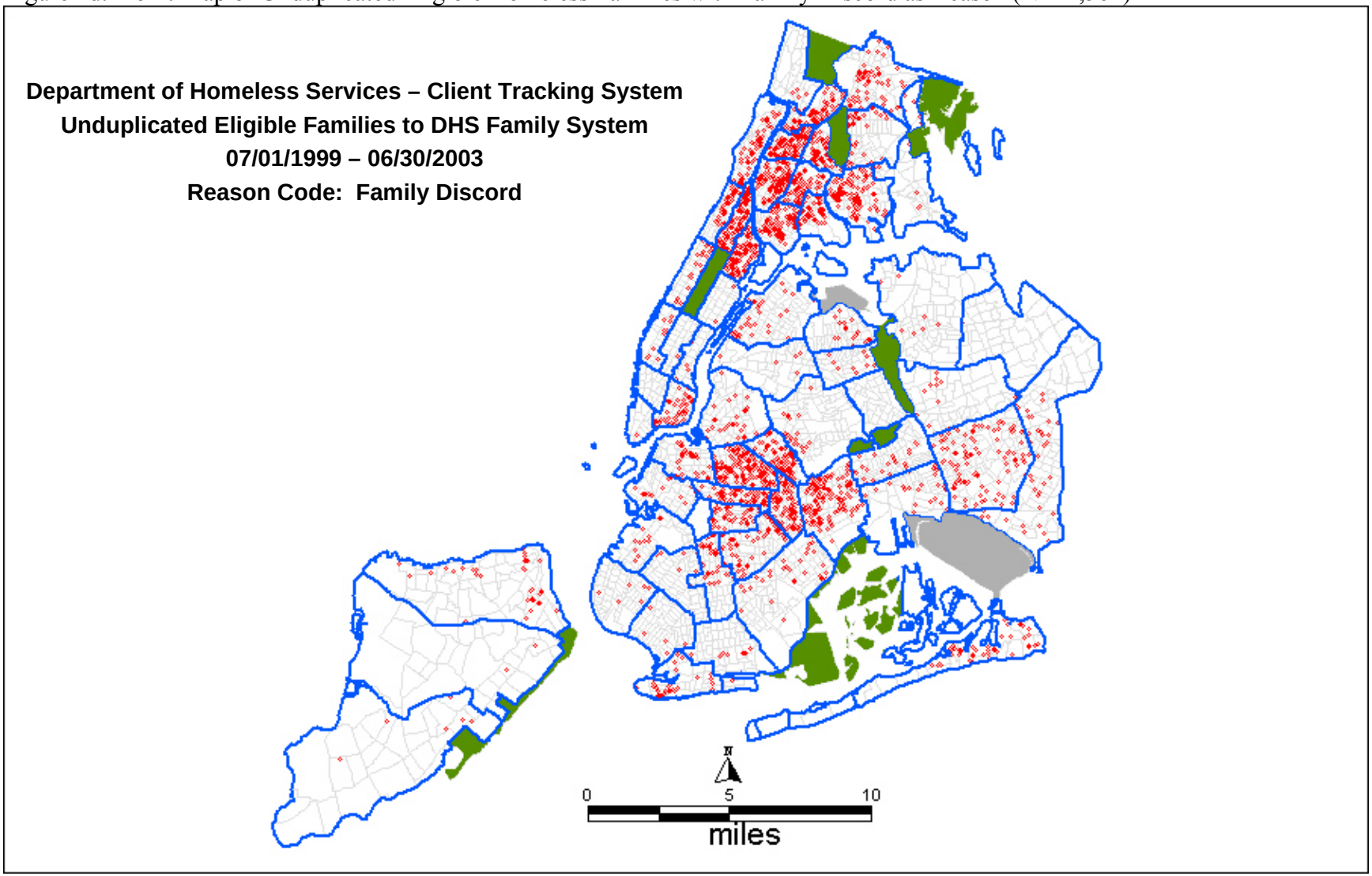


Figure 4e. Point Map of Unduplicated Eligible Homeless Families with Unlivable Conditions as Reason (N = 667)

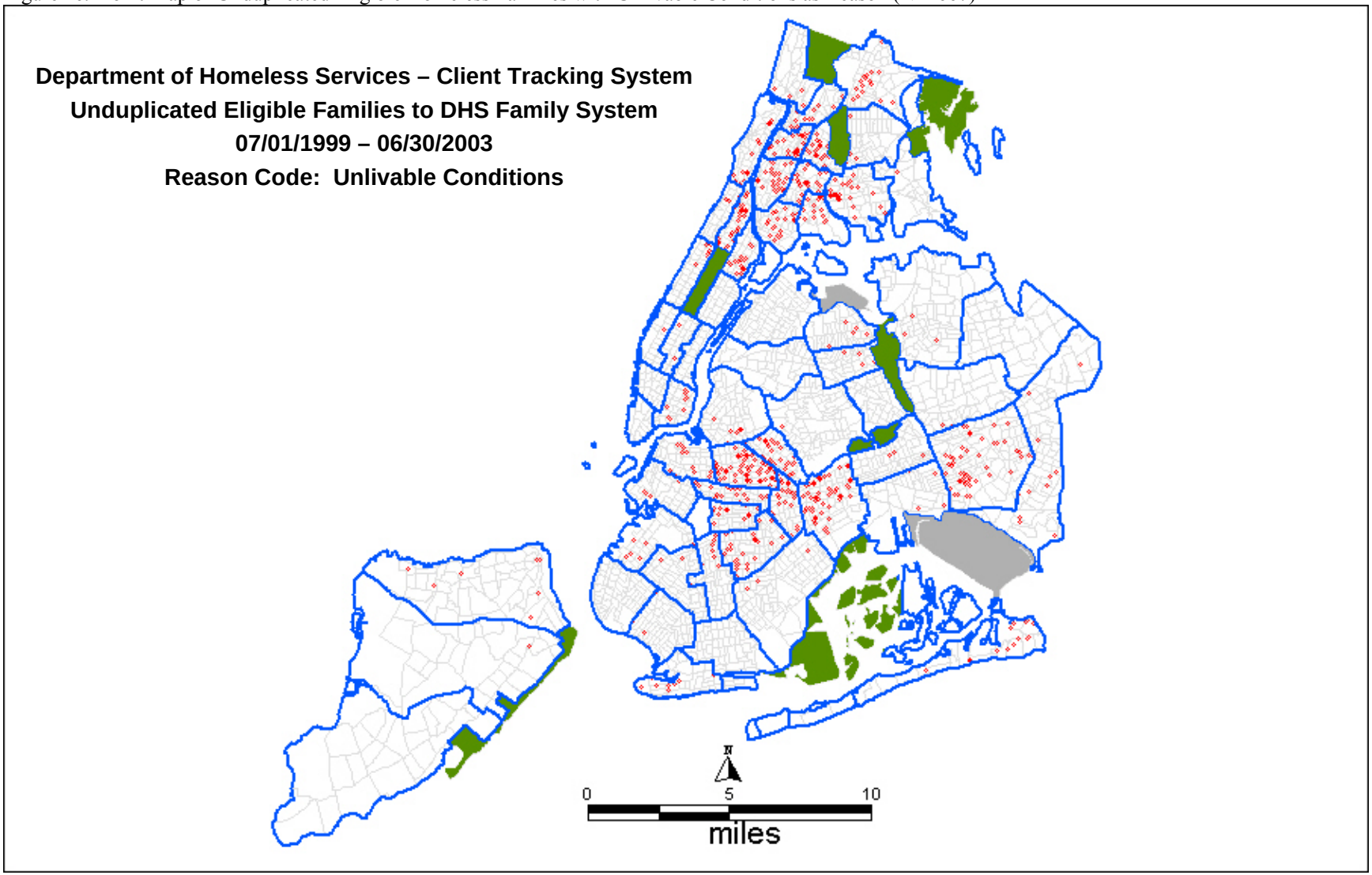


Figure 4f. Point Map of Unduplicated Eligible Homeless Families with Financial Strain as Reason (N = 190)

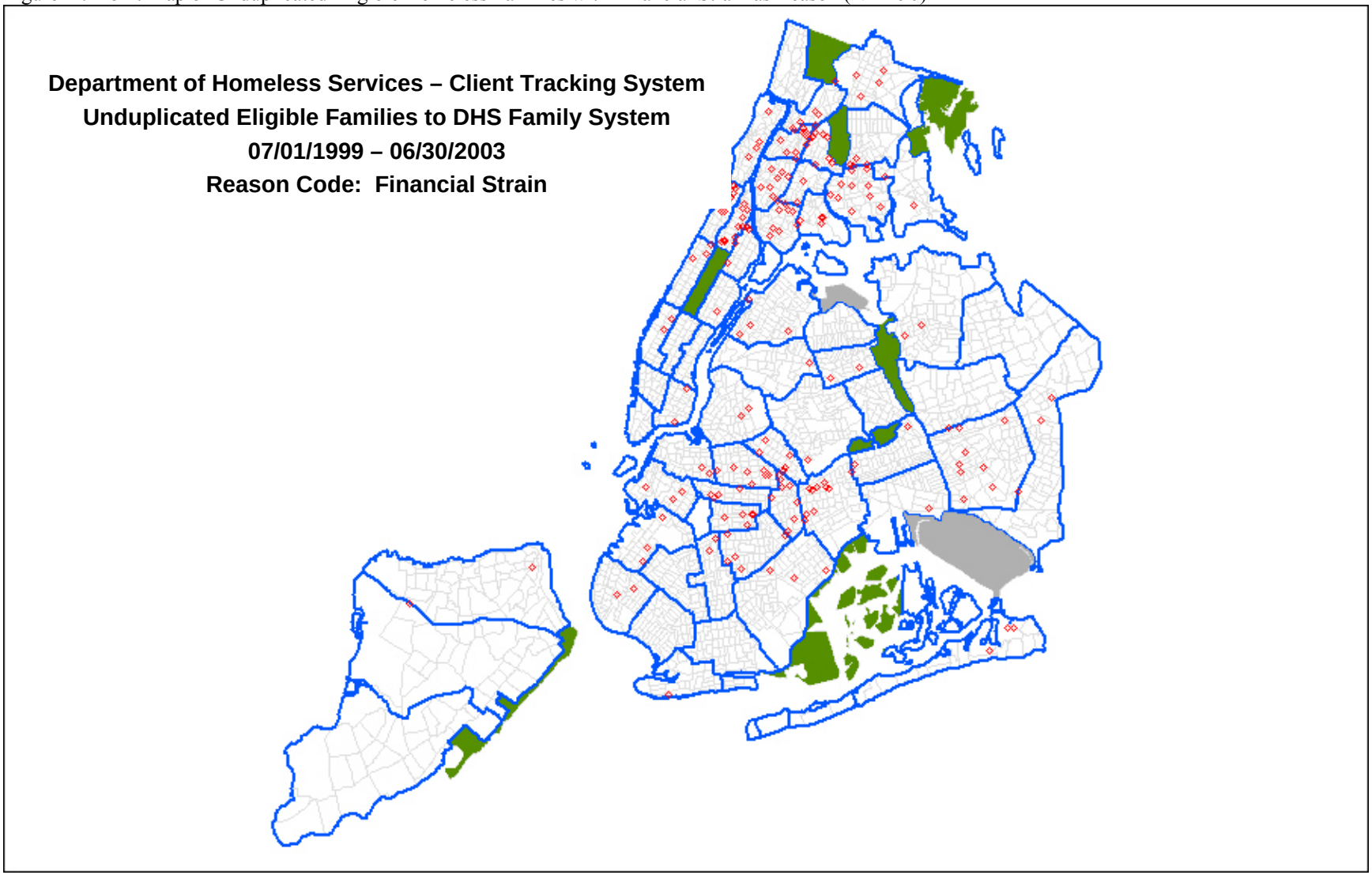


Figure 4g. Point Map of Unduplicated Eligible Homeless Families with Crime Situation as Reason (N = 113)

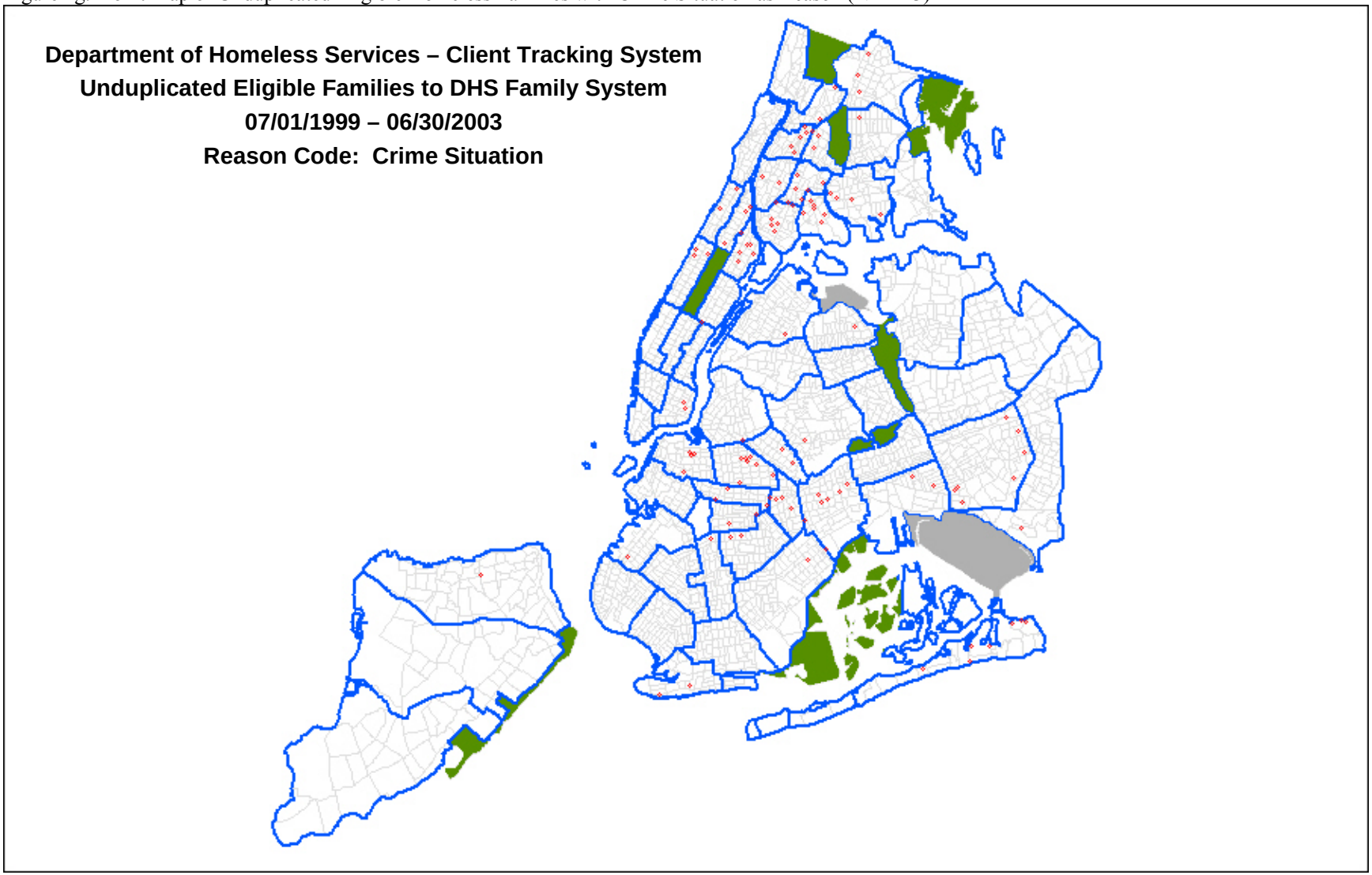


Figure 4h. Point Map of Unduplicated Eligible Homeless Families with Illegal Lockout Reason Code (N = 31)

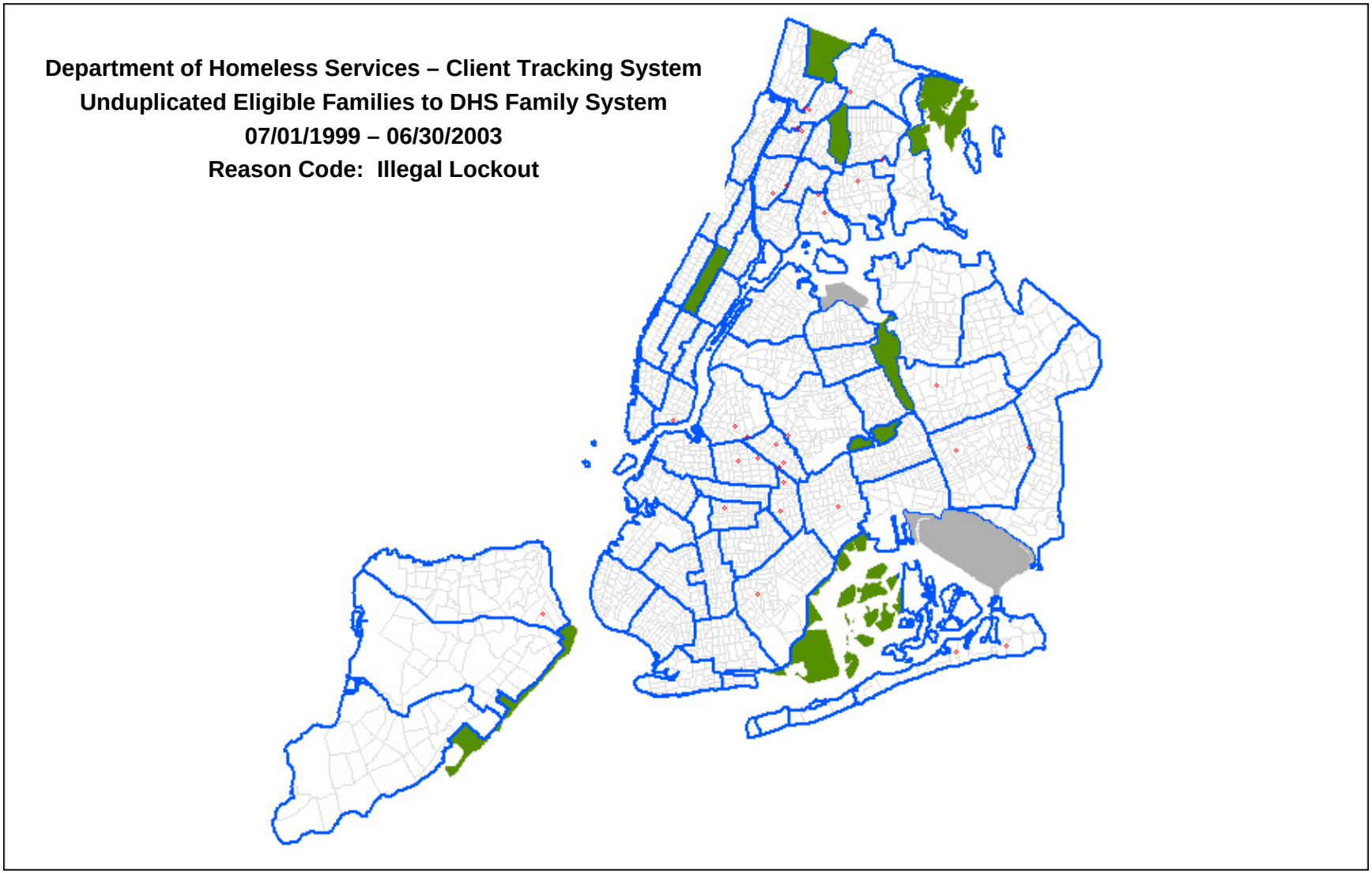
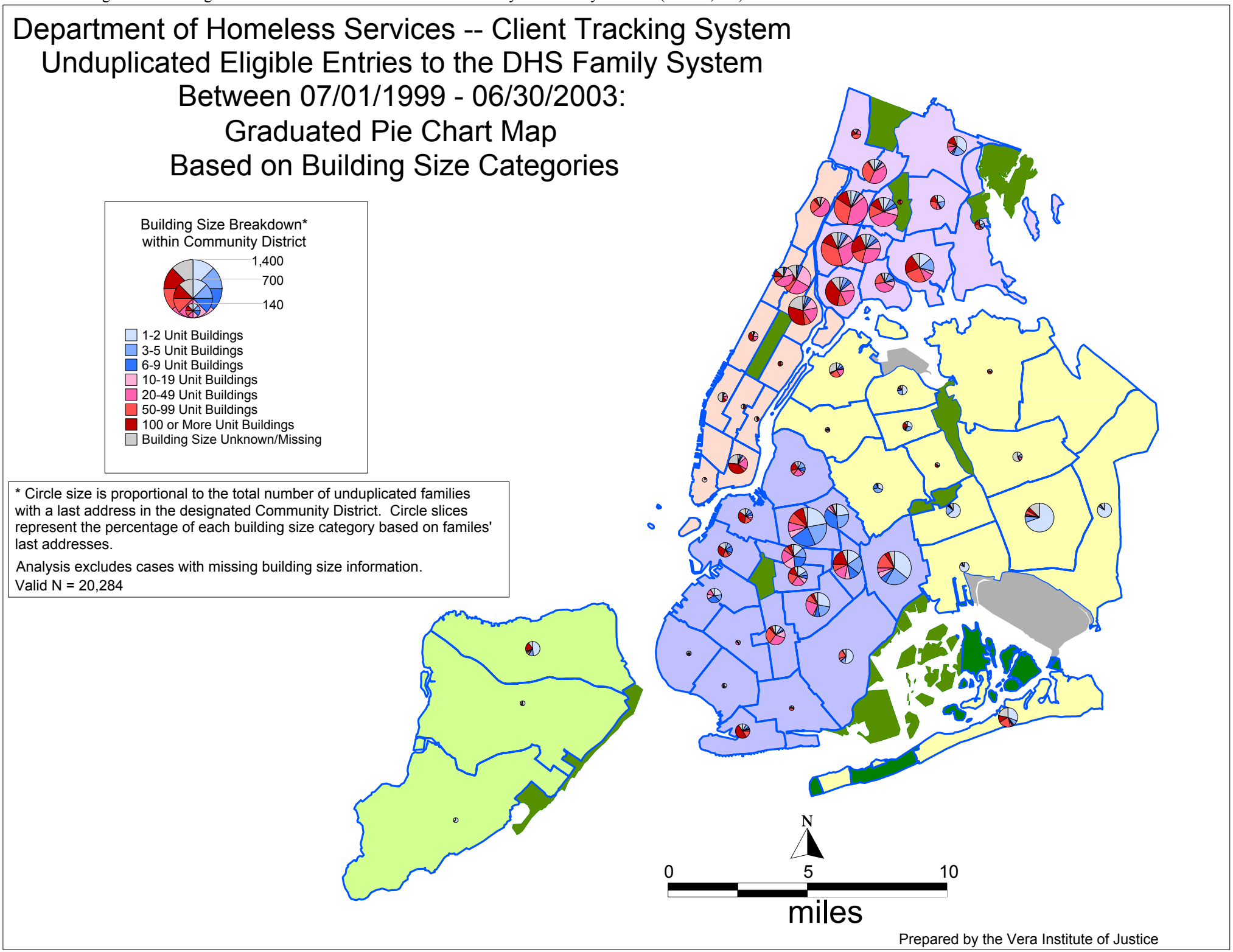


Figure 5. Building Size of Last Address of Homeless Families by Community District. (N = 20,084)



Appendix B: Contents

Table 4. Descriptive Statistics for Two Samples of NYC Census Tracts

Variables	**VERA (general)** N=1,984	**VERA (outlier)** N=233
EAU number	8.8	19.8
Black	854.7	1805.4
Hispanic	820.4	2291.3
Population under 18	773.2	1700.9
Population over 65	198.1	485.1
no HS diploma	570.3	1421.9
female headed hh	221.9	541.9
female h hh children <=5	54.5	125.8
householder over 65	115.2	255.9
# subfamilies	52.4	110.5
Noinstgrpq	30.5	199.3
frbnpop 1990-3/2000	475.4	1207.6
Unemployment	131.8	365.9
# with public ass. Inc	86.8	238.8
median hh income	39841.9	41879.4
families below poverty	634.2	1762.6
pop not in labor force	1036.3	2560.7
median contract rent	672.5	707.2
renter occupied units	779.5	2416
ratio median contract rent to median hh inc	0.018	0.022
hu with >2 persons/room	28.6	102.5
# vacant units	57.5	137.4
# ph dwelling units	54.9	249.5
# with ssi income	84.8	244.5
moved in 15 months or less	169.1	462.9
no telephone	29.6	87.1
no plumbing	14.3	50.1
no kitchen facilities	12.4	53.2
total population	3144	7598.7

Table 5. OLS Regression of Number of Unduplicated Eligible Entries to DHS Family System for NYC Census Tracts

			Culhane♦ I	Culhane♦ II	VERA (general)		VERA (outliers)	
	Culhane♦ variables	VERA variables	Stdzd. B	Stdzd. B	B	Stdzd. B	B.	Stdzd. B
Demographic	RBLACK	Black	0.363***	0.342***	0.002***	.203***	0.000	-0.001
	RSPAN	Hispanic	0.098***	0.082***	.001**	.062**	-0.001*	-0.125*
	RUNDER18	population under 18	-0.038**	-0.058***	0.001	0.038	0.002	0.085
	ROVER64	population over 65	-0.121***	-0.124***	0.000	-0.002	0.006	0.078
	RNOHIGH	no HS diploma	0.08	0.057***	-0.002	-0.049	0.000	0.021
	RFHHOLD	female headed hh	0.04	0.085***	0.009***	0.131***	0.025***	0.016***
	RFYOUCHD	female h hh children <=5	0.186***	0.196***	0.022***	0.006***	0.025	0.084
	ROLDFAM	householder over 65	0.014	0.008	-0.003	-0.020	-0.011	-0.087
	RSUBFAM	# subfamilies	0.091***	0.083***	-0.001	-0.002	0.002	0.019
	RGRPQUAT	noinstgrpq	-0.003	-0.002	0.000	0.000	0.001	0.018
	RFRBNRN70	frbnpop 1990-3/2000	-0.148***		-0.003***	-0.115***	-0.001	-0.036
Economic	RUNEMP	unemployment	-0.001	0.018	0.009***	0.003***	0.003	0.03
	MNHHPAI	# with public ass. inc	0.040*	0.064***	0.054***	0.418***	0.063***	0.562***
	MEDHHINC	median hh income	0.062**	0.095***	0.000**	0.000**	0.000	0.000
	RNOPOV	families below poverty	0.024***	0.248***	0.005***	0.217***	0.001	0.074
	RNOWORK	pop not in labor force	0.042***	0.024	0.003**	0.135**	0.003	0.002
	RTMPWORK		0.006	0.006				
Housing	MEDCOREN	median contract rent	-0.080***	-0.128***	-0.004**	-0.063**	0.001	0.016
	RRENT	renter occupied units	0.008	-0.025	-0.003***	-0.163***	-0.001	-0.068
	RENTHINC	Med Con rent/Med hh inc	0.072***	0.082***	92.556***	.043***	34.798	0.026
	RCROWD	hu with >2 persons/room	0.049***	-0.034***	0.008	0.006	-0.003	-0.012
	RVAC	# vacant units	0.080***	0.094***	0.043***	0.168***	0.017***	0.087***
	RBOARDUP		0.058***	0.058***				
VERA added		# ph dwelling units			-0.002**	-0.030**	0.001	0.028
		# with ssi income			-0.004	-0.024	-0.022***	-0.185***
		moved in 15 months or less			0.013***	0.133***	0.008	0.104
		no telephone			0.023***	0.007***	0.077***	0.240***
		no plumbing			0.006	0.009	0.016	0.03
		no kitchen facilities			-0.017	-0.023	-0.015	-0.042
Control		total population			-0.002***	-0.338***	-0.003**	-0.434**
F					332.547***	332.547***	46.287***	46.287***
R-square			0.828	0.819	0.826	0.826	0.864	0.864
Adjusted R-square					0.824	0.824	0.845	0.845
N			2,107	2,107	1,984	1,984	233	233

* Statistically significant at the .10 (two-tailed test); ** .05 level; *** .01 level. Source of Data: U. S. Census 2000, DHS, NYCHA.

♦ From Culhane, D. P., C-M Lee, and S. M. Wachter (1996) Where the Homeless Come From. *Housing Policy Debate,* (7)2: 327-365.

Section II: What Buildings Do Homeless Families Live in Immediately Before They Enter Shelter in New York City?

John Markovic
Nancy Smith

Vera Institute of Justice
June 2004

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Introduction

Building on our previous work on geographic origins of homeless families, the Vera Institute of Justice conducted a geographic analysis of the buildings that produce homeless families in New York City. This analysis was guided by the following research questions:

- What buildings are producing the greatest numbers of homeless families?
- What types of buildings do homeless families come from?
- What proportion of the overall population of families do the different building types account for?

This report provides a summary of the key findings from this analysis. We provide basic descriptive indices of the number of EAU eligible families produced per unique building, the geographic distribution of these buildings, and a discussion of how these patterns vary by different building types. We examine these patterns citywide and among the six community districts (CDs) that the Department of Homeless Services has targeted for its new prevention initiative.

Methodology

To learn more about the buildings that are producing homeless families, Vera conducted a series of analyses using the last address variables in DHS's Client Tracking System for the time period July 1, 1999 to June 30, 2003. This field contains the addresses where families stayed immediately before they entered shelter. The original data file consists of 24,448 cases. This analysis was based on a subset of this file that consists of those records for which the last address was successfully geo-matched to the HPD buildings database, a total of 20,466 cases.[1] We aggregated these cases to the building level and identified 14,369 unique buildings (defined by HPD's *building sequence number*) that "produced" one or more homeless families during the four-year study period.[2]

To identify the type of buildings associated with these addresses, we used information from the New York City Department of Housing Preservation and Development's building database, which we obtained through a data match conducted by HPD. Based on discussions with the agencies about data coding issues, we were able to distinguish between three types of buildings, including the following:

- *NYCHA Buildings* – These are buildings, commonly referred to as public housing projects, owned and operated by the New York City Housing Authority (NYCHA). The fact that the last address matched a building identified as "NYCHA" in the buildings HPD database does not necessarily mean that the family was an official tenant of the NYCHA building. In some instances, these NYCHA addresses reflect families that were living doubled-up with a primary tenant in a NYCHA building.

- *Mitchell-Lama Buildings* –These are buildings participating in a New York State-run program designed to provide affordable rental and cooperative housing to moderate- and middle-income families. Assistance is provided in the form of low-interest mortgages and/or tax exemptions for these buildings. Similar to NYCHA, persons who reported last addresses at Mitchell-Lama buildings may include official tenant families as well as doubled-up families.

- *Other* –These include all buildings that did not participate in any of the above mentioned housing programs. In some instances, the HPD database may have

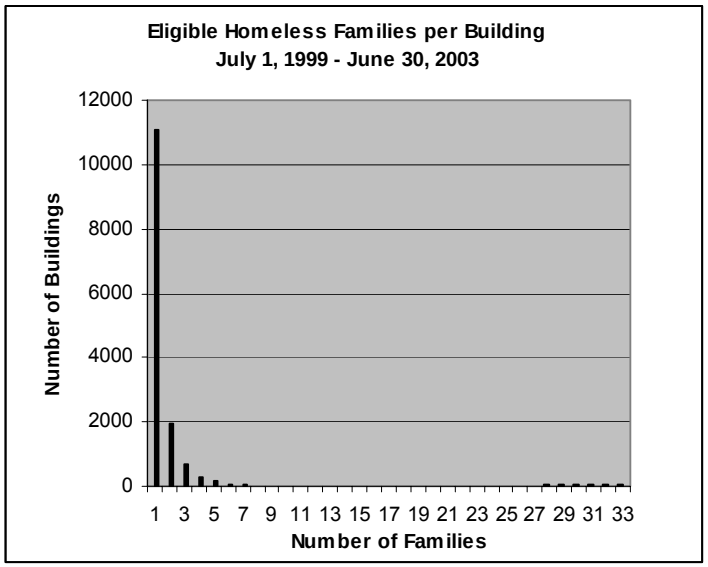
[1] Cases that did not geo-match include those with a last address outside of New York City ("out-of-town" cases), cases with a last address that are DHS homeless shelters, and other cases that did not geomatch the HPD building databases for a variety of reasons (e.g., insufficient or incorrect address information).
[2] The term "produced" is used as a shorthand way of saying that eligible families last resided at these building types before arriving at the EAU. Use of this term should not be taken to mean that the conditions in buildings were primary causal factors in producing homelessness or forcing families to apply at the EAU.

indicated that the building was a participant in a wide variety of other types of programs, for example, SCRIE or the Section 8 Voucher programs.[3]

[3] HPD's building database captures information on those buildings that participate in the Section 8 Voucher program. However, building-based Section 8 participation is a highly dynamic process and designation of Section 8 program participation within the database indicates that the building participated in the program at some point in time. Thus, buildings so designated may or may not have been part of the Section 8 program at the time the EAU eligible family had lived there.

Citywide Overview

Citywide, there were 14,369 unique buildings, which contributed a total of 20,466 families to the shelter system, during the four-year study period. The vast majority of these buildings were classified as "other." Just under 9% of these buildings were NYCHA, and the remaining 1.5% were Mitchell-Lama properties. The vast majority of buildings (77%) produced only one family during the four-year period, and 23% produced two or more families during this time. The following graph shows the frequency distribution of families per building.



Citywide, the average number of eligible families produced per building was 1.42. This rate varied by building type. NYCHA and Mitchell-Lama buildings produced averages of 2.52 and 2.40 families per building, respectively. Other building types yielded an average of 1.30 eligible families per building. NYCHA and Mitchell-Lama buildings were more likely to produce more than one homeless family during the study period. About 58% of NYCHA buildings and 50% of Mitchell-Lama buildings produced multiple homeless families. On the other hand, only 19% of other building types produced multiple families.

We suspect that this variation is due to building size. Subsidized housing buildings, like NYCHA public housing and Mitchell-Lama, tend to be very large buildings; thus, we would expect more families to come from them. Among those buildings that produced homeless families during the study period, the number of units per building differed for different building types.

Building Type	Total Number of Buildings[4]	Mean # of Units/Building	Range
NYCHA	1,262	**92.1**	1 to 920
Mitchell-Lama	205	**207.3**	1 to 1,192
Other Bldg. Type	12,562	**23.1**	1 to 1,173

We also examined the proportion of eligible families that came from each building type. The vast majority of families (82%) came from other buildings; while nearly 16% came from NYCHA buildings and 2.5% from Mitchell-Lama buildings.

Table 1 compares the counts of homeless families and buildings by designated building types citywide, across the six-targeted CDs and individually for each targeted CD.

[4] For this calculation, we excluded records for which the number of building units was designated as "0." These "0 unit buildings" are treated as missing values.

Target Community District Overview

For the six target community districts, the building and family profiles are virtually identical to those of the city (refer to Table 1). In the target CDs, the vast majority of buildings (90%) that produced at least one eligible homeless family during the study period were buildings other than NYCHA or Mitchell-Lama. About 16% of eligible families in these CDs came from NYCHA buildings and just under 3% came from Mitchell-Lama buildings. Again, families that came from NYCHA or Mitchell-Lama buildings were not necessarily official tenants in those buildings.

While the target CDs taken together are similar to the citywide profile, there are considerable differences across these six CDs (refer to Table 1). While the category *other* building type accounts for the majority of both unique buildings and EAU eligible families across all CDs, the proportions accounted for by NYCHA buildings and Mitchell-Lama building vary considerably across these CDs.

In both Manhattan CD 11 and Bronx CD 01, there are markedly high numbers and percentages of homeless families from NYCHA buildings. In both instances, about one-quarter of the unique buildings that EAU families reported as a last address were NYCHA facilities. In Bronx CD 01 about 43% of EAU eligible families reported a last address that was a NYCHA building, and in Manhattan CD 11 the comparable figure was 36%. By contrast, in Brooklyn CD 03 about 16% of eligible families reported a last address that was a NYCHA facility. The comparable figures in the remaining four pilot CDs are all under 3%.

The variations in both the composition and clustering of building types across the six target CDs suggest that different prevention strategies may need to be deployed in each target CD. For example, strategies in Manhattan CD 11 and Bronx CD 01, where there are high numbers of homeless families coming from NYCHA buildings, most likely will be different than those CDs with high numbers of families coming from other building types. A different strategy may be necessary because most families who enter shelter from NYCHA buildings are not NYCHA tenants. NYCHA's policies and practices around non-legal tenants and overcrowding may impact a provider's ability to maintain families in these situations.

Geographic Patterns: Citywide Maps by Building Type

We created three citywide maps to provide a visual description of both the location of buildings that produce homeless families and the number of eligible families produced per building. These maps depict the citywide distribution of each building type and variations in the number of eligible families produced per building. A more fine-grained picture of the geographic distribution of these buildings is provided in the close-up maps of the six target CDs. These graduated symbol maps show the location of the buildings with a symbol and the size of the symbols represents the number of homeless families who reported that buildings address as their last address before applying to the EAU. Each map contains a graph that shows the frequency distribution for the number of EAU eligible families per unique building. We briefly discuss spatial patterns and other issues associated with each map below.

Graduated Symbol Map for NYCHA Buildings

Citywide Map 1 presents a graduated symbol map for 1,266 NYCHA buildings that one or more EAU eligible families listed as a last address prior to applying at the EAU.

Visual patterns within the map indicate that the largest concentrations of NYCHA buildings that produced homeless families were in the Bronx, in portions of Manhattan, and in portions of Brooklyn. Several distinct clusters are evident in Queens; while NYCHA buildings that produce homeless families are relatively sparse in Staten Island. The spatial distributions of NYCHA buildings that produced homeless families appears to parallel the overall distribution of NYCHA facilities in New York City.[5]

For NYCHA buildings, the number of eligible homeless families per building ranged from 1 to 18. The NYCHA building producing the largest number homeless families during the study period (18) is located in Bronx CD 03. The official address of that building is 1402-1428 Webster Ave., and is a 247-unit building, according to HPD's online data system.

Among these 1,266 NYCHA buildings, there are 514 buildings (41%) that produced only one homeless family during the study period. The remaining 752 NYCHA buildings (59%) produced two or more homeless families.

[5] It was beyond the scope of this analysis to assess the geographic distribution of homeless family producing NYCHA facilities *relative* to the overall distribution of NYCHA buildings. It appears evident, however, that there is a strong correlation.

Graduated Symbol Map for Mitchell-Lama Buildings

Citywide Map 2 presents a graduated symbol map for 207 homeless-family-producing Mitchell-Lama buildings. Given the relatively small number of buildings, the overall distribution of homeless-family-producing Mitchell-Lama buildings is not as dispersed as that of NYCHA buildings. Homeless families coming from Mitchell-Lama buildings are rather concentrated in sections of the Bronx and upper Manhattan. There are also several smaller concentrations evident Brooklyn, notably in CDs 05 (the Starrett City and City Line areas) and 13 (Coney Island area). Though relatively few families come from Mitchell-Lama buildings in Queens, a notable concentration exists in CD 12 (Rochdale area).

The Mitchell-Lama building producing the largest number homeless families during the study period (34) is located in Bronx CD 05. The official address of that building is 20 Richmond Plaza, a 439-unit building, according to HPD's database. Based on cases geo-matched to the HPD buildings database, this building produced the largest number of eligible homeless families in the city.

Among these 207 Mitchell-Lama buildings, there are 104 buildings (50%) that produced only one homeless family during the study period. There are 103 Mitchell-Lama buildings (50%) that produced two or more homeless families.

Graduated Symbol Map for Other Buildings

Citywide Map 3 presents a graduated symbol map for 12,896 homeless-family-producing buildings that were designated as *other (i.e.,* other than NYCHA or Mitchell-Lama). Not surprisingly, these building are in more parts of the city than are NYCHA or Mitchell-Lama buildings where homeless families come from. Distinctly heavy concentrations are evident in large portions of the Bronx, in upper Manhattan, and in the northeast portion of the Brooklyn. There are also several clusters of relative concentration evident in Queens. For *other* building types, the number of eligible homeless families per building ranged between 1 and 14.

Geographic Patterns: Close-up Maps for Six Target CDs

Using graduated symbol maps, we examined the geographic distribution of building types and the number of families per building for the six community districts that DHS has selected to be part of its new prevention initiative. The format of the maps is similar to the citywide maps above, except that all three building types are displayed simultaneously. We provide a brief descriptive summary of each map below.

Manhattan Community District 11

There were 360 buildings from which homeless families came from in Manhattan CD 11. In relative terms, this CD is more dense with homeless families who came from NYCHA addresses than the other target CDs. As indicated in Table 1, while the majority of homeless producing buildings in this CD were designated as other building types (71%), the proportion of buildings that were identified as NYCHA (26%) was disproportionately high when compared to NYCHA proportions for the city overall (2%) and the six pilot CDs combined (9%).

The proportion of families that reported their last address as a NYCHA facility in Manhattan CD 11 was even higher at 36% (compared 16% citywide and 16% across all six pilot CDs). In this CD, average number of families per NYCHA building was 3.51. The reader is reminded once again that these reported last addresses may include both official tenants of NYCHA as well as unofficial, doubled-up families.

Spatial patterns evident in the Manhattan Community District 11 map reveal clusters of NYCHA buildings dispersed among other buildings and several Mitchell-Lama buildings. Not surprisingly, both NYCHA buildings and Mitchell-Lama buildings tended to produce more families per building. This again can be partially attributed to the fact that these subsidized housing buildings tend to be larger than buildings designated at other.

Bronx Community District 01

In terms of the proportion of building types, Bronx CD 01 resembles Manhattan CD 11. In Bronx CD 01, a total of 357 unique buildings geo-matched the HPD file. This CD also is relatively dense with homeless families who came from NYCHA addresses. As indicated in Table 1, while the majority of homeless producing buildings in Bronx CD 01 were designated as other building types (73%), the proportion of these buildings that were identified as NYCHA is comparatively high (25%). The proportion of families that reported their last address as a NYCHA facility in Bronx CD 01 is 42% (compared 16% citywide and 16% across all 6 pilot CDs). In this CD, average number of families per NYCHA building was 3.51.

Spatial patterns in the Bronx CD 01 map reveal a mix of building types similar to Manhattan CD 11. This CD has a mixture of NYCHA buildings that yielded relatively large numbers of homeless families per building and other building types that yielded fewer families per building. There is a small cluster of 6 Mitchell-Lama buildings where a total of 10 homeless families had lived in the center of the CD (just east of St. Mary's Park).

Bronx Community District 06

In Bronx CD 06 all but a few of the buildings that produced homeless families during the study period were other types of buildings. NYCHA buildings where homeless families had lived are dispersed throughout the CD, as are Mitchell-Lama buildings. Several other type building producing large numbers of homeless families per building are evident n the southern portion of the CD.

Brooklyn Community District 03

Brooklyn CD 03 has relatively high concentration of NYCHA buildings that produced eligible homeless. While the proportion such buildings that were NYCHA, 9%, is comparable to the overall proportion for the city (9%), it does falls short of the proportions in Manhattan CD 11 and Bronx CD 01. Spatially, NYCHA buildings and other building types are relatively distinct. In particular, there is a NYCHA housing project cluster in the northern portion of the CD (north of Myrtle Ave.) that produced a large number of families as well as a smaller cluster in western portion (below Dekalb Ave.). There are only few scattered Mitchell-Lama buildings in Brooklyn CD 03 that produced homeless families.

Brooklyn Community District 04

Much like Bronx CD 06 just described, other building types account for most homeless family last addresses in Brooklyn CD 04. A relatively small cluster of NYCHA building that yielded homeless families is evident in the center of the CD. There are no Mitchell-Lama buildings in Brooklyn CD 04 that produced homeless families.

Queens Community District 12

In Queens CD 12, the vast majority of building that produce homeless families are designated as other types of buildings. There are, however, several distinct clusters of NYCHA buildings that produced homeless families on or New York Blvd as well as an isolated cluster of Mitchell-Lama buildings in the southern portion of the CD.

Appendix A: Tables and Figures

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- Citywide Map 1. Eligible Homeless Families per Building: NYCHA Buildings
- Citywide Map 2. Eligible Homeless Families per Building: Mitchell-Lama Buildings
- Citywide Map 3: Eligible Homeless Families per Building: “Other” Building Types
- Buildings Where Homeless Families Lived: Manhattan Community District 11
- Buildings Where Homeless Families Lived: Bronx Community District 01
- Buildings Where Homeless Families Lived: Bronx Community District 06
- Buildings Where Homeless Families Lived: Brooklyn Community District 03
- Buildings Where Homeless Families Lived: Brooklyn Community District 04
- Buildings Where Homeless Families Lived: Queens Community District 12

Table 1-- Citywide and Pilot Program CD Comparisons by Building Type

	Count of Unique Buildings for EAU Eligible Families (HPD geomatch)		Building-Type-Categroy Percentages (% Based on Total Unique Buildings)	Minimum Families per Building	Maximum Families per Building	Mean Families per Building	Count of EAU Unduplicated Eligible Families by Building-Type-Category		EAU Eligible Family Percentages (% Based on Total Unduplicated EAU Families)
Building Type	**Citywide**								
NYCHA	1,266	8.81%		1	18	2.52	3,184	15.56%	
Mitchell-Lama	207	1.44%		1	34	2.40	497	2.43%	
Other	12,896	89.75%		1	14	1.30	16,785	82.01%	
Total Geomatched	**14,369**	**100.00%**		**1**	**34**	**1.42**	**20,466**	**100.00%**	
Building Type	**6 Pilot CDs**								
NYCHA	292	8.52%		1	13	2.73	796	16.41%	
Mitchell-Lama	55	1.61%		1	10	2.44	134	2.76%	
Other	3,079	89.87%		1	12	1.27	3,920	80.82%	
Total Geomatched	**3,426**	**100.00%**		**1**	**13**	**1.42**	**4,850**	**100.00%**	

Individual Community Districts in DHS Pilot Initiative

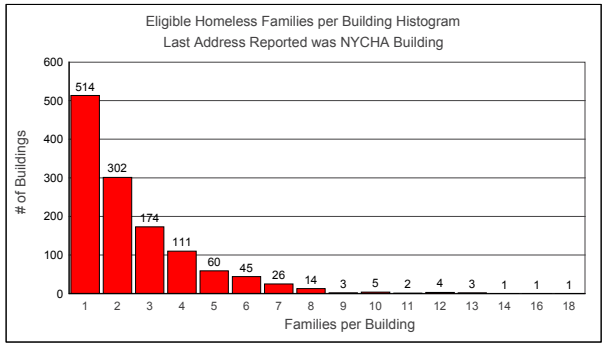
Building Type	**Manhattan CD 11**								
NYCHA	92	25.56%		1	8	2.41	222	35.81%	
Mitchell-Lama	14	3.89%		1	10	3.21	45	7.26%	
Other	254	70.56%		1	6	1.39	353	56.94%	
Total Geomatched	**360**	**100.00%**		**1**	**10**	**1.72**	**620**	**100.00%**	
Building Type	**Bronx CD 01**								
NYCHA	90	25.21%		1	12	3.51	316	42.99%	
Mitchell-Lama	6	1.68%		1	2	1.67	10	1.36%	
Other	261	73.11%		1	7	1.57	409	55.65%	
Total Geomatched	**357**	**100.00%**		**1**	**12**	**2.06**	**735**	**100.00%**	
Building Type	**Bronx CD 06**								
NYCHA	5	1.19%		1	6	3.00	15	2.14%	
Mitchell-Lama	10	2.38%		1	8	4.20	42	6.00%	
Other	406	96.44%		1	12	1.58	643	91.86%	
Total Geomatched	**421**	**100.00%**		**1**	**12**	**1.66**	**700**	**100.00%**	
Building Type	**Brooklyn CD 03**								
NYCHA	81	8.56%		1	13	2.58	209	16.23%	
Mitchell-Lama	10	1.06%		1	3	1.50	15	1.16%	
Other	855	90.38%		1	7	1.24	1,064	82.61%	
Total Geomatched	**946**	**100.00%**		**1**	**13**	**1.36**	**1,288**	**100.00%**	
Building Type	**Brooklyn CD 04**								
NYCHA	9	1.47%		1	2	1.33	12	1.75%	
Mitchell-Lama	0	0.00%		na	na	na	0	0.00%	
Other	603	98.53%		1	4	1.12	674	98.25%	
Total Geomatched	**612**	**100.00%**		**1**	**4**	**1.12**	**686**	**100.00%**	
Building Type	**Queens CD 12**								
NYCHA	15	2.05%		1	3	1.47	22	2.68%	
Mitchell-Lama	15	2.05%		1	3	1.47	22	2.68%	
Other	700	95.89%		1	7	1.11	777	94.64%	
Total Geomatched	**730**	**100.00%**		**1**	**7**	**1.12**	**821**	**100.00%**	

Citywide Map 1

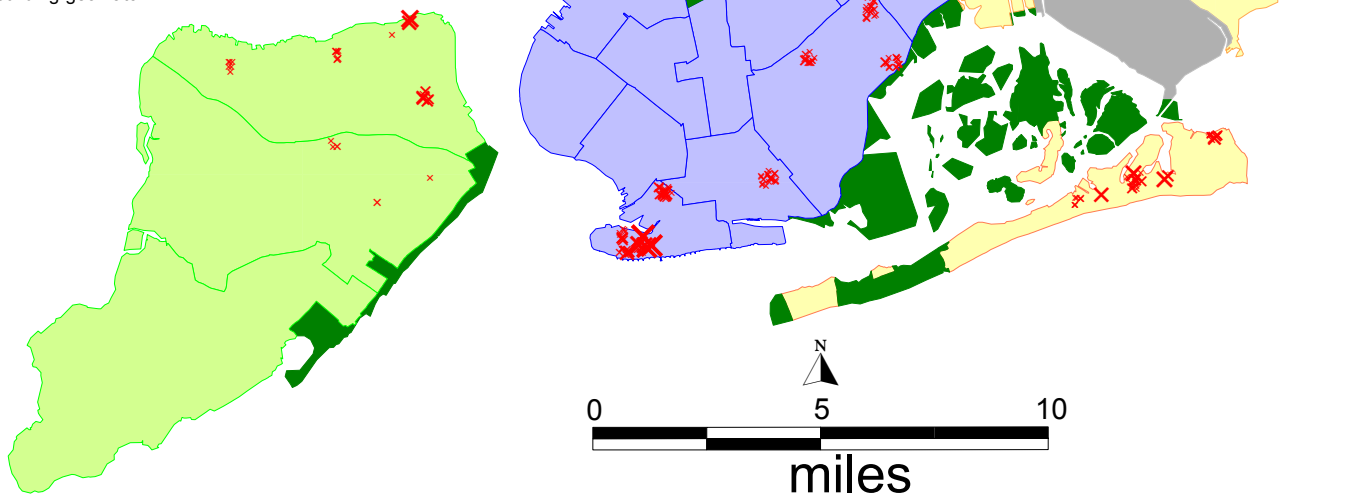
Eligible Homeless Families per Building: NYCHA Buildings*

Eligible Homeless Families per Building
NYCHA Buildings

× 20
× 10
× 2



* NYCHA building status based on HPD building-geomatch.



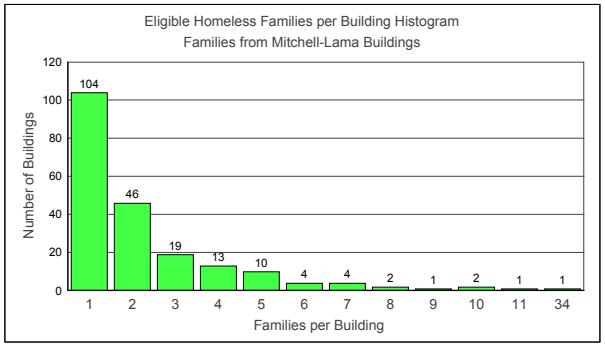
Data Sources: DHS Client Tracking System and HPD Buildings Data File.
Note: Quality of map color and resolution may be printer dependent.

Citywide Map 2

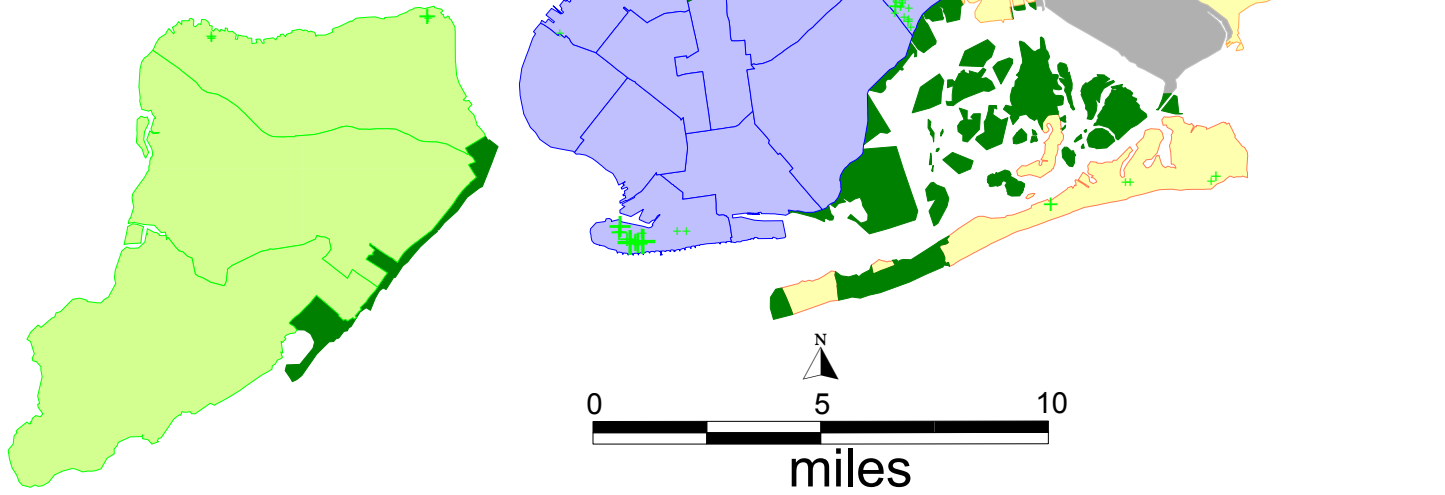
Eligible Homeless Families per Building: Mitchell-Lama Buildings*

Eligible Homeless Families per Building:
Mitchell Lama Buildings

20
10
2



* Mitchell-Lama building status based on HPD building-geomatch.



Data Sources: DHS Client Tracking System and HPD Buildings Data File.
Note: Quality of map color and resolution may be printer dependent.

Citywide Map 3

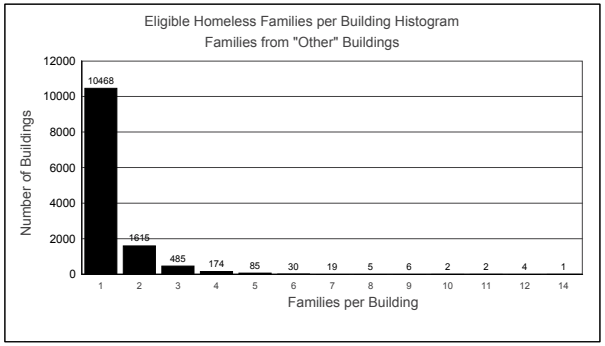
Eligible Homeless Families per Building: "Other" Building Types

Eligible Homeless Families per Building
for "Other" Building Types

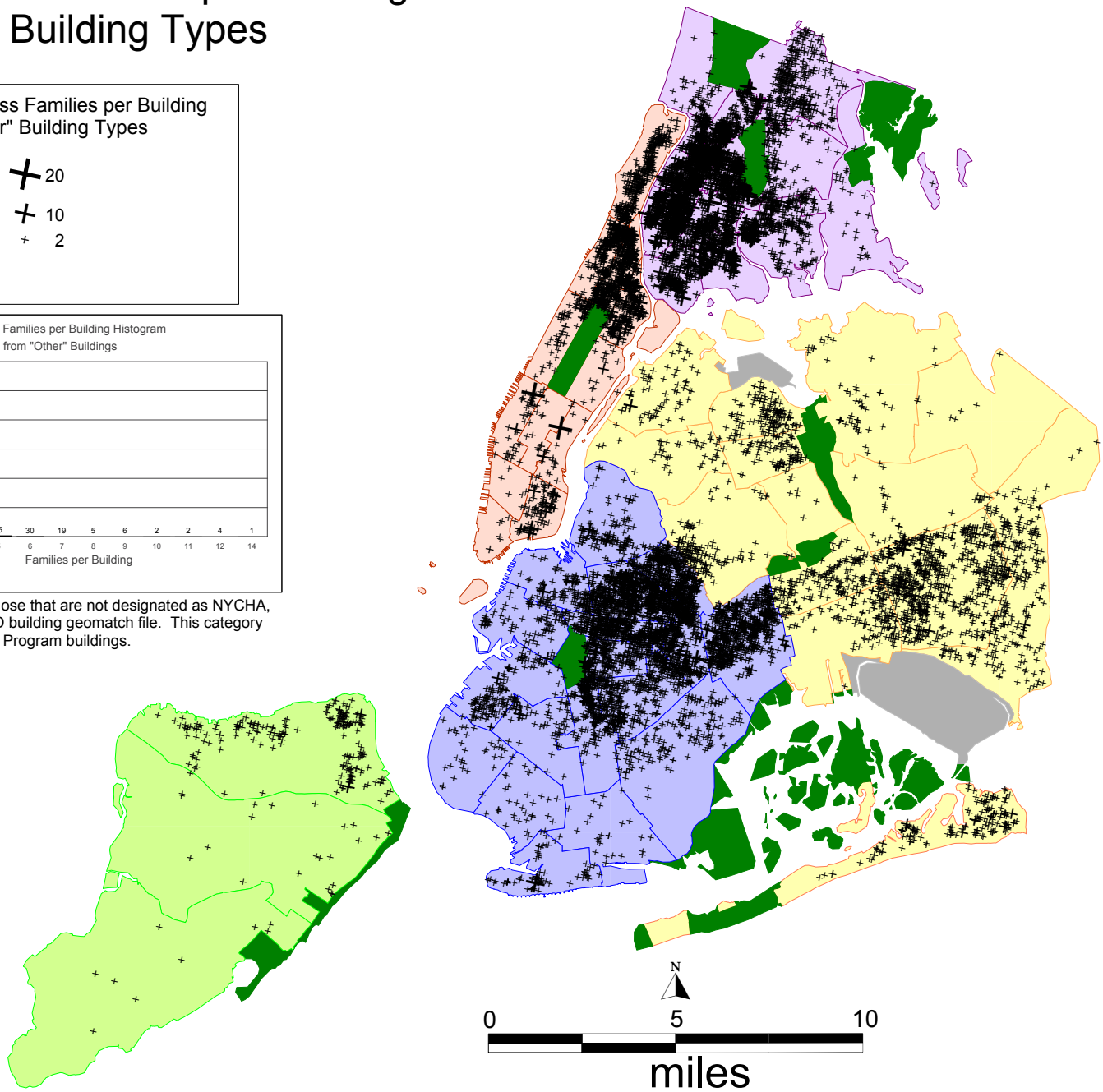
20

10

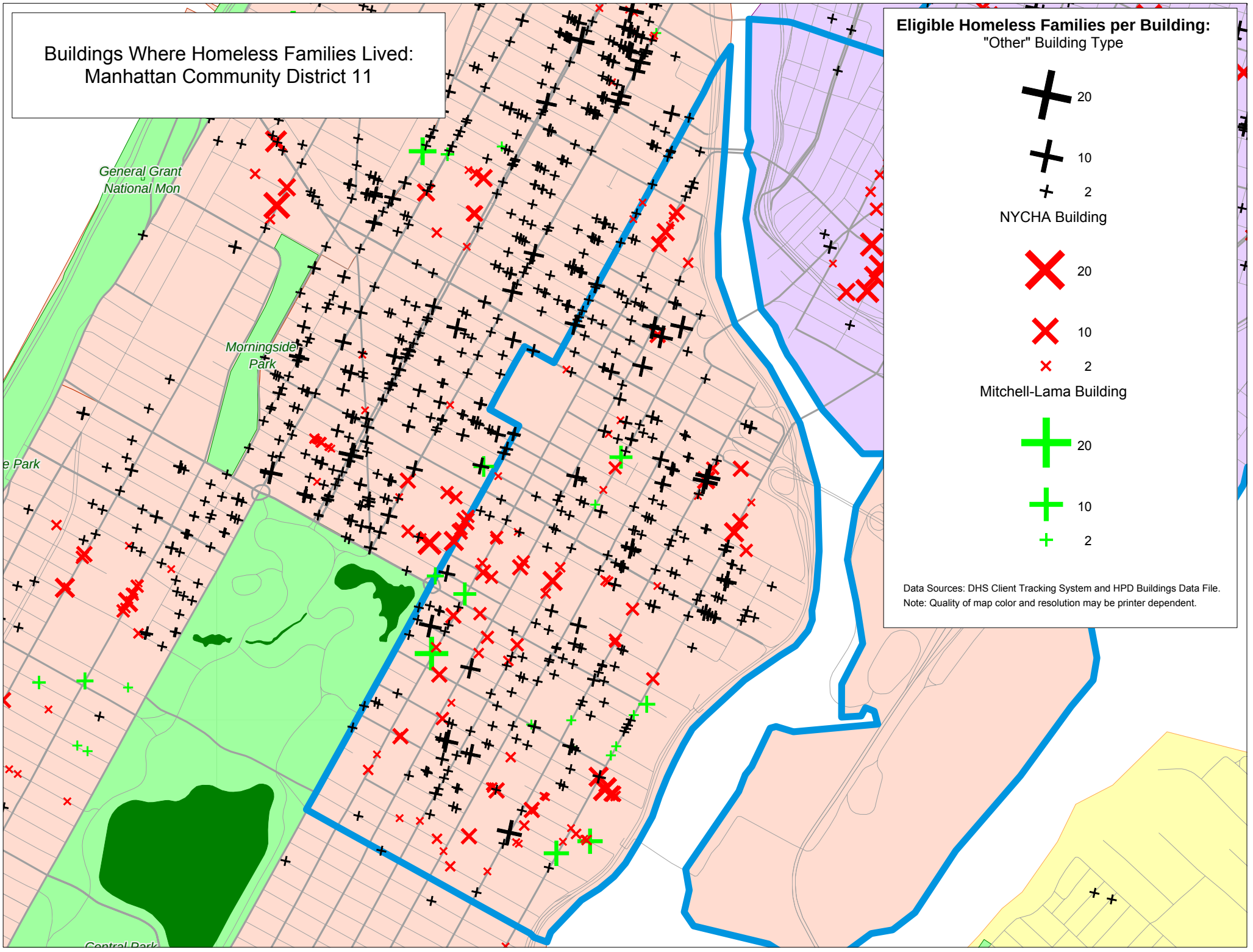
2

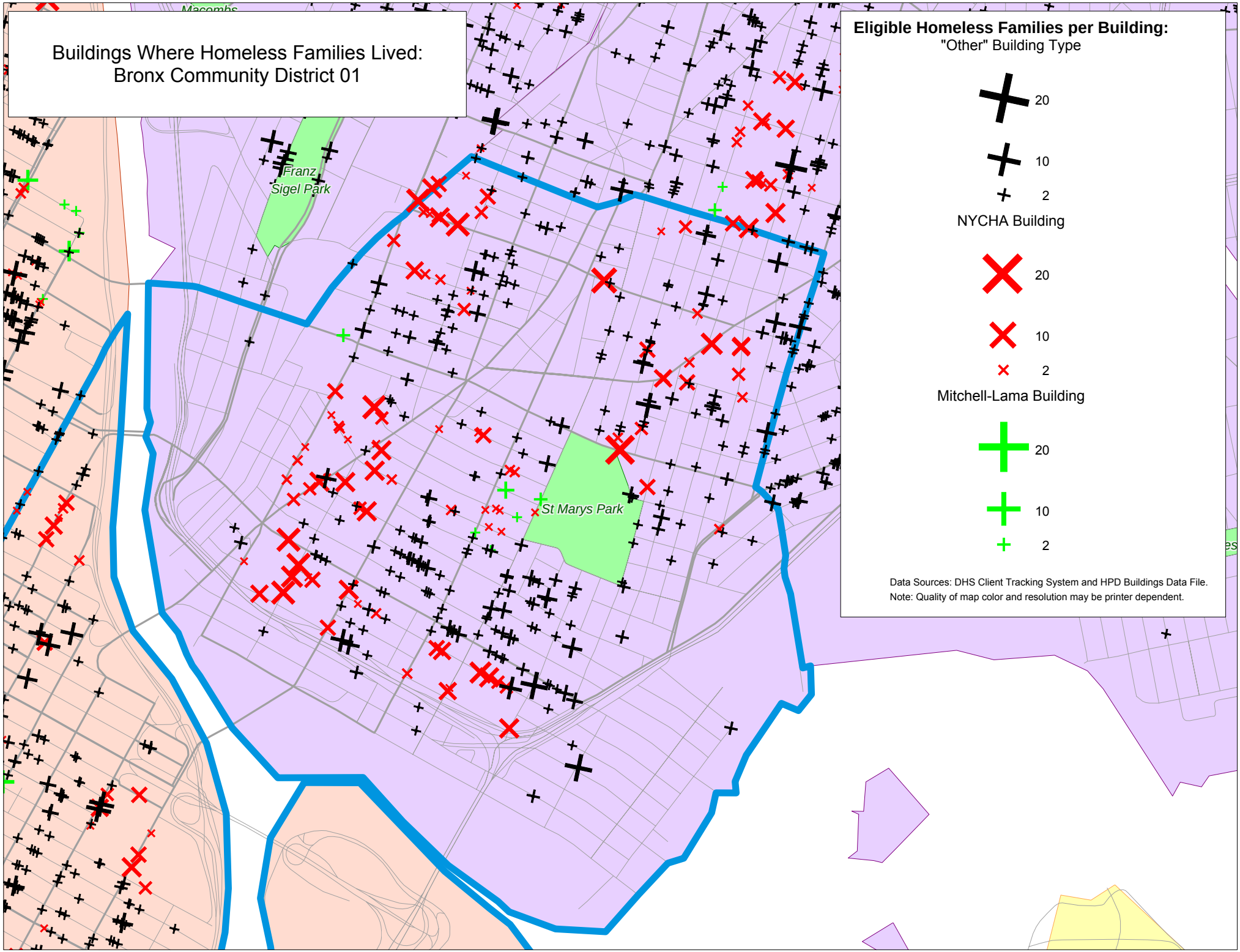


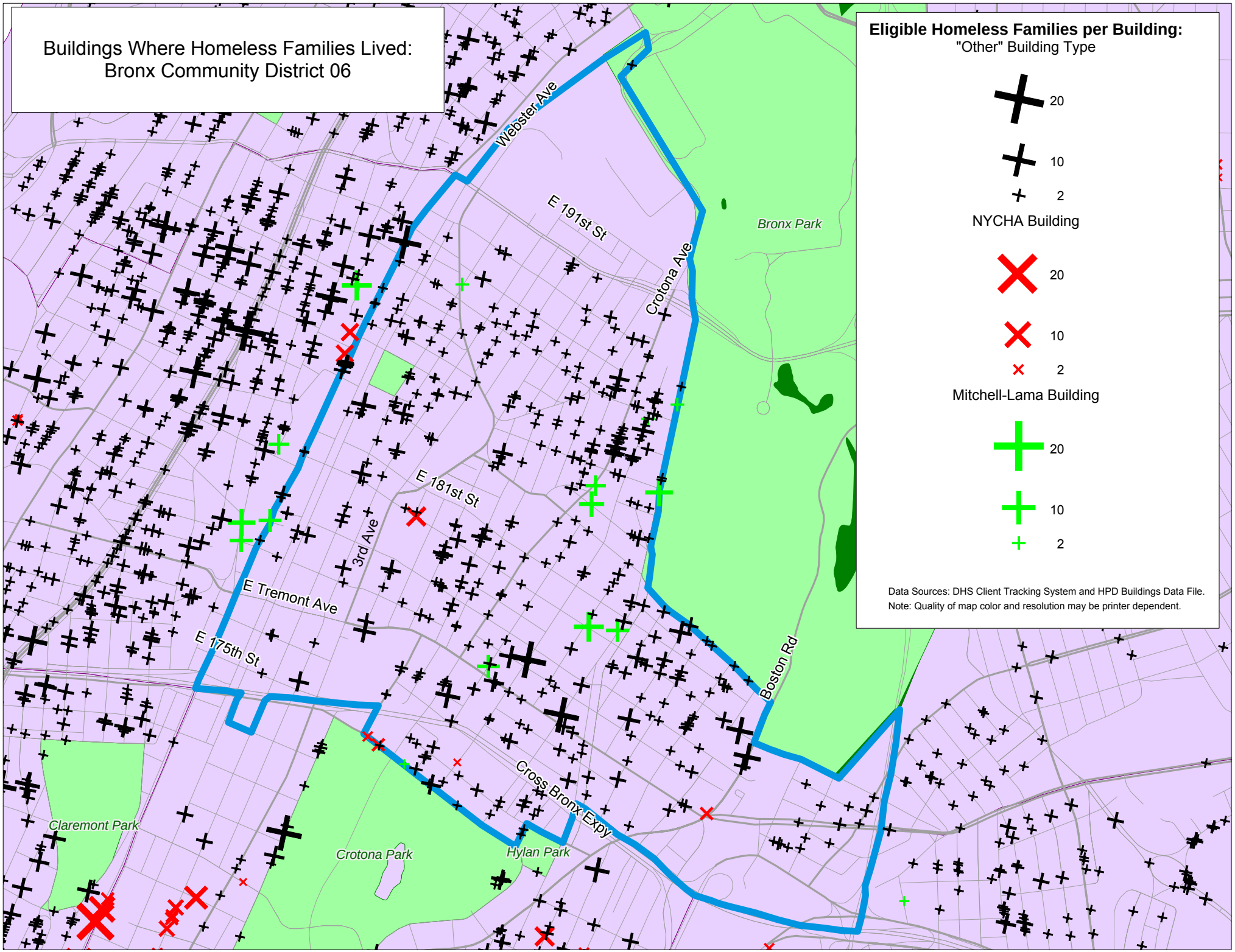
* "Other" building types are those that are not designated as NYCHA, or Mitchell-Lama in the HPD building geomatch file. This category includes Section 8 Voucher Program buildings.

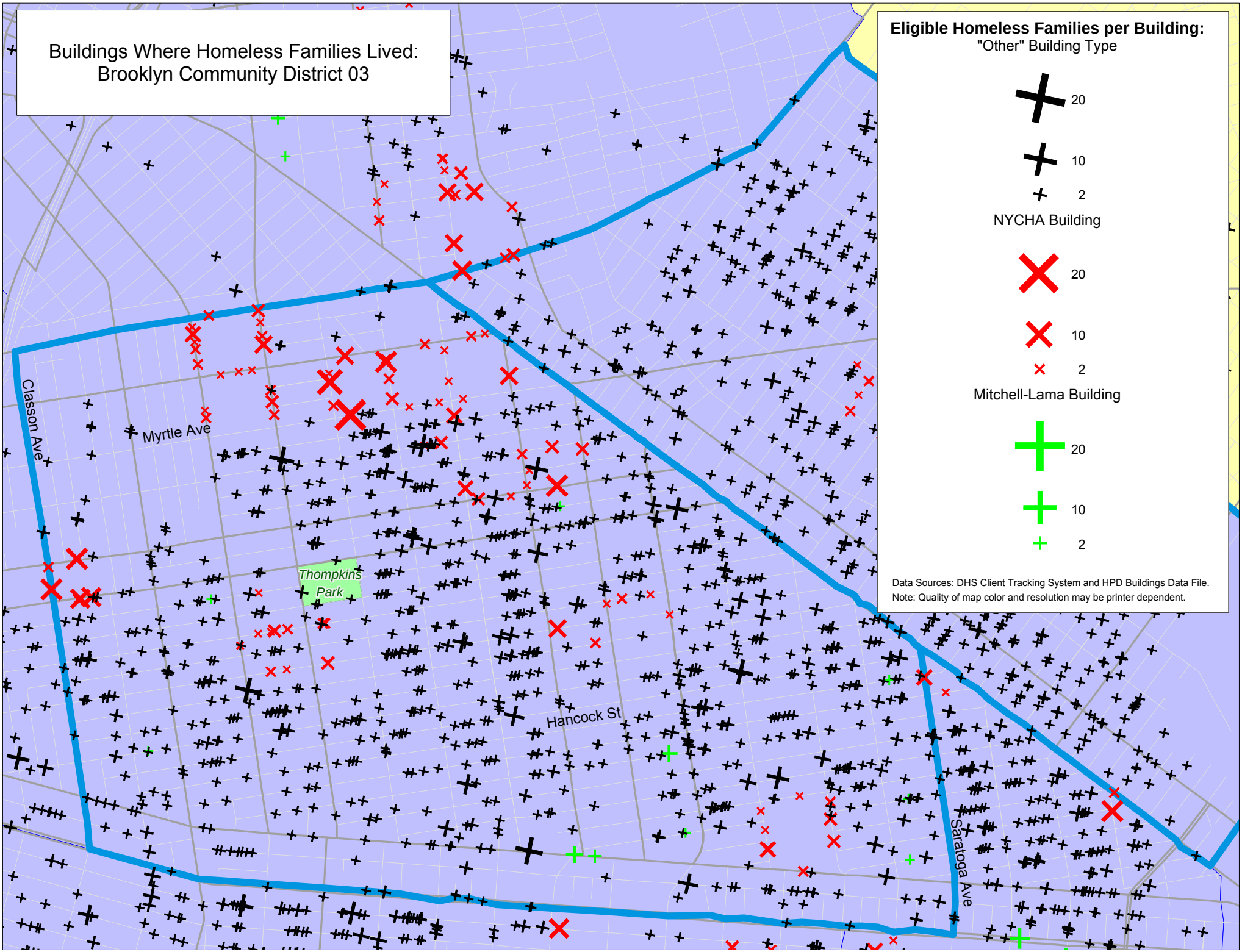


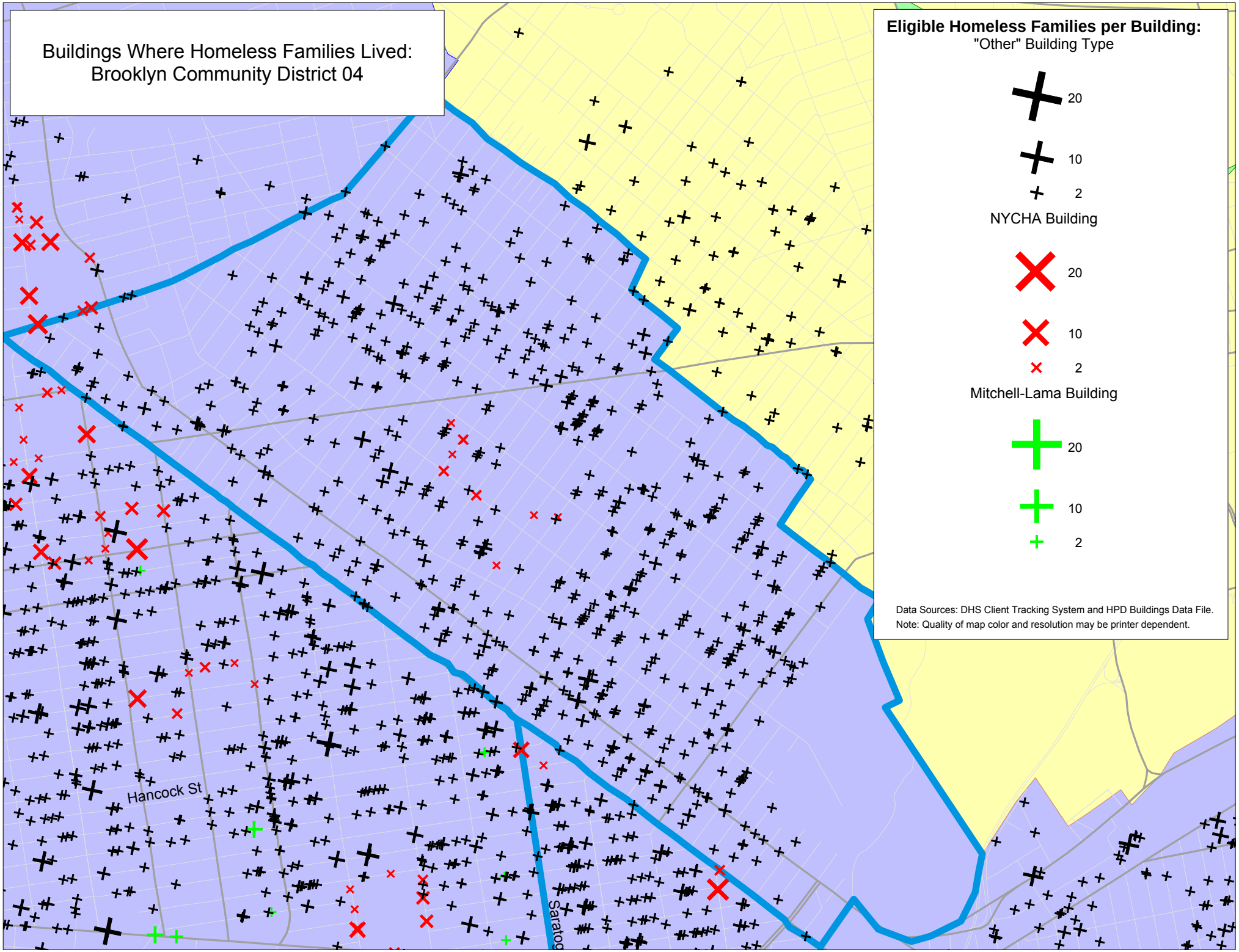
Data Sources: DHS Client Tracking System and HPD Buildings Data File.
Note: Quality of map color and resolution may be printer dependent.

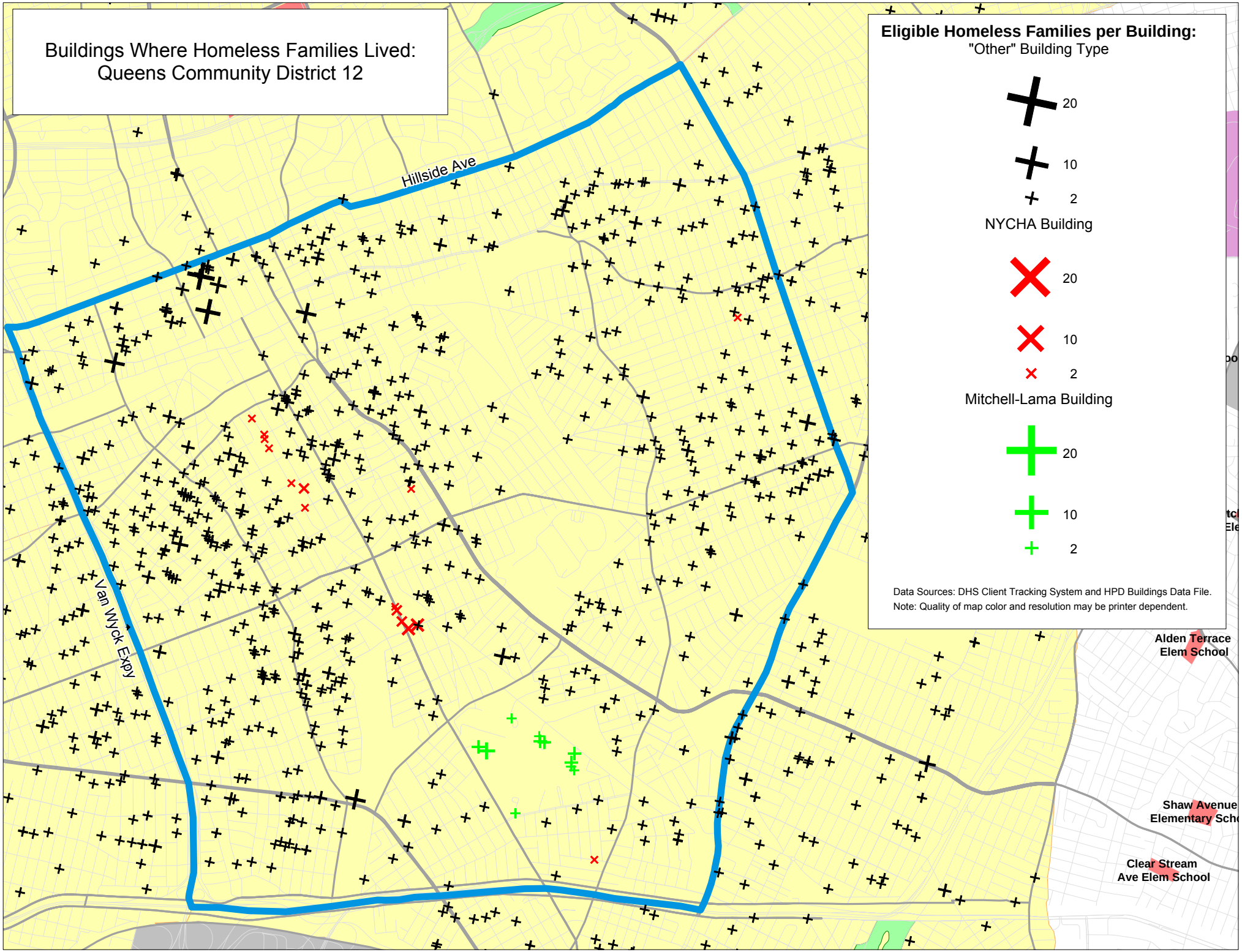

Buildings Where Homeless Families Lived:
Manhattan Community District 11
General Grant
National Mon
Morningside
Park
e Park
Central Park
Eligible Homeless Families per Building:
"Other" Building Type
20
10
2
NYCHA Building
20
10
2
Mitchell-Lama Building
20
10
2
Data Sources: DHS Client Tracking System and HPD Buildings Data File.
Note: Quality of map color and resolution may be printer dependent.


Buildings Where Homeless Families Lived:
Bronx Community District 01
Macombs
Franz
Sigel Park
St Marys Park
Eligible Homeless Families per Building:
"Other" Building Type
20
10
2
NYCHA Building
20
10
2
Mitchell-Lama Building
20
10
2
Data Sources: DHS Client Tracking System and HPD Buildings Data File.
Note: Quality of map color and resolution may be printer dependent.


Buildings Where Homeless Families Lived:
Bronx Community District 06
Eligible Homeless Families per Building:
"Other" Building Type
20
10
2
NYCHA Building
20
10
2
Mitchell-Lama Building
20
10
2
Data Sources: DHS Client Tracking System and HPD Buildings Data File.
Note: Quality of map color and resolution may be printer dependent.
Webster Ave
E 191st St
Crotona Ave
Bronx Park
E 181st St
3rd Ave
E Tremont Ave
E 175th St
Boston Rd
Cross Bronx Expy
Claremont Park
Crotona Park
Hylan Park


Buildings Where Homeless Families Lived:
Brooklyn Community District 03
Eligible Homeless Families per Building:
"Other" Building Type
20
10
2
NYCHA Building
20
10
2
Mitchell-Lama Building
20
10
2
Data Sources: DHS Client Tracking System and HPD Buildings Data File.
Note: Quality of map color and resolution may be printer dependent.
Classon Ave
Myrtle Ave
Thompkins Park
Hancock St
Saratoga Ave


Buildings Where Homeless Families Lived:
Brooklyn Community District 04
Eligible Homeless Families per Building:
"Other" Building Type
20
10
2
NYCHA Building
20
10
2
Mitchell-Lama Building
20
10
2
Data Sources: DHS Client Tracking System and HPD Buildings Data File.
Note: Quality of map color and resolution may be printer dependent.
Hancock St


Buildings Where Homeless Families Lived:
Queens Community District 12
Hillside Ave
Van Wyck Expy
Eligible Homeless Families per Building:
"Other" Building Type
20
10
2
NYCHA Building
20
10
2
Mitchell-Lama Building
20
10
2
Data Sources: DHS Client Tracking System and HPD Buildings Data File.
Note: Quality of map color and resolution may be printer dependent.
Alden Terrace
Elem School
Shaw Avenue
Clear Stream
Ave Elem School

Section III: Struggling to Make Ends Meet
Pre-Shelter Experiences of Homeless Families in New York City

Nancy Smith
Zaire Dinzey Flores

Vera Institute of Justice
February 2005

Executive Summary

Family homelessness has increased across the country and New York City is no exception. The number of families living in the City's shelter system has almost doubled since 1997, rising to over 9,000 families in 2003. Prompted by the unprecedented increase in homelessness and its high costs, Mayor Michael Bloomberg decided to shift the City's response away from costly shelter, toward more cost-effective preventive approaches that are less disruptive for families. While past research has identified various situational factors and life events that contribute to homelessness, a better understanding of how they unfold and interact in families' lives can help policy makers develop programs that are better able to prevent families from entering shelter.

This study sought to develop a detailed picture of families' experiences during the five years before they entered shelter. Researchers at the Vera Institute of Justice selected a random sample of 327 families living in shelters overseen by the New York City Department of Homeless Services and interviewed the heads of those families. We asked them about their housing histories and explored their experiences with a range of events that could have had an impact on their homelessness—in particular job loss, loss of public benefits, eviction, health problems, family conflict, domestic violence, substance abuse, and incarceration.

We found that families who are in shelter have many strengths. Contrary to popular belief, for example, most heads of homeless families report having a rather stable housing history before they enter shelter, and the majority have work histories and educational levels that suggest that they are employable. These strengths can be built upon when helping families stay housed and avoid entering shelter.

At the same time, the individuals we interviewed clearly struggled to maintain stability for their families in the face of a range of potentially destabilizing life events. The most prevalent of those events was job loss, which more than two-thirds of the people we interviewed experienced in the five years before they entered shelter. Eviction was another highly prevalent and also deleterious life event from the perspective of those involved. Almost half of all families experienced an informal or formal eviction. Despite the existence of services and resources in New York City to help families avoid eviction, most families we met did not fight their eviction. In fact, across the various jarring events that families experienced during the five years before they entered shelter, only a quarter sought and received services that might have helped them cope with these problems.

This study also pinpoints certain factors and events that had an immediate effect on a family's risk of entering shelter. Having been homeless before, experiencing an informal or formal eviction, experiencing domestic violence, and receiving public assistance increased the likelihood of a family entering shelter in that month. On the other hand, living in subsidized housing, being the leaseholder, and living in a residence for a longer time decreased the likelihood of entering shelter in that month. Crisis-oriented prevention programs could use these risk factors to direct limited prevention resources to families most at risk of becoming homeless.

Acknowledgments

We would like to thank the Commissioner of the Department of Homeless Services (DHS) Linda Gibbs, the Commissioner of the Department of Housing Preservation and Development (HPD) Shaun Donovan, as well his predecessor, Jerilyn Perine, and the General Manager of the New York City Housing Authority (NYCHA) Doug Apple, for their support of this project. In conducting this study, we received help from many staff from these agencies, including Maryanne Schretzman, Jay Bainbridge, and Kristen Mitchell from DHS; Ilene Popkin, Harold M. Shultz, Marya Kuklick, and Moon Wha Lee from HPD; and Sherry Schuh, Anne-Marie Flatley, and Jill Berry from NYCHA.

We also received invaluable assistance from our colleagues at Vera including Cari Almo, Robin Busch, Derek Coursen, Meredith Fabian, Karen Goldstein, Jennifer Jong, Martha King, Andre Lancaster, Erika Lugo, John Markovic, Megan Golden, Joel Miller, Tim Ross, and Tanya Saunders.

We would also like to thank the shelter providers who helped arrange the interviews and the families who participated in this study and shared with us their lives and experiences.

Finally, this report would not be possible without the generous support of the Rockefeller Foundation, the New York Community Trust, the United Way of New York City, and the Deutsche Bank Americas Foundation.

For additional copies of this report or to obtain the survey instrument used in this study, please contact the communications department of the Vera Institute of Justice, 233 Broadway, 12th Floor, New York, NY 10279, (212) 334-1300. An electronic version of this report is available on Vera's web site, www.vera.org.

Table of Contents

Introduction

Eva and her two children lost their housing and entered New York City's family shelter system in June 2003.[1]

Five years before Eva became homeless, she and her son were living in a one-bedroom apartment in the Bronx. Eva worked full-time as a home health aide, earning slightly more than minimum wage, and struggled to make ends meet. By the time she paid the rent, which was $650 a month, there wasn't much money left. She managed to pay her bills most of the time and meet her family's most basic needs. Fortunately, when things got tight, she was able to turn to family for some support.

Eva and her son lived in their small apartment for another three years until he developed severe asthma. He was hospitalized several times and had countless doctors' appointments to stabilize his condition. Eva missed work to take care of him. With less money coming in from her job, she quickly fell behind on her bills.

Eventually, Eva was let go for missing too many days of work. With no job and no money in savings, she couldn't pay the rent or any of her other bills. Her landlord went to housing court to have her evicted. One day when Eva returned home from a doctor's appointment, she found a dispossess notice on her front door.

Faced with an immediate crisis, Eva turned to the only place she knew of for help—her family and friends. None of them knew how to help her avoid eviction, but her mother offered to take her and her son in if they had nowhere else to go. Feeling overwhelmed by the gravity of the situation, Eva decided to leave her apartment before the courts formally evicted her and move in with her mother.

Living with her mom was not ideal. Eva and her son shared one bedroom; her mother had the other bedroom; and Eva's teen-aged brother slept on the couch in the living room. Disagreements were common.

Eva started to receive public assistance and, as part of the program, began working. Although she didn't make much money, she could contribute to the rent and other bills, reducing some of the stress of living doubled-up.

After almost a year, Eva became pregnant. Worried about their already cramped living arrangements and the added expense of another child, her mother was unhappy with the news but tried to make it work. When her landlord found out about the pregnancy, he told her that Eva would have to leave or the whole family would be evicted; the apartment was too crowded. The stress of a new infant coupled with threats from the landlord was too much for her mom. Eva's mom asked her to leave the apartment. Not wanting to jeopardize her family's apartment, Eva left with no other option but to go to a homeless shelter.

Having been in a shelter for almost nine months, Eva was nevertheless hopeful about the future. She was looking forward to having her own place again, going to college, getting a higher paying job, and most importantly, raising her children in a stable home.

Eva's case highlights experiences common to thousands of families who become homeless in New York City each year. Like many cities across the country, New York experienced an

[1] Eva's case is a composite and represents a common series of events that precede becoming homeless and entering shelter.

unprecedented increase in family homelessness beginning in the late 1990's and continuing through 2003. After a 10-year period of relative stability, the number of families in New York City's homeless shelters on any given night increased from 4,793 in 1997 to over 9,000 in 2003.[2]

The costs of homelessness are high. The average annual cost of housing a family in shelter is $31,116.[3] Even more troubling than the financial costs are the human costs. Homelessness challenges the health and stability of a family in every facet of their life. Homeless, families face daily stresses and conditions that can cause or exacerbate serious physical, emotional, and cognitive problems for both children and parents.[4] For these reasons, Mayor Michael Bloomberg decided to shift New York City's response to homelessness away from costly shelter, toward more cost-effective preventive approaches that are also less disruptive for families. To help achieve this shift, City officials wanted to know more about why families become homeless.

Past research has identified many causes of homelessness. On a structural level, factors like the short supply of affordable housing, declining relative wages, and poverty contribute to the problem.[5] On an individual level, unemployment, mental illness, substance abuse, and a history of certain traumatic childhood events increase the risk of homelessness.[6] Finally, certain crisis events have been associated with entering shelter, including job loss, eviction, domestic violence, family conflict, and illness.[7] However, this research has failed to show the specific ways in which these events unfold and interact in families' lives to contribute to their homelessness. A more nuanced understanding of families' experiences before entering shelter can help the City develop programs to prevent homelessness.

With this goal in mind, the New York City Department of Homeless Services, the New York City Department of Housing Preservation and Development, and the New York City Housing Authority asked researchers at the Vera Institute of Justice to conduct a series of research projects on homeless families, including a study of families living in New York City's homeless shelters. We selected a representative sample of 327 homeless families and interviewed the heads of these households. By capturing information on families' individual and housing characteristics, the events and conditions they faced over a five-year period, and their own understanding of the significance of those events, we hoped to provide a more complete understanding of families' experiences before they entered shelter.

This report is a summary of what we learned from families about their experiences during the five years before they entered shelter. It should be noted that the findings are based upon

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[2] New York City Department of Homeless Services, "Historic Data," http://www.nyc.gov/html/dhs/downloads/pdf/histdata.pdf, 1 August 2004.

[3] New York City Department of Homeless Services, Budget Estimate.

[4] Janice M. Molnar, et al., "Constantly Compromised: the Impact of Homelessness on Children," *Journal of Social Issues* 46, no. 4 (1990): 109-124. See also Martha R. Burt, "What Will It Take to End Homelessness?" Brief based on *Helping America's Homeless: Emergency Shelter or Affordable Housing?* (Washington, DC: Urban Institute, 2001).

[5] For a discussion of the impact of poverty on homelessness see McChesney, 1987. For the impact of work history and the supply of affordable housing on homelessness see Axelson & Dail, 1998; Blau, 1992; Goetz & Schmiege, 1996; McChesney, 1992; Rossi, 1989; Wright, 1989.

[6] See La Gory, Ritchey, & Mullis, 1990; Grisby et al., 1990; Wood et al., 1990.

[7] See Goodman, 1991; Anderson & Koblinsky, 1995.

respondents' perceptions of their families' experiences, which we did not corroborate. In the first section of this report, we provide a profile of homeless families in New York City, which includes demographic information as well as income, employment, and housing histories. We then provide an issue-by-issue account of families' experiences with eight key events: job loss, eviction, loss of public assistance, loss of housing subsidies, health problems, conflict and violence, substance abuse, and incarceration. Finally, we explore the impact of these events and other factors on housing instability and shelter entry, both from the perspective of the people we interviewed and from the findings of a statistical analysis.

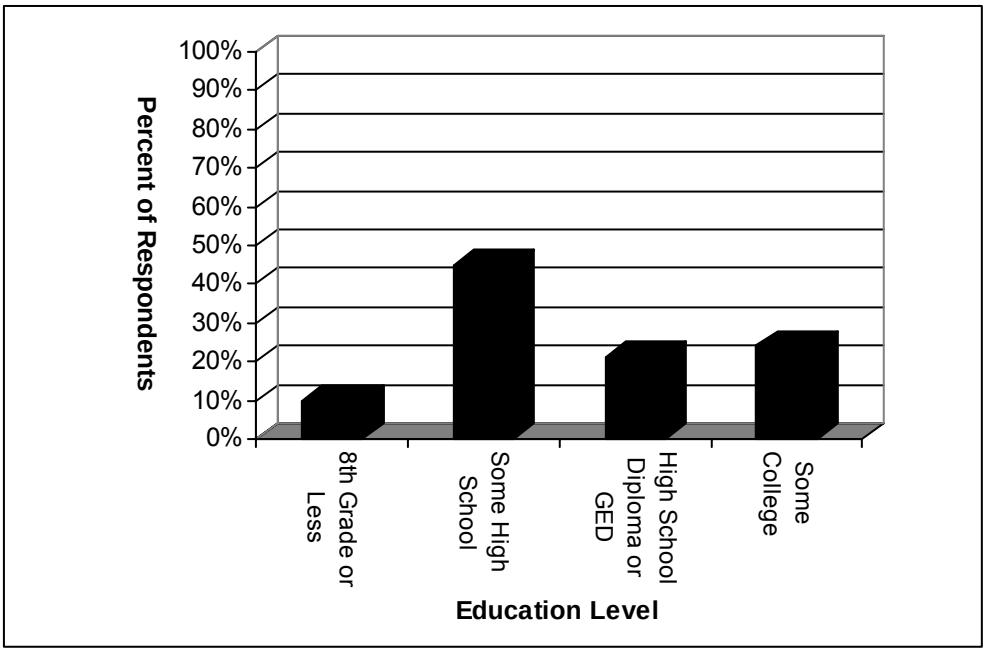
Description of the Families

Demographics

According to our study, the vast majority of families in shelter (89 percent) are headed by women. The average age of a head of household is 32 years, although we interviewed heads of households ranging in age from 18 to 68. The overwhelming majority were born in the United States. Slightly more than a third are of Hispanic or Latino descent. Almost two-thirds are black, and about one-fifth identify their race as "other." Thirty-seven percent of household heads speak a language other than English at home.

Forty-five percent have some high school education; 21 percent have a high school diploma or GED; and 24 percent have some college or a college degree (see Figure 1).

Figure 1: Education level of respondents (n=327)



Fifty-one percent are single, while 33 percent are either married, registered domestic partners, or non-registered partners. The remaining 16 percent of respondents are divorced, separated, or widowed. Table 1 provides a breakdown of the demographic profile of everyone we interviewed.[8]

[8] For a demographic comparison of families with minor children and adult families (i.e. families without minor children) see Appendix D.

Table 1: Demographic profile of respondents (n=327)

Average age	32 years
Sex	
Female	89%
Male	11%
Nationality	
Foreign born	22%
Ethnicity	
Latino	35%
Race	
Black	62%
White	6%
Native American/Alaska Native	1%
Asian	<1%
Mixed	7%
Other	22%
Unknown	2%
Education	
Eighth grade or less	11%
Some high school	45%
High school diploma/GED	21%
Some college	19%
Associates degree or higher	5%
Avg. age when left or finished school	18 years
Marital status	
Single	51%
Married	22%
Divorced/Separated/Widowed	16%
Registered domestic partner	9%
Partnered (not registered)	2%
Average family size	3.1

Employment History

The majority of those we surveyed, 79 percent, worked at some point during the five years before they entered shelter. On average, the heads of households we interviewed were employed once for approximately one year during the five years before they entered shelter, generally working low-skill and low-wage jobs that provided limited opportunities for development or growth. Many individuals reported working at offices as support staff, at fast food restaurants, as cooks, cashiers, security guards, childcare workers, home health aides, maintenance workers, and in sales. Some created their own small businesses, which they ran out of their homes, such as caring for children, selling food, and braiding hair. A small minority had careers working as accountants, nurses, taxi-cab drivers, and secretaries. Table 2 provides a breakdown of employment by occupational area.[9]

[9] The occupational categories come from the U.S. Department of Labor's Standard Occupational Classification (SOC). These categories are also utilized by the Census.

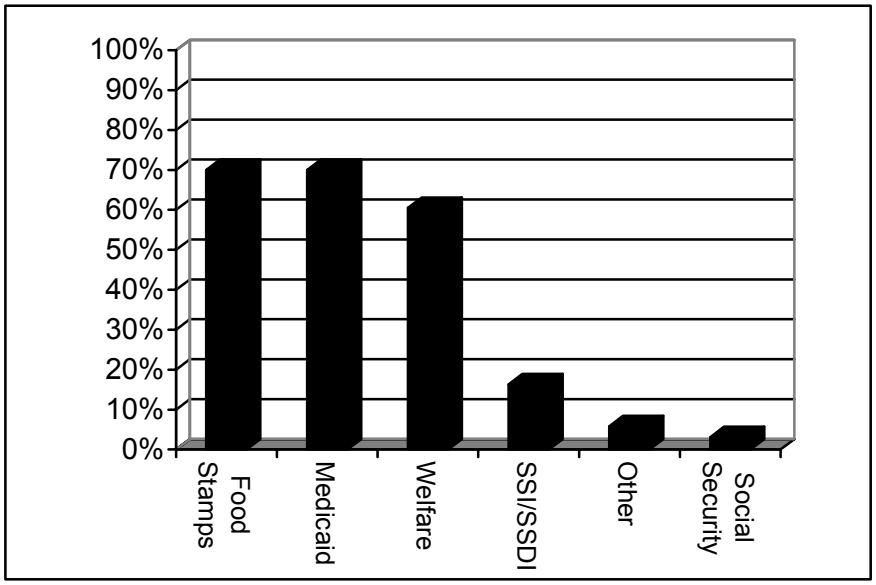
Table 2: Type of employment held by respondents (n=258)

Sales & Related Occupation	16%
Office & Administrative Support Occupation	12%
Food Preparation & Service Related Occupation	10%
Personal Care & Service Occupation	9%
Healthcare Support Occupations	7%
Protective Service Occupation	5%
Building & Grounds Cleaning & Maintenance Occupation	3%
Construction & Extraction Occupation	3%
Production Occupation	1%
Other	26%
Unknown	7%

Public Assistance Benefits History

Use of public assistance benefits was very common in the five years before a family entered shelter. Seventy-eight percent of families received some type of public assistance benefit. An overwhelming majority of families received Food Stamps and Medicaid, while more than half received Temporary Assistance for Needy Families (TANF). Families typically received public benefits for extended periods, ranging from about two years for benefits like TANF, Food Stamps, and Medicaid, to close to four years for more permanent benefits like SSI or SSDI.

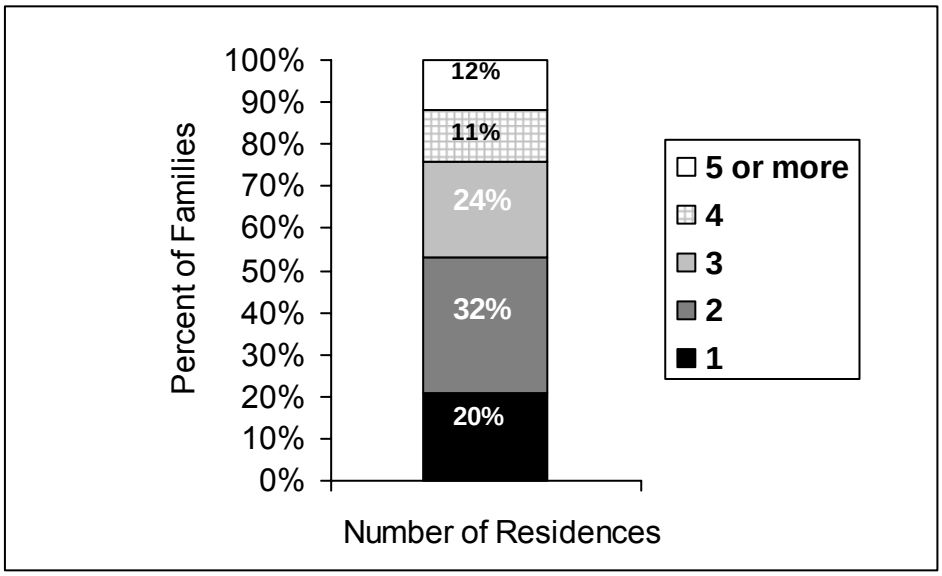
Figure 2: Type of public assistance benefits received by families during five years prior to entering shelter (n=327)



Housing History

Roughly half of families had relatively stable housing (1-2 residences) during the five years before they entered shelter, while the remaining were more mobile (3 or more residences). Figure 3 shows the housing histories of families during the five years before they entered shelter.

Figure 3: Number of residences respondents had during the five years prior to entering shelter (n=323)



Geographic origins and movement within New York City. Sixty-seven percent of respondents' previous residences were located in New York City. Similar to findings from previous analyses conducted by the Vera Institute of Justice, as well as Culhane, Lee, and Wachter, the previous residences of the people we interviewed were concentrated in northern Manhattan, south Bronx, and central Brooklyn.[10]

The families who moved within New York City during the five years before they entered shelter typically traveled short distances to their new home.[11] Slightly more than half moved within two miles of their previous residence, typically moving within the same borough (73 percent) but across community districts, which are smaller geographic areas within each borough.[12] This finding has important implications for neighborhood-based prevention strategies that use geography as part of their eligibility criteria, as at-risk families may live in one neighborhood immediately prior to entering shelter and a different neighborhood prior to that residence.

[10] See Appendix D for a detailed breakdown of the location of respondents' previous addresses in New York City by borough, as well as a series of maps that depict geographic distribution of these addresses.
[11] Of the 420 addresses that geocoded in New York City, there were 163 moves from one New York City address to another. We analyzed these pairings to learn more about the movement of families within the city.
[12] See Appendix D for a detailed breakdown of the distance between moves that occurred within New York City.

Housing characteristics. The majority of residences where families lived were located in New York City and were apartments, although one third of the residences were outside New York City. The residences tended to have two bedrooms and were occupied by an average of 2.5 people per bedroom. The majority of residences were not subsidized, although some residences were in public housing developments or subsidized by Section 8.[13]

Several key characteristics of families' residences changed as they transitioned from residence to residence and moved towards entering shelter. We discuss the key patterns below:[14]

- *Living in New York City*—The proportion of families living in New York City increased as families move towards shelter. While 67 percent of all residences were in New York City, 93 percent of the residences where families lived right before entering shelter were located in New York City.

- *Being the leaseholder*—Fifty-eight percent of the people we interviewed (or their spouses) were leaseholders at some point during the five years before they entered shelter. But, as families moved closer towards shelter, they were more likely to live in residences where the head of household was not the primary leaseholder, presumably moving in with family or friends. This pattern is true for all categories of families who moved during the five years before they entered shelter, but it is most dramatic for families who had lived in just two residences during that period. For those families, only 20 percent were leaseholders in the place they lived before they entered shelter, but 46 percent were leaseholders in their prior residence. Families who lived at only one place during this time, on the other hand, were more likely to be leaseholders than families with more residences.

- *Number of occupants per bedroom*—As families transitioned towards shelter, they moved to places that were occupied by more and more people, while the average number of bedrooms remained fairly constant. Thus, their living arrangements became increasingly crowded.

Table 3 provides a detailed breakdown of the characteristics of the five residences families lived in before they entered shelter and, for comparison's sake, the characteristics of their residence right before they entered shelter.

[13] We cannot assume that the respondents who lived in these subsidized apartments were receiving the subsidy. They could also have been living doubled-up with a family member or friends who received the subsidy.
[14] See Appendix D for graphs showing these patterns.

Table 3: Characteristics of families' residences

	Last five residences before shelter n=707	Residence right before shelter n=284[15]
Location of residence		
New York City	67%	93%
New York State (not New York City)	19%	1%
Out of State	14%	6%
Type of residence		
House	22%	19%
Apartment	67%	71%
Room	8%	8%
Other	3%	2%
Size of apartment building		
1 – 2 units	12%	10%
3 – 5 units	11%	11%
6 – 30 units	21%	25%
31 or more units	34%	36%
Unknown	22%	18%
Leaseholder (renters only)		
Respondent	32%	27%
Spouse	9%	6%
Parent/other family member	42%	51%
Friend	10%	13%
Other	14%	13%
Avg. number of bedrooms	2.2	2.2
Avg. number of occupants per bedroom	2.5	2.8
Average monthly rent (includes $0)	$626	$657
Type of subsidized housing/rent subsidy*±		
Public housing	19%	21%
Section 8	11%	12%
Jiggetts Relief	4%	5%
One-Shot Deal	.3%	.4%
Other rental assistance	14%	17.4%

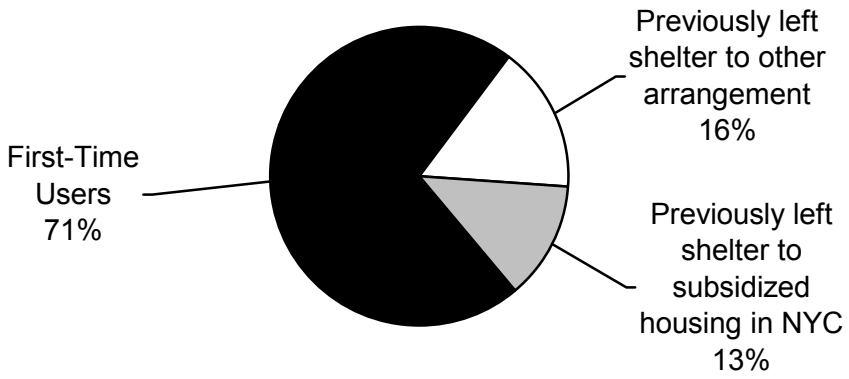
* Multiple responses were permitted for these questions. Thus, percentages do not add to 100%.
±The respondent was not necessarily the primary leaseholder of the residence that was subsidized.

[15] The total number of residences does not total 323 cases because respondents may have lived in an institutional setting, such as a hospital, jail, or drug treatment facility, or they may have lived in an intermittent housing arrangement lasting less than 30 days for which we did not collect detailed housing characteristics.

Previous Shelter Use

Eleven percent of the people we interviewed indicated that they had stayed in a homeless shelter as a child. The majority of people we interviewed—71 percent—were living in shelter for the first time as an adult. Of the total sample, 13 percent had returned to shelter after having been placed in subsidized housing, typically Section 8 or public housing.

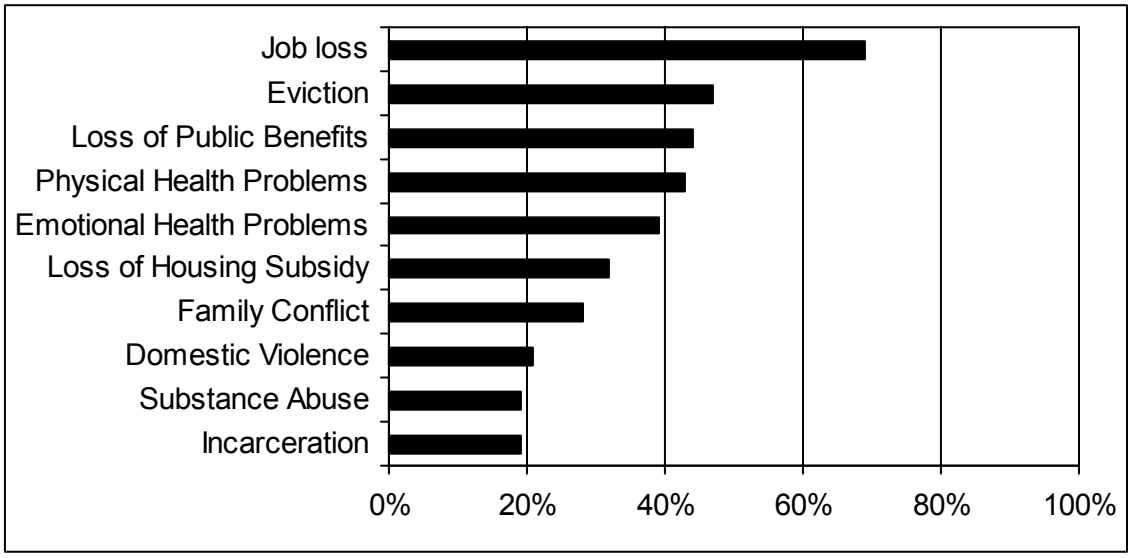
Figure 4: Previous shelter use as an adult among respondents (n=327)



Pre-Shelter Experiences of Families

During the five years before entering shelter, families had a range of potentially destabilizing experiences, the most common of which were job loss, eviction, and the reduction or loss of public benefits. Figure 4 summarizes the prevalence of various events among the population. It should be noted that the percentages in Figure 4, as well as those discussed throughout this section, do not imply a causal relationship between experiencing a specific event and entering shelter.

Figure 5: Prevalence of events among families during the five years before entering shelter (n=327)

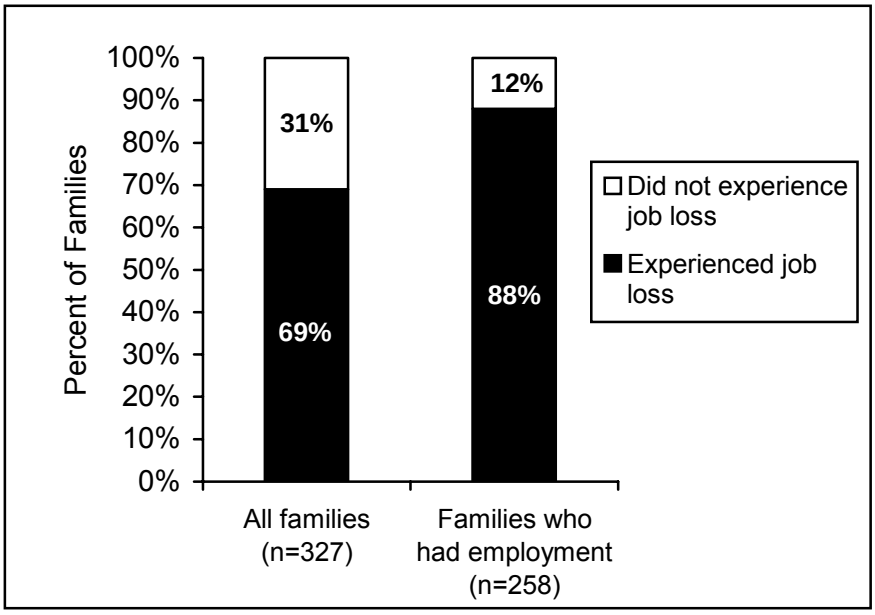


Job Loss

Job loss is a very common occurrence among the household heads of families who enter shelter (see Figure 5). Based on the number of people who talked with us about losing a job, we estimate that 69 percent of the total sample (n=327), or 227 people, became unemployed during the five years before they entered shelter. Among those who had a job at some point during this period (n=258), 88 percent lost it before entering shelter. The average amount of time between a person's last job loss and shelter entry was 13 months.[16]

[16] For many of the other events that are in this section, we have included a discussion of respondents' use of related services. But since we did not ask respondents who experienced job loss about their use of employment-related services, we cannot comment on that.

Figure 6: Prevalence of job loss among respondents during the five years prior to entering shelter



Reasons for job loss. When heads of households talked about why they lost their jobs, reasons clustered around three main areas: personal struggles, job displacement, and health-related issues. They experienced a range of destabilizing events or other struggles in their personal lives that precluded them from working, including difficulty finding child care and other child-related issues, grief, depression, family conflict, and domestic violence.

> *I was working at Human Resources in Brooklyn. I left when my daughter got molested because I couldn't focus anymore.*
>
> *From August 2000 to September 2001 I worked at Pathmark as a cashier. I left because I was on the verge of being fired because my husband thought I was sleeping with the manager and he was harassing him and slashed his tires, so I left.*

Some people also became unemployed because of the temporary or unstable nature of their jobs. *I worked at Yankee Stadium as a runner in food service, taking food to the people. I left because it was seasonal work.* Another respondent *had a summer job working for a daycare center, but it was only a summer position.* People also felt the impact of fluctuations in the economy, especially after the attacks on September 11, 2001: *The family that I worked for lost their job after 9/11, so I got laid off too.* Downsizing and business closings led to job losses. One person said: *I worked at GE Financial in customer service. I got laid off because they went bankrupt.*

Health issues, including pregnancies, illnesses and disease, and work-related accidents were also a common reason for job loss. Because many of their employers did not offer maternity leave, a woman often lost her job permanently after leaving to have a baby. For some, the work,

such as that of a home health aide, was too strenuous to do while pregnant. Other people had complications that prohibited them from working. One respondent explained her experience with pregnancy and subsequent job loss:

> *I left it because I was admitted to the hospital because I was pregnant and the baby ran the risk of being born prematurely. They didn't allow me to work while pregnant.*[17]

Other people lost their jobs because of poor health. Sometimes, they were disabled by their illness and could not work at all: *I was a home health aide for 15 years until I had a stroke.* Other people were fired for missing too much during an illness: *I got fired because I missed too many days because of my surgery and the complications after.* Sometimes, their injuries were job-related: "*I worked as a mechanic for about 30 years. But I had an accident. Two cars have collapsed over me and I almost died. I was very scared. I left it."* [18]

In addition to these core reasons, people lost or left their jobs because of conflicts with employers or co-workers, poor job satisfaction, long commutes, and to go back to school. Interestingly, a few people said they lost their job at the onset of their homelessness. For example, entering shelter or the location of the shelter where they were placed interfered with their employment.

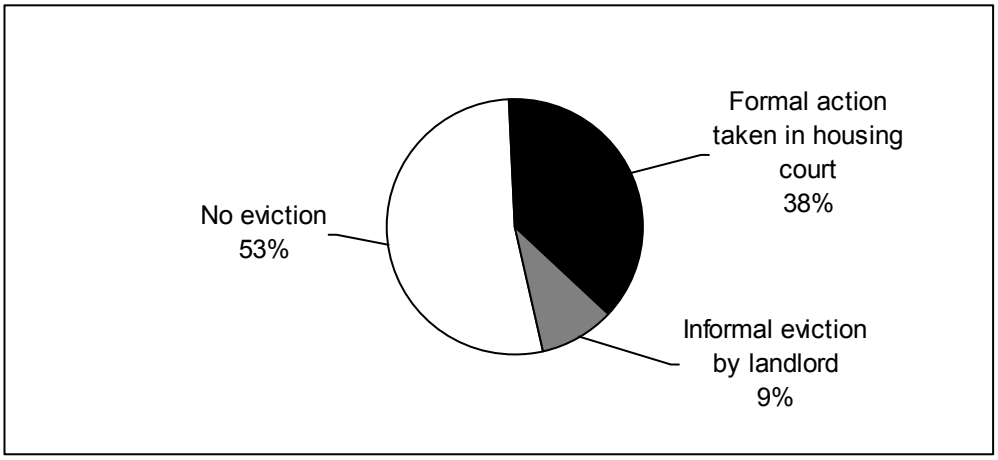
Eviction

Forty-seven percent of the people we interviewed (n =154) indicated that they or the people they were living with experienced an informal or formal eviction episode in the five years before they entered shelter (see Figure 7). These eviction episodes encompassed a wide range of experiences: some families responded to landlord requests to vacate their apartments; some responded to pre-court notices; some had formal action taken against them in housing court, although they did not reach the end stage of the court-ordered eviction process; and some were in fact evicted pursuant to a court-issued warrant of eviction. One-fifth, or 31, of these people reported that they received an informal threat from their landlord, while the remaining four-fifths, or 123 people, reported that they had formal action taken against them or the people they were living with in housing court. Respondents were the primary tenant of the apartment in the majority of these eviction episodes (59 percent of the time).

[17] This quote was translated from Spanish, which reads: *Yo lo deje porque me internaron en el hospital porque estaba embarazada y el nino corria el riesgo de nacer premature. Ellos no me permitieron trabajar embarazada.*

[18] This quote was translated from Spanish, which reads: *Trabajaba como un mecanico for about 30 years as a mechanic. Pero tuve un accidente. Dos carros me han caido por encima y casi me mori. Yo tenía mucho scared. Tenía mucho miedo. Lo deje.*

Figure 7: Prevalence of eviction among families during the five years prior to entering shelter (n=327)



The average amount of time between when a landlord threatens eviction and a family enters shelter was 13 months. The lag time was shorter when the courts ordered an eviction—seven months on average.

Reasons for eviction. When people talked about why they faced an informal or formal eviction, they cited three common reasons: non-payment of rent, building-related issues, and landlord-tenant conflict. As expected, many respondents faced an eviction episode due to non-payment of rent because they lost their jobs or other income sources (like TANF or SSI). Sometimes non-payment was related to building conditions, with people withholding rent because of poor living conditions.

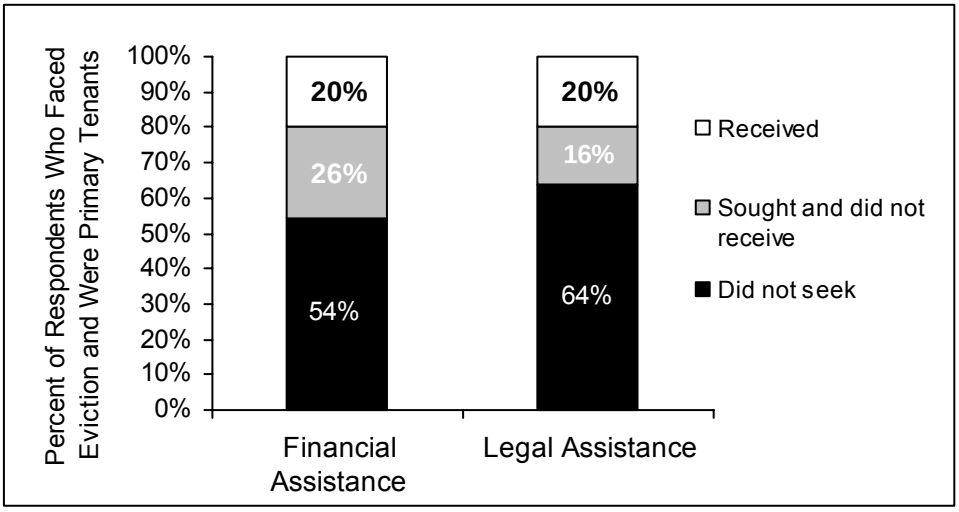
Some people were forced to move when their building was sold or being renovated: *The landlord sold the building and evicted all the old tenants. I'd still be living there with my mother if it didn't happen.* Other times landlords wanted to take back an apartment or home for one of their own family members:

> *The landlord was supposed to fix the violations on the house. I didn't pay her because she didn't fix it. She took me to housing court because she wanted her money. It dragged on so long. They told me that I had to pay the back rent. Then, the landlord told me that she didn't want the money, she wanted the apartment for her grandson.*

When people talked about eviction, they also talked about conflict with their landlords. Conflict often arose between landlords and tenants after an eviction threat, but people also viewed conflict as a factor that contributed to their eviction. Sometimes these conflicts were related to personal petty disagreements, while other times the disputes were graver, including allegations of sexual harassment and acts of violence.

Seeking help to avoid eviction. Despite the existence of eviction prevention programs in New York City, most families who faced an informal or formal eviction did not seek or receive these services. Only one in five families received financial or legal assistance. Figure 8 details the service use patterns among respondents who faced eviction while they were the primary tenants of a residence.

Figure 8: Assistance use among respondents who faced eviction when primary tenants (n=90)



Those families that did seek help most often approached the Human Resources Administration (HRA)—the New York City agency responsible for administering TANF, Food Stamps, and Medicaid—or an anti-eviction legal services provider. At HRA, people frequently sought financial assistance in the form of Jiggetts rental assistance or special benefits available on a one-time only basis. Their narratives revealed a range of experiences. In some cases, they received the assistance they sought, but their landlord would not accept it or the payment was late. More often than not, however, people did not receive the assistance they sought. According to them, the reasons for refusal included an income that was too high to qualify, an amount owed in back rent that was too high, or that they could not find additional funds to cover the remaining amount due to the landlord.

Perhaps because many families faced an eviction without assistance, families tended to flee their apartment and/or abandon the housing court process before an eviction order was issued. Many families received a threat (formal or not) from their landlord and just decided to leave the place: *I got a notice because I wasn't able to pay two months rent…but I never went to court. I just had to leave the apartment. The landlord said I had to go, and I left.* Other times they may have gone to housing court, trying to keep their home, and subsequently decided to avoid the whole situation by leaving their apartment: *When I lost my job in November 2003, the landlord served the papers and we were in the process with the court, but I just left.* Another person

described the tedious process she went through, at first with great hopes of not being evicted and later giving up and leaving her apartment:

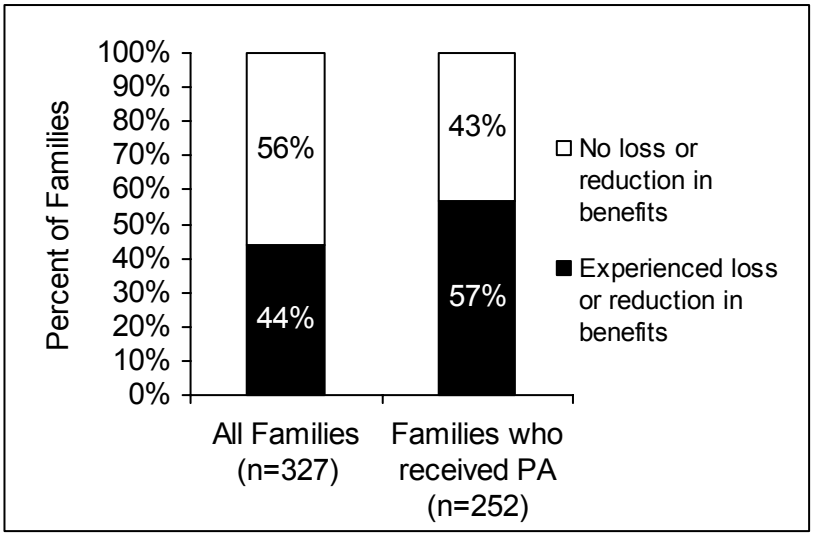
> *She [the landlord] was sending 72 hour notice in March telling me I had to answer the notice before I was evicted. I brought a paper to the court stating that the public assistance was pending. When it went in the computer no one did anything. The court told me that I either need to come back with a check or let the eviction go through. She [the judge] required that I come with a document saying that I need my check. The court faxed over to the landlord that I needed documentation and they still didn't provide documentation, they just said that I had to go. I didn't want to fight anymore so I started packing.*

Other possible explanations for this tendency to flee may be that families are afraid of a formal eviction: they leave their apartments immediately so an eviction cannot be ordered; or they may be unaware that they might be able to stay in their apartment even if they actually are behind on rent, so they see no point in fighting their eviction.

Loss of Public Benefits

Nearly half of all families we interviewed (44 percent) experienced a reduction or loss of public benefits during the five years before they entered shelter.[19] Of those families who received public benefits (n=252), 57 percent lost some or all of that benefit due to sanctions, reductions, or case closures during this time.

Figure 9: Prevalence of public benefits loss or reduction among families during the five years prior to entering shelter



[19] Public assistance benefits include Temporary Assistance for Needy Families (TANF), Food Stamps, Medicaid, Supplemental Security Income (SSI), Social Security Disability benefits (SSDI), and other public benefits like Social Security and Unemployment Insurance.

The average amount of time between the last recorded loss and shelter entry was 10 months.

Reasons for public benefits loss. According to the stories we heard, common reasons for losing public benefits, which most commonly were public assistance benefits—TANF, Food Stamps, or Medicaid—include missing required meetings, entering the workforce, and failing to comply with welfare-to-work requirements. People talked about missing their initial eligibility review meeting known as the Eligibility Verification Review (EVR), recertification appointments, and other required face-to-face meetings. Most of the time, people said they missed these appointments because there were problems with their mail and they did not receive the meeting notice: *My case closed because they were sending mail to the wrong place and I didn't get the notices*. Other times, emergencies or health problems stood in the way of families going to required meetings: *It was closed because I didn't follow-up with the appointments. It was a bad time. I was pregnant and miscarried my baby.*

People also said that they lost their benefits because they started working. Many families were no longer eligible for the same level of benefits with their income. *When I started working I was making enough money so they closed my case.* Other people decided to close their case on their own, once they got a job. Some families moved on and off welfare as their employment status changed*: My cash assistance ended when I started working, but it picked back up when I lost the next job.*

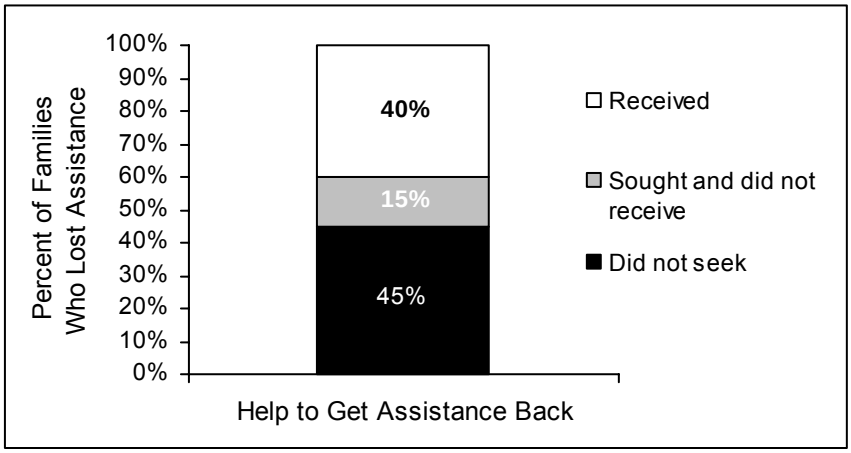
Another common reason why families lost their benefits was because of failure to meet the requirements of the welfare-to-work program (Work Experience Program, or WEP), which typically resulted in sanctions or case closings. People talked about being confused by the program and its requirements. Some said they didn't want to work in the WEP jobs: *They wanted me to clean projects. I didn't want to do it. They were trying to send me to real messed up projects and I just wasn't about to do it.* Finally, some people said they were unable to work because they either had health problems or they needed to take care of a family member who was sick: *I wasn't able to work because I was taking care of my husband who was sick.*

While we did not ask specifically about the impacts of welfare reform on this loss, we expected to see a substantial number of families whose benefits were reduced or cut off entirely as a result of the 1996 Welfare Reform regulations that limit receipt of public assistance to five years. However, less than five percent of families who lost their benefits cited this as a reason for their loss of benefits. Several of the people we met had not prior knowledge of the new time limits: *They told me that it was too long getting welfare. They said that there was a law that I could only get it for five years.*[20]

[20] This quote was translated from Spanish. The quote in Spanish reads: *Me decían que ya había mucho tiempo que recibía welfare. Decían que había una ley que solo podía recoger por 5 anos.*

Seeking help to restore benefits. When families' benefits ended, more than half sought help to get those benefits back, and 40 percent received help.

Figure 10: Use of services to get assistance back (n=144)



Most of the time, people approached the Human Resources Administration to resolve these issues. Some people went to their caseworkers; others requested fair hearings; and others reapplied. One person stated that she *went to the center and called for a fair hearing. [I] won the case because mail was sent to the wrong address.*

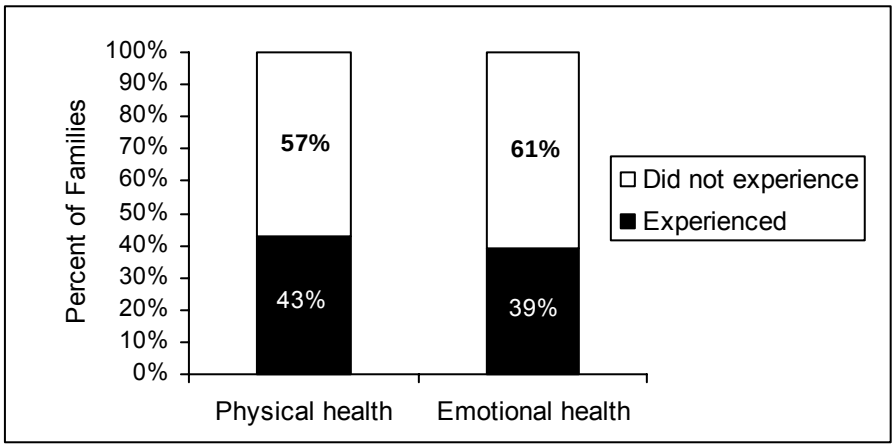
If their cases couldn't be re-opened, some families were encouraged by their public assistance case worker to enter shelter to re-activate their benefits: *I was try[ing] to find out if I could open a case back and left my stuff with the case worker's supervisor. She told me that by coming into the shelter the case will be reopened*. In these cases, shelter was seen as the only way to get benefits back. Indeed, some people reported that their benefits were only reactivated *after* they entered shelter. In these cases, shelter staff acted as advocates in the process of securing welfare benefits: *Patsy from the office {at the shelter}… helped me. She's been calling them asking why there hasn't been a change yet. She says that with my next check, my daughter should be on the budget.*[21]

[21] Name provided by respondent has been changed for confidentiality purposes.

Health Problems

Forty-three percent of the people we interviewed reported that they or someone in their household had serious physical health problems in the five years before they entered the shelter, and 39 percent reported emotional health problems within their family during this time period.[22]

Figure 11: Prevalence of health problems among families during the five years prior to entering shelter (n=327)

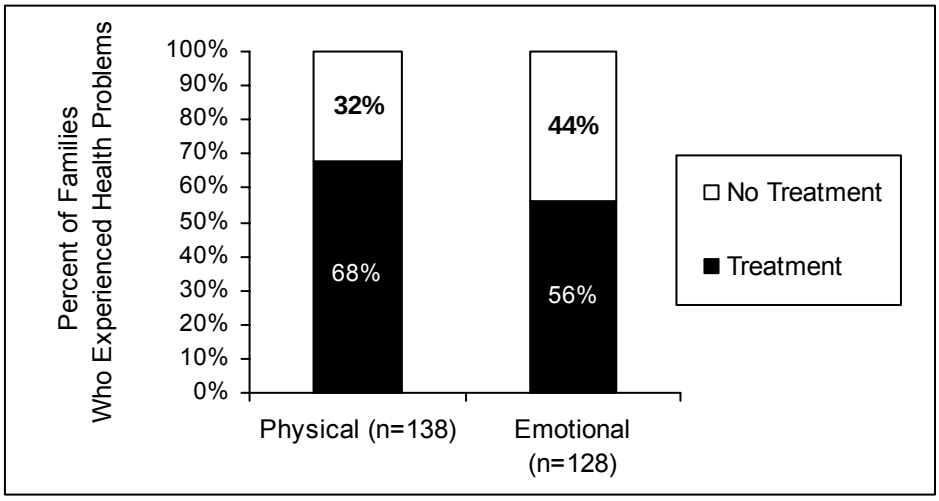


The average amount of time between the most recent onset of physical health problems and shelter entry was 30 months, and 10 months between the culmination of that problem and shelter entry. For emotional health problems, there was a longer amount of time between onset and shelter entry, 38 months, but less time between culmination and entry—only four months.

Seeking help. When faced with serious physical or emotional health problems, most families sought and received treatment. Roughly two-thirds of families with physical health problems and more than half with emotional health difficulties received treatment for their problems.

[22] The respondents of this survey were not given definitions of the terms serious physical or emotional health problems; they were allowed to use their own definitions in formulating their responses.

Figure 12: How often do families who have health problems receive treatment?



Loss of Housing Subsidies

About a third of the heads of households we interviewed (32 percent) reported that they received a housing subsidy or lived in a subsidized household during the five years before they entered shelter. Two out of every five of these families received subsidized housing (mostly Section 8 or public housing) upon exiting the shelter system in New York City. Based on our discussions about subsidy loss, we estimate that nearly every family who reported receiving a housing subsidy lost it before they entered shelter.

Reasons for subsidy loss. Several themes emerged when talking to people about the reasons they lost their subsidy: public assistance or welfare case closings, problems with Section 8, delays in receiving housing assistance, and relocating to another apartment or city. Welfare case closures had a significant impact on families' housing subsidies. In some cases, like with Jiggetts rental assistance, a family's housing assistance is linked to its welfare case. When the case was sanctioned or closed, they also lost their rental assistance. In other cases, families relied on welfare to pay their portion of the rent required by Section 8 or public housing. When they stopped receiving cash assistance, they could not afford the full rent and either moved or were evicted.[23]

Families also lost their housing subsidies because of problems they encountered with the Section 8 voucher program and the annual inspection process, in particular. According to the people we interviewed, inspection failures impacted families in two common ways. First, once Section 8 stopped paying the rent after a failed inspection, landlords threatened to evict some

[23] According to officials from the New York City Housing Authority (NYCHA) who reviewed this report, procedures exist within NYCHA to accommodate changes in income among recipients of housing subsidies. For example, Section 8 residents can request an interim change in their annual income from NYCHA who can adjust the monthly rent to compensate for the income loss. We did not ask respondents about their knowledge or use of this procedure in this study.

families from their apartment, holding them responsible for the full rent amount.[24] Unaware of their right to stay in the apartment for a certain period of time or until they find another apartment, many of these families left their apartment and, consequently, their subsidy. Second, after qualifying to move into a new apartment after a failed inspection, many families could not find a new apartment within the allotted time and their "shop around" certificate expired, leaving them without a subsidy. Many of these families stayed in their apartments struggling to pay the full rent amount, while for others losing their housing subsidy and the aftermath proved to be too much and ultimately landed them in shelter.

> *The apartment failed inspection. Section 8 stopped paying rent. I had to go to court. I got a stipulation. I didn't have the $3,000 of back rent so I left. I think that was a stupid thing to do—me leaving but I didn't know. I didn't know about housing and tenants and issues and stuff like that. I told the landlord I didn't have the money. The landlord told me to get a one-shot deal. But I didn't know about how to go about doing it. The reason why I lost it too was because I didn't go back to get my third Section 8 voucher. I was supposed to get a 2-bedroom. I was looking, but waited too long. I was living on Belmont at the time.*

Families also experienced delays in their housing subsidy payments. These delays led to conflicts with landlords and sometimes an eviction or a voluntary move. These landlord issues were not exclusive to Section 8 recipients. Problems with other subsidy programs such as Jiggetts rental assistance also contributed to tenant-landlord conflicts. One person described the attempts she made to keep her housing when the landlord became tired of late rental payments:

> *The landlord didn't want to wait for last month's rent. Only one month's rent was owed. I had gotten sick with multiple sclerosis. He didn't want to wait for me to get rent money together so he served me eviction notice. I took it to Jiggetts and they said it was my part of rent and they couldn't pay it. But later they approved me getting lump sum—that'd have to pay it back, but judge wouldn't wait.*

Finally, some families talked about losing their subsidy because they relocated to a new area.[25] Some families moved out of state, while others moved to a new apartment. Relocation

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[24] According to officials from the New York City Housing Authority (NYCHA) who reviewed this report, while a landlord may try to evict for non-payment of the tenant's portion of the rent, he or she is not permitted to evict a tenant for non-payment of the subsidy portion of the rent after Section 8 payments have been suspended following a failed apartment inspection. If aware of such an eviction, NYCHA will try to block the eviction in housing court on the subsidy amount. After subsidy is suspended and the landlord still does not correct the violations, NYCHA will offer the tenant an emergency transfer voucher entitling the tenant to search for another Section 8 apartment for 4 months (with extensions as may be necessary).We did not ask respondents about their knowledge or use of these specific procedures in this study.

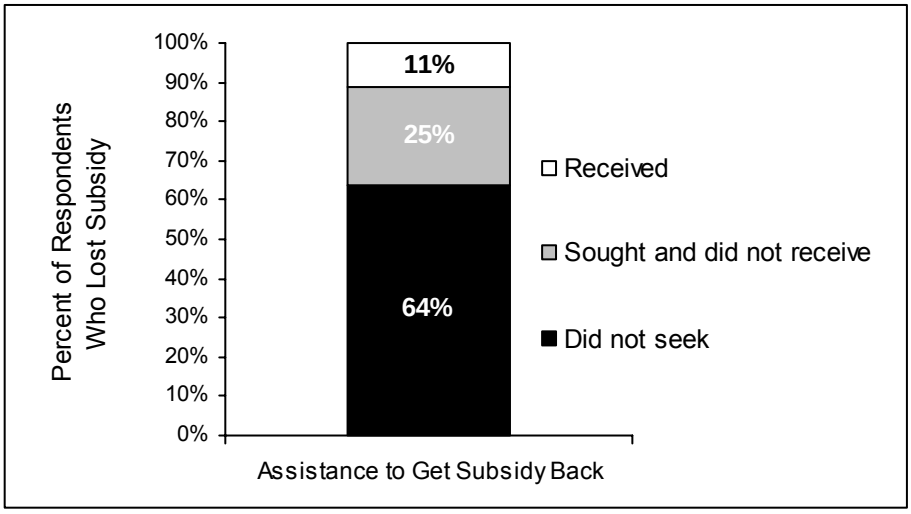
[25] According officials from the New York City Housing Authority (NYCHA) who reviewed this report, based on the "Voucher Program Guidebook" from the U.S. Department of Housing and Urban Development, an eligible family that has been issued a housing choice voucher may use that voucher to lease a unit anywhere in the United States where there is a housing agency operating a housing choice voucher program. To enact this feature of the program, a Section 8 resident must inform NYCHA they are moving, and NYCHA will work with the new locality's housing

frequently occurred for family reasons, and also to flee violence, either in the community or their home.

Interestingly, a few families entered shelter before they lost their housing subsidy. One person said: *We still have Section 8. But we're desperately looking for an apartment…My voucher expires at the end of the month.* In some cases, victims of domestic violence fled to shelter, while their partners continued to receive the housing subsidy: *I never stopped receiving housing. So, I'm living here and still paying rent over there. And I have to see my batterer when I go check my mail.*

Seeking help to restore subsidies. Given the significant role that housing subsidies play in families' housing stability, it is surprising that these families did little to maintain their subsidy. Almost two-thirds of families who lost their subsidy did not seek assistance to get it back, and only 11 percent sought and received help.

Figure 13: Use of services to get subsidy back (n=103)



Those families who did seek help most often approached the government agencies who granted their subsidy for help including the local housing department, housing authority, and the local public assistance office. Other families sought legal assistance or went to shelter to get help. While some families got the help they needed, most did not. Therefore, respondents tended to express feelings of hopelessness when they talked about these experiences:

> *It was like I was fighting the battle by myself. It's like if you don't know your rights, they will [mess] you over. They were saying that if she was just on the lease she could've stayed, but I didn't know that before I was just trying to help her find a place instead of going through all that.*

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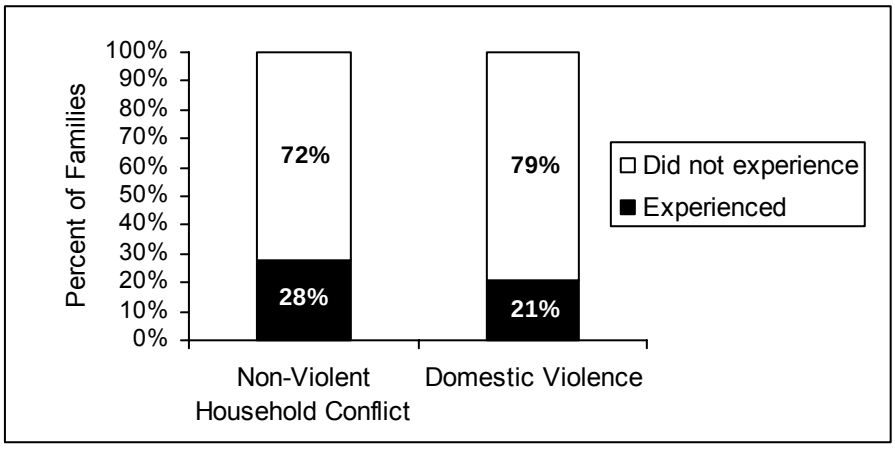
agency to complete the new Section 8 rental to the applicant or transferring tenant in the new locality. We did not ask respondents about their knowledge or use of this procedure in this study.

Interestingly, after approaching the Human Resources Administration for help, some families were referred to shelter by their case worker when available assistance could not stabilize their housing or no other options existed: *I reached out to Jiggetts and they said no PA [public assistance or TANF program] will help me. PA didn't help me get Jiggetts back but they helped me come here [to shelter].*

Conflict and Violence

Serious household conflict and domestic violence is present in the pre-shelter histories of a portion of families we interviewed, but is not prevalent. Slightly less than a third of people (28 percent) reported serious household conflict and roughly a fifth (21 percent) reported domestic violence in the five years before their family entered shelter.

Figure 14: Prevalence of household conflict and domestic violence among families during the five years prior to entering shelter (n=327)



The average amount of time between the most recent episode of household conflict and shelter entry was 10 months. Between domestic violence incidents and shelter entry, it was 12 months.

Reasons for household conflict. While we did not ask people to talk about their specific experiences with domestic violence, we did ask them to talk about the circumstances surrounding household conflict. When discussing these conflicts, many people mentioned overcrowded living conditions. One person explained the strain caused by having too many family members in a small space:

> *It was overcrowded, so everyone was fighting over each other. The other kids were older and they would beat up my son and play fight with him and that would start an argument. No one would wash the dishes and that would lead to an argument. I mean nothing violent like kicks and punches, just verbal.*

Circumstances that added people to an already crowded situation also caused conflicts. Pregnancy was a trigger people commonly mentioned. *We kept arguing. It was too much with my pregnancy and my kids*. Pregnancy also triggered economic strain that led to conflict.

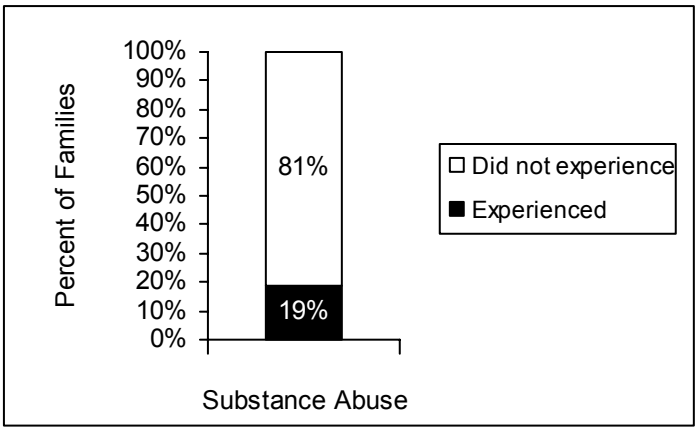
> *After I lost my job and found out I was pregnant, she started to trip about me not paying rent and the costs of my baby. She wasn't havin' it. She was getting into arguments with me every day because the money wasn't there.*

Some people left these crowded conditions for healthier, conflict-free environments for their children. Parents often expressed a desire to protect their born or unborn children from the conflicts of the household. One person stated that she left her housing because: *I didn't want my daughter around me arguing. That wasn't the environment for my daughter to be in.*

Substance Abuse

Histories of substance abuse are not very common among the overall population of families in shelter. Only 19 percent of people indicated that they or someone in their household had problems with drinking or drug use in the five years before they entered shelter.

Figure 15: Prevalence of substance abuse among families during the five years prior to entering shelter (n=327)



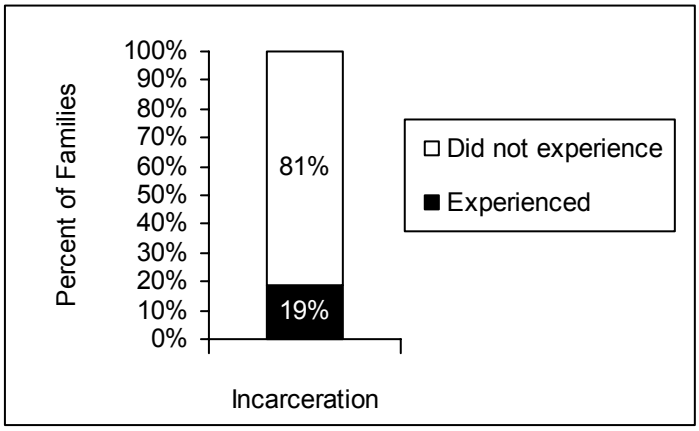
Substance abuse was more common in families without minor children ("adult families") than in families with minor children. Forty-four percent of adult families reported substance abuse, while only 14 percent of people with children did. But adult families were more likely to receive treatment for substance abuse issues. Almost three-fourths of adult families with substance abuse issues received treatment, while less than half of families with children did.

Incarceration

A history of incarceration is not common among families who end up in shelter. Just 19 percent of people said they or another household member had entered or returned home from jail or

prison over the past five years. Adult families were more likely than families with children to have experiences with incarceration (29 percent versus 17 percent).

Figure 16: Prevalence of incarceration among families during the five years prior to entering shelter (n=327)



Summary

Heads of households and their family members experienced a range of potentially destabilizing events during the five years before they entered shelter. The most prevalent of these events was job loss, which was experienced by more than two-thirds of respondents. Moderately prevalent events, or those experienced by anywhere between one- and two-thirds of respondents, included eviction, reduction or loss of public benefits, physical and emotional health problems, and loss of subsidized housing. Events experienced by less than a third of families included household conflict, domestic violence, substance abuse, and incarceration.

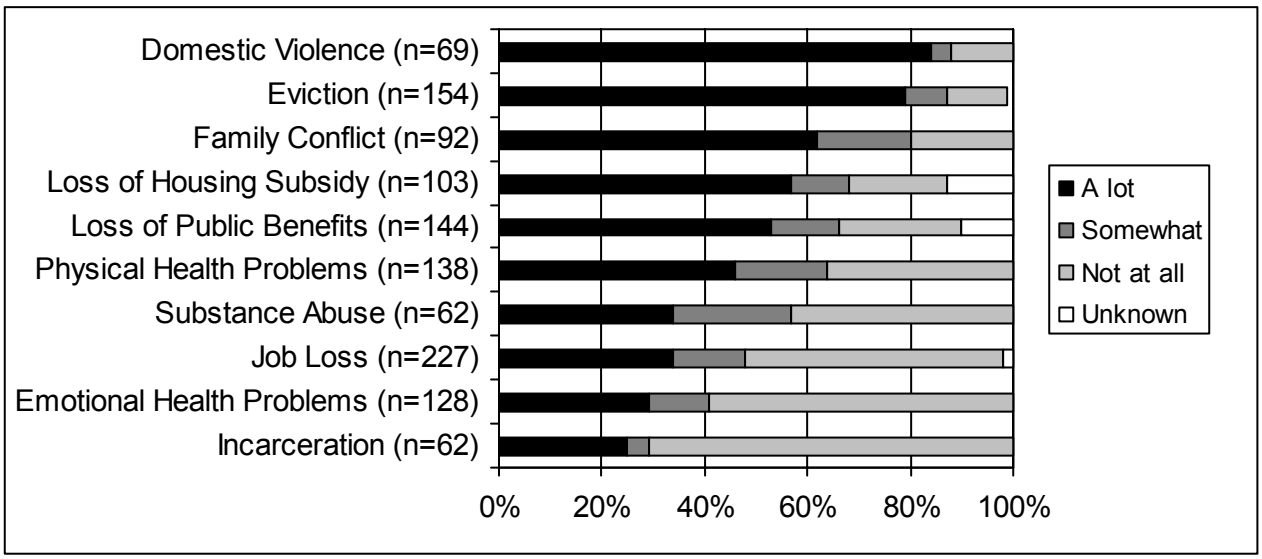
While we mainly discussed each of these events independently from one another in the preceding section, they actually interacted and overlapped in families' lives. The interaction of these events was most evident when respondents discussed the circumstances behind each event. For example, respondents commonly talked about health issues when they discussed why they had lost their job. Loss of income—either from employment or public benefits—was also frequently cited by respondents as a reason why they faced an informal or formal eviction. Similarly, a reduction or loss of public benefits was cited by respondents as one factor that contributed to them losing their housing subsidy.

Impact of Events on Families' Homelessness

Respondents' Perceptions

Knowing the prevalence of destabilizing events in the lives of families before they entered shelter does not tell us much about the role those events played in contributing to families' homelessness. To answer that question, we asked people to tell us how much each event they experienced contributed to their homelessness: a lot, somewhat, or not at all. Figure 17 displays the results.

Figure 17: How much did each event contribute to families' homelessness according to respondents who experienced the event?



At the top of the list, domestic violence, eviction, and household conflict were identified by 80 percent or more of those who experienced these events as having an impact on their homelessness.

Domestic violence is not widespread among the families in this study. Our interviews suggest a prevalence rate of 21 percent. But among those who lived with violence in the five years before entering shelter, 88 percent said it had a direct impact on their homelessness, with most people saying that it contributed "a lot." Domestic violence forced many families to enter shelter for safety: *If I would not have had the domestic violence problem, I would not have had to go to the EAU.*

While household conflict is also not widespread—the prevalence rate is 28 percent—people view this experience as a crucial factor in their family becoming homeless. Eighty percent of the families who experienced household conflict said that the conflict contributed to their homelessness a lot or somewhat. Conflict often forced people to move and, in some cases, move directly into shelter: *Once I got pregnant there was a lot of arguing. I was always crying and my mother told me to go to the EAU. One day I just couldn't take it anymore…so I left.*

Families also connect eviction to their homelessness, which is not surprising since evictions pose a clear and direct threat to a family's housing. Eighty-seven percent of people who experienced an eviction felt that it had an impact on their homelessness.

Although the findings are less dramatic, the majority of people indicated that loss of housing subsidies, loss of public benefits, physical health problems, and substance abuse issues contributed to their homelessness. Slightly more than two-thirds of people who lost a housing subsidy said that the loss contributed to their homelessness. Similarly, two-thirds of people who experienced a loss in public benefits viewed that event as a contributing factor.

Sixty-four percent of people whose families experienced a health problem indicated that it led in to their homelessness: *I couldn't work. I was head of household. Everything depends on me. If I'm not in good health, the whole house comes down. My job didn't have any health insurance.* Some people with health problems missed work frequently—and risked losing their job as a result—while others were unable to work at all. Health problems also took a toll on families by making then less prepared and able to address other challenging life events. One person said that after surgery, she lost her job and she *just went downhill.* Another person said: *When one has depression it is harder to solve problems*.

While 57 percent of people who had substance abuse issues in their household indicated those issues contributed to their homelessness, their narratives often suggested an indirect effect. For example, substance abuse often led to family conflict or violence. One person explained how the use of drugs led to violence in her family: *My husband got violent on drugs and started to threaten me. When I left, my husband sold everything in the house and sold it for drugs.* In cases like this one, the drug use and violence led to a loss of housing. Violence as a result of drinking also prompted some people to flee their homes: *Drinking escalated, he was abusive and the final straw was when he attacked the kids…I called the police…the policewoman told me to get out and how to do it.* It also led to emotional and mental health problems and created situations that made it hard to maintain stable housing. A woman lost her family's housing because she spent her partner's money on drugs instead of rent.

On the other hand, the majority of people indicated that events like job loss, emotional health problems, and incarceration did not contribute to their homelessness. Interestingly, even with the challenges that people described in obtaining and maintaining employment, they were divided on whether job loss had an impact on their homelessness. Fifty percent of people who experienced job loss suggested that the event did not contribute to their homelessness. There are several possible ways to explain this. Because many people held temporary jobs, they may have expected their employment to end. Also, job loss may be a fairly common occurrence in their communities. Finally, people may rely more heavily on public assistance than employment to support their families.

By far, the event that people indicated as having the least impact on their homelessness was incarceration, either of themselves or another household member. And it is important to remember that the experience of incarceration is not widespread among families in shelter. Seventy-one percent of people who experienced incarceration in their household indicated that it

did not contribute to their homelessness at all. Similar to substance abuse, the narratives of those who indicated an impact suggest that the impact was indirect. Some people lost their jobs after being incarcerated and sometimes, subsequently, their home: *Because it resulted in me losing the job and that's not the only thing that helped me become homeless.* Other families lost important financial contributions from a household member once he or she were incarcerated, making it difficult to pay their rent and other expenses. Sometimes, domestic violence was triggered when a family member returned home from jail or prison: *Once he returned that's when the domestic violence started. Before there was just arguments but it was worse when he got back.* Incarceration could also threaten families' housing more directly, especially if the lease for the apartment was in the person's name who was incarcerated: *The lease was in his name, I didn't know how long he would be there*.

Empirical Analysis

In addition to asking people whether or not difficult life events contributed to their homelessness, we also examined whether those events were statistically associated with shelter entry in the month in which they occurred. In other words, we wanted to know which events or conditions placed a family at higher risk of entering shelter or moving into another residence during that month. To do this, we conducted a multivariate analysis of data from a five-year life history calendar that includes monthly information on families' housing status and characteristics, as well as their employment status, use of public benefits, receipt of housing subsidies, and experiences with health problems, household conflict, domestic violence, substance abuse, and incarceration.[26]

Our analysis found that some factors, when controlling for others, have an *immediate* effect on a family's housing stability. The immediate risk of entering shelter increases with any of the following:

- Having been homeless before;
- Living in a single room;
- Experiencing an informal or formal eviction;
- Experiencing domestic violence; and
- Receiving public assistance (TANF, Food Stamps, or Medicaid).

Families who had been homeless before were 11 times more likely than their counterparts who had not been homeless before to enter shelter. Those families living in a single room as opposed to a house were seven times more likely to enter shelter. Experiencing an informal or formal eviction also made families seven times more likely to enter shelter during the month it was experienced. Those families who experienced domestic violence were five times more likely to enter shelter during the month in which domestic violence was experienced. And, finally,

[26] For a detailed description of the methodology and key findings of this analysis, please see Appendix B.

families who received public assistance (i.e. TANF, Food Stamps, or Medicaid) were two times more likely to enter shelter during the month in which the assistance was received.

On the other hand, the immediate risk of entering shelter decreases with any of the following:

- Living in subsidized housing;
- Holding the lease to the residence; and
- Having a longer length of stay in a residence.

Families who did not live in subsidized housing were eight times more likely to enter shelter during that month. Those families who were not the leaseholder were two times more likely to enter shelter during that month. And, finally, those families who had been living in their housing for one month less were one time more likely to enter shelter during that month.

These findings have important implications for identifying families who are at-risk of homelessness. For example, those families who experience informal or formal evictions or domestic violence, and those who receive public assistance, live in a room, and have been homeless before are at increased risk of entering shelter in the month that these conditions are present compared with those families who do not have these experiences. Targeting limited prevention resources to families who meet one or more of these conditions might be a promising strategy for reducing the number of families who enter shelter.

We also looked at what factors placed a family at higher risk of moving into another residence to understand what factors are associated with housing stability. When it comes to moving to another residence, the immediate risk increases with any of the following:

- Experiencing an informal or formal eviction;
- Giving birth;
- Experiencing domestic violence;
- Having a household member who is incarcerated;
- Being employed; and
- Having minor children.

Families who experienced an informal or formal eviction were 23 times more likely to move to another residence during the month in which the eviction episode was experienced. Those families whose head of household gave birth were four times more likely to move to another residence during the month in which the birth was experienced. Those families who either experienced domestic violence or had a household member who was incarcerated were two times more likely to move to another residence during the month in which the event was experienced. And, finally, those families whose head of household was employed or who had minor children were one and a half times more likely to move during the month in which the event was experienced.

On the other hand, the immediate risk of moving to another residence decreases with any of the following:

- Living in an apartment as opposed to a house;
- Holding the lease to the residence; and
- Having a longer length of stay in a residence.

Clearly, some factors support housing instability generally, perhaps increasing a family's chances of moving including moving to shelter. Those factors that have an immediate impact on both shelter entry and a move to another residence include: living in subsidized housing, being a leaseholder, time in residence, experiencing an informal or formal eviction, and experiencing domestic violence. It is important to remember that no one variable alone can predict shelter entry. It is only by looking at these variables in combination that one begins to identify a family's risk of entering shelter.

Entering Shelter

Sources of Help During a Housing Crisis

While families experienced a range of events and conditions that contributed to their housing crisis, the majority did not access services to address those events before they became homeless. In fact, 75 percent of families (n=245) did not seek or receive services or assistance designed precisely to help families avoid homelessness. For example, the City of New York offers rental assistance for families who are at-risk of an eviction, but very few families got help paying their rent from these resources. Only eight percent of families in our study received Jiggetts rental assistance; five percent received special benefits available on a one-time only basis; and only one percent received assistance from a community-based provider in the five years before they became homeless.

When we asked people who they turned to for help during a housing crisis, the three most common responses were family and friends, themselves, and government or, in the words of many people, "the system." Before entering shelter, the immediate support networks of families were comprised primarily of other family members. When faced with housing-related problems, people turned to their siblings, parents, aunts and uncles, and grandparents for help: *I have family, my family. They give me support. I have an uncle out in Hempsted. When I need help, I can call him.* Respondents even turned to family when they knew the help would be limited: *I call my mother most of the time, but she can't help me with rent.*

People without family support networks relied primarily on themselves to get through a crisis: *I have no one really because my other family members are scattered all over the place. I just try to do it myself.* These individuals either expressed strong feelings of isolation and loneliness, having no one to turn to for help, or a strong sense of self-reliance.

Of course, these families eventually turned to the City's shelter system for help, and some also turned to the Human Resources Administration: *I didn't go anywhere, just the EAU and the EVR (Eligibility Verification Review)*. Most respondents indicated that they turned to the City for help because they didn't have or know of anywhere else to turn: *Well, recently I didn't have no one but the system.*

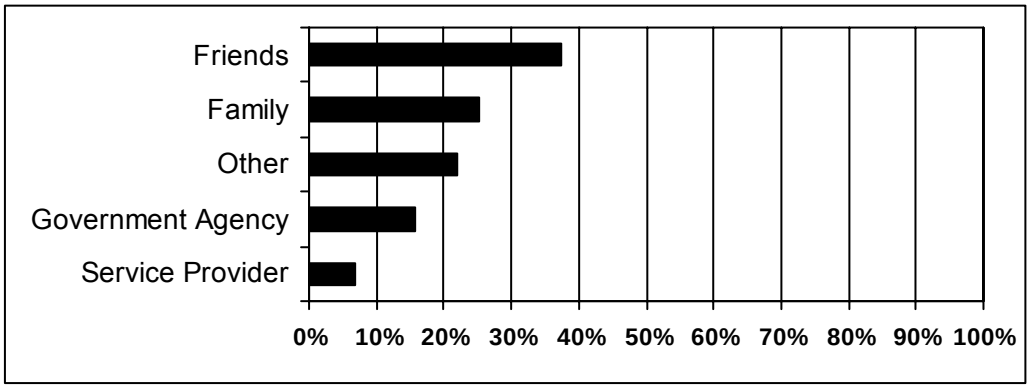
> *I never had to do this before. If I have to pay my month, I budget. I really don't like reaching out to anybody. I don't like to tell anybody. I try to do my best. This is the lowest point of my life, having to reach out to the government. I never thought I would be here in my wildest dreams.*

Only a few families mentioned community-based or nonprofit organizations as sources of help.

Referral Sources for Shelter

Since people relied heavily on family and friends for support during a housing crisis, it is not surprising that most of the people in our study found out about the Emergency Assistance Unit (EAU)—the front door to the City's family shelter system—through family and friends. In fact, 60 percent of families had a family member or friend who has been through the EAU before. Some families were referred to shelter by a government agency. The Human Resources Administration was the most common of these referral sources, but families also mentioned police and children's services.

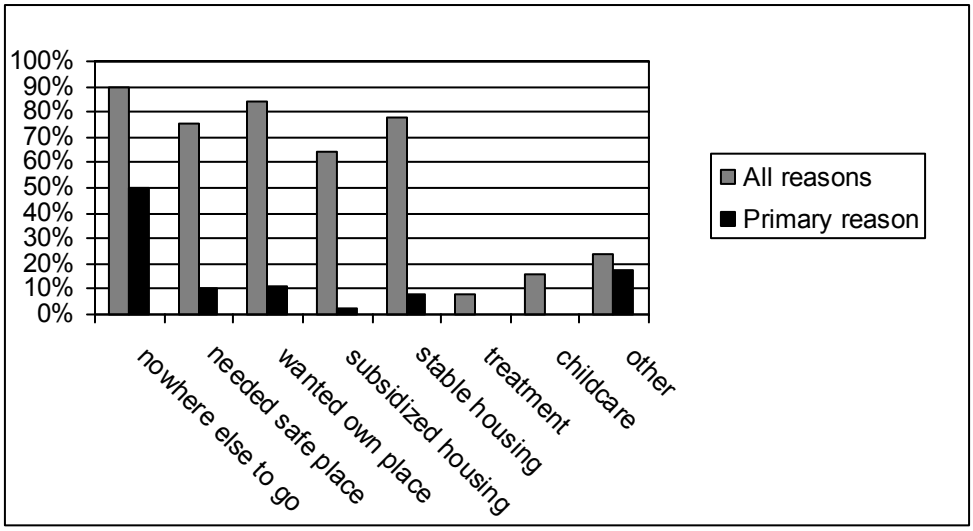
Figure 18: Referral sources (n=327)



Reasons for Entering Shelter

Many factors went into a respondent's decision to enter shelter including wanting their own place, wanting stable housing to help preserve their family, and wanting subsidized housing. But, when we asked people to offer a primary reason, the importance of these desires greatly decreased and the primary reason most people gave was having nowhere else to go.

Figure 19: All reasons versus primary reason for shelter entry (n=327)



Conclusion

With the increase in family homelessness in New York City and across the United States, it is more important than ever to understand what is driving this phenomenon. This report advances our understandings of family homelessness by identifying events that are common to families and pointing to events and other factors in families' lives that have an immediate effect on the risk of entering shelter.

While families experience a range of destabilizing events, several stand out as having an immediate effect on risk of shelter entry. According to our analysis of the life history calendar data, risk is increased when families experience informal or formal eviction, experience domestic violence, receive public assistance, live in a room, or have been homeless before. Short-term risk is decreased, on the other hand, when families live in subsidized housing, hold the lease to their residence, and as they stay longer in their residence. Programs designed to prevent homelessness among families who are at imminent risk of entering shelter could use these risk factors to identify priority families to serve with limited prevention resources.

People's perceptions about which events lead to homelessness are also important because those factors may have an indirect or delayed effect. This study reveals several such events: family conflict, loss of a housing subsidy and public benefits, physical health problems, substance abuse issues within the household, and job loss. Moreover, their perceptions help us to understand the inter-related nature of these events and their combined effect on a family's homelessness.

Of course, prevention efforts cannot succeed at decreasing the numbers of homeless families in New York City's shelters unless at-risk families use them. The majority of families who entered shelter did not draw on existing services during their housing crisis. Increasing visibility and access to prevention services may increase the number of families who use these services. The goal is to make the prevention services that exist today, and those that will be implemented in the future, better known, more appealing, and more useful than shelter.

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Appendix A. Description of the Study

Sample Selection

To select the sample for this study, we used a stratified cluster sample. Based on the size and type of facilities, we randomly selected 40 that accurately represented the shelters within New York City's Department of Homeless Service (DHS) system. We then randomly selected the families to include in the sample from each facility. Again, we made sure that the sample of families selected was representative of the universe of families in the New York City shelter system. We assumed a 70 percent response rate. So we over-sampled 430 rooms to ensure we would end up with a sample of at least 300 families.

Survey Process & Themes

We began fieldwork in January 2004. We conducted interviews in 19 conditional tier II facilities, 15 hotels, and 6 adult family residences. We sent letters to the facilities announcing our visit and field interviewers then visited the facilities. The interviewers described the project to the head of household in the selected rooms who then agreed or refused the interview. When the head of household was not reachable, field interviewers visited the room a total of three times before a non-response was granted.

The instrument used in the survey was a structured questionnaire with closed- and open-ended questions and a life history calendar that gathers five-year retrospective data. Interviews lasted an average of 45 minutes and covered a range of issues, including families' experiences with employment, public benefits, housing subsidies, rental assistance programs, eviction, domestic violence, family conflict, incarceration, physical and mental health problems, substance abuse, and the role of each of these events in families' homelessness.

Appendix B. Description of Methodology and Findings from a Dynamic Event History Analysis of Competing Life Events

Overview

Vera conducted an analysis to understand how events in a family's life are associated with housing instability and entry into a homeless shelter. Past research shows that families enter shelter for a variety of reasons including poverty, poor job prospects, low wages, and a short supply of affordable housing.[i] Homeless families also tend to experience illness and depression more than housed families, experience more mental disabilities and substance use, and are victims of more traumatic events during their childhood.[ii] These difficulties are often compounded by a range of potentially destabilizing events such as losing a job, divorce, acute illness, physical abuse and sexual abuse, as well as eviction and family conflicts.[iii]

Using a multivariate statistical model, we examined data from life history calendars to identify which of the factors in families' lives had an immediate impact on their housing instability and entry into shelter. Specifically, we examined how experiences with events such as job loss, eviction, loss of public assistance, domestic violence, illness, substance use, incarceration, and housing characteristics are related to housing instability and shelter entry. This research provides another vantage point for understanding why families become homeless—and what might be done to prevent vulnerable families from having to seek shelter in the future.

Data

The data used in this analysis comes from the survey of a sample of 327 homeless families that the Vera Institute of Justice conducted in 40 New York City shelters in 2004. The survey gathered information on a range of issues concerning the life events of homeless families. This analysis primarily relies on data from a five-year life history calendar that collected monthly information on the families' housing status and characteristics, public benefits receipt, health problems, family and domestic conflicts, incarceration, and substance abuse.

The life history calendar is organized into a pooled cross-section time-series database in which the unit of analysis is the individual at time *t.* For each of the 319 families in our sample, we observe their characteristics and status every month for the 60 month period prior to their entry into the shelter system. The final sample size for the analysis is 19,140, consisting of events that 319 families experienced over 60 months.

The characteristics of the families' life histories can be seen in Table B.1. On average, these families lived in two residences during the 60-month period. Their average duration in these

[i] For a discussion of the impact of poverty on homelessness see McChesney, 1987. For the impact of work history and the supply of affordable housing on homelessness see Axelson & Dail, 1998; Blau, 1992; Goetz & Schmiege, 1996; McChesney, 1992; Rossi, 1989; Wright, 1989.
[ii] See La Gory, Ritchey, & Mullis, 1990; Grisby et al., 1990; Wood et al., 1990.
[iii] See Goodman, 1991; Anderson & Koblinsky, 1995.

residences was close to two years. We also see that respondents entered shelter a total of 75 times in the 5-years prior to the last shelter entry and they typically had stayed in these shelters for close to eight months. As a group, families received TANF, Food Stamps, or Medicaid more than 200 times in the five years before shelter entry, and typically the receipt of the benefits lasted two years for TANF and Food Stamps, and 32 months for Medicaid. With regards to rental assistance, families received Section 8, NYCHA, Jiggetts rental assistance, or other rental assistance a total of 118 times in the five years prior to shelter entry. With the exception of the other rental assistance which lasted an average of one and a half months, these subsidies lasted close to three years. Families were also employed 396 times, and the average duration of this employment was just over one year. Families experienced serious emotional or physical health problems more than 130 times. While the physical health difficulties tended to last one year, the emotional health difficulties lasted much longer, with an average duration of close to three years. Families experienced 67 substance abuse episodes, which lasted an average of two years and a half. Family conflict and domestic violence were experienced 84 and 59 times, respectively. These conflicts averaged two years in duration. Finally, 65 events of incarceration were reported over the five-year period, and these lasted an average of around one year.

Table B.1: Descriptive Statistics for the 5-year Life Events of Homeless Families, N = 319*

Event*	Number Events [a]	Mean # Months[b]	Range # Months[c]	Mean # Events[d]	Range # Events[e]
HOUSING					
Drug Facility	6	14.2	4-29	0.02	0-1
Group Home	2	11.5	8-15	0.01	0-2
Shelter †	75	7.8	1-54	0.24	0-5
Intermittent Home	25	10.9	1-61	0.08	0-2
Jail/Prison	24	18.6	2-59	0.08	0-5
Other	16	14.3	1-60	0.05	0-4
Residences	717	22.9	1-72	2.25	0-7
Eviction (threat, court, or final eviction)	218	n/a	n/a	0.68	0-9
SOCIO ECONOMIC					
Employment	396	16.4	1-84	1.24	0-6
Employment loss	283	n/a	n/a	0.89	0-5
Intermittent Employment	33	34.1	1-61	0.10	0-2
TANF/Welfare	234	23.7	1-70	0.73	0-2
TANF/Weflare loss	154	n/a	n/a	0.48	0-4
Public Assistance loss (TANF, Food Stamps, Medicaid)	182	n/a	n/a	0.57	0-3
Food Stamps	264	25.1	1-69	0.83	0-4
SSI/SSDI	57	42.8	2-85	0.18	0-2
Social Security	8	45.8	7-85	0.03	0-1
Medicaid	251	32.8	1-85	0.79	0-4
NYCHA	15	35.3	1-61	0.05	0-2
Section 8/EARP	41	32.3	1-61	0.13	0-2
NYCHA / Section 8 loss	33	n/a	n/a	0.10	0-2
Jiggetts	22	36.5	1-61	0.07	0-1
Other Rental Asst.	40	18.3	1-67	0.13	0-2
BIRTH, HEALTH, CONFLICT, SUBSTANCE ABUSE, INCARCERATION					
Birth	121	n/a	n/a	0.38	0-3
Physical Health (Respondent)	67	16	1-62	0.21	0-7
Physical Health (Other)	70	18.8	1-62	0.22	0-7
Emotional Health (Respondent)	100	33.1	1-85	0.31	0-3
Emotional Health (Other)	47	31.4	1-62	0.15	0-3
Drinking/Drugs (Respondent)	30	31.4	1-73	0.09	0-2
Drinking/Drugs (Other)	37	32.6	1-73	0.12	0-1
Family Conflict	84	26	1-72	0.26	0-2
Domestic Violence	59	22.3	1-61	0.18	0-3
Incarceration	65	15	1-62	0.20	0-3

*****The original sample of 327 families was reduced because 8 respondents were 18 or under, and life history calendar data was not collected for this sub-set of respondents.

[a] Number of events indicates the number of times that a type of event occurred across the five-year history.

[b] Mean number of months refers to the average duration of the events. Note that some duration times are greater than 60 months. This occurred because, in some cases, interviewers gathered life history data for more than 60 months.

[c] Range of months refers to the minimum and maximum duration of events reported by families

[d] Mean number of events refers to the number of events divided by the number of families.

[e] Range number of events refers to the minimum and maximum times an event occurred for each family.

† Note that this event refers to all shelter stays that occurred prior to the last shelter entry which all families experienced.

Model/Analysis

We used event history analysis to find out what life events increase the likelihood of a family moving into another residence and into a shelter (as opposed to not moving) in any given month.[iv] With event history analysis, we are able to estimate the determinants of the instantaneous hazard of moving in any given month. Our model assumes conditional independence and a constant hazard rate.[v]

To operationalize the model, we used a discrete-time multinomial logistic regression to determine the conditional probability of moving, entering shelter, or moving into institutionalized housing, as opposed to not moving.[vi] We used the maximum likelihood estimation (MLE) to specify the regression equations.

We specified two equations. The first equation, *Model 1*, only includes the events of the life history calendar and the control variables:

- Eviction
- Birth
- Employment
- Employment loss
- Public Asst
- Loss Pub Asst.
- Soc Sec. /SSI
- NYCHA/Sec8
- Loss NYCHA/Sec8
- Jiggetts & other rental asst.
- Physical health problems
- Emotional health problems
- Substance abuse
- Family conflict
- Domestic violence
- Incarceration
- Family homeless before
- Families with children (vs. 2-0's)
- Time
- Spell Number[vii]

[iv] For more on event history analysis see Allison, P.D. (1984), *Event History Analysis*, Beverly Hills, CA: Age Publications.

[v] In this analysis, we have to assume a constant hazard rate because all observations are left-censored. In other words, we started collecting data five years prior to shelter entry for all respondents. Therefore, we have no information on the statuses and duration of the statuses prior to five years of inquiry.

[vi] The institutional dwellings included a jail, a group home, or a residential drug program.

[vii] Spell number is the number in the sequence of housing transitions that a family has made. For example, families that made three housing transitions have two spells of housing. All time points prior to the first housing transition

The second equation, *Model 2*, adds the following residence characteristic events:

- Apartment (vs. house)
- Room (vs. house)
- Other housing (vs. house)
- Self lease
- Crowding (#persons/ bedroom)
- Total residence income

While *Model 2* includes more explanatory variables than *Model 1*, missing data in the residence characteristics reduces the sample size.[viii] Thus, while *Model 2* includes more explanatory variables whose effects may be of interest, there is a reduction in the data size. *Model 1*, on the other hand, takes advantage of the full data set but excludes the residence characteristic factors.

Methodological considerations and MODELS 1A & 2A. In order to address one major drawback in the data, we introduced a variation to the two models presented above. Given that everyone in our sample makes the last transition into shelter, we faced the problem of the results not being generalizable to a wider population of families who never became homeless. Thus, the coefficients are biased towards homelessness, since everyone makes that move. Nevertheless, these coefficients provide a general sense on what distinguishes a move to another dwelling from a move to a shelter for families that are homeless. These results, although biased, may still be useful in understanding what were the factors that impacted shelter entry for the population of families that constitute the survey; those families that did enter shelter.

To get more accurate coefficients and reintroduce the competing risks element (acknowledging that people have an alternative risk), we conducted an analysis removing the final transition into the shelter. With this analysis, we reduced the bias of the coefficients toward homelessness that is present in the earlier analysis and created a proxy for alternative transitions. Thus, by examining previous transitions we are able to create a more accurate test of the probability of moving to housing or moving to shelter for the population under investigation, namely those families that enter shelter. While this technique does not make our results more generalizable to populations that do not enter shelter, it makes the analysis more reliable for assessing the effect of the events on shelter entry for the population of shelter entrants. The results for the analysis without the last transition are presented as models *1A* and *2A* in *Table 3*.[ix]

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are labeled 1 and all events after the first transition are coded 2. This variable serves as a control for within family differences corresponding to how often a family moved in the five year period.

[viii] Note that when the residence characteristic variables are added, the sample decreases to 13501, because of missing data. With the residence characteristics included, the model examines 289 residential transitions, 269 shelter transitions (including the last transition), and 12 transitions into institutionalized settings.

[ix] The sample size for *Model 1A* , without the residence characteristic variables, is 18821 and there are 417 residential transitions, 58 shelter transitions, and 31 institutional transitions. The sample size for *Model 2A*, with the

We present all models in order to display how the results vary across the models and to allow greater flexibility in the use of the results.

Outcomes. The outcomes we examine in this model are the probabilities of moving into another residence, moving into an institutionalized setting, or moving into shelter as opposed to not moving in the given month.

Factors considered. To test the monthly influence of life events on housing stability over a five-year period, we included the events listed below as independent factors. Each of these measures was recorded for every month of the families' five year history. All measures, with the exception of three variables, are dummy measures that measure 1 for the event occurring and 0 for the event not occurring. Three variables—total residence income, total months in the residence, and number of occupants per bedroom—are measured continuously. All variables, except for whether families were previously homeless and whether the family was composed of two adults or two adults and children, are time-varying covariates. In addition, we inserted two controls in the model: 1) a time variable to control for duration of the episode; and 2) a spell number variable to control for the housing event under question.

- Whether the family experienced an eviction threat, went to housing court, or received a final eviction notice;
- Whether the respondent had a child;
- Whether the respondent was employed or lost a job;
- Whether the family was receiving a variety of public benefits, including TANF, Food Stamps, Medicaid, SSI, or SSDI or whether the family had lost their benefits;
- Whether the family was receiving some type of housing subsidy or rental assistance including Jiggetts, Section 8 or living in public housing or whether they had lost the housing subsidy;
- Whether the family was experiencing physical and emotional health problems;
- Whether there existed substance or alcohol issues;
- Whether the household experienced a family conflict or domestic violence;

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residence characteristics is reduced to 13269, with 289 residential transitions, 37 shelter transitions, and 12 institutional transitions.

- Whether anyone in the household was incarcerated;

- The type of housing a family lived in including a house, an apartment, or a room in a house;

- The characteristics of the housing, including whether the family held the lease, the number of occupants per bedroom; the total residence income, and the total number of months in the residence;

- Whether the family had been homeless before the current homeless episode; and

- The type of family, whether it was a family consisting of adults with children, or a family consisting of two or more adults.

Results

Below, we discuss the findings for two outcomes separately: moving to shelter and moving to another residence. Table I at the end of this appendix shows the results for the model, the coefficients and model statistics, and how the events impact the probability of moving to another residence or entering shelter.[x] There are four models. Table II at the end of this appendix presents the model statistics for all the models. All models are statistically significant. The first models (*1* and *1A*) are the models without the housing characteristics included as predictors. Models *2* and *2A* include the housing characteristics. Models *1* and *2* are the models with the last transition included and Models *1A* and *2A* are the models without the last transition or shelter entry included.

Factors Impacting Moves to Shelter

Summary of Findings

Table B.2 presents a summary of the results on the impact of the different events on shelter entry by model.[xi] The first list of results is a summary of findings across all four models, including the models with and with and without the household characteristics (1 and 2) and the models with and without the last transitions (Models A). The second list is restricted to the models that exclude the last transition (Models 1A and 2A). And the final list summarizes the findings for Model 2A, which has all the explanatory variables and excludes the final transition.

[x] We are not including the results for the outcome of moving into institutionalized housing in this report, because it is not of substantive interest for our purposes.

[xi] A detailed summary of these results can be found in Table III at the end of this section.

Following Model 2A, which is less biased due to the exclusion of the last transition, and which includes all explanatory variables, the following factors increased the risk of entering shelter in any given month:[xii]

	Odds Ratio Effect[xiii]
• Having been homeless before	[10.734]
• Living in a room	[6.779]
• Eviction	[6.594]
• Domestic violence	[5.301]
• Receipt of public assistance	[2.123]

On the other hand, the following factors decreased the risk of entering shelter in any given month:[xiv]

	Odds Ratio Effect[xv]
• Living in NYCHA public housing or Section 8 housing	[0.132]
• Being a leaseholder	[0.503]
• Living in a residence for a greater amount of time	[0.990]

[xii] The factors are listed in descending order of magnitude of the *Exp (B)* coefficient, which reports the effect of experiencing the life event on the odds ratio of moving to shelter. The sizes of the impact, as denoted by the *Exp (B)* coefficient, are listed in parentheses next to each factor. An *Exp (B)* odds ratio coefficient greater than one denotes that the event increases the risk of experiencing the outcome. A coefficient of less than one suggests that the likelihood of experiencing the outcome decreases when a life event has been experienced. Refer to Model 2A in Table A for the full results, including the coefficients of the effect on the natural log of the odds ratio (*B*) and the standard errors.

[xiii] To interpret the coefficients, we can say that those that experienced a specific life event were [Odds ratio effect coefficient] times more likely to enter shelter in a given month. For example, those that had been homeless before were 11 times more likely than others that had not been homeless before, to enter shelter in any given month; those that lived in a room as opposed to a house were 7 times more likely to enter shelter in any given month, etc.,.

[xiv] The factors that decrease the risk are ordered from the factor that has the biggest drop in increase to the least decrease.

[xv] To interpret the coefficients, we can say that those that experienced a specific live event were [Odds ratio effect coefficient] as likely to enter shelter in a given month. For example, those who lived in subsidized housing were 13% as likely to enter shelter in a given month when compared to those who did not have subsidized housing. Another way of interpreting the odds ratio is to find the inverse of the coefficient, and state the increased risk of the other state for the same factor. For example, for the case of subsidized housing, the inverse of the coefficient .132 is 7.576. We can then say that not living in subsidized housing made individuals 8 times more likely to enter shelter in any given month than those that do not live in subsidized housing. The same can be done for all coefficients which reduce the risk.

Table B.2. Summary of Results: What factors impact shelter entry?

Across All Models
Risk Factors: ▪ Eviction ▪ Domestic violence ▪ Receiving public assistance *Protective Factors:* ▪ Being the leaseholder ▪ Longer time in housing
In Models 1A OR 2A (without last transition)
Risk Factors: ▪ Prior homelessness ▪ Eviction ▪ Domestic violence ▪ Receiving public assistance ▪ Employment loss *Protective Factors:* ▪ NYCHA or Section 8 ▪ Being the leaseholder ▪ Longer time in housing
In Model 2A(without last transition &with all explanatory variables)
Risk Factors: ▪ Prior homelessness ▪ Living in a room (vs. house) ▪ Eviction ▪ Domestic violence ▪ Receiving public assistance *Protective Factors:* ▪ Living in NYCHA or Section 8 ▪ Being the leaseholder ▪ Longer time in housing

Findings
Below we discuss the impact that each factor has on shelter entry.

Eviction: We found that eviction significantly increases the risk of moving to a shelter in any given month. This is consistent across all models. Thus, those who experience an eviction are more likely of moving to enter shelter in any given month.

Domestic Violence: We found that having an episode of domestic violence increases the risk of moving to shelter across the models. This suggests that those who experience domestic violence are at an increased risk of leaving their residence for shelter.

Employment & Employment Loss: We found that employment reduces the risk of entering shelter only in Models 1 and 2. In models 1A and 2A, the less biased models where we eliminate the final transition, employment is reported to have no impact on shelter entry in any given month. Alternatively, losing a job does increase the risk of entering shelter in three of the four models presented (in Models 1, 2, and 1A,). This combination of findings suggests that while employment does not act as a protective factor for homelessness, losing employment does increase the risk of entering shelter.

Public Assistance & Loss of Public Assistance: We found that receiving public assistance increases the risk of entering shelter in any given month. This is true for all the models. Losing public assistance has no impact on shelter entry in all models except Model 1. Thus, while families receiving public assistance in any given month are at a higher risk of moving and entering a shelter, losing public assistance appears to have no impact on shelter entry.

NYCHA or Section 8 Housing Subsidies & Loss of Subsidies: NYCHA and Section 8 housing subsidies decrease the risk of moving to shelter in the less biased models where the last transition is removed (1A and 2A). Losing the subsidies is only seen to increase risk of shelter entry for the models with the last transition (1 and 2). Given the reduced bias of Models 1A and 2A we favor the findings that show that losing the subsidy does not have an impact on shelter entry, while having the subsidy does act as a protective factor from entering shelter.

Jiggetts and Other Rental assistance: Receiving Jiggetts was shown to reduce the risk of moving to shelter in the models with the last transition (1 and 2) but not in the models without the last transition (1A and 2A). Again, favoring the results of Models 1A and 2A, we believe that receiving Jiggetts or another rental assistance has no impact on shelter entry.

Emotional Health Problems: We found that emotional health problems were shown to be a risk factor only in Model 1A. In these cases, emotional health problems decreased the likelihood of moving into shelter.

Homeless Before: Families that had experienced homelessness before were found to be at increased risk of moving to shelter in three models of the four models (Models 1A, 2, and 2A).[xvi]

Type of Housing: Across the two models (2 and 2A), we found that being in an apartment as opposed to a house had no impact on shelter entry. Living in a room, as opposed to a house, however increased the risk of moving to shelter according to one model, Model 2A (without the last transition). Living in another type of residence (not an apartment, room, or house) had no impact on moving to shelter.

Being the Leaseholder: Being a leaseholder reduced the risk of moving to shelter across the models. Those who held a lease were less likely to move into shelter in any given month.

Crowding: Crowding was shown to have an impact on shelter entry only for one model (*Model 2*), where the more crowded a household is, the more likely it is that the family moves into shelter. Crowding was found to have no impact on entering shelter in *Model 2A*, the model without the last transition.

Total Number of Months in Residence: We found that longevity in a residence decreases the risk of moving into shelter across all models. Thus, the amount of time in a residence decreases the risk of shelter entry.

The factors that were found to not be significant in impacting the risk of moving or of entering shelter across the models are:

- Birth
- Incarceration
- Social Security & SSI
- Physical Health Problems
- Substance Abuse
- Family Conflict
- Being a family with children as opposed to a two-adult family
- Living in an apartment versus a house
- Living in another type of residence (not apartment, room, nor house) versus a house

[xvi] Again, this finding may be a type of specification error. The survey (Question # 22) asks families if they had experienced homelessness as an adult. It may be that those families that answered yes are referring to the very same incident that they later report in the life history calendar. Thus, for some cases the independent variable may be another way to measure the dependent variable of whether families entered shelter in the five years of the life history calendar.

Factors Impacting Moves to Another Residence

Summary of Findings

Table B.3 presents a summary of the results on the impact of the different events on moving to another residence by model.[43] The first list of results is a summary of findings across all four models, including the models with and with and without the household characteristics (1 and 2) and the models with and without the last transitions (Models A). The second list is restricted to the models that exclude the last transition (Models 1A and 2A). And the final list summarizes the findings for Model 2A, which has all the explanatory variables and excludes the final transition.

Following Model 2A, which is less biased due to the exclusion of the last transition, and which includes all explanatory variables, the following factors increased the risk of moving to another residence in any given month:[44]

	Odds Ratio Effect[45]
• Eviction	[23.024]
• Birth	[3.722]
• Domestic violence	[1.790]
• Incarceration	[1.790]
• Employment	[1.523]
• Families with minor children	[1.459]

[43] A detailed summary of these results can be found in Table IV at the end of this appendix.

[44] The factors are listed in descending order of magnitude of the *Exp (B)* coefficient, which reports the effect of experiencing the life event on the odds ratio of moving to shelter. The sizes of the impact, as denoted by the *Exp (B)* coefficient, are listed in parentheses next to each factor. An *Exp (B)* odds ratio coefficient greater than one denotes that the event increases the risk of experiencing the outcome. A coefficient of less than one suggests that the likelihood of experiencing the outcome decreases when a life event has been experienced. Refer to Model 2A in Table A for the full results, including the coefficients of the effect on the natural log of the odds ratio (*B*) and the standard errors.

[45] To interpret the coefficients, we can say that those that experienced a specific life event were [*Odds ratio effect coefficient*] times more likely to enter shelter in a given month. For example, those who experienced an eviction were 23 times more likely than others that did not experience an eviction, to enter shelter in any given month; those who experienced domestic violence were almost two times more likely to enter shelter in any given month, etc.,.

On the other hand, the following factors decreased the risk of entering shelter in any given month:[46]

	Odds Ratio Effect[47]
• Living in NYCHA public housing or Section 8 housing	[0.548]
• Being a leaseholder	[0.689]
• Living in an apartment (versus a house)	[0.736]
• Living in a residence for a greater amount of time	[0.983]

[46] The factors that decrease the risk are ordered from the factor that has the biggest drop in increase to the least decrease.

[47] To interpret the coefficients, we can say that those that experienced a specific live event were [Odds ratio effect coefficient converted to percentage] as likely to enter shelter in a given month. For example, those who lived in subsidized housing were 50% as likely to enter shelter in a given month when compared to those who did not have subsidized housing. Another way of interpreting the odds ratio is to find the inverse of the coefficient, and state the increased risk of not being in the state of the factor. For example, for the case of subsidized housing, the inverse of the coefficient .548 is 1.825. We can then say that not living in subsidized housing made individuals almost twice more likely to enter shelter in any given month than those that did not live in subsidized housing in that month. The same can be done for all coefficients which reduce the risk.

Table B.3. Summary of Results: What factors impact moves to another residence?

Across All Models
Risk Factors: ▪ Eviction ▪ Birth ▪ Domestic violence ▪ Incarceration ▪ Employment *Protective Factors:* ▪ Apt. vs. house ▪ Being a leaseholder ▪ Total months
In Models 1A & 2A (without last transition)
Risk Factors: ▪ Eviction ▪ Domestic violence ▪ Birth ▪ Employment ▪ Incarceration ▪ Families with children *Protective Factors:* ▪ Apartment (vs. house) ▪ Leaseholder ▪ Length of time in housing
In Model 2A(without last transition &with all explanatory variables)
Risk Factors: ▪ Eviction ▪ Domestic violence ▪ Birth ▪ Employment ▪ Incarceration ▪ Families with children *Protective Factors:* ▪ NYCHA or Section 8 ▪ Leaseholder ▪ Apartment (vs. house) ▪ Length of time in housing

Findings

Below, we discuss every factor and how it impacts housing instability across the models below.

Eviction: We found that eviction significantly increases the risk of moving to another residence in any given month. This is consistent across all models. Thus, those who experience an eviction are more likely of moving to another residence.

Domestic Violence: We found that having an episode of domestic violence significantly increases the risk of moving to another residence in any given month. This suggests that those who experience domestic violence are at an increased risk of leaving their residence for another one.

Employment & Employment Loss: We found that being employed significantly increases the risk of moving into another residence across the models. Losing a job, however, significantly impacted the move to another residence only in Models *1* and *1A*, where the residence characteristics were excluded. Thus, we have some evidence that suggests that losing employment increases the risk of moving to another residence.

Public Assistance & Loss of Public Assistance: We found that receiving public assistance increased the risk of moving into another residence for some models. Losing public assistance, however, has no impact on residential moves across the models.

Birth: Having a child increases the risk of moving to another residence in any given month. This is true for all models.

Incarceration: We found that having a member of the family incarcerated increased the risk of moving to another residence in any given month across the models.

NYCHA or Section 8 Housing Subsidies & Loss of Subsidies: Three models show that living in housing with NYCHA and Section 8 subsidies decrease the risk of moving to another residence. Losing the subsidy, on the other hand, is shown to have no impact on moving to another residence across the models.

Jiggetts and Other Rental Assistance: We found that receiving Jiggetts or other rental assistances decreased the risk of moving to another residence in Models 1, and 1A, which do not include the household characteristics. When the household characteristics are included, however, receiving these types of rental assistance has no impact on moving to another household.

Emotional Health Problems: We found that emotional health problems were shown to be a risk factor only when the residence characteristics were not included in the model (Models 1 and 1A). In these cases, emotional health increased the risk of moving to another residence.

Family Conflict: Again, with family conflict we notices that including residence characteristics impacted whether family conflict was shown to affect the risk of moving or moving into shelter. Without the residence characteristics, family conflict is shown to increase the risk of moving to another residence in Models 1 and 1A.

Homeless Before: Families that had experienced homelessness before were found to be at increased risk of moving to another residence only in the models that did not include the residence characteristics (*1* and *1A*).[48]

Families with Children versus Adult Families: The models showed that families were at an increased risk of moving to a residence when compared to adult families. This is true for all models except Model 1.

(Factors included only in Models 2 and 2A)
Type of Housing: Across the two models (*2* and *2A*), we found that being in an apartment as opposed to a house decreased the risk of moving to another residence in any given month. Being in a room versus a house did not impact the probability of moving to another residence.

Being the Leaseholder: Being a leaseholder reduced the risk of moving to another residence across the models. Those who held a lease were less likely to move to another residence in any given month.

Total Number of Months in Residence: We found that longevity in a residence decreases the risk of moving to another residence. Thus, the longer the time in a residence, the less the risk of moving to another home. This is true for all models.

The factors that were found to not be significant in impacting the risk of moving to another residence are:

- Losing Public Assistance
- Receiving Social Security or SSI
- Losing Subsidized Housing (NYCHA or Section 8)

[48] This finding may be a type of specification error. The survey (Question # 22) asks families if they had experienced homelessness as an adult. It may be that those families that answered yes are referring to the very same incident that they later report in the life history calendar. Thus, for some cases the independent variable may be another way to measure the dependent variable of whether families entered shelter in the five years of the life history calendar.

- Physical health problem
- Substance Abuse
- Living in a room versus a house
- Living in another type of residence (not apartment, room, nor house)
- Crowding

Limitations of the Findings

The factors listed above as not significant may not have been significant for a number of reasons. This analysis necessarily limits the observation of impact to one month. In other words, we are measuring whether the event had an impact on moving or moving into shelter in one given month. Alternative specifications may reveal that some of the events have a lagged impact on moving. For example, it may happen that having a substance abuse problem may not have an immediate impact of moving, and instead only has a significant impact on moving only after two, three, or more months. Running variations of this analysis with lagged variable would be useful extensions of this research.

Conclusion

These findings provide another vantage point for understanding why families move into shelter. The findings provide evidence of the events over a five year period that have an immediate effect on a family's risk of moving into another residence and moving into shelter. While families express what, in their views played a role in their homelessness, the findings show a less interpretative, event driven analysis of how the events interrelate and how they impact the families' housing stability.

We can conclude that the short-term risk of entering shelter is increased when families experience eviction or domestic violence; receive public assistance; live in a room; and have been homeless before. This short-term risk is decreased when families live in subsidized housing; hold the lease to their residence; and as they stay longer in their residence. Similarly, when it comes to moving to another residence, risk is increased by events like eviction, domestic violence, employment, birth, and incarcerations. Living in an apartment as opposed to a house, having a lease in your name, and living for longer periods of time in a residence, also act as protective factors to moving.

As is evident, there are factors that impact both shelter entry and a move to another household: living in subsidized housing, being a leaseholder, time in residence, experiencing an eviction, and experiencing domestic violence. Comparing the coefficients of the factors that impact shelter entry and moving to another residence, however, reveals how they impact the two different types of housing transitions. Whereas experiencing an eviction episode made families 23 times more likely to move to a residence, it impacted shelter entry to a lesser degree. Those who experienced an eviction were 7 times more likely to move into shelter. When it comes to domestic violence, the inverse situation is present. Those who experienced domestic violence were 5 times more likely to move to shelter but just under 2 times more likely to move to another

residence. Living in subsidized housing resulted in families being 13% as likely to move into shelter, but 50% as likely to move to another residence. Stated differently, those who did not live in subsidized housing were close to 8 times more likely of moving to shelter than those that lived in subsidized housing, and just under 2 times more likely to move to another housing. Those who did not have a lease were 2 times more likely to move to shelter and 1.5 times more likely to move to another residence, when compared to those who were not leaseholders. The effect of time in housing was similar in its impact on shelter entry and move to another household. Those that lived one less month in housing were 1.01 times more likely to move into shelter and 1.02 times more likely to move to another household.

Table I. Impact of Life Events on Residential and Shelter Housing Transitions

	Model 1				Model 2			
	Residence		Shelter		Residence		Shelter	
Independent Variables	B [a] (Std. error)	Exp (B) [b]	B [a] (Std. error)	Exp (B) [b]	B [a] (Std. error)	Exp (B) [b]	B [a] (Std. error)	Exp (B) [b]
Constant	-4.790*** (0.193)		-5.986*** (0.209)		-3.338*** (0.326)		-6.454*** (0.349)	
Eviction	3.019*** (0.190)	20.467	2.760*** (0.190)	15.799	3.124*** (0.215)	22.75	2.693*** (0.224)	14.770
Birth	1.123*** (0.396)	3.073	-0.695 (1.010)	0.499	1.315*** (0.437)	3.723	-19.514 (0.000)	
Employment	0.409*** (0.111)	1.506	-0.426*** (0.142)	0.653	0.402*** (0.131)	1.494	-0.422*** (0.164)	0.656
Employment loss	0.506* (0.337)	1.751	0.855*** (0.283)	2.350	0.603 (0.386)	1.828	0.793** (0.327)	2.210
Public Assistance	0.197* (0.117)	1.218	0.373*** (0.118)	1.452	0.064 (0.146)	1.066	0.347* (0.143)	1.414
Loss of Pub. Asst.	-0.217 (0.598)	0.805	0.857* (0.452)	2.356	0.048 (0.739)	1.049	0.767 (0.636)	2.154
SocSec/SSI	0.133 (0.215)	1.142	0.129 (0.206)	1.138	0.107 (0.281)	1.113	0.095 (0.233)	1.100
NYCHA/Sec.8	-0.460* (0.259)	0.631	-0.179 (0.251)	0.836	-0.643** (0.329)	0.526	-0.147 (0.277)	0.863
Loss NYCHA/Sec.8	1.176 (0.763)	3.241	2.078*** (0.634)	7.988	1.091 (1.056)	2.997	2.529*** (0.826)	12.546
Jiggetts/other rental asst.	-0.476* (0.273)	0.621	-0.959*** (0.337)	0.383	-0.209 (0.304)	0.812	-1.054*** (0.386)	0.348
Physical health	0.090 (0.242)	1.095	0.059 (0.232)	1.060	-0.177 (0.297)	0.838	-0.543* (0.298)	0.581
Emotional health	0.397** (0.155)	1.487	0.152 (0.162)	1.164	0.232 (0.187)	1.262	-0.172 (0.187)	0.842
Substance Use	0.204 (0.202)	1.226	-0.136 (0.221)	0.873	0.110 (0.298)	1.117	-0.452 (0.306)	0.636
Family Conflict	0.391** (0.194)	1.479	0.165 (0.213)	1.179	0.313 (0.222)	1.368	-0.203 (0.246)	0.817
Domestic Violence	0.455** (0.209)	1.576	0.639*** (0.225)	1.894	0.590** (0.261)	1.803	0.829*** (0.285)	2.291
Incarceration	0.632*** (0.208)	1.881	-0.430 (0.307)	0.651	0.591* (0.304)	1.805	0.123 (0.362)	1.131
Previously homeless	0.295*** (0.113)	1.343	0.117 (0.124)	1.124	0.190 (0.149)	1.210	0.367** (0.160)	1.443
Families (vs. 2-0's)	0.255 (0.155)	1.290	-0.098 (0.148)	0.907	0.347* (0.199)	1.414	0.062 (0.204)	1.064
Time	0.002 (0.004)	1.002	0.036*** (0.004)	1.037	0.015*** (0.005)	1.015	0.061*** (0.005)	1.063
Spell #	0.128*** (0.046)	1.136	0.568*** (0.038)	1.765	-0.126* (0.076)	0.882	0.656*** (0.061)	1.928
Apartment (vs. house)					-0.268* (0.159)	0.765	-0.181 (0.190)	0.834
Room (vs. house)					-0.210 (0.275)	0.810	-0.195 (0.301)	0.823
Other housing (vs. house)					0.626 (0.450)	1.869	0.155 (0.559)	1.167
Self lease					-0.373*** (0.143)	0.688	-0.755*** (0.163)	0.470
Crowding					-0.068 (0.053)	0.935	0.114** (0.046)	1.121
Household income					0.000 (0.002)	1.000	0.002 (0.002)	1.002
Months in housing					-0.016*** (0.002)	0.984	-0.008*** (0.002)	0.992

* Statistically significant at the .10 level (two-tailed test); ** .05 level; *** .01 level; [§] SPSS reports this coefficient as 1.000 due to rounding at the third decimal point. The negative sign of the B advises that the Exp (b) is less than one; [a] B reports the effect of the coefficient on the natural log of the odds ratio. A negative sign suggests that the likelihood of event decreases, whereas a positive sign indicates an increase in the risk; [b] Exp (b) reports the effects of the coefficients on the odds ratio. A coefficient of less than one suggests that there is less likelihood, whereas a coefficient of more than one suggests that there is more likelihood.

Table I (continued)

	Model 1A				Model 2A			
	Residence		Shelter		Residence		Shelter	
Independent Variables	B [a] (Std. error)	Exp (B) [b]	B [a] (Std. error)	Exp (B) [b]	B [a] (Std. error)	Exp (B) [b]	B [a] (Std. error)	Exp (B) [b]
Constant	-4.830*** (0.195)		-7.272*** (0.497)		-3.348*** (0.327)		-8.582*** (1.109)	
Eviction	3.029*** (0.190)	20.685	1.486* (0.761)	4.420	3.137*** (0.216)	23.024	1.886** (0.797)	6.594
Birth	1.121*** (0.396)	3.068	-18.432 (0.000)	0.000	1.314*** (0.437)	3.722	-17.929 (0.000)	0.000
Employment	0.438*** (0.111)	1.550	-0.365 (0.375)	0.694	0.420*** (0.131)	1.523	-0.001 (0.409)	0.999
Employment loss	0.561* (0.340)	1.753	1.255** (0.619)	3.508	0.586 (0.390)	1.798	1.254 (0.766)	3.503
Public Assistance	0.205* (0.118)	1.227	0.661** (0.296)	1.937	0.086 (0.147)	1.090	0.753* (0.387)	2.123
Loss of Pub. Asst.	-0.163 (0.598)	0.850	-18.175 (0.000)	0.000	0.158 (0.735)	1.172	-17.657 (0.000)	0.000
SocSec/SSI	0.111 (0.217)	1.118	0.509 (0.419)	1.663	0.097 (0.283)	1.101	0.355 (0.555)	1.427
NYCHA/Sec.8	-0.440 (0.259)	0.644	-1.841* (1.036)	0.159	-0.602* (0.329)	0.548	-2.021* (1.085)	0.132
Loss NYCHA/Sec.8	1.061 (0.791)	2.890	-16.439 (0.000)	0.000	1.062 (1.055)	2.892	-15.708 (0.000)	0.000
Jiggetts/other rental asst.	-0.483* (0.274)	0.617	-1.118 (1.025)	0.327	-0.186 (0.305)	0.831	-19.207 (8344.843)	0.000
Physical health	0.080 (0.243)	1.083	0.433 (0.555)	1.542	-0.196 (0.298)	0.822	0.220 (0.798)	1.246
Emotional health	0.376** (0.156)	1.457	-1.101* (0.621)	0.332	0.205 (0.188)	1.227	-0.922 (0.662)	0.398
Substance Use	0.209 (0.203)	1.232	0.385 (0.404)	1.470	0.152 (0.301)	1.164	0.386 (0.610)	1.471
Family Conflict	0.391** (0.194)	1.479	0.042 (0.634)	1.043	0.323 (0.221)	1.381	-1.383 (1.078)	0.251
Domestic Violence	0.452** (0.210)	1.572	0.861* (0.476)	2.366	0.569** (0.264)	1.767	1.668*** (0.601)	5.301
Incarceration	0.631*** (0.209)	1.880	0.142 (0.616)	1.153	0.582* (0.305)	1.790	0.575 (0.773)	1.778
Previously homeless	0.301*** (0.114)	1.351	1.660*** (0.318)	5.258	0.187 (0.150)	1.205	2.373*** (0.447)	10.734
Families (vs. 2-0's)	0.279* (0.156)	1.322	-0.104 (0.344)	0.901	0.378* (0.201)	1.459	0.868 (0.550)	2.382
Time	0.002 (0.004)	1.002	0.002 (0.010)	1.002	0.016*** (0.005)	1.016	0.024 (0.014)	1.024
Spell #	0.126*** (0.045)	1.134	0.256*** (0.092)	1.292	-0.120 (0.075)	0.887	-0.072 (0.169)	0.930
Apartment (vs. house)					-0.307* (0.159)	0.736	0.685 (0.644)	1.983
Room (vs. house)					-0.254 (0.277)	0.775	1.914*** (0.783)	6.779
Other housing (vs. house)					0.600 (0.450)	1.821	1.460 (1.224)	4.307
Self lease					-0.372*** (0.143)	0.689	-0.687* (0.410)	0.503
Crowding					-0.074 (0.053)	0.928	0.051 (0.138)	1.052
Household income					0.000 (0.002)	1.000	0.003 (0.005)	1.003
Months in housing					-0.017*** (0.002)	0.983	-0.010* (0.005)	0.990

***** Statistically significant at the .10 level (two-tailed test); ** .05 level; *** .01 level; [§] SPSS reports this coefficient as 1.000 due to rounding at the third decimal point. The negative sign of the B advises that the Exp (b) is less than one; [a] B reports the effect of the coefficient on the natural log of the odds ratio. A negative sign suggests that the likelihood of event decreases, whereas a positive sign indicates an increase in the risk; [b] Exp (b) reports the effects of the coefficients on the odds ratio. A coefficient of less than one suggests that there is less likelihood, whereas a coefficient of more than one suggests that there is more likelihood.

Table II. Summary Statistics for Four EHA Models of the Impact of Shelter Entry and Moves on Life Events.

Model 1	Model 2	Model 1A	Model 2A
Chi-Square: 863.669 Sig.: 0.000 C&S: 0.044 Nagelk: 0.127 McFadden: 0.106 N=19140 Residence trans: 417 Shelter trans: 377 Institutional trans: 31 No move: 18315	Chi-Square: 873.923 Sig.: 000 C&S: .063 Nagelk: 0.184 McFadden: 0.156 N=13501 Residence trans: 289 Shelter trans: 269 Institutional trans: 12 No move: 12931	Chi-Square: 448.851 Sig. .000 C&S: .024 Nagelk: .097 McFadden: .086 N=18821 Residence trans: 417 Shelter trans: 58 Institutional trans: 31 No move: 18315	Chi-Square: 467.763 Sig. .000 C&S: .035 Nagelk: .150 McFadden: .134 N=13269 Residence trans: 289 Shelter trans: 37 Institutional trans: 12 No move: 18315

Table III. Impact of factors on shelter entry for four models

	MODEL 1	***MODEL 2***	***MODEL 1A*** *without last transition*	***MODEL 2A*** *without last transition*	***SUMMARY across all 4 models***	***SUMMARY Models 1A & 2A***
Variables						
Eviction	+	+	+	+	+	+
Domestic violence	+	+	+	+	+	+
Public Asst	+	+	+	+	+	+
Selflease		-		-	-	-
Tot month		-		-	-	-
Employment loss	+	+	+		*Inc* +	*Inc* +
Loss Pub Asst.	+				*Inc* +	Ø
Loss NYCHA/Sec8	+	+			*Inc* +	Ø
B4 homeless		+	+	+	*Inc* +	+
Room (vs. house)				+	*Inc* +	*Inc* +
Crowding		+			*Inc* +	Ø
Employment	-	-			*Inc* -	Ø
NYCHA/Sec8			-	-	*Inc* -	-
Jiggetts/other rental	-	-			*Inc* -	Ø
Physical health		-			*Inc* -	Ø
Emotional health			-		*Inc* -	*Inc* -
Birth					Ø	Ø
Soc Sec. /SSI					Ø	Ø
Substance abuse					Ø	Ø
Family conflict					Ø	Ø
Incarceration					Ø	Ø
Families (vs. 2-0's)					Ø	Ø
Apt (vs. house)					Ø	Ø
Other (vs. house)					Ø	Ø

+ Indicates an increase in risk; - Indicates a reduced risk; **Ø** Indicates that there is no impact on risk;
Inc **-** Indicates that we have inconclusive evidence that suggests that there is a decreased risk.
Inc **+** Indicates that we have inconclusive evidence that suggests that there is an increased risk.

Table IV. Impact of factors on moving to another residence for four models.

Models	***MODEL 1***	***MODEL 2***	***MODEL 1A*** *without last transition*	***MODEL 2A*** *without last transition*	***SUMMARY across all 4 models***	***SUMMARY Models 1A & 2A***
Variables						
Eviction	+	+	+	+	+	+
Birth	+	+	+	+	+	+
Domestic violence	+	+	+	+	+	+
Incarceration	+	+	+	+	+	+
Employment	+	+	+	+	+	+
Apt (vs. house)		-		-	-	-
Selflease		-		-	-	-
Tot month		-		-	-	-
Public Asst	+		+		*Inc* +	*Inc* +
Emotional health	+		+		*Inc* +	*Inc* +
B4 homeless	+		+		*Inc* +	*Inc* +
Families (vs. 2-0's)		+	+	+	*Inc* +	+
Employment loss	+		+		*Inc* +	*Inc* +
Family conflict	+		+		*Inc* +	*Inc* +
NYCHA/Sec8	-	-		-	*Inc* -	*Inc* -
Jiggetts/other rental	-		-		*Inc* -	*Inc* -
Soc Sec. /SSI					Ø	Ø
Physical health					Ø	Ø
Substance abuse					Ø	Ø
Room (vs. house)					Ø	Ø
Other (vs. house)					Ø	Ø
Crowding					Ø	Ø
Loss Pub Asst.					Ø	Ø
Loss NYCHA/Sec8					Ø	Ø

+ Indicates an increase in risk; - Indicates a reduced risk; **Ø** Indicates that there is no impact on risk;
Inc **-** Indicates that we have inconclusive evidence that suggests that there is a decreased risk.
Inc **+** Indicates that we have inconclusive evidence that suggests that there is an increased risk.

Appendix C. Qualitative Methodology

In coding the data from the open-ended responses, we used a grounded theory method in which ad hoc impressions of the data are postponed and the data guides the researcher in development of the theory. Thus, no codes were pre-determined. We used in-vivo, line-by-line coding.[49] With this method of coding, all transcripts are reviewed line-by-line and salient points, issues, words, or phrases are restated in the margins. The line restatements were then grouped into general coding categories. We then wrote memos to begin to identify links and emergent and recurring themes in the data and among our thematic codes. We stayed away from predetermining the categories of answers that respondents would provide and created categories based on the patterns we saw. For some open-ended questions, we proceeded to quantify the categories. In this report, we outline the major findings from this process of qualitative analysis.

[49] Chesler, 1987

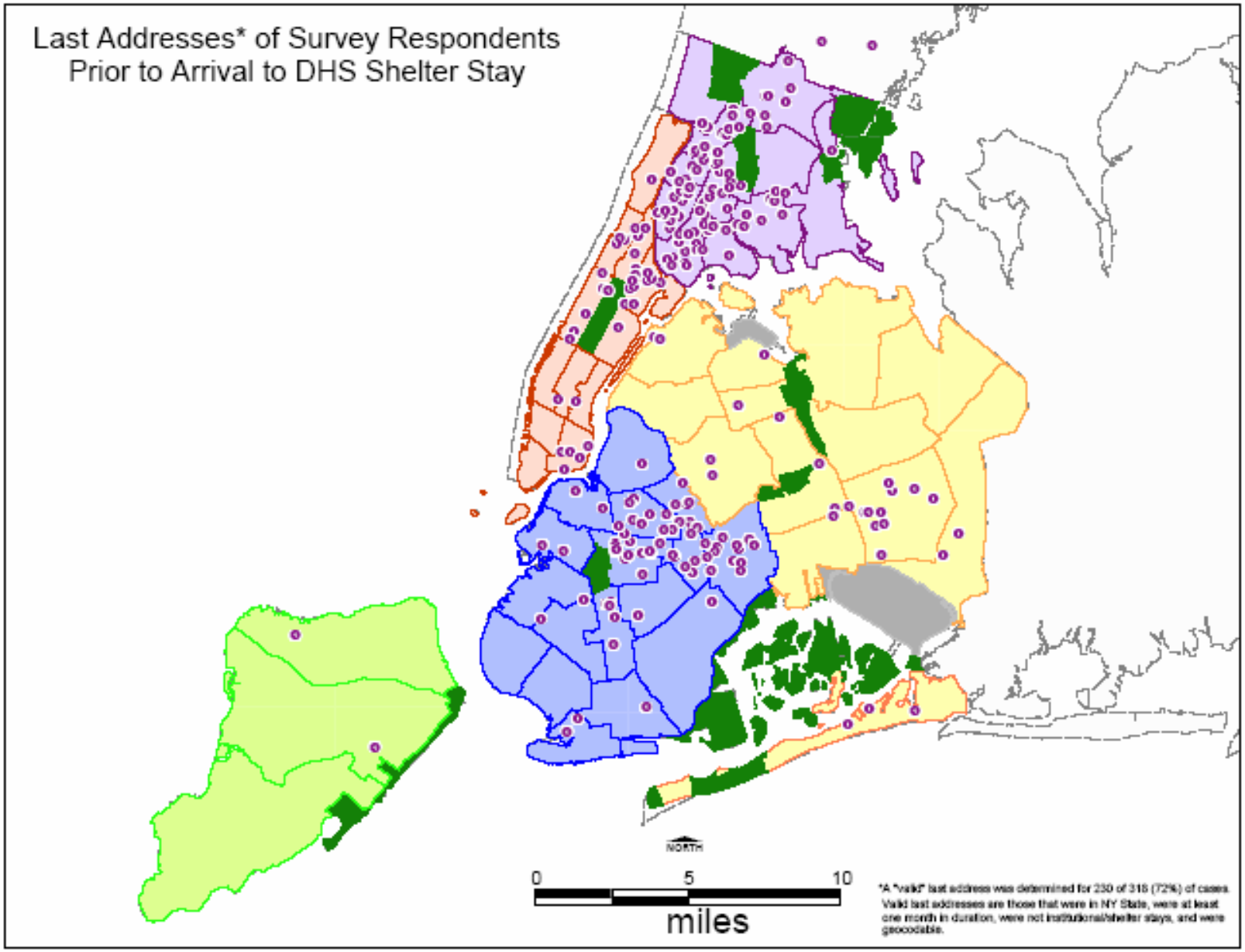
Appendix D. Additional Tables and Charts

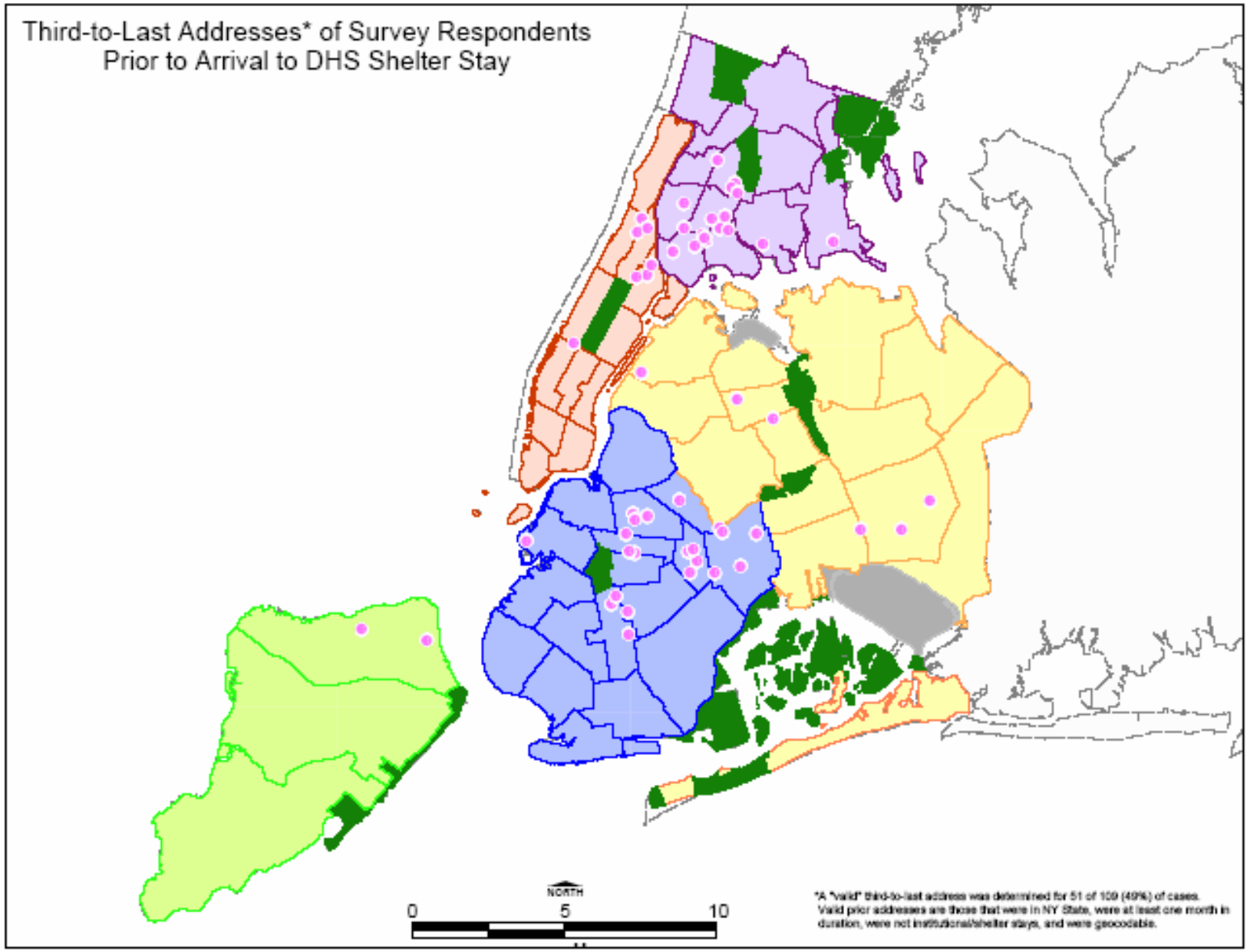
Demographic Profile of Families with Minor Children and Adult Families

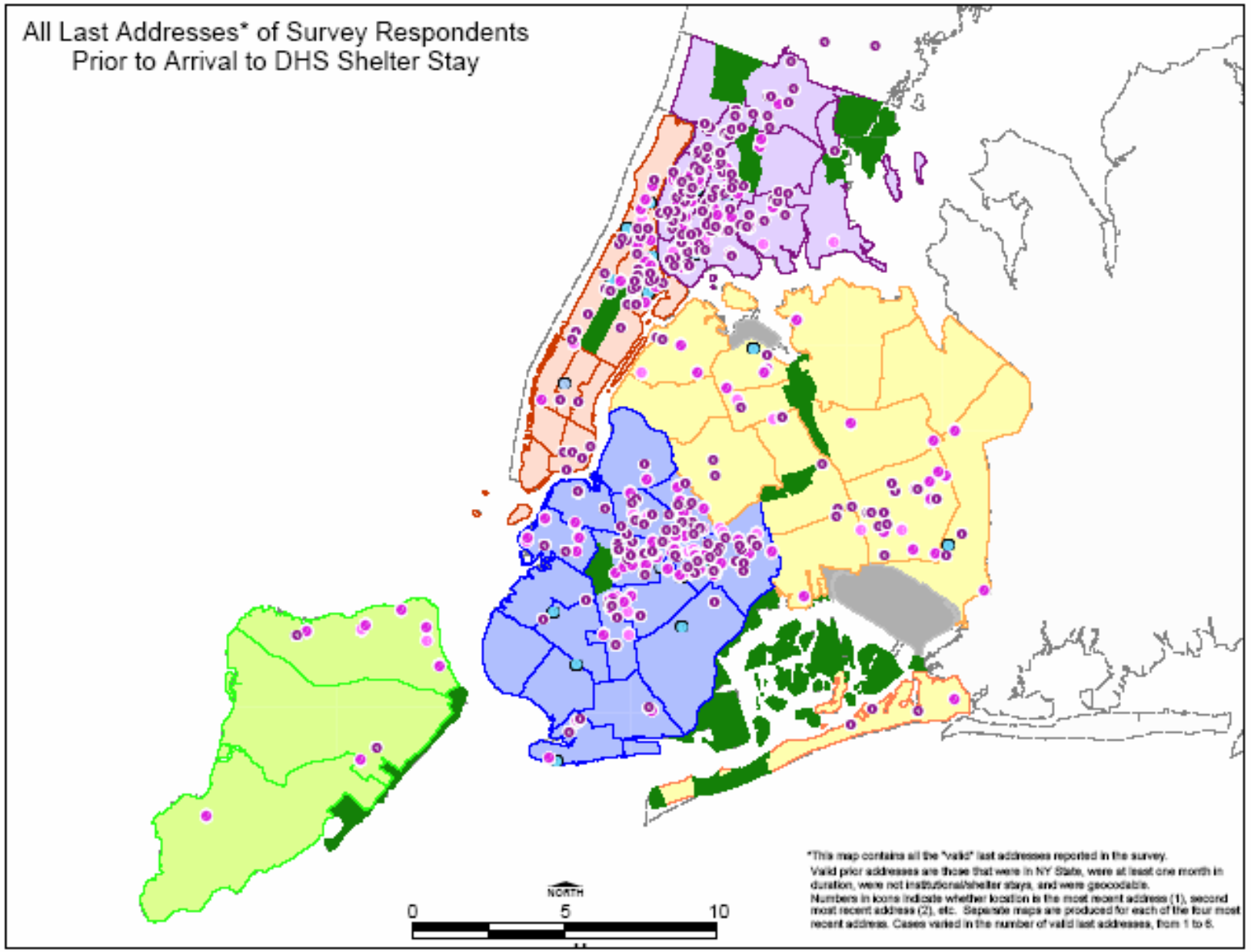
	Families with minor children	Families without minor children
N	275	52
Avg. age in years (range)	31 (17-61)	35 (19-68)
Sex		
Female	93%	65%
Male	7%	35%
Nationality		
Foreign born	33%	21%
Latino	36%	31%
Race		
Black	62%	62%
Other	23%	17%
Mixed race	7%	10%
White	6%	8%
Native Amer/Alaskan	2%	-
Asian	0.4%	-
Education		
Eighth grade or less	10%	18%
Some high school	47%	35%
High school diploma/GED	19%	31%
Some college	20%	12%
Associates degree or higher	5%	6%
Marital Status		
Single	59%	12%
Married	18%	42%
Divorced/Separated/Widowed	17%	14%
Registered domestic partner	4%	35%
Partnered (not registered)	2%	4%
Avg. family size	3.1	2

Location of previous residences in New York City by borough

	Residences Before Shelter				
Borough	5th residence before shelter	4th residence before shelter	3rd residence before shelter	2nd residence before shelter	Residence immediately before shelter
N	17	44	78	168	265
Bronx	35%	30%	36%	31%	39%
Brooklyn	41%	34%	29%	33%	29%
Manhattan	24%	20%	17%	14%	17%
Queens	-	14%	17%	19%	13%
Staten Island	-	2%	1%	3%	1%


Last Addresses* of Survey Respondents
Prior to Arrival to DHS Shelter Stay
NORTH
0
5
10
miles
*A "valid" last address was determined for 230 of 318 (72%) of cases. Valid last addresses are those that were in NY State, were at least one month in duration, were not institutional/shelter stays, and were geocodable.

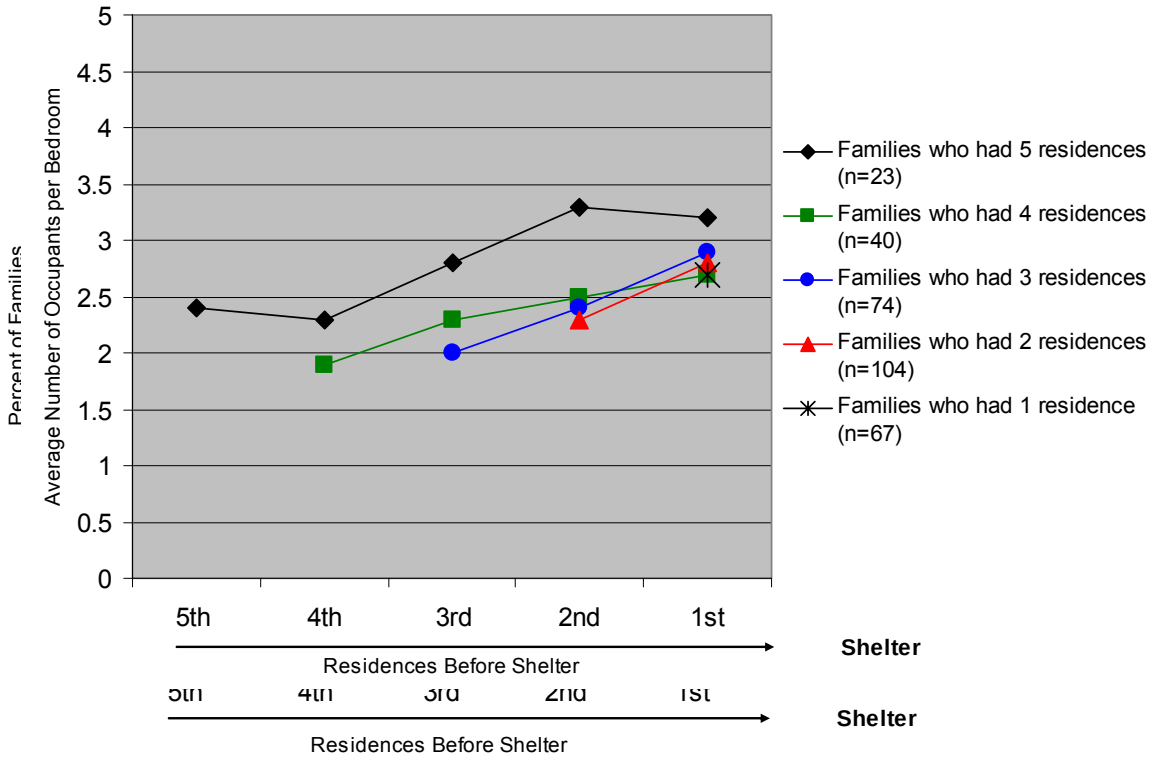

Third-to-Last Addresses* of Survey Respondents
Prior to Arrival to DHS Shelter Stay
NORTH
0
5
10
*A "valid" third-to-last address was determined for 51 of 109 (49%) of cases.
Valid prior addresses are those that were in NY State, were at least one month in duration, were not institutional/shelter stays, and were geocodable.


All Last Addresses* of Survey Respondents
Prior to Arrival to DHS Shelter Stay
NORTH
0
5
10
*This map contains all the "valid" last addresses reported in the survey.
Valid prior addresses are those that were in NY State, were at least one month in duration, were not institutional/shelter stays, and were geocodable.
Numbers in icons indicate whether location is the most recent address (1), second most recent address (2), etc. Separate maps are produced for each of the four most recent address. Cases varied in the number of valid last addresses, from 1 to 6.

Distance between residences in New York City

Distance between Residences	Percent of Moves Within New York City
< .1 miles	10%
>= .10 and < .25 mi.	3%
>= .25 and < .50 mi.	10%
>= .50 and < 1.0 mi.	10%
>= 1.0 and < 2.0 mi.	20%
>= 2.0 and < 4.0 mi.	21%
>= 4.0 and < 6.0 mi.	14%
>= 6.0 and < 10.0 mi.	11%

Percent of Families Whose Residence was in New York City
Number of Occupants per Bedroom
by Number of Residences in the Five Years Prior to Entering Shelter



Section IV: Repeat Shelter Use Among Families Who Exit Shelter in New York City

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September 2004

Summary of Key Findings and Implications

To better understand the dynamics of repeat shelter use among families who exit shelter in New York City, we analyzed data from the Department of Homeless Services. Specifically, we examined the re-entry patterns of families who exited shelter in fiscal year 1994, FY 1998, and FY 2001. For the 1994 cohort, we tracked re-entry for ten years, the 1998 cohort for five years, and the 2001 cohort for two years. The key findings from this study are as follows:

- Roughly one third of families who exited shelter in 1994 returned within ten years.

- In general, risk of shelter return is generally highest in the two-year period immediately following exit.[1] However, this pattern does not hold for those who exit shelter to subsidized housing. Among those who exit to subsidized housing, risk of return is low and consistent over time.

- Subsidized housing provides the best protection against repeat shelter use, whereas exit to unknown arrangements provides the worst protection. Among different types of subsidized housing, NYCHA and non-EARP Section 8 placement were associated with the lowest risk of return.

- We also identified certain demographic risk factors that accelerate shelter return. For example, families headed by single fathers, families with young heads of household, families who have a pregnant female member, and families with more children have a higher risk of returning to shelter than other family types.

The findings from this study have important implications for policies designed to prevent recidivism among families who exit shelter. They suggest that, in general, services meant to protect against shelter return should be provided to families during the two years immediately following shelter exit, as this is the period when these families are at greatest risk. They also point to certain characteristics that might flag a family for these services.

[1] We defined shelter exits as exits lasting 30 continuous days or longer. Thus, those families who left the shelter system, only to return shortly thereafter, would not be counted as exits. Length of stay was therefore operationalized as a continuous shelter spell with no temporary departures of longer than 30 days. This "30-day exit criterion" is typical in extant research (see, for example, Culhane & Kuhn 1998; Sosin, Piliavin & Westerfelt 1990; Wong & Piliavin 1996; Wong, Culhane & Kuhn 1997).

Background

Policymakers, advocates and researchers have recently been concerned about the issue of repeat homelessness. Existing research has highlighted the dynamic, episodic nature of homelessness (Farr, Koegel & Burman 1986; Rossi, Fisher & Willis 1986; Wright & Weber 1987; Sosin, Piliavin & Westerfelt 1990; Piliavin, Wright, Mare & Westerfelt 1996; Culhane, Dejowski, Ibanez, Needham & Macchia 1994; Culhane & Kuhn 1998; Rocha, Johnson, McChesney & Butterfield 1996). This research has shown that homelessness in not a permanent condition; many of these individuals and families exist on the brink of homelessness, transitioning between temporary, semi-permanent, and permanent housing, as well as experiencing time on the streets.

Generally, researchers of homelessness have identified structural-level risk factors such as lack of affordable housing and underfunding of social services, and individual-level risk factors such as substance abuse, mental illness and employability, for homelessness. Contemporary studies of pathways to homelessness have especially highlighted the availability of affordable housing and the nature of family dynamics as predictors of *repeat* homelessness (see, for example, Metraux & Culhane 1999; Shinn, Baumohl & Hopper 2001; Shinn, Weitzmann, Stojanovic, Knickman, Jimenez, Duchon & Krantz 1998).

Wong, Culhane & Kuhn (1997) analyzed repeat family homelessness in New York City, finding that family characteristics and the type of housing they moved into were important indicators of the likelihood of return to shelter. Specifically, these authors found subsidized housing to have a powerful protective effect on the risk of shelter reentry. In this paper, we attempt to extend their findings using improved data and longer follow-up periods in our analysis, delving deeper into shelter reentry patterns and characteristics associated with delayed and accelerated reentry.

We have drawn data on three distinct cohorts of families exiting New York City's Department of Homeless Services (DHS) family shelters. The data consists of information about each family leaving shelter in fiscal year 1994, FY 1998 and FY 2001. Staggering our samples in this way allowed us to explore reentry patterns over ten, five and two year follow-up periods.

Research Questions

This study is driven by the following research questions:

1. What is the rate of reentry for families found eligible by EAU?

2. How does type of exit affect reentry for families?

3. Among those who are placed in subsidized housing, how does type of subsidized housing placement affect reentry for families?

4. How does family composition affect reentry?

Data and Methodological Approach

Our research strategy closely follows that adopted by Wong, Culhane and Kuhn (1997). These authors examined one cohort of families leaving shelters between 1988 and 1993, charting reentry patterns over a two-year follow-up period. To broaden the scope of this analysis, we studied reentry patterns for three distinct cohorts of families exiting the EAU:

- Families exiting the EAU between 7/1/93 and 6/31/94 (FY 1994)
- Families exiting the EAU between 7/1/97 and 6/31/98 (FY 1998)
- Families exiting the EAU between 7/1/00 and 6/31/01 (FY 2001)[2]
- Analyses were also conducted on all cohorts together.

Again, an "exit" was operationalized as departure after a continuous shelter spell containing no temporary departures of longer than 30 days.

Splitting the study sample into three cohorts allowed us to investigate reentry patterns over different (and longer) follow-up periods. We tracked re-entry for the 1994 cohort for ten years; the 1998 cohort for five years; and the 2001 cohort for two years. We also tracked reentry for all cohorts together for two years.

Data

The main data that we analyzed comes from the DHS Client Tracking System (CTS).[3] CTS is principally used to record key information on homeless families and their shelter use. It contains reliable information on the demographic characteristics of families (age, race, sex), family composition (numbers of children and adults), and other pertinent details (single-mother status, pregnancy status, reason for homelessness). CTS also keeps records on when families exit shelter and where they exit to. There are a large number of exit codes representing exits to a variety of destinations. In order to effectively proceed with our analyses, and following Wong et al., we consolidated these codes into four main categories:

1. Exit to own housing: This code included exits to new (unsubsidized) apartments and returns to former apartments.

2. Exit to unknown arrangements

[2] Hereafter, we refer to the FY 1994 cohort as "the 1994 cohort", the FY 1998 cohort as "the 1998 cohort," and the FY 2001 cohort as "the 2001 cohort."

[3] Though we have confidence in the data in this report, it is important to note that city agency data have improved during the ten-year period that this report covers. Records from the earlier cohorts are more like to have had missing information, due to less sophisticated databases and less thorough data entry as well as the loss of information that occurred when the agencies migrated from one system to another.

3. Exit to other destinations: This code captured families who moved in with relatives, families who moved out of New York City, families who were institutionalized, and families who moved into shared housing arrangements.

4. Exit to subsidized housing: This code included exits to various types of subsidized housing, including public housing operated by the New York City Housing Authority (NYCHA), subsidized housing administered by the New York City Department of Housing Preservation and Development (HPD), Section 8 and Section 8 EARP, and Mitchell-Lama.[4] We also conducted analyses on disaggregated subsidized housing types, to assess which particular forms of housing best protected against shelter return.

The exit codes in Wong et al.'s (1997) initial analyses contained a very high proportion of exits to the ambiguous category of "unknown arrangements" (44.3 percent), and these authors acknowledge this ambiguity as a methodological weakness. The CTS data that we received also contained a large number of unknown exit types (27.2 percent); this proportion was probably smaller than Wong et al.'s because of improved quality in more recent CTS data.

We attempted to further reduce the number of unknowns in our data by cross-checking records against NYCHA public housing and Section 8 databases, as well as HPD databases. If an unknown exit in our (DHS) data matched a record in one of NYCHA's databases, we changed the exit disposition accordingly. Similarly, if an unknown exit in our data matched a record in the HPD database,[5] we amended the exit disposition.[6] When NYCHA and HPD matches conflicted, we updated records using educated judgments based on discussions with DHS, NYCHA and HPD staff. Updating the exit dispositions in this way reduced our percentage of unknowns from 27.2 percent to 21.1 percent. More importantly, we can be confident that none of the families in the revised unknown exit categories were in fact exiting to project- and voucher-based subsidized housing administered by NYCHA or HPD, and that any measured effects of exits to unknown arrangements were not being confounded by the inclusion of subsidized housing exits in this category.

Table 1 summarizes the characteristics of the population leaving the shelter system, and these characteristics are consistent with those found in literature regarding these populations. Unsurprisingly, there was a high proportion of single-mother families (70.9%), and a substantial

[4] Section 8 EARP refers to a New York City program called the Emergency Assistance Re-housing Program. This program provides Section 8 vouchers to eligible homeless families currently living in the shelter system. Through this program, landlords receive a one-time bonus for renting to a family with this type of voucher.
[5] We counted a record as a NYCHA/HPD match if the family appeared as an admission in the relevant public housing database within a year of EAU exit.
[6] HPD matches were further updated with the particular type of HPD placement. Matches were broken down into the following subcategories: general HPD (including IN REM, SIP and DAMP), EARP Section 8, and non-EARP Section 8.

Table 1. Characteristics of Families Exiting Shelter by Cohort

Characteristic	1994	1998	2001	All
Number of exiting families	6731	4453	4185	15369
Family type (%)				
Single-mother family or single pregnant female	70.1	71.8	71.1	70.9
Dual parent family	19.5	19.2	18.7	19.2
Single-father family	2.2	3.0	2.4	2.5
Two adults with no children	7.1	4.5	5.9	6.0
Don't know/other family type	1.1	1.5	1.9	1.4
Number of adults in the household (mean)	1.3	1.3	1.3	1.3
Number of children in the household (mean)	1.7	1.7	1.7	1.7
Race (%)				
Black	64.6	62.6	60.1	62.8
Hispanic	33.0	34.7	35.6	34.2
White	2.1	2.3	2.4	2.2
Other/Don't know	0.4	0.3	1.9	0.8
Age of household head at exit (mean)	28.6	29.9	30.6	29.5
Female member pregnant (%)	18.2	14.3	15.0	16.2
Reason for homelessness (%)*				
Economic	…	4.8	16.8	10.6
Domestic abuse	…	6.8	14.4	10.5
Environment-related (disaster, crime, unlivable conditions)	…	7.3	28.2	17.4
Other (newly arriving in town, referral)	…	8.9	30.5	19.4
Don't know	…	72.2	10.1	42.1
Season of shelter entry (%)				
Spring	26.2	25.9	23.1	25.3
Summer	27.4	29.5	29.0	28.5
Fall	24.1	22.6	24.9	23.9
Winter	22.3	22.0	23.0	22.4
Season of shelter exit (%)				
Spring	26.7	25.1	27.7	26.5
Summer	25.2	26.7	27.2	26.2
Fall	24.7	25.1	24.8	24.8
Winter	23.4	23.1	20.3	22.5
Length of shelter stay in days (mean)	288.9	377.5	355.3	332.6
Type of exit (%)				
Exit to unknown arrangements	20.4	16.3	27.2	21.1
Exit to own housing	5.6	4.2	2.9	4.5
Exit to subsidized housing	72.8	78.2	68.2	73.1
NYC Housing Authority public housing (NYCHA)	9.9	15.5	23.6	15.2
NYC Dept. of Housing Preservation and Development (HPD)	15.9	4.6	4.4	9.5
Section 8 Emergency Assistance Rehousing Program (EARP)	43.2	51.7	35.0	43.4
Section 8 Non-EARP	3.0	6.2	5.3	4.5
Mitchell-Lama	0.8	0.2	0.0	0.4
Other destinations	1.2	1.3	1.6	1.3
Exit facility type (%)				
Tier II	72.2	88.2	82.1	79.5
Adult family	5.7	2.2	3.3	4.0
Other facility type	22.2	9.7	14.6	16.5

* 1998 and 2001 cohorts only

number of women who were pregnant (16.2% of families had a pregnant member). Racial and ethnic minorities were heavily overrepresented. The average length of shelter stay was about eleven months (332.6 days). The majority of families exited to subsidized housing, with the plurality of these going to the EARP Section 8. We found the "reason for homelessness" field to be missing a lot of data (42.1% missing values), and therefore chose to exclude this variable from all subsequent analyses. Because data on our earlier cohorts covered a time period when eligibility requirements were relatively new, this information was not recorded consistently for earlier cohorts.

Overall, the three exit cohorts were fairly similar in terms of family composition and demographic characteristics. However, there were differences in exit types over time. In particular, the 1998 cohort had a higher proportion of exits to subsidized housing, and a lower percentage of exits to unknown arrangements, than the other two cohorts. As we will show through our analyses, this had a considerable impact on shelter reentry patterns.

Methodology

To answer our research questions, we used survival analysis, which is statistical technique that examines time until an event (shelter reentry). This approach allowed us to produce *hazard curves* – which chart reentry risk over time. We produced hazard curves for each cohort separately, and for all cohorts together. We also produced curves for each cohort by type of exit. In doing this, we were able to determine the types of exit associated with higher, and lower, reentry risk over time.

While charting hazard rates over time is informative, it is not possible to make causal statements about shelter reentry patterns on the basis of these alone. To fully explore the issue of reentry, we constructed multivariate survival models which assessed the power of certain independent variables to predict risk of reentry, controlling for all other independent variables (see Section VIII).

Shelter Reentry Rates

Eleven percent of families return to the shelter within two years, and 16.4% return within five years. 30.9% return within ten years. Table 2 displays these rates by cohort year.

Table 2: Reentry rates by cohort

Exit cohort	Follow-up time	% of families re-entering shelters (Censored cases are coded "no")	Total cohort size
FY 1994	10 years	30.9	6731
FY 1998	5 years	16.4	4453
FY 2001	2 years	11.0	4185

To see whether reentry rates changed over time, we standardized the follow-up periods for each cohort, and all cohorts together, to two years. Table 3 displays these rates for each cohort. Overall, about 11% of families return to shelter within two years. The highest two-year reentry rate was found among families leaving shelter in 1994; the lowest was among those leaving in 1998. One explanation for this strikingly low rate might be that there was a relatively higher proportion of families exiting to subsidized housing among this cohort (refer back to Table 1). As we will show later in this paper, families exiting to subsidized housing have significantly lower reentry rates than families exiting to other types of housing arrangements. The low 1998 reentry rate might also be partially explained by a fairly robust national economy, particularly compared to 1994 and 2001.

Table 3: Two-year reentry rates by cohort

Exit cohort	Follow-up time	% of families re-entering shelters	Total cohort size
FY 1994	2 years	13.9	6731
FY 1998	2 years	7.3	4453
FY 2001	2 years	11.0	4185
Overall	2 years	11.2	15369

Tables 2 and 3 are useful in determining *how many* families returned to shelters within given time periods. But we were also critically interested in *when* families returned. Table 4 charts the overall (cumulative) return rate over time in 6 month intervals.

Table 4: Cumulative reentry rates over time (6 month intervals)

	Cumulative % of families that have returned to shelters (N in parentheses)			
Month	**1994 cohort (6731)**	**1998 cohort (4453)**	**2001 cohort (4185)**	**All cohorts (15369)**
6	6.5 (436)	2.3 (103)	3.6 (150)	4.5 (689)
12	9.9 (667)	4.3 (193)	6.0 (252)	7.2 (1112)
18	12.1 (815)	5.8 (260)	8.6 (358)	9.3 (1433)
24	13.9 (935)	7.3 (326)	11.0 (460)	11.2 (1720)
30	15.3 (1033)	8.7 (387)	…	…
36	16.9 (1138)	10.3 (459)	…	…
42	18.3 (1233)	11.8 (525)	…	…
48	19.5 (1315)	13.3 (593)	…	…
54	20.8 (1398)	14.9 (664)	…	…
60	22.1 (1487)	16.4 (730)	…	…
66	23.2 (1560)	…	…	…
72	24.0 (1618)	…	…	…
78	24.9 (1677)	…	…	…
84	25.8 (1736)	…	…	…
90	26.7 (1795)	…	…	…
96	27.6 (1861)	…	…	…
102	28.7 (1930)	…	…	…
108	29.5 (1987)	…	…	…
114	30.2 (2036)	…	…	…
120	30.9 (2076)	…	…	…

Table 4 shows that as time goes on, reentry slows or remains constant.[7] Consider the 1994 cohort. One year after exit, 9.9% of exiting families had returned. In the second year, only 4% of families returned (totaling 13.9%). Thus, over twice as many families returned in the first year than in the second. This trend holds over the entire ten-year follow-up period; the number of families returning decreases over time. Put another way, among families exiting shelters in 1994, half of those who would eventually return returned within three years, and it took the other half seven more years to return.

The 1998 cohort, however, had a much steadier rate of return. While more families leaving shelters in 1998 returned in the first year than the second year (4.3% to 3.0%), this rate did not decrease in subsequent years, remaining at or near 3.0% for the third, fourth and fifth follow-up years. Again, the relatively high proportion of families exiting to subsidized housing in 1998 likely explains this low rate of reentry. As the findings from our survival analysis will clearly demonstrate, families being discharged to subsidized housing have a low and steady risk of return over time. Thus, this high proportion of subsidized housing exits is probably "stabilizing" the 1998 return rate over time.

[7] While this pattern holds for the shelter population on the whole, there are significant differences depending on the *destination of exit*. For example, as Section VII will show, the reentry rate for families exiting to subsidized housing remains relatively stable over time. Conversely, the reentry rate for families exiting to unknown arrangements is high immediately after shelter exit, then declines and stabilizes over time.

The slowing reentry trend cannot be seen as clearly over a two-year follow-up period (2001 cohort and all cohorts together). This is probably because two years is not enough time for the reentry rate to slow significantly. However, even over this short follow-up time, there is some evidence of reentry desistence. Among those discharged in 2001, 6% return within the first year after shelter exit, and only 5% return in the second year. For all cohorts together, 7.2% return within the first year, and only 4% return in the second year.

Chart 1 graphs the cumulative reentry rates over time for the 1994 cohort. This chart illustrates the "slowing reentry rate" trend described above and shown in Table 4.

Chart 1: Cumulative reentry rate for 1994 cohort

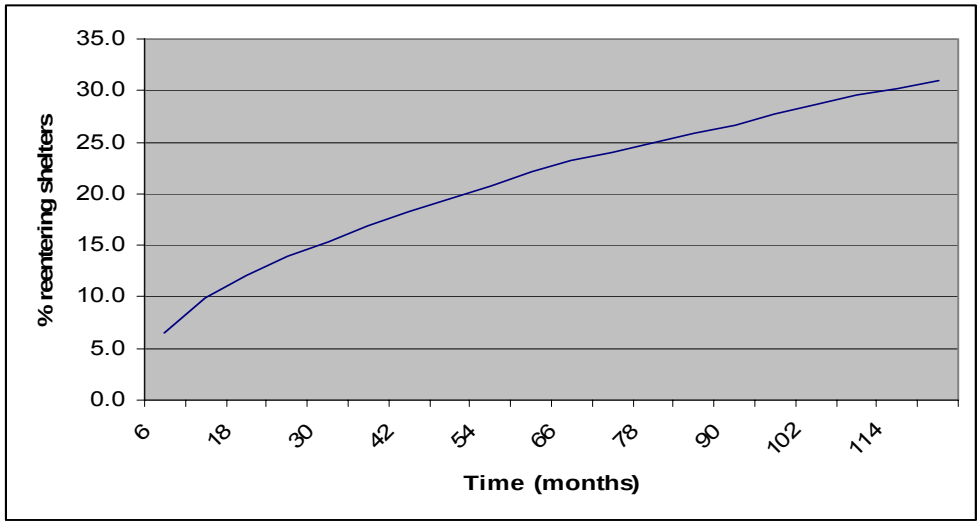
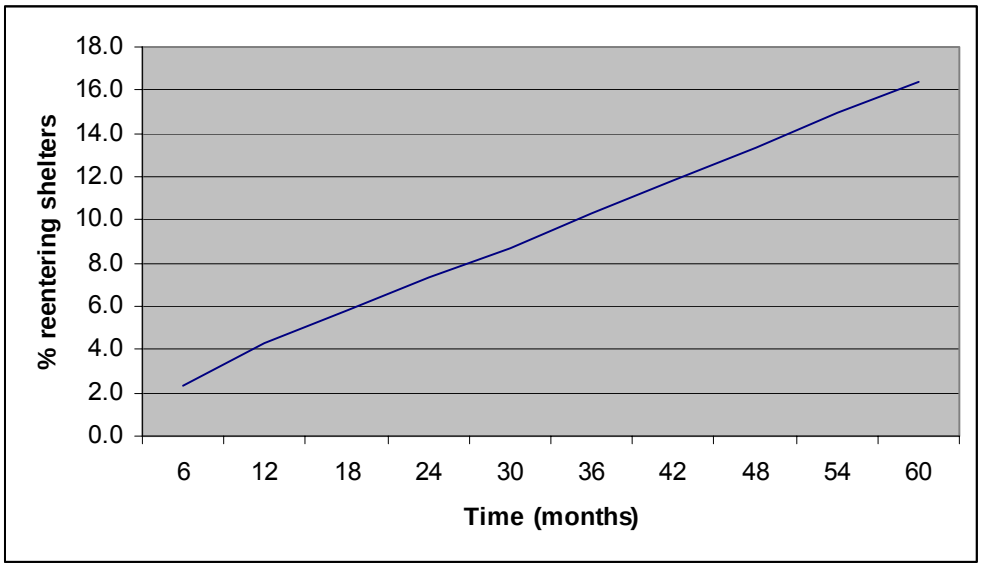


Chart 2 shows the cumulative reentry rate for the 1998 cohort over time. Again, note the relatively steady return rate, possibly due to the stabilizing effect of the high proportion of exits to subsidized housing.

Chart 2: Cumulative reentry rate for 1998 cohort



We do not show the cumulative reentry rates for the 2001 cohort and for all cohorts together, as these graphs do not add much to the figures seen in Table 4 and the above discussion.

Shelter reentry rates by exit type

Next, we determined the types of exit associated with higher and lower rates of reentry. Table 5 details these results. It is important to bear in mind that these rates do not signify a causal relationship between exit type and the risk of shelter return – they merely suggest an association. Results from our multivariate survival models will speak more clearly to issues of cause and effect.

Table 5: Reentry rates by type of shelter exit (N in parentheses)

Exit type	**10-year re-entry rate**	**5-year re-entry rate**		**2-year re-entry rate**	**2-year re-entry rate**
Cohort	*1994*	*1998*		*2001*	*All*
Exit to unknown arrangements	53.9 (738)	36.8 (268)		27.9 (318)	31.9 (1033)
Exit to own housing	39.4 (149)	26.3 (49)		14.9 (18)	19.3 (132)
Exit to subsidized housing	23.6 (1156)	11.5 (400)		3.9 (110)	4.5 (506)
NYCHA public housing	15.6 (104)	5.5 (38)		1.4 (14)	2.1 (49)
HPD	28.0 (300)	13.7 (28)		10.8 (20)	9.2 (135)
Section 8 EARP	25.0 (727)	12.5 (287)		4.6 (67)	4.5 (297)
Section 8 Non-EARP	10.9 (22)	17.0 (47)		4.1 (9)	3.6 (25)
Mitchell-Lama	5.3 (3)	0.0 (0)		N/A*	0.0 (0)
Other destinations	42.0 (34)	23.2 (13)		20.6 (14)	23.9 (49)
Total	30.9 (2077)	16.4 (730)		11.0 (460)	11.2 (1720)

* There were no exits to Mitchell-Lama in the 2001 cohort.

Across all cohorts and follow-up periods, those families exiting to subsidized housing exhibited the lowest rates of reentry. Subsidized housing appears to be associated with better protection

against shelter return than exiting to one's own housing, other destinations, or unknown arrangements. Among those exiting to subsidized housing, those going to Mitchell-Lama had the lowest reentry rates; this is unsurprising, since Mitchell-Lama is a mixed-income subsidized housing program, which may be significantly different from other types of subsidized housing.[8] That said, NYCHA public housing placement seemed to offer the best protection against shelter reentry, at least in the short term. Not counting Mitchell-Lama placements, families placed with NYCHA public housing demonstrated the lowest two- and five-year return rates in this study. However, families placed in Section 8 Non-EARP housing in 1994 showed the lowest ten-year rate of reentry.

Those exiting to unknown arrangements had the highest reentry rates in all cohorts at all times. While the types of exits in this category are truly *unknown*, we might hypothesize that many "unknown" families may have left the EAU for tenuous living arrangements, or even with no housing arranged whatsoever. In the next section of this paper, we will show that the risk of shelter return is particularly high for these families in the period immediately following exit.

[8] Families exiting shelters to Mitchell-Lama may therefore have been entering housing arrangements of higher quality, and these families, in being accepted into this program may have been likely to exhibit other characteristics that guard against returns to homelessness. Indeed, none of the families exiting shelters to Mitchell-Lama in 1998 returned within five years, and no family from any cohort going to Mitchell-Lama returned within two years. Overall, very few shelter users exited to Mitchell-Lama. Across all study cohorts, only 0.4% of families exited to this type of subsidized housing.

Survival Analysis: Risk of Return over Time

The charts in this section illustrate the risk (hazard) of shelter return over time. Chart 3 displays the hazard curve over ten years for all families exiting in 1994. The risk of shelter return for the 1994 cohort is relatively high in the period immediately following exit, but declines quickly and stabilizes after about two years.

Chart 3: Hazard Rate for Shelter Reentry, for 1994 Cohort (10-Year Follow-Up)

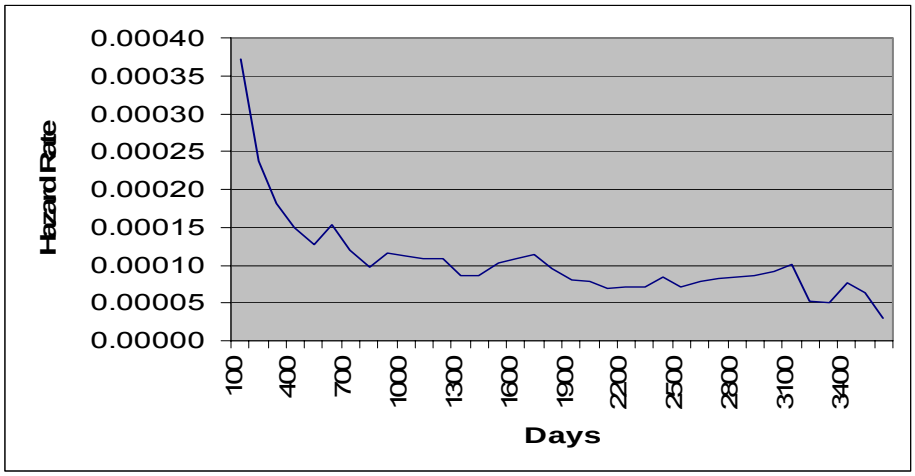


Chart 4 shows the hazard rate over five years for families exiting in 1998. For the 1998 cohort, risk of shelter return is highest immediately following shelter exit, stabilizes slightly after about a year, then peaks again after roughly four years. Overall however, this curve is much "flatter" than the curve representing the ten-year hazard rate, indicating a much less volatile return risk over time for this cohort. One reason that risk of return is not very high in the initial period after shelter exit may be that there were a higher proportion of exits to subsidized housing in 1998. As Table 5 showed, reentry rates are lowest for those exiting to subsidized housing, and as the next section of this paper will illustrate, the subpopulation of shelter exiters with the highest risk in the period immediately following exit are those exiting to unknown arrangements. These types of exits are underrepresented in the 1998 cohort.

The hazard rate for this cohort rises sharply about four years after exit (around day 1600). While this paper cannot fully explain this peak, it roughly corresponds to the period following the terrorist attacks of September 11, 2001 and the subsequent economic downturn – a time associated with a surge in homelessness in New York.[9]

[9] The 1998 cohort exited between 7/1/97 and 6/31/98. The hazard peak, occurring around the 1600th post-exit day (i.e., about 4 years and 4 months after exit) roughly corresponds to the date range between 11/1/01 and 10/31/02.

Chart 4: Hazard Rate for Shelter Reentry, for 1998 Cohort (5-Year Follow-Up)

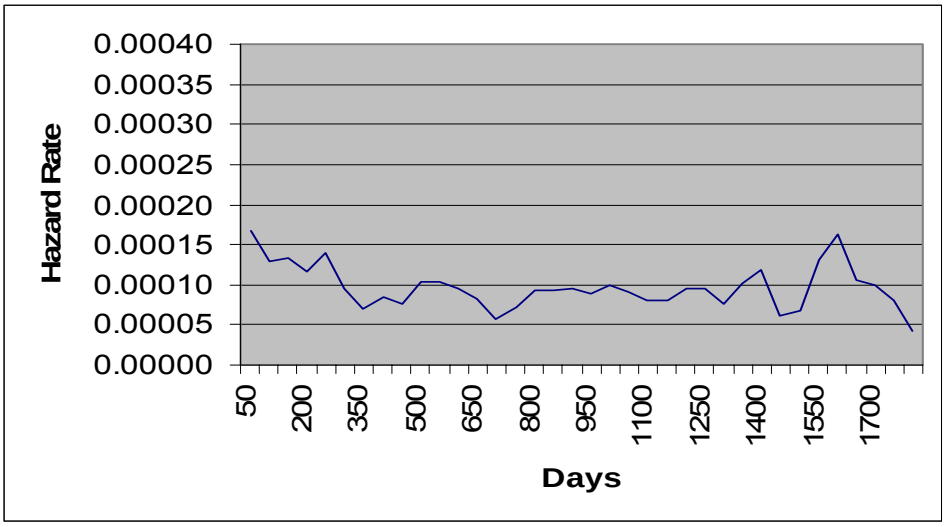
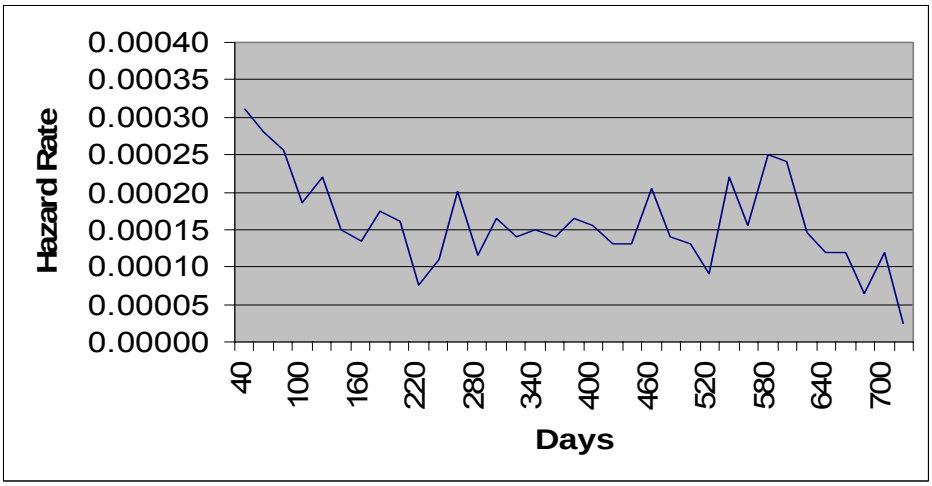


Chart 5 shows the hazard rate over two years for families exiting in 2001. Similar to the 1994 and 1998 cohorts, the risk of reentry for the 2001 cohort is highest during the period immediately following exit, drops and stabilizes after about nine months, then peaks again in the latter part of the second year. Again, this peak might be explained, at least in part, by the rise in homelessness which accompanied the 9/11 attacks.

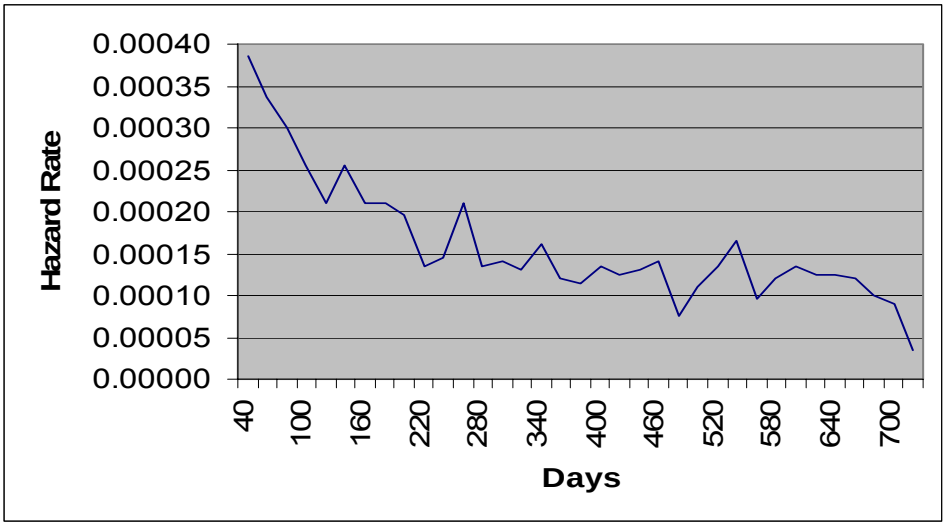
Chart 5: Hazard Rate for Shelter Reentry, for 2001 Cohort (2-Year Follow-Up)



Finally, we examined the two-year reentry hazard for all cohorts together, shown below in Chart 6. Once again, the risk of shelter return is highest immediately after exit, stabilizing late in the first year, and decreasing steadily after that. It is important to bear in mind that this curve does not illustrate risk over a real period of time (i.e., 1994 to 1995); rather, it shows reentry risk over a standardized time period (i.e., two years). In a sense, this chart suppresses the influence of social and political factors on reentry risk, since different cohorts are at risk over distinct time

periods. In addition, combining cohorts results in a larger number of cases for analysis, thereby reducing the statistical disruption produced by unusual cases (or "outliers"). For these reasons, Chart 6 shows a "smoother" curve.

Chart 6: Hazard Rate for Shelter Reentry, for All Cohorts (2-Year Follow-Up)



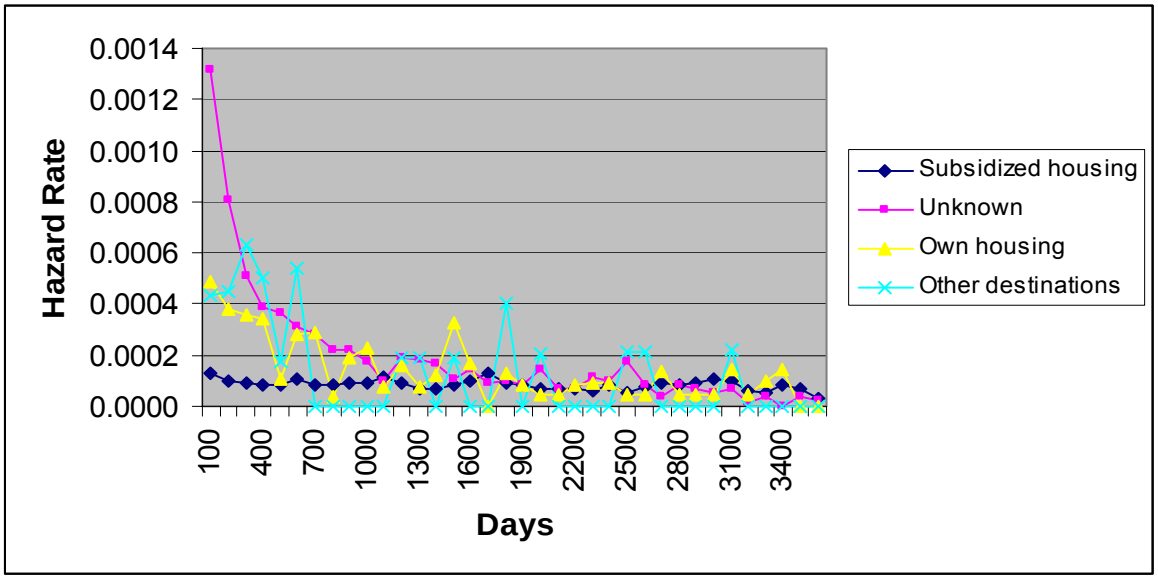
Survival Analysis: Risk of Return by Exit Type

The charts in this section illustrate reentry risk over time by different exit destinations. This provides some insight on the relative effect of various housing arrangements on shelter readmission.

Chart 7 shows the reentry risk – by exit type – over ten years for families leaving shelters in 1994. Exit to unknown arrangements is associated with the greatest immediate risk for shelter return, and this risk does not stabilize for almost three years after exit. Families leaving shelters for their own housing also show a higher reentry risk in the period following exit; this risk declines for about two years after shelter exit, then stabilizes. Families going to "other destinations" similarly show a declining reentry risk over time, though the hazard rate decreases erratically.

Conversely, those exiting to subsidized housing exhibit a relatively low and consistent reentry risk over the entire time period. This provides some initial evidence that subsidized housing offers the best protection against returning to homelessness.

Chart 7: Hazard Rate for Reentry by Exit Type for 1994 Cohort (10-Year Follow-Up)



Similar conclusions can be drawn from Chart 8, which displays hazard rates over five years for the 1998 cohort. Again, exit to unknown housing is associated with a high initial reentry risk that decreases over time. Exit to subsidized housing appears to provide the most effective protection against reentry, though this hazard actually increases very slightly over time.

It is difficult to draw conclusions from the five-year hazard rates of those going to their own housing, and those exiting to other destinations. Mainly, this is due to the small number of cases in the 1998 data with these types of exits. Only 186 families (4.2%) in this cohort left shelters for their own housing, and 56 families (1.3%) left for other destinations. As such, the hazard rates for these exit types in Chart 6 are obfuscated by a substantial amount of statistical volatility.

Chart 8: Hazard Rate for Reentry by Exit Type for 1998 Cohort (5-Year Follow-Up)

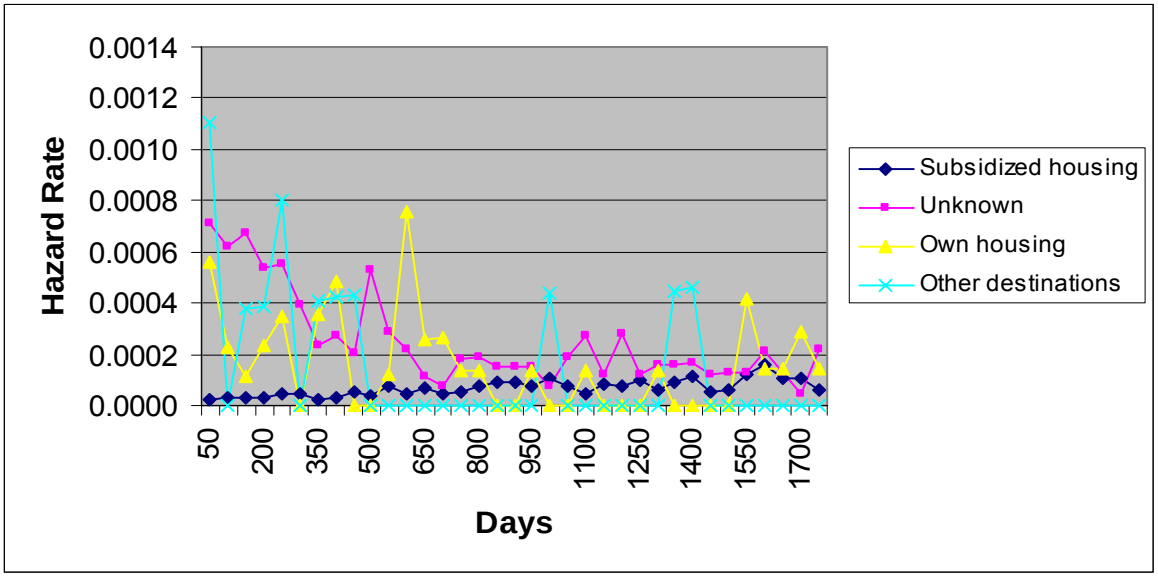
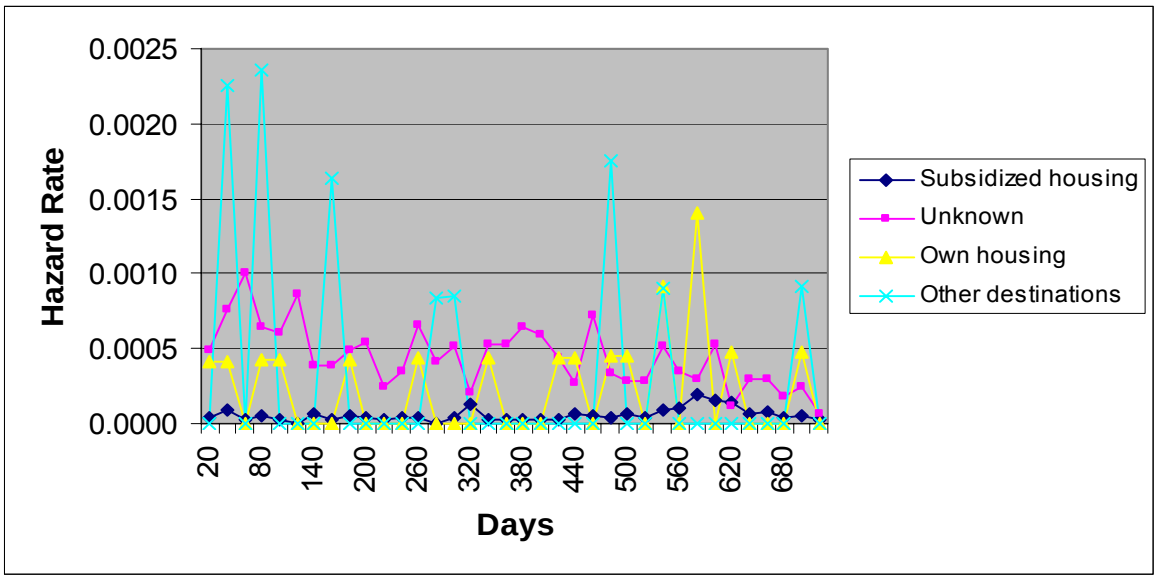


Chart 9 displays short-term (two year) hazard rates for the 2001 cohort. Note that the Y-axis, which represents the hazard rate, is different from the previous two charts. Once again, looking at the 2001 cohort, exit to subsidized housing is associated with a low, steady risk of shelter readmission, while exit to unknown arrangements is associated with a relatively high risk that decreases over time. The peak of the unknown arrangements curve reaches an apex about two months post-exit; there appears to be a short period of lowered reentry risk for these families which anticipates the period of highest risk. Curves for exits to own housing and other destinations must be interpreted with caution because they reflect the circumstances of small numbers of families (2.9% and 1.6% respectively).

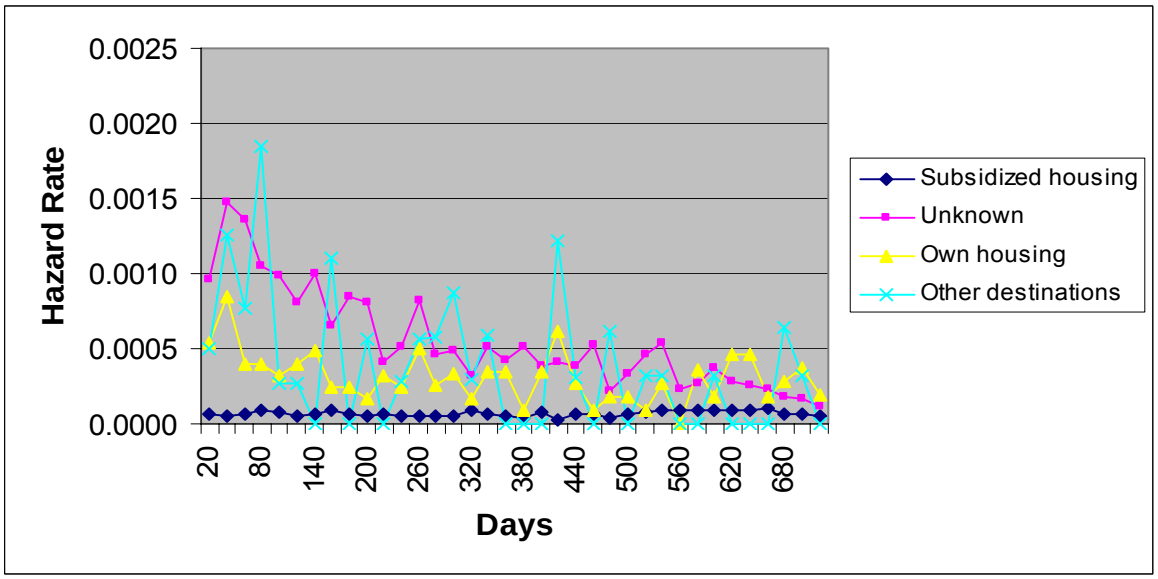
Chart 9: Hazard Rate for Reentry by Exit Type for 2001 Cohort (2-Year Follow-Up)*



*Note difference in Y-axis scale.

Chart 10 displays the two-year hazard rates for all cohorts. The two-year hazard for all cohorts together provides yet more support for the notion that subsidized housing offers the best protection against shelter return, and exit to unknown arrangements is the riskiest proposition. And again, for those exiting to unknown arrangements, the period of highest reentry risk actually begins between one and two months post-exit.

Chart 10: Hazard Rate for Reentry by Exit Type for All Cohorts (2-Year Follow-Up)*



*Note difference in Y-axis scale.

Survival Analysis: Predicting Shelter Reentry

This section discusses the results from a series of multivariate survival models which predict shelter reentry. These models assess the relative predictive power of different variables, controlling for the influence of all other variables. Variables in the models include family composition, whether a female family member is pregnant, numbers of children and adults, age of household head, season of shelter exit, length of shelter stay, race/ethnicity of household head, exit destination, and exit facility type.[10]

Tables 6 and 7 display the results from these analyses. The first set of multivariate models we present contain coefficients and time ratios for all included variables. Time ratios greater than one are interpreted as decreases in time to failure per unit increase of the covariate in question. Thus, increasing a covariate results in a delay in failure time. Put simply, a time ratio greater than one indicates lower risk; a time ratio less than one indicates higher risk.[11]

In these models, exit destination is coded as a four-category variable: exit to unknown arrangements, exit to subsidized housing, exit to own housing, and exit to other destinations. The second set of multivariate models expands the exit disposition to include various types of subsidized housing exit: NYCHA public housing, HPD, EARP Section 8, Non-EARP Section 8, and Mitchell-Lama. See Tables 6 and 7.

For categorical covariates in regression models, one value must be chosen as the *reference category*; coefficients for other categories of that variable are interpreted in comparison to the reference category. For family type, the reference category was *single-mother family*. For season of shelter exit, our reference category was *winter*. For race/ethnicity of head of household, our reference category was *black*. For exit type, the reference category was *exit to unknown arrangements*. For exit facility type, the reference category was *Tier II*.

[10] Our first attempts at multivariate modeling employed the Cox Proportional Hazards Model, which is a versatile regression model that assumes no shape in the underlying hazard function. Obtaining accurate estimates using the Cox Model rests on the premise that the model is well-specified, and that certain assumptions are not violated in model construction. In particular, when using this model, one must test for the *proportional hazards assumption*, which assumes that given two observations with different values for independent variables, the ratio of hazard functions for those two observations is not time-dependent. Unfortunately, our data (for every cohort) failed this test. As such, we tested other survival models with different underlying distributional assumptions for appropriateness of fit. To choose most appropriate models, we employed the Akaike information criterion (AIC), which considers each candidate model's log likelihood while adjusting for the number of estimated parameters (Akaike 1974; STATA Corporation 2003). Models under consideration were the exponential, Weibull, lognormal, log-logistic and generalized gamma. We found the generalized gamma model to be most suitable for the 1994 and 1998 cohorts, as well as all cohorts together. The lognormal model was best for the 2001 cohort.

[11] Time ratios should not be confused with "risk ratios" – common to other survival models – which are interpreted in the opposite manner. That is, risk ratios greater than one are interpreted as increased risk of failure per unit increase in a given covariate.

Table 6: Multivariate survival analysis results: Models for shelter reentry (with condensed exit disposition)

	1994 cohort			1998 cohort			2001 cohort			All cohorts together		
Variable	**B**	**Std. Error**	**Time Ratio**	**B**	**Std. Error**	**Time Ratio**	**B**	**Std. Error**	**Time Ratio**	**B**	**Std. Error**	**Time Ratio**
Single mother (REFERENCE)												
Dual parent family	-0.269	0.471	0.764	0.384	0.456	1.468	-0.308	0.470	0.735	-0.274	0.294	0.761
Single father	-1.005	0.230	0.366*	-1.180	0.234	0.307*	-0.032	0.377	0.968	-0.853	0.170	0.426*
Two adults, no children	-0.697	0.497	0.498	0.167	0.524	1.182	-0.662	0.557	0.516	-0.475	0.323	0.622
Don't know/Other family type	0.122	0.882	1.130	1.419	0.964	4.134	-1.428	0.915	0.240	-0.186	0.581	0.830
Pregnant female in family	-0.156	0.090	0.855	-0.345	0.120	0.708*	-0.227	0.144	0.797	-0.194	0.077	0.824*
Number of children	-0.163	0.030	0.849*	-0.086	0.035	0.918*	-0.147	0.044	0.864*	-0.070	0.026	0.932*
Number of adults	-0.549	0.464	0.578	-0.821	0.444	0.440	0.188	0.450	1.207	-0.281	0.286	0.755
Age of head at exit	0.032	0.005	1.032*	0.015	0.005	1.015*	0.035	0.007	1.036*	0.030	0.004	1.030*
Winter exit (REFERENCE)												
Spring exit	-0.010	0.097	0.990	-0.247	0.119	0.781*	0.328	0.153	1.388*	0.069	0.082	1.071
Summer exit	0.021	0.098	1.021	0.040	0.120	1.041	0.216	0.149	1.241	0.076	0.082	1.079
Fall exit	0.129	0.099	1.138	0.068	0.123	1.070	0.362	0.157	1.436	0.153	0.084	1.165
Natural log of length of stay	0.242	0.057	1.274*	0.099	0.066	1.104	0.119	0.081	1.126	0.298	0.042	1.348*
Black (REFERENCE)												
Hispanic	0.305	0.075	1.356*	0.302	0.090	1.353*	-0.102	0.113	0.903	0.184	0.063	1.202*
White	0.123	0.245	1.131	0.468	0.287	1.596	0.641	0.424	1.898	0.344	0.200	1.411
Other/don't know race	0.480	0.565	1.615	0.516	0.738	1.675	0.308	0.344	1.361	0.891	0.312	2.438*
Exit to unknown (REFERENCE)												
Exit to subsidized housing	2.322	0.101	10.194*	2.094	0.125	8.115*	2.251	0.145	9.500*	2.281	0.078	9.786*
Exit to own housing	1.049	0.162	2.854*	0.544	0.210	1.724*	0.863	0.282	2.371*	0.779	0.123	2.178*
Exit to other destination	0.451	0.311	1.569	0.692	0.355	1.997	0.266	0.329	1.305	0.307	0.200	1.360
Exit from Tier II (REFERENCE)												
Exit from Adult Family Facility	-0.310	0.198	0.734	0.086	0.384	1.090	-0.362	0.384	0.696	-0.540	0.167	0.583*
Exit from other facility type	-0.125	0.088	0.882	0.359	0.161	1.432*	0.084	0.153	1.088	-0.107	0.078	0.899
Constant	5.681	0.543	…	7.367	0.588	…	6.028	0.642	…	5.632	0.360	…
N	6731			4453			4185			15369		
Percentage returning	30.9			16.4			11.0			11.2		
Log likelihood	-6682.201			-2538.055			-1685.754			-6318.576		

*p<.05 (coefficient is significantly different from zero)

Table 7: Multivariate survival analysis results: Models for shelter reentry (with expanded exit disposition)

	1994 cohort			1998 cohort			2001 cohort			All cohorts together		
Variable	**B**	**Std. Error**	**Time Ratio**	**B**	**Std. Error**	**Time Ratio**	**B**	**Std. Error**	**Time Ratio**	**B**	**Std. Error**	**Time Ratio**
Single mother (REFERENCE)												
Dual parent family	-0.359	0.472	0.698	0.418	0.451	1.519	-0.416	0.470	0.659	-0.301	0.294	0.740
Single father	-0.888	0.229	0.411*	-1.156	0.234	0.315*	-0.120	0.376	0.887	-0.824	0.171	0.439*
Two adults, no children	-0.705	0.497	0.494	0.300	0.520	1.349	-0.710	0.558	0.492	-0.431	0.323	0.650
Don't know/Other family type	-0.107	0.884	0.899	1.456	0.956	4.290	-1.512	0.911	0.220	-0.265	0.580	0.767
Pregnant female in family	-0.151	0.089	0.860	-0.349	0.120	0.705*	-0.216	0.144	0.806	-0.188	0.077	0.829*
Number of children	-0.161	0.030	0.852*	-0.079	0.035	0.924*	-0.143	0.044	0.867*	-0.075	0.026	0.927*
Number of adults	-0.401	0.465	0.670	-0.855	0.438	0.425	0.290	0.450	1.337	-0.225	0.286	0.799
Age of head at exit	0.032	0.005	1.032*	0.014	0.005	1.014*	0.034	0.007	1.034*	0.028	0.004	1.029*
Winter exit (REFERENCE)												
Spring exit	-0.016	0.097	0.984	-0.247	0.120	0.781*	0.246	0.153	1.279	0.043	0.082	1.044
Summer exit	0.014	0.098	1.014	-0.042	0.122	0.959	0.110	0.150	1.116	0.034	0.082	1.035
Fall exit	0.087	0.099	1.091	0.038	0.123	1.039	0.309	0.157	1.362*	0.110	0.084	1.116
Natural log of length of stay	0.257	0.056	1.293*	0.125	0.069	1.133	0.123	0.080	1.131	0.311	0.042	1.364*
Black (REFERENCE)												
Hispanic	0.294	0.074	1.342*	0.285	0.091	1.329*	-0.102	0.114	0.903	0.171	0.063	1.186*
White	0.118	0.243	1.126	0.450	0.287	1.568	0.639	0.422	1.896	0.319	0.199	1.376
Other/don't know race	0.468	0.569	1.597	0.496	0.744	1.642	0.322	0.344	1.380	0.867	0.312	2.379*
Exit to unknown (REFERENCE)												
Exit to NYCHA public housing	2.755	0.148	15.728*	2.570	0.165	13.062*	2.999	0.245	20.066*	2.877	0.131	17.756*
Exit to HPD	1.937	0.125	6.938*	1.820	0.229	6.174*	1.200	0.254	3.321*	1.584	0.109	4.872*
Exit to EARP Section 8	2.307	0.107	10.045*	2.002	0.135	7.404*	2.125	0.159	8.369*	2.293	0.086	9.909*
Exit to non-EARP Section 8	3.246	0.237	25.691*	1.746	0.194	5.734*	2.239	0.319	9.381*	2.560	0.181	12.940*
Exit to Mitchell-Lama	3.778	0.479	43.736*	6.341	44.593	567.387	…	…	…†	7.219	34.317	1365.288
Exit to own housing	1.048	0.161	2.853*	0.546	0.208	1.727*	0.858	0.279	2.359*	0.790	0.123	2.203
Exit to other destination	0.451	0.308	1.571	0.697	0.353	2.009*	0.266	0.326	1.305	0.321	0.200	1.379
Exit from Tier II (REFERENCE)												
Exit from Adult Family Facility	-0.311	0.198	0.733	0.057	0.385	1.058	-0.364	0.383	0.695	-0.513	0.167	0.599*
Exit from other facility type	-0.111	0.087	0.895	0.362	0.164	1.437*	0.084	0.153	1.088	-0.067	0.078	0.935
Constant	5.405	0.545	…	7.380	0.589	…	5.985	0.641	…	5.520	0.362	…
N	6731			4453			4185			15369		
Percentage returning	30.9			16.4			11.0			11.2		
Log likelihood	-6652.509			-2525.892			-1667.409			-6318.576		

*p<.05 (coefficient is significantly different from zero)

† There were no exits to Mitchell-Lama in the 2001 cohort.

Subsidized housing

In line with findings from our hazard curves (sections V and VI), it appears that exit to subsidized housing provides the best protection against shelter reentry. Remember, a time ratio greater than one means that a particular covariate is associated with a *delay* in time to failure (return); a time ratio with a value less than one means that a covariate is associated with *accelerated* failure.[12] Compared to exit to unknown arrangements, exit to subsidized housing is associated with more than a ten-fold delay in reentry over the ten year follow-up period (1994 cohort), an eight-fold delay in reentry over the five year follow-up period (1998 cohort), and more than a nine-fold delay in reentry over a two year follow-up period (2001 cohort). Among all cohorts together, exit to subsidized housing delays reentry over two years by almost a factor of ten. Put another way, those who exit the shelter system to subsidized housing take much longer to return than those who exit to any other destination. Wong et al. (1997) reported very similar findings.

NYCHA public housing placement appears to offer the best protection against shelter readmission among homeless families, at least in the short term. [13] While over a ten year follow-up period, non-EARP Section 8 placement was associated with the greatest delay in shelter return (not including Mitchell-Lama), over five and two year follow-up times, NYCHA placement predicted the longest delays to reentry. Among subsidized housing exits, HPD offered the smallest degree of protection against shelter return across all cohorts. However, *any* type of subsidized housing exit appeared less risky than exiting to unknown arrangements, to one's own housing, or to other destinations in delaying returns to homelessness.

Other predictors of delayed reentry

Wong et al. (1997) found single-mother family status to have no effect on time to shelter reentry. Our initial analyses actually found that single-mother status significantly delayed reentry. We

[12] The time ratio can also be interpreted to calculate the exact amount of acceleration or delay in reentry time. If a time ratio is *greater than one*, we simply divide the time ratio value by one to assess the precise amount of delay associated with that particular covariate. Thus, if a variable had a time ratio of 1.5, that variable would be associated with a 50% delay in reentry time; if the time ratio was 1.75, the variable would be associated with a 75% delay. If a time ratio is *less than one*, indicating an acceleration in reentry time, we subtract the time ratio from one to determine the degree of acceleration. So, if a variable's time ratio was 0.75, the variable would be associated with a 25% acceleration in reentry time.

[13] Among the different types of subsidized housing exit, exit to Mitchell-Lama actually predicted the most substantial delay in reentry. However, this finding must be interpreted with caution. While Mitchell-Lama exit was positively and significantly associated with reentry delay over the ten year follow-up period, it is important to remember that this is a program designed for *mixed-income* families. There are likely differences in housing stock, or of those admitted to the program, that exhibit other, unmeasured, characteristics that guard against returns to homelessness. For example, if a variable representing housing quality was introduced into our models, we might expect the Mitchell-Lama coefficient to lapse into non-significance. And again, there were very few families going to this program in our data, which produces unstable estimates. To wit, note the extremely large standard errors for these coefficients.

found this result puzzling, so we created a more detailed *family type* variable that described families as single-mother (or a single pregnant female), dual parent, single-father, two adults with no children, and other/don't know. Modeling reentry using the expanded family type variable revealed that with regard to reentry, the critical difference in family composition was between single-mother and single-father families.[14] Compared to single-mother families, single-father families returned to shelter 63% faster over ten years, 69% faster over five years, and 57% faster over two years (for all cohorts together).[15] Thus, single-mother family status provided some measure of protection against shelter return, but mainly in comparison to single-father families. We also found some weak evidence of differences between the reentry patterns of single-mother families and families comprised of two adults with no minor children (often called "2 and 0s"). While differences in reentry time between these family types were not statistically significant, they were fairly large, with "2 and 0" families returning to shelters between 38 and 50% faster than single-mother families.[16] Furthermore, for all cohorts together, exits from adult family facilities, comprised largely of "2 and 0s," returned to shelter 42% faster than families exiting from Tier II facilities.

Families with pregnant females returned faster than families without. Over five years, such families returned 29% faster than families with no pregnant females. Over two years (all cohorts together), families with pregnant females returned about 18% faster. Similarly, having more children in a family predicted accelerated time to reentry. Over a ten-year follow-up period, each additional child in a family predicted a 15% decrease in reentry time. Over a five-year follow-up period, each additional child predicted an 8% decrease in reentry time, and over a two-year follow-up period (2001 cohort only), each additional child in a family predicted a 14% decrease in reentry time. Among all cohorts together, each additional child was associated with a 7% decrease in reentry time.

Older age was associated with delayed reentry. Across all cohorts, each additional year of head-of-household age predicted a 1-4% increase in reentry time. That is, the older a family's head, the slower the family returns, net of all other measured factors.

Length of stay in shelter also predicted delayed reentry among the 1994 cohort and among all cohorts together. Within these two samples, longer shelter stays predicted longer time until return. We hypothesize that this effect might have been the result of a correlation between length of stay and likelihood of receiving subsidized housing. That is, families may stay in shelters longer because they are awaiting subsidized housing placement. Indeed, in the data we found a moderately-strong, highly significant correlation between length of stay and subsidized housing

[14] Single-father families were rarely found in the shelter population, representing only 2.5% of all exiting families.
[15] These percentages are interpreted from Table 7. Time ratios from Table 8 are very similar, though not exactly the same.
[16] Again, these results are taken from Table 7. Time ratios from Table 8 are comparable.

exit (r=.295, p=.000). Wong et al. (1997) found no association between length of stay and time until reentry, but there may have been changes in application policy or processing procedures that explain the different findings.

Finally, black families[17] generally experienced the fastest shelter reentry. While racial and ethnic differences in reentry were only significant between black and Hispanic families, with Hispanic families experiencing more delay in shelter return, the data suggest that black families return to shelters faster than families of other races and ethnicities. This finding should be interpreted with caution however. As in much social scientific research, race often masks other unobserved characteristics that may affect the dependent variable. For example, if black families in our sample had significantly lower overall income, we might find that income was driving reentry patterns, not race. Alternatively, if black heads-of-household experienced substantially more employment discrimination than others, this might explain accelerated return rates, even though it would appear that race was the principal explanatory factor.

Predicting reentry among families exiting to subsidized housing

We conducted multivariate survival analyses on families who exited to subsidized housing. Results are presented in table form in Appendix A, and we summarize findings below. Predicting reentry risk among families who leave shelter and enter subsidized housing is useful because these families are most easily contacted and served by social service agencies. While families who leave to other sorts of destinations may be hard to find, the city maintains accurate information regarding the whereabouts of subsidized housing residents. So, even though families who exit to subsidized housing are the least likely to return to shelter, they are highly amenable to services. Limiting the study sample to those who exit to subsidized housing highlights risk factors that directly pertain to these families. The broader multivariate models show that exit to subsidized housing is likely to be the best protection overall against return to homelessness, but it is critical to identify factors associated with reentry risk for those who do make it into these arrangements. Overall, results were very similar to those reported for all exit types.

Results related to type of exit closely mirror those from the full models. For families leaving shelter in 1994, exiting to non-EARP Section 8 was associated with the greatest delay in reentry over the subsequent ten years. For families leaving in 1998 and 2001, and for all cohorts together, exit to NYCHA was associated with the greatest reentry delay.

Single father families and “2 and 0s” were at greatest risk of shelter return. Among families exiting to subsidized housing in 1994, 1998 and among all cohorts together, single fatherhood was associated with significantly faster reentry compared to single mother families, returning to

[17] By “black families,” we mean families for whom the head-of-household was black.

shelter between 52 and 72% faster than single-mother families. This relationship is similar to the one found among all exiting families. "2 and 0" families exhibited elevated reentry risk over the ten-year follow-up period, returning 79% faster than single-mother families, and over two years among all cohorts together, returning 74% faster than single-mother families.

As with all exiting families, age also had an effect on reentry risk. Among families exiting to subsidized housing arrangements, those with older heads of household experienced significantly greater delays in reentry (1994, 2001 and all cohorts together). On average, each additional year of age was associated with a 2.6-4.3% delay in reentry time. Overall, the age effect was slightly more pronounced among families exiting to subsidized housing, compared to all exit types.

There was a difference in reentry risk between black and Hispanic families (1994, 1998 and all cohorts), with black families experiencing a significantly greater return risk than Hispanic families. On average, black families in subsidized housing returned to shelter between 20 and 31% faster than Hispanic families. This finding, also, is comparable to the relationship between race and reentry risk among all exiting families.

Compared to all families, having children exerted a more powerful effect on reentry risk among families exiting to subsidized housing. While among *all exiting families*, each additional child was associated with between 7 and 14% acceleration in reentry time, among families exiting to subsidized housing, this effect is magnified to between 10 and 19%.

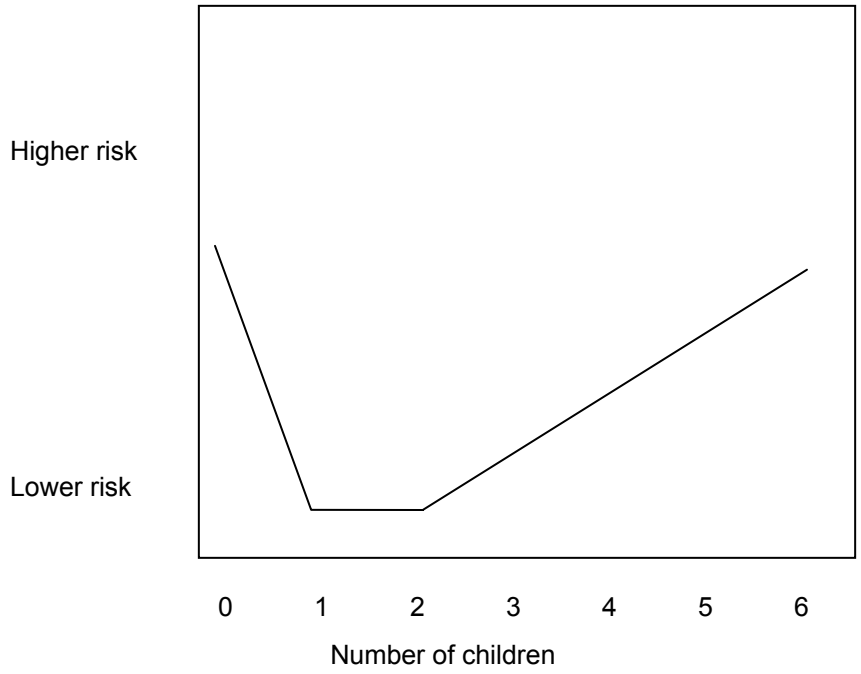
There is reason to believe that the effect of number of children on shelter reentry is not linear. That is, the difference between having no children and having one child is fundamentally different from the difference between having one child and having two children. Anecdotal evidence, as well as some of our multivariate results indicate that families with no children ("2 and 0s") are at particularly high risk of reentry.[18]

Our analyses suggest that the relationship between number of children and reentry risk follows a "U-shaped" curve, with risk being high among families with no children, dropping for families with one or two children, and then rising again among families with three or more children.

[18] We tried to unpack this relationship by performing multivariate analyses with a discrete CHILDREN variable that produced estimates for the exact number of children in a family: zero, one, two and three or more. Unfortunately, this analysis had problems. The new CHILDREN variable was highly correlated with family composition, as "two and 0" families and those coded as having zero children overlapped substantially. This intercorrelation destabilized some of the variable estimates, making results less reliable. However, while these results could not be interpreted definitively, and none were statistically significant, they did imply that the highest reentry risk may be among families who have no children ("two and 0s") and families that have more than three children. For the 1994 cohort, families with three or more children presented the fastest rate of reentry. For the 1998 cohort and for all cohorts together, families with no children reentered the fastest.

Figure 1 below illustrates a hypothetical example of this relationship. Note that figure 1 is *not* based on real data; it is merely for illustrative purposes.

Figure 1: Hypothetical reentry risk by number of children (not based on real data)



Discussion and Policy Implications

Destination of shelter exit

Our analyses indicate that subsidized housing provides the best protection against shelter return. Exit to subsidized housing delays shelter reentry much more effectively than exit to one's own housing, to unknown arrangements, or anywhere else. In 1994, for example, out of 100 families who exited shelter, only 26 returned within ten years. This finding is in agreement with the findings of Wong et al. (1997), and indicates that DHS and other city agencies should continue to make a concerted effort to place families in subsidized housing at shelter exit.

In contrast to the protective effect that subsidized housing has, exiting to unknown arrangements is shown to be a risky proposition. Only one in five families exit shelters to unknown arrangements, but these families return quickly and with high frequency. Within two years, one-third of these families have returned; within ten years, over half are back in the shelter system (in contrast, only one fourth of families who exit to subsidized housing return within ten years). Our findings suggest that city agencies should make every effort to reduce the number of families exiting to unknown arrangements.

Compared to exiting to unknown arrangements, exiting to one's own housing (former apartment or new apartment) is a good bet. Families exiting to their own housing are much less likely to return to shelters than those exiting to unknown arrangements. However, these families still return faster and with greater frequency than those exiting to subsidized housing. Thus, efforts should be made to prevent these families from reentering shelter.

Targeting services

Among families who exit shelter to unknown arrangements, to their own housing, and to "other" destinations, aftercare or other services meant to protect against shelter return should be provided during the two years immediately following shelter exit, as this is the period when these families are at greatest risk. This risk period is particularly pronounced for those exiting to unknown arrangements, and also appears true for those exiting to their own housing or "other" destinations. However, this is *not* so true for those exiting to subsidized housing, whose reentry risk is low and steady over time. Among those families that procure subsidized housing, city agencies should seek to identify other characteristics that elevate the risk of return to homelessness. Since timing is less of a factor than family composition, agencies should look closely at family characteristics to develop a risk profile for shelter-using families who exit to subsidized housing.

Families placed into subsidized housing are in fact a key population to target. Even though these families have the lowest risk of return, they make up the majority of families who return to

shelter (because they make up the majority who leave shelter). By focusing resources here, city agencies can potentially reduce the number of recidivists by more than half. But, targeting services within this group is challenging. Since a relatively small proportion of these families return, it would not be cost-effective to give all of them services. In 1994, for example, out of 100 families who left shelter, 73 went to subsidized housing and only 20 of those families returned within 10 years. Additional criteria must be used to more effectively target services to this group. One possibility is to target families who experience certain events that put them at risk of losing their subsidy including failing to recertify, a failed apartment inspection, or requesting an emergency move-out package. Other results from our multivariate survival analysis of these families can flag certain families for service; in particular, the city should focus attention on single-father families, families with many children, and families with young heads of household. Agencies might also focus efforts on addressing the needs of "2 and 0" families, who exhibit elevated reentry risk among families who exit to subsidized housing. Because of their configuration, "2 and 0" families may not be eligible for various services that could help maintain their housing. Or, they may have more needs, like domestic violence, substance abuse issues, or mental health problems that place them at higher-risk of return. We will use the findings from the second part of this study, where we will analyze data from NYCHA and HPD, to more specifically identify the reasons that lead families to leave subsidized housing. Specifically, we will examine events that are associated with the loss of subsidized housing. Families who do *not* exit to subsidized housing can also have characteristics that increase reentry risk. In fact, the combination of not receiving subsidized housing and other risky characteristics can identify families that are in the greatest need of attention.

Single-father families appear to have a high risk of return, regardless of exit destination. Though single-father families comprise only one in fifty shelter exits, they return to shelters between three and four times as quickly as single-mother families. A possible explanation for this finding is that many of these families may have experienced maternal death or institutionalization, which may be the real reason behind accelerated reentry. Our findings suggest that city agencies should pay close attention to single-father families, and try to identify issues such as family trauma, substance abuse or mental illness, that may increase the risk of a return to homelessness. Similarly, there is some (weak) evidence that two-adult families without children are in need of targeted services. While these families only make up about 6% of the exiting population, they seem to return to shelters substantially faster than single-mother families. Other families that the city might want to focus its efforts on are those with a pregnant female, those with young heads of household, and those with a large number of children.

In general, no single factor can completely predict whether a family will reenter the shelter system. However, this research identifies some characteristics that are powerfully associated with reentry risk in New York City. We hope this will help city agencies allocate resources and target services to prevent repeat family homelessness.

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Appendix A: Multivariate survival models for exits to subsidized housing only

	1994 cohort			1998 cohort			2001 cohort			All cohorts together		
Variable	**B**	**Std. Error**	**Time Ratio**	**B**	**Std. Error**	**Time Ratio**	**B**	**Std. Error**	**Time Ratio**	**B**	**Std. Error**	**Time Ratio**
Single mother (REFERENCE)												
Dual parent family	-0.878	0.471	0.416	-0.216	0.529	0.806	-0.487	0.698	0.614	-0.972	0.513	0.378
Single father	-1.132	0.235	0.323*	-0.718	0.149	0.488*	-0.312	0.533	0.732	-1.272	0.234	0.280*
Two adults, no children	-1.549	0.516	0.212*	-0.408	0.569	0.665	-1.111	0.816	0.329	-1.349	0.563	0.259*
Don't know/Other family type	-1.405	0.919	0.245	-0.098	1.201	0.907	-1.747	1.508	0.174	-1.608	1.040	0.200
Pregnant female in family	-0.099	0.091	0.906	-0.238	0.088	0.788*	-0.150	0.194	0.860	-0.212	0.113	0.809
Number of children	-0.213	0.029	0.809*	-0.108	0.023	0.897*	-0.135	0.051	0.874*	-0.110	0.035	0.896*
Number of adults	0.149	0.464	1.160	-0.100	0.524	0.905	0.223	0.677	1.250	0.237	0.503	1.268
Age of head at exit	0.042	0.005	1.043*	0.006	0.004	1.006	0.026	0.011	1.027*	0.026	0.006	1.026*
Winter exit (REFERENCE)												
Spring exit	-0.001	0.097	0.999	-0.246	0.089	0.782*	0.025	0.203	1.025	-0.032	0.118	0.968
Summer exit	0.007	0.099	1.007	-0.083	0.096	0.921	-0.015	0.203	0.985	0.017	0.122	1.017
Fall exit	0.105	0.101	1.111	0.013	0.098	1.013	-0.033	0.200	0.968	0.041	0.123	1.042
Natural log of length of stay	0.089	0.080	1.093	-0.041	0.072	0.960	0.398	0.139	1.489*	0.586	0.087	1.797*
Black (REFERENCE)												
Hispanic	0.268	0.077	1.307*	0.245	0.074	1.277*	-0.176	0.143	0.839	0.182	0.092	1.200*
White	-0.051	0.262	0.950	0.054	0.231	1.056	15.354	15887.0	4656392	0.382	0.347	1.466
Other/don't know race	0.943	0.698	2.569	-0.286	0.457	0.751	-1.245	0.446	0.288*	0.068	0.598	1.070
Exit to NYCHA (REFERENCE)												
Exit to HPD	-0.624	0.132	0.536*	-0.555	0.165	0.574*	-1.495	0.296	0.224*	-1.301	0.167	0.272*
Exit to EARP Section 8	-0.404	0.119	0.668*	-0.492	0.117	0.612*	-0.865	0.235	0.421*	-0.664	0.139	0.515*
Exit to non-EARP Section 8	0.519	0.252	1.680*	-0.694	0.149	0.499*	-0.715	0.323	0.489*	-0.284	0.222	0.753
Exit to Mitchell-Lama	0.851	0.515	2.342	7.052	201.50	1154.69	…	…	…[†]	6.441	105.98	626.835
Exit from Tier II (REFERENCE)												
Exit from Adult Family Facility	-0.200	0.260	0.818	0.452	0.388	1.571	0.780	0.851	2.181	-0.288	0.301	0.750
Exit from other facility type	-0.060	0.094	0.942	0.135	0.129	1.144	0.291	0.310	1.337	-0.233	0.125	0.793
Constant	8.748	0.641	…	9.824	0.679	…	6.793	1.459	…	6.719	0.681	…
N	4902			3483			2855			11236		
Percentage returning	23.6			11.5			3.9			4.5		
Log likelihood	-3836.375			-1417.034			-504.292			-2361.392		

*p<.05 (coefficient is significantly different from zero)

[†] There were no exits to Mitchell-Lama in the 2001 cohort.

Section V: An In-Depth Examination of Families Who Exit to Subsidized Housing from Shelter in New York City

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Summary of Key Findings

To better understand the experiences of families who exit shelters administered by the Department of Homeless Services (DHS) to subsidized housing, we analyzed administrative data from the New York City Housing Authority (NYCHA). Specifically, we examined the differences between those families who stay in subsidized housing and those who leave; and, for those families who leave, we examined when they leave and the differences between those who leave and return to shelter and those who do not return to shelter. Key findings from these analyses include the following:

- Among families who exit shelters for NYCHA subsidized housing, over one-half will exit subsidized housing within ten years.

- The risk of exit peaks at yearly intervals. These jumps are likely associated with failed annual inspections and re-certifications. Moreover, this risk seems to be more pronounced (i.e. higher) for those who will eventually return to shelter.

- Among those who leave subsidized housing, the following characteristics are associated with an increased risk of returning to shelter:

    - Having a young head of household;
    - Being a two-parent family;
    - Being a large family;
    - Earning under $12,000 per year;
    - Exiting from public housing or EARP Section 8 (versus non-EARP Section 8); and
    - Being evicted, failing an annual apartment inspection, or failing an annual income review.

The findings from this study have important implications for policies designed to prevent recidivism among families who exit shelter and are placed into subsidized housing. They suggest that, in general, services meant to protect against shelter return should be provided to families near the one-year intervals, or as families engage in the annual recertification and inspection processes, as these are the periods when these families are at greatest risk. The findings also point to certain characteristics that might flag a family for these services.

Background and Overview

In Phase I of the recidivism study, we showed that among families exiting DHS shelters, subsidized housing placement provides the most powerful protection against shelter return. Despite the facts that a relatively low *proportion* of families in subsidized housing return to shelter, large *numbers* of families in subsidized housing return because most families leaving shelter are placed into this housing type. Moreover, families in subsidized housing are easiest of all the families exiting shelter for city agencies to reach and serve. Therefore, knowing more about these families, and the factors that put them at risk for repeat homelessness, could help reduce the numbers of homeless families.

The second phase of the recidivism study is driven by the following primary research questions regarding families who exit shelter to NYCHA subsidized housing:

A. What is the rate of exit from NYCHA subsidized housing?

B. What are the differences between families that stay in NYCHA subsidized housing and those that leave?

C. Among those who leave NYCHA subsidized housing, what are the differences between families that return to shelter, and those that do not?

D. What factors increase the risk of families returning to shelter once they have exited NYCHA subsidized housing?

Data and Methodology

For this analysis, we excluded cases from an original data set of families exiting DHS shelters in fiscal years 1994, 1998, and 2001 to include only families that exited DHS and entered NYCHA subsidized housing.[1] To conduct the second part of this analysis, which compares shelter recidivists with non-recidivists, we further reduced the data to include only those families that left subsidized housing.[2]

To answer the research questions, we used several methods. We used descriptive statistics to compare the characteristics of subsidized housing leavers and non-leavers, and to construct simple hazard curves to explore *when* families leave. We also use descriptive statistics to distinguish shelter recidivists and non-recidivists. Specifically, we describe the characteristics of families that return and do not return, and then calculate shelter reentry rates by family characteristics. Finally, we estimate a multivariate statistical model which predicts the impact of family characteristics on the likelihood of shelter reentry.

[1] We excluded families leaving shelters for their own housing, other arrangements (e.g., out of city, institutionalization), and unknown arrangements, as well as families leaving for HPD and Mitchell-Lama housing programs, from the original sample of 15,369 families, resulting in 8,459 families.
[2] The sample for this analysis included 2,805 families.

Findings

What percentage of families leave subsidized housing?

Within 2 years, 5.7% of shelter-exiting families in NYCHA subsidized housing leave. At the 5-year mark, about one-third have left. And within 10 years, more than half have left. Table 1 below displays these percentages.

Table 1: Overall subsidized housing exit rate, by cohort,

Cohort	Follow-up time	Total number of families	Percent leaving NYCHA	Number of families leaving
FY 1994	10 years	3278	54.8	1796
FY 1998	5 years	2830	31.0	876
FY 2001	2 years	2351	5.7	133

What types of families exit subsidized housing?

There are differences between families who stay in subsidized housing and families who leave. Compared to families who stay, families who leave are:

- Younger (27.9 vs. 29.7);
- More often two-parent families (22.9% vs. 12.0%);
- Less often single-mother families (72.2% vs. 80.3%);
- Less often disabled (5.6% vs. 11.0%); and
- They tend to make less money than non-leavers ($11,315 vs. $12,472).

With regard to type of subsidized housing, those who leave are more likely than those who stay to have come from EARP Section 8 (85.0% vs. 64.1%) and less likely to come from public housing (8.1% vs. 29.1%). There is some evidence that families who leave tend to be smaller than families who stay, though this evidence is relatively weak. Using *number of bedrooms* as a proxy measure for family size, we find that leavers more often come from zero- and one-bedroom apartments, and come less often from two- and three-bedroom apartments. Table 2 displays the characteristics of families in our study who left subsidized housing, and compares them to characteristics of those families who remained in subsidized housing.

Table 2: Characteristics of families in subsidized housing, by move-out status

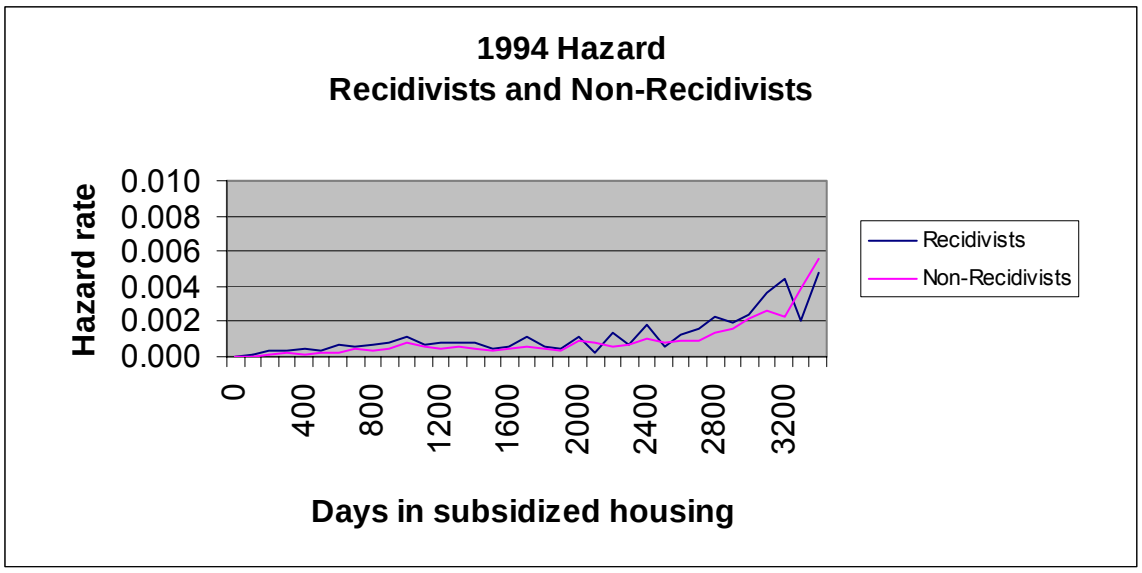
	1994 leavers	1994 non-leavers	1998 leavers	1998 non-leavers	2001 leavers	2001 non-leavers	All leavers	All non-leavers
Total number of families (N)	1796	1482	876	1954	133	2218	2805	5654
Age of head of household (mean)	27.3	28.6	28.9	29.7	29.3	30.5	27.9	29.7
Race of head of household (%)								
Black	65.9	63.0	63.4	63.7	55.6	60.3	64.6	62.2
Hispanic	31.8	35.4	34.1	34.3	40.6	37.5	32.9	35.8
White	2.2	1.4	2.3	1.7	3.0	2.0	2.2	1.8
Other/DK	0.2	0.3	0.2	0.3	0.8	0.2	0.2	0.2
Head of household disabled (%)	5.0	12.1	6.2	10.0	11.3	11.2	5.6	11.0
Family structure (%)								
Single mother	73.6	82.0	69.4	78.2	70.7	81.1	72.2	80.3
Single father	1.4	1.2	3.2	2.5	2.3	2.7	2.0	2.2
2 adults, no children ("2 and 0")	1.6	0.6	3.0	1.4	3.0	1.0	2.1	1.1
2 adults with children	22.7	11.7	23.2	13.2	22.6	11.2	22.9	12.0
Other/DK	0.7	4.5	1.3	4.7	1.5	4.0	0.9	4.4
Gross household income (mean, 2003 $$$)	11471	14333	11065	12579	10855	11138	11315	12472
Average tenant share of rent (mean)	190	271	188	236	201	211	190	236
Type of subsidized housing (%)								
NYCHA public housing	8.0	21.1	6.2	23.1	21.8	39.9	8.1	29.1
EARP Section 8	86.1	72.7	85.6	70.3	64.7	52.9	85.0	64.1
Non-EARP Section 8	5.9	6.2	8.2	6.6	13.5	7.2	7.0	6.7
LOS in subsidized housing (mean days)	1797.8	3788.2	1028.1	2051.6	485.7	1019.0	1495.2	1737.1
Borough of residence (%)								
Manhattan	10.0	13.8	6.3	10.6	6.8	10.9	8.7	11.5
Brooklyn	31.8	32.9	37.3	31.4	27.1	31.2	33.3	31.7
Queens	15.3	10.2	10.3	8.8	6.8	6.3	13.3	8.2
Bronx	37.4	38.7	42.0	46.1	57.1	49.2	39.8	45.4
Staten Island	5.6	4.5	4.1	3.1	2.3	2.5	5.0	3.2
Number of bedrooms in apartment (%)								
None	3.8	0.3	4.7	0.7	0.8	0.5	3.9	0.5
One	21.8	12.9	24.8	18.8	32.3	24.5	23.2	19.5
Two	43.5	51.1	46.3	53.8	46.6	50.1	44.6	51.6
Three	25.6	30.9	20.8	22.6	17.3	20.7	23.7	24.0
Four or more	5.3	4.9	3.4	4.1	3.0	4.2	4.6	4.3
Reason for moveout								
Eviction	7.0	N/A[3]	10.7	N/A	18.0	N/A	8.7	N/A
Breach of annual apt inspection	4.0	N/A	3.7	N/A	3.0	N/A	3.9	N/A
Breach of annual inc review	24.6	N/A	30.9	N/A	22.6	N/A	26.5	N/A
Other involuntary[4]	2.3	N/A	2.1	N/A	1.5	N/A	2.2	N/A
Other voluntary[5]	44.7	N/A	38.9	N/A	42.1	N/A	42.8	N/A
Don't know	17.4	N/A	13.7	N/A	12.8	N/A	16.0	N/A

[3] There are no values in these columns because families who do not leave subsidized housing have no moveout reason.

When do families leave subsidized housing? Are there differences between those who return to shelter (recidivists) and those who do not (non-recidivists)?

To understand when families leave NYCHA subsidized housing, we constructed hazard curves, which are a statistical representation of the risk of exit over time. Figure 2 below displays hazard curves for shelter recidivists and non-recidivists in the 1994 cohort. This graph is not very enlightening. It shows a relatively steady risk of exit which increases gradually. Furthermore, there appears to be little difference between the risk patterns of families that will eventually return to shelter and those who will not. The increase in risk that can be seen on the right-hand side of the graph should be ignored. The way the data is structured and the means by which the hazard rate is calculated causes this apparent rise in hazard rate. However, it does not really mean that risk increases sharply in year 9 or 10.

Figure 2: Risk of Subsidized Housing Exit over Time for 1994 Cohort



While the 1994 hazard does not say much about the timing of subsidized housing exit, the 1998 hazard reveals something quite interesting (see Figure 3). Again, in general, the hazard rates of recidivists and non-recidivists track each other closely. However, looking more carefully, we see that the hazard peaks periodically. What is critical here is *when* the hazard peaks; it peaks at one-year intervals. Moreover, the jump appears more pronounced for recidivists than non-recidivists. This strongly implies that the risk of leaving subsidized housing increases sharply when families are under some sort of annual review – either an annual apartment inspection or annual income review. And the risk of leaving subsidized housing at these one-year intervals is higher for those families who are likely to go back into DHS shelters.[6]

[4] Other involuntary reasons include: excess income, presence of squatters, pet-related issues, breach of rules and regulations, and having a resident/employee job terminated.
[5] Other voluntary reasons include: going to live with/near family, family dissolution due to death of family member, buying a house or co-op, or other health-related reasons.
[6] Again, the relative rise in hazard on the right side of the graph should be ignored.

Figure 3: Risk of Subsidized Housing Exit over Time for 1998 Cohort

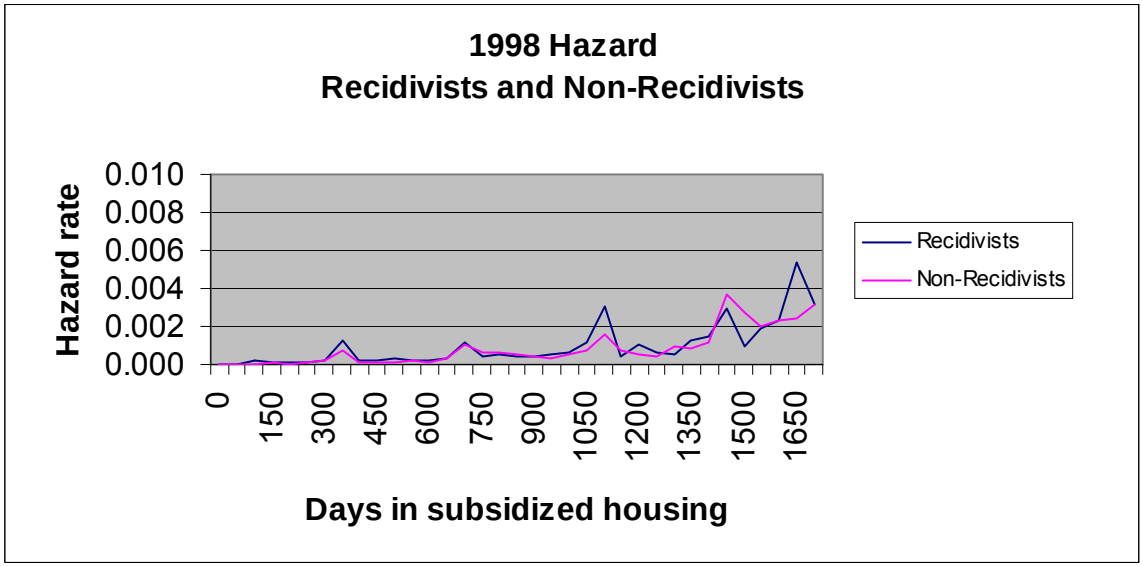
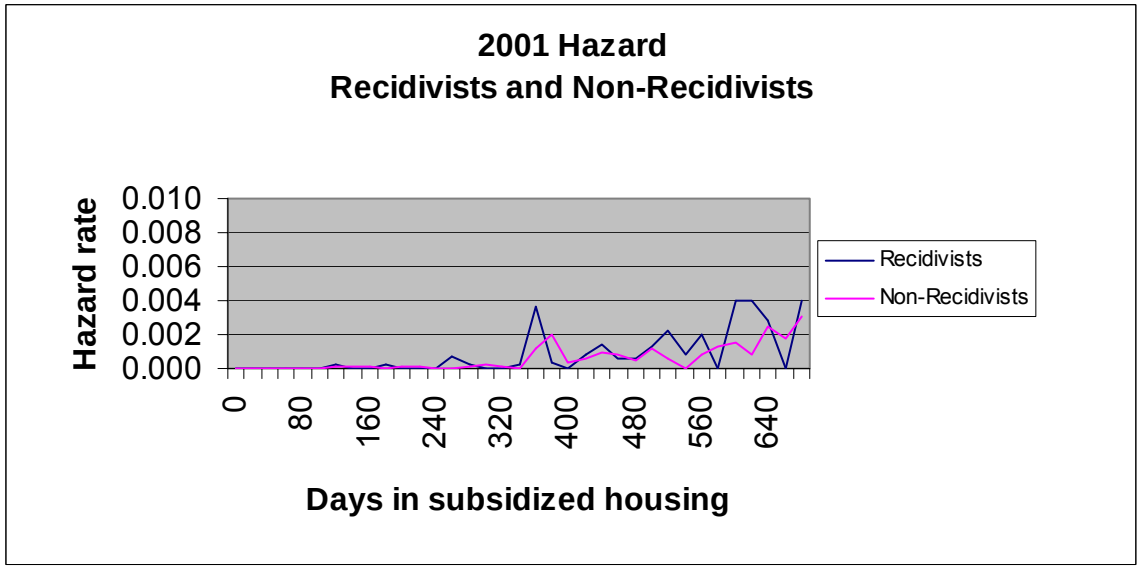


Figure 4 reinforces the conclusion that annual reviews and inspections are causing a high risk of subsidized housing exit. The hazard peaks sharply at the one-year mark, and this peak is higher for recidivists than non-recidivists. The erratic form of the hazard lines on the right side of the chart is, again, likely a statistical artifact that does not reflect any real phenomena.

Figure 4: Risk of Subsidized Housing Exit over Time for 1998 Cohort



How many families exit subsidized housing and return to shelter?

We found that roughly one-third of families who were placed into NYCHA subsidized housing eventually returned to shelter. This proportion was fairly consistent across cohorts. Table 3 below displays the percentages of families who return to shelter across cohorts.

Table 3: Overall shelter reentry rates, by cohort

Cohort	Follow-up time	Total number of families who left NYCHA	Percent returning to shelter	Number returning to shelter
FY 1994	10 years	1796	30.5	547
FY 1998	5 years	876	27.9	244
FY 2001	2 years	133	32.3	43
Total	n/a	2805	29.7	834

How do recidivists and non-recidivists differ?

Table 4 further breaks down the differences between shelter recidivists and non-recidivists. These percentages do not imply a causal relationship, merely an association. Our multivariate analyses, which we discuss later in this report, speak more directly to issues of cause and effect. Nevertheless, the numbers in Table 2 are useful in highlighting those family characteristics that differ across the two sub-groups.

Compared to non-recidivists, recidivists are:

- Slightly younger (mean age 27.4 vs. 28.1);
- More often 2-parent families (28.1% vs. 20.6%);
- Less often single-mother families (67.5% vs. 74.1%);
- More likely to have moved out of EARP Section 8 (87.5% vs. 83.9%);
- Less likely to have moved out of non-EARP Section 8 (4.3% vs. 8.1%);
- More likely to have been evicted (13.7% vs. 6.6%);
- More likely to have failed an annual apartment inspection (5.0% vs. 3.3%);
- More likely to have failed an annual income review (30.0% vs. 25.0%); and
- Less likely to have moved out of subsidized housing for a voluntary reason (34.2% vs. 46.4%).

In addition, recidivists tend to make less money (mean annual household income $10,058 vs. $11,850) and tend to leave subsidized housing more quickly (mean stay of 1294 days vs. 1580 days) than those families that do not return to shelter. There is also some evidence that families who return to shelter tend to be larger. We used apartment size as a proxy measure for family size. Overall, 34.5% of recidivist families exit three- and four-bedroom apartments. Meanwhile, only 25.6% of non-recidivist families do so.

Table 4: Characteristics of shelter recidivists and non-recidivists

	1994 recidivists	1994 non-recidivists		1998 recidivists	1998 non-recidivists		2001 recidivists	2001 non-recidivists		All recidivists	All non-recidivists
Total number of families (N)	547	1249		244	632		43	90		834	1971
Age of head of household (mean)	26.8	27.5		29.0	28.8		26.3	30.7		27.4	28.1
Race of head of household (%)											
Black	64.4	66.5		70.5	60.6		58.1	54.4		65.8	64.1
Hispanic	33.1	31.2		27.5	36.7		39.5	41.1		31.8	33.4
White	2.6	2.0		1.2	2.7		0.0	4.4		2.0	2.3
Other/DK	0.0	0.2		0.8	0.0		2.3	0.0		0.4	0.2
Head of household disabled (%)	3.7	5.5		5.7	6.3		11.6	11.1		4.7	6.0
Family structure (%)											
Single mother	68.9	75.7		63.9	71.5		69.8	71.1		67.5	74.1
Single father	0.9	1.7		4.5	2.7		2.3	2.2		2.0	2.0
2 adults, no children	0.9	1.8		3.3	2.8		0.0	4.4		1.6	2.3
2 adults with children	28.7	20.1		26.6	21.8		27.9	20.0		28.1	20.6
Other/DK	0.5	0.7		1.6	1.1		0.0	2.2		0.8	0.9
Gross household income (mean, 2003 dollars)	9861.19	12178.69		10694.76	11209.82		8950.17	11776.26		10058.09	11850.32
Average tenant share of rent (mean)	142.76	210.74		184.6	188.66		163.07	219.35		156.05	204.05
Type of subsidized housing (%)											
NYCHA public housing	9.1	7.4		3.7	7.1		20.9	22.2		8.2	8.0
EARP Section 8	88.3	85.2		88.9	84.3		69.8	62.2		87.5	83.9
Non-EARP Section 8	2.6	7.4		7.4	8.5		9.3	15.6		4.3	8.1
LOS in subsidized housing (mean days)	1512.3	1922.8		954.2	1056.7		454.4	500.7		1294.4	1580.1
Borough of residence (%)											
Manhattan	12.1	9.0		4.9	6.8		9.3	5.6		9.8	8.2
Brooklyn	32.0	31.7		41.0	35.9		27.9	26.7		34.4	32.8
Queens	15.5	15.2		11.5	9.8		2.3	8.9		13.7	13.2
Bronx	34.9	38.4		38.9	43.2		55.8	57.8		37.2	40.8
Staten Island	5.5	5.6		3.7	4.3		4.7	1.1		4.9	5.0
# of bedrooms in apartment (%)											
None	4.9	3.3		3.7	5.1		0.0	1.1		4.3	3.8
One	18.8	23.1		26.6	24.1		23.3	36.7		21.3	24.0
Two	38.0	46.0		40.6	48.6		58.1	41.1		39.8	46.6
Three	29.1	24.0		23.0	19.9		18.6	16.7		26.7	22.4
Four or more	9.1	3.6		6.1	2.4		0.0	4.4		7.8	3.2
Reason for moveout											
Eviction	9.5	5.9		20.1	7.1		30.2	12.2		13.7	6.6
Breach of Ann Apt inspection	5.1	3.5		5.3	3.0		2.3	3.3		5.0	3.3
Breach of annual inc review	28.9	22.7		33.6	29.9		23.3	22.2		30.0	25.0
Other involuntary	0.7	3.0		1.2	2.4		0.0	2.2		0.8	2.7
Other voluntary	38.2	47.6		26.2	43.8		27.9	48.9		34.2	46.4
Don't know	17.6	17.3		13.5	13.8		16.3	11.1		16.3	15.9

Multivariate analysis: Shelter reentry among families leaving subsidized housing

We conducted a multivariate analysis, using logistic regression, to predict return to shelter among families who exit NYCHA subsidized housing (see Table 5). This analysis is informative in that it identifies the ability of various family characteristics to predict shelter reentry, controlling for all other factors.[7] We included independent predictors indicating reason for move-out, borough, disability status, gender, race, size of (former) apartment, family structure, age of head at exit from subsidized housing, gross household income, cohort, and subsidized housing type.

Overall, the model did *not* do a very good job of predicting shelter reentry, explaining only between 6 and 9% of variance in the dependent variable. These results indicate that among families exiting subsidized housing, repeat shelter use is not that easily explained through the measures in our data. Perhaps shelter return is better explained through the consideration of factors that cannot be perceived in these data, such as the presence of substance abuse or mental health problems, or domestic conflict. Without such data, however, we cannot say for sure.

Nevertheless, the model was able tell us something about the reasons that families return to shelter. Type of subsidized housing was significantly predictive of shelter reentry. Families who left non-EARP Section 8 housing were the least likely to return to shelter. Families who left public housing and EARP Section 8 were much more likely to return than the non-EARP Section 8 exiters. Another variable that was predictive of shelter reentry was reason for (subsidized housing) move-out. *Eviction* was most predictive of shelter return; families who were evicted from their housing were highly likely to experience another episode of homelessness. *Breach of annual apartment inspection* and *breach of annual income review* were also associated with higher risk of returning to shelter. The reasons associated with the lowest shelter reentry risk were *other involuntary*[8] and *other voluntary*.[9] Since families leaving for other involuntary reasons mostly left because their incomes were too high to remain in subsidized housing, it is not surprising that these reasons were predictive of low shelter reentry risk. Likewise, other voluntary reasons were mostly moving out of the city and dissatisfaction with housing, and thus, it is expected that these families would exhibit fairly low reentry risk.

[7] The dependent variable in this analysis was *shelter reentry*, coded as one if a family reappeared in the DHS data system after subsidized housing exit, and as zero if it did not.
[8] Other involuntary reasons include: excess income, presence of squatters, pet-related issues, breach of rules and regulations, and having a resident/employee job terminated.
[9] Other voluntary reasons include: going to live with/near family, family dissolution due to death of family member, buying a house or co-op, or other health-related reasons.

Family size and composition also appeared related to reentry risk. Again, we used apartment size as a proxy for family size. Our results show that as family size increases, reentry risk also increases, but that this increase in risk is most pronounced for the largest families. Families who moved out of apartments with four or more bedrooms were much more likely than others to return to shelter. Single mother family status was predictive of the lowest reentry risk. Results further suggested that single father families and "2 and 0" families had the highest reentry risk, though these coefficients were not significant in either model, probably due to the small numbers of such families in the data.[10] Perhaps the most reliable finding regarding family structure is that two parent families were more likely than single mother families to experience shelter reentry.

Age of head of household was also significantly related to shelter reentry, with families headed by younger people at higher risk. Finally, income was inversely related to reentry risk. That is, poorer families were more likely to return to shelter.

[10] Only 2.1% (n=60) of all families were single father families. Only 0.7% (n=21) of all families were "2 and 0s."

Table 5: Logistic regression predicting shelter reentry

Variable	B	Exp(B) [ODDS]
Age at SH exit	-0.034**	0.967
Black		
Hispanic	-0.080	0.923
White	-0.063	0.939
Other/DK	0.719	2.053
Physically/mentally disabled	-0.085	0.918
Single mother		
Single father	0.251	1.285
Two and 0	0.552	1.736
Two parents with kids	0.248**	1.282
Other/DK	0.028	1.028
Gross household inc: 12000+=1	-0.330**	0.719
Non-EARP Section 8		
NYCHA	0.450*	1.568
EARP Section 8	0.527**	1.694
Manhattan		
Brooklyn	-0.185	0.831
Queens	-0.200	0.819
Bronx	-0.274*	0.761
Staten Island	-0.273	0.761
Zero bedrooms		
One bedroom	-0.355	0.701
Two bedrooms	-0.344	0.709
Three bedrooms	0.095	1.100
Four or more bedrooms	0.920**	2.509
Eviction		
Breach of annual apt inspection	-0.456*	0.634
Breach of annual income review	-0.669**	0.512
Other involuntary	-1.651**	0.192
Other voluntary	-1.151**	0.316
Don't know	-0.837**	0.433
1994		
1998	-0.156	0.856
2001	0.074	1.077
Constant	1.034**	2.812

* p≤.10; ** p≤.05 (one-tailed)

Discussion

Families placed into subsidized housing from shelter are a key population to target with homelessness prevention services. While these families have the lowest risk of return, they comprise the largest group of families returning to shelter because the majority of those that leave shelter exit to subsidized housing. By focusing resources here, city agencies can potentially reduce the number of recidivists by more than half. But, targeting services within this group is challenging. Since there are a large number of these families and a relatively small proportion of them return, it would not be cost-effective to give all of them services. The findings from this analysis identify characteristics and other factors that city agencies might use to flag families to target with such services.

The characteristics associated with increased risk of leaving subsidized housing overlap considerably with characteristics that predict return to DHS shelters. Specifically, families with young heads of household, two-parent families, families that make less than $12,000 per year, and families leaving EARP Section 8 housing have a higher risk of both subsidized housing exit and shelter reentry. Families who meet these characteristics could be targeted for necessary preventive services.

Our analyses suggest that risk of exiting to subsidized housing peaks in one-year increments, which are likely associated with failed inspections or recertification packages. Moreover, families who leave subsidized housing because they are evicted, fail an annual apartment inspection or fail an annual income review have a substantially higher risk of returning to shelter. City agencies might flag families (particularly families with multiple characteristics of risk) for additional services as these deadlines approach, in order to ensure that as many families as possible are able to complete these requirements, retain their housing, and avoid returning to shelter.

While this research has gone far to identify risk factors for family homelessness, more can be known. In particular, policy-makers and researchers may be interested in including additional measures as predictors of repeat shelter use among families who exit subsidized housing. In our analyses, we were unable to obtain accurate measures of domestic violence, substance abuse, and use of public assistance - variables that are likely to impact repeat shelter use. Despite this limitation, this research identifies some characteristics that are associated with risk of returning to shelter after being placed in NYCHA subsidized housing. We hope this will help city agencies allocate resources and target services to prevent repeat family homelessness among residents in subsidized housing administered by NYCHA.