



Where the homeless children and youth come from: A study of the residential origins of the homeless in Miami-Dade County, Florida

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Abstract

This study investigates where homeless children and youth come from and identifies factors associated with the spatial distribution of the residential origins of homeless children and youth. Data was obtained through a point-in-time homelessness survey in Miami-Dade County, Florida in January 2005. The study identified 545 homeless children and youth in 219 homeless families whose residential origins in Miami-Dade County, Florida. Their residential origins are not heavily concentrated in poor neighborhoods, but are also located in less poor neighborhoods.

The study reveals that domestic violence that is not confined strictly to neighborhoods of high poverty is the factor that explains the spatial distribution of the residential origins of homeless children and youth. This study also reveals that areas characterized by deprivation are strongly and positively significant in producing more homeless children and youth.

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1. Introduction

In the early 1980s, homeless people were typically pictured as single men on skid row (Crook, 1999; Crystal, 1984). Such stereotypes of homelessness have changed in the past two decades. The homeless population now includes more families with children (Bassuk, Perloff, & Dawson, 2001). The National Survey of Homeless Assistance Providers and Clients (NSHAPC) reported that families with children comprise 34% of homeless service users (Burt, Aron, Lee, & Valente, 2002).

Researchers have increasingly focused on homeless children and youth (Biggar, 2001; Gwadz, Nish, Leonard, & Strauss, 2007; Kidd & Davidson, 2007; Milburn, Rotheram-Borus, Rice, Mallet, & Rosenthal, 2006; Rosenthal et al., 2007; Tyler, 2006; Waldron, Tobin, & McQuaid, 2001; Witkin et al., 2005), given homeless children and youth are the fastest growing subgroup of the homeless population. Studies of homeless children and youth have identified where and under what circumstances children and youth end up homeless, but not their residential origins and forces that have put them at risk of homelessness.

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There has been no such study to date to investigate the residential origins of homeless children and youth. This study attempts first, to identify the distribution of residential origins of children and youth in homeless families and then, to analyze the distribution of prior addresses of homeless children and youth with the factors associated with the risk of homelessness. This study uses data obtained through the 2005 point-in-time homelessness survey in Miami-Dade County, Florida.

The findings of this study should assist in addressing the question of where to target homelessness prevention programs particularly for homeless children and youth. Using the application of Geographic Information Systems (GIS), the prior addresses of homeless children and youth are not heavily concentrated in poor neighborhoods, but are also located in less poor neighborhoods. The risk of domestic violence is not confined strictly to poor neighborhoods, thus explaining the distribution of the prior addresses of children and youth in homeless families. Deprived neighborhoods are significantly associated with the risk of homelessness for children and youth.

2. Literature review

Homelessness has proven to be an intractable and highly visible social problem. The programs and services to eradicate homelessness problems were expanded considerably, but the number of homeless has yet to decrease (Burt et al., 2002; Wright, Rubin, & Devine, 1998). Homeless youth is one of subgroups of the homeless population that continues to grow exponentially, with about 2 million youth per year spending some period of time in emergency shelters or on the streets (Kidd & Davidson, 2006; Witkin et al., 2005). Homeless youth are concentrated primarily in large urban centers and frequently have histories of domestic violence, parental criminality, substance abuse and poverty (Kidd & Davidson, 2006). They also are vulnerable to negative physical and mental health problems (Cauce et al., 2000; Ensign & Bell, 2004; Hyde, 2005).

Researchers have increasingly focused on many aspects of homeless youth such as post-traumatic stress disorder (Gwadz et al., 2007); resilience (Kidd & Davidson, 2007), sexual behavior (Halcon & Lifson, 2004; Taylor-Seehafer et al., 2007; Tyler & Johnson, 2006; Van Leeuwen et al., 2006), suicidality (Kidd & Carroll, 2007; Kidd, 2006), AIDS and HIV risk (Clatts & Davis, 1999; Rosenthal et al., 2007). Most of these studies identified youth who were thrown out, ran away from their parents or guardians or were already homeless.

Homeless children at the ages of 12 or younger are also the fast growing subgroup of the homeless population. They are still dependent on their parents and experience homelessness along with their parents particularly with their mothers. Children in homeless families have a high risk of physical and mental illness (Cumella, Grattan, & Vostanis, 1998). They also have histories of abuse, are victims of violence and witness much of the violence experienced by their mothers (Anooshian, 2005; Cumella et al., 1998). Though there have been studies on homeless children, studies have been conducted on homeless children on their physical health (Grant et al., 2007; McLean et al., 2004), mental health problems (Karim, Tischler, Gregory, & Vostanis, 2006; Page & Nooe, 1999; Waldron et al., 2001), education (Biggar, 2001; Zima et al., 1999), and emotional development (Davey & Neff, 2001; Landow & Glenwick, 1999).

The contemporary study of homeless children and youth has produced a static representation of a dynamic homelessness problem. It has identified where and in what condition children and youth end up as homeless, but not where they come from or go. It has not assessed the social processes that contribute to the vulnerability of children and youth to homelessness.

The present study is to identify the residential origins of children and youth in homeless families and factors that contribute to the vulnerability of children and youth to homelessness. It is an attempt to answer the questions of where to target and what to target facing the planners of homelessness prevention programs.

Only two studies have focused on the residential origins of the homeless (Culhane, Lee, & Wachter, 1996; Wong & Hillier, 2001). Using the prior addresses of families admitted to public shelters in New York City and Philadelphia, Culhane et al. (1996) identified three dense clusters of homeless origins in Philadelphia and New York City accounting for 67% and 61%, respectively, of the homeless residential origins. Culhane et al. (1996) applied twenty-four variables including demographic compositions, economic factors and housing and neighborhood characteristics. Among the demographic variables, the ratio of African Americans is the most important predictor of the rate of shelter admission in both cities. The second strongest predictor among demographic variables is the ratio of female-headed households with young children. The ratio of persons without high school diplomas, the ratio of subfamilies, and the ratio of Hispanic households are also significant, though of relatively lower magnitude. Among the economic variables, the ratio of poor households is the strongest predictor. The median household income is significantly and negatively associated with shelter admissions. Among the housing and neighborhood characteristic variables, rent–income ratio is the most important predictor of the rate of shelter admissions. The vacancy rate, the ratio of boarded-up buildings, and the ratio of overcrowded households are positively associated with shelter admissions. The median contract rent is significantly and negatively associated with the rate of shelter admission.

Wong and Hillier (2001) used prior residential addresses of homeless families admitted to public emergency shelters in Philadelphia. They employed principal component analysis to group fourteen variables resulting in three factors. Eight variables were loaded on the first factor labeled social and economic distress factor including the proportion of African Americans, female-headed households with young children, households with public assistance income, poor households, households with subfamilies, unemployed persons, rates of boarded-up and vacant housing units. The second factor labeled instability factor includes the ratio of one-person households, households that recently moved, rental units, and rent to income. The third factor comprises the ratio of Hispanic persons and overcrowded households. Their study showed the very high correlation between the risk of homelessness within a census tract and the social and economic distress factor. On the contrary, they found a small relationship between the rate of shelter use and the instability factor and between the rate of shelter use and the Hispanic-overcrowded factor.

Both studies (Culhane et al., 1996; Wong & Hillier, 2001) used the prior address information reported by homeless families admitted to public shelters. The presence of children in homeless families was not available from the information reported by homeless families in both studies. Both studies do not report the presence of children.

3. Methods

The purpose of this study is to investigate where homeless children and youth come from and identify factors associated with the spatial distribution of the residential origins of homeless children and youth. Data that was collected through a point-in-time homelessness survey in Miami-Dade County, Florida on January 27, 2005 were used. This was an annual survey organized by the Miami-Dade County Homeless Trust. Prior to the survey, Miami-Dade County Homeless Trust asked all homeless programs in Miami-Dade County to participate in the survey. Fifty homelessness programs participated in the survey including 5 outreach programs, 5 supportive services programs, 12 emergency shelter programs and 28 transitional housing programs.

The survey was conducted by each participating program with their respective clients. Most programs employed their staff to interview clients. The participating emergency shelter programs, transitional housing programs and supportive service programs asked all of their clients whether or not they would like to participate in the survey. The participating outreach programs surveyed non-sheltered homeless people. The clients were informed that the survey was voluntary and participants were rewarded with two-dollar vouchers.

The samples from the participating emergency shelter programs, transitional housing programs and supportive service programs were drawn from the homeless population of those programs on a voluntary basis on January 27, 2005. The samples were not randomly selected.

At the same time, the participating outreach programs found respondents from the streets and asked them whether or not they would like to participate in the survey. Unlike the emergency shelter programs, transitional housing programs and supportive service programs, the participating outreach program did not find all members of the non-sheltered homeless population to participate in the survey. They employed a purposive sampling and selected the samples from the available subjects.

The survey instruments were adopted from a standardized core survey instrument developed by the state of Florida's Office on Homelessness and the Florida Coalition for the Homeless. There were no identifying questions except for their initials and ages. The survey inquired the respondent's residential origins by asking them of "what was the address of the last house or apartment you lived in?" This question is the most critical question in this study. The study requires a complete street address including building number and street name to be used for further analysis. The question of family status asked the respondents whether they have any family members staying with them. Subsequently, they were asked to list their family members including their genders and ages.

The total number of completed and unduplicated surveys was 1201. All respondents were homeless and their ages ranged from 18 to 82 years old. The study identified 254 homeless families accompanied by their children under 18 years of age, 21 homeless families without children and 926 homeless adult singles.

The number of samples in this study was much smaller than the two previous studies, particularly compared with the study by Culhane et al. (1996). Because of such a small sample, this study did not use the census tract level for the unit of analysis like the two previous studies did. Instead, this study used census tract groups created from two or more adjoining census tracts with a total population of roughly 20,000.¹

¹ Similar method of joining several census tracts was also conducted by Archer, Gatzlaff and Ling (1996). They geocoded single-family home sales in Miami-Dade County, Florida and an adequate number of sales did not occur within a large number of the census tracts.

Table 1
Number of children in each homeless family

No.	Number of children	Number of homeless family	Percentage
1.	One child	57	26.0
2.	Two children	64	29.2
3.	Three children	58	26.5
4.	Four children	24	11.0
5.	Five children	8	3.7
6.	Six children	5	2.3
7.	Seven children	3	1.4
	Total	219	100.0

Source: The 2005 Point-in-time Homelessness Survey in Miami-Dade County.

Culhane et al. (1996) excluded census tracts with populations under 100 to avoid effects produced by small denominators. Similarly, Wong and Hillier (2001) omitted 29 out of 365 census tracts in Philadelphia from the analysis. These census tracts were primarily non-residential tracts including parks, airports and shipyards.

The census tracts in Miami-Dade County vary widely in population size from 0 to 18,547. The census tracts with low populations are primarily non-residential tracts including wetlands, parks and airports. None of the census tracts in Miami-Dade County was excluded from the analysis. As mentioned earlier, this study constructed census block groups from two or more adjoining census tracts. This study created 111 census tract groups from all 347 census tracts in Miami-Dade County.

The rationale for creating census tract groups is twofold: first, to reduce the number of units of analysis for analyzing a small number of prior address records, and second, to reduce the wide variety of denominators due to substantial variation in the population size of census tracts. The population size variation of census tract groups is much less than that of census tracts. The population size of census tract groups range from 11,935 to 27,988. Further analysis shows that there is no significant association between the population size and the prior addresses of homeless people in the census tract groups level. The use of larger units of analysis such as census tract groups may not be as beneficial as smaller units of analysis such as census tracts or census block groups in representing the variability of neighborhoods.

This study transformed the respondents' prior addresses into the Geographic Information System (GIS) data. It uses ArcGIS, a GIS software product created and developed by ESRI (Environmental Systems Research Institute). Using the geocoding tools within ArcGIS, the data of addresses were geocoded in conjunction with the database of street files for Miami-Dade County. The database containing records representing the geometry of street segments between consecutive intersections and the address ranges on each side of each segment in Miami-Dade County was obtained from FGDL (Florida Geographic Data Library, 2005). The prior addresses of the homeless were geocoded by finding the appropriate street segment record and estimating a location based on linear interpolation within the address range in the database of street file.

Table 2
Gender and age of the homeless children and youth

No.	Age	Girls	Boys	Total	Percentage (%)
1.	<6 months	13	7	20	3.7
2.	6 months–1 year	23	20	43	7.9
3.	1–2 years	31	28	59	10.8
4.	3–5 years	68	65	133	24.4
5.	6–10 years	83	63	146	26.7
6.	11–15 years	62	47	109	20.0
7.	16–17 years	22	14	36	6.6
	Total	302	244	546	100.0

Source: The 2005 Point-in-time Homelessness Survey in Miami-Dade County.

4. Results

4.1. Distribution of residential origins

This study identified 836 respondents who reported their residential origins were located in Miami-Dade County, Florida. Not only does homelessness in Miami-Dade County come from within its county boundary but also from other counties in Florida; some homeless people came from other states in the U.S. and even outside of the U.S. There were 55 in-state non-Miami-Dade prior addresses, 133 out-of-state prior addresses in 35 states, and 6 out-of-country prior addresses. In addition, this study found relatively large portions of missing addresses (171 out of 1201).

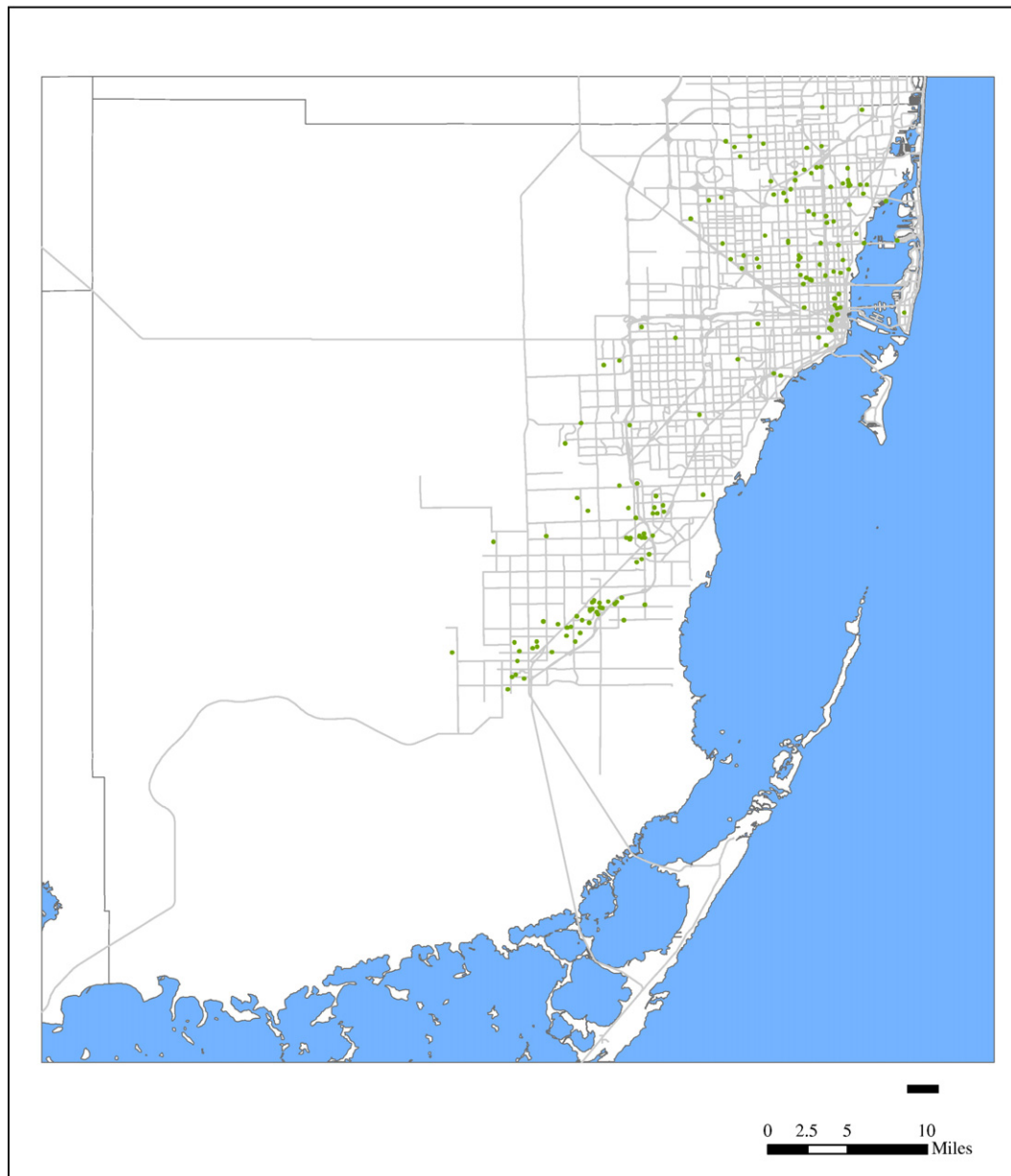


Fig. 1. Spatial distribution of the prior addresses of the homeless youth and children.

The geocoding procedure results in 817 matched addresses and 11 missing addresses. The 817 matched prior addresses include 219 prior addresses of homeless families accompanied by their children aged under 18 years of age, 12 prior addresses of homeless families without children and 586 prior addresses of homeless adult singles.

Out of 219 homeless families accompanied by their children, 136 were single mothers, 5 were single fathers and 78 were couples. There are one to seven children in each homeless family. Most of them stayed in emergency shelters or transitional housings. Only 18 homeless families including 9 single mothers and 9 couples lived on the streets.

A total of 546 homeless children and youth were identified living with their parents. The number of children and youth in each homeless family is shown in Table 1. They include 302 girls and 244 boys ranging from 1 month to

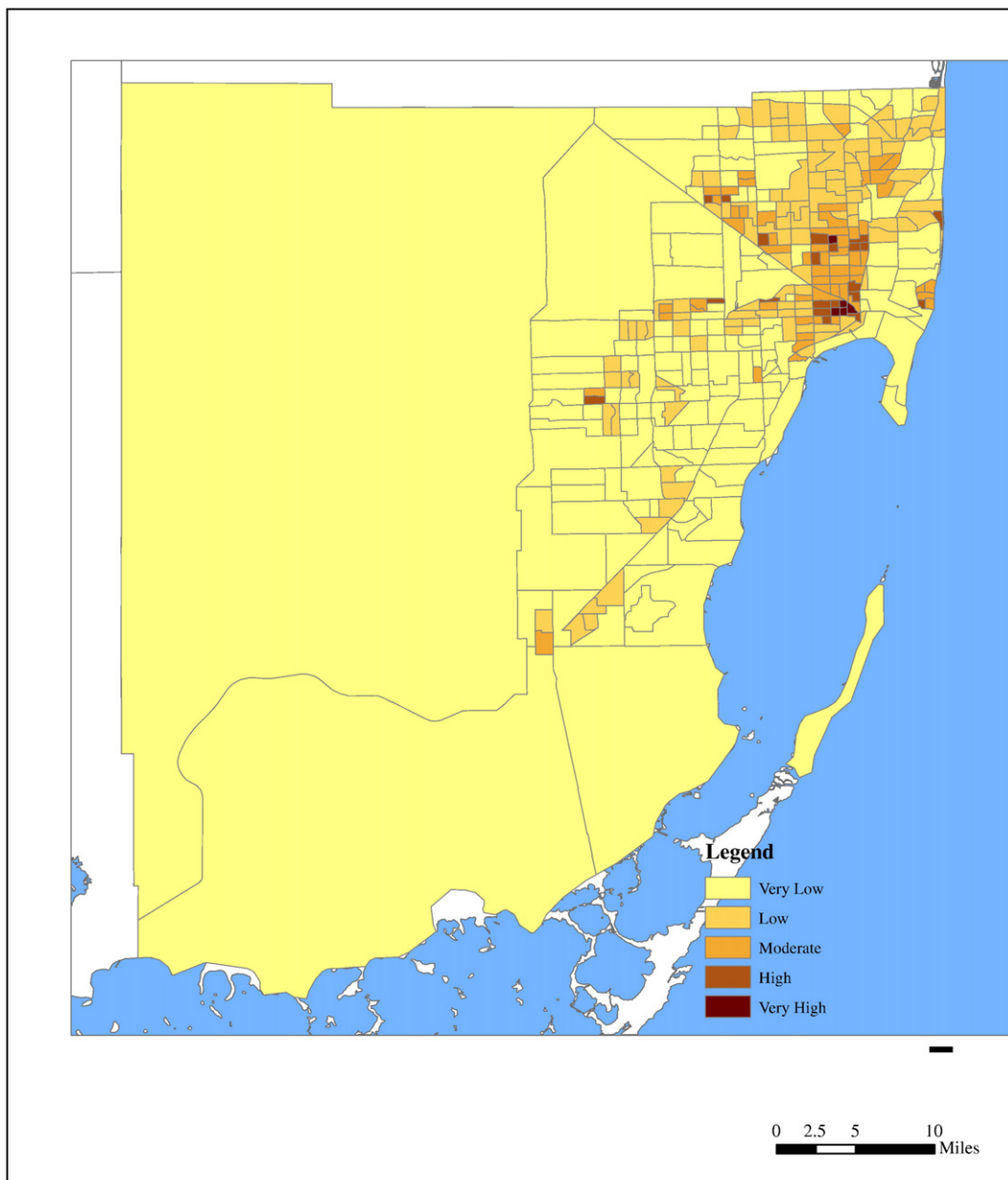


Fig. 2. Density of Person below 75% of poverty level.

17 years of age. The gender and age distribution of homeless children and youth in the study population is presented in Table 2.

Fig. 1 shows the spatial distribution of the prior addresses of homeless children and youth. These addresses are located in 61 census tract groups. Fifty census tract groups do not have residential origins of homeless children and youth. Census tract group 107 has the most prior addresses of the homeless (37 addresses). It is made up of census tracts 107.02, 107.03, 107.04, and 108. This census tract group is located in Homestead, Southern Miami-Dade

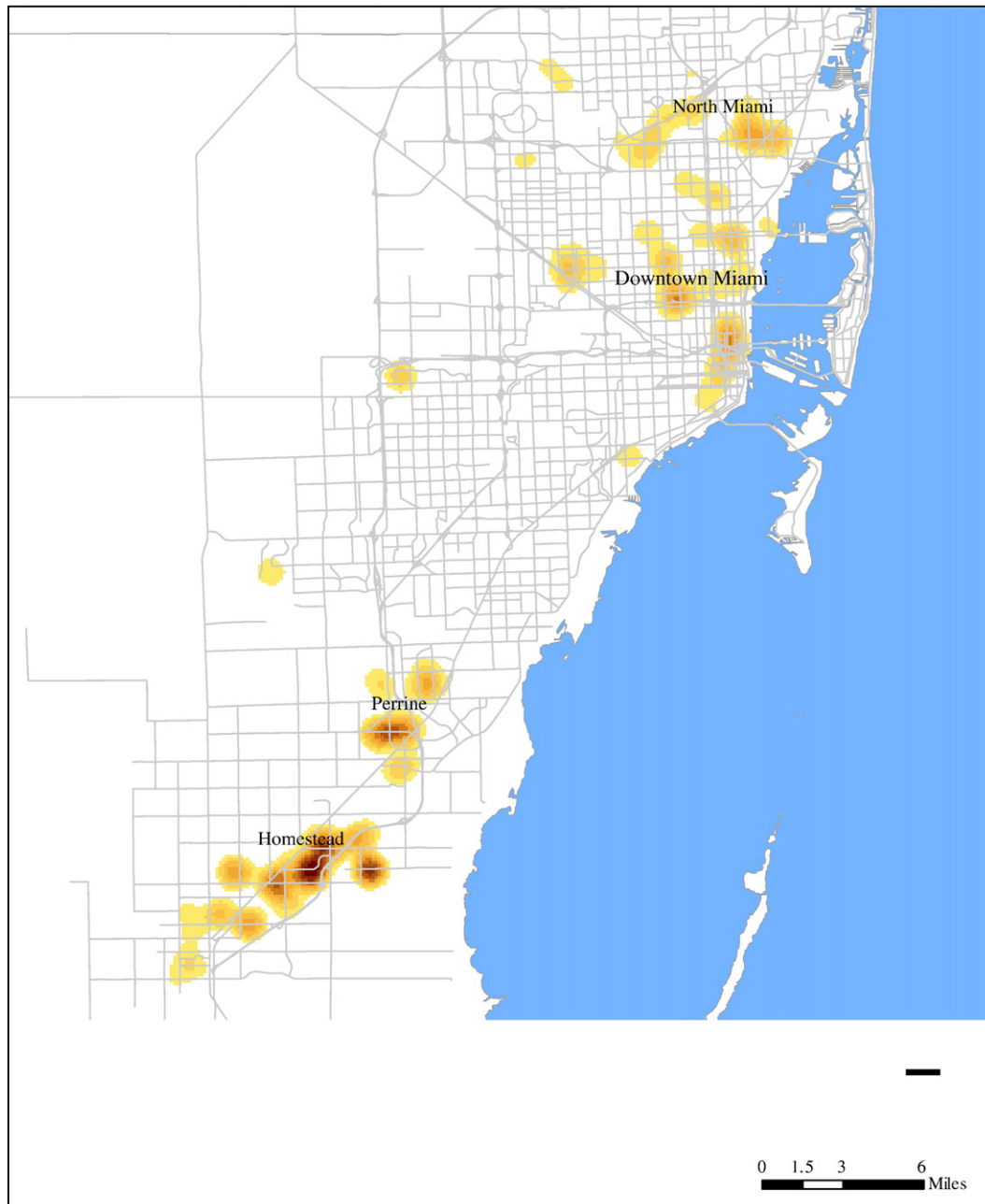


Fig. 3. Concentration and density variation of the prior addresses of the Homeless Youth and Children.

County. The area was characterized by the highest proportion of unemployment and unemployed females; a high proportion of female-headed households with young children, people below 75% of poverty level, people without high school diploma, rental units and low median household income.

The dot mapping as shown in Fig. 1 reveals true locations of prior addresses of homeless children and youth. However, dots at the same address overlap and hide high concentration areas. To identify the spatial concentration patterns of the prior addresses of homeless children and youth, this study uses a density-based spatial clustering technique called hot-spot analysis.

The first step in hot-spot analysis is to use the grid technique to divide a study area into small grid cells of equal size. The densities of prior addresses of homeless families and homeless individuals are then estimated. The density search algorithm of Single Kernel Density method is used to estimate the density of prior addresses of homeless families and homeless individuals. Kernel density estimation places a set of grid cells of equal size over prior addresses of homeless families and homeless individuals, evaluates the distance from the point to a reference location based on a mathematical function and sums the value of all the surfaces for that reference location. This procedure is repeated until the calculations are completed for all of the cells (Levine, 2004).

Fig. 2 shows the distribution of neighborhoods with a high density of persons below 75% of poverty level. The concentrations and density variations of the prior addresses of homeless children and youth is presented in Fig. 3. Revealing the prior addresses of homeless children and youth are not heavily concentrated in neighborhoods with extreme poverty. The concentrations of the prior addresses of homeless children and youth are distributed equally in Northern and Southern parts of Miami-Dade County. In Northern parts of Miami-Dade County, the prior addresses of homeless children and youth are concentrated in Downtown Miami and North Miami. In Southern parts of Miami-Dade County, the prior addresses of homeless children and youth are concentrated in Homestead and Perrine. However, the distributions of poor people are heavily concentrated in Northern parts of Miami-Dade County.

4.2. Factor associated with the distribution of the residential origins of homeless children and youth

The matched prior addresses of homeless children and youth were overlaid with the census tract group boundaries to determine the number of prior addresses of homeless children and youth by census tract group. These numbers were then transformed into the location quotient (LQ). These LQs are the dependent variables of the study.

The LQ compares the rate of a certain subject of interest for a unit area for a larger area that encompasses it (Bendavid-Val, 1983). An area with an LQ value of more than 1.00 means has a higher concentration of the subject interest relative to the other areas in the regional level. Census tract groups represent unit area and Miami-Dade County represents regional level. The LQ was used to identify the proportionate distribution of prior addresses of the homeless by the number of population in a given census tract group with those in Miami-Dade County. The LQ was used to identify census tracts containing a higher percentage share of the residential origins of each category of the homeless.

This study develops eighteen variables that are hypothesized to be associated with the rates of homelessness. As indicated by Wong and Hillier (2001), the factors of potential risks are highly correlated. The correlation matrix of the sixteen variables shows the variables are highly correlated.

In order to deal with the high correlations among the eighteen variables, this study uses principal components analysis with varimax rotation to determine a lesser number of factors that then will be used in the analysis. Principal components analysis is a technique to transform a set of variables into a smaller set of uncorrelated variables that represents most of the information in the original set of variables (Dunteman, 1989).

Table 3 shows the results of principal components analysis. Three factors adequately summarize the data and explain 76.4% of the variance of the original set of independent variables. The first factor, which explains the largest proportion of variance (46.6%), is named deprivation. There are ten variables loaded on this factor. Census tract groups with a high score on this factor represent areas with a high concentration of people without high school diplomas, households with public assistance incomes, persons below 75% of poverty level, households below poverty level without telephones, households without cars, rental units, proportion median contract rent to median household income and overcrowded rental households. These census tract groups are also characterized by a low median household income and a low median contract rent.

The second factor, which is labeled risk of domestic violence, explains 17.2% of the variance in the model. Census tract groups with a high score on this factor are characterized by a high concentration of unemployed females with and without young children and a high proportion of unemployment. These census tract groups also represent areas with a high concentration of African Americans and a low concentration of Hispanics.

Table 3
The result of principal component analysis

No.	Variables	Descriptive statistics		Loadings on resulting factors		
		Mean	Standard deviation	Deprivation	Domestic risk of violence	Unsaturated housing market
1.	Proportion of Blacks	.2120	.26927	.074	.920	–.001
2.	Proportion of Hispanic	.5639	.27059	.396	– .776	–.374
3.	Proportion of persons without high school diploma	.3289	.15478	.896	.220	–.268
4.	Proportion of unemployed female	.0285	.01283	.468	.669	–.151
5.	Proportion of unemployed female with children under 6	.0048	.00378	.358	.588	–.114
6.	Proportion of subfamilies	.0562	.03021	.252	.261	– .811
7.	Proportion of one-person household	.2123	.10507	.205	–.043	.921
8.	Proportion of unemployment	.0527	.02456	.459	.712	–.071
9.	Proportion of households with public assistance income	.0641	.04131	.850	.348	–.118
10.	Median household income	43583.48	21193.0	– .797	–.265	.096
11.	Proportion of persons below 75% of poverty level	.1317	.08203	.708	.580	.303
12.	Proportion of households without cars	.1429	.11346	.764	.229	.515
13.	Proportion of households below poverty line without telephone	.0135	.01899	.629	.472	.356
14.	Proportion of rental units	.3976	.20253	.830	.125	.389
15.	Proportion of median contract rent to median household income	30.74	3.3238	.537	–.099	–.143
16.	Median contract rent	634.80	171.945	– .669	–.495	.028
17.	Proportion of housing units with more than two person per room	.0587	.03403	.863	.113	.065
18.	Proportion of vacant housing units	.0720	.06279	.358	.161	.831

Findings from several studies (Frias & Angel 2005; Pearlman, Zierler, Gjelsvik, & Verhoek-Oftedahl, 2003; Sorenson et al., 1996; Williams, 1998) support such a grouping. Using a sample of 2400 poor women in Boston, Chicago and San Antonio, Frias and Angel (2005) found unemployed women are at higher risk of moderate and severe violence than part-time employed or full-time employed women. Full-time employed women have a 38% lower risk of domestic violence than unemployed women (Frias & Angel 2005). Sorenson et al. (1996) found that households with income lower than \$25,000 were significantly more likely to report domestic violence than those in the range of \$25,000 to \$39,999 while income had no significant effect on reporting of domestic violence at higher household income ranges.

Pearlman et al. (2003) found that African American and Hispanic women showed significantly higher risks of domestic violence than white women. Similarly, Sorenson et al. (1996) found that African Americans were 1.58 times more likely and Hispanics 0.53 times less likely than whites to report domestic violence in the past year. Williams (1998) argued that African Americans and Hispanics have a greater tendency toward domestic violence because of social stress of higher unemployment and impoverishment.

Frias and Angel (2005) argued that the structured disadvantage of African Americans and Hispanics have experienced in conjunction with minority group status affecting almost all aspects of social and family life, including domestic violence. Frias and Angel (2005) reported that African American women report the highest rates of victimization followed by Hispanics. Their study also revealed that Dominican, Puerto Rican, and other Hispanic women reported significantly lower rates of violence than African American women while Mexican-origin women's rates of violence were similar to those of African American women.

The third factor, which is labeled unsaturated housing market, explains 12.6% of the variance in the model. Census tract groups with a high score on this factor represent areas with a high concentration of one-person households, a low proportion of households with subfamilies and a high vacancy rate. These three factors are then used as the independent variables for further analysis in the study.

The three factors resulted from the principal component analysis were used as the independent variables in the regression analysis. The result of regression model for identifying factors associated with the spatial distribution of the prior addresses of homeless children and youth can be seen in Table 4.

Table 4
The OLS regression results

Factor	Beta	Significance
Deprivation	.257	***
Risk of domestic violence	.580	***
Unsaturated housing market	.014	

Note: $N=219$.

* $p<0.1$. ** $p<0.05$. *** $p<0.01$.

Table 4 presents the result of the regression analysis for identifying factors associated with the spatial distribution of the prior addresses of homeless children and youth. The risk of domestic violence is the strongest predictor of the rate of homelessness among families. The areas with high rates of unemployment, unemployed women with children and unemployed women without young children, a high concentration of African Americans and a low concentration of Hispanics are strongly and positively related to producing more homeless children and youth.

The rates of children and youth homelessness are also significantly associated with deprivation. The deprived neighborhoods that are characterized with a low median household income and a low median contract rent, a high proportion of people without high school diplomas, households with public assistance incomes, people below 75% of poverty level, households below poverty level without telephones, households without cars, rental units, proportion median contract rent to median household income and overcrowded rental households are more likely to produce homeless children and youth.

On the other hand, the regression analysis reveals the unsaturated housing market, which is characterized by a high proportion of one-person households and vacancy rates and a low proportion of households with subfamilies, is not a significant predictor of the rates of children and youth homelessness.

5. Discussion

This study identifies 546 children and youth in 219 homeless families or 2.5 children and youth in each homeless family. Homeless children and youth in this study range from a few months to 17 years old and nearly half of them aged less than five years old. This reveals that homeless children and youth are a highly visible social problem.

The residential origins of homeless children and youth are not heavily concentrated in poor neighborhoods but also located in less poor neighborhoods. Much research points to poverty as a major risk factor for homelessness, but homelessness is not always associated with poverty. Previous research suggests a relationship between domestic violence and homelessness (Baker, Cook, & Norris, 2003; Williams & Mickelson, 2004) particularly with homeless families. The 2000 U.S. Conference of Mayors reported domestic violence as one of the primary causes of homeless families (Sherman & Redlener, 2003). Domestic violence is not confined strictly to neighborhoods of high poverty but is present at all socioeconomic levels (Pyles, 2006; Richman, 2002; Stainbrook & Hornik, 2006; Williams & Mickelson, 2004).

The prior addresses of homeless children and youth that are located in less poor neighborhoods indicate the possibility of domestic violence as the factor that leads children and youth in families to homelessness. The findings also indicate the possibility to support previous studies that children in homeless families have histories of abuse, are victims of violence and witness much of the violence experienced by their mothers (Anooshian, 2005; Cumella et al., 1998).

The concentration and density variation of the prior addresses of homeless children and youth as shown in Fig. 3 reveal the hot spots which are the areas with high risk of producing homeless children and youth. By identifying these hot spots, they can be target areas for prevention services which will be more efficient than universal prevention.² Wong and Hillier's (2001) study provides an example of how to better locate homelessness prevention sites in relation to the areas with high rates of producing homeless families in Philadelphia.

The study reveals neighborhood-level factors associated with the rates of homelessness among children and youth in the census tract group level. The results of the regression models indicate clearly that deprivation is significantly and positively associated with the rates of homelessness among children and youth. Areas with high deprivation that are

² Universal prevention programs are targeted to the entire population such as childhood immunizations to prevent measles (Shinn et al., 2001).

characterized by a low educational attainment of their residents, high concentration of households with public assistance income, poverty, lack of social networks and family relationships, transportation mismatch, high proportions of rental units, rental affordability problems, rental overcrowding, low median household incomes and low median contract rents are more likely to produce homeless children and youth.

Areas with deprivation are characterized by poverty-related indicators and housing-problem indicators. Therefore poverty is strongly associated with housing problems causing homelessness. Among structural factors, poverty and housing problems are the most important factors that cause homelessness (Burt, 1992; Dolbeare, 1996). The strong association between poverty and housing problems as indicated in this study also supports the extent of abeyance construct (Hopper, 2003). The incidence of homelessness can be perceived as a mismatch between the scarcity of available affordable housing rental units and the excessive amount of poor people.

The risk of domestic violence is significantly and positively associated with the rates of homelessness in the census tract group level for children and youth as indicated in the study. Areas with risk of domestic violence are characterized with a high concentration of African Americans and unemployment, a high proportion of unemployed women and those with young children and a low concentration of Hispanics. Areas with risk of domestic violence which are not necessarily impoverished or deprived areas are more likely to produce homeless children and youth. This finding supports the literature that domestic violence plays a significant role in explaining the incidence of homelessness among youth and children (Anooshian, 2005; Cumella et al., 1998; Kidd & Davidson, 2006).

The regression results also indicate that domestic violence is strongly associated with unemployment which leads to homelessness. This supports Pearlman et al. (2003) that find domestic violence is strongly associated with unemployment particularly for African Americans and Hispanics. Unemployed women who experience domestic violence are vulnerable to being homeless. They will immediately become homeless when they leave their homes after separating from their partners (Baker et al., 2003). They also reveal that the standardized coefficient of the risk of domestic violence predictor is stronger than that of the deprivation predictor. Such a finding explains why the spatial distribution of residential origins of homeless children and youth are not heavily concentrated in neighborhoods of high poverty. Domestic violence that is not confined strictly to neighborhoods of high poverty is the most important factor that explains the spatial distribution of the residential origins of children and youth.

Neighborhoods with relative isolation and segregation of African American households, particularly unemployed African American women, are more likely to generate homelessness. Such neighborhoods tend to be socially isolated from conventional society. Residents are faced with structural barriers that undermine employment opportunities. Domestic violence is more likely in such neighborhoods because such environments tend to foster a sense of anonymity and correspondingly reduce social control (Benson et al, 2004). Such neighborhoods lack community support due to residents' isolation from one another. A high concentration of households with children in such neighborhoods also suggests the importance of the developmental stage of these families in designing and targeting homelessness prevention interventions.

6. Conclusion

The study reveals that the spatial distribution of the prior addresses of homeless children and youth is not heavily concentrated in neighborhoods of high poverty. Homeless children and youth also come from neighborhoods of less poverty. Homelessness prevention intervention for children and youth should target not only neighborhoods of high poverty but also neighborhoods of less poverty.

Domestic violence, possibly, is the factor that explains the distribution of prior addresses of homeless children and youth in less poor neighborhoods. The regression results indicate that areas with a high concentration of unemployed African American women with or without children are at greater risk of producing homeless children and youth. Unemployed mothers are highly vulnerable to becoming homeless when they experience domestic violence. The results suggest homelessness prevention interventions should target unemployed mothers, particularly in areas with a high concentration of African American households to more effectively prevent homeless children and youth.

The findings of this study concerning factors in the areas associated with the spatial distribution of prior addresses of the homeless support the theory that structural factors cause homelessness. Census tract groups, characterized by poverty and housing problems, are statistically highly significant in producing more homeless children and youth. The policy of reducing poverty and expanding housing assistance would significantly prevent homeless children and youth.

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