ARTICLE

Gender Differences in the Residential Origins of the Homeless: Identification of Areas with High Risk of Homelessness

DEDEN RUKMANA

Abstract

This article offers a gender perspective on homelessness concerning residential origins. Data were obtained through the 2005 homelessness survey in Miami-Dade County, Florida. The residential origins of homeless women are more widespread and less concentrated in the neighborhoods of high poverty than those of homeless men. Areas with lack of low-rent housing units are at greatest risk of generating homeless men and women. The rate of residential origins of homeless men increases with the proportion of Hispanics and African Americans, particularly those living below poverty level. Areas with a high proportion of female-headed households with young children and unemployed females are strongly significant in producing more homeless women. Planners should take into account a geographic and population-targeted strategy in designing homelessness prevention interventions.

Introduction

Homelessness is an increasingly problematic planning issue spanning the past two decades. The programs and services to eradicate homelessness problems were expanded considerably through the continuous expansion of federal program spending, but the homelessness crisis continues unabated1 (Crane & Takahashi, 1998; Wright et al., 1998; Burt et al., 2002; Culhane & Metraux, 2008).

Studies on homelessness over the past two decades have better exposed the characteristics of homeless people. In the early 1980s, homeless people were typically pictured as single men on skid row (Crystal, 1984; Crook, 1999). Such stereotypes of the homeless population have changed (Takahashi, 1996). Women have been part of the homeless population, and their numbers have increased rapidly in the past two decades (Burt, 2001).

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A gender perspective on homelessness presents considerable differentiations between homeless men and homeless women in many respects. Dozens of studies on homeless women and men show the two types differ in many respects, including reasons for becoming homeless (Morris, 1998; Tessler et al., 2001), history of domestic violence (Maurin et al., 1989; Ritchey et al., 1991; Burt et al., 2002; Zugazaga, 2004), perceived needs (Herman et al., 1984; Diblasio & Belcher, 1995), the occurrence of alcohol, drug and mental health problems (Maurin et al., 1989; Cauce et al., 2000; Benda, 2005), health status and sexual health practices (Johnson et al. 2006a, 2006b), family and social relationships (Ritchey et al., 1991; Morris, 1998; Wright et al., 1998), abuse and victimization (Benda, 2005; Jainchill et al., 2000; Johnson et al., 2006b), legal involvement (Crystal, 1984; Brunette & Drake, 1998), work history (Maurin et al., 1989; Bassuk, 1993) and responses to homelessness services (Rich & Clark, 2005).

There are very few studies on contemporary homelessness investigating residential origins of the homeless. Culhane et al. (1996) and Wong and Hillier (2001) investigate the residential origins of homeless families admitted to public shelters in New York City and Philadelphia. Both studies investigate residential origins of homeless families and identify factors associated with the spatial distribution of residential origins of homeless families. The information of gender was not available from the data reported by homeless families in both studies. Both studies do not distinguish homeless families by gender.

There is no study to date investigating and comparing the residential origins of homeless women and men. This study attempts, first, to identify and compare the distributions of residential origins of homeless women versus homeless men, either singles or with their children, and then to analyze the distribution of residential origins of homeless women and men 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 purpose of this study is twofold: first, it investigates and compares where homeless women and homeless men come from; and second, it identifies demographic, socioeconomic, and housing factors associated with the distribution of the residential origins of each homeless category. The findings are vital for planners to address two basic planning questions: which neighborhoods should homeless prevention interventions target and what interventions should be targeted to those neighborhoods? The gendered analysis should assist in formulating more effective and targeted planning strategies for preventing homelessness.

Gender Perspectives on Homelessness

The characteristics of homeless men and homeless women differ greatly. Women are less likely than men to live openly on the street. Women are more likely to be living in shelters or transitional housing, moving among temporary living arrangements, or living out of sight in abandoned cars, or squatter housing. Men are three to four times more likely to have spend a night out of shelter than women. Homeless men also experience a greater variety of social and environmental risks (Ritchey et al., 1991).
Gender Differences in Residential Origins of Homelessness

Using data from the National Survey of Homeless Assistance Providers and Clients, Burt (2001) reports that homeless women, regardless of their family status, cite domestic violence as one of four top reasons of becoming homeless. On the other hand, domestic violence is not the main reason for men becoming homeless. In a study of 230 homeless adults in Florida, Morris (1998) indicates homeless women were more likely than men to cite victimization or abuse as their reason for becoming homeless. Women are also more likely than men to cite divorce/family problems as their reason for becoming homeless. Similarly, Tessler et al. (2001) finds interpersonal conflict as the main reason for being homeless is given more by homeless women than homeless men.

Domestic violence is present at all socioeconomic levels, but it is much more frequent and severe among women in poverty (Richman, 2002; Williams & Mickelson, 2004; Pyles, 2006; Stainbrook & Hornik, 2006). Domestic violence and poverty may intersect to create the very elements that often lead women to homelessness (Williams, 1998).

In a study conducted in the Atlanta metropolitan area, Baker et al. (2003) used a sample of 110 women who had experienced domestic violence to examine housing problems and homelessness after separation. Approximately one-half of the women leave their homes after separating from their partners. Of the women who leave their homes, 78% report becoming homeless immediately after leaving their homes. Women’s housing problems are not related to whether they stayed or left; however, women who stayed were less likely to have a homelessness spell later. Women are prevented from becoming homeless due to having money, credit or a job, having access to community resources and having the house/apartment in their name (Baker et al., 2003).

Men are more likely than women to attribute homelessness to the loss of a job and the occurrence of alcohol, drug and mental health problems (Burt, 2001; Tessler et al., 2001). Homelessness appears to be more likely a chronic, long-lasting experience for men. They were more likely than women to have been homeless for more than 6 months (Maurin et al., 1989; Burt, 2001).

Brunette and Drake (1998) find that homeless women report having more total social contacts than men. In the absence of social contacts, of course, it is impossible for homeless men to access the care they may need. Morris (1998) conducted a survey with 230 homeless adults in Florida to compare levels of social affiliation among homeless women with children, homeless women without children, and homeless men without children. They found that homeless women maintained more affiliative ties than did men, and that homeless women with children maintained the greatest number of ties, suggesting the presence of children could be the most salient characteristic in preserving social networks. Women are more likely than men to exhaust their social networks with their family, friends and coworkers before ending up in shelters or on streets.

Planning Literature on Homelessness

Homelessness becomes a focus for planners since the 1980s as the number of homeless people continues to rise and the search for solutions becomes increasingly urgent. Many planning scholars argue that homelessness is a housing
problem (Wolch et al., 1988; Hoch & Slayton, 1989; Collin, 1992; Takahashi, 1996; Neale, 1997; Avramov, 2001). The number of housing units that are affordable for low-income people have been declining due to various reasons, including demolition of single-resident occupancy, gentrification, urban renewal, and the conversion of low-rent apartments to condominiums. The shrinking number and rising cost of housing units have caused many to double-up with friends or relatives and forced others to the streets.

The deinstitutionalization of state mental hospitals and the reduction in public expenditures on welfare have also dominated the planning literature on homelessness, particularly in the United States (Dear & Wolch, 1987; Wolch et al., 1988; Wenning, 1991; Takahashi, 1996). The deinstitutionalization and the large reductions in federal mental health expenditures in the early 1980s have been identified as a significant cause to the numbers of homeless mentally ill. The deinstitutionalized persons tended to drift toward inner-city neighborhoods where low-rent apartments and emergency shelters were available (Wolch et al., 1988). Over time, emergency shelters have become institutionalized and more rehabilitative, with homeless persons served for longer periods of time and at greater cost (Culhane & Metraux, 2008).

Some scholars (Wolch et al., 1988; Wenning, 1991) argue that emergency shelters are one solution to the homelessness problem. Emergency shelters can prevent ‘the descent into chronic homelessness’ (Wolch et al., 1988, p. 450). Planners can estimate the needs for emergency shelters and other homeless services in the community. Planners can also assist in the siting of emergency shelters and combat community opposition, more generally known as ‘Not In My Back Yard’ syndrome, through education and negotiation (Wolch et al., 1988; Wenning, 1991; Takahashi, 1996).

Homelessness prevention is also an essential solution to the homelessness problem. Planners can develop homelessness prevention interventions to close the front door of entry into homelessness. A variety of interventions have been offered by planners, including housing and rental assistance, mediation services to address housing, employment or family conflicts, relocation grants and transitional rent subsidies (Burt et al., 2005; Culhane & Metraux, 2008).

The planning literatures on homelessness are mostly in the industrialized countries contexts, particularly the United States and European countries (Polakow & Guillean, 2001; Tipple & Speak, 2006, 2009). In most industrialized countries, inadequate housing is almost synonymous with homelessness. In developing countries, a large proportion of household live in inadequate housing but they are not all defined as homeless people (Tipple & Speak, 2006). The definition of homelessness derived from industrialized countries is not so helpful in defining homelessness in developing countries.Tipple and Speak (2006) found that many people who live in inadequate housing in informal settlements cannot be classified as homeless.

**Hypotheses**

The residential origins of homeless women are hypothesized to be more widely spread and less concentrated in poor neighborhoods than those of homeless men.
Women are more likely than men to attribute homelessness to domestic violence. Much research points to poverty as a major risk factor for domestic violence, but domestic violence and family conflict are not always associated with poverty. Domestic violence cuts across all levels of socioeconomic status (Richman, 2002; Williams & Mickelson, 2004; Pyles, 2006; Stainbrook & Hornik, 2006). Poverty is a significant predictor for domestic violence among African American couples only. Neighborhood poverty is not a significant predictor of domestic violence for either Hispanic or white couples (Cunradi et al., 2000).

The spatial distribution of the residential origins of homeless people is hypothesized to be a function of demographic composition, economic factors and housing characteristics of corresponding unit analyses of geography. The 16 variables defined in Table 1 are used and hypothesized to be significantly associated with the spatial distribution of residential origins of homeless women and men.

**Study Methods**

**Data Sources**

First, the spatial distribution of residential origins of homeless men and homeless women are explored and the factors associated with those distributions are

<table>
<thead>
<tr>
<th>Number</th>
<th>Variable</th>
<th>Expected sign</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>Homeless men</strong></td>
</tr>
<tr>
<td><strong>Demographic composition</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Proportion of African American</td>
<td>+</td>
</tr>
<tr>
<td>2.</td>
<td>Proportion of Hispanic</td>
<td>+</td>
</tr>
<tr>
<td>3.</td>
<td>Proportion of persons without high school diploma</td>
<td>+</td>
</tr>
<tr>
<td>4.</td>
<td>Proportion of female-headed households with children under 6</td>
<td>0</td>
</tr>
<tr>
<td>5.</td>
<td>Proportion of unemployed female</td>
<td>0</td>
</tr>
<tr>
<td>6.</td>
<td>Proportion of subfamilies</td>
<td>0</td>
</tr>
<tr>
<td>7.</td>
<td>Proportion of one-person household</td>
<td>+</td>
</tr>
<tr>
<td><strong>Socioeconomic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Proportion of households with public assistance income</td>
<td>+</td>
</tr>
<tr>
<td>9.</td>
<td>Median household income</td>
<td>–</td>
</tr>
<tr>
<td>10.</td>
<td>Proportion of persons below 75% of the poverty level</td>
<td>+</td>
</tr>
<tr>
<td><strong>Housing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Proportion of rental units</td>
<td>+</td>
</tr>
<tr>
<td>12.</td>
<td>Median contract rent</td>
<td>–</td>
</tr>
<tr>
<td>13.</td>
<td>Proportion of median contract rent to median household income</td>
<td>+</td>
</tr>
<tr>
<td>14.</td>
<td>Proportion of renter-occupied housing units with rent less than $100</td>
<td>–</td>
</tr>
<tr>
<td>15.</td>
<td>Proportion of renter-occupied housing units recently moved</td>
<td>+</td>
</tr>
<tr>
<td>16.</td>
<td>Proportion of housing units with more than two persons/room</td>
<td>+</td>
</tr>
</tbody>
</table>

Dependent variable is percentage of residential origins of homeless people.
Data of the residential origins of homeless men and homeless women are obtained from a point-in-time homelessness survey in Miami-Dade County conducted on 27 January 2005. Miami-Dade County Homeless Trust, the coordinator for homeless services and housing in the County, organized the survey. Prior to the survey, Miami-Dade County Homeless Trust ask all homeless programs in Miami-Dade to participate in the survey.

Five outreach programs, five supportive service programs, 12 emergency shelter programs and 28 transitional housing programs in Miami-Dade County participated in the survey. The participating emergency shelter programs, transitional housing programs and supportive service programs are located across Miami-Dade County. These participating programs asked all of their clients whether or not they would like to participate in the survey. The clients were informed that the survey is voluntary and the participants were rewarded with $2 vouchers. The participating outreach programs surveyed non-sheltered homeless people.

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 27 January 2005. The samples were not randomly selected. At the same time, the participating outreach programs found samples from the streets and asked them whether they would be willing to participate in the survey. The participating outreach program drew samples from available subjects, not from all of the non-sheltered homeless population.

The survey instruments are 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 are no identifying questions except for their initials and ages. The total number of completed and unduplicated surveys was 1,201. All respondents are homeless and their ages range from 18 to 82 years old. The study identifies 396 homeless women and 796 homeless men, and 9 missing cases.

**Residential Origins and Geocoding Procedures**

One of the survey’s questions is ‘what was the address of the last house or apartment you lived in?’ followed by street address, city, state, zip code and country. Eight hundred and thirty-six respondents report their residential origins in Miami-Dade County, Florida. This study also identifies 55 in-state non-Miami-Dade prior addresses, 133 out-of-state prior addresses, 6 out-of-country prior addresses and 171 respondents missing addresses.

The number of samples in this study was much smaller than the two previous studies, particularly compared with Culhane et al.’s (1996) study. Because of the small sample, this study did not use the census tract level as the unit of analysis as the two previous studies did, but uses census tract groups created from two or more adjoining census tracts with a total population of roughly 20,000.²

Culhane et al. (1996) exclude census tracts with populations under 100 to avoid effects produced by small denominators. Similarly, Wong and Hillier (2001) omit 29 out of 365 census tracts in Philadelphia from the analysis. These census tracts are 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. Those with low populations are primarily non-residential tracts, including wetlands, parks and airports. None of the census tracts in Miami-Dade County are excluded from the analysis. As mentioned earlier, this study constructs census block groups from two or more adjoining census tracts. This study creates 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 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 group levels. 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’ residential origins into the Geographic Information System (GIS) data. It uses ArcGIS, a GIS software product created and developed by the Environmental Systems Research Institute. Using the geocoding tools within ArcGIS, the data of addresses are geo-coded 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 are 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.

The records of residential origins are then coded for homeless men and women. This procedure creates two point-feature layers containing the residential origins of homeless men and those of homeless women. These point-feature layers are overlaid with a map of census tract groups. This overlying procedure will produce a map containing the geocoded residential origins of homeless men and homeless women and census tract group boundaries. Then, the coded residential origins of homeless men and homeless women are counted for each census tract group.

Results

Spatial distribution and statistical tests for differences

The geocoding procedure results in 817 matched addresses and 11 unmatched addresses. The 11 unmatched residential origin addresses include 2 addresses of homeless women and 9 addresses of homeless men. These unmatched addresses are incomplete addresses so that ArcGIS could not geocode them. The chi-square analysis on matched/unmatched addresses and gender reveals that there is no significant association between gender and matched/unmatched addresses.
The 817 matched residential origin addresses include 307 addresses of homeless women and 510 addresses of homeless men. The spatial distributions of matched addresses of homeless men and homeless women are shown in Figure 1 and Figure 2, respectively. The dot mappings as shown in both figures reveal true locations of residential origins of homeless people. However, dots at the same addresses overlap and hide high concentration areas. The overlapping of same addresses or neighboring addresses in these maps complicates the analyses of these two maps.

![Figure 1. Spatial distribution of the residential origins of homeless men.](image-url)
These matched addresses are located in 218 census tracts. One hundred and twenty-nine out of 347 census tracts (37%) in Miami-Dade County do not have prior addresses of homeless people. Compared with other cities in Culhane et al.’s (1996) study, Miami-Dade County is higher than New York City (22%) but is lower than Philadelphia (66%).

Regarding the units of analysis in this study, namely census tract groups, the 817 matched addresses are located in 97 out of 111 census tract groups. The census tract group that has the most prior addresses of homeless men is census tract group 375–415.

Figure 2. Spatial distribution of the residential origins of homeless women.
tract group 30 (35 addresses). Meanwhile, the census tract group with the highest number of prior addresses of homeless women is census tract group 107 (36 addresses).

Census tract group 30 comprises 4 census tracts: 27.01, 27.02, 28 and 29. This census tract group is located in Downtown Miami in the northern parts of Miami-Dade County. The area is characterized by a high proportion of people without a high school diploma, people below 75% of the poverty level, households with public assistance income, one-person households, rental units and low median household income.

Census tract group 107 is made up of census tracts 107.02, 107.03, 107.04, and 108. This census tract group is located in Homestead in the southern part of Miami-Dade County. The area is characterized the highest proportion of unemployed females; a high proportion of female-headed households with young children, people below 75% of the poverty level, people without a high school diploma, rental units, and low median household income.

Dot mapping is, simply, to show spatial patterns graphically (Wang & Varady, 2005). Further spatial analysis can be performed by other methods such as spatial statistics and hot-spot analysis. For the purpose of this study, spatial distribution statistics are used to compare and contrast the spatial distribution of prior addresses of different categories of the homeless. Two spatial distribution statistics used in this study include the mean center and standard deviational ellipse.

To examine gender differences in the spatial distribution of the residential origins of homeless people, the spatial distribution statistical tests are used. The Crimestat software is used to produce mean centers and standard deviational ellipses, and a protocol developed by Levine (2004) to test the spatial distribution statistical differences. The statistical difference tests reveal that the mean centers and the standard deviational ellipses between the residential origins of homeless men and homeless women are significantly different at the $p \leq 0.005$ and $\leq 0.05$ levels, respectively. The results of the statistical difference tests are presented in Table 2.

The findings support the hypothesis that the residential origins of homeless men are highly concentrated in poor neighborhoods that are located in northern parts of Miami-Dade County, and the residential origins of homeless women are more

<table>
<thead>
<tr>
<th>Measure</th>
<th>Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean centers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$X$</td>
<td>3.072</td>
<td>$&lt;0.01$</td>
</tr>
<tr>
<td>$Y$</td>
<td>3.798</td>
<td>$&lt;0.01$</td>
</tr>
<tr>
<td>Standard deviational ellipses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$X$</td>
<td>1.359</td>
<td>$&lt;0.01$</td>
</tr>
<tr>
<td>$Y$</td>
<td>1.291</td>
<td>$&lt;0.05$</td>
</tr>
</tbody>
</table>

$N$ homeless men = 510; $N$ homeless women = 307.
widely spread and equally distributed in the northern parts and the southern parts of Miami-Dade County.

**Hot-spot analysis**

Using a density-based spatial clustering technique called hot-spot analysis, this study attempts to compare and contrast the spatial concentration patterns of the residential origins of homeless men and homeless women. Neither dot mapping nor spatial distribution statistics is able to provide a picture of spatial concentration of residential origins. They cannot reveal density variation at a small area level.

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 density of residential origins of both homeless categories is then estimated. This study uses the density search algorithm of the Single Kernel Density method to estimate the density of residential origins of homeless men and homeless women (Levine, 2004).

The concentrations and density variations of the residential origins of homeless men and homeless women are presented in Figures 3 and 4. The figures show the differences in the concentration and density of the residential origins between homeless men and homeless women. The distribution of the residential origins of both homeless categories are the same north of the downtown area but that of homeless women are more dispersed south of the downtown area.

Areas with the highest density of the residential origins, called hot spots, of homeless men and homeless women are located in several neighborhoods in Downtown Miami and Homestead. The hot spots of homeless men are more plentiful and larger than those of homeless women. The figures also show the clusters with lower levels of residential origins density, called secondary hot spots. Both homeless men and homeless women have one secondary hot spot in Perrine and North Miami. In Miami Beach, there are two secondary hot spots of homeless men and none of homeless women. Homeless men also have a high concentration of residential origins in Sweetwater.

**Factors associated with the spatial distribution of residential origins**

This study uses the residential origin information reported by homeless people captured in the 2005 point-in-time homelessness survey in Miami-Dade County, Florida to construct an index for the rate of homelessness for each homeless category by census tract group, and identifies census tract group variables that correspond to the spatial distribution of residential origins for each homeless category.

The matched residential origins of homeless men and women are overlaid with the census tract group boundaries to determine the number of residential origins of the homeless by census tract group. These numbers are then divided by the total number of residential origins in Miami-Dade County. The proportion of the residential origins of homeless men and that of homeless women are the dependent variables in this study.

The number of the residential origins of homeless people in each census tract group is assumed to be a function of demographic composition, economic and
housing characteristics in the census tract group. Sixteen explanatory variables are used, and sample statistics for the dependent and explanatory variables are presented in Table 3.

Ordinary least squares regressions are used to identify factors associated with the spatial distribution of residential origins of homeless men and homeless women. Those distributions are regressed on 16 explanatory variables and the results are shown in Table 3.

The regression results show that, among the demographic variables, the proportions of Hispanic and of African American people in a census tract group are significant and positively associated with the rate of homelessness among men, but are not significant among women. The ratios of female-headed households

![Figure 3. Concentration and density variations of the residential origins of homeless men.](image-url)
with young children and of unemployed female, as expected, are significant and positively associated with the rate of homelessness among women, but are not significant among men. The ratio of subfamilies is significantly associated with the rate of homelessness among men and women. The coefficients for the ratio of subfamilies in both homeless categories are not in the predicted positive direction. This suggests that homeless men and homeless women in Miami-Dade County come from areas that have a lower ratio of subfamilies.

The proportion of people without a high school diploma is in the hypothesized positive direction for homeless men and homeless women, but neither is statistically significant. The coefficient for proportion of one-person households is
TABLE 3. Sample statistics and regression results

<table>
<thead>
<tr>
<th>Number</th>
<th>Variable</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Homeless men</th>
<th>Homeless women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Demographic composition</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Proportion of African Americana</td>
<td>0.212</td>
<td>0.269</td>
<td>0.417**</td>
<td>0.055</td>
</tr>
<tr>
<td>2.</td>
<td>Proportion of Hispanic</td>
<td>0.563</td>
<td>0.270</td>
<td>0.658***</td>
<td>0.274</td>
</tr>
<tr>
<td>3.</td>
<td>Proportion of persons without high school diploma</td>
<td>0.328</td>
<td>0.154</td>
<td>0.084</td>
<td>0.258</td>
</tr>
<tr>
<td>4.</td>
<td>Proportion of female-headed households with children under 6</td>
<td>0.030</td>
<td>0.019</td>
<td>0.121</td>
<td>0.492**</td>
</tr>
<tr>
<td>5.</td>
<td>Proportion of unemployed femalea</td>
<td>0.028</td>
<td>0.012</td>
<td>0.190</td>
<td>0.235*</td>
</tr>
<tr>
<td>6.</td>
<td>Proportion of subfamilies</td>
<td>0.056</td>
<td>0.030</td>
<td>-0.279*</td>
<td>-0.407**</td>
</tr>
<tr>
<td>7.</td>
<td>Proportion of one-person household</td>
<td>0.212</td>
<td>0.105</td>
<td>0.358**</td>
<td>-0.054</td>
</tr>
<tr>
<td></td>
<td><strong>Socioeconomic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Proportion of households with public assistance incomea</td>
<td>0.064</td>
<td>0.041</td>
<td>0.407*</td>
<td>0.173</td>
</tr>
<tr>
<td>9.</td>
<td>Median household income</td>
<td>43,582.48</td>
<td>21,193.00</td>
<td>0.247</td>
<td>0.070</td>
</tr>
<tr>
<td>10.</td>
<td>Proportion of persons below 75% of the poverty level</td>
<td>0.131</td>
<td>0.082</td>
<td>0.499**</td>
<td>0.214</td>
</tr>
<tr>
<td></td>
<td><strong>Housing</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Proportion of rental units</td>
<td>0.397</td>
<td>0.202</td>
<td>-0.207</td>
<td>-0.059</td>
</tr>
<tr>
<td>12.</td>
<td>Median contract rent</td>
<td>634.80</td>
<td>171.95</td>
<td>-0.230*</td>
<td>-0.277**</td>
</tr>
<tr>
<td>13.</td>
<td>Proportion of median contract rent to median household income</td>
<td>30.74</td>
<td>3.32</td>
<td>-0.012</td>
<td>-0.039</td>
</tr>
<tr>
<td>14.</td>
<td>Proportion of renter occupied housing units with rent less than $100a</td>
<td>0.023</td>
<td>0.026</td>
<td>-0.145</td>
<td>-0.164*</td>
</tr>
<tr>
<td>15.</td>
<td>Proportion of renter occupied housing units recently moved</td>
<td>0.151</td>
<td>0.070</td>
<td>-0.133</td>
<td>-0.139</td>
</tr>
<tr>
<td>16.</td>
<td>Proportion of housing units with more than two persons/rooma</td>
<td>0.037</td>
<td>0.027</td>
<td>-0.377**</td>
<td>-0.537***</td>
</tr>
<tr>
<td></td>
<td><strong>Dependent variable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Proportion of residential origins of homeless men</td>
<td>0.901%</td>
<td>1.161%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Proportion of residential origins of homeless women</td>
<td>0.901%</td>
<td>1.455%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N = 111 census tract groups. *Expressed in logarithmic form. *p < 0.1. **p < 0.05. ***p < 0.01.
significant and positively associated with the rate of homelessness among men. This variable, as expected, is not significantly associated with the rate of homelessness among women.

The ratios of poor people and households with public assistance income are significantly and positively associated with the rate of homelessness among men. These economic variables are in the predicted positive direction but are not significantly associated with the rate of homelessness among women. The median household income is opposite to that predicted, it has a positive effect with the rate of homelessness among men and women, but is not statistically significant.

Among the housing factors, the ratio of housing crowding is the most important predictor. Contrary to the hypothesis, tracts with more housing crowding are less likely to produce both homeless categories. Median contract rent is the second strongest predictor among housing variables and in the predicted negative direction. This suggests that homeless men and homeless women in Miami-Dade County come from neighborhoods with less housing crowding and lower median contract rent.

The proportion of renter-occupied housing units with rent less than $100 is significant and in the predicted negative direction with the rate of homelessness among women, but is not significant among men. The coefficients for the proportion of rental units, the rent-to-income ratio and renter-occupied housing units recently moved are not significant for both homeless categories.

Discussion

The spatial analyses of the residential origins of homeless men and homeless women show that those of homeless women are equally distributed in the northern parts and the southern parts of Miami-Dade County; and those of homeless men are heavily concentrated in the northern parts of the county in which the people with extreme poverty are highly concentrated. Census tracts with a high proportion of people below 75% of the poverty level are mostly located in the northern parts of Miami-Dade County. There are fewer census tracts with a high proportion of people below 75% of the poverty level in the southern parts than in the northern parts of Miami-Dade County.

The statistical tests for differences in the residential origins distribution between homeless women and homeless men reveal the significant differences at the \( p \leq 0.05 \) level. The hot-spot analyses also reveal the differences in the concentration and density of the residential origins between homeless men and homeless women. Many homelessness studies have identified the gender differences in many respects, but none of them identifies the differences in the residential origins. This study is the first study investigating the gender differences in the residential origins of homeless people and reveals that homeless women and homeless men have statistically significant difference in their residential origins. The residential origins can be a new dimension of the gender perspective on homelessness.

The hot-spot analyses provide the concentration and density variation of the residential origins of homeless men and homeless women. The areas with high risk
of producing homeless women and homeless men are identified and these areas can be designated as the target areas of services for preventing homelessness.

The regression results reveal the neighborhood-level factors explaining the spatial distribution of the residential origins of homeless men and homeless women. The rate of homelessness among men from an area increases with the proportion of Hispanics and African Americans. These results are predicted because previous studies indicate that areas with a high concentration of minorities, African American or Hispanics, are strongly and positively associated with the rate of the incidence of homelessness (Culhane et al., 1996; Wong & Hillier, 2001). Hispanics and African Americans encounter the disadvantages because of segregated residential that increase their vulnerability to homelessness and poverty (Culhane et al., 1996; Lee et al., 2003). The poverty rates for Hispanics and African American in metropolitan areas are higher than those of non-Hispanic whites (Altshuler et al., 1999). African Americans and Hispanics living in concentrated poverty neighborhoods may receive neighborhood effect that affects their employment prospects (Altshuler et al., 1999; Ihlanfeldt, 1999). The difference in the quality of geography of opportunity between minority neighborhoods and white neighborhoods leads to a growing gap in real median family income between those segregated neighborhoods. The proportions of African Americans and Hispanics are also positively associated with the rate of homelessness among women, but are not statistically significant.

Areas with higher concentrations of female-headed households with children under 6 years old, as expected, are more likely to produce homeless women. Single women with young children make up the majority of homeless families and account for more than 30% of the homeless population (Burt et al., 2002). Takahashi (1996) and Early (2005) clearly indicate that female-headed households with young children are at risk of homelessness. Culhane et al. (1996) also identify that areas with high concentrations of female-headed households with young children are strongly and positively related to the rate of shelter admission. The regression results provide empirical support for the hypothesis that female-headed households with young children are a subpopulation who is at risk of homelessness. Such a finding suggests that areas with high concentrations of female-headed households with young children should be targeted for homelessness prevention interventions for women. A high concentration of households with young children in such neighborhoods at risk of homelessness also suggests the importance of the developmental stage of these families in designing and targeting homelessness prevention interventions.

The findings indicate that areas with higher concentrations of unemployed female are more likely to produce homeless women. Unemployed women are at greater risk of homelessness because of domestic violence. Unemployed women are at higher risk of severe violence than part-time employed or full-time employed women (Frias & Angel, 2005). Women who have no jobs will more likely to become homeless immediately after separating from their partners (Baker et al., 2003). This study suggests that neighborhoods with relative isolation and segregation of unemployed women are more likely to generate homeless women. Such neighborhoods tend to be socially isolated from conventional society. Residents in these areas 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.

The regression results indicate clearly that economic factors are significant and positively associated with the rates of homelessness among men, but are not significant among women. This finding suggests that areas with higher concentrations of poor people are more likely to produce homeless people, particularly homeless men. The results also provide empirical support for the hypothesis that the spatial distribution of the residential origins of homeless men is more heavily concentrated in neighborhoods of high poverty than that of homeless women.

Most housing variables are significantly related to the rate of homelessness among both men and women. Such a finding clearly indicates that homelessness among men and women is a housing problem. It also supports the findings from other studies (Burt, 2002; Dolbeare, 1996; Early & Olsen, 2002; Lee et al., 2003). Burt (2002, p. 8) argues that housing affordability is ‘the immediate cause of homelessness’.

Among the housing factors, the proportion of housing crowding is the most important predictor, but opposite to the predicted direction. The finding, together with the significance and negative direction of the subfamilies variable, suggests that fewer homeless men and homeless women come from areas that are more crowded and from subfamilies. Further analysis regressing the rate of homelessness on the explanatory variables in low-income census tract groups does not reverse the unexpected direction of overcrowding and subfamily variables. The results indicate that doubling up is one way for people on the brink of homelessness to not turn to shelters and the streets. These people will exhaust their social network to avoid homelessness.

The regression results indicate that median contract rent and the proportion of renter-occupied housing units with very low rent are significant and in the predicted negative direction. This suggests that areas with higher median contract rent are less likely to produce homeless men and homeless women. Areas with a higher proportion of renter-occupied housing units with affordable rent, as expected, are less likely to produce homeless men and homeless women. This finding indicates that the shortage of low-rent housing is an important cause of homelessness among men and women. The incidence of homelessness can be perceived as a mismatch between the scarce affordable housing rental units and the excessive supply of poor people (Hopper, 2003). This finding supports previous studies on the prevention of homelessness; expanding housing subsidies and the supply of affordable rental units are effective strategies for preventing homelessness (Shinn & Baumohl, 1999; Shinn et al., 2001; US Department of Housing and Urban Development, 2005).

**Implications for Planning**

The Homeless Prevention program in Miami-Dade County has two components: Homeless Helpline and rental assistance. Homeless Helpline is a toll-free
number providing information and referrals to persons in Miami-Dade who are
homeless or near-homeless. Miami-Dade County Homeless Trust publicizes the
Homeless Helpline by placing posters in various public places throughout the
county.

In most cases, the caseworkers of the Homeless Helpline try to refer people to
some of the larger rental assistance programs—that is, Emergency Financial
Assistance for Housing Program (EFAHP), which is funded by the Florida’s
Department of Children and Family, and the Emergency Food and Shelter (EFS)
Program. EFAHP provides a one-time payment of up to $400 to families who face
the loss of shelter because of non-payment of rent. The EFS program, funded by
Federal Emergency Management Agency, provides funding to many homelessness
programs for supporting homeless prevention services including rent/mortgage
assistance, utility assistance and food vouchers.

The rental assistance program is to help the persons near homeless get out a
situation where they cannot pay their rent. The program can pay up to $800 for 1
month’s rent. The total number of homeless individuals/families who receive
rental assistance from the program is about 120 per year. The Homeless
Prevention program in Miami-Dade County is located only in one location in
Downtown Miami. The clients need to come in-person to the office of the program
to receive assistance. This fact may disadvantage near-homeless people who live
in the southern part of the county. The current location of the homeless prevention
program may spoil the effort to prevent homelessness among women. Many
women who are on the brink of homelessness and live in the southern part of the
county may not able to access to the program because the location of the program
is too far from their residences.

The basic question facing the planners of homelessness prevention interventions
is where to target the intervention. The issues of targeting homelessness prevention
interventions have been discussed (Lindblom, 1991; Shinn et al., 2001) but there
has been no answer of where to target the intervention. The hot-spot analyses that
identify areas with high-risk of homelessness should address such a basic question.

The study clearly reveals that areas with high-risk of homelessness particularly
among women are also heavily concentrated in the southern part of the county. In
order to better prevent homelessness in Miami-Dade County, a new homeless
prevention center needs to be provided in the southern part of the county. The
possible location for a new homeless prevention center is in Homestead where a
high density of the prior addresses of the homeless people is identified.

Furthermore, this study provides the gendered information of the areas with
high risk of homelessness. Targeting homelessness prevention services to high-
risk areas will be more efficient than universal prevention (Shinn et al., 2001). The
areas with high risk of producing homeless women and homeless men are
identified and these areas can be designated as the target areas of services for
preventing homelessness. Downtown Miami, Homestead, Perrine and North
Miami are target areas for homeless women and homeless men. Miami Beach and
Sweetwater are target areas for homeless men, but not for homeless women.

This study identifies that neighborhoods with housing problems are at greatest
risk for generating homeless women and homeless men. The study recommends
that homelessness prevention interventions through housing and rental assistance
Gender Differences in Residential Origins of Homeless

or mediation services in housing problems be provided to those neighborhoods for preventing both homeless categories. The study also finds that neighborhoods with higher concentrations of female unemployment are more likely to produce homeless women. This finding suggests that the provision of employment training and placement services will prevent homelessness among women from those neighborhoods.

On a larger scale, planners can use the findings of this study to develop a comprehensive planning or neighborhood planning to address social equity issues in Miami-Dade County. Social equity issues have been a traditional focus of planning at the neighborhood level. Neighborhood planning that aims to create healthy social communities, empower neighborhood residents or develop neighborhood economies (Rohe, 2009) will benefit from the findings of this study. Neighborhood planning is an important complement to comprehensive planning (Rohe, 2009).

Conclusion

This study reveals that the spatial distribution of residential origins of homeless men and those of homeless women are statistically different. Such findings offer a new dimension that distinguishes homeless women from homeless men. The residential origin is one of several distinctive characteristics that distinguish homeless women from homeless men. Such gendered analysis can be useful in formulating more effective and targeted planning strategies for preventing homelessness.

The spatial analyses of residential origins identify areas at highest risk of generating homelessness among men and women. Areas with the highest risk of generating homeless men are heavily concentrated in the northern parts of the county and less dispersed in the southern parts of the county. Meanwhile, the residential origins of homeless women are concentrated in the southern parts of the county. Such results suggest that interventions to prevent homelessness should target both parts of the county equally to effectively prevent homelessness among women. The hot spots, areas with the highest density of the residential origins of homeless men and women, provide the answer of where to target the homelessness prevention interventions.

The findings have provided empirical support for several hypotheses regarding the influence of housing problems in generating homeless men and homeless women in Miami-Dade County. Areas with limited low-rent housing units are at greatest risk of generating homeless men and homeless women. The results suggest that the policy designed to expand housing assistance would significantly prevent homelessness among men and women.

The study also indicates areas with a high concentration of unemployed women as being at greatest risk of producing homelessness. Unemployed women are highly vulnerable to becoming homeless when they experience domestic violence. The findings also reveal that areas with a high proportion of female-headed households with young children are significantly and positively related to the rate of homelessness among women. The results suggest that homelessness prevention interventions should target areas with high concentrations of unemployed women.
and female-headed households with young children to more effectively prevent homelessness among families and single women.

Finally, this study provides empirical support for the policy implications as suggested by Culhane et al. (1996) that planners should take into account a geographic and population-targeted strategy in designing homelessness prevention interventions.

Notes
1. The steady expansion of the US Department of Housing and Urban Development’s McKinney-Vento program spending.
2. A similar method of joining several census tracts was also conducted by Archer et al. (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.
3. A detailed description of these statistical measures can be found in Levine (2004).
4. A subfamily is either a couple with our without their children or a single parent with one or more his/her own children.
5. Ihlanfeldt (1999) defines the geography of opportunity as the individuals’ opportunities, and life outcomes are affected where they live.

References
Gender Differences in Residential Origins of Homeless


