



Where Do Homeless People Come From?

Movement of Households from Their Prior Residences into Homeless Residential Facilities in Michigan in Iowa

April 1, 2017

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Introduction and Summary of Findings

This report examines the movement patterns of sheltered homeless households in Iowa and Michigan between October 1, 2007 and September 30, 2008. During that time, HUD required homeless residential facilities (i.e., emergency shelters and transitional housing programs) to collect the five-digit zip code of the apartment, room, or house where households last lived for 90 days or more prior to entering a homeless facility and enter that information in their Homeless Management Information System (HMIS). This analysis compares that zip code of prior address to the zip code of the first homeless residential facility clients used during the reporting period. With the help of Geographic Information Systems (GIS) analysis, the report shows movement patterns of homeless households between urban, suburban, and rural areas and across county and state boundaries. It also explores the impact of neighborhood conditions, including unemployment, poverty, and housing costs, on the number of households in a neighborhood that become homeless and use homeless shelters.

This report focuses on just two states, Michigan and Iowa because, at that relatively early state of implementation of the HMIS, they had well-populated, statewide, HMIS systems. HUD no longer requires communities to collect and submit information on the zip code of prior address. Thus, despite the fact that these data are 10 years old, they provide unique information on the migration patterns of people who become homeless. The analysis found that:

Households that became homeless in suburbs used homeless shelters in cities

This study found that the majority of homeless households whose last permanent residence was within a suburban area used a residential homeless facility within a principal city. This report does not address the issue of whether households move to principal cities in order to use homeless facilities. However, the findings do indicate that suburban areas have a more serious homeless problem than would be assumed from looking at the location of households in shelter. Accordingly, there may be a greater need for prevention and homeless assistance programs in suburban areas.

Iowa Homeless Programs Serve a High Proportion of Out-of-State Households

Nearly one in five households who used Iowa's homeless residential facilities came from another state. Many of these households resided just on the other side of the Iowa border, either in Omaha, Nebraska or the Quad Cities (Rock Island, Moline, and East Moline) in Illinois. However, Iowa homeless programs also served a significant number of households from Chicago, from other neighboring states, and from other parts of the country. In Michigan, fewer than 5 percent of households came from out-of-state.

Certain cities and counties attracted a high number of households from other areas. The location of homeless residential facilities, the availability of Section 8 and other mainstream assistance programs, residency requirements, the strength of seasonal and low-skill labor markets, and transportation routes may all play a factor. For example, this study provides some evidence that homeless programs located in university towns attract homeless households from outside counties and other states.

Households living in certain urban neighborhoods are disproportionately likely to become homeless and use homeless shelters

Within metropolitan areas, households who use homeless residential facilities are disproportionately likely to come from a handful of inner-city areas. In Wayne County, Michigan 22 percent county residents who used a homeless shelter had a prior address in the 48201 zip code. This zip code accounted for less than 1 percent of Wayne County's total population. In Polk County, Iowa 54 percent of sheltered homeless households came from one of three zip codes within central Des Moines. These three zip codes accounted for 14 percent of Polk County's total population.

In Michigan, the neighborhoods where residents are most likely to live before entering a homeless residential facility have a high proportion of inexpensive rental housing and single women with young children. In Iowa, residents of neighborhoods with a higher percentage of Hispanics and African-Americans are more likely to use a homeless residential facility. Prevention efforts that successfully focus on households in these neighborhoods will have the biggest effect on reducing homelessness.

About this Study

The data used for this study come from local Homeless Management Information Systems (HMIS), which are electronic data systems designed to record and store individual-level information on the characteristics and service needs of homeless persons. An HMIS can cover different geographic areas—ranging from a single city to an entire state—depending on how localities choose to implement these systems. The data used for this study come from Michigan and Iowa, which both have statewide HMIS systems.

Iowa and Michigan were selected for participation in the study because these states have well developed and managed HMIS systems. Both states also have high HMIS bed coverage rates—more than 75 percent of beds for homeless persons were covered in their system—and low levels of missing data.

The data account for people who used an emergency shelter or transitional housing at some point between October 1, 2007 and September 30, 2008. Prior to data collection, local HMIS data managers de-duplicated the individual-level records and scrubbed them of all personal identifiers, including name, date of birth, and social security number.

There are three important caveats to the data used in this study. First, while the data covers 100 percent of counties in Iowa, only 42 percent of counties in Michigan provided data. Exhibit 1 provides a map of participating and non-participating counties in Michigan. Although only 35 of Michigan's 83 counties participated in the study, these counties account for 71 percent of Michigan's total population. The counties that did not participate in this study were predominantly rural.

Second, among participating counties in Iowa and Michigan, not all homeless facilities provided data. The Violence Against Women Reauthorization Act prevents domestic violence service providers from participating in HMIS. Domestic Violence (DV) programs accounted for 21 percent of homeless residential facility beds in both Iowa and Michigan, and people using those beds are not included in this study. Also, among non-DV programs, 17 percent of homeless beds in Iowa and 18 percent of homeless beds in Michigan were not participating in HMIS and thus are not included in the study.

Third, a few key variables in the data have missing or invalid information. In particular, the study uses the client's zip code of last permanent address to ascertain where a person was last stably housed. This variable is defined as the five-digit zip code of the apartment, room, or house where the client last lived for 90 days or more.¹ All homeless programs are required to collect this information for all adults and unaccompanied youth upon entering a program (or as soon as possible thereafter). Approximately 21 percent of records in Iowa and 1 percent of the records in Michigan had missing or invalid zip codes. After deleting these records, the final dataset contained data on 13,414 Michigan households and 5,957 Iowa households. In Michigan, 85 percent of households were comprised of households with only adults and 15 percent of households had both adults and children. In Iowa, 78

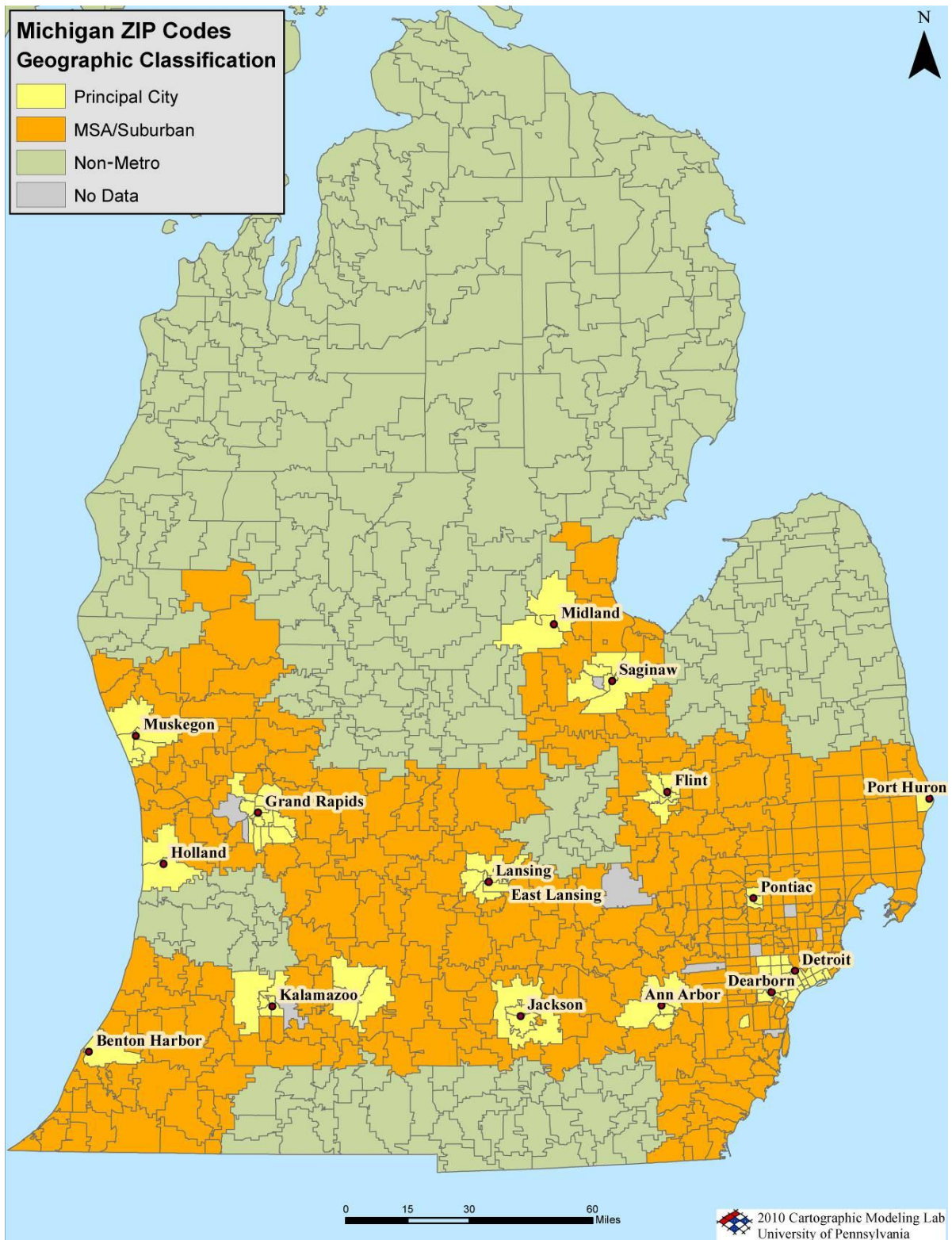
¹ HMIS Data and Technical Standards (69 FR 45888, July 30, 2004),

The HMIS dataset included variables showing the zip code of each household's last permanent address before becoming homeless and the zip code of the homeless residential facility where they stayed. This dataset was merged with other publicly available datasets to understand the geographic type (urban, suburban, and rural) and neighborhood characteristics (e.g., poverty rates, housing costs) of each Michigan and Iowa zip code.

This report relies on the Office of Management and Budget (OMB's) list of Metropolitan Statistical Areas (MSAs) to designate zip codes as urban, suburban, or rural. Zip codes that are located within the principal city of an MSA are classified as urban. Zip codes that are within an MSA but not within a principal city are classified as suburban. Zip codes that are not located within an MSA (i.e., non-metropolitan areas) are considered rural. Clients who reported a last permanent zip code in a different state from where they last used a homeless residential facility were coded as out-of-state. Exhibits 2A and 2B show the urban, suburban, and rural areas in Michigan and Iowa. Most of the southern half of Michigan is either urban or suburban, while the northern half is entirely rural. Iowa is predominantly rural, although there are some large suburban rings around its principal cities.

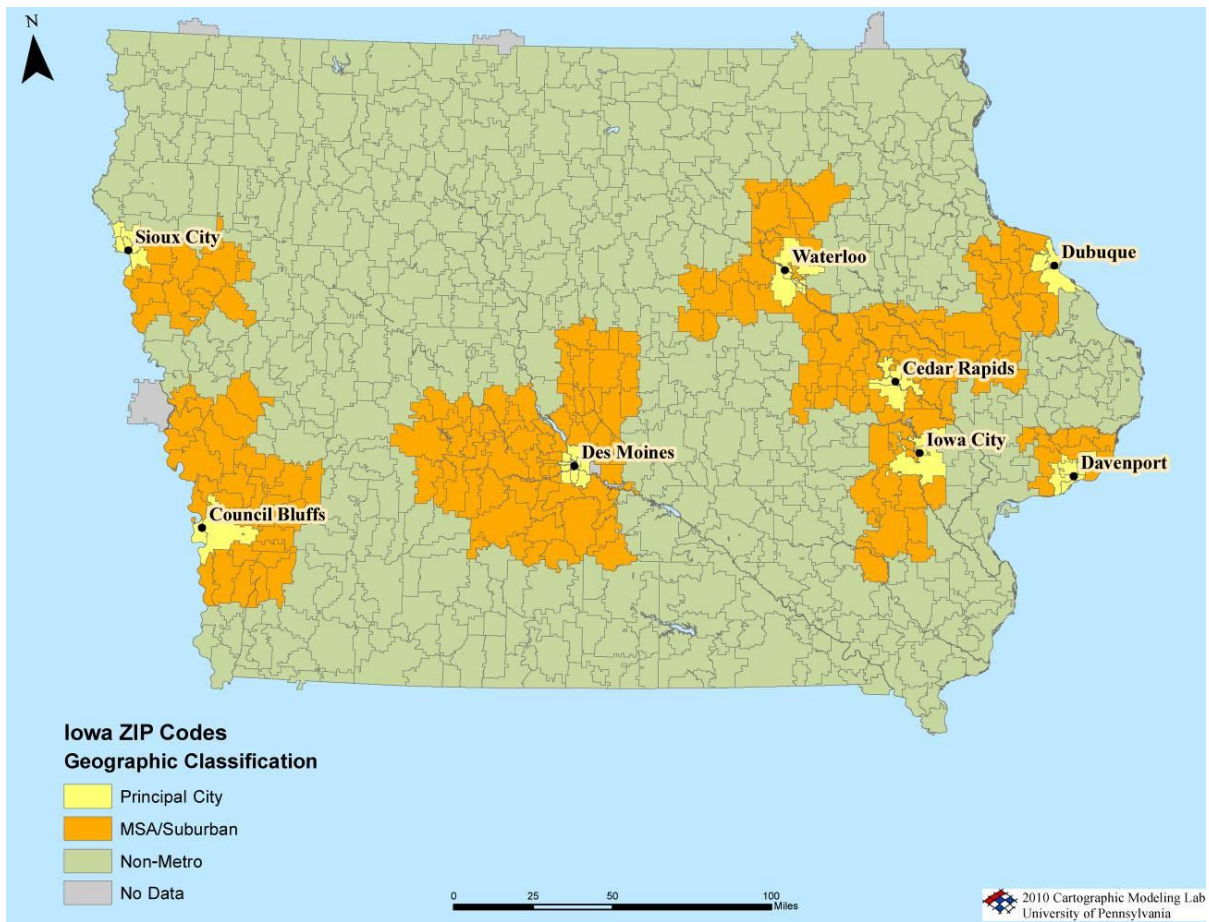
The HMIS dataset was merged with Census 2000 zip code (ZCTA) level data to understand the neighborhood characteristics of the places households lived before becoming homeless. The Census data provided information on the zip code's total population, demographic, economic, and housing market characteristics. This information was used to understand the effect of neighborhood characteristics on the likelihood that a resident of that zip code will become homeless and use a homeless residential facility.

Exhibit 2A. Map of Michigan by Geographic Classification



Source: Geographic designations are based on OMB Bulletin No. 10-02: Update of Statistical Area Definitions and Guidance on Their Uses.

Exhibit 2B. Map of Iowa by Geographic Classification



Source: Geographic designations are based on OMB Bulletin No. 10-02: Update of Statistical Area Definitions and Guidance on Their Uses.

Results

The Characteristics of Households' Zip Code of Prior Address

This section examines the types of areas households were living in immediately prior to entering a residential homeless facility. First, the section explores whether households were living in urban, rural, or suburban areas. Then, the section investigates whether certain neighborhood characteristics, such as poverty, unemployment, or housing market conditions, affect the likelihood that neighborhood residents will become homeless and use a shelter.

Exhibit 3 shows where homeless households last lived prior to entering a homeless residential facility and compares it to the residences of total population and the population living below the poverty line. In both states, homeless households are more likely than poor households and much more likely than all households to be living in urban areas.

In Michigan, 58 percent of homeless households' were living in an urban area prior to entering a homeless residential facility, 29 percent lived in suburban areas and 13 percent lived in rural areas. Compared to all Michigan households with incomes below the poverty line, homeless households were more likely to have lived in urban areas before entering a homeless residential facility (58 percent versus 50 percent) and less likely to have lived in a suburban or rural area. Compared to all Michigan households, homeless households were twice as likely to have lived in an urban area (58 percent versus 29 percent), and almost half as likely to have lived in a suburban area (29 percent versus 53 percent).

In Iowa, nearly two-thirds (65.6 percent) of homeless households were living in an urban area prior to entering a homeless residential facility. By contrast, less than one-third of poor households and 27 percent of all households in Iowa live in urban areas. Conversely, nearly half (46 percent) of poor people in Iowa lived in rural areas, but only 21 percent of homeless households came from rural areas.

Exhibit 3: Prior Residence of Homeless Households Compared to Total and Poverty Population

	Urban Areas (Principal Cities)	Suburban Areas (Balance of Metropolitan Statistical Areas)	Rural Areas (Non-Metropolitan Areas)
Homeless Households in Michigan* (n = 12,690)			
Sheltered homeless households	57.6%	29.3%	13.1%
Michigan households below the poverty line	49.6%	32.5%	17.9%
All Michigan households	29.0%	53.1%	17.8%
Homeless Households in Iowa* (n = 4,889)			
Sheltered homeless households	65.5%	13.7%	20.8%
Iowa households below the poverty line	32.6%	21.3%	46.1%
All Iowa households	27.1%	26.6%	46.3%

Source: Location types are based on the Office of Management and Budget's definition of Metropolitan Statistical Areas from December 2009. The total and poverty populations for each state are from the 2009 American Communities Survey. The prior and service zip codes of homeless households are based on HMIS records of households that used emergency shelter and transitional housing between October 1, 2007 and September 30, 2008.

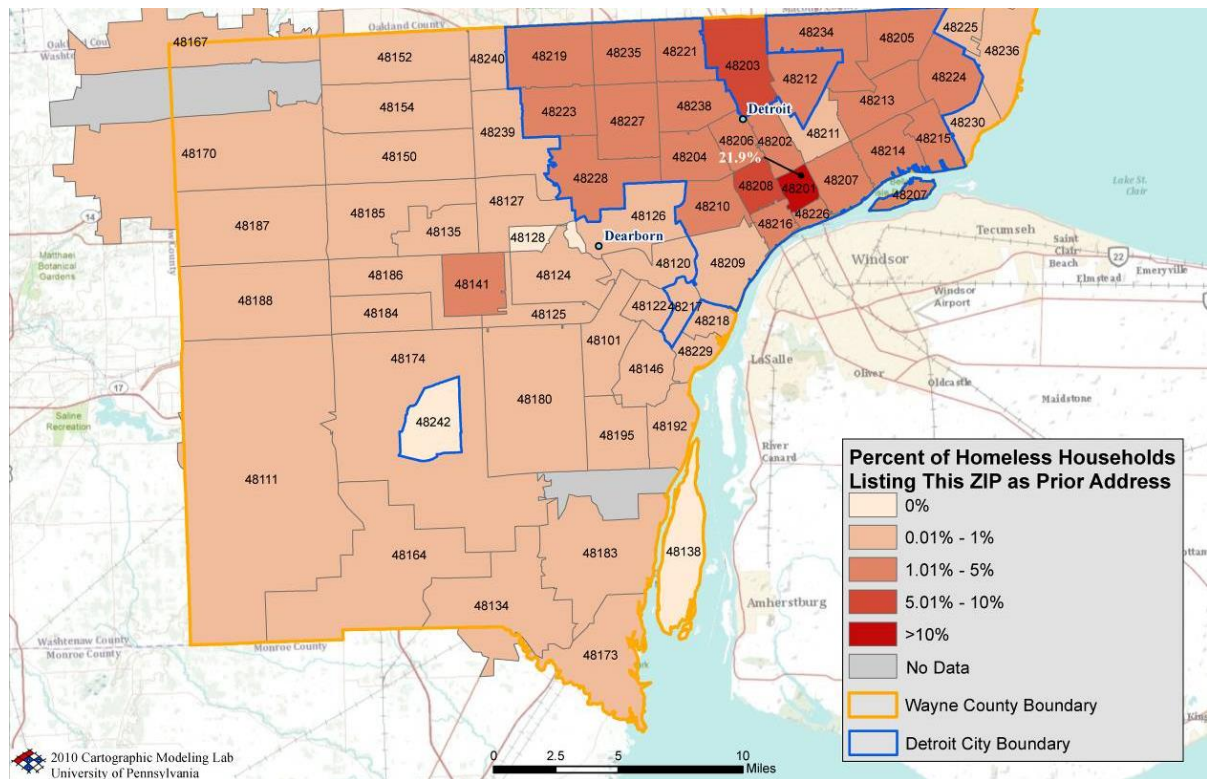
* For this Exhibit, homeless households are only included if they had a valid in-state prior zip code and service zip code. This excluded 822 households in Michigan and 1,168 households in Iowa

Exhibits 4 and 5 show the zip code of last permanent residence for households that used homeless residential facilities in Wayne County, Michigan and Polk County, Iowa. These Exhibits do not include households from other counties who used homeless programs in Wayne County or Polk County, nor do they include households from Wayne County or Polk County that used homeless facilities in other areas. These Exhibits show that, within metropolitan areas, there are a cluster of urban neighborhoods whose residents are most likely to become homeless and use a homeless residential facility.

In Wayne County, 37 percent of sheltered homeless households were living in one of three zip codes — two in Detroit and one just over the border in Highland Park — immediately prior to entering a shelter. These zip codes accounted for only 3.5 percent of Wayne County's total population and 8.4 percent of its poverty population. This means that poor households living in these neighborhoods were more than 5 times more likely to use a homeless residential facility than poor households living in other neighborhoods within Wayne County.

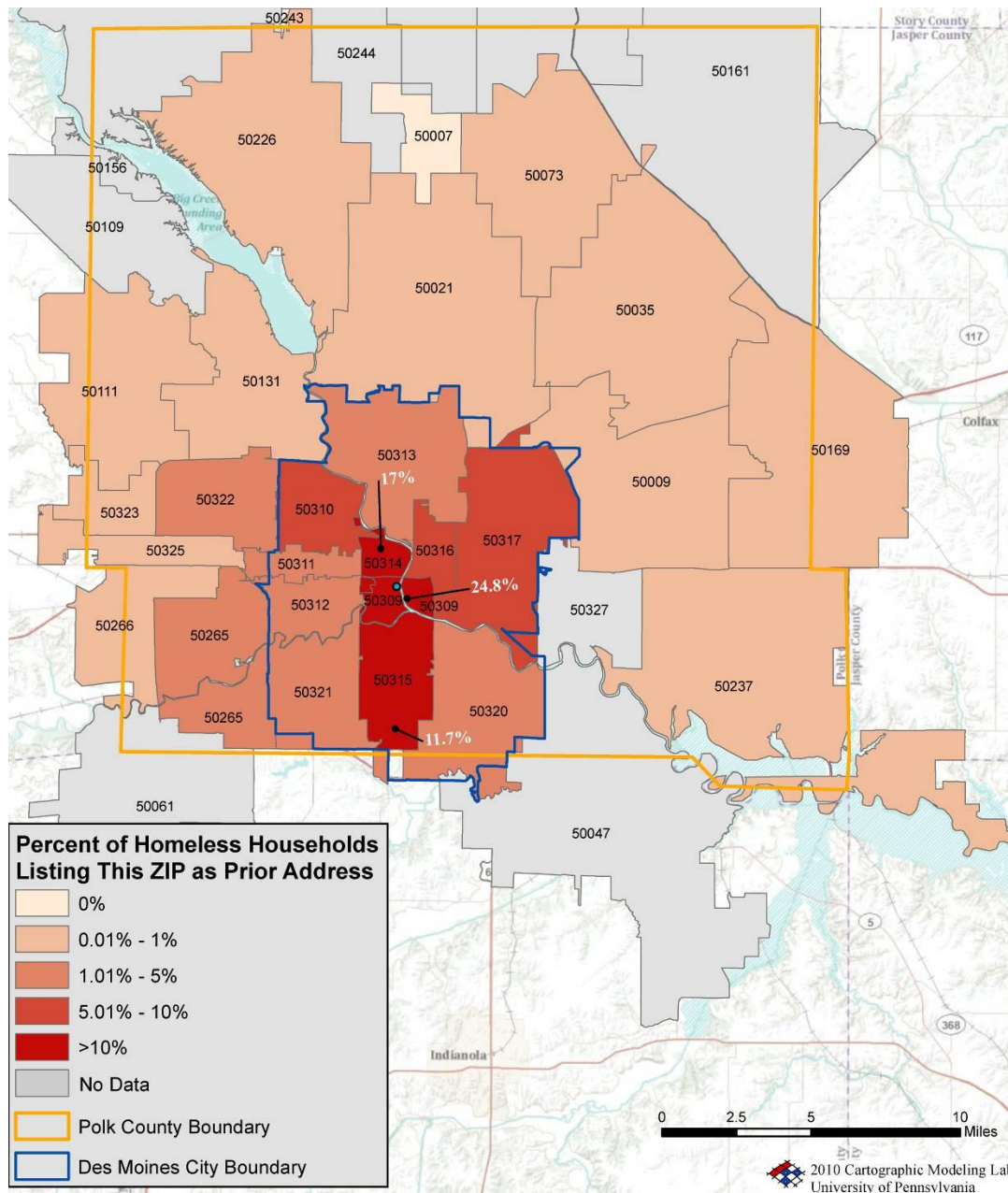
Fifty-four percent of households who used homeless residential facilities in Polk County had a prior address in one of three zip codes, all contiguous and located in the center of Des Moines (Exhibit 5). These three zip codes account for 14 percent of Polk County's total population and 27 percent of its poverty population.

Exhibit 4. Zip Codes of Origin for Homeless Households with a Prior Address within Wayne County



Source: The % of homeless households from Wayne County that cited each zip code as their 'zip code of last permanent address' from HMIS data on households using emergency shelter or transitional housing in Michigan between October 1, 2007 and September 2008.

Exhibit 5. Zip Codes of Origin for Homeless Households with a Prior Address within Polk County



Source: The % of homeless households from Polk County that cited each zip code as their 'zip code of last permanent address' from HMIS data on households using emergency shelter or transitional housing in Michigan between October 1, 2007 and September 2008.

Exhibit 6 shows how particular neighborhood characteristics affect the likelihood that neighborhood residents will become homeless and use a homeless residential facility. The models do not account for households that become homeless but do not use a homeless residential facility or who use a homeless residential facility in another state.

The Marginal Effects in Exhibit 6 show the effect of an incremental change in the neighborhood characteristic on the number of households from that zip code that used a homeless residential facility within the state during the reporting period. For example, in Iowa, zip codes located in Des Moines had approximately 15 additional households use homeless residential facilities compared to similar zip codes located outside Des Moines.

In both states, households were more likely to use a homeless residential facility if a facility was located within their county. This was the only neighborhood characteristic that had a significant effect on homelessness in both Michigan and Iowa.

In Michigan, the availability of inexpensive rental housing and the proportion of single mothers with young children made it more likely that neighborhood residents would use a homeless residential facility. In Iowa, residents of neighborhoods with a high percentage of African-American and Hispanic households were more likely to use homeless residential facilities while residents of neighborhoods with higher rates of foreign-born households and overcrowded housing units were less likely to use homeless residential facilities.

The negative relationship between overcrowding and homelessness may seem counter-intuitive because “doubling-up” is often considered a precursor to becoming literally homeless. However, it could be the result of an “immigration protection effect”, whereby immigrant populations form strong social networks and tend to take struggling households into their own homes rather than have them use homeless shelters (Culhane, Lee, and Waechter 1996).

Although homelessness predominantly affects the poor, the poverty rate of a zip code was not significantly related to the risk of homelessness in either state, after controlling for other factors. In other words, households living in poor neighborhoods were not more likely to become homeless unless those neighborhoods also had high rates of single mothers and inexpensive rental housing (Michigan) or Hispanics and African-Americans (Iowa). The following characteristics were also found not to significantly affect homelessness in the regression model: the percent of adults who were unemployed, the percent of adults without a high school degree, the percent of vacant housing units, and whether the zip code was in an urban, suburban, or rural area.

Exhibit 6. Neighborhood Factors Associated with Risk of Homelessness

	Michigan	Iowa
Description	Marginal Effect	Marginal Effect
% of population that is African-American	.109 (1.22)	0.561*** (7.26)
% of households that are single-female head of households with children under 6	0.911*** (2.72)	0.502 (1.36)
% of population that are foreign-born households	-0.0239 (-0.10)	-0.694*** (-3.17)
% of population that are Hispanic households	0.112 (0.56)	0.715*** (3.04)
Median contract rent (in \$100 dollars)	-6.61*** (-3.03)	-1.27 (-1.09)
% of housing units that are rentals	0.413*** (2.80)	0.01 (0.12)
% of housing units with a ratio of two or more people per bedroom	0.164 (0.06)	-6.17** (-2.01)
% of population living in group quarters	0.134 (0.36)	0.408*** (2.80)
Is Zip Code located in Des Moines or Detroit?	1.58 (0.36)	15.4** (2.17)
Is zip code located in a county without a shelter?	-10.3*** (-3.88)	-33*** (-9.68)

+ The following variables were not significantly associated with homelessness in this model: % of population 25 years or older without a high school degree, % of population 18 years or older that is unemployed, % of households living below the poverty line, median household income, % of housing units that are vacant, whether the zip code was located in a principal city, suburban, or rural area.

(d) The dummy variables used are: zip code not located in Des Moines/Detroit, Zip code of origin does have a participating shelter.

Standard errors in parentheses

* = Significant at the .1 level, ** = significant at the .05 level, *** = significant at the .01 level.

Source: Data on neighborhood characteristics are from the Census 2000 zip code (ZCTA) level data. Geographic designations (urban, suburban, rural) are based on OMD Bulletin No. 10-12: Update of Statistical Area Definitions and Guidance on Their Uses. The dependent variable, number of households that became homeless from that zip code, is based on HMIS data on the prior zip code of homeless households that used emergency shelter or transitional housing between October 1, 2007 and September 30, 2008.

Where do People Go to Use Homeless Programs?

This section looks at the movement of homeless households from their last permanent residence to a homeless residential facility. First, this section looks generally at the movement of households between urban, suburban, and rural areas. Then the section uses GIS mapping techniques to analyze movement patterns both within and across state lines.

Exhibit 7 compares the prior residence of homeless households in Iowa and Michigan to the location where they entered a residential homeless facility. This Exhibit does not include households whose prior residence was in another state. In both states, there is a pattern of households from suburban areas using homeless residential facilities in urban areas. In Michigan, 29 percent of sheltered homeless households'

last residence was in a suburban area but only 20 percent of households used a homeless residential facility in a suburban area. Similarly, in Iowa 14 percent of sheltered homeless households came from a suburban area but only 7 percent used a homeless residential facility in a suburban area.

Exhibit 7: Location of Homeless Households Compared to Total and Poverty Population

	Urban Areas (Principal Cities)		Suburban Areas (Balance of Metropolitan Statistical Areas)		Rural Areas (Non- Metropolitan Areas)	
	Number	%	Number	%	Number	%
Sheltered Homeless Households in Michigan						
Location of Prior Residence	7,309	57.6%	3,718	29.3%	1,662	13.1%
Location of Homeless Program	8,604	67.8%	2,589	20.4%	1,497	11.8%
Sheltered Homeless Households in Iowa						
Location of Prior Residence	3,202	65.5%	670	13.7%	1,017	20.8%
Location of Homeless Program	3,760	76.9%	352	7.2%	777	15.9%

Source: Location types are based on the Office of Management and Budget's definition of Metropolitan Statistical Areas from December 2009. The prior and service zip codes of homeless households are based on HMIS records of households that used emergency shelter and transitional housing between October 1, 2007 and September 30, 2008. For this Exhibit, homeless households are only included if they had a valid in-state prior zip code and service zip code. This excluded 822 households in Michigan and 1,168 households in Iowa

Exhibit 8 provides more detailed information on the movement of households from their prior residence to homeless facilities. The left hand column shows the type of areas where households were living before becoming homeless and the columns on the right show the type of areas where these households used homeless facilities. In most cases, households from urban areas used homeless residential facilities in urban areas, while households from rural areas used facilities in rural areas. However, households from suburban areas typically used homeless residential facilities in urban areas.

In Iowa, 3,200 households from urban areas used a homeless residential facility within the state. Of these 3,200 households: 93.9 percent used a homeless facility in an urban area, 3.7 percent used a facility in a suburban area, and 2.5 percent used a rural facility. By contrast, of the 671 homeless households from suburban areas, only 25 percent used a residential facility in a suburban area, while 70 percent used a homeless facility in an urban area. Two-thirds of homeless households from rural areas used a homeless facility in a rural area and 28 percent used a facility in an urban area. More than 80 percent of homeless households whose prior residence was outside of Iowa used a homeless residential facility in an urban area.

In Michigan, as in Iowa, over 90 percent of homeless households whose prior residence was an urban area also used a homeless residential facility in an urban area. Nearly half (45 percent) of homeless households from suburban areas used a homeless residential facility in an urban area, while almost 85 percent of homeless households from rural areas used a homeless residential facility in a rural area.

Exhibit 8. Movement of Homeless Households' From Their Prior Address to Their Homeless Residential Program

Zip Code of Last Permanent Address	Zip Code of homeless residential facility			
	N	Principal City	Suburban Area	Non-metropolitan Area
	#	%	%	%
All Sheltered Households				
Iowa				
Principal City	3,200	93.9	3.7	2.5
Suburban Area	671	70.2	25.0	4.8
Non-Metropolitan Area	1,018	27.7	6.6	65.7
Out of State	1,123	81.2	9.8	9.0
Michigan				
Principal City	7,308	91.8	7.6	0.6
Suburban Area	3,720	45.0	53.6	1.4
Non-Metropolitan Area	1,662	13.1	2.4	84.5
Out of State	654	71.1	11.5	17.4

Source: Location types are based on the Office of Management and Budget's definition of Metropolitan Statistical Areas from December 2009. The prior and service zip codes of homeless households are based on HMIS records of households that used emergency shelter and transitional housing between October 1, 2007 and September 30, 2008.

Movement across Counties and States

Exhibit 9 shows the percentage of households in Iowa and Michigan homeless residential facilities whose last permanent address was in another county or state. The data on moves across states is incomplete because it does not include households from Iowa or Michigan who used homeless residential facilities in another state.

In Michigan, 77 percent of households who used a homeless residential facility had a prior address in the same county, 18 percent had a prior address in a different county in Michigan, and 5 percent had a prior address outside of Michigan. In Iowa, 64 percent of households who used a homeless residential facility had a prior address in the same county, 17 percent had a prior address in a different county within the state, and 19 percent had a prior address in another state. These findings suggest a high level of mobility among households in homeless residential facilities.

Exhibit 9: Movement of Homeless Households across Zip Codes, Counties, and States

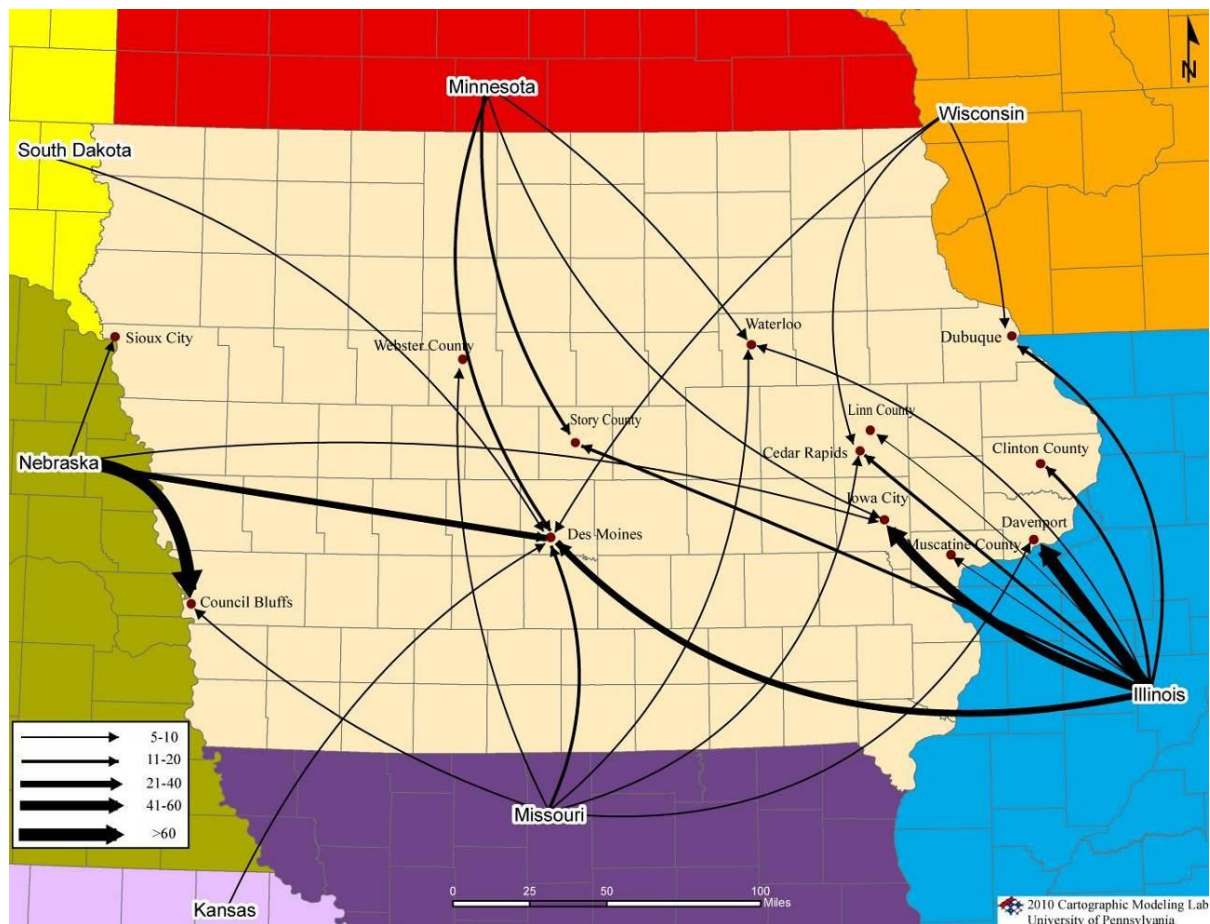
Homeless Facility is Located in...			
	The Same County as Prior Zip Code	A Different County in the Same State	A Different State
	%	%	%
Michigan Households	77.4%	18.1%	4.8%
Iowa Households	64.3%	17.1%	18.5%

Source: HMIS records of households that used emergency shelter and transitional housing between October 1, 2007 and September 30, 2008.

Exhibit 10 maps the movement of households from neighboring states into Iowa: the thicker the arrow, the greater the number of households coming from that state to each location. Moves made by fewer than five households are not shown on this map. To avoid clutter, the map shows only the state, and not the originating city or county, for out-of-state households.

Not surprisingly, Iowa cities close to borders areas such as Council Bluffs, Davenport, and Dubuque received a large number of households from neighboring states. However, Des Moines, which is located in the center of the state, attracted the most out-of-state households. Des Moines was the only city in Iowa to attract five or more households from each of its neighboring states. Two university towns, Iowa City and Ames (in Story County) attracted 5 or more households from multiple states, as did Waterloo and Cedar Rapids.

Exhibit 10. Movement of Homeless Households from Neighboring States into Iowa



Source: HMIS data on households using emergency shelter or transitional housing in Iowa between October 1, 2007 and September 2008.

Exhibit 11 shows the eight most common movements of homeless households from out-of-state into Iowa. The two most common moves were from Omaha, on the eastern border of Nebraska, into Council Bluffs and from Rock Island, part of the Illinois-Iowa quad cities, into Davenport. The third most common movement was from Chicago into Iowa City. This move is not explained by geographical proximity, since there are other Iowa cities closer to Chicago. Further research would be needed to explain why a large number of households from Chicago use homeless residential facilities in Iowa City.

Iowa also attracted households from non-neighboring states not shown in Exhibit 10. Des Moines attracted the most households from non-neighboring states (137), followed by Iowa City (72), and Story County (59).

Exhibit 11. Most Common Movements of Out-of-State Households into Iowa

Route	Number of Households
Rock Island, IL → Davenport	50
Omaha, NE → Council Bluffs	48
Chicago, IL → Iowa City	43
Moline, IL → Davenport	20
Chicago, IL → Des Moines	13
Omaha, NE → Des Moines	13
Chicago, IL → Davenport	12
Babcock, IL → Davenport	11

Source: HMIS records of prior zip codes and service zip codes of households that used emergency shelter or transitional housing in Iowa between October 1, 2007 and September 30, 2008.

Michigan, because it is a peninsula with no major cities that border other states, and also possibly because it is the only state in the US with a population decrease between 2000 and 2010, did not attract a significant number of households from out of state.

Mapping Movements to Homeless Facilities from In-State Households

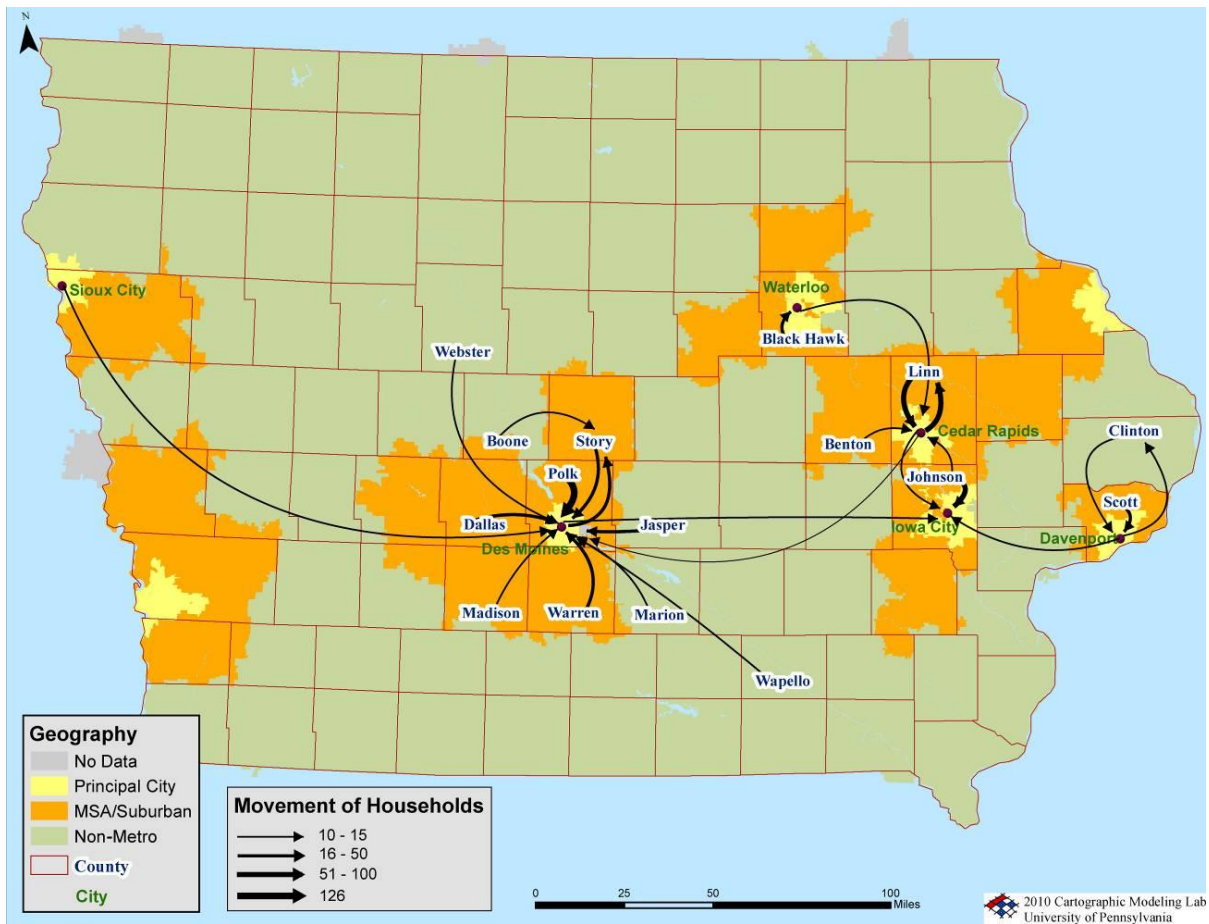
Exhibits 12 and 13 show the movement of homeless households within Iowa and Michigan. These maps show households that moved from one county to another within the state and households that moved within a county from the principal city to a suburban area or vice versa. Unlike Exhibit 10, these maps show movement both to and from each location. These maps only show movements of 10 or more households.

Nearly all of the movement within Iowa was into principal cities. Des Moines attracted homeless households across Iowa. The most common intrastate movement (126 households) was from suburban parts of Polk County into the central city: Des Moines. The City of Des Moines also attracted 10 or more households from 10 other counties in Iowa.

Iowa City and Cedar Rapids both acted as regional hubs for homeless households. Iowa City facilities served 10 or more homeless households from Davenport, Cedar Rapids, and suburban areas within Johnson County. Cedar Rapids attracted 10 or more households from suburban Linn County, Benton County, and Johnson County. Iowa City did not have any significant outflow of households using homeless residential facilities in other areas. In contrast, more than 10 households moved from Cedar Rapids to other parts of Linn County.

There was also a significant amount of movement within rural counties in Iowa that is not shown in Exhibit 12 because none of the movements occurred among ten or more households.

Exhibit 12. Movement of Homeless Households within Iowa



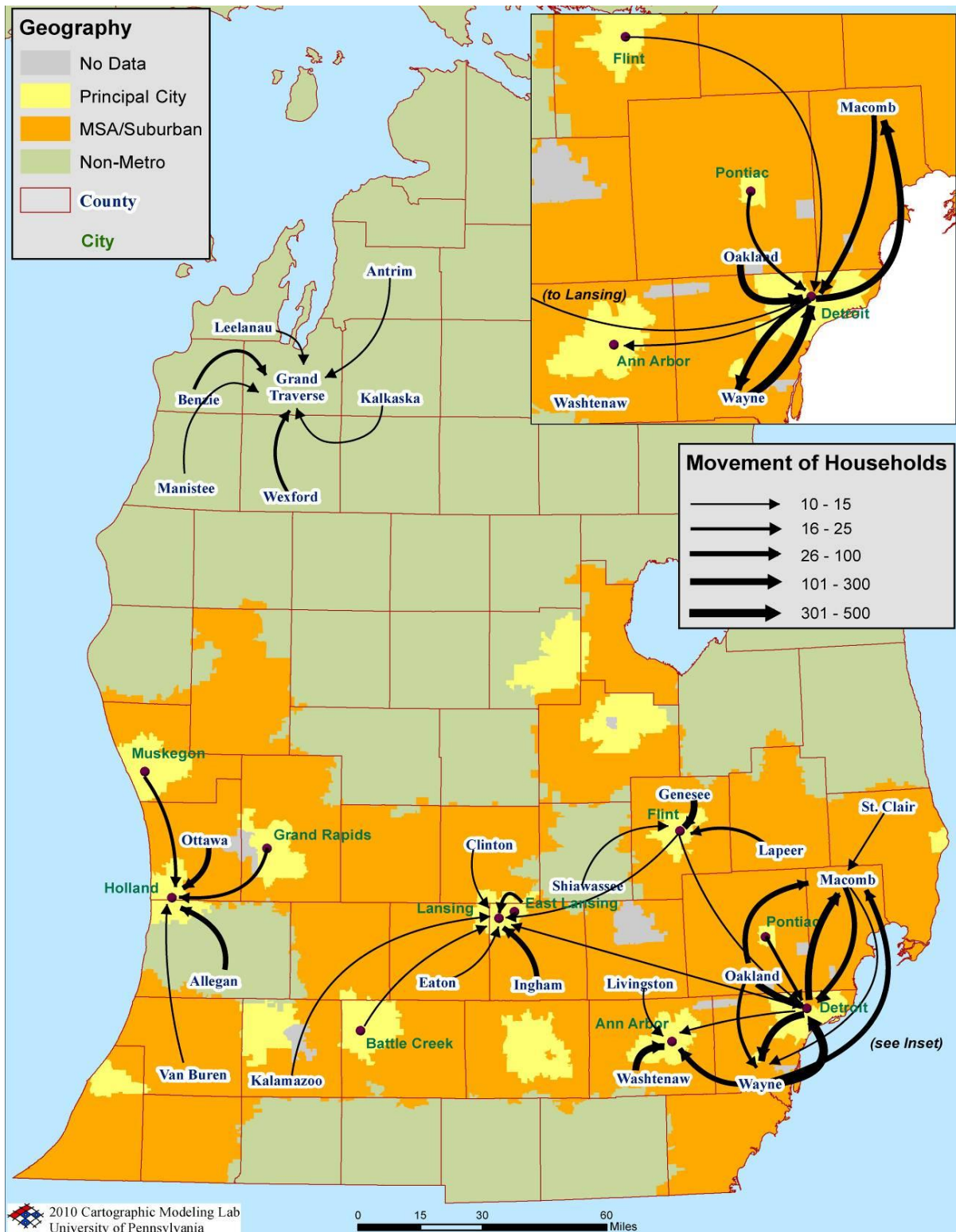
Source: HMIS data on households using emergency shelter or transitional housing in Iowa between October 1, 2007 and September 2008.

Exhibit 13 shows the movement of Michigan homeless households across cities and counties within Michigan. Unlike Des Moines in Iowa, there is no central hub that attracts households from across the state. Instead there are a number of regional hubs: Grand Traverse in the North, Holland in the West, Lansing in central Michigan, and Ann Arbor and Detroit in the East.

The area around Detroit (shown in the inset of Exhibit 13) witnessed the most movement of households. There was significant movement of households from surrounding areas using homeless residential facilities in Detroit and also significant movement of households from Detroit to homeless residential facilities in surrounding areas.

The most common move, made by 494 households, was from households from suburban Wayne County into Detroit homeless facilities. The second most common movement was

Exhibit 13. Movement of Homeless Households within Michigan



Source: HMIS data on the prior zip codes and service zip codes of households using emergency shelter or transitional housing in Michigan between October 1, 2007 and September 2008.

from households residing in Detroit to suburban Wayne County (288 households). While Detroit facilities served a significant number of households originating in Oakland County (103 households) and Macomb County (77), Macomb County facilities also served 139 households originating from Detroit.

Ann Arbor and Lansing, both university towns, had an inflow of 10 or more households from 4 or more areas and no outflow of 10 or more households to other parts of the state.

The analysis of movement patterns within Michigan is incomplete because some counties did not provide their HMIS data on the use of homeless residential facilities. For instance, Exhibit 13 shows an inflow of 25 households from Grand Rapids (population 197,880) to Holland (population 35,048). Because the Grand Rapids CoC did not participate in this study, it is not known how many households from Holland used homeless facilities in Grand Rapids.

Conclusion

This analysis uses HMIS data to investigate several persistent issues related to homelessness: the “urban” nature of homelessness, neighborhood conditions that make homelessness more likely, and the mobility of households experiencing homelessness.

Homelessness is often referred to as an “urban phenomenon” because homeless people are most likely to live in urban areas. Critics believe that homelessness occurs everywhere, but because homeless programs are in urban areas, people experiencing homelessness have to move to urban areas to receive services. This report provides data to support both claims. It is true that residents of urban areas are more likely than residents of suburban or rural areas to use homeless residential facilities. However, it is also true that when residents of suburban areas become homeless, they tend to use homeless facilities in urban areas. A quarter of all sheltered homeless households in Iowa and Michigan originated from suburban areas and a majority of those households used homeless facilities in urban areas. While the HMIS data does not provide information on whether suburban households moved to urban areas in order to enter a homeless facility, the finding does suggest a greater need for homeless facilities in suburban areas.

This report also shows that certain neighborhood characteristics affect the probability that households will become homeless and use a homeless residential facility. However, the factors associated with homelessness in Michigan neighborhoods (cheap rental housing and a high proportion of single mothers with young children) are not the same as the factors for Iowa neighborhoods (a higher proportion of Hispanics and African-Americans). Similar studies in other areas would be useful for better understanding the neighborhood factors associated with homelessness and for determining which neighborhoods should be targeted in homelessness prevention efforts.

Finally, this study used GIS mapping to look at specific mobility patterns between where households last lived before becoming homeless and where they used a homeless facility. A significant number of households in both Iowa and Michigan used a homeless facility in a different county from their last residence, and in Iowa 19 percent of households in homeless facilities prior residence was in another state. In Iowa, Des Moines’ homeless facilities act as a central hub, serving homeless households from across the state and from other states. Michigan had no central hub, but Detroit, Ann Arbor, and Lansing all served a high number of households from other parts of the state. These movement patterns might suggest an equity problem, as certain hub areas are using their homeless assistance resources to serve households from other areas, while other areas are essentially exporting their homelessness problem to areas with better services.

Appendix: Methodology

This study uses Homeless Management Information Systems (HMIS) data from emergency shelters and transitional housing programs in Iowa and Michigan. Since 2004, HUD has required all homeless assistance programs to enter client-level data into a local HMIS. HUD has given communities discretion in designing and implementing their local HMIS, but has specified a set of Universal Data Elements that must be collected for all clients served. One of these data elements is the Zip Code of Last Permanent Address. Clients are asked for the five digit zip code of the apartment, room, or house where they last lived for 90 days or more.

For this study we received HMIS data sets with the Universal Data Elements for all Iowa and Michigan clients using emergency shelter or transitional housing at some point between October 1, 2007 and September 30, 2008. We chose to use whole states for our analysis because this allows for a broader understanding of client movement between rural, suburban, and urban areas and across county and state lines. Iowa and Michigan were selected for participation in the study because they were capable of preparing and submitting the required client-level data in a format that masked or de-identified individual persons. Both states also had high levels of participation in their HMIS (more than 75 percent of beds for homeless persons were covered in their system) and low levels of missing data.

The HMIS data for each state came with three separate components. First, there was information about all HMIS participating providers in the study, including the zip code and county where the shelter was located. The second component was client level demographic information and included flags for the number of times each client had been homeless. The third level consisted of information about individual homeless shelter stays during the time period. Clients with multiple shelter stays within the year had multiple records in the database. In total, 42,275 shelter-stays were captured in the Michigan dataset and 18,226 in Iowa.

The datasets that we received contained the zip code of last permanent address for the client's last shelter-stay during the reporting period. The client-level analysis file had 16,864 clients in Michigan and 10,675 in Iowa. All analyses in this paper are at the household level and include only individuals (those clients who were not linked to another client through the household ID variable) and heads of households. In Michigan, there were 13,527, and in Iowa there were 7,553 heads of household or individuals during the reporting year.

Information about the zip code where the client came from (the last known permanent address) and where the shelter was located (zip code and county where the shelter was located) was then added to provide additional context for client movements. This information includes the geographic type of each zip code based on the Office of Management and Budget (OMB) list of Metropolitan Statistical Areas (MSAs). For this report, zip codes that are located within the principal city of an MSA are classified as Urban. Zip codes that are within an MSA but not within a principal city are classified as Suburban. Zip codes that are not located within an MSA (i.e., non-metropolitan areas) are considered Rural. Clients who reported a last permanent zip code in a different state from where they last used emergency shelter or transitional housing were coded as Out-of-State.

In some cases the client's HMIS record was missing information on the last permanent zip code or the zip code the client reported was invalid, meaning it did not match any existing zip code in ZipCodeDownload.com's commercial database. In Michigan, of the 13,527 households in the dataset, 113 had an invalid or missing zip code. In Iowa, of the 7,553 records, 1,596 zip codes were missing or invalid. These records were dropped from the analysis dataset. Our final dataset contains 5,957 household records for Iowa and 13,414 household records for Michigan.

For our analysis of neighborhood characteristics associated with homelessness, we created a dataset with information about each zip code in Iowa and Michigan and the total number of homeless heads of household and individuals whose last permanent address was in that zip code. Valid zip codes that were not found in the client level information were assumed to have no homeless persons coming from that zip code. The total homeless household count was combined with information from Census 2000 zip code (ZCTA) level data providing the zip code's total population, demographic, economic, and housing market characteristics. While the Census data is eight years older than the homeless data, it was the most recent reliable set of information at the zip code level.

We then conducted a multivariate regression analysis to understand the effect of each of these neighborhood characteristics on the number of households in the zip code (per 10,000 households) that became homeless. For this analysis, we used the generalized linear model (GLM) regression models to evaluate the influence of each neighborhood characteristic on homelessness. The GLM model was chosen over the basic Ordinary Least Squares (OLS) model because homelessness is an extremely rare event and is thus most frequently zero, rather than being normally distributed about the mean value.

As part of the GLM model, specifications were added to account for the fact that we had a two state (homeless/not homeless) fractional dependent variable (the ratio of homeless households to all households) rather than the total number of homeless persons and the fact that many observations (many zip codes) have zero homeless persons. The output coefficient from the GLM model does not have an interpretable coefficient. In this report, we have given the marginal effects coefficient, which can be interpreted as the change in the ratio of homeless households, per 10,000 households in the zip code.