

May 2010

University of Minnesota

Ashley Edwards
Jennifer Hyk
Amelia Kendall
Jennifer Larson
Tesfaye Negash

Professor
Maria Hanratty

HEADING HOME HENNEPIN

[An Analysis of Shelter Use and Intervention Points]



Table of Contents

Executive Summary.....	2
Introduction	3
Literature Review	4
Focus Group	9
Data Analysis.....	17
Methodology	17
Shelter Dynamics During Fixed One-Year Window	21
Hazard Model Estimates of Shelter Exits.....	32
Housing First Vouchers	36
Environmental Scan	38
Conclusions	43
Policy Implications	44
Appendix A: T-test Results and Hazard Models.....	46
Appendix B: Environmental Scan Findings.....	52
End Notes.....	53

Special gratitude goes to Professor Maria Hanratty; without her initiative, guidance and assistance this study would not have happened.

Never give in and never give up. Never give up on anybody.

-Hubert H. Humphrey

Executive Summary

Heading Home Hennepin has now entered its fourth year in an innovative and collaborative effort to end homelessness in Hennepin County, Minnesota. As part of the iterative process to continually improve and refine the program through monitoring and review, the Hubert H. Humphrey Institute's capstone project was chosen for a second year to assess how the homeless population in Minnesota is accessing and cycling through the public and private shelter system in order to answer key operational questions about when to intervene in the provision of housing services. Utilizing administrative records from mandated Homeless Management Information Systems (HMIS), 5,880 individual cases were examined and analyzed to inform critical questions surrounding shelter use, exit probabilities, and the receipt of Housing First vouchers.

The study used a mixed-method approach, employing both qualitative and quantitative research. Utilizing this approach the following report is designed to provide program administrators with a better understanding of the homeless population in Hennepin County.

The key findings of this study are as follows:

- Focus group interviews provided a nuanced picture of when and how people get stuck; shelter preference appeared to vary based on personal priorities
- Lack of information and addiction, followed by poverty/unemployment and disability, were cited as the main reasons people get stuck
- Between 6 and 12 months the probability of exiting from shelter drops dramatically; there is a notable increase in the probability of re-entering for people that have had more than one episode of shelter use
- Mostly public and mostly private shelter users did not have a significantly different average number of nights in shelter; however a mixed use group use disproportionately more nights
- Analysis of a small sample of voucher recipients suggests that Housing First vouchers are not disproportionately distributed among mostly public and mostly private shelter users; however, a group of mixed-use shelter users appeared to be under represented among voucher recipients
- Most cities are using the HUD definition of long term homelessness, although some incorporate separate measures of the chronic and episodic homeless; in addition a small number do not reference disability in their definition of long term homelessness

These results suggest that a better understanding of the determinants of homelessness could assist Hennepin County in providing avenues for continued outreach and intervention to address the issues of long term homelessness.

Introduction

Background

Heading Home Hennepin was launched in 2006 as the ten-year plan to end homelessness in Hennepin County, and has since developed into a collaborative of Hennepin County government and non-profit organizations that address issues of homelessness. Aside from managing the plan and keeping track of outcomes, Heading Home Hennepin has held regular “Project Homeless Connect” events to connect homeless people with needed services and has become involved with other efforts to end homelessness in the City of Minneapolis and Hennepin County.

A recent effort undertaken by Heading Home Hennepin is the Currie Avenue Partnership, a new partnership between the County and the faith community represented by Downtown Congregations to End Homelessness (DCEH). For the Currie Avenue Partnership, Housing First group residential housing (GRH) vouchers were distributed to 150 long-term homeless residents of the public shelters on Currie Avenue. In order to qualify for a voucher, participants had to have been homeless for one year or more or four times in the last three years, and had to have been diagnosed with a disability, either mental or physical, that made it impossible for them to work. Under the Housing First GRH program, participants give up the \$203 they could be eligible for on General Assistance (GA), and instead are provided with a rent-free apartment, case management services, and a personal needs allowance of \$89 each month. This effort is intended to get more people out of the shelter system and into permanent housing.

In Hennepin County, there are two types of shelters available to the homeless: shelters such as Salvation Army and Catholic Charities, which receive public funding, and private shelters such as Simpson and Our Saviors. The private shelters are considerably smaller than the public shelters, and function differently. Their smaller size means that they have to restrict nightly occupation to fewer people. The private shelters hold a lottery drawing every week to select individuals to receive a guaranteed shelter bed for 28 consecutive nights. The public shelters, in contrast, tend to guarantee shelter beds for shorter time frames. The Catholic Charities shelter on Currie Avenue only allows nonpaying shelter guests to check-in for the night. Paying guests can be guaranteed a bed for one week.

An ongoing challenge for Hennepin County is to assess how well programs like the Currie Avenue Partnership are meeting the needs of the long term homeless population. This study draws on newly available data on public and private shelter use to determine the nature and extent of long term homelessness in Hennepin County.

Purpose

The purpose of this study was to address the following key questions and project goals:

- Analyze distribution of length of stay in public and private shelters in Hennepin County

- Compare lengths of stay in public and private shelters and analyze intersections between the two
- Determine whether there is a cutoff point when individuals in shelter are unlikely to transition out of homelessness and determine the critical point to intervene to prevent individuals from reaching “long-term homelessness”
- Identify where current Housing First program participants were sheltered prior to program entry
- Reconsider the definition of long-term homelessness and the service implications for Hennepin County

Four research methods were used: a literature review, qualitative analysis of a series of focus group interviews, quantitative analysis of the public and private shelter data, and an environmental scan. The results, key findings and main concepts are introduced below, followed by conclusions and implications for service delivery and programs.

A few terms are used interchangeably in this paper: shelter beds, shelter days and shelter nights represent the same concept, as well as emergency shelter and shelter. “Mixed use” and “public-private both” are used to describe individuals who do not show a strong preference for either public or private shelter providers. Additionally, select quotes from the focus group participants are found in the paper where they reflect the concepts being discussed. Names are not attributed to the quotes in order to protect the individuals’ privacy.

Literature Review

Methodology

The literature review had two main objectives. The first aim was to gain a contextual understanding of long term homelessness. The second aim of the review was to seek an answer for the question of a point or points during the course of an individual’s spell of homelessness when intervention is warranted. To that end, we reviewed books and journal articles that describe classifications of homelessness, risks of homelessness and costs of long-term homelessness. We also included reports from Wilder Research to gain an understanding of long term homelessness population in Minnesota.

Long Term Homelessness

Contemporary research categorizes the homeless into three groups based on length of homelessness: transitional, episodic and chronic.¹ The transitional homeless stay in shelter for a very short time that ranges from a day, a few weeks or a month in total. In contrast, the next group of episodically homeless is made up of people characterized with using shelters for more than 30 days, with multiple stays per period. Finally, the long-term chronically homeless stay in shelters for extended periods.

The episodic population is often not counted in the chronic homeless population because they frequently transition in and out of homelessness and mediating institutions that temporarily house

them: such as jails, hospitals, psychiatric facilities, and detoxification facilities.² Culhane found that they do not become counted as chronically homeless because they frequently exit to inpatient treatments.

Using administrative cohort data on public shelter use in New York (1988-1995) and Philadelphia (1991-1995), Metraux et al. created a typology. They estimate that the chronic homeless take up 50 percent of shelter days while the episodic take up 17 percent of shelter days. Together they consume two-thirds of shelter days, while they each account for approximately 10 percent of the homeless population.³

Estimated Size of Long Term Homeless Population in Minnesota

A 2006 Wilder Research report provides the demographic characteristics of long-term homeless individuals in Minnesota.⁴ This research, based on point in time study, estimates that there were 1,684 adults without children who meet the definition of being homeless for more than one year, while 280 meet the definition of being homeless four times during the last three years. These findings over-represent the long term homeless and undercount the episodic and transitional homeless as is typical of point in time estimates, a fact the report acknowledges. Men make up a large segment of both definitions of long-term homelessness. They constitute 79 percent of those who have been homeless for more than a year and 69 percent of those who have been homeless four or more times during a three year period.

Shelter Use Patterns and Minnesota

A more recent report from Wilder Foundation analyzes shelter use patterns in Minnesota based on longitudinal information from the federally mandated Housing Management Information System (HMIS).⁵ In line with national data, those who stayed at emergency shelters for 30 days or less in Minnesota made up 74 percent of shelter clients. Twenty two percent stayed in shelters from one to three months, three percent stayed between three to six months and only one percent stayed for a period greater than six months. The median length of time an individual spent in emergency shelter was 15 days during 2008.

Risk Factors for Length of Homelessness

Some literature has examined risk factors associated with episodic, chronic and long term homelessness. Many studies indicate that nearly all chronically homeless have a history of mental health disabilities, physical health disabilities and substance abuse problems. Culhane W.P., Caton P.C. and the National Alliance to End Homelessness have all found that psychiatric disabilities, substance abuse problems and medical co-morbidities are widespread in chronic homeless.^{6 7 8} Caton additionally found that certain characteristics were predictors for longer durations of homelessness:

- older age,
- persistent unemployment,
- poor family support,
- arrest history,

- poor functioning and coping skills,
- chronic illness,
- recent victimization,
- history of substance abuse.⁸

Over all, functioning and coping skills, age and arrest history were found to be the most significant risk factors associated with becoming long term homeless.⁸

Further, research has shown that the longer an individual is homeless, the worse their health becomes. Caton, P.C. reports that the longer someone is homeless the more likely they are to experience poor health and are at risk for premature death.⁹ Additionally, homelessness is associated with a decreased use of needed services, such as on-going care for chronic illnesses.¹⁰ The homeless are unable to access on- going out patient treatments for mental illness, health problems or substance abuse problems putting them at greater risk of encountering less appropriate, crisis driven service systems, such as emergency rooms, detoxification facilities, etc.⁸ Also, illnesses can relapse and be exacerbated from the negative effects of street living.⁷

Social supports or networks are also an important predictor of length of homelessness. Characteristics associated with homelessness include limited support systems.⁷ Also, individuals with underlying substance abuse problems are less likely to seek help from family or friends when first homeless compared to others.⁹ Conversely, Zlotnick et al. found that social affiliation with friends and family was associated with exits from homeless among those with chemical dependencies.⁹ Therefore, those who are chronically or long term homeless have decreased social support/networks over time, particularly if they have substance abuse problems, while these supports are important and vital to exiting homelessness.

Finally, some research has investigated whether the length of time that people spend homeless is influenced by the characteristics of the shelter system and opportunities for housing. For example, O’Flaherty argues that higher quality shelters may cause a

“I decided I needed to get help –different situations and circumstances; family background and support from people you know.”

“moral hazard” problem, in which higher shelter quality may give the homeless a lower incentive to look for housing. In addition, a nicer shelter might also encourage more people to access a shelter system.

O’Flaherty’s theoretical discussion has an empirical counterpart in Cragg and O’Flaherty’s work to understand why the homeless population in New York City increased dramatically in the early 1990s.¹¹ The authors ask if the policy of New York city Mayor David Dinkins’ administration of immediately placing homeless families in subsidized housing was responsible for the increase in shelter populations. Based on regression analysis, they find that the creation of tier II shelters which provided more privacy and safety was one of the main reasons the shelter population rose and reject the greater availability of subsidized housing as an explanation.

In summary, the risk factors discussed above could be used to develop assessment tools. These tools could potentially predict an individual’s risk of becoming long term homeless, or “getting stuck” in the shelter system. Subsequently, if the risk is high then early intervention could be justified.

Costs of Long Term Homelessness

The costs of long term homelessness are exorbitant.⁸ The annual cost of a shelter bed for a single adult ranges from \$4,100 in Atlanta to \$19,800 in New York City, with a median cost per bed per year of \$9,300.³ In addition, the long term homeless use emergency services, such as hospitals, emergency rooms, substance abuse treatment facilities, psychiatric treatment facilities, jails, prisons, detoxification centers, at a disproportionate level. Culhane et al. found that the homeless with severe mental illnesses account for an average of \$40,451 per person per year with 85% of the cost being health and mental health care services.³ Further, the University of California San Diego Medical Center followed 15 chronic homeless over 18 months and found they were treated at the emergency room 417 times with bills exceeded \$100,000 each (not including shelter or other institutional costs).¹²

Culhane and Metraux illustrate that there may be an inverse relationship between the volume of services used by the homeless and cost per case (Figure 1).³ The model shows that as the length of time spent homeless grows, costs rise significantly.³ Therefore, the model suggests that offering the least expensive interventions first and reserving the costly interventions for the few, chronic and episodic homeless, with the most complex needs best matches needs with resources.³

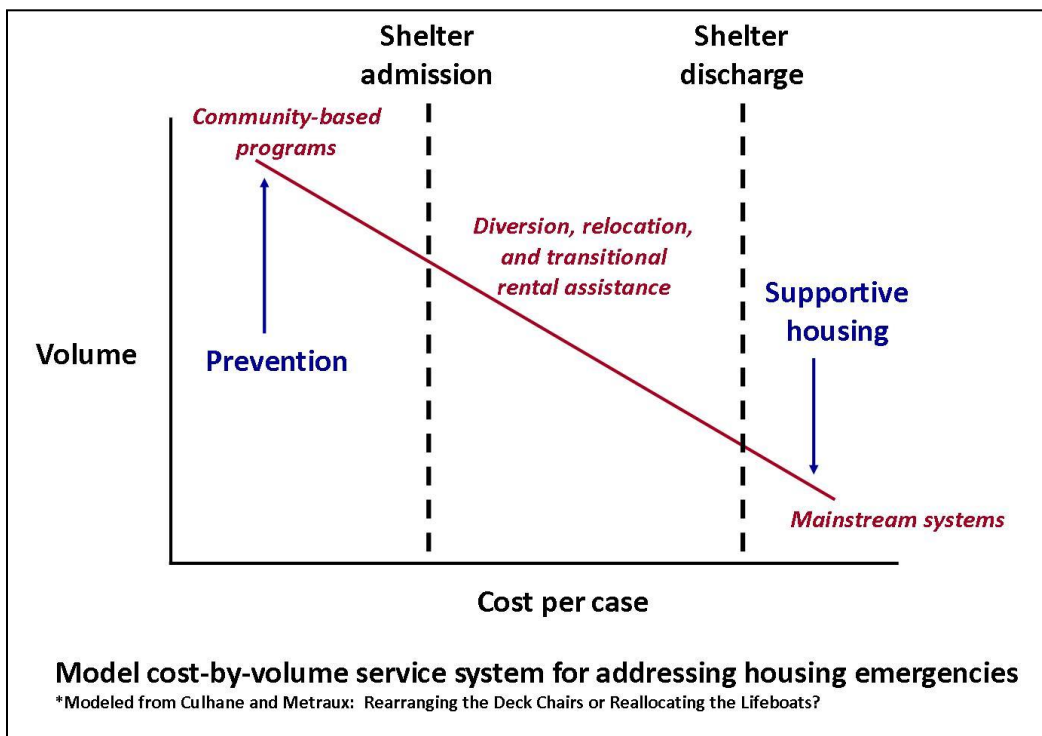


Figure 1: Model cost-by-volume service system for addressing housing emergencies

Again, by developing and utilizing assessment tools to identify those who are likely to experience long term homelessness, intervention efforts focused earlier could prevent the subsequent increasingly significant costs of the episodic and chronic homeless. Therefore, some high cost interventions focused earlier at those predicted to become long term homeless could result in overall cost savings.³

When to Intervene

O’Flaherty analyzes the subject of when to intervene in homelessness by providing subsidized housing to homeless families using an economic contract theory model.¹ He contends that when the targeted homeless population is heterogeneous and it is difficult for program administrators to determine which groups need help to obtain housing, that a separating equilibrium may be established through two offered contracts or programs.¹ Through self selection, O’Flaherty suggests funneling homeless families into one of two contracts or programs. The first program would have a high probability of immediate placement into subsidized housing with the probability of placement diminishing over time.¹ This program would be intended for those homeless families who are good “searchers”. Search ability refers to an individual’s ability to search for, obtain and maintain unsubsidized housing. Good searchers tend to have: reliable income, rental history, familial support, and lack of criminal history.

The second program would have a low probability of immediate subsidized housing placement but a high probability of later placement.¹ This program would be intended for those homeless families who are poor searchers, i.e. they have low skills and/or few resources to search for unsubsidized housing on their own, such as no rental history, no reliable income, criminal record, disability, etc.

This separating equilibrium, or two contracts/programs, may be advisable because of the moral hazard and adverse selection involved in homeless interventions. O’Flaherty infers the concept of moral hazard to homelessness intervention as inadvertently encouraging homeless families to stay in shelters longer through programs that place them later in their homelessness into subsidized housing.¹ The use of a separating equilibrium, or offering two contracts/programs, balances the moral hazard and adverse selection considerations to provide intervention of subsidized housing at a more optimal time.

Alternatively, if shelter managers or caseworkers are able to determine “search type” a second model can be used. Caseworkers or shelter managers could potentially identify those with poor housing search skills and funnel them into a single program in order to create a homogenous group. This second model results in no adverse selection problems but does require implementation and administration in a separate program to ensure homogeneity.¹³ Further, under this model later placement does nothing better than early placement and does some things worse, according to O’Flaherty.¹ Therefore, all can be placed into an early placement contract, receiving interventions at the appropriate time.

Although O’Flaherty’s model is based on homeless families, it may also be applicable to Housing First interventions for homeless single adults, although these populations have quite different levels of underlying disability. O’Flaherty’s model is not that different from current intervention systems which

have differing probabilities of early or late placement. Rapid Exit workers put homeless families into a contract with a high probability of early placement. Alternatively, the long term homelessness definition is often used to qualify individuals into a contract with a high probability of later placement.

Key Findings

- Long term homelessness includes the episodic and chronic, which disproportionately use services and shelter bed days.
- The major risk factors associated with length of homelessness are:
 - Functioning and coping skills
 - Age
 - Arrest history
 - Ill health
 - Lack of support systems
 - Institutional incentives
- If shelter managers or caseworkers are able to identify clients' housing search type, those clients with poor housing search ability could be funneled into a single program, which provides Housing First interventions immediately.
- The costs of the long term homelessness are huge. Because of the significant costs of the long term homeless, targeting interventions earlier at those who are at risk of becoming long term homeless could prove cost beneficial.

Focus Group

In order to present a more robust picture of the homeless experience we conducted qualitative analysis using three focus group interviews: one with a group of formerly homeless in supportive housing, one with a group of homeless staying in a public shelter, and one with a group of homeless staying in a private shelter. Additionally, we collected anecdotal information from two service providers.

Methodology

Three focus groups were held, at a private shelter (N=5), a public shelter (N=5) and a permanent supportive housing site (N=8). The focus group discussion guide was also given to the Shelter Providers Action Association (SPAA) staff to gain their insight into the research questions. A screener was given to staff at each site prior to the focus group interviews and staff was asked to select the participants two to three days prior to the focus group to ensure the participants would return for the focus group. The selection of participants was a convenience sample due to the complex nature and movement of the long term homeless population. The focus groups were held at the shelter sites during the week to ensure the most representative population, as shelter use decreases over weekends. Participants were given a small incentive gift of \$10 after participation.

The screener was designed so that each group was representative of the overall long term homeless population: 90 percent men, 10 percent women, diversity ensured and appropriate length of homelessness. At the permanent supportive housing project, participants were selected based their previous homeless experience.

The research questions investigated through qualitative analysis are as follows:

- Determine whether there is a cutoff point when individuals in shelter are unlikely to transition out of homelessness
- Analyze intersections of public and private shelter use
- Reconsider the definition of long-term homelessness and the service implications for Hennepin County

The Nvivo software system was used to analyze the results of the focus groups and to identify major themes. The resulting themes were used to provide anecdotal complementary evidence to support similar findings or contrast contradictory findings. Nvivo was also used to produce graphs of focus group responses, but it is important to note that the numbers represented are the number of times a concept was mentioned, and not the number of people who held that opinion.

Shelter Use and Strategy

In order to determine what the long-term homeless are looking for when choosing an emergency shelter, the focus groups were asked to name the best and worst shelters in Minneapolis and the reasons why. With only one exception, participants named private shelters as the best shelters in Minneapolis. Reasons they cited were the smaller size of the shelters: more space, access to a locker, better food, and better staff and volunteers.

One participant, who named a private shelter as the best shelter stated, “staff makes a big difference – at [a private shelter] you get a case manager. The food is excellent and the church people that bring it in are uplifting.” Another person, speaking of the staff at a private shelter, appreciated “just being treated like a human... our dignity is already crushed.”

The most frequently named disadvantage of the private shelters was the fact that they were further from downtown and other services. When discussing shelter choice, one participant said, “I got into the lottery [but] I never stayed very long as it was too far from everything I needed... I was willing to stay at the more dangerous places.” Another disadvantage of the private shelters that participants named was the lottery system, which seemed as though it discouraged some from even trying to get in.

	Advantages	Disadvantages
Private Shelters	<ul style="list-style-type: none"> • Smaller size • More space and locker access • Positive staff/volunteer experiences • Better food 	<ul style="list-style-type: none"> • Far away from downtown and other services • Lottery system means bed availability is uncertain
Public Shelters	<ul style="list-style-type: none"> • Convenient to downtown and other services • Guaranteed bed availability 	<ul style="list-style-type: none"> • Crowded • Unsafe • Negative staff experiences • Poor quality/rationed food

Figure 2: Advantages and disadvantages by shelter type

The participants unanimously named the public shelters as the worst shelters. The most frequently mentioned problem with the public shelters was a lack of safety. “You got people out there walking around don’t know where they gonna go; what they gonna do – it’s a hazard,” said one shelter client. Another often-mentioned negative was disrespectful treatment from staff, particularly at one public shelter. “The staff at [a public shelter] they treat you like you’re a bum,” shared one participant. Another described bad attitudes of staff, “It’s like a two-headed coin – this is for y’all – that is for us and we’re above the law.” Overcrowding and rationing of food were also named as drawbacks of the public shelters.

The primary advantage of public shelters in participant’s eyes was the location and the guaranteed availability of a place to stay. “I had to go back there [a public shelter] because the snow was deep and it was getting below 20 degrees,” said one participant. The participants were also asked what they would have done if they were turned away from their usual shelter, and many gave answers that were outside the shelter system. “I’d be at a drug dealers or something – on the streets,” one participant shared. Some reported that they would sleep outside. Because shelter choices for women are more limited, many of the women we interviewed said they had no idea where they would have gone.

Despite the negatives mentioned, 72 percent of focus group participants (13 of 18) named a public shelter as the place where they stayed most often. Only 17 percent (3 of 18) reported staying at private shelters most often, and 11 percent (2 of 18) stayed most frequently at places outside the shelter system. However, this may be attributable to the relatively small number of private beds available. Although there seemed to be a perception that many homeless individuals moved between shelters, only six participants (33 percent) specifically mentioned staying at both a private and a public shelter. Figure 2 (above) summarizes the named advantages and disadvantages of public and private shelters, and Figure 3 (below) shows how many times those factors were mentioned by group participants.

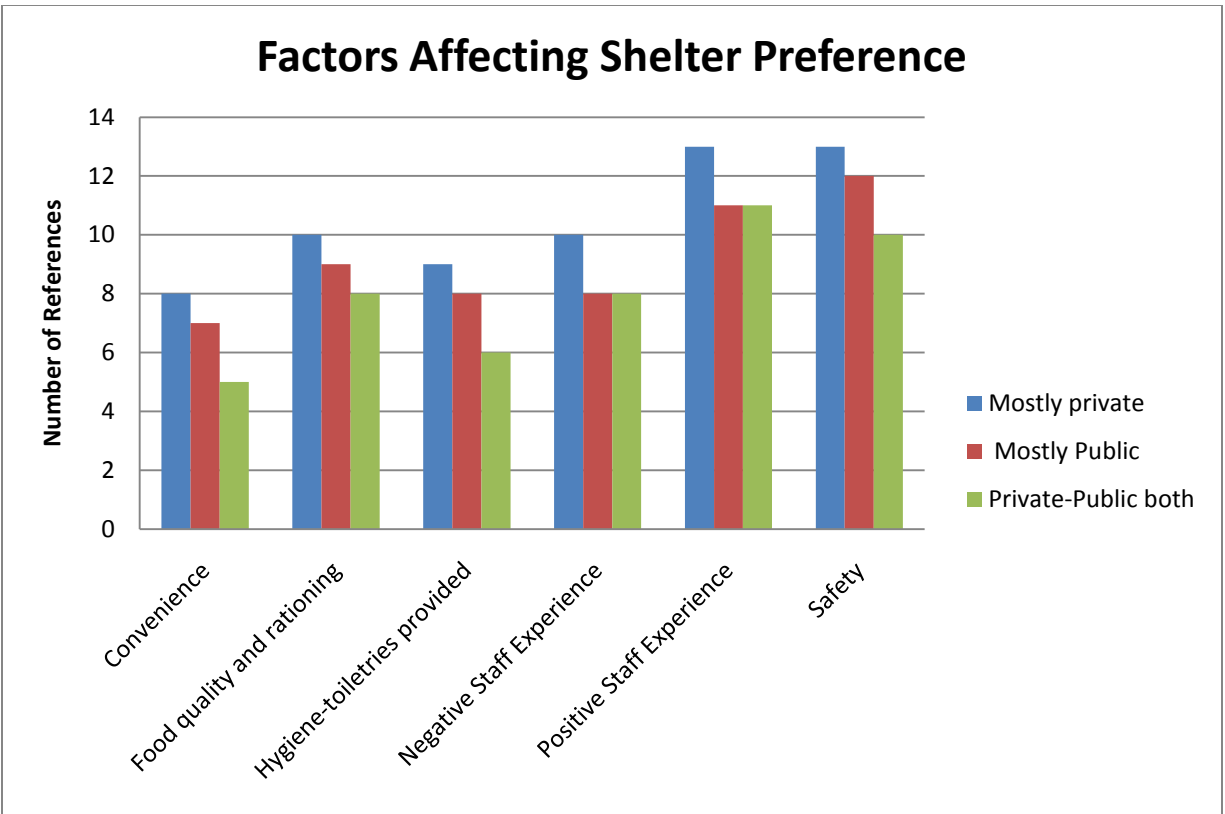


Figure 3: Factors affecting shelter preference by shelter type

Overall, shelter preference appeared to be dependent on personal priorities and whether a homeless person chose to overlook the problems with the public shelters in favor of a guaranteed place to stay that was close to downtown and the other services they needed. Of those who preferred private shelters, public shelters were always mentioned as a backup. As one participant said, “If I don’t get a bed here [a private shelter], I go to [a public shelter] ‘cause I don’t have a choice.” Another echoed, “usually, like on Mondays if I don’t get a bed here [a private shelter] – most likely I’m going to go down to [a public shelter].”

Key Findings

- The primary advantage of public shelters in participant’s eyes was the location and the guaranteed availability of a place to stay.
- Overall, shelter preference appeared to be dependent on personal priorities.

Critical Points and Intervention

To explore how individuals differ in their ability to exit either continuous or cycles of homelessness, focus group participants were first asked why some people remain homeless longer than others. The reasons the focus group participants gave for being homeless longer, or for “getting stuck” are:

- lack of information
- poverty/unemployment
- addiction
- habituation/institutionalization
- disability*
- criminal history
- lack of documents/undocumented immigrant
- choice

As one participant stated, “A lot of people like that [with disabilities and addictions] they get comfortable and that’s the only thing they know. Your record got something to do with it too – if you got a felony then you’ll meet an agency like Rapid Exit or something, also you know they gonna check you out- you got a bad record and then they’re like no, no, no and that makes you mad and you’re like, forget it and you come back here [the emergency shelter].”

Those who were currently homeless cited lack of information and addiction in equal frequency as the main reason people get stuck. On the other hand, those who were previously homeless but now housed cited poverty and unemployment most often as the reason people get stuck. Furthermore, of those who used mostly private, mostly public or both, all cited addiction most often as the reason people get stuck. In contrast, those who spent time outside the shelter system, such as those who sleep on the street sometimes, most often cited lack of information as the reason people get stuck in homelessness. Finally, immigrant participants cited lack of documentation as a main reason for getting stuck in homelessness (see Figure 4 below).

* The disability category includes mental illness

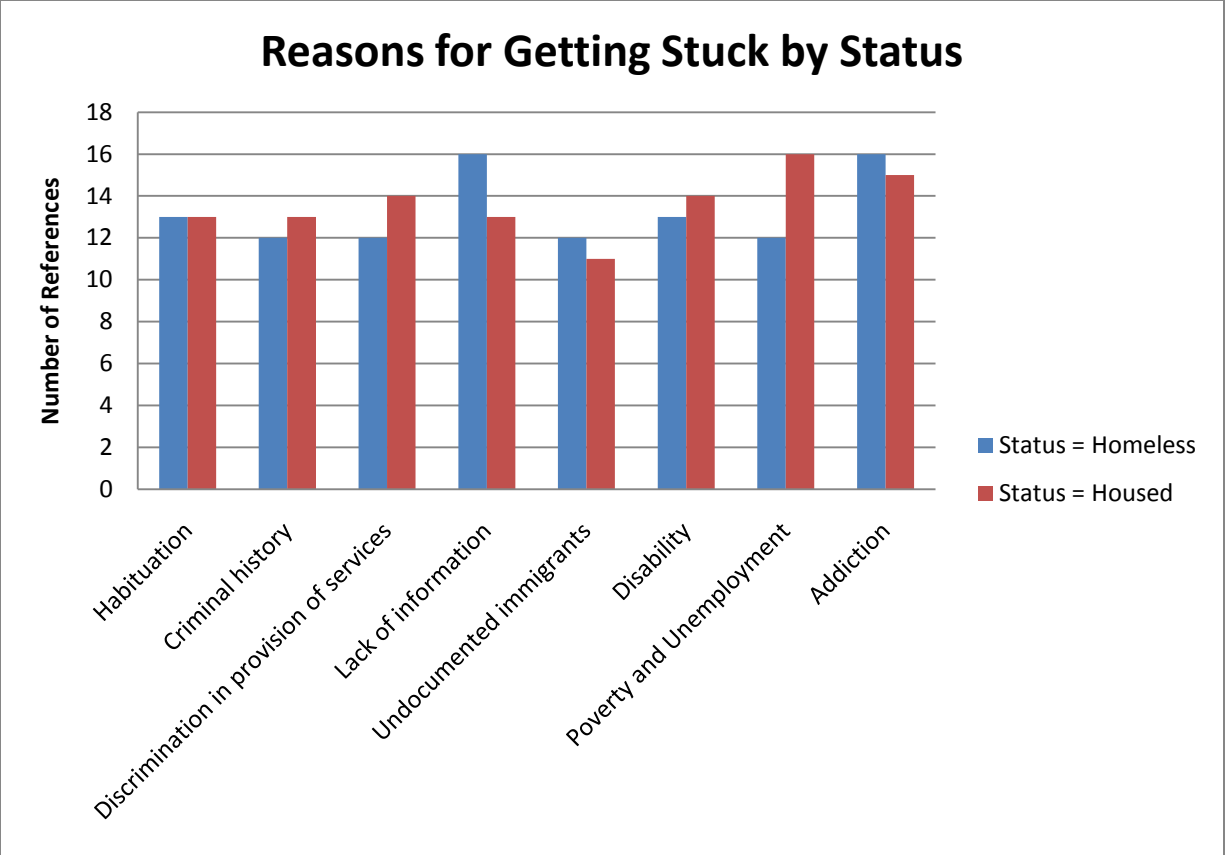


Figure 4: Reasons for getting stuck by homeless status

Overall, lack of information about resources and services and addiction were cited more often as reasons for getting stuck in homelessness, followed by poverty and unemployment, addiction, habituation or institutionalization, disability, criminal history, discrimination in the provision of services and lack of documentation (see Figure 5 below).

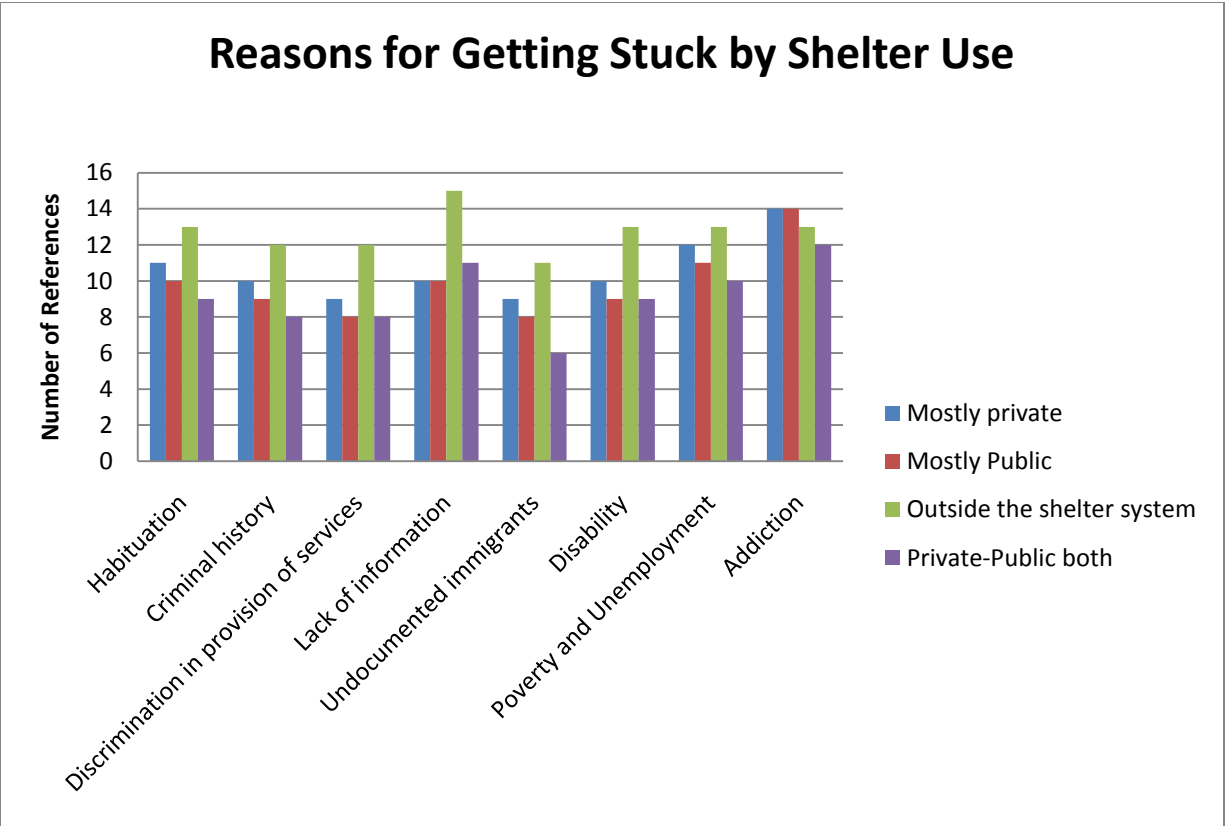


Figure 5: Reasons for getting stuck by shelter use

When asked about the point where people get stuck, most participants were unable to provide a specific point in time. Many said circumstances differ and are a more important indicator than length of time. However, one of the service providers who offered feedback on these questions did state that around the three month mark was when people began to get stuck, “Those who have just lost a job and have no support network. They are looking for a job and affordable housing. They key is to find permanent living wage employment before the three to four month mark. After that individuals tend to sink into a depressed state and probably do not present as well for the few interviews they get...after that (three-four month mark) individuals tend to sink into a depressed state.”

Services and Barriers

To understand what services the homeless need to prevent them from getting stuck or becoming Long Term Homeless, focus group participants were first asked what services were currently available. Generally, participants were not aware of services available to help the homeless escape homelessness. For example, one participant stated “I don’t know because I’m still stuck ...” Those participants who are now in permanent supportive housing commonly stated that individuals had to be persistent and seek out services to get

“You put a person out there homeless for three months or better; you gonna make yourself a victim – after three months or better you’re gonna create a monster. Some people can’t handle the streets. You lose touch with reality.”

help. As one participant described, “they [the shelter staff] don’t encourage you to leave. You had to go to them to get you help to get out of there and stay on them, otherwise it wouldn’t be done.”

Further, many perceived that they were not qualified for any services because they believed the services are directed at very specific populations or that providers discriminate in who they will help. “It’s like you have to be an alcoholic or a drug user to get help. That’s how the system is set up,” stated one participant.

Finally, the focus group participants were asked what services were needed to help people before they got stuck in homelessness. Most focus group participants suggested one on one or case management services to prevent individuals from getting stuck in homelessness. “The case services need to be...aggressive. Case management needs to be addressed one-on-one.”

Definition of Long Term Homelessness

The majority of the responses indicated that the definition for long term homelessness should be shorter than one year, followed by those who felt the definition correctly identified long term homelessness. Those who felt it should be shorter often cited the negative effects of being homeless and the toll that it can take on an individual. “Stable normal people lost their jobs ... you put a person out there homeless for three months or better; you gonna make yourself a victim – after three months or better you’re gonna create a monster. Some people can’t handle the streets. You lose touch with reality.” In contrast, one participant emphatically thought the definition should be lengthened, since he had been homeless for 15 years and thought he should get help before anyone who had only been in a shelter for only a year.

“It’s long enough – once you’re homeless- you’re out there”

Key Findings

- Lack of information and addiction, followed by poverty/unemployment and disability, were cited as the main reasons people get stuck.
- An actual point in time was not identified for when people get stuck, but one provider and one participant both cited around the three month mark.
- Participants seemed unaware of services to prevent people from getting stuck, but suggested one-on-one and more aggressive case management services were necessary.
- Participants could not give a specific length of time they thought was appropriate to define Long term homelessness, but most said it should be shorter.

Data Analysis

Methodology

One of the major goals of this analysis is to expand the capacity of Heading Home Hennepin to understand and respond to trends related to long-term homelessness. For this reason, this analysis will attempt to:

- identify the discrete changes in exit and re-entry probabilities that occur as individuals cycle through the shelter system,
- identify differences in shelter use dynamics in public and private shelters within Hennepin County,
- evaluate the distribution of Housing First vouchers across public and private shelter users, and
- provide information for policy makers to consider the costs and benefits of using varied thresholds for service intervention.

This research was based on data made available through Heading Home Hennepin from Homeless Management Information System (HMIS) records for public and private shelters in Hennepin County. The HUD-mandated HMIS is a software platform that records longitudinal client data on shelter use for shelters across the country. Current HUD policy requires all public Continuum of Care facilities (CoC) to implement HMIS, although counties may also include private shelter information in HMIS data.¹³

For purposes of this analysis we include information on public and private shelter use from 2007-2009. This was the longest period for which we had data on both public and private shelters. While this dataset does contain an extensive record of shelter use, it lacks consistent information on the demographic characteristics of shelter users. For this reason, this analysis focuses on how an individual's gender or the shelter preference (public, private, or mixed use) impacts their length of shelter stay and probability of exit over time.

In conducting an analysis on administrative records of this type, there are a number of key methodological considerations that need to be addressed in order to provide for an unbiased analysis of shelter dynamics. The critical methodological decisions made in this analysis were designed to:

1. control for indirect censoring within our observation period
2. design an adequate definition to measure homelessness spells
3. define shelter users based on their preferred providers (public or private)
4. identify critical intervention points through Cox regression models

Data Limitations

There are several limitations to the data we used for this analysis that may have impacted our results. First, our data included records individuals who started their shelter spell within an 18 month window between July 2007 and December 2008. A larger observation window might have changed the results observed. Second, there may have been errors in data entry or processing that may have influenced the results of this analysis. For example, we eliminated a small number of records containing obvious errors, such as shelter check-out dates prior to check-ins, to the extent that we could identify the errors. However, there may have been more subtle errors that remained undetected. Third, as noted above the gender of 8.8 percent of shelter users could not be identified. If the individuals with unknown genders are not evenly distributed our findings may be altered.

Controlling for Censoring

One of the critical issues in generating representative estimates of shelter use dynamics is addressing the sample selection biases that may result from left and right censoring of shelter spells. To address this issue, the following analysis is based on the methodological practices outlined by Kuhn and Culhane in their discussion of how to appropriately analyze administrative data on shelter use.^{14, 15}

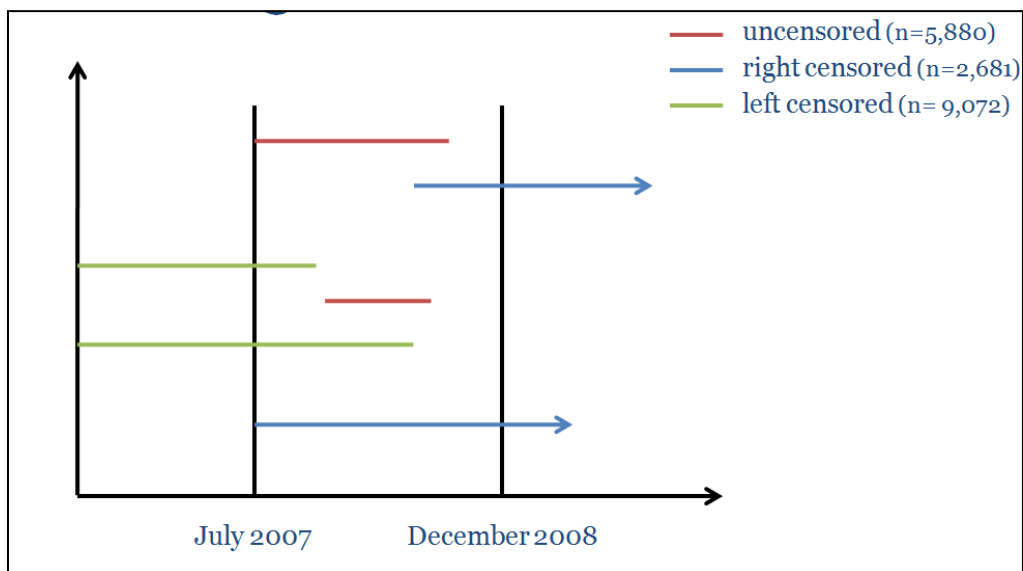


Figure 6: Censoring manipulations on the data¹⁶

The HMIS records provided for this analysis contained records for a limited number of shelters starting in 2002. However, complete records for public and private shelters were only available starting in January 2007. Had the analysis also started in January 2007, those who were recorded as having their first entry during this month may actually have entered the shelter system in a prior period. This *left-censoring bias* would cause some cases to show much less intense shelter utilization patterns due to unrecorded prior shelter stays. To minimize the effects of this problem, the records of 9,072 individuals who first entered the HMIS database before July 1, 2007 were discarded. (See Figure 6 Above) By

deleting these observations we can be more confident that individuals included in our analysis are truly experiencing an initial spell of homelessness. Although having a longer interval would have been desirable to ensure that observed initial spells are indeed so, the constraint imposed by our data's limited span forced us to choose six months.

Similarly, *right-censoring bias* occurs because we have incomplete information on spells that are ongoing at the end of the observation period. This may generate biased estimates of the impacts of individual characteristics on spell durations, if the probability of being censored is correlated with individual characteristics. In addition, if the observation window is small relative to spell durations, right censoring bias may cause the duration of spells to be under-estimated.

This study uses two approaches to address the issue of right-censoring bias. The "Fixed Window" approach imposes a uniform one-year observation window for all individuals in the sample. Thus, the analysis estimates shelter use patterns for all individuals during their first twelve months in shelter. This ensures that all individuals in the sample face the same length of exposure to the possibility of appearing in a shelter's administrative record. To ensure that the sample included only individuals for whom there is twelve months of data available, the analysis excluded 2,681 clients who entered the administrative record after December 31, 2008. These adjustments yielded a final sample of 5,880 individuals who entered shelter between July 1, 2007 and December 31, 2008 and who were observed for a 365 day period. (See Figure 6 Above)

The second method that we use to address right censoring is to model the dynamics of shelter exits and shelter re-entry using hazard model analysis, which is described further below. This methodology has the advantage that it more accurately adjusts for right-censoring. It also makes it possible to estimate the impact of more than one factor at once on exits and re-entrances into shelter. The key draw-back of the hazard model approach is that, while it provides a useful way to analyze single spells, it is less useful for characterizing cumulative shelter use across multiple shelter spells. For this reason, we report estimates from both the fixed window and the hazard model estimation approaches.

Defining Shelter Spells

The number of nights an individual spent in shelter was easily computed after aggregating shelter records across client identification numbers. However, days spent in shelter were also analyzed based on their relationship to one another (i.e. grouping). This analysis is designed to better illustrate dynamic shelter exits and returns that frequently occur among the currently and formerly homeless.

In order to illustrate periods of shelter use, a "spell" variable was created to define periods of multiple shelter stays within a specific timeframe. For each individual in our sample, shelter stays were defined by collapsing all days in shelter into defined episodes using a 30-day exit criterion. The setting of this exit criterion allows each day in shelter to be assigned to the same spell if the gap from one shelter exit to the next shelter entry is less than 30 days. Once an individual spends more than 30 days out of shelter, their subsequent shelter visit would constitute the start of a new spell. This allows for an analysis of the

distribution of stays and ensures that spells do not merely represent temporary exits. This 30 day criterion is based on accepted practice in the academic field.

Measuring Provider Preference

One of the core deliverables in this analysis requires a comparison between public and private shelter users. In order to conduct this analysis, all individuals were coded as private, public, or mixed use based on their pattern of shelter use. We defined an individual as “mostly public” if the individual spent at least 90 percent of all shelter days in public shelters. We defined an individual as “mostly private” if they spent 90 percent of shelter days in private shelters. Finally, we defined an individual spell as “mixed use” if they spent between 10 percent and 90 percent of shelter days in public shelters. We tested the sensitivity of our results to different thresholds, and found that our results were not sensitive to the 90 percent cutoff. For example, using a 75 percent, 90 percent, and 100 percent threshold we found that approximately 80 percent of cases were mostly public and 20 percent of cases were mostly private; 5 percent showed no provider preference.

Modeling Shelter Exit and Re-entry Hazards

We estimated Cox proportional hazard models of the determinants of the length of shelter spells. These models estimate the determinants of the monthly “hazard rate”, which is defined as the probability that an individual exits shelter in a given month, given that an individual has not yet exited shelter.

For all individuals who have ended a shelter spell, we also estimated Cox proportional hazard models of the length of time until they re-enter the shelter. In these models of shelter re-entry, the monthly hazard represents the probability that an individual re-enters shelter in each month, provided that they have not yet returned to the shelter.

The Cox proportional hazard model assumes that individual characteristics have the same proportional impact on the monthly hazard rate. It allows the baseline hazard rate to take on a flexible specification, in which baseline hazard may vary by each month of the spell’s duration.

The data we used for Cox analysis included 7,883 spells of 5,880 shelter users that occurred on or after July 2007. The majority of the spells, or 75 percent represented initial spells of homelessness, while 25 percent included repeat spells. Unlike in the prior analysis, we did not impose a fixed twelve month window on the observation period for each spell. This is because the models incorporate methods for addressing right-censoring on a case-by-case basis.

The analyses of both shelter exits and re-entry included controls for number of prior spells of shelter use, for gender, and for whether the individual’s shelter use during the current and prior spells has been mainly private, mainly public, or mixed. As before, we use a 90 percent threshold to define whether a

spell falls in the mainly private or mainly public category. Finally, the analysis includes time-varying controls for season and for calendar year.

Shelter Dynamics During Fixed One-Year Window

Analysis of Nights in Shelter

The following Figures 7 and 8 illustrate the distribution of nights in shelter by individuals during the twelve months following an initial shelter entry. These figures exclude 81 observations where an individual checked in and out of shelter on the same day, therefore yielding no nights in shelter. As expected, the distribution of nights spent in shelter is highly skewed to the right, reflecting the presence of a small number of long-term shelter users. Figure 7 is intended to provide more detail on the share of all individuals who spend between one and seven nights in shelter.

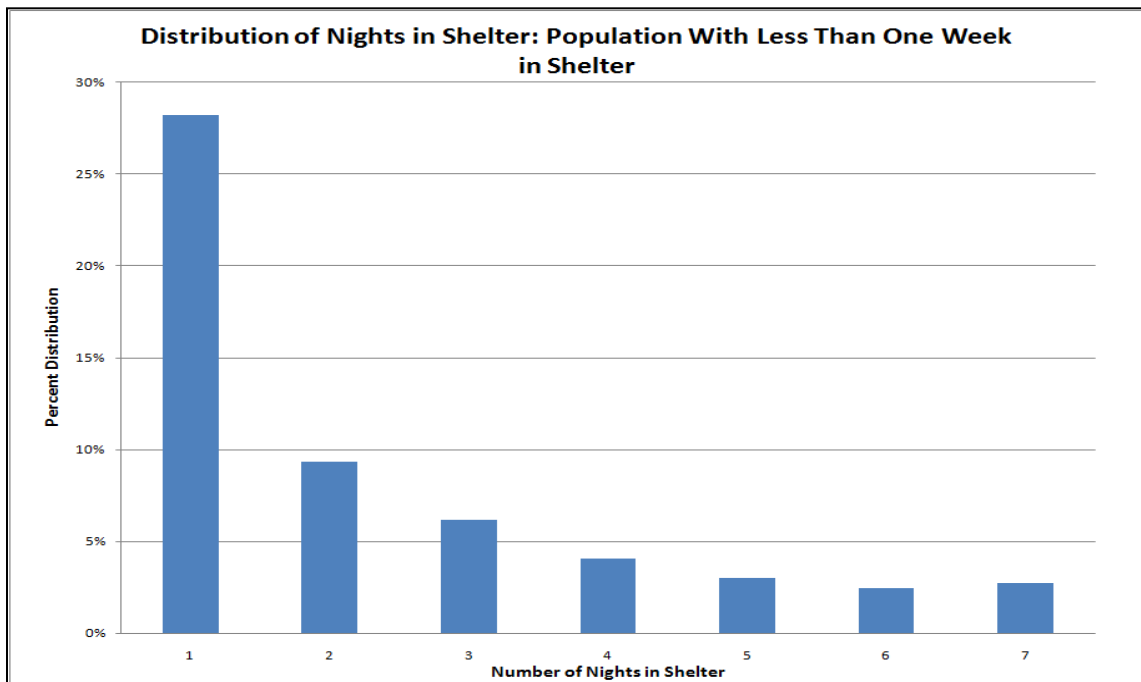


Figure 7: Distribution of nights in shelter: population with less than one week in shelter

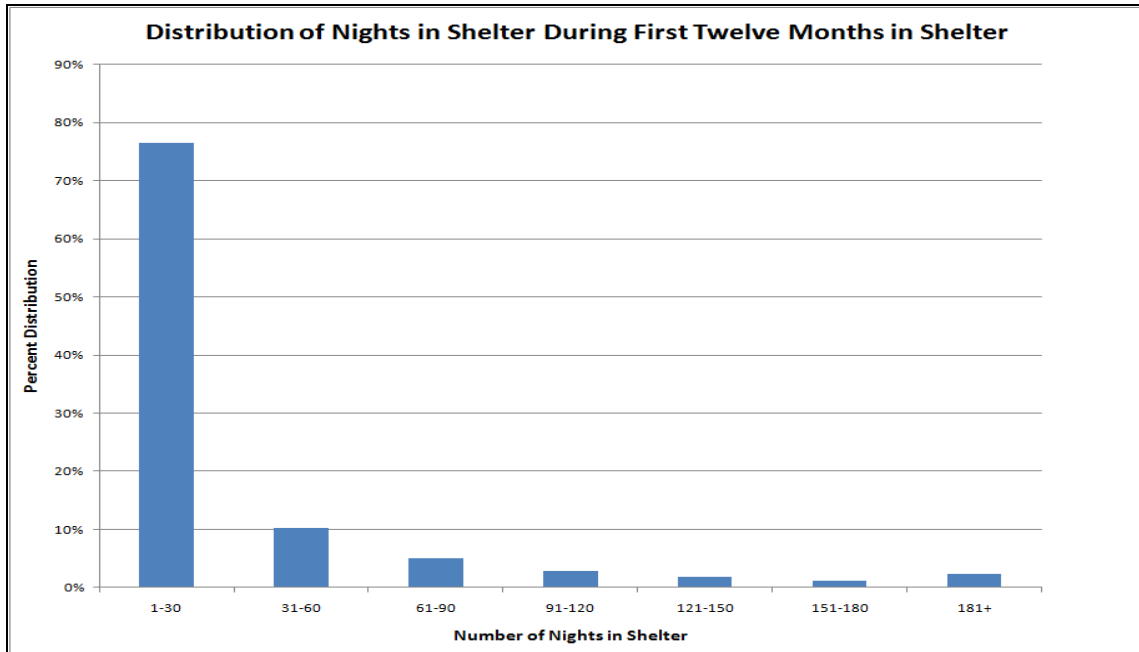


Figure 8: Distribution of nights in shelter during the first twelve months in shelter

Key Findings

- 27 percent of individuals spent only one night in shelter
- 50 percent of individuals spent six or fewer nights in shelter
- 77 percent of individuals spent between one to thirty nights in shelter
- 2 percent of shelter clients spent 181 or more nights in shelter

The mean number of nights spent in shelter for all observed cases over one year is 27. However, as shown above, the distribution is highly skewed with a standard deviation of 49 and a range of 364 which almost entirely covers the observation period.

Analysis of Shelter Spells

The following Figure 9 illustrates the distribution of the number of spells experienced by individuals in the twelve months following their initial night in shelter. It also reports the average total number of nights individuals spent in shelter for each spell frequency category. Again, these calculations exclude 81 cases that yielded no initial shelter spell. As expected, the overwhelming majority of shelter clients experience a single spell of homelessness. However, some individuals will experience as many as six spells of homelessness over the 365 day observation period.

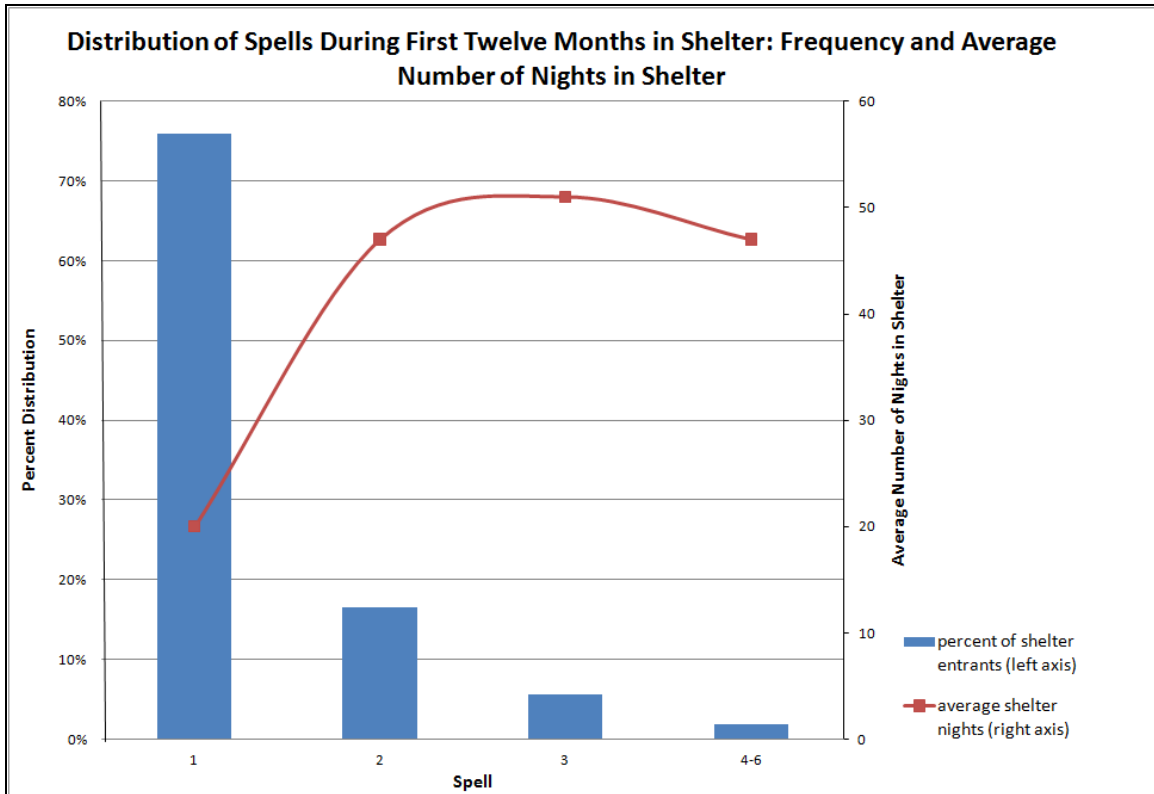


Figure 9: Distribution of spells during the first twelve months in shelter; frequency and average number of nights in shelter

Key Findings

- 76 percent of individuals experience a single spell of homelessness
- 2 percent of shelter users experience four or more spells of homelessness
- Nights spent in shelter do not follow a linear trend based on the number of spells an individual experiences

Surprisingly, the number of nights spent in shelter does not follow a linear trend based on the number of spells. After the second spell, the average number of nights spent in shelter stabilizes at approximately 46 nights for all spells greater than one.

Analysis of Spell Length

Figure 10 (below) shows the distribution of shelter spells by spell length for all spells in the first twelve months following shelter entry. As shown, most spells (73 percent) end after less than 30 days. In addition, the share of spells within each length category steadily declines with each subsequent 30 day period. Only 3 percent of spells in this analysis last more than 180 days.

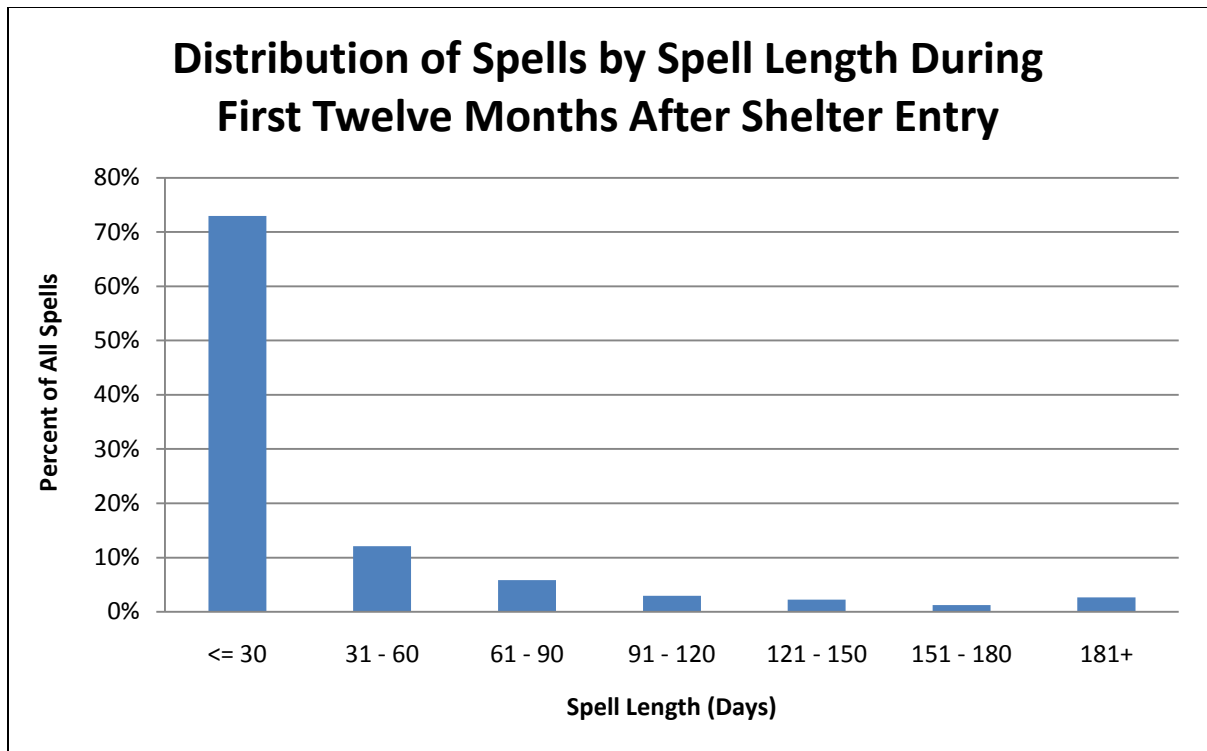


Figure 10: Distribution of spells by spell length during the first twelve months after shelter entry

Key Findings

- Approximately 73 percent of spells are less than 30 days in length
- Mostly private shelter users have shorter spell lengths than either mostly public or mixed users

Analysis of Total Spell Days

Figure 11 (below) shows the distribution of total days spent in shelter spells. These figures are estimated by summing up the total number of days that individuals spent in all of their spells of shelter use during the first twelve months following shelter entry.

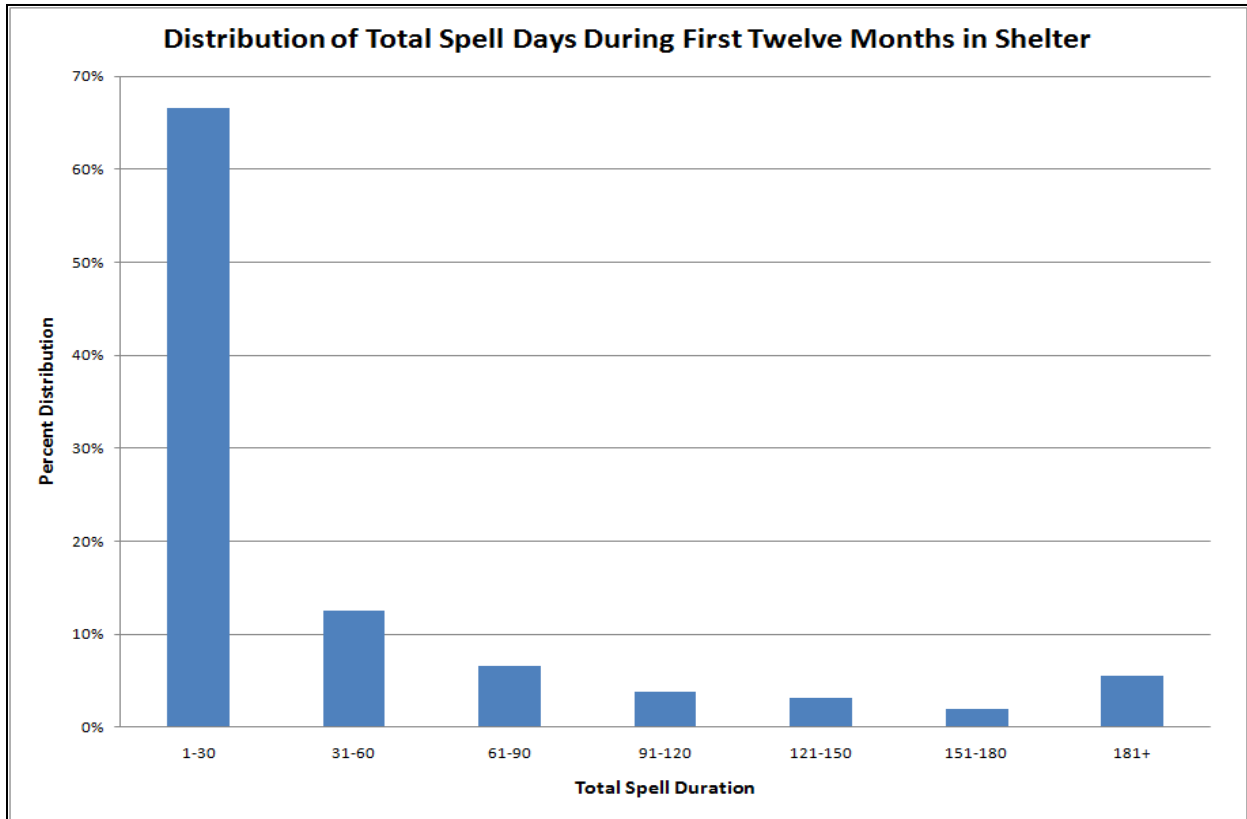


Figure 11: Distribution of total spell days during the first twelve months in shelter

Key Findings

- 67 percent of individuals experience less than 30 days in shelter spells
- 5 percent of individuals were vulnerable to housing loss through the majority of the observation period (181 days or more)

As illustrated above, the majority of shelter users (67 percent) do not experience shelter spells exceeding 30 days. However, the average length (41 days) of days in the HMIS system across all spells of homelessness is being impacted by a distribution that is highly skewed* towards individuals with relatively intensive shelter use.

* standard deviation is equal to 68

The results in Figure 11 are comparable to those shown in Figure 8 above. However, they do show a somewhat smaller share of individuals within the 1-30 day and a larger share in the greater than 181+ day categories. This reflects the broader conception of attachment to the shelter system used here.

Analysis of Shelter Use by Gender

Ideally, measures of shelter use would be further disaggregated by a number of demographic or individual characteristics. However, in this study, gender was the only demographic variable available as a means to compare shelter use. This dataset was composed of 4,720 males with an average of 24 nights in shelter* and 644 females with an average of 43 nights in shelter.† See Figure 12 (below): additionally, 516 individuals (8.8 percent of the total number of cases) did not have a record identifying their gender and thus were not included in this component of the data analysis.

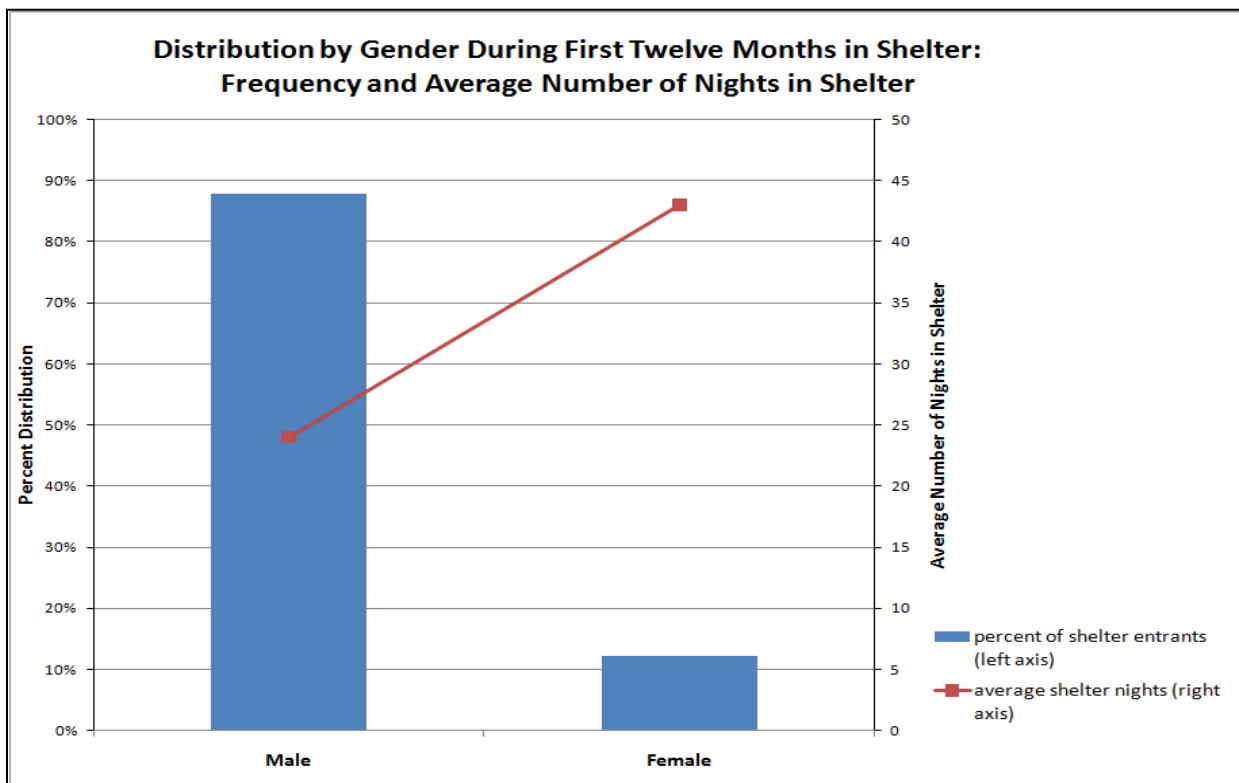


Figure 12: Distribution by gender during the first twelve months in shelter; frequency and average number of nights in shelter

* mean is calculated by excluding 80 males with no nights in shelter, standard deviation is equal to 46
 † mean is calculated by excluding 1 females with no nights in shelter, standard deviation is equal to 67

Key Findings

- The majority of shelter users are males
- There is a statistically significant difference in average number of nights in shelter by gender
- Women consume a greater number of nights in shelter

The difference in means between males and females illustrated above was tested using an independent sample t-test and was found to be significant at the 5 percent level. The significance of this statistical test reveals that this variation is not due to random chance among our observed cases (see Appendix A: Table 1). The following analysis attempts to explore whether these differences among male and female shelter clients reflects differences in the number of spells or differences in spell lengths among genders.

Shelter Dynamics During First Twelve Months in Shelter: Analysis by Gender			
	Male	Female	Total
sample size	4640	643	5799
percentage of clients	80%	11%	100%
average no. nights	24	43	27
average no. of spells	1.38	1.32	1.34
average no. of nights per spell	17	33	20
average spell length	29	42	30
client days	113179	27879	154148
percentage of client days	73%	18%	100%
ratio (%days)/(%clients)	0.92	1.63	1

Table 13: Shelter dynamics during the first twelve months in shelter; analysis by gender

As shown, women experience fewer spells on average than men (1.32 and 1.38 spells respectively). The independent t-test (see Appendix A: Table 2) on these mean differences fails to meet the 5 percent threshold for significance. Therefore, cannot assume that these differences are statistically significant.

However, although differences in the number of spells are not significantly different by gender, women do spend a higher number night in shelter per spell. For an average spell, women spent 33 nights in shelter compared to 17 nights per spell for the average man. An independent t-test shows the means to be statistically significant at the 5 percent level (see Appendix A: Table 3).

In addition to experiencing more intense spells as measured by average number of nights in shelter, women also experience longer spell lengths. (See Figure 14 Below) The mean spell length for men (29) is significantly lower than the mean spell length for women (42). An independent t-test showed the differences to be significant at the 5 percent level (see Appendix A: Table 4).

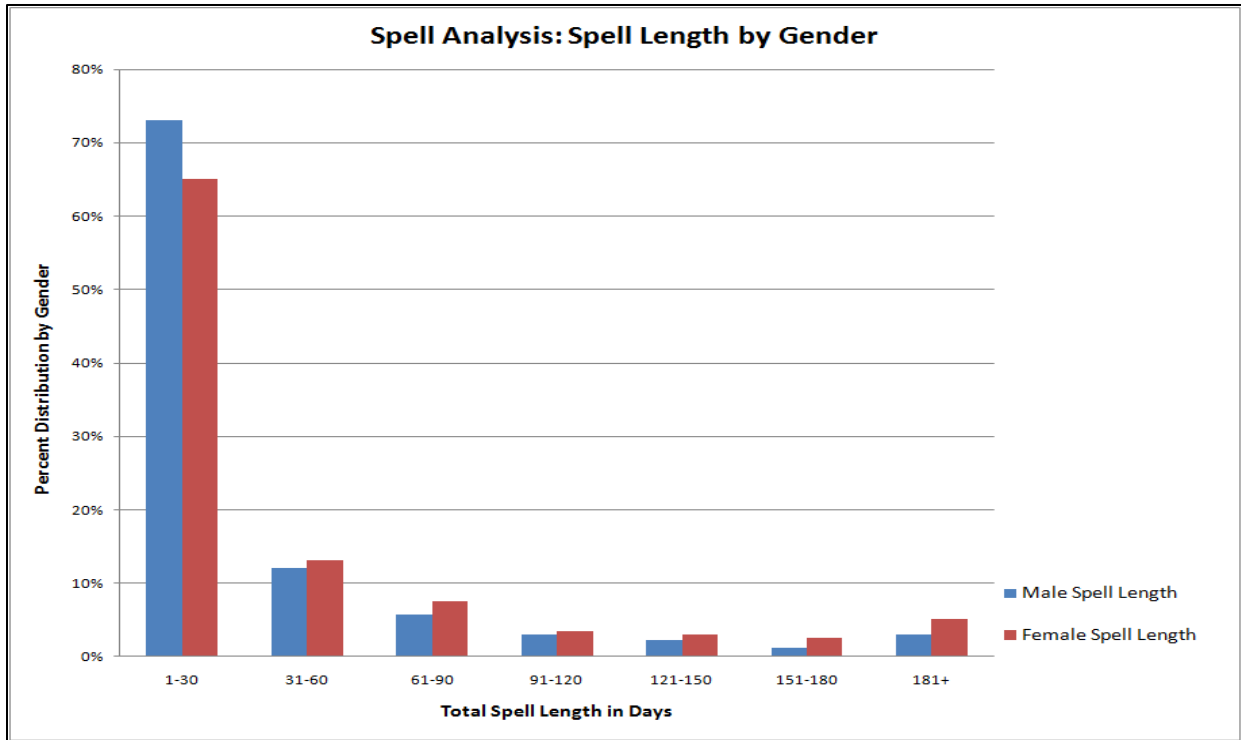


Figure 14: Spell analysis; spell length by gender

Key Findings

- Men experience shorter spells than females

The ratio calculated in the last row of the table above is designed to provide a measure of how shelter stays are over or under utilized by shelter clients based on gender. As shown, women consume a disproportionate number of shelter nights than would be expected.

Analysis of Shelter Use by Provider Type

One of the key questions outlined in this research relates to how individuals utilize various shelter services offered by public and private providers. Therefore, this analysis attempts to illustrate whether individuals frequently moved between providers or were consistent in their shelter provider preferences. Figure 15 (below) also illustrates the distribution of individuals based on their provider preferences as well as the average number of days spent in shelter over the 365 day observation period.

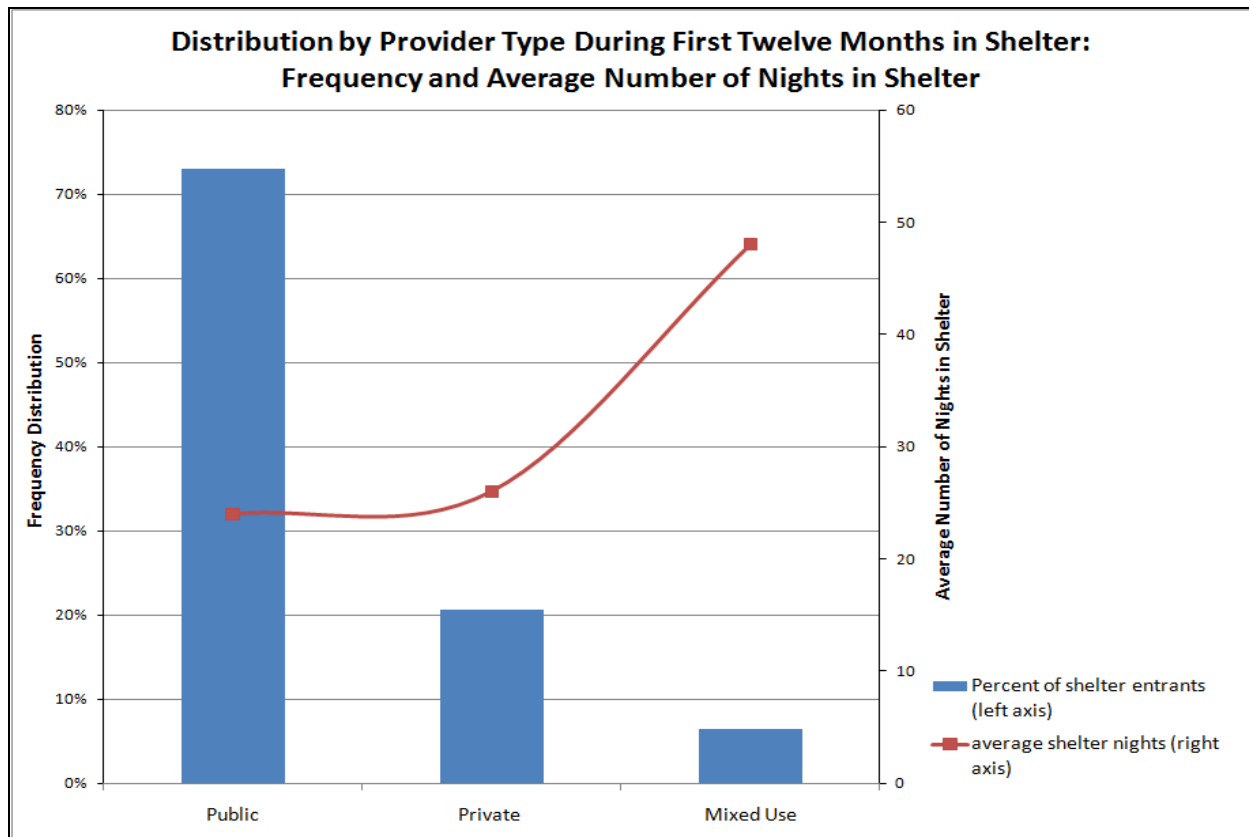


Figure 15: Distribution by provider preference during the first twelve months in shelter; frequency and average number of nights in shelter

Key Findings

- The majority of shelter users show a strong provider preference
- Public and private shelter users do not vary substantially in average number of nights in shelter
- Individuals without a consistent provider preference consume a disproportionate number of nights in shelter

Private shelter users have an average of 26 nights in shelter^{*}, while public users have an average of 24 nights in shelter.[†] As reported in Appendix A: Table 5, the independent t-test conducted on these values fell short of meeting our significance criteria at the 5 percent level, indicating that this difference in average number of nights in shelter is not significant and may be attributed to random variation in our

^{*} standard deviation is equal to 35

[†] standard deviation is equal to 50

sample. Individuals without a provider preference meeting the 90 percent threshold are most likely to be long-term shelter users, with an average of 61 days in shelter.*

Figures 16 and 17 further analyze the number of days in shelter experienced by public and private individuals. While there is not a significant difference between public and private shelter users in average shelter days, there do appear to be differences in the tails of the distribution. Public shelter users are both more likely than private shelter users to stay more than 181 nights in shelter and they are more likely to stay in shelter for only one day.

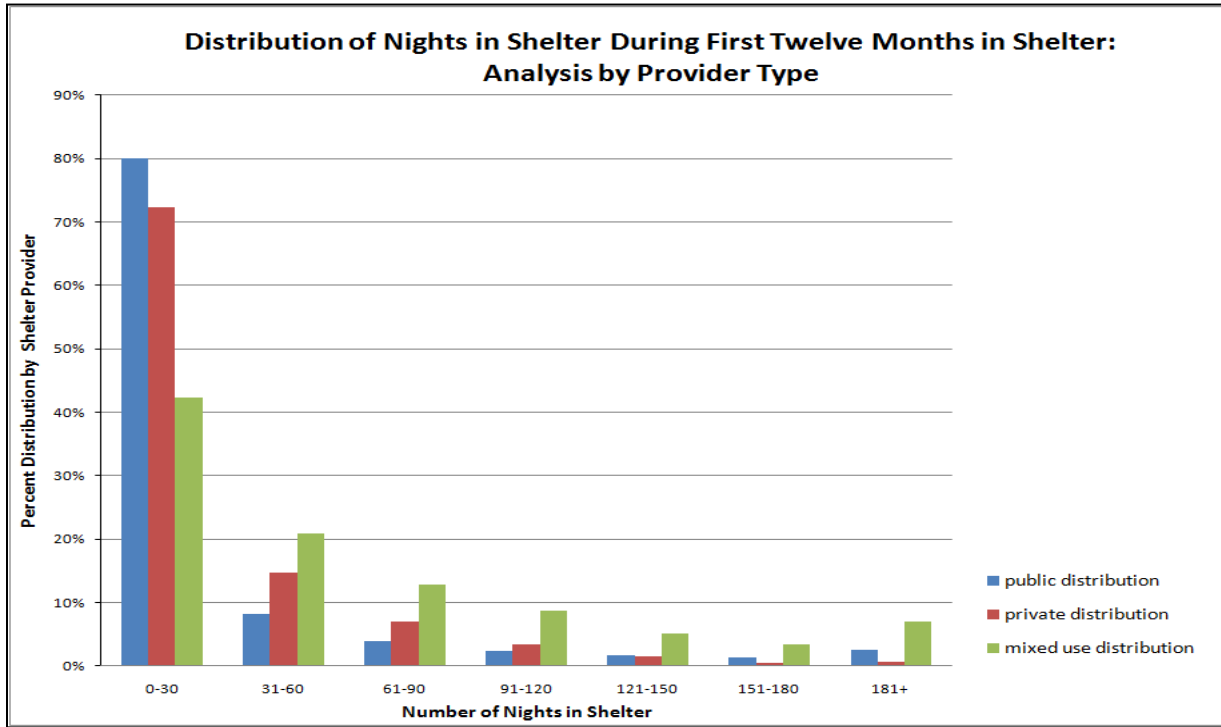


Figure 16: Distribution of nights in shelter during the first twelve months in shelter; analysis by provider preference

* standard deviation is equal to 64

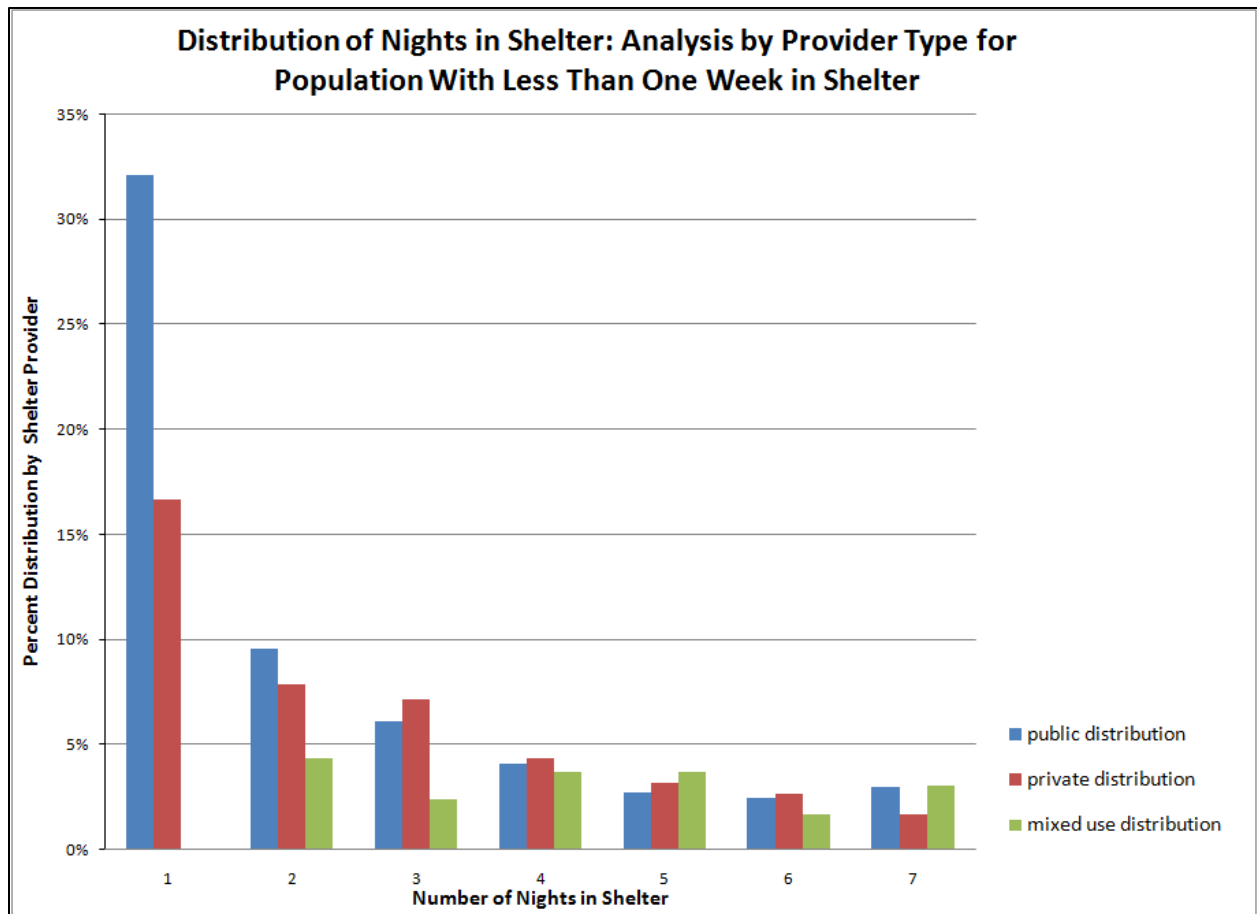


Figure 17: Distribution of nights in shelter; analysis by provider preference for population with less than one week in shelter

Key Findings

- Public shelter users were more likely than private shelter users to leave the shelter system after one night
- Public shelter users were more likely than private shelter users to experience more than 181 nights in shelter
- Individuals in mixed group are more likely to spend 181 plus days than public or private users

Although the difference in means between public and private shelter clients was not found to be significant at the 5 percent level, the table below explores the further differences between shelter clients based on their provider preferences.

Shelter Dynamics During First Twelve Months in Shelter: Analysis by Provider Type				
	Public	Private	Mixed	Total
sample size	4292	1209	298	5799
percentage of clients	74%	21%	5%	100%
average no. of nights	24	26	61	27
average no. of spells	1.34	1.20	1.86	1.34
average no. nights per spell	18	22	33	20
average spell length	27	29	45	30
client days	104992	30993	18163	154148
percentage of client days	68%	20%	12%	100%
ratio (%days)/(%clients)	0.92	0.96	2.29	1.00

Table 18: Analysis by provider preference

The table above indicates that public shelter users experience a greater number of spells than private shelter users. Additionally, individuals without a distinct provider preference had a much higher number of average shelter spells. Unlike the differences in number of nights spent in shelter, the difference in the number of shelter spells faced by public and private shelter users (1.34 and 1.2 respectively) was found to be significant at the 5 percent level, indicating that these results are not due to random variation in our observed cases (see Appendix A: Table 6).

Since there is no significant difference in the average number of nights spent in shelter, private shelter users are assumed to have a greater number of nights in shelter per spell. This is confirmed in the fifth row of the above table that shows that average spell lengths for private users was 29 nights compared to 27 nights for public users. In addition, the mixed group, which used both public and private shelters, had the longest average spell length, at 45 days.

Hazard Model Estimates of Shelter Exits

Appendix A: Table 7 shows the key coefficient results from our analysis of the factors predicting exits from spells of shelter use. Of the variables we included in our regression, we found the following variables to be highly significant predictors of the monthly hazard rate for leaving shelter:

- being male
- mixed use
- seasonal variable for winter
- year 2009 exits

Our results suggest that males have a higher hazard (risk) of exiting a shelter spell than females, which means that men are more likely to leave shelter than women during any given month during a spell of shelter use. The hazard ratio (H.R.) of exiting a shelter spell is 1.15 for males, which means that males have a 15 percent greater hazard for exiting shelter in each month than females. This result is

congruent with our findings in the Fixed Window analysis which showed that both mean shelter days and spell lengths for males are shorter.

Another significant variable indicates that people who use both private and public shelters—the mixed use group—have a 40 percent lower likelihood of exiting shelter spells (H.R. 0.60). This is also consistent with the results highlighted above. Mixed users on average have longer spell lengths and more days in shelter when compared with shelter clients who mostly stay at public shelters or private shelters.

In addition to males and mixed shelter users, a seasonal variable for winter has a negative effect on the likelihood of exiting a shelter spell. In other words, individuals are 15 percent less likely to end their spell of shelter use during the winter (H.R. 0.85). Considering the harsh winter conditions in Hennepin County, reduced exits during winter would be expected. Shelter users are less likely to exit from a spell either to permanent housing or to unsheltered conditions during the unpropitious winter months.

A final result indicates that shelter users were 17 percent less likely to exit shelter spells in the year 2009. The inverse relationship between the year 2009 and hazard of exiting shelter (H.R. 0.83) can perhaps be explained as an effect of the economic recession and its associated reduction in housing and employment opportunities.

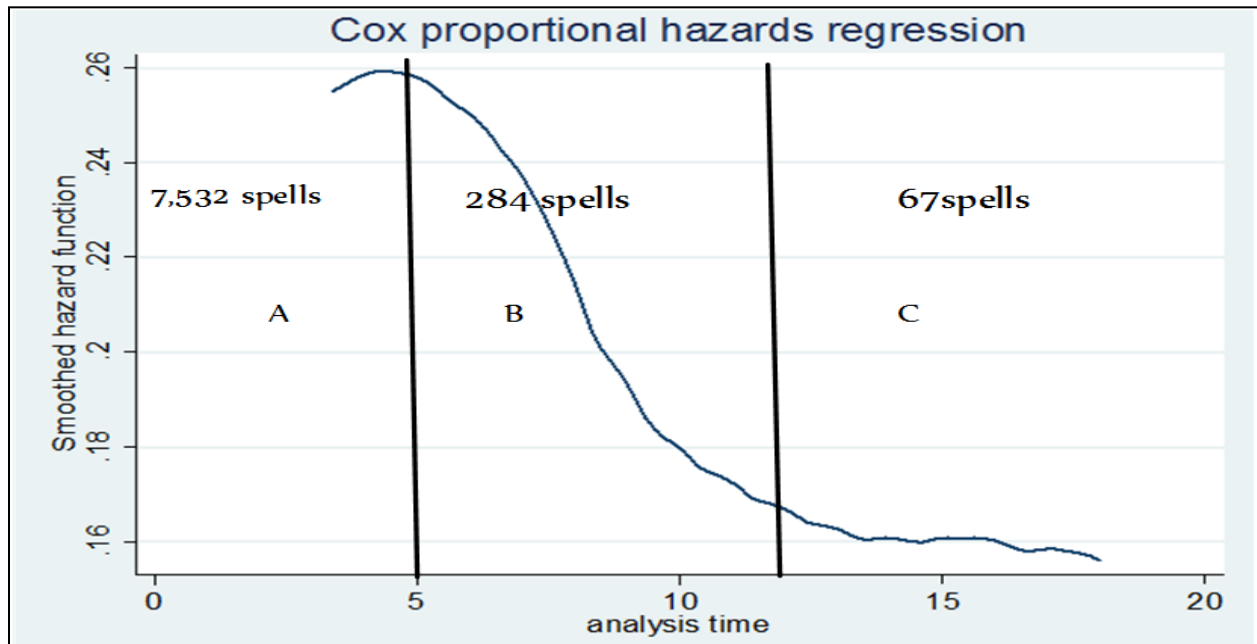


Figure 19: Baseline hazard rate for exiting a spell of homelessness

Key Findings

- Most shelter users exit from their spell within the first five months
- Only 67 spells last more than 12 months
- Points where people get “stuck” in shelters range from 6 months to 12 months

Figure 19 above shows the estimated baseline hazard rate for exiting a spell of homelessness. This shows the average probability of exiting a shelter spell in each month for someone with average sample characteristics. As shown, the highest hazard for existing occurs soon after starting a spell and plateaus at the five month mark. In the next phase of the model the hazard declines substantially to a point corresponding to twelve months. After that phase, the curve turns into an almost straight line as the probability of exiting stabilizes.

The three segments are roughly similar to the three typologies of homelessness discussed in the literature review. The high rate of exit of the transitional homeless can be seen on the part of the curve marked with an A. Considering that “A” extends to the five month mark, and transitionally homeless according to literature exit shelters within 30 days, the first segment likely includes the transitional as well as episodic homeless. Only 4.45 percent of spells in our analysis extend beyond A. The next phase of the curve marked by B represents 284 spells. Most of the episodic homeless probably exited from homelessness in B where the risk of exiting is gradually but slowly declining. The low and almost unchanging exiting patterns of the long-term homeless can be seen in the part of the curve marked as “C”. Less than one percent of spells extend into this third segment. It should also be noted, however, that the shape of the hazard model may not be estimated accurately when the sample size gets small as it did on the parts of the graph marked with B and C.

Appendix A: Figure 8 shows the estimated survival curve for spell exits. This shows the probability that someone is still remaining in shelter in each month for someone with average sample characteristics. Most shelter spells do not last past the first five months. After the five month point, the proportion remaining in shelters changes much more gradually. The proportion remaining in shelters declines even less gradually after twelve months.

From the foregoing discussion, identifying a point of intervention requires weighing a number of factors. Waiting until the twelfth month where only the shelter users who are “stuck” are left in shelter may be one way of sifting out the “bad searchers”— for example those who are unemployed, have a poor rental history or high levels of disability-- from ones who may be able to exit shelter more easily. Intervening earlier, closer to the five month mark, on the other hand, would involve the costly problem of providing help to many more shelter users who have other options.

Hazard Model Estimates of Shelter Re-entry

Appendix A: Table 9 indicates the coefficients from our estimated models of the determinants of shelter re-entry. The model indicates the following factors significantly decrease the likelihood of re-entry into a new spell of shelter use:

- Only one prior spell of shelter use
- Exit from a private shelter
- Months occurring during winter

Our results suggest the probability of re-entering shelter is much lower following the first than following subsequent shelter spells. The estimates suggest that the probability of re-entry is 69 percent lower following an exit from a first spell than following an exit from higher order spells of shelter use (H.R. 0.31) This is consistent with our previous finding that most people exit from an initial spell and never re-enter to have another spell of shelter use.

The following Figure 20 clearly illustrates the difference in re-entry after exiting from first and subsequent spells. The blue survival curve depicts the proportion of individuals who have not yet re-entered shelter during each month after exiting from an initial spell. It is relatively flat throughout its span indicating a much higher survival rate when compared with the more terraced survival curve that represents subsequent spells. The flatness of the blue initial spell survival line illustrates that a much higher portion of individuals leaving a first spell of shelter use do not experience another shelter spell compared to shelter users with multiple spells. By the tenth month, only about half of the individuals with multiple spells remain out of shelter when compared with about 8 out of 10 who exited from an initial spell of homelessness.

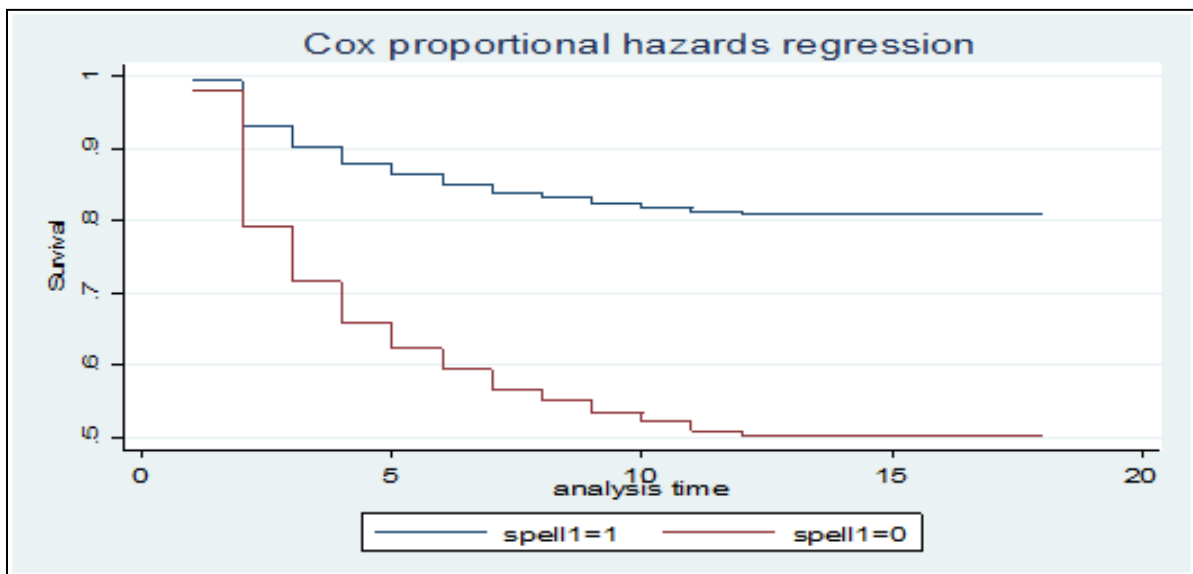


Figure 20: Difference in re-entry after exiting from first and subsequent spells

Key Findings

- Approximately half re-entered after first spell compared with about 8 out of 10 who re-entered after subsequent spells

Our analysis suggests that individuals who have exited from a private shelter have lower probabilities of re-entering shelter. This is consistent with results found earlier that suggest that private shelter users have fewer shelter spells, although their spell lengths are longer than mostly public and mixed users. When they leave shelters, they are less likely to re-enter to have another spell. In addition to our prior

finding that people are less likely to exit shelters in winter, our analysis suggests that they are also less likely to re-enter shelter in winter (H.R of .80).

Housing First Vouchers

One of the key policy issues emerging from this data analysis relates to the distribution of Housing First vouchers. Using our sample of individuals who began shelter stays after July 1, 2007, there is information on 26 individuals who received Housing First vouchers. This represents 0.4 percent of all observed cases. We use this information to assess how Housing First vouchers are distributed within public and private shelter systems and whether there is any distribution bias based on individuals preferred shelter provider.

As illustrated in Table 21 below, these housing vouchers are targeted to individuals with more extensive shelter use.

Shelter Dynamics During First Twelve Months in Shelter: Analysis by Receipt of Housing First Voucher			
	Non-Recipient	Recipient	Total
sample size	5773	26	5799
percentage of clients	100%	0%	100%
average no. of days	26	70	27
average no. of spells	1.34	1.38	1.34
client days	152331	1817	154148
percentage of client days	99%	1%	100%
ratio (%days)/(%clients)	0.99	2.63	1

Table 21: Analysis by receipt of housing first vouchers

Key Findings

- Recipients have a greater average number of days in shelter
- Recipients have a greater number of spells
- A comparison between voucher recipients and non-recipients indicates that Housing First vouchers are targeted to the most chronic shelter use populations.

As shown in the table above, voucher recipients spent an average of 70* nights in shelter, statistically greater than the average number of night non-recipients spent in shelter (26 days)[†] at greater than 5 percent significance. (See Appendix A: Table 10) In addition, voucher recipients were more likely to

* standard deviation is equal to 85

[†] standard deviation is equal to 48

have a greater number of spells than non-recipients (1.39 and 1.28 spells respectively). This difference was not statistically significant, which is not surprising given the small sample size used in this part of the analysis. (See Appendix A: Table 11)

In addition to assessing the targeting of Housing First vouchers by intensity of shelter use, we are interested in evaluating the distribution of vouchers by gender and provider preference. As shown in Appendix A: Table 12, women tended to receive a disproportionate share of Housing First vouchers. However, this may be because women also had a greater number of days in shelter, making them more likely to be eligible for the receipt of Housing First vouchers. Finally, Appendix A: Table 13 conducts a similar analysis based on individual's shelter use preferences. Under these parameters, the chi-square statistic is insignificant, and we are unable to reject the null hypothesis that Housing First vouchers are randomly distributed among individuals who frequent private or public shelters. These finding seems appropriate since differences in the number of days in shelter among public and private shelter users was not statistically significant.

Environmental Scan

To determine and analyze the existing service models which are available to the chronically homeless population, we performed an environmental scan. Six cities were chosen:

- Chicago, Illinois
- Miami, Florida
- Los Angeles, California
- Portland, Oregon
- Denver, Colorado
- St. Louis, Missouri

These cities represent diverse geographical regions across the United States, and all have well-defined plans for ending homelessness. All of these cities use some definition of chronic homelessness, and provide housing services directed towards that population. Drawing from their experience will help us determine if the definition of “long-term homelessness” is accepted around the country and if it is the best definition to use for Heading Home Hennepin. We hope to inform service delivery models in Hennepin County based on the success other cities have seen in serving long-term homeless populations.

Operational Definitions

In conducting this review, we were first interested in how different cities recognize or define individuals as chronic or long-term homeless. The U.S. Department of Housing & Urban Development (HUD) defines a chronically homeless person as, “an unaccompanied homeless individual with a disabling condition who has either been continuously homeless for a year or more or has had at least four episodes of homelessness in the past three years.”¹⁷

Within Minnesota, this definition is extended to include individuals with or without a disabling condition. Therefore the states definition includes any, “persons including individuals, unaccompanied youth, and families with children lacking a permanent place to live continuously for a year or more or at least four times in the past three years.”¹⁸ Minnesota’s definition is also more flexible on what counts as homelessness, since it includes the practice of “couch-hopping” or staying with various friends and family for short periods. This is specifically excluded in the HUD definition of chronic homelessness.

For the most part, the HUD classification serves as the operational definition to identify and serve chronic homeless populations in most of the areas covered in this environmental scan. This includes the cities of Los Angeles,¹⁹ Miami,²⁰ Portland,²¹ and Saint Louis.²²

Two cities, Chicago²³ and Denver,²⁴ have further elaborated on this definition of homelessness. In their models, “Chronic Homelessness” lasts two years or more and does not require a disabling condition. Individuals who do not meet the chronic homeless definition but are still frequent users of shelter and emergency services are called episodic homeless. The Chicago *Getting Housed, Staying Housed* plan

makes the distinction that while chronically homeless use more services, episodic homeless can be more difficult to help because they are more frequently dealing with chemical dependency and are more resistant to intervention. Episodic homeless also tend to be younger, and are more likely to move around between jails, treatment centers, detoxification centers, and shelters.²³

Emergency Shelters

A key component to this analysis involved understanding what types of housing services were available to the chronically homeless population in our sample cities. We found that while all cities use some mix of emergency, transitional, and permanent housing stock, cities vary in how they provide or target these housing resources to meet the needs of chronically homeless populations.

All of the cities we looked at had some type of emergency shelter system in place, usually a mix of public and private shelters similar to the system in Minneapolis. All plans acknowledged that despite the fact that the chronically homeless are a relatively low percentage of the homeless population; they use a high percentage of emergency shelter beds. For example, estimates from St. Louis show that 69 percent of emergency beds serve chronically homeless.²² Observations from Chicago show that chronically homeless use 50 percent of shelter beds and episodic homeless use 30 percent. These two groups used 80 percent of shelter beds although they only represent 19 percent of the total homeless population.²³

Transitional Housing

Transitional housing refers to housing units that are time-limited and generally have specific service programs attached to the terms of entry. The development of transitional housing units have declined recently as “permanent supportive housing” has gained popularity. Still, most of the cities we researched have transitional housing for the homeless as part of their service spectrum and many continue to serve large numbers of chronically homeless through these housing units. Denver identified transitional housing as particularly helpful for those experiencing episodic homelessness, since they often need additional support to deal with chemical dependency issues.²⁴ In St. Louis, 31 percent of transitional housing beds are utilized by the chronic homeless.²² Transitional housing is also a key component of Portland’s chronic homeless housing services, since 54 percent of all homeless resources are directed to shelter and transitional housing.²¹

Permanent Supportive Housing

All of the cities observed in this analysis identified the creation of new permanent supportive housing opportunities as critical to ending chronic homelessness, and many have set high service targets in their ten year plans to end homelessness. The Housing First approach, with low barriers to entry and a service engagement model, is universally accepted by these cities as the best way to provide resources to the chronically homeless. Los Angeles hopes to add 50,000 new permanent supportive housing

opportunities for homeless adults and families over a ten year period.¹⁹ Denver set a ten year goal of 942 units of permanent supportive housing for chronically homeless adults, enough to house all of the documented chronically homeless identified in their point in time homeless count. After five years they are 60 percent of the way toward achieving that goal, demonstrating tremendous progress.²⁴

Some cities, like St. Louis, are targeting their existing supportive housing resources towards chronically homeless individuals. St. Louis is currently serving this population in 72 percent of their permanent supportive housing units.²² Most cities in the scan have made incremental progress in reaching their permanent supportive housing capacity goals. This progress was often fueled by utilizing community loan funds and development portfolios for permanent supportive housing investments.²⁰

Intervention and Service Delivery

All the cities we examined strongly emphasized intervention with the chronically homeless, however the implementation of systematic outreach or screening tools varied widely between study cities. Additionally, housing services are provided by a wide range of non-profit and county level providers. Coordination between these public and various non-profit providers seems to be a widespread challenge, and different regions have handled it differently. This analysis attempts to clarify what housing and social services are available and where targeted interventions are occurring for chronically homeless populations.

Housing First Approach

Each of the six cities covered in this study use Housing First models to move chronically homeless individuals into stable housing. Housing First is a best practice that has gained nationwide acceptance in recent years when working with chronically homeless individuals. The primary components in a Housing First program are low barriers to entry, a client-focused service approach, and reducing the self harm that a person's lifestyle is causing them. The participants are first placed in an apartment and stabilized, and then have access to a caseworker who assists them in determining goals such as sobriety, employment, or returning to school.

While all cities used emergency shelters as the primary point of intervention for identifying and placing chronically homeless individuals into housing, St. Louis in particular uses screening and needs assessment tools at emergency shelters to expedite this placement.²² Due to the scarcity of housing opportunities chronically homeless often wait long periods of time in shelter before moving to a Housing First unit. After individuals are placed into stable housing situations, all cities used continuum of care practices to further coordinate service delivery.

Continuum of Care

Housing and social services for the homeless have traditionally been fragmented due to overlapping service jurisdictions and fragmented provider networks. Continuum of Care (CoC) plans are designed to address these service implementation challenges to improve service delivery and address broader challenges related to experiences of homelessness. HUD defines CoC as:

“a community’s plan to organize and deliver housing and services to meet the specific needs of people who are homeless as they move to stable housing and maximum self-sufficiency. It includes action steps to end homelessness and prevent a return to homelessness.”²⁵

The City of St. Louis was one of the first cities in the country to design and adopt this model in the late 1980s. Currently, the city of St. Louis and St. Louis County have separate but collaborating CoCs organized under the city and county Departments on Human Services, Homeless Service Divisions.²² St. Louis is also using Assertive Community Treatment (ACT) to further integrate mental health services in their intensive community-based service model. Teams consist of a team coordinator, a mental health worker, an occupational therapist, peer support workers, a psychiatrist, a registered nurse, a social worker, a vocational rehabilitation counselor, and an addiction specialist. Many chronically homeless individuals are served under the clients served by ACT community treatment teams.²²

Denver has created a CoC team servicing the “Denver’s Road Home” initiative. They are a government-based entity but function somewhat like a non-profit, and are tasked with coordinating the implementation of the plan which includes working with all the stakeholders.²⁴ Of the cities we looked at, Denver had the most structured and plan-focused organization that developed from their initial ten-year plan to end homelessness. Miami also uses CoC Case review committees to address long-term homeless cases and track and analyze general housing service trends.²⁰ This locally developed service plan covers outreach, intake, and assessment to identify needs and link them to appropriate emergency, transitional, or permanent supportive housing services.²⁰

Los Angeles has taken a different approach and created an official governmental agency to implement their plan as well as conduct evaluation, called the Los Angeles Homeless Service Authority or LAHSA. All funding for homeless housing and services goes through LAHSA, so they are able to coordinate non-profit response to some extent.¹⁹ While this approach has advantages and in theory should be able to produce a more prepared and effective reaction to the problem of chronically homeless in Los Angeles, in practice the organization has been plagued with problems such as funding delays and internal communication problems that can be byproducts of larger bureaucracies.

Promising Practices

All cities have some plan in place for program and service evaluation, but vary widely in the extent and the amount of follow-up. Many cities depend on data from their local HMIS system to see the effect

their intervention efforts are having, and all cities perform periodic, if not regular, “point in time” counts to see how many homeless remain in the community.

Some cities have seen impressive results so far – Los Angeles saw a 38 percent drop in homelessness from its 2007 point in time count to the one held in 2009¹⁹, but since they are behind their plan goals for creation of new housing opportunities it is not clear how such a large drop was achieved. Denver has seen a reduction of 36 percent in chronic homelessness that can be attributed to the prioritizing and creation of new permanent supportive housing opportunities that target this population.²⁶ St. Louis has also been extremely successful in increasing permanent supportive housing resources through HUD’s Supportive Housing Program (SHP), the primary source of federal funding for homeless services. The city’s success has largely to do with its acknowledgement that HUD has shifted its emphasis in funding homeless service programs to programs that provide stable housing situations with supportive services. All of the new applications submitted by the City to HUD for SHP funding in the last three years have focused on the development of new permanent affordable housing with case management services in addition to services in existing supportive facilities.²²

Of the cities we scanned, none have clearly defined the point of intervention significantly differently from the one-year timeline in Minnesota’s definition of long-term homelessness. While Chicago and Denver have definitions of episodic homeless that begin with a six month homeless period, they both acknowledge and accept the one-year mark as an important indicator of chronic homelessness as well.

Key Findings

- Cities have many similarities in how to intervene with single adult chronic homeless.
- Minnesota’s definition is more flexible than most, including individuals regardless of disability status and also those who “couch-hop”
- All cities used a mixture of emergency shelters, transitional housing, and permanent supportive housing. All identified Housing First as the best strategy to intervene with chronically homeless.
- Coordination between public and non-profit providers seems to be a challenge for all cities. Different strategies have been adopted to better coordinate efforts, including utilizing Continuums of Care, forming quasi-governmental agencies, or creating new government entities.
- All cities have some plan in place for program and service evaluation, but vary widely in the extent and the amount of follow-up.

Conclusions

Critical Points

Heading Home Hennepin wished to identify critical points in homelessness when individuals are at higher risk for becoming long-term homelessness, or “getting stuck” in shelter. Identifying these points would allow the coalition to maximize the use of limited resources and services available to help the long-term homeless, as well as minimize the time they spend in the emergency shelter system. Considering when this elevated risk began to occur, the research exposed different conclusions. The quantitative data analysis demonstrates that after six months to twelve months, an individual’s probability of leaving the shelter system decreases. In addition, men have a fifteen percent higher probability of exiting shelter than women in any given month.

The qualitative analysis came to a different conclusion, as most focus group participants defined “getting stuck” as a condition specific to each individual’s circumstances and not dependent on a length of time. While most favored decreasing the length of time in the definition, the primary motivation for this was to reduce the amount of trauma people experienced when remaining homeless longer. Many participants used language similar to addiction theory, saying that each individual needed to hit “rock bottom” before they were ready to put in the tremendous amount of work needed to exit the system. The literature review had a similar conclusion, suggesting that a model of evaluating individuals based on their personal risk factors for long-term homelessness would be more effective than using a fixed length of time.

Length of Stay and Shelter Interaction

Another primary goal of the analysis was determining the level of interaction between public and private shelters, and whether there was a difference in client length of stay based on which type of shelter they used most frequently. The data analysis showed that the majority of individuals experiencing homelessness used primarily public shelters. A smaller number used primarily private shelters, and about the same number used a mix of both public and private. These conclusions are supported by the focus group data, where clients vocalized a preference for private shelters but primarily used public shelters because of availability and convenience issues.

The quantitative shelter data analysis showed that contrary to what was expected, there were not large differences in length of stay between clients who primarily used either public or private shelters. Mostly private shelter users tend to have longer stays, but are less likely to return, while mostly public shelter users tend to have shorter stays, but are more likely to return. Although the dynamics of their shelter use are different their overall length of stay was not statistically different. However, clients who stayed in a mix of public and private shelters consumed a disproportionately high number of nights in shelter. These results discount the hypothesis encountered in the literature review that nicer shelters will cause

a moral hazard dilemma and encourage clients to remain homeless longer for two reasons. Beginning with the premise that the private shelters are nicer and are preferred by the majority:

- there is no statistically significant difference in length of stay between the “mostly public” and the “mostly private” shelter use populations
- although people tend to have slightly longer stays in the private shelters, they are less likely to return for a subsequent spell

Housing First Certificate Distribution

An analysis of a small number of individuals’ in the data set (26) who received Housing First certificates suggests that certificates had been distributed proportionately to shelter clients by shelter type, so that the largest number of certificates went to clients of the public shelters, and a smaller number to those who had private or mixed shelter use. Women received a disproportionately higher number of certificates compared to their representation in the homeless population, but this distribution pattern fit the qualification guidelines appropriately as women tended to experience longer spell durations, thereby extending the amount of time they spent in the shelter system. The population which appears to be underserved by the existing certificate distribution guidelines is that using a mix of public and private shelters, since they also tend to have longer stays.

Policy Implications

The primary policy implications for Heading Home Hennepin revolve around the definition of Long-Term Homelessness, and specifically eligibility for Housing First certificates. Our research suggests that shelter clients begin to get “stuck” in shelter earlier than the one year deadline and that by intervening earlier, Heading Home Hennepin might be able to serve the same population more efficiently and effectively. Exactly when to intervene is more difficult to tease out; anecdotal evidence suggests that three months may be a critical point for some, while the quantitative analysis suggests that the critical point is closer to the existing definition (somewhere between six to twelve months). Regardless, earlier intervention is a potential cost saving strategy, but only if those who have a higher risk of getting stuck can be targeted.

In order to determine whether Heading Home Hennepin should intervene earlier, further research should be done on the costs and benefits of such intervention. Table 22 below begins that process by showing how many nights in shelter could be averted by intervening at certain points. It is notable that the most nights in shelter could be avoided by targeting people with a high number of days in shelter, rather than those with a high number of spells. The cost savings of these prevented nights in shelter would need to be weighed against the cost of providing permanent housing and services to those clients.

Number of Spells	Number of People Qualifying	Percent of People Qualifying	Days Homeless Averted	Average Number of Days Per Person
2+ Spells	1395	24%	66905	48
3+ Spells	436	8%	21799	50
4+ Spells	11	0%	5260	47
Longest Spell	Number of People Qualifying	Percent of People Qualifying	Days Homeless Averted	Average Number of Days Per Person
90+ days	407	7%	69564	170
120+ days	242	4%	49740	205
150+ days	159	3%	37213	234
180+ days	105	2%	27824	265
210+ days	79	1%	22619	286

Table 22: Analysis of potential shelter nights averted

Our second recommendation is that Heading Home Hennepin should consider developing assessment tools that would more accurately predict which individuals have a high risk of getting stuck in long-term homelessness. More detailed assessment would require more time from an already over-burdened shelter staff; and shelter clients may view the additional informational requests as unduly intrusive. However, the literature, the qualitative analysis and the quantitative analysis all support the development and use of such a tool. The issue at hand is targeting the appropriate services to the right individual or groups of individuals at the optimum time; it is an extremely difficult task to achieve when the only thing known about the individual is their social security number and gender.

Our final recommendation is that Hennepin County use pooled information on private and public shelter use to more accurately target housing assistance services. Our analysis of a small number of Housing First vouchers suggested that the only population of shelter users that was currently under represented in the distribution of Housing First vouchers was the “mixed-use” population, which tends to use both public and private shelters. This group may be missed by shelter operators in both public and private shelters, because neither has a full picture of the extent of the shelter use by individuals in the “mixed group”. This is similar to the literature review’s finding that the “episodic homeless” are often missed in counts of the chronic homeless population because they transition in and out of homelessness and other mediating institutions. With greater cooperation between shelter providers, as well as other agencies that serve the homeless, it may be possible to ensure that all individuals at risk of chronic homelessness are receiving needed services.

Appendix A: T-test Results and Hazard Models

Table 1: Means Test: Total Number of Nights in Shelter: Analysis by Gender*

Independent Samples Test: Number of Nights in Shelter: Analysis by Gender				
	N	Mean	Std. Deviation	Std. Error Mean
Males	4640	24.39	45.67	.67
Females	643	43.36	66.94	2.64
t-Statistic				
t-Statistic	DF	Sig. (2-tailed)	Mean Difference	Std. Error Difference
9.24	5281	.000	18.96	2.05

Table 2: Means Test: Number of Shelter Spells: Analysis by Gender†

Independent Samples Test: Number of Spells: Analysis by Gender				
	N	Mean	Std. Deviation	Std. Error Mean
Males	4640	1.37	.73	.01
Females	643	1.32	.64	.03
t-Statistic				
t-Statistic	DF	Sig. (2-tailed)	Mean Difference	Std. Error Difference
-1.56	5281	.118	-.05	.03

Table 3: Mean Test: Average Number of Nights in Shelter Per Spell by Gender

Independent Samples Test: Nights Per Spell: Analysis by Gender				
	N	Mean	Std. Deviation	Std. Error Mean
Females	851	32.76	55.62	1.91
Males	6457	17.53	36.81	.46
t-Statistic				
t-Statistic	DF	Sig. (2-tailed)	Mean Difference	Std. Error Difference
10.582	7306	.000	15.23	1.44

* values calculated excluding 81 cases with no nights in shelter recorded

† values calculated excluding 81 cases with no spell recorded

Table 4: Means Test: Spell Length by Gender

Independent Samples Test: Spell Length : Analysis by Gender				
	N	Mean	Std. Deviation	Std. Error Mean
Females	851	42.29	66.34	2.27
Males	6457	28.78	51.73	.644
t-Statistic	DF	Sig. (2-tailed)	Mean Difference	Std. Error Difference
6.910	7306	.000	13.52	1.96

Table 5: Means Test: Number of Nights in Shelter: Analysis by Provider Preference *

Independent Samples Test: Number of Nights in Shelter: Analysis by Provider Preference				
	N	Mean	Std. Deviation	Std. Error Mean
Public > 90%	4292	24.46	50.30	.77
Private >90%	1209	25.63	34.88	1.00
t-Statistic	DF	Sig. (2-tailed)	Mean Difference	Std. Error Difference
-.761	5499	.447	-1.17	1.54

Table 6: Means test: Number of Spells: Analysis by Provider Preference †

Independent Samples Test: Number of Spells: Analysis by Provider Preference				
	N	Mean	Std. Deviation	Std. Error Mean
Public > 90%	4292	1.34	.700	.011
Private >90%	1209	1.20	.521	.015
t-Statistic	DF	Sig. (2-tailed)	Mean Difference	Std. Error Difference
5499	8148	.000	-.148	.018

* values calculated excluding 81 cases with no nights in shelter recorded

† values calculated excluding 81 cases with no spell recorded

Table 7: Hazard Model for Exiting Shelter

Variable	Model Coefficients		Hazard Ratios	
	Estimate	Standard Error	Estimate	Standard Error
First Spell	-0.07	0.13	0.93	0.11
Second Spell	-0.05	0.14	0.95	0.13
Mostly Private	-0.02	0.03	0.98	0.03
Mixed Shelter Use	-0.51*	0.08	0.60**	0.05
Male	0.15*	0.04	1.16**	0.04
Unknown Gender	0.04	0.05	1.04	0.05
Winter	-0.16*	0.04	0.85**	0.03
Fall	-0.04	0.04	0.96	0.03
Summer	-0.01	0.04	0.99	0.03
y2008	0	0.03	1	0.03
y2009	-0.19*	0.04	0.83**	0.03

* Indicates significantly different from zero at a 5% confidence level.

** Indicates significantly different from one at a 5% confidence level

Figure 8: Exit survival curve

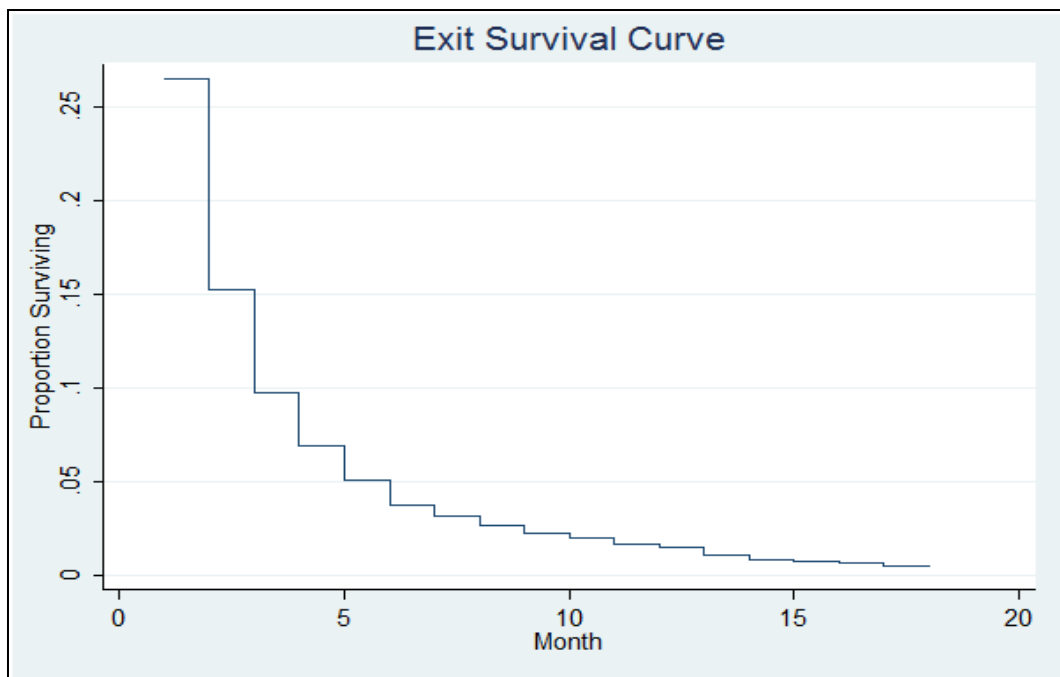


Table 9: Hazard Model for Re-entering Shelter

Variables	Model Coefficients		Hazard Ratios	
	Estimate	Standard Error	Estimate	Standard Error
First Spell	-1.17*	-0.2	0.31**	-0.06
Second Spell	0.15	-0.21	1.16	-0.24
Mostly Private	-0.53*	-0.07	0.59**	-0.04
Mixed Shelter Use	0.23	-0.14	1.26	-0.17
Male	0.13	-0.08	1.14	-0.09
Unknown Gender	-0.64*	-0.14	0.53*	-0.07
Winter	-0.22*	-0.07	0.80**	-0.06
Fall	-0.18*	-0.07	.83**	-0.06
Summer	-0.02	-0.07	0.98	-0.07
y2008	0.07	-0.09	1.07	-0.1
y2009	-0.1	-0.1	0.9	-0.09

* Indicates significantly different from zero at a 5% confidence level.

** Indicates significantly different from one at a 5% confidence level

Table 10: Housing First Nights in Shelter*

Independent Samples Test: Receipt of Housing First: Analysis by Nights in Shelter				
	N	Mean	Std. Deviation	Std. Error Mean
Non-Recipient	5773	26.39	48.68	.64
Recipient	26	69.88	85.24	16.72
t-Statistic	DF	Sig. (2-tailed)	Mean Difference	Std. Error Difference
-4.53	5797	.000	-43.50	9.61

* values calculated excluding 81 cases with no nights in spell recorded

Table 11: Housing First Spells*

Independent Samples Test: Receipt of Housing First: Analysis by Spells				
	N	Mean	Std. Deviation	Std. Error Mean
Non-Recipient	5773	1.34	.69	.01
Recipient	26	1.38	.75	.15
t-Statistic*	DF	Sig. (2-tailed)	Mean Difference	Std. Error Difference
-.305	25.19	.763	-.05	-.35

*Equal variances not assumed

Table 12: Housing First Gender

Crosstab: Receipt of Housing First: Analysis by Gender				
		Female	Male	Total [†]
Non-Recipient	Count	633	4706	5854
	Expected Count	641.2	4699.1	5854
	% Receipt	10.8%	80.4%	100%
	% Sex	98.3%	99.7%	99.6%
	% Total	10.8%	80%	99.6%
Recipient	Count	11	14	26
	Expected Count	2.8	20.9	26
	% Receipt	42.3%	53.8%	100%
	% Sex	1.7%	.3%	.4%
	% Total	.2%	.2%	.4%
Total	Count	644	4720	5880
	Expected Count	644	4720	5880
	% Receipt	11%	80.3%	100%
	% Sex	100%	100%	100%
	% Total	11%	80.3%	100%
Chi-Square Test				
N	Pearson Chi-Square	DF	Asymp. Sig. (2-sided)	
5880	26.438	2	.000	

* values calculated excluding 81 cases with no spell recorded

[†] Values were calculated with the inclusion of 515 individuals without gender identification; however, this column was not included in the final table.

Table 13: Housing First- Provider Preference

Crosstab: Receipt of Housing First: Analysis by Provider Preference					
		Public >90%	Private >90%	Mixed Use	Total
Non-Recipient	Count	4272	1205	377	5854
	Expected Count	4273	1203.7	377.3	5854
	% Receipt	73%	20.6%	6.4%	100%
	% Shelter	99.5%	99.7%	99.5%	99.6%
	% Total	72.7%	20.5%	6.4%	99.6%
Recipient	Count	20	4	2	26
	Expected Count	19	5.3	1.7	26
	% Receipt	76.9%	15.4%	7.7%	100%
	% Shelter	.5%	.3%	.5%	.4%
	% Total	.3%	.1%	.0%	.4%
Total	Count	4292	1209	379	5880
	Expected Count	4292	1209	379	5880
	% Receipt	73%	20.6%	6.4%	100%
	% Shelter	100%	100%	100%	100%
	% Total	73%	20.6%	6.4%	100%
Chi-Square Test					
N	Pearson Chi-Square	DF	Asymp. Sig. (2-sided)		
5880	.459	2	.795		

Appendix B: Environmental Scan Findings

City	Existing Definition	Resources	Intervention	Evaluation and Results
Minneapolis, Minnesota	"long-term homeless" - 1 year or more without a permanent place to live	GRH program using a Housing First approach	Shelters and street outreach workers are primary methods	HMIS System, Wilder Foundation, Heading Home Hennepin all do evaluation
Chicago, Illinois	"chronic" - 2 years or more "episodic" - frequent but sporadic "transitional" - brief episode	Housing First programs, directed at both "chronic" and "episodic" homeless	Interventions occur beginning at shelter and through other homeless outreach programs	Saw a 12% decrease in shelter use between 2005 and 2007
Denver, Colorado	"chronic" - 2 years or more "episodic" - frequent but sporadic "transitional" or "first time"- brief episode	Programs for MI and CD target chronically homeless but are not specifically restricted	Interventions occur in emergency shelters but also in MI/CD treatment	36% drop in chronic homelessness, and 92% drop in panhandling
Los Angeles, California	HUD definition of "Chronic" – 1 year or more plus disability	4000 new housing units planned with a Housing First approach	Interventions occur in emergency shelter. Focus on people exiting jail or MI/CD treatment and foster care programs	LAHSA is tasked with evaluation. 38% decrease in homelessness from 2007 to 2009
Miami, Florida	HUD definition of "Chronic" – 1 year or more plus disability	Emergency Shelter; Transitional Housing; Permanent Supportive Housing	Continuum of Care; Housing First	Recognized as National Model by U.S. HUD, use continuum of care model
Portland, Oregon	HUD definition of "Chronic" – 1 year or more plus disability	Emergency Shelter; Transitional Housing; Permanent Supportive Housing	Housing Connections; Housing First; Bridges to Housing; Project Homeless Connect; Discharge Planning	1,923 chronically homeless persons moved into housing
St. Louis, Missouri	HUD definition of "Chronic" – 1 year or more plus disability	Emergency Shelters; Outreach, Intake and Assessment; Transitional Housing; Permanent Supportive Housing	Continuum of Care, Housing First, Assertive Community Treatment Models; Discharge Planning	n/a

End Notes

- ¹ Brendan O'Flaherty (2009), "When should homeless families get subsidized apartments? A theoretical inquiry," *Journal of Housing Economics* Vol. 18, 68-80
- ² Culhane, Metraux, Park, Schretzman, Valente. Testing a Typology of Family Homelessness Based on Patterns of Public Shelter Utilization in Four U.S. Jurisdictions: Implications for Policy and Program Planning. *Housing Policy Debate*. Vol 18, Issue 1. 2007. Fannie Mae Foundation
- ³ Metraux, D. P. (Winter 2008). Rearranging the Deck Chairs or Reallocating Life Boats: Homelessness Assistance and its Alternatives. *Journal of the American Planning Association* Vol. 74, No. 1 , 111-123.
- ⁴ Wilder Research. (2006). Homeless in Minnesota 2006: At a glance Highlights from statewide survey.
- ⁵ Wilder Research. (2009). *Homeless service use in Minnesota*. Saint Paul: Wilder Research.
- ⁶ Dennis Culhane, W. P. (2007). Accountability, Cost Effectiveness and Program Performance: Progress Since 1998. *The National Symposium on Homelessness Research*, (pp. 12-1-12-37).
- ⁷ National Alliance to End Homelessness. (March 2007). *Chronic Homelessness*.
- ⁸ Carol L. M. Caton, P. C. People Who Experience Long Term Homelessness: Characteristics and Interventions. *2007 National Symposium on Homelessness Research*.
- ⁹ Thomas P. O'Toole, A. C.-M. (2007). Where do people go when they first become homeless? A survey of homeless adults in the USA. *Health and Social Care in the Community* Vol. 15 N. 5 , 446-453.
- ¹⁰ Carol L. M. Caton, P. B. (2005). Risk Factors for Long-Term Homelessness: Findings From a Longitudinal Study of First-Time Homeless Single Adults. *American Journal of Public Health* Vol 95, No.10 , 1753-1759.
- ¹¹ Cragg, M., & O'Flaherty, B. (1999). Do Homeless Shelter Conditions Determine Shelter Population? *Journal of Urban Economics*.
- ¹² The New Yorker. (2006, February 13). Retrieved March 3, 2010, from gladwell.com: http://gladwell.com/2006/2006_02_13_a_murray.html
- ¹³ HMIS Project Management Topics and Tools. Center for Social Policy McCormack Graduate School of Policy Studies University of Massachusetts Boston Boston, MA. December 2004.
- ¹⁴ Kuhn and Culhane. Applying Cluster Analysis to Test a Typology of Homelessness by Pattern of Shelter Utilization: Results from the Analysis of Administrative Data. *American Journal of Community Psychology*. Vol 26, Issue 2. April 1998. 207-232.

-
- ¹⁵ Culhane, Metraux, Park, Schretzman, Valente. Testing a Typology of Family Homelessness Based on Patterns of Public Shelter Utilization in Four U.S. Jurisdictions: Implications for Policy and Program Planning. *Housing Policy Debate*. Vol 18, Issue 1. 2007. Fannie Mae Foundation.
- ¹⁶ Garson, David. <http://faculty.chass.ncsu.edu/garson/PA765/cox.htm>.
- ¹⁷ Notice of Funding Availability for the Collaborative Initiative to Help End Chronic Homelessness/*Federal Register*, Vol. 68, No. 17/Monday, January 27, 2003, 4019.
- ¹⁸ Minnesota Housing Finance Agency. http://www.mnhousing.gov/initiatives/housing-assistance/homelessness/MHFA_001628.aspx
- ¹⁹ Los Angeles Homeless Service Authority. (2004). *Bring Los Angeles Home*. Retrieved February 18, 2010, from National Alliance to End Homelessness: <http://www.endhomelessness.org/section/tools/communityplans>
- ²⁰ State of Florida Department of Children and Families Office on Homelessness (2009), *Homeless Conditions in Florida*, Tallahassee: State of Florida.
- ²¹ Citizens Commission on Homelessness (2004), *Home Again: A 10-year Plan to End Homelessness in Portland and Multnomah County*. Portland.
- ²² St. Louis City and St. Louis County Department of Human Services (2004), *Ten Year Plan to End Chronic Homelessness*, St. Louis.
- ²³ Chicago Continuum of Care. (2005). *Getting Housed, Staying Housed*. Retrieved February 18, 2010, from National Alliance to End Homelessness: <http://www.endhomelessness.org/section/tools/communityplans>
- ²⁴ Denver Commission to End Homelessness. (2005). *Ten Year Plan to End Homelessness*. Retrieved February 18, 2010, from National Alliance to End Homelessness: <http://www.endhomelessness.org/section/tools/communityplans>
- ²⁵ HUD. "Glossary of CPD Terms." <http://www.hud.gov/offices/cpd/library/glossary/c/>
- ²⁶ Denver's Road Home www.denversroadhome.org