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**The Mobility of Homeless People and Their Use of Public Transit in Long  
Beach, California**

**Final Report**

**METRANS Project # 06-13**

**February 2008**

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## **Abstract**

The mobility of the homeless is often constrained by certain social and geographic factors, including the concentration of homeless in neighborhoods with high levels of poverty and in public spaces in downtown areas that can be used for sleeping and networking. Geographically, these spaces may be identified as “spaces of containment,” sites in which marginalized populations, such as the homeless, are maintained through the production of social and spatial barriers to their mobility. Despite the assumption that homeless individuals are relatively immobile because of their circumstances, mobility is crucial to the ability of homeless people to move between stigmatized and non-stigmatized places, such as places of employment. Public transportation services offer a critical outlet for homeless individuals with limited resources who must use public transit to access services, shelter, affordable housing, education, and employment. This research examines the mobility patterns and public transit use by homeless people in Long Beach, CA, and evaluates the extent to which the mobility provided by public transit constrains or enables their ability to navigate between stigmatized and non-stigmatized places. The goal is to provide insights for addressing the needs of the City of Long Beach’s homeless population.

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## Introduction

In February 2005, the Long Beach City Council initiated a 10-year strategic “Plan to End Homelessness” in the city (City of Long Beach, Department of Health and Human Services website 2005). That effort, spurred by a national agenda to eliminate homelessness in the United States (USICH 2005), has developed into a citywide effort to create a strategic working plan to address homelessness and its root causes. Issues, such as employment opportunities and housing accessibility, are key concerns to developing that plan as are issues related to building a larger, collaborative constituency of public and private interests to aid in the implementation of any final planning. In addition, the plan must take into consideration basic geographic concerns, including the neighborhood dynamics where most homeless people reside, the location of services, and access to public transportation. As many scholars have noted, homeless individuals are often isolated in regions of the city that are stigmatized by society into what are called “spaces of containment”: sites where there is little resistance to their presence, particularly poor, downtown areas and key public spaces, such as parks, freeway bridge underpasses, and beaches where they remain, relatively speaking, out of sight (Dear 1992; Dear et al. 1997; Dear and Taylor 1982; Law 2001; Takahashi 1998; 2001). Homeless individual’s mobility is a concern because they must travel beyond the “spaces of containment” to get to job and employment opportunities as well as needed services (e.g., Ong and Houston 2002). As an example, homeless veterans in Long Beach may travel from the City’s downtown area on the west side of the City to the Veteran’s Administration on the east side of the City. Public transportation thus plays a critical role in that mobility, for, as we know, most homeless individuals cannot afford to own and operate their own private vehicle. Moreover, a recent survey conducted by the City of Long Beach revealed that, on average, 13% of homeless individuals hold full- or part-time employment (City of Long Beach 2004). What this suggests, is that there is not simply one “homeless problem” or one type of “homeless person.” Rather, there is a multiplicity of homeless experiences and needs.

The Department of Housing and Urban Development (HUD) defines two major types of homelessness for individuals unaccompanied by a spouse or children: chronic and episodic (Federal Register 2006; HUD 2005). Chronic homelessness is defined as someone with a disability who has been without a home for more than a year or has experienced homelessness at least four times over a three-year period. Episodic homeless, on the other hand, are all those individuals who do not have a disability and have been homeless for less than one year. In Long Beach, on any given day almost 43%<sup>1</sup> of the homeless are defined as chronically homeless (City of Long Beach 2004). The episodically homeless are likely to need public transportation as they try to transition back into housing, and travel to work is an essential part of helping them move from being homeless to homed. The chronically homeless are also in need of public transportation services; they often need to move between any number of services (mental health or other social services) and their place in the city. Therefore, both chronic and episodic homeless individuals (and families) are in need of transportation, although those needs are likely to vary across these two groups and across genders (e.g., Blumenberg 2004; Law 1999; Ong and Houston 2002). Moreover, if the City of Long Beach is going to address homelessness and reduce its presence, there is a need to ensure that individuals

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<sup>1</sup> This number comes from the 2003 Homeless Survey taken by the City. It is based on a survey of 1,018 homeless respondents of which 440 met the criteria for categorization as chronically homeless. Applying the percentage to the 2003 point-in-time count of homeless adults suggest that 1,635 are chronically homeless on any given day in Long Beach. The estimate is that over the course of one year approximately 12% of homeless individuals and families could be counted as chronic (City of Long Beach 2004).

have access to affordable transportation, as the City has noted that many homeless individuals cannot afford private vehicles.

This research addresses the problem of access to public transportation for the homeless population in Long Beach, CA, and evaluates the extent to which current public transit networks meet homeless people's transportation needs. A significant majority of homeless individuals do not have access to a private vehicle and are dependent on public bus transportation to get to work and/or social and health care services. Anecdotal evidence suggests that many homeless individuals do not utilize the Long Beach transit system. To address this concern, we completed the following objectives to assess the transportation needs of the homeless in Long Beach:

- 1) Conduct focus group with self-identified chronic and episodic homeless to understand the language they use in discussing their mobility needs and access to the transit system.
- 2) Design a survey questionnaire to collect data on their frequency of public transit use, the bus routes they use, their reasons for public transit use, the places they need to go, and how well public transit serves their needs. Data collection includes identifying chronic and episodic homeless, the ways they fund public transit use, the location of needed services, bus routes, and the demographic characteristics of the population.
- 3) Using both statistical and Geographic Information System (GIS) methodologies, analyze the spatial extent of homeless mobility, the accessibility of transit routes, and the differences in use and needs among different types of homeless.
- 4) Offer policy interventions that articulate how the City of Long Beach can meet the transportation needs of the City's homeless population.

The City of Long Beach is an ideal place to examine these issues because it is currently involved in developing its 10-year strategic plan. Moreover, Long Beach, as a second-tier city in California, is more representative of what cities of similar size might do to address the transportation needs of homeless individuals.

The remainder of this report is divided into five sections: (1) Literature Review, (2) Methodology, (3) Analysis and Findings, (4) Conclusions, Policy Implications and Further Research, and (5) Implementation. We report our methods, analyses, and findings for both the focus group and survey data. The focus group interview guides and survey instrument are included in the appendices.

## Literature Review

Research on the mobility of disadvantaged populations has been conducted by geographers and urban planners investigating the “spatial mismatch” for low-income commuters traveling between inner-city areas and suburban job markets (see review by Blumenberg 2004). Analyzing the movement of people between specific locations through the networks of transportation systems that enable their movement is one approach to examining the transportation experiences of disadvantaged populations like the homeless. This approach involves the use of tools such as geographic information systems (GIS). The power of a GIS lies in its ability to match geographic locations with information about those locations. These spatially referenced data are stored on different layers, which can be viewed simultaneously or in combinations extracted through queries. The queries can answer questions such as how many bus routes provide access to employment and job-training centers from homeless shelters. Transportation planners have used GIS to determine the accessibility of neighborhoods to bus stops (Orange County Transportation Authority) and to identify the transit routes that could link former welfare recipients with businesses that hire entry-level workers (Southern California Association of Governments) (Lang, 1999).

There are several factors that complicate conducting such an analysis for homeless populations. First, the availability of demographic and income data by household from the US Census Bureau and local data about employers and transit routes facilitate these types of studies. However, because homeless people have no household address and the locations of service providers such as shelters, food pantries, and soup kitchens are not systematically recorded, the data necessary to conduct similar GIS analyses of how well public transit meets the travel needs of homeless people must be collected in customized surveys.

Second, much of this literature is focused on “welfare to work” programs as well as commuting related to job markets. As Blumenberg (2004: 372) notes, “given the complexity of metropolitan urban structure, the spatial mismatch hypothesis oversimplifies the geographic location of employment opportunities suitable for welfare recipients.” This oversimplification intensifies for those without a permanent home. It is important to consider the added layer of basic services, such as having access to showers, before individuals head to work or a job interview. This makes studying “bus route optimization” through the production of a Geographic Information System (GIS) much more complicated than simply increasing bus routes in downtown areas (Chien et al. 2003), it means understanding the relationship between public transportation networks, basic services, and the larger urban and suburban markets in which many homeless individuals must live and work.

Third, in addition to the complexity of “optimization,” the deinstitutionalization of the mentally ill in the US has pushed more individuals onto the streets who need, not only jobs, but basic health and social services (Dear et al. 1997). Thus, while we are interested in work-related commuting and its nuances across genders within the homeless population, we are also interested in investigating how the chronically and episodically homeless utilize public transportation services to get not only to places of employment but to needed services as well. If we are to address the twin issues of chronic and episodic homelessness, we must consider the added complexity of how the transportation needs of both chronically and episodically homeless men and women overlap and diverge from each other. We see this as a gap in the literature and in the overall policy planning in public transportation in California.

Fourth, complicating a straightforward study of transportation is the broader issue of mobility as both a physical and social process. Transportation geographers define mobility as “the ability to move between different activity sites (e.g., from home to a grocery store)” (Hanson, 1995,

p. 4). Mobility “connects the different spheres of habitation, work, education, procurement and spare time” (Holthaus, 2004, p. 121). Mobility is often discussed in conjunction with the accessibility of places and people, often measured as the number of activity sites available within a certain distance or travel time (Hanson, 1995). Space-time geography is an important component of these studies as it identifies the various constraints on the ability to move and get to activity sites (c.f., Hagerstrand, 1970). Issues of accessibility demonstrate that mobility is not just restricted to the physical movement between locations, but includes the social, economic, and political contexts that enable and constrain movement. In the case of the homeless, it is important to situate mobility and transportation needs in the politics, economics, and social stigmatization (e.g., NIMBYism) surrounding the construction of the systems of homeless service provision. These limitations of a straightforward GIS analysis linking location via transit networks have implications for understanding how we, as geographers interested in homeless mobilities, both conceptualize and analyze movement and shape broader policy.

In geography, there is a history of investigating the mobility of homeless people in terms of intraurban daily patterns of movement and interurban migration (Rahimian, Wolch, & Koegel, 1992; Rowe & Wolch, 1990; Whyne, 1991; Wolch et al., 1993). These studies emphasize three points. First, homeless people travel for the same types of reasons as homed people: for food and supplies, shelter, income, services, and family and friendship. Mobility is a coping strategy for improving quality of life in employment, housing, social relationships, services, and entertainment. There is little support for the idea that the majority of homeless people are transients or drifters in the sense of traveling aimlessly (Wolch et al., 1993). Second, these opportunities for access to resources and social networks are a stronger indicator of daily mobility and interurban migration than individual characteristics such as physical or mental disability or substance abuse (DeVerteuil, 2005; Wolch et al., 1993). Third, homeless people do face forced mobility related to their status as homeless from police enforcement of ordinances and threat of police action, actions of local businesses and private security guards, and the bureaucratic rules of service providers (e.g., DeVerteuil, 2003; Wolch et al., 1993; also see Mitchell (1997) for research on anti-homeless laws). These investigations of voluntary and forced mobility provide important examples of the experiences of mobility by homeless individuals, illustrating how there are simply more steps involved in getting to work, job training, or other social services that are not necessarily considered in many models of public transportation.

More specifically, existing studies are inconsistent in their representations of the connotations implied by mobility. They rely on the denotative meaning of mobility – the ability to get from one place to another – while neglecting its connotative meaning – symbolization of what it means to be mobile. For example, Wolch et al. (1993) recommend providing low-cost bus passes to homeless people, implying that increasing mobility is positive for linking homeless individuals to life opportunities and social networks (e.g., family and friends) in homed communities and their communities of origin. The meaning of mobility in this case is constructed as part of a set of positive outcomes for the homeless, such that increasing the voluntary mobility of homeless individuals is a good thing. Alternatively, the historical references to itinerant migrant workers, the American Hobo, and aimless “drifters” and “transients” imply instability, a decidedly negative connotation to mobility. This is reinforced in studies of homelessness by the use of mobility as a variable measured by the number of different locations in which one has stayed (DeVerteuil, 2005). Mobility in this case means the opposite of stability, implying the lack of a stable living arrangement (see Cloke, Milbourne, & Widdowfield 2000).

In addition, homelessness policy in many communities has discouraged mobility by containing the homeless and homeless services in skid rows. For example, social service providers are concentrated in LA's skid row, which promotes the voluntary mobility of the homeless while police “sweeps” and “dumping” activities add to the concentration through forced migration (i.e.,

when police round up homeless individuals from other areas and drop them off at skid row) (Blasi, Dear, & Wolch 2006; DiMassa & Winton 2005).

Given the complexity of examining mobility and public transit use as it relates to homelessness, the goals of this report are as follows: (1) to describe the travel behavior of a sample of the homeless population in Long Beach; (2) to assess their transportation needs and accessibility issues; (3) to compare homeless groups based on gender (i.e., men and women) and homeless status (i.e., chronic and episodic); and (4) to identify the factors that enable and constrain the movement of homeless individuals and their use of public transit. We expect the research to contribute to broader conversations we are currently having about urban planning and homelessness policy in Long Beach and southern California.

## Methodology

As stated above, there were four main objectives to this study designed to address three key research questions: (1) What are the transportation needs of the homeless population in Long Beach?; (2) Is there any difference in the ways in which different types of homeless populations currently use or could potentially use public transportation?; and (3) In what ways do public transportation routes serve or not serve the areas where homeless populations are located and where they need to go? Below we trace each objective and its related methodology, but first we discuss the student participation in the project.

### **Student Recruitment and Training**

As part of this study, we employed four undergraduate student interns and two graduate students. Four additional undergraduate students participated in an unpaid internship for academic credit. The graduate students were employed throughout the tenure of the project, while the undergraduates served in both paid and unpaid internships in varying capacities. The paid interns worked 10 hours per week for 15 weeks and volunteered for 5 hours per week at organizations in Long Beach serving homeless individuals. The unpaid interns received course credit for 7 hours per week for 14 weeks. The students received training in focus group and survey design methods, coding and analyzing focus group data, writing field notes based on participant observation, recruiting participants, administering surveys via interviews, and entering and cleaning data. Two of the undergraduate student interns, under the supervision of one of us and one graduate student, coded and analyzed the focus group data and presented their findings in a formal presentation entitled "Homelessness, Public Transportation, and Limitations of Individual Mobility in the City of Long Beach, California" to the faculty of the CSULB Geography Department and at the Southern California Conference for Undergraduate Research in November 2006 (Nelson and Mooradian 2006).

Training of the student interns took the following steps: (1) familiarization with the context and details of the study; (2) training on focus group procedures and analysis; (3) engagement in the development of the survey instrument and GIS database; (4) practice and role playing on how to conduct the survey; and (5) training on how to enter data into the Viking and Excel database systems.

### **Focus Groups**

The first objective of this research was to collect qualitative data from homeless people about their mobility needs and concerns and current use of public transit. A focus group is a group discussion about a set of issues facilitated by a researcher, in which participants interact with each other as well as with the researcher (Cameron 2000). It is an efficient and low-cost method for gaining insight into the perceptions of respondents about a subject (Monmonier and Gluck 1994) and is commonly used for developing survey instruments (Fowler 1993). The method allowed participants to explain in detail their use of public transit, their transportation needs, and their concerns about the accessibility of public transit. Because they also discussed these issues with each other, the method allowed for participants to both disagree and establish consensus about what is most important to the group (Cameron 2000). Our goal was to collect qualitative data that could guide the design of the quantitative survey questions. These focus group data enabled us to create a survey instrument that anticipated both the issues of most concern and the range of possible concerns of our survey respondents. It allowed us to develop a vocabulary for asking questions about transportation that is consistent with the ways homeless people talk about their mobility needs and public transit use.

The co-principal investigators applied for and received approval from the Institutional Review Board (IRB) of the California State University, Long Beach (CSULB) for conducting research with human subjects. The focus group participants were recruited from a City of Long

Beach drop-in service center that agreed to help facilitate the research. A table was set up in the waiting room of the service center with a sign informing potential participants of the study. As people approached the table, a research team member greeted them, described the focus group, and asked those interested to fill out a screener questionnaire to determine eligibility to participate. For the first focus group, participants had to be female, aged 18 or over, and self-identify as having been homeless sometime in the past 30 days. The screener also collected information on age, race and ethnicity, military status, and current and past places of residence (Appendix A). These data were used to select the widest possible range of focus group participants based on demographic characteristics and experiences (Table 1). The second focus group, conducted on a different day, followed the same procedures to recruit male participants. The groups were broken down into women (n=7) and men (n=6). The focus group conversation occurred in a private room. Participants were informed of their rights and the procedures to be followed verbally and in writing. They each signed an informed consent form. The focus groups were tape-recorded. One PI facilitated the discussion while other team members took notes.

Each focus group was organized around a specific set of questions (see Appendices B & C). The questions from the first focus group were revised for the second focus group after an initial analysis of the transcript. For the second focus group, we made more specific inquiries aimed at designing survey questions and the range of potential answer options for those questions. We tried to assess how the experiences of members of the first and second focus groups were similar and different and tried to capture important comparisons in the design of the survey questions.

**Table 1.**  
**Demographic characteristics of focus group participants**

	Men (n=6)	Women (n=7)
Age range	30-69	25-59
Ethnicity/Race		
White	1	3
African-American	5	2
Latino/a	-	1
Pacific Islander	-	1

Transcripts of tape-recordings of the focus groups were analyzed by coding for key themes and questions (Table 2). This was done through a four step process by: (1) having our research team read through and discuss the focus group transcripts collectively; (2) developing, as a group, a broad set of analytic codes, driven both inductively by the focus group discussions and deductively by the academic literature; (3) having individual research team members then use the broad codes to code, in detail, the focus groups separately; and (4) completing the coding process by cross-verifying coding between coders. In cases where the codes were not the same, a process of consensus-building was employed. The process, therefore, like most qualitative analysis, was a subjective one. By using multiple coding methods, however, we developed a consistent set of internal practices for the analysis. The focus group method thus provided us both with the information we needed to ask relevant and clear questions of survey respondents in the quantitative questionnaire (our original intent) and an additional set of data that provided us with deeper qualitative insight into the relationships between homelessness and mobility among both homeless men and women (a side benefit of this methodology). We explore some of the themes that developed from this methodology below in the Analysis Section.

**Table 2.**  
**Focus group coding scheme and explanations**

<b>Code Name</b>	<b>Abbrev.</b>	<b>Explanation</b>
Cost	CO	Anything related to cost i.e. bus passes, cost increase
Schedule	SC	Problems with bus schedules; gaps in service, time constraints caused by schedule, work related issues regarding bus service
Social Networks	SN	Identifying a network, or outside assistance in the process of understanding the bus system i.e. policy, bus routes
Relationships	RE	Nature of spoken or unspoken relations with non-homeless: bus drivers and other riders
(Dis)ability	DI	Not only understanding disability as it pertains to access, but also how the effects of perceived abilities by bus drivers affects treatment of homeless
Modes of Transportation	MT	Includes any reference other than Long Beach Transit. Cars, other bus lines, bikes.
Stuff Management	SM	How and where important "stuff" is stored
Destination	DE	Creating a list of all other cities Long Beach homeless visit
Negotiations	NE	Any fare negotiations with bus drivers, or reasons for avoiding bus system/routes. Resistance can also be coded in this section exp. to call and complain about rude bus drivers

### **Survey Questionnaires**

The second objective was to collect quantitative data from a representative sample of the homeless population in Long Beach, CA. Survey design and administration followed established procedures for total survey design, a method that addressed sampling, question design, and interview administration of the survey (Fink 2003; Fowler 1993).

#### **Survey Design**

Focus group transcripts were analyzed to incorporate the views of self-identified homeless individuals into the design of the survey questionnaire in two ways. First, we identified the issues involving mobility and transportation use of importance to a subset of the homeless in Long Beach. Many of the themes that emerged reflected the literature we consulted on previous studies, but a few issues we had not thought of surfaced too. Second, we wanted to gain knowledge of the ways in which homeless individuals talk about their mobility and transportation needs in order to obtain an appropriate vocabulary for writing survey questions. Focus group interviews are especially helpful for identifying the characteristics and dimensions of an issue that can be measured with survey questions and for translating the abstract concepts rooted in study objectives into language accessible to respondents (Fowler, 1993). They provide insight into the kinds of questions the study respondents are capable of answering (Fowler, 1993) and the range of possible answers that may be used in closed-end or rating scale survey questions (Peterson 2000).

Using the concepts that emerged from the focus group transcripts (Table 2) and our knowledge of the existing literature, we produced a list of concepts related to our research objectives to measure with the survey questionnaire. We drafted specific questions using example survey

instruments used in previous studies to obtain similar information. These sources included the United States Census 2000 long form questionnaire (U.S. Census Bureau 2002), the Survey Users questionnaire from the 1996 National Survey of Homeless Assistance Providers and Clients (Burt et al. 2001; Interagency Council on the Homeless 1999), the 2004 Homeless Assessment survey questionnaire designed by the Institute for Urban Research and Development for the City of Long Beach in 2003 (City of Long Beach 2004), and the Risk Behavior Assessment questionnaire prepared for the National AIDS Research Project and National Institute on Drug Abuse and used by researchers at the Center for Behavioral Research and Services (CBRS) at CSULB. These surveys provided guidance on the wording of the closed-end questions in the survey.

We also designed two questions to measure travel behavior in terms of distances traveled. The first asked respondents to list all the cities to which they had traveled in the last thirty days and the primary reason why they went to each city. The second asked respondents to trace their daily travel activity on the day before the survey. Example travel diary instruments from Takahashi et al.'s (2001) study of the daily routines of HIV and AIDS patients and the U.S. Department of Transportation's (USDOT) 2001 National Household Travel Survey were consulted to design these questions (Federal Highway Administration 2001). Measures of total travel were based on research using earlier versions of the USDOT's survey (Giuliano 2003).

Following the guidelines for survey question construction from Fowler (1993), Peterson (2000) and Fink (2003), the research team (PIs and student research assistants) conducted a question-by-question assessment by identifying the concept addressed by each question, then constructing the variable related to that concept that can be quantified for use in statistical analyses, and finally by determining the types of questions that can measure that variable (e.g., dichotomous, rating scale, rank order). To maximize the validity of respondent answers, we carefully evaluated the wording of each question to assess the extent to which concepts were appropriately operationalized into measurements (construct validity), measurements reflected experiences of homeless respondents (content validity), and questions logically made sense (face validity). We also considered the ability of respondents to understand the question, have an answer to it, be able to recall the answer, and feel comfortable answering it in the interview context (Fowler 1993). We tried to use a simple vocabulary and unambiguous terms, drawing on knowledge gained from the focus groups, and when necessary, offered definitions and explanations of terms in question wording. Furthermore, answer choices and rating scales to closed-end questions were reviewed with content, construct, and face validity in mind. We provided "don't know" options in closed-end question answers to indicate that not knowing was an acceptable answer. To address problems with recall, we asked respondents to answer questions based on specific, recent time frames, such as "in the last 7 days...". To minimize respondents discomfort with answering questions, we reiterated the confidentiality of their answers and identity and provided "refused" options as acceptable answers to closed-end questions. Members of the research team practiced administering the survey to each other to identify problems with sequencing, logic, operationalization, and measurement. Finally, we asked an expert panel of three professors who have conducted survey research in the disciplines of psychology, communications, and sociology to review the survey instrument and provide feedback based on their knowledge and experience.

In addition, we followed a number of procedures for designing a reliable instrument. First, whenever possible we replicated questions from the 2004 Homeless Assessment survey instrument (City of Long Beach 2004), which targeted a similar homeless population, and compared the results with our own (see Survey Findings: Descriptive Statistics section below). Second, we asked each respondent the same set of closed-end questions in the same order using a scripted survey instrument. To address differing respondent circumstances, we included optional wording that could be included when needed. We also included cards with answer choices printed on them that could

be handed to respondents to read when a large number of answer options existed (Fowler 1993). Third, we included some questions at the end of the survey for interviewers to assess the quality of the interview in terms of the respondent's behavior, and ability to understand and answer the questions honestly and accurately. These questions were based on similar questions used in the 1996 National Survey of Homeless Assistance Providers and Clients. Finally, we trained interviewers to follow standardized procedures for interacting with survey respondents, introducing the study, asking the questions, probing for answers, and recording the answers. Interviewers first observed the conducting of an interview, recording answers as they followed along, and then conducted interviews under supervision until they felt confident administering the survey on their own. Training involved debriefing and comparing completed surveys after each interview.

#### Pilot Tests and Survey Refinement

After receiving IRB approval for the survey component of this research, we pre-tested the survey instrument with four homeless adults recruited from two locations of service providers. The objectives of the pre-test were to 1) determine the length of time needed to complete the survey, 2) identify problems with question wording and order, 3) assess the extent to which respondents understand the questions and can answer them, and 4) evaluate the procedures for standardized interviewing (Fowler 1993). Based on the analysis of the pilot surveys, we modified the order and wording of some questions, added prompts for answers that required interviewer probing, and clarified instructions for interviewers on administering the survey instrument.

#### Sampling

The sample population was drawn from a pool of male and female chronic and episodic homeless people in the City of Long Beach. We used a strategy of purposeful, nonprobability sampling, given the lack of specific knowledge about the total population of homeless in Long Beach. Nonetheless, we did compare our sample to statistics collected by the City of Long Beach to count the population of homeless in 2007 (see Table 4 in Survey Findings section below). Based on the 2007 count, we sampled 3.75% of the total homeless population in Long Beach.

The minimum criteria for participants in the study were that they were: (a) at least 18 years of age; and (b) met the federal government's definition of either episodically or chronically homeless. Chronic homeless is defined as having a disability and being homeless more than a year or four times in three years (HUD 2005). Episodic homeless is defined as homeless for less than a year or fewer than four times in three years. Based on our research questions, we were originally interested in comparing four distinct populations to understand the differences in the needs of the following: (a) female episodic homeless; (b) male episodic homeless; (c) female chronic homeless; and (d) male chronic homeless. We found it challenging to sample based on strict interpretations of the federal definitions, especially when recruiting women, for several reasons. First, the federal definitions isolate unaccompanied homeless adults from homeless families and a large share of homeless women are accompanied by children under 18 and/or a spouse or partner. Second, many homeless women are living in transitional housing, which violates the federal definition of homelessness. Third, it is not clear from the federal definition for episodic homeless who it is that falls into this group, since it is defined only as "not chronic." Finally, the federal definition of chronic excludes people who are not suffering from a disability (i.e., substance abuse, mental, developmental or physical) even if they have been without a home of their own for more than a year or four times in three years. After careful examination of the federal definitions, we concluded that they are designed with specific political objectives in mind and are not well suited as criteria for sampling (see Del Casino and Jocoy, forthcoming 2008, for a discussion of current federal policy and homeless definitions). In light of these challenges, we established our own, broader interpretation of who is experiencing and who has experienced homelessness (see discussion and Table 14 in Survey Findings section below).

### Recruiting participants and location for survey administration

Throughout the process of this project, we made strong connections with the homeless service community in Long Beach who assisted us in the recruitment of participants. Surveys were conducted at five locations in the City of Long Beach, including: the City of Long Beach's Multi-Service Center (MSC), the CSULB Center for Behavioral Research and Services (CBRS), and three non-profit private organizations. The MSC and CBRS services are open to the widest range of homeless people, while the non-profits target specific sub-populations (e.g., veterans, women, families). We sampled from these different locations to maximize the range of different experiences of homelessness in Long Beach represented in the study. Participants were offered a \$10 Wal-mart gift card as an incentive and upon completion of the survey received the card. In addition, we over-sampled women relative to their share of the total homeless population to facilitate the comparison of gender groups in statistical analyses.

### Survey Interviewing

The survey was administered by interviewers to ensure the questionnaires were filled out completely and properly. Given the vulnerable state of many people experiencing homelessness, we felt that an interviewer could create the rapport needed to encourage respondent cooperation in completing the survey. Interviewers may probe to obtain complete answers and record additional data through visual observation (Fink 2003). Interviewers also enable respondents with disabilities or inadequate reading and writing skills to complete the survey. The two PIs and one graduate student assistant conducted the interviews. Both PIs had previous experience conducting interviews and observed skilled survey interviewers at the CBRS conduct surveys with homeless and other respondents. The student assistant observed survey administration by the PIs and conducted several interviews under supervision before administering the survey independently. Interviewer training incorporated instruction about the requirements for research with human subjects, including precautions taken to ensure confidentiality and ethical treatment of respondents.

### Data Entry and Re-Entry

A template for entering data from the closed-end survey question was created with Viking software. Graduate assistants and undergraduate student interns entered the data. Viking software has a re-entry option such that data was entered twice to enhance accuracy. Data collect from the two travel diaries (daily travel patterns and monthly destination cities) were entered into a computerized spreadsheet and reviewed for accuracy by student assistants.

### Statistical Analyses of Survey Questionnaires

Data entered into the Viking software was exported to SPSS software for statistical analysis. A codebook was created within SPSS to record survey instrument questions, variable names, measurement scales, and variable and value labels (Fink 2003). Descriptive statistics were employed to describe the demographic characteristics of respondents and their responses about their travel behavior. Statistics that measure the differences between groups (t-tests, Mann-Whitney U, and chi-square) were used to compare men and women and episodic and chronic homeless groups. In a few cases, correlation analysis provided measures of relationships between variables.

### Geographic Information System (GIS) Database Development and Management

Analysis of daily travel diary data was completed using a geographic information system (GIS), specifically ArcView with the Network Analyst extension. First, we located the places where respondents went during the course of a day by obtaining addresses (or the nearest intersection) either from the respondents themselves or from web searches and Google Map. We also used directories of homeless assistance service providers in Long Beach and Los Angeles County. The addresses were then geocoded via address matching and plotted on a street map of Los Angeles and Orange counties in the GIS. The street data for the counties, which were used as the address locator for geocoding, were obtained from StreetMap USA, a US Census Bureau TIGER 2000-based streets

dataset, enhanced by ESRI and Tele Atlas. Using the addresses we calculated the network distances traveled for each respondent in the course of one day. Network distance measures the distance traveled along the existing network of roads. The GIS calculates the least cost path between each stop made by a respondent. We choose a least cost path based on the shortest route in terms of distance in miles. Because respondents were not asked to recall the exact routes they took when traveling between the stops they made, we assumed that they took the shortest route in order to create a comparable measure of total daily distance traveled.

## Analysis and Findings

In the following section we report on the results of analyses of three datasets: (1) focus groups; (2) structured survey questions; and (3) travel routes.

### **Focus Group Findings**

The focus groups gave us much more information than simply a set of linguistic conventions that homeless individuals use when discussing transportation, it also provided us with a broader conceptual framework for thinking about the relationship between homelessness and mobility and the important role of transportation in that relationship. The focus groups revealed the wide variety of ways in which homeless adults discuss their mobility and access to transportation systems. From the coding scheme used to analyze mobility and transit use in the focus groups, we identified a broader set of themes regarding the livelihoods and experiences of homeless individuals. These themes are economic, political, cultural, and spatio-temporal relations.

These four sets of relationships mediate use of and access to public transportation systems. The first is economic. Economic relations refer to the costs and affordability of systems of transportation including privately owned vehicles and public transit. The second is political. Political relations refer to state influence on the organization of transportation systems within specific jurisdictions. This includes such things as ordinances regulating the use of public space, land use permits setting conditions for transport to homeless shelters, and rules governing the use of public transit. The third is cultural. Cultural relations include the interaction of transportation systems with the beliefs, values, symbols, language, and conventions of different social groups. One example is the impact of appearance (e.g., clothing, cleanliness, and possessions) on transportation systems. The fourth is spatio-temporal. Spatio-temporal relations involve the organization in space and time of transportation systems. This includes adaptations to urban spatial form through the design of transit stops and schedules. Table 3 relates these themes to the codes described in Table 2 above.

These relations suggest that access to transportation systems for homeless people is not simply an economic issue. Rather, the nature of access to transportation systems – including systems of walking and bicycle riding in addition to riding in vehicles and trains – depend not only upon the costs of travel, but on transit schedules and route locations, public stigmatization of those who use transportation systems for uses unintended by design, relationships between transit operators and the homeless, laws governing the use of public space, homeless individuals’ perceptions of discrimination, and the relationships between the homeless and their social networks that are maintained through travel. In the following sections, we discuss these themes in the words of the focus group participants. The names have been changed to conceal their identities.

**Table 3.**

**Relationship between focus group coding scheme and broader themes**

<b>Theme</b>	<b>Codes</b>	<b>Relationship to mobility and transit use</b>
Economic	Cost; Schedule; Stuff management; Modes of transportation, Destination	Impact of economic position of homeless
Political	Relationships; Modes of transportation; Negotiations	Impact of political regulation of homeless
Cultural	Negotiations; Destination; Relationships; Disability	Impact of cultural expectations of the appearance of those riding on public transit
Spatio-temporal	Schedule; Social networks; Destination; Disability	Impact of urban spatial form and daytime/nighttime geographies of transportation networks

### Economic relations

Not surprisingly, costs regulate homeless people's access to transport, not only in terms of general affordability, but also through the extent of their travel. As this quote from Tim indicates, monthly bus passes are out of reach financially, not just because the homeless have little income, but because the payment structure of many transit companies favors passes over pay-per-trip schemes.

[T]he thing is that we're low income people and we can't afford ... a 50-dollar-a-month Long Beach pass. ~Tim

In mid-2005, Long Beach Transit eliminated single trip transfers between local busses such that riders must purchase a more expensive day pass to transfer, or pay full price on each bus they board. The passes provide easier accounting and increased revenue for the Transit company, while increasing costs per trip for those least able to pay and ride on a regular basis. With the previously offered local transfers, pay-per-trip riders could travel to more locations for a lower fare.

In addition, the extent of travel is affected by the organization of public transit systems and payment schemes by city jurisdictions. As these quotes from Ray and Chris explain, the labor market and homeless services are regional, but the transit systems lack regional connectivity. In particular, service providers usually offer tokens for single rides, which are specific to individual transit companies.

I have a monthly bus pass but if I get on the Metro Blue Line...I still need an extra twenty five dollars [per month]...Or if I'm in Torrance, Torrance has their own [system], or Gardena, or Glendale...They don't accept tokens from Metro and Long Beach...[...] I've been on the Gardena ... or ....on Torrance transit and ...everything's not in Long Beach as far as looking for a job. [E]ven receiv[ing] services. A lot of times ... you might have to go somewhere else out [of] the city ...or, housing even, because you have a two month or three month stay here and then you only have a two month/three month stay there so it needs to be a combination not only with transportation but with a longer term effect of housing too because once your term is up, it's like okay here[']s your money orders for one place so then you know you might need that same money to get in a place, but now you [are] using it to get on a bus or a train. ~ Ray

[T]his is the thing, right. For [an] all-day pass in Long Beach you pay two dollar[s] and fifty cents; for [an] all-day pass in Los Angeles you pay three dollars. That's not even talking about Orange County. ~ Chris

Interagency transfers for single trips do exist for one-way travel to many of the cities in proximity to Long Beach, but additional costs apply. Our observations in community planning meetings suggest that cities are reluctant to cooperate regionally for fear of subsidizing services in other jurisdictions, and in the case of homeless policies, encouraging the in-migration of homeless people from other jurisdictions to their communities. We can see in this example how the categories of economic and political relations mutually constitute a scarcity of transportation, as costs of travel are linked to political jurisdictions. The quotations also point to the impact of the urban spatial structure in Southern California on transportation systems (spatio-temporal relations).

Furthermore, costs not only affect the use of public transit, but the use of bicycles. Several focus group participants shared Sue's sentiment on the difficulties of preventing bicycles from being stolen. When asked where she keeps her bicycle, she replied,

Sue: Chained to my foot.  
Lil: I know why you do that, huh?  
Sue: They disappear very quickly...

These examples illustrate the economic relations that shape mobility and access to transportation systems. From these examples, we find that the payment structure of transit systems favors regular, high volume riders, most likely commuters. We also see that accessibility is mediated by the ability to pay to secure and store modes of transportation such as bicycles or vehicles. Consequently, mobility and access to transportation is reserved for productive members of society, that is those with jobs that pay enough to support the ability to connect different spheres of life activity.

#### Political relations

Also mediating the mobility of the homeless and their access to public transit are legal frameworks for land use planning in cities. As this following conversation explains, land use permits regulated by the city government make the use of some transportation systems off limits to residents of homeless shelters.

RAY: We're not allowed to walk up to where we live. But we have a secret hid[e] out, a Batcave, where we gotta find these little alleys and streets that are weird. They literally have to ride us to the place that we're gonna get picked up and taken from.

JESSE: You know how Batman get[s] in his car and they don't know where he[s] coming from?

RAY: ...if we show up anywhere near there on foot, then ... you could get discharged. You can get discharged from being anywhere in the vicinity.

[...]

JACOB: All you see going into the place is a van, [a van] coming in and a van going out.

RAY: And it's got tinted windows

Documents from the Long Beach Planning Commission illustrate the neighborhood opposition to the opening of the shelter where these men were staying (City Planning Commission, 2004). The Administrative Use Permit approved by the city set conditions on the type of transportation system allowed for accessing the shelter. The land use zoning ordinance limits transport to specific arrival and departure times by privately operated van. The focus group respondents use the analogy of Batman moving by stealth to and from his Batcave to explain the impact on their mobility of the conditions imposed on the shelter operators. The purpose of the conditions is to make the movement of shelter users, and in essence the shelter users themselves, invisible to others in the neighborhood of the shelter.

Mobility, therefore, is situated in relation to processes of containment and protection. The conditional use permits indicates that it is necessary to protect people's rights to positive forms of mobility while regulating the movement of those who are considered socially "out of place." Mobility is socially and spatially regulated through the practices of containment, practices that simultaneously impose a moral reading of who is "safe" and who is "dangerous" in society. As these examples indicate, the private van transportation imposed on the shelter operators contain the people viewed as unproductive, unemployed, and potentially dangerous nuisances while simultaneously offering protection to the productive, commuting employees who pass through the neighborhood where the shelter is located. For those who travel from home to work and back again,

spaces are opened up to their daily routines of mobility. On the other hand, those who begin somewhere else (somewhere that is not “home”) need to be regulated. As Cloke et al. (2003, p. 23) have argued,

Mobility is deeply implicated in the mapping of moral codes... geographical suppositions lead to a positive moral coding being given to home, place rootedness and boundedness. [...] where the mobility of homelessness becomes visible to the public gaze, ... it is more likely to be ‘inappropriate’ and thus serve as a signifier of the absence of responsibility and rootedness.

### Cultural relations

The idea that there are “right” kinds of mobility and uses of transportation systems, which should be protected, and “wrong” kinds of mobility, which should be minimized, regulated, and eliminated, shapes the beliefs and conventions of transit operators and riders. The productive, commuting employee engages in cultural practices by appearing and behaving in a manner consistent with daily travel between home and work. The commuter appears “in place,” participating in the “right” kind of mobility through their clothing, clean appearance, and baggage. The following conversation illustrates these dynamics.

TIM: ...I was staying with relatives paying them rent while I was working. After I couldn't pay anymore I had to exit the place I was staying. And so I took off, I left, and for about a year and a half I just walked around downtown Long Beach, uh, looking, looking for new jobs and getting in programs trying to re-establish myself [...]

... the busses, the trains, matter of fact, they were home because I would get a day pass, I'd ride the bus or I'd ride the train until it stopped running cause I didn't have any place to live. I didn't know anything about shelters, the missions, I didn't know nothing about it when I first hit the road. And I start talking to people and they tell you things and that's how I learned how to go to these different places.

[QUESTION]: Has anybody else done [that], living on the train with the bus pass or anything like that?

[...]

JESSE: Yeah I used to do it on the bus, on the 60, ride all the way to Long Beach, go all the way back to L.A. In time, it take[s] about an hour or so.

TIM: And then, ...some of the operators would complain.

JESSE: Yeah.

TIM: And some would just leave us on the streets.

JESSE: Yeah.

TIM: When in the wintertime, it would be cold and some of them would drive right on by us. You know because they, they [the bus drivers] [knew] we were regulars...

JESSE: That's right.

TIM: On the 60 bus [at] night, there were some of them that would see us and keep on going.

As the conversation suggests, “regulars” who do not use the transit system for its intended purpose are engaging in the wrong kind of mobility and can be denied access to transportation even if they have money to pay for it. Using the bus to sleep is a violation of one set of discourses and cultural practices of mobility. This example illustrates how cultural relations mediate the mobility of

disadvantaged populations and their accessibility to transportation. Furthermore, Tim's comments in this conversation illustrate the multiple meanings of mobility by explaining how mobility is a response to economic hardship, a coping mechanism and strategy for finding work and trying to return to a rooted, "homed" existence. Nonetheless, even positively motivated mobility is suspect when the individual's appearance violates cultural expectations.

#### Spatio-Temporal Relations

The tensions that arise over the siting of homeless shelters and other services for the poor frequently lead to spatial patterns that concentrate them in service-dependent ghettos (Wolch and Dear 1987). This has been the policy of the City and County Los Angeles that has led to the space of containment that is Skid Row. In Long Beach, homeless services tend to be located on the west side of the city in areas dominated by industrial, commercial, and government land uses and by economically disadvantaged residential areas. City council representatives and resident groups of these districts often complain that they have taken on more than their fair share of the city's social services. Subsequent efforts to disperse service locations have made Long Beach services less concentrated than Skid Row. In addition, Long Beach residents are eligible for both local services and LA County services. This means that they may be traveling between cities and to service locations based in other parts of the county. As most transportation planners in southern California know, the urban spatial form of the region presents a challenge for transit planners and riders alike. Complicating the negotiation of multiple public transit systems over a sprawling metropolitan area are the regulations that require shelter residents to use private vans and their routes. The van system stops and schedules must be coordinated with public transit stops and schedules, adding another layer to travel.

It's kind of really hard sometimes, you know, leaving here [the shelter] and you gotta go to 5 or 6 or 7 or 8 places. ~Jesse

In addition to the challenges of the spatial form, the temporal dimension of transportation systems mediates mobility and accessibility. There are distinct nighttime versus daytime geographies to the bus system. Busses run most frequently during peak times for students going to school and commuters to employment centers, typically in retail commercial and light industrial locations that employ large numbers of people. Interviews with Long Beach Transit employees confirm that schedules and routes are oriented towards these groups. As a result, daytime travel is more convenient. Those working in jobs with irregular shifts, like the women mentioned below, face the added hassle of getting to and from a job using a more limited transit schedule.

I met a woman where I'm at now. And she lost her job because of the bus. 'Cause she work[ed] morning[s], and she used to take the bus all the time. So you know she was OK. But the one day she change[d] her schedule, there was no way she could do it. Because the bus don't run late at night, so.... ~Zoe

Many homeless are disadvantaged workers in terms of their lack of flexibility in both spatial and temporal dimensions of commuting.

#### Translating Focus Group Findings into Survey Material

The focus groups provided detailed and nuanced material that illustrates the intersections and mediated relationships among the experience of homelessness, the mobility of homeless people, and the accessibility of transportation systems. The purpose of the survey was to shed light on the prevalence of these experiences and travel behaviors among a larger group of homeless individuals.

As a result, we translated the focus group findings into close-end questions and answer options about the characteristics and experiences of homeless people including their living arrangements, employment and income status, travel behavior, and destination locations in Long Beach and southern California.

### **Survey Findings: Descriptive statistics**

We collected a total of 125 surveys, 118 of which were suitable for analysis. The survey questionnaire asked respondents who self-identified as either currently experiencing homelessness (100 respondents) or as having experienced homelessness in the last three years (all 118 respondents) about five topics: demographic characteristics, place of residence, travel behavior, travel destinations, and employment and income. This section presents the findings from analyses of the survey results in these five areas.

#### **Demographic Characteristics**

The homeless population in Long Beach is a very diverse group. Table 4 compares descriptive statistics of the study sample (herein referred to as the Homeless Mobility Project (HMP) sample) to those collected by the City of Long Beach during the homeless point-in-time count conducted on January 25, 2007. The HMP survey sample was collected between February 2 and May 17, 2007 at five locations of providers of homeless services. The majority of homeless in both the HMP sample and the City's count are male (64% and 71% respectively). We attempted to over-sample women in the HMP sample to facilitate statistical comparison of gender groups; however, we missed our target of surveying 50 women by 9 surveys. Nonetheless, compared to the City's count, we successfully over-sampled women by 6%. Percentages by race/ethnicity illustrate that the HMP sample is similar in composition to Long Beach's homeless population with a slightly higher percentage of blacks and slightly lower percentages of whites and Latinos. The multi-racial option in the HMP survey may account for these differences. For family status, the majority of homeless in the HMP sample and City's count are adults unaccompanied by children under 18 (84% and 89% respectively). Percentages for families with children are comparable with slightly higher shares of dual parents and single mothers in the HMP sample, which is likely due to the over-sampling of women.

Additional demographic characteristics of the homeless respondents in the HMP sample are located in Table 5. Some of these statistics can be compared to those collected for the City of Long Beach 2003 Homeless Survey (City of Long Beach, 2004). Between April and July 2003, 1,018 homeless adults and youth were surveyed by a team of 13 interviewers. Compared to the City's 2003 survey results, the HMP surveyed a similar sample based on gender and race/ethnicity composition with a slightly higher share of people over age 60 and double the share of adults with children. In terms of educational attainment, a larger proportion of HMP survey respondents have less than a high school education (38% compared to 18% in the City's survey). Furthermore, a larger proportion are veterans (26% compared to 9%). Seventy percent of the homeless adults in the HMP survey report that they have been diagnosed with at least one disability and over a third have two or more diagnosed disabilities. These results cannot be compared to the City's survey as the questions about disability were not asked in compatible ways.

**Table 4**  
**Comparison of HMP sample and 2007 City of Long Beach Homeless Statistics**

Demographic characteristic	HMP sample	City of Long Beach count
Total adults (n)	118	3,145
<b>Gender</b>		
Male	64% (76)	71% (2236)
Female	35% (41)	29% (900)
Transgender	<1% (1)	<1% (9)
<b>Race/Ethnicity</b>		
American Indian or Alaska Native	<1% (1)	1% (40)
Asian	<1% (1)	2% (66)
Black or African-American	39% (46)	36% (1118)
Latino or Hispanic	13% (15)	18% (561)
White	31% (36)	39% (1240)
Multi-racial	11% (13)	n.a.
Other	5% (6)	4% (120)
<b>Family status</b>		
Single, no children under 18	70% (82)	89% (2790)*
Married, no children under 18	5% (6)	n.a.
Partner, no children under 18	9% (11)	n.a.
Dual parent	6% (7)	2% (54)
Single mother	10% (12)	7% (224)
Single father	0% (0)	2% (77)

\* The City's count includes married and partner couples as single adults.

**Table 5**  
**HMP Sample Demographic Characteristics**

<b>Age</b>	
Average	45
Range	20-73
<b>Sexuality</b>	
Heterosexual	90%
Homosexual, Transsexual, or Bisexual	8%
Refused to answer	2%
<b>Education</b>	
Less than high school	38%
High school graduate	23%
Education beyond high school	39%
<b>Military status</b>	
Served on active duty	26%
<b>Disability</b>	
Substance use disorder	37%
Serious mental illness	32%
Developmental disability	12%
Chronic physical illness or disability	41%
Dual diagnosis (two or more disabilities)	39%
At least one disability	70%

*Chronic homelessness.* Table 6 compares the HMP study results with the 2007 City of Long Beach homeless count. The City's count reported 1,112 (35%) chronically homeless individuals (i.e., individuals who self-reported being homeless for more than one year). Using the City's definition, of those who identified as currently homeless in the HMP study (100), 44 individuals (44%) in the sample were chronically homeless. Using the HMP study's definition of homeless (homeless for one year or more at least one time in the last three years), 63 out of 118 total respondents (53%) are currently or were chronically homeless. Because our respondents self-selected from service provider locations, we suspect that the chronically homeless were more likely to have time to complete our survey and thus volunteer for it.

Using the federal government's definition of chronic homelessness (i.e., 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.), there are 35 chronically homeless people in the HMP sample (42%). Similarly, the City's 2003 survey reported 43% chronically homeless using the federal definition. Thirteen HMP respondents have been homeless over one year but do not report a disability, therefore they are not considered chronic by the federal government. Additionally, the federal definition of homeless does not include those living in transitional housing (shelter/housing up to a 24-month stay allowed), so the HMP respondents who are currently living in transitional housing and self-identify as homeless were not included in the calculations for the statistics based on the federal definition of chronic. Those accompanied by children and/or a spouse were not included either based on the federal definition.

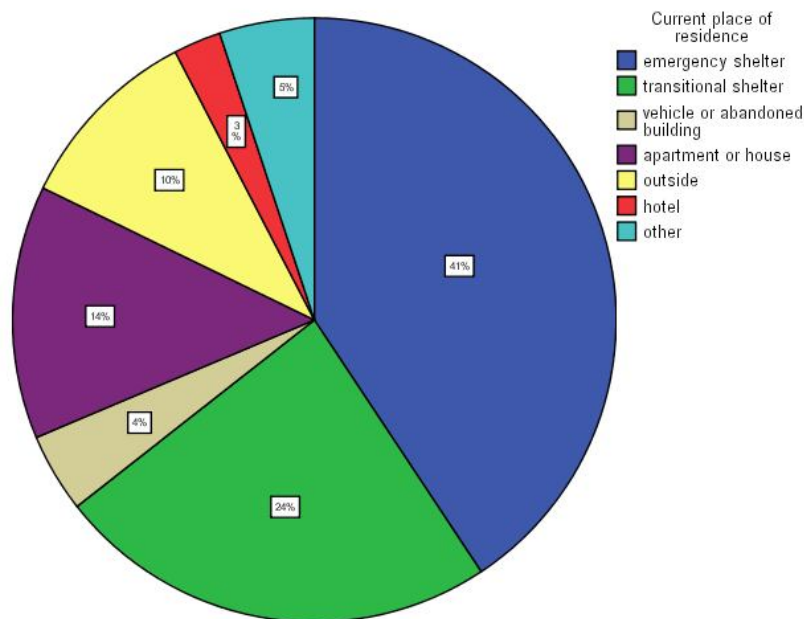
**Table 6**  
**Comparison of Homeless Statistics**

Homeless status (adults only)	HMP sample	2007 City of Long Beach count
Currently homeless	85% (100)	n.a. (3145)
Homeless within last 3 years	15% (18)	n.a.
Chronically homeless–HMP definition	53% (63)	n.a.
Chronically homeless–City's definition	44% (44)	35% (1112)
Chronically homeless–Federal definition	42% (35)	43% (440) [2003 data]

*Place of Residence.*

The vast majority of survey respondents say they are currently living in Long Beach (93%). Forty-four percent report first becoming homeless in Long Beach, CA, and 85% first became homeless in the State of California. Figure 1 shows the distribution of the types of places in which respondents are currently living. The majority of respondents (64%) are living in either an emergency (up to six-months stay allowed) or a transitional shelter/housing program (up to 24-month stay allowed). Fourteen percent live in a house or an apartment that they rent or own (7 respondents) or that is the place of a family member or friend (9 respondents). The average amount of time respondents have been living in these places of residence is two and a half months. This may be related to time limits imposed for shelter stays.

**Figure 1**  
**Answer to Question: As of today, in what kind of place do you live now?**



*Attachment to Long Beach.* City officials and policymakers frequently express concerns over the potential for homeless people to migrate to their cities in order to access services. This study's results suggest that a majority of respondents had ties to Long Beach prior to becoming homeless. Approximately 80% of respondents had at least one of the following ties to Long Beach at some point in their lives: a residence, family, employment, or school attendance. Forty-two percent (49 respondents) stated that when they last had a place of their own, the address was in Long Beach. An additional 16% (19/118) previously lived in Long Beach, such that over half (58%) of respondents resided in Long Beach at one time. Sixty-four percent (76 respondents) said that they had worked in Long Beach at one time and 17% of those people are currently working in Long Beach. Forty-three percent have family in Long Beach and 37% attended K-12<sup>th</sup> grade, vocational school, or college in Long Beach. In 2003, the City of Long Beach (2004) found that 59% of survey respondents were residents of Long Beach based on meeting the criteria of having first becoming homeless in Long Beach and then having met at least one of the following criteria of having family who lived in, having been employed in or having attended school in Long Beach.

*Migration to Long Beach.* Respondents who moved away from the location where they first became homeless (55%) were asked why they left the city in which they first became homeless. The results suggest a wide variety of reasons, as the "other" category was selected most often (22%). A majority of the "other" answers indicated that a change in family relations was the most common reason for a move, such as the death of a family member, a divorce, or avoidance of abusive relationships. The next most frequent responses, which represent small proportions of respondents, indicated that people left because there was no affordable housing available (6%), no services available (6%), no help available from family (5%), or they were evicted from or asked to leave last residence (6%),

exceeded time limit for use of services (2.5%) or forced to leave by authorities (2.5%).

When asked why they came to Long Beach, one quarter of respondents stated that Long Beach is their home, so they did not migrate to Long Beach. The second most common answer respondents gave (20%) was that they had friends and/or relatives in Long Beach. This response was tied with the "other" category which illustrates a diversity of reasons such as liking the people and being paroled to the area. Twelve percent did state that they came to Long Beach to stay in shelters or access services, so there is a portion of homeless who migrate to find help, but it is far from a majority of the respondents and it is not the most common reason. Furthermore, we interviewed several residents of transitional housing who came to Long Beach specifically to enter the veteran's programs offered in Long Beach. Given the mission of the non-profit that runs those programs, it would be inappropriate to suggest that services should be restricted to Long Beach residents. Likewise, a few respondents indicated that they left the places where they first became homeless as part of strategies to avoid temptations for alcohol and drug abuse.

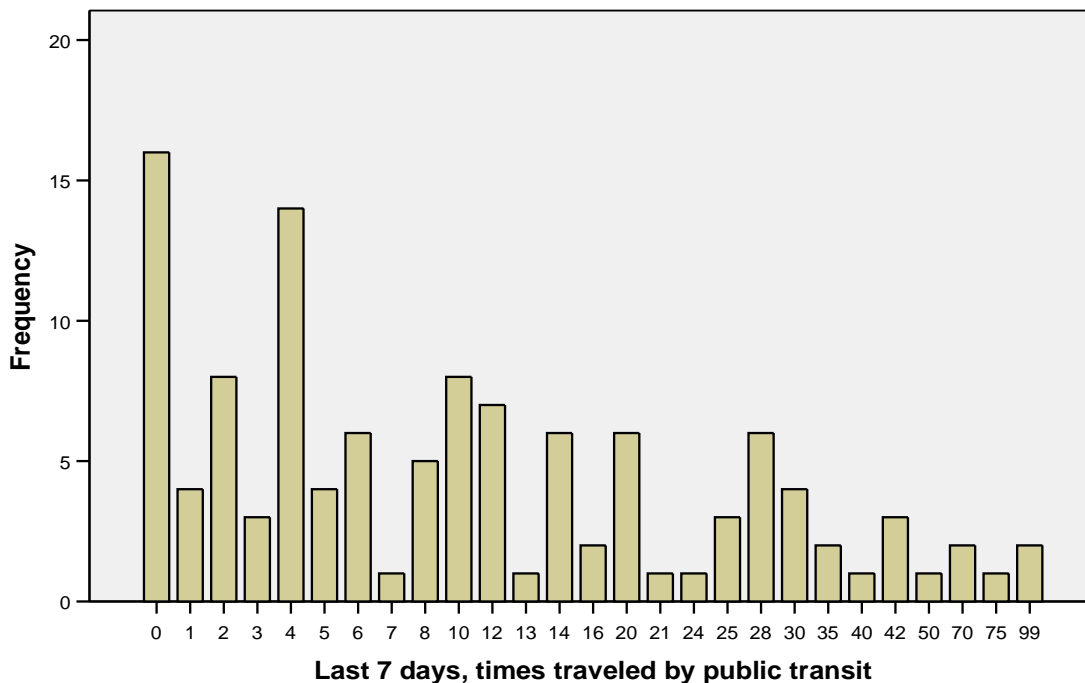
### Travel Behavior

Only 13% of respondents own a motor vehicle, 15% own a bicycle, and 5% own a skateboard. As is the case for most low income people, the great majority of homeless respondents rely on walking, public transit, or transportation by private bus or van provided by service providers. Even among those with access to modes of transportation, only a small portion made regular use of them. Of the 13% who own a vehicle, two-thirds said they used their vehicle fewer times than once per day in the last week. Several respondents indicated that increases in gas prices had contributed to the decision not to use the vehicle. Similarly, two-thirds of those who own a bike said they used it fewer than once per day in the last week. Of the six people who own a skateboard, only two used it more than once per day in the last week.

Homeless adults in Long Beach primarily use public transportation to get around. Respondents reported using public transit at least once in the past week (86%) and in the past month (94%). Slightly more than half (53%) rode public transit once per day on average (Figure 2) and three-fourths (77%) used public transit at least one time per week. Also common is the use of private transportation in the form of shuttle vans provided by service providers (49% used a shuttle van in the last week at least one time; 24% used the shuttle on average once a day). A little over a third (38%) received one or more rides from a friend. Half of the small number of respondents who own a motor vehicle (15) still used public transportation at least one time in the past week.

In addition, homeless adults used public transit most often (65%) to get to the places they needed to get to, such as locations of medical care providers, jobs and potential employers (job search), and social service appointments (See section on Travel Destinations).

**Figure 2. Frequency of public transit use by homeless adults, Long Beach, CA**



*Public transit use.* Table 7 lists the transit companies used by homeless adults. A large majority used Long Beach Transit most often for their travel, followed by Los Angeles trains and busses. Torrance Transit was also used by slightly more than a quarter of the respondents. Most homeless (68%) used multiple methods of paying for transit. They paid for transit with passes or tokens given to them (64%) followed by paying with cash (60%) (Table 8). When asked to rank methods of payment, respondents stated that they used these two most often. Over a third (38%) received reduced fares or free rides through negotiations with drivers and a quarter (27%) hopped on without paying, which can be done most easily on LA trains. Such riders risk a heavy fine and potentially jail time with repeat offenses.

**Table 7  
Transit Companies Used**

Transit Company	
Long Beach Transit (bus)	85%
Orange County (bus)	16%
Torrance Transit (bus)	26%
LA Metro (bus)	55%
LA Metro (train)	69%
So. California Metrolink (train)	5%
Other transit companies	9%

**Table 8**  
**Methods of Payment for Public Transit**

Method of payment	
Cash	60%
Purchased monthly pass	15%
Pass/token given for free	64%
Hopped on without paying	27%
Driver gave a reduced fare	18%
Driver gave free ride	20%
Other	11%

Respondents generally had good experiences with transit use as 74% reported that they had experienced bus/train operators who were helpful and 59% stating that their most common experience was helpful operators (Table 9). Respondents did encounter unhelpful operators (37%) and this also ranked high as a common experience, especially operators who did not stop to pick them up (38%). Just over one-fourth of respondents (27%) stated that on at least one occasion operators had given them a reduced fare and one-fourth (25%) said they had been given a free ride. Only a small percentage (12%) complained of being hassled by other passengers. Drivers play an important role as gatekeepers to mobility, especially for very low income passengers like many homeless individuals.

**Table 9**  
**Experiences with Bus/Train Operators and other Passengers**

Bus/train operator who was helpful	74%
Bus/train operator who was not helpful	37%
Bus/train operator who gave you a free ride	25%
Bus/train operator who refused to let you on	17%
Bus/train operator who did not stop to pick you up	38%
Bus/train operator who said your pass was fake	9%
Bus/train operator who gave you a reduced fare	27%
Other bus/train passengers who hassled you	12%
Other	21%

A proportion of homeless adults (23%) did not use public transit at least one time per week. Table 10 lists the reasons why they did not. Respondents stated that the most common reason why they did not use public transit was that they used other means of transportation. Cost was another commonly cited reason. Of the respondents who did not use public transit, several (but not all) had alternative means of transportation (car, bicycle, or skateboard).

**Table 10**  
**Reasons Homeless did not use Public Transit\***

Used other transportation	14%
Too expensive	10%
Unhelpful operators	2%
Didn't go where wanted to go	3%
Too dangerous	<1%
Other passengers	<1%
Too crowded	3%
Didn't run on schedule	4%
Other	4%

\*Respondents did not use public transit at least 1 time per week in the last month.

Travel Destinations

Similar to other research on homeless mobility (DeVerteuil 2003; Rahimian et al. 1992; Wolch et al. 1993), these data show that homeless adults travel to fulfill the same types of needs and wants as homed adults. Daily travel diaries indicated that homeless individuals travel to get food, access medical and social services, search for employment and housing, work, shop, take kids to school, visit family/friends, and be entertained. While reasons for travel are similar, Figure 3 suggests that homeless adults view travel for medical care (24%) and social services (22%) as more important than commuting to a job (5%), which dominates the travel of homed adults. However, travel for job searching is still important (14%), which reflects the high unemployment among homeless individuals (see section on Employment and Income). The homeless in Long Beach primarily use public transit (68%) and service provider shuttle vans (10%) to get to these places, followed by driving their own vehicle (7%).

Furthermore, the largest proportion of respondents stated that the most important place they needed to get to in the last week was the hospital or a medical services appointment (Figure 3). This likely reflects the large number of homeless coping with a disability (70% with at least one and 41% with a chronic physical disability, see Table 5).

One hundred and seven respondents traveled to at least one destination on the weekday before the interview. Respondents traveled on average a total daily distance of 13.6 miles. The cities most frequently visited by homeless in Long Beach in order of magnitude are Los Angeles, Compton, Torrance, Lakewood, Anaheim, and Carson. These cities are some of the largest population centers in the region. All except Anaheim are neighboring cities in Los Angeles County and Long Beach shares municipal borders with Los Angeles, Compton, Lakewood, and Carson.

Service use. The majority of respondents received some type of service assistance in the last month, but service use varied widely from 0-18 services used in the last month (Figure 4). Nine percent of respondents used fewer than 3 services in a month and 29% used 12 or more services in a month. The services most frequently used in rank order are food/hot meals, showers, laundry, case management, and bus/train passes. Respondents were least likely to access housing and rental assistance services and child care.

Figure 3. Where was the most important place you went in the last 7 days?

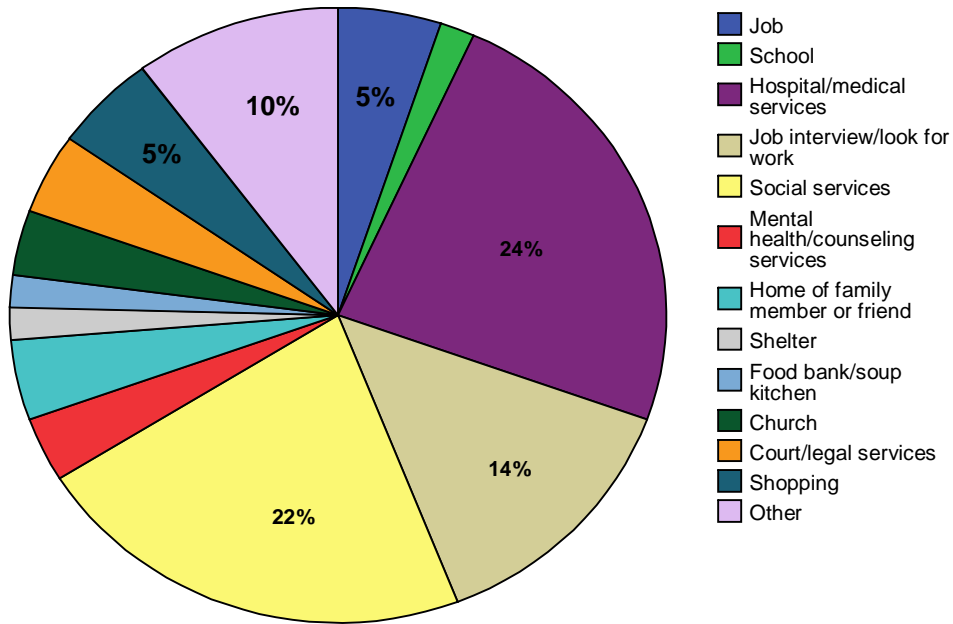
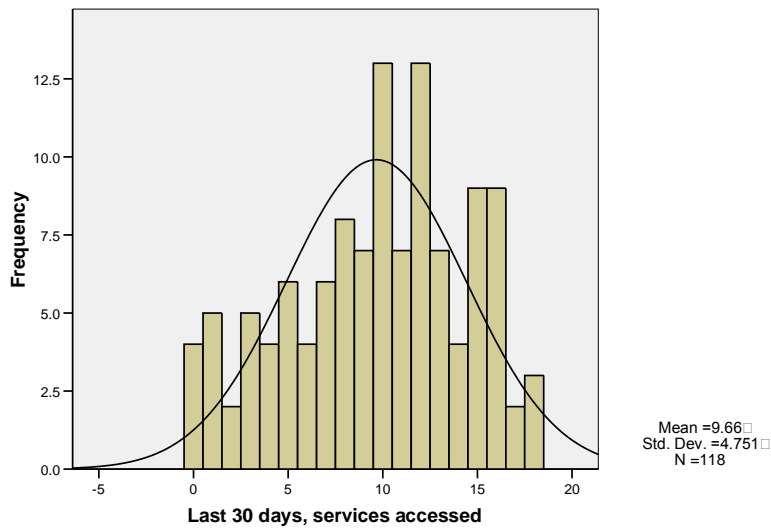


Figure 4. Frequency of service use in the last month



### Employment and income

A quarter of respondents stated that they were currently working in some capacity (Figure 5). Some examples of employers included city and non-profit social service providers, temporary day labor agencies, and health care providers. About half of those were working informally (i.e., not receiving a pay stub from the employer). Another 27 percent said they were looking for work. A very small percentage had full-time formal employment (4%) and another 9 percent were working part-time. These results match those obtained by the City in 2003 (City of Long Beach 2004). Twenty percent were not looking for work and 23 percent said that their disability prevented them from working. Both working and not working respondents reported having occupations in construction, foodservice, sales, health care, transportation, and factory work.

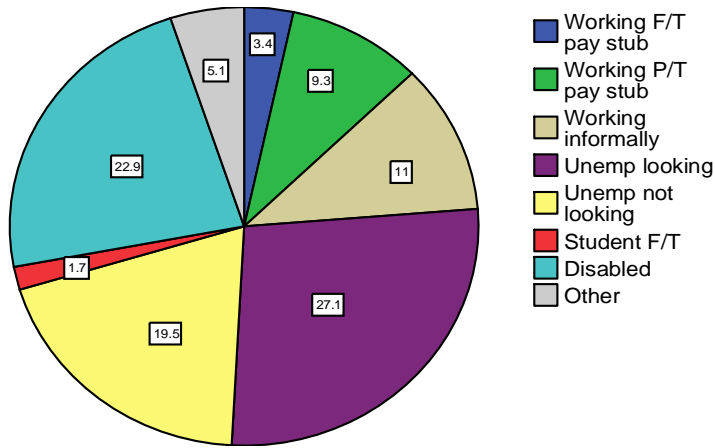
The average income was \$516 a month (Table 11). Eight percent reported receiving no money or income at all in the last month. This is much smaller than the percentage reporting no income in the City's survey. For those working formally, income was \$765 and \$662 for those working informally. Predictably, the homeless who are working either formally or informally make significantly higher income than those who are not working (Mann-Whitney U=927,  $p < .05$ ). Respondents averaged 2.5 income sources. There is a positive, but weak, correlation between income and number of income sources (Spearman's rho,  $R = .34$ ,  $p < .01$ ). There is no statistically significant difference between working and not working groups in terms of number of sources of income. Seventy-nine percent received money or income from at least one type of government assistance in the last month. Food stamps and general relief (GR) benefits were the most common income assistance received by respondents (Table 12).

**Table 11**  
**HMP Sample Employment & Income Statistics\***

<u>Income last month</u>	
Average	\$516
Range	\$0-3,000
<u>Working status</u>	
Working formally	13%
Working	24%
<u>No. of sources of income</u>	
Average number	2.5
Range	0-7

\* One outlier of \$8,000 removed. N=117.

**Figure 5. Work situation in the last 30 days**



**Table 12  
Income received from Government Assistance**

Food stamps & other food assistance	53%
General assistance (General Relief)	42%
Social Security Disability	19%
Social Security Retirement	6%
Temporary Assistance for Needy Families	3%
Housing assistance	3%
Unemployment compensation	3%

**Survey Findings: Comparison of Homeless Groups**

The bulk of our analysis involved the comparison of homeless groups on a variety of demographic, location, travel behavior, and employment and income variables.

*Comparison of men and women*

We oversampled women in the survey design to facilitate a comparison of the characteristics and travel behavior of homeless men and women. The transgendered respondent was removed from the sample for this comparison (N=117). The rationale for this comparison reflects findings from previous studies that the experiences of homeless men and women differ (DeVerteuil 2003; Rowe and Wolch 1990) and that the travel behavior of men and women, particularly for commuting to work, differs (Blumenberg 2004; Gilbert 1998; Hansen and Pratt 1995; Johnston-Anumonwo 1997; Wyly 1999).

As Table 13 shows, we found very few characteristics that distinguish between homeless men and women in Long Beach. Five variables proved to be statistically significant: educational attainment, veteran status, presence of children under 18, age, and income. None of the scale variables, except age, are normally distributed and logarithmic transformations did not produce normal distributions, so non-parametric, two independent sample tests were used to compare groups. In terms of educational attainment, men are more likely than women to have completed high school. Almost three quarters of the homeless men in the sample have a high school degree, while fewer than half of the women do. The impact of traditional gender role divisions is evident as homeless men are more likely to be veterans and homeless women are more likely to be

accompanied by dependent children. Homeless women in the sample tend to be younger than men and have higher income than men.

The difference in age may be related to the differences in the length of time homeless and migration patterns as men on average had been homeless longer and in their current city of residence for a shorter time. However, neither of these variables achieved statistical significance. There was no difference in the length of time in the place (i.e., residence/establishment) where they are living now.

Income differences between men and women do not appear to be related to employment status, the number of sources of income, the number of services used, or accompaniment by an adult partner. While working either formally or informally is associated with higher income, the proportion of women who are working is equal to the proportion of men who are working. More sources of income or services used were not associated with higher income. Living with a second adult – a spouse, boyfriend, or girlfriend – did not translate into higher income. However, this may reflect that we asked respondents to report their income, so they probably did not include pooled income from spouses or partners. Only 2 out of 11 homeless accompanied by spouses reported receiving income from them and only 2 out of 13 homeless accompanied by girlfriends or boyfriends reported receiving income from them. A larger proportion of women in our sample were accompanied by children (only 2.5 percent of males had kids, while 10 percent of females did), which may explain women's higher incomes because families with children are eligible for more cash benefits from the state. Homeless individuals accompanied by children under 18 made significantly higher incomes (an average of \$892 for those with children versus \$408 for those without, Mann-Whitney  $U=401$ ,  $p<.001$ ).

#### Comparison of chronic and episodic homeless groups

In the HMP sample, there is no difference between chronic and episodic homeless adults based on most demographic characteristics, using either the HMP study's or the federal government's definition of chronic. Using the HMP study definition (Table 14), there is no statistically significant difference between chronic and episodic homeless adults in terms of age, gender, race/ethnicity, sexuality, military status, educational attainment, presence of children under 18, and disability. The chronically homeless by definition have been homeless for a longer period of time than the episodic, as reflected in the statistically significant results for "days homeless" and "days in place you are living now." The other statistically significant result indicates that unaccompanied adults are more likely to be homeless for one year or more. However, because there was no significant difference between groups based on the presence of children under 18, this finding suggests that a homeless adult accompanied by another adult (through marriage or a partner, boyfriend, girlfriend), with or without the presence of children under 18, is less likely to be chronically homeless. Therefore, two adults experiencing homelessness together (with or without children) may reduce the length of homeless episodes.

Using the federal government's definition, in which differences in disability status and family status are built in (see federal chronic definition in previous section), the findings differ for only one demographic characteristic. Adults experiencing chronic homelessness tend to be older than those experiencing episodic homelessness.

While there is no significant difference between the types of places where the chronic and episodic are staying, the chronic homeless have been living in their current place/situation for a longer period of time on average. Similar percentages of each group are living in emergency shelters, in transitional shelters, and outside somewhere (including in vehicles).

These results suggest that the distinction between the chronic and the episodic homeless is not meaningful in terms of demographic characteristics, except perhaps for age and accompaniment

by another adult, but these relationships do not hold for both the study's and federal government's categorizations of chronic. There are not strong tendencies that distinguish between the two groups.

Comparison of total daily distance traveled by groups. In terms of travel behavior, there is no statistically significant difference in the total daily distance traveled by gender or homeless status (i.e., chronic or episodic). In addition, there is no difference in vehicle ownership or the amount of public transit use by gender or homeless status. There is no difference in distance traveled for working homeless, nor are the working homeless more likely to own and use a private vehicle or use public transit more frequently. The mean total daily distance traveled for working homeless tends to be larger than for the non-working, but the difference is not statistically significant. Working homeless are not more likely to use one form of motorized transportation over another.

No correlation exists between income and total daily distance traveled. There is a significant, positive, but weak correlation (Spearman's  $\rho=.266$ ,  $p<.01$ ) between number of times traveled by vehicle (private vehicle, public transit, or shuttle provided by a homeless assistance service agency) in the last 7 days and total daily distance traveled. However, this does not hold for travel by private vehicle alone. Travel by public transit is positively, but weakly (Spearman's  $\rho=.282$ ,  $p<.01$ ), correlated with distance traveled and travel by service shuttle is negatively, but weakly (Spearman's  $\rho=-.210$ ,  $p<.05$ ) correlated with distance. This suggests that the more reliant an individual is on transportation offered by service providers, the more constrained their mobility in terms of the amount of distance traveled. In addition, there was no difference in the total daily distance traveled by disabled and able-bodied homeless adults.

Accompaniment by another is the only statistically significant factor associated with higher average total daily distance traveled (Mann-Whitney  $U=1029.5$ ,  $p<.01$ ). Breaking this down further, we found no statistically significant difference between homeless adults accompanied by another adult with or without children, and homeless living alone or as a single parent. However, homeless adults living with children under 18 did travel a greater total daily distance (Mann-Whitney  $U=493$ ,  $p<.001$ ). While not statistically significant, one-third of those who owned a car also had children. More specifically, those with children were significantly more likely to have access to the use of a private vehicle (including borrowing a vehicle or riding with friends) than those without children (Mann-Whitney  $U=449$ ,  $p<.001$ ). Furthermore, homeless parents were significantly less likely to travel by private van provided by a service provider (Mann-Whitney  $U=538.5$ ,  $p<.01$ ). These findings reflect the impact of social and familial relationships on the travel behavior of homeless people and perhaps point to the influence of the social networks that form from the presence of children on total distance traveled and accessibility to the use of privately owned vehicles.

### **Mapping Mobilities**

Figures 6-9 illustrate the GIS analysis of the daily travel diary data collected. These network route maps offer a visualization of homeless mobility for individuals and groups. Figure 6 illustrates the daily travel route of two episodic homeless men, one accompanied by a partner (blue route to the east of the map), the other alone (brown route to the west). The accompanied man traveled 5.3 miles while the unaccompanied man traveled 3.8 miles. The small points represent the addresses of the set of stops made by all 118 respondents. The large points are stops made along an individual's route, which are color coded and connected to make the routes. The numbers on these points indicate the order of the stops.

Figures 7a-b compare the daily routes taken by single mothers and unaccompanied women in the dataset. Keeping in mind that these two groups make up only a quarter of the sample respondents, their routes, nonetheless, illustrate the difference in total daily distance traveled between homeless adults accompanied by children and those who are alone. Unaccompanied

women traveled fewer miles in total and covered a small geographic extent. Women with children tended to retrace their routes as they traveled to drop children off at school and then return to pick them up later in the day.

Figures 8a-d display the daily travel routes of four groups of homeless adults: episodic homeless accompanied by another adult (either a spouse or partner) (Figure 8a), chronic homeless accompanied by another adult (Fig. 8b), episodic homeless unaccompanied by another adult (Fig. 8c), and chronic homeless unaccompanied by another adult (Fig. 8d). To promote legibility, the numbered stops have been removed and for Figures c and d, 35 percent of the respondents' routes were randomly selected for plotting on the map. Homeless adults unaccompanied by another adult tended to travel farther in terms of geographic extent but not necessarily farther in terms of total distance traveled. They covered more area than accompanied adults whose social and familial ties may have kept them in a more localized area of Long Beach and southern California.

Figures 9a-b compare the daily travel patterns of homeless adults accompanied by children with a random sample of those unaccompanied by children. Keeping in mind that most of the homeless in Long Beach are unaccompanied by children under 18, we still find an interesting pattern on the maps that suggests the presence of children increases both the extent and total distance traveled in the course of one day. This finding, along with the patterns for women in Figures 7a and b, contradicts our initial hypothesis that women and those with children would face more constraints on their travel, thus traveling fewer miles and within a circumscribed geographic extent.

## Conclusions, Policy Implications, and Further Research

Understanding the mobility and transportation needs of our most disadvantaged populations is a worthy objective of public transit and social assistance programs. Such knowledge provides insight into ways in which accessibility to transportation may be constrained and offers lines of reasoning for strategies that may be implemented to increase access. The three questions we proposed to address with this research were (1) What are the transportation needs of the homeless population in Long Beach?; (2) Is there any difference in the ways in which different types of homeless populations currently use or could potentially use public transportation?; and (3) In what ways do public transportation routes serve or not serve the areas where homeless populations are located and where they need to go? Our results show that homeless adults in Long Beach depend on public transit and private shuttle van transportation paid for by homeless assistance providers to get to the important places that they need to go. Homeless individuals in Long Beach travel to get food, access medical and social services, search for employment and housing, work, shop, take kids to school, visit family/friends, and be entertained. Their most important transportation needs are getting to medical care and social service/case management appointments, followed by transportation to conduct job searches and get to interviews. While they tend to travel for the same reasons that housed people do, the homeless face a number of constraints as low-income people and as clients of social service systems that regulate many aspects of their lives. The accessibility to transportation issues faced by homeless individuals in Long Beach appear related to these factors considerably more than to inadequacies in existing public transit routes and timetables, even though there is some indication that employment prospects for a few have been negatively affected.

In terms of group differences, we found very few distinctions among men and women and chronic and episodic homeless. Nonetheless, in term of gender, we did find significant factors to support some of the gender differences in travel behavior found in previous studies (e.g., Hansen and Pratt 1995; Rowe & Wolch 1990). This appears to apply in particular in the case of unaccompanied homeless women, recognizing that the small number in our sample precludes strong conclusions. The women in our sample were predominately single mothers or accompanied by another adult. This suggests that gender differences stem from the tendency for homeless women to have familial and social ties that change their travel behavior, needs, eligibility for financial aid and services, and likely overall experience of homelessness. In terms of homeless status, few factors appear to distinguish between chronic and episodic homeless groups, except for those factors embedded in the category definitions and the presence of another adult. Given that the distinction between these two groups is a length of time and that the episodic can become chronic homeless and vice versa, we find this categorization to be unhelpful in understanding the travel behavior and experiences of homelessness generally. While we believe that serving the homeless requires recognition of the demographic diversity and multiple experiences of the homeless population, this study's findings suggest that the distinction between the chronic and the episodic homeless is not meaningful for creating policy. Like other observers of homeless policy, we are critical of its use in federal policy (see Del Casino and Jocoy forthcoming 2008).

We were surprised by the lack of significant results concerning the travel behavior of working and non-working homeless adults. This could be related to the small numbers of working homeless in our sample or to the tendency for the working homeless to be employed part-time in low-wage jobs and irregularly by temporary employers. Their income may not be enough to significantly impact travel patterns.

Survey results support several of the findings from the focus groups. First, the survey results confirm that most homeless are not getting the discount benefits of buying transportation in bulk

through daily and monthly passes. Second, their transportation costs are affected by the decentralized urban form of southern California and the lack of integrated cost structures between different cities' transit systems. The daily and monthly travel routes and destinations illustrate that the homeless travel to different cities much as those with homes do. Third, a substantial portion of the homeless are utilizing private transportation sponsored by service providers. Some of these services are required by land use policies and the rules of individual service providers, frequently motivated by NIMBYism. Nonetheless, these regulations affect the mobility of many homeless and in some instances restrict their use of public transit. We know little about the duplication of effort and costs that may result from providing private transportation for the homeless to locations accessible by public transit. An area for further research might be an examination of how service providers pay for and distribute the transportation that they offer to clients.

In contrast to the focus group results where participants discussed many negative interactions with bus drivers and transit operators, the majority of survey respondents have had positive experiences or a mixture of positive and negative experiences depending on the individual drivers/operators. Respondents reported both instances when drivers overlooked transit policies for homeless individuals and when they strictly enforced them. An area for future research concerns the existence of formalized transit policies regarding the homeless and the extent to which drivers enforce such policies. As bus and train operators are frequently points of contact for homeless individuals, they could be included and consulted in city planning initiatives to increase the speed with which homeless individuals are connected to services. Current efforts to coordinate the actions of police officers with service providers appear promising and may serve as a model.

The results also support findings from previous research, particularly the models of homeless migration that suggest the homeless travel to cope with changes in quality of life that arise from a number of situations (Rahimian et al. 1992). Our results support this assertion as respondents explained why they migrated to Long Beach and from the city in which they first became homeless. Many sought out family and friends in Long Beach for support and left previous locations when events such as the death of a family member, a divorce, or an abusive relationship combined with lack of financial resources and housing options. No single reason emerged as typical of the respondents, but most explanations had to do with coping strategies and the search for social networks and other resources.

This report has reviewed existing studies of mobility and accessibility to transportation for disadvantaged populations and presented analyses of multiple datasets to characterize the travel behavior of homeless adults in Long Beach, CA. Results suggest that travel behavior among the homeless is affected most significantly by presence of others. Homeless adults accompanied by children and/or a spouse or partner appear to travel longer distances in terms of total miles and geographic extent. They also appear to have greater accessibility to private modes of transportation. Given that the majority (70%) of the homeless in our sample is alone, these differences reflect a small, but important sub-population. Further research is in order to examine additional dimensions of travel behavior of both accompanied and unaccompanied homeless adults.

Finally, it is clear that stigmatization of the homeless and the spaces they inhabit impact their mobility and use of transit systems. The impact of land use policies, bureaucratic social service regulations, the relations between service providers, their clients, and their surrounding neighbors, and the actions of transit operators may either facilitate or constrain mobility, depending on the value attached to mobility and whether it is viewed as positive or negative. Some contexts imply benefits to increasing mobility as a mechanism for coping with life changes; other contexts suggest that increasing mobility may facilitate instability and prevent the homeless from accessing the services they need. Further research is needed to sort out the policy implications of the multiple connotations of mobility for homeless populations.

## **Implementation**

As was suggested by one of the external reviewers on the original proposal, the current dataset might not yield direct policy recommendations at this time. There is enough information, however, to make broad conclusions about the transportation patterns of various homeless populations in the City of Long Beach. These findings, therefore, will be presented at various planning boards related to homeless services in the City.

**Table 13**  
**Results of Comparison of Gender Groups**

Variable	Measure	Means (Mann-Whitney U)		Percent within Gender (chi-sq)	
		Men	Women	Men	Women
<b>Age*</b>	Scale	47	42		
<b>Income**</b>	Scale	\$438	\$674		
No. of sources of income	Scale	2	3		
No. of services used in last 30 days	Scale	10	9		
Days homeless (years)	Scale	1356 (4)	834 (2)		
Days in city where you are living now (years)	Scale	3702 (10)	5630 (15)		
Days in place where you are living now (months)	Scale	77 (3)	80 (3)		
Total daily distance traveled (in miles)	Scale	14	14		
Times traveled by public transit in last 7 days	Scale	15	14		
Times traveled by private vehicle in last 7 days	Scale	2	6		
Times traveled by service provider shuttle in last 7 days	Scale	5	4		
White(non-white)	Categorical			34(66)	30(70)
Black (non-black)	Categorical			45(55)	32.5(67.5)
Heterosexual (not hetero)	Categorical			95(5)	88(12)
<b>High school degree**</b>	Categorical			74	42
<b>Veteran ***</b>	Categorical			41	0
Disability	Categorical			74	61
<b>Alone (not alone)***</b>	Categorical			84(16)	44(56)
<b>Children under 18***</b>	Categorical			4	39
Accompanied by another adult	Categorical			12	28
Working (formal employment)	Categorical			28(11)	20(17)
Vehicle ownership	Categorical			11	17

\* significant at  $p < .05$  using t-test as age distribution is normally distributed

\*\* significant at  $p < .01$

\*\*\* significant at  $p < .001$

**Table 14**  
**Results of Comparison of Homeless Status Groups (HMP study definitions)**

Variable	Measure	Means (Mann-Whitney U)		Percent within Homeless status (chi-sq)	
		Chronic	Episodic	Chronic	Episodic
Age (t-test)	Scale	45	46		
Income	Scale	\$494	\$680		
No. of sources of income	Scale	3	3		
No. of services used in last 30 days	Scale	10	9		
<b>Days homeless***</b> (years)	Scale	2082 (6)	111 (0.3)		
Days in city where you are living now (years)	Scale	4522 (12)	4180 (11)		
<b>Days in place where you are living now**</b> (months)	Scale	107 (4)	43 (1)		
Daily distance traveled (in miles)	Scale	13	14		
Times traveled by public transit in last 7 days	Scale	15	14		
Times traveled by private vehicle in last 7 days	Scale	3	3		
Times traveled by service provider shuttle in last 7 days	Scale	5	4		
Male	Categorical			64	68
White(non-white)	Categorical			27(73)	38(62)
Black (non-black)	Categorical			46(54)	36(64)
Heterosexual (not hetero)	Categorical			90(10)	93(7)
High school degree	Categorical			59	66
Veteran	Categorical			27	26
Disability	Categorical			73	66
<b>Alone (not alone)**</b>	Categorical			81(19)	56(44)
Children under 18	Categorical			13	20
<b>Accompanied by another adult**</b>	Categorical			10	33
Working (formal employment)	Categorical			19(13)	31(13)
Vehicle ownership	Categorical			10	16

\* significant at p<.05

\*\* significant at p<.01

\*\*\* significant at p<.001

Figure 6. Daily travel patterns, example comparison, two episodically homeless men, one alone (west side of map), one accompanied by another adult (east side).

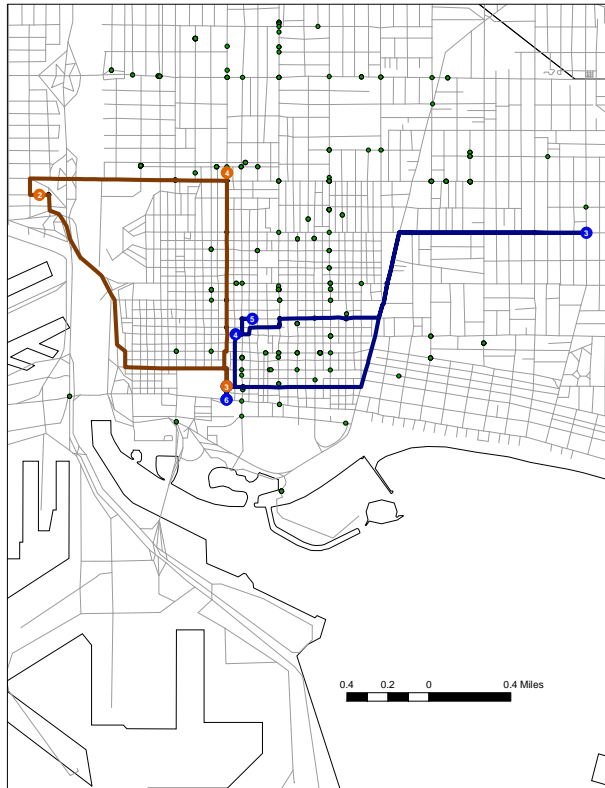
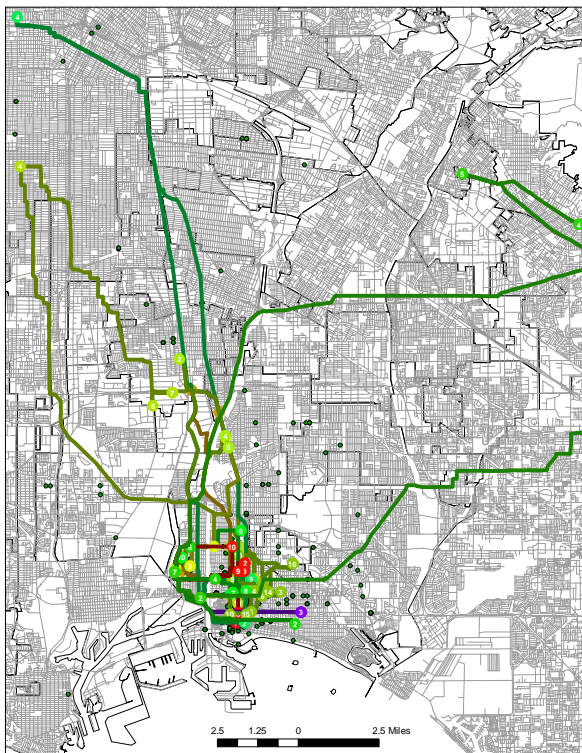


Figure 7a. Daily travel patterns, single mothers (n=12).



b. Daily travel patterns, unaccompanied women (n=18).

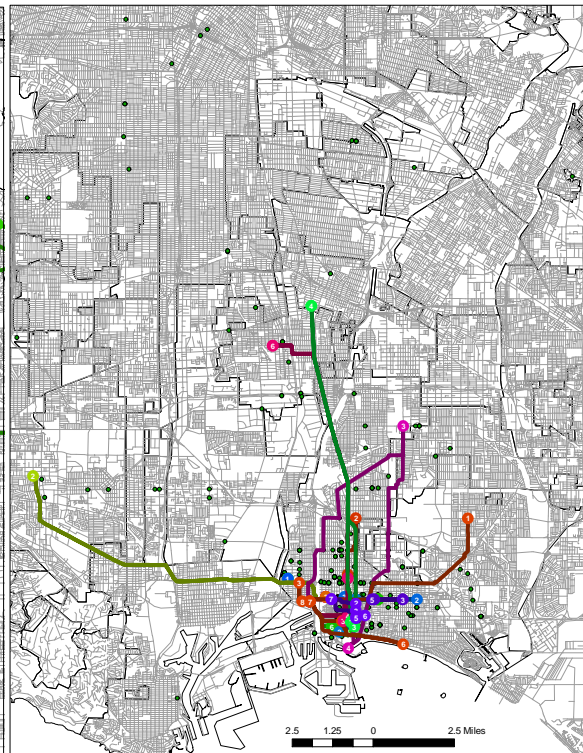
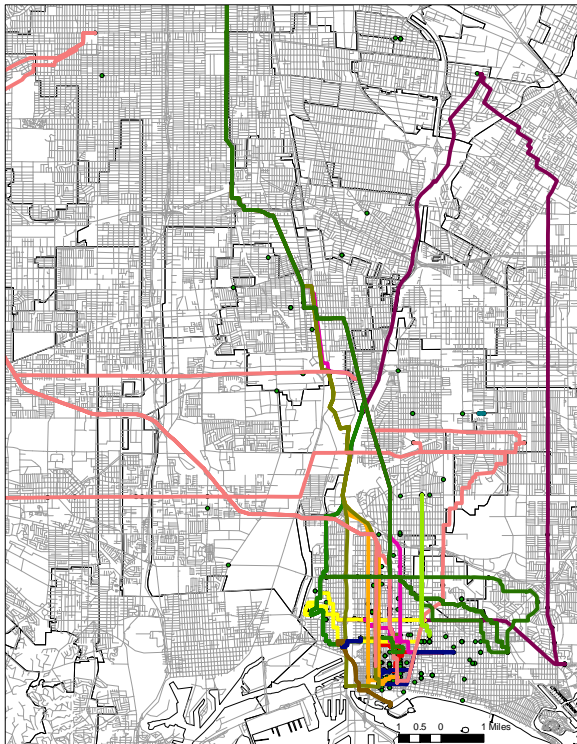
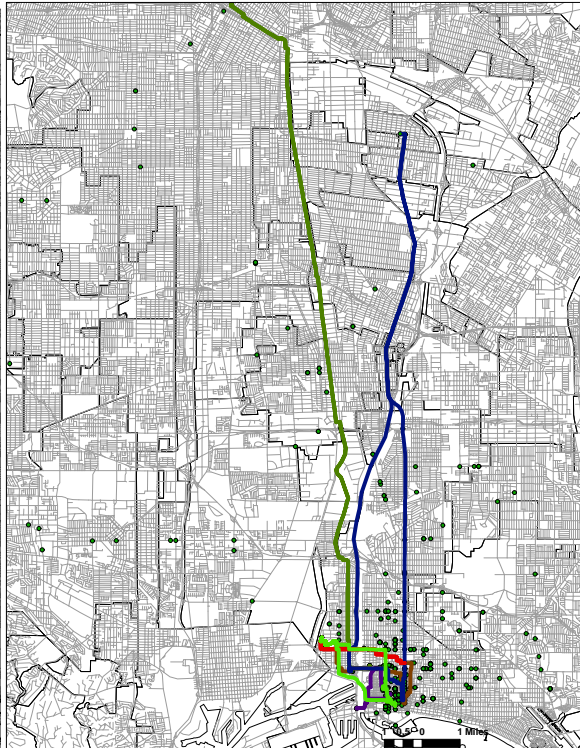


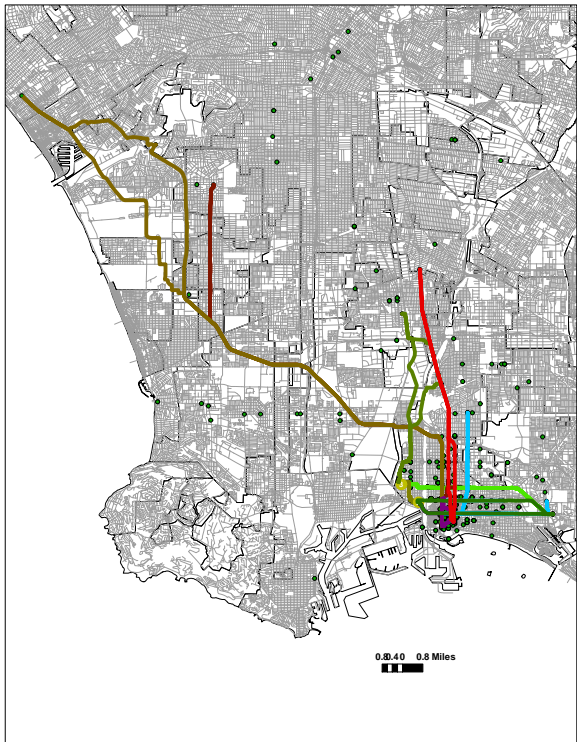
Figure 8a. Daily travel patterns of episodic homeless accompanied by another adult, may have children under 18 (n=18).



b. Daily travel patterns of chronic homeless accompanied by another adult may have children under 18 (n=6).



c. Episodic homeless unaccompanied by another adult, may have children under 18 (13 shown out of n=37).



d. Chronic homeless unaccompanied by another adult, may have children under 18 (20 shown out of n=57).

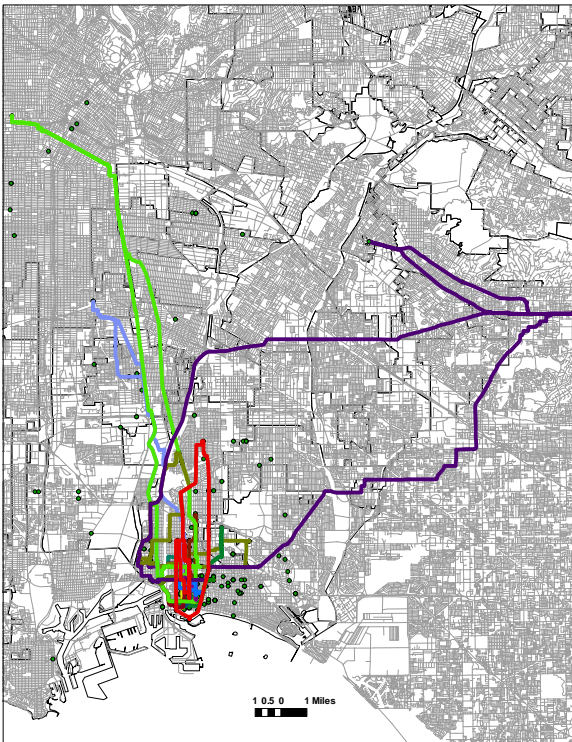
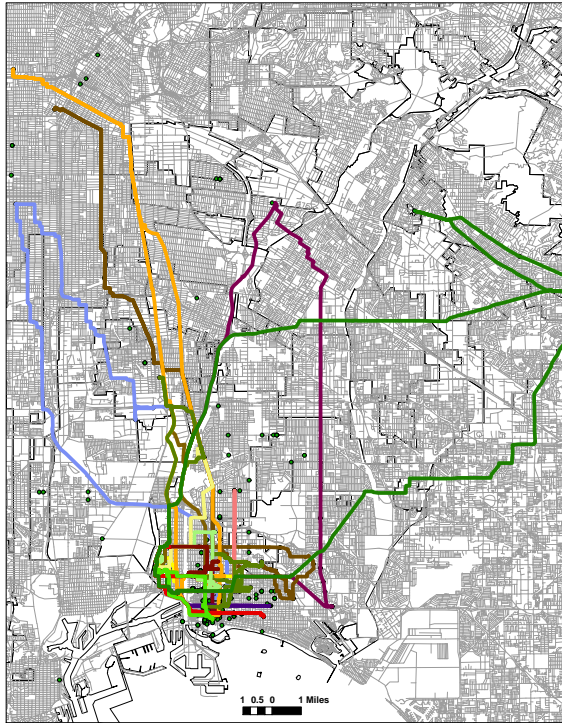
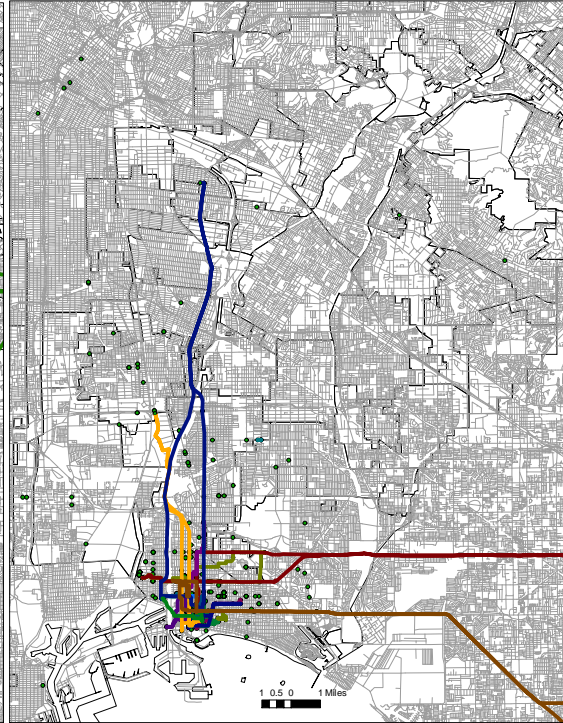


Figure 9. Homeless adults accompanied by children under 18 (n=19)



b. Homeless adults unaccompanied by children under 18 (n=99, map shows random sample of 20 out of 99)



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## Appendix A: Focus Group Screener Questionnaire

### Homeless Mobility Project Brief Questionnaire

This form is NOT a requirement for receiving services at the Multi-Service Center. You are under no obligation to complete this form. This form will be used to determine if you are eligible for a study being conducted by Drs. Jocoy and Del Casino of the Department of Geography at California State University, Long Beach.

If you chose to complete this form, please answer the following questions marking an X next to the appropriate response. *No identifying information will be used with this document.*

Gender: Male \_\_\_ Female \_\_\_ Transgendered \_\_\_

Age: <18 \_\_\_ 18-24 \_\_\_ 25-29 \_\_\_ 30-39 \_\_\_ 40-49 \_\_\_ 50-59 \_\_\_ 60-69 \_\_\_ >69 \_\_\_

Ethnicity: Spanish/Latino/Hispanic Yes \_\_\_ No \_\_\_  
If Yes, are you Mexican, Mexican Am., Chicano \_\_\_ Puerto Rican \_\_\_  
Cuban \_\_\_ Other \_\_\_\_\_

Race (check all that apply): American Indian/Alaskan Native \_\_\_  
Asian \_\_\_  
Black or African-American \_\_\_  
Native Hawaiian or Other Pacific Islander \_\_\_  
White \_\_\_  
Other \_\_\_\_\_

Have you ever served on active duty in the U.S. Armed Forces, Military Reserve, or National Guard?  
Yes, now on active duty \_\_\_  
Yes, on active duty in the past, but not now \_\_\_  
No, training for Reserves of National Guard only \_\_\_  
No, never served in the military \_\_\_

Have you been homeless in the last 30 days? Yes \_\_\_ No \_\_\_ (If No, have you been homeless in the last six months? Yes \_\_\_ No \_\_\_)

In the last 30 days have you stayed in (check all that apply):

1. an emergency or transitional shelter \_\_\_
2. a hotel or motel \_\_\_
3. an abandoned building \_\_\_
4. a place of business \_\_\_
5. a car or other vehicle \_\_\_
6. anywhere outside \_\_\_ Explain: \_\_\_\_\_
7. other \_\_\_ Explain: \_\_\_\_\_

When was the last time you had a place of your own, such as a house, apartment, room or other housing, for more than 30 days?

1. during the last six months \_\_\_\_
2. six to twelve months ago \_\_\_\_
3. twelve to eighteen months ago \_\_\_\_
4. eighteen months to three years ago \_\_\_\_
5. more than three years ago \_\_\_\_

**For Office Use Only:**

\_\_\_\_ 0

\_\_\_\_ 1

\_\_\_\_ 2

## Appendix B: Focus Group Questions

Homeless Mobility Project  
Focus Group Questions  
July 24, 2006

- 1) How do you get around? (bike, walk, bus, etc.)
  - a) Do you always walk?
  - b) How often do you take the bus?
- 2) Where do you go?
- 3) Where would you like to go?
- 4) Where did you actually go... yesterday?
  - last week?
  - last month?
- 5) Where do you go regularly... daily?
  - weekly?
  - monthly?
- 6) What are the problems you have getting around?
  
- 7) What types of incentives would you prefer?

## Appendix C: Revised Focus Group Questions

Homeless Mobility Project  
Focus Group Questions, August 8, 2006

### A. Introduction

Who?

Where?

How long have you been homeless?

What type of place did you live before you became homeless?

Main Point: How they identify as homeless.

### 1. How do you get around?

(List them)

1.

2.

Main Point: List of modes of transportation.

### 2. Where did you go yesterday?

If they do not want to say where exactly, ask what type of place; church, food bank, service center, hospital.

a. Where did you go last week?

b. How much time did you spend going to work, procuring food, leisure time?

Main Points: Inventory of places, and how much time spent at each place?

### 3. Possessions. Do you travel with possessions?

If yes, How?

Do you bring all your possessions with you?

Are they here with you now?

If no, where are your possessions presently?

Main Point: Are possessions mobile or are they stored, and where?

### 4. What types of fares (bus passes and train passes) do they use (pay each way, day pass, monthly pass)?

Main Point: What is the impact of fare schedule on mobility?

### 5. Have you ever heard of someone not paying a bus or train fare?

Main Point: Cost-benefits of "hopping" trains (busses?).

### 6. Do you travel alone or in a group?

Main Point: Social networks in transportation.

### 7. General problems getting around?

Main Point: Identify problems.

### 8. If you had the opportunity, where would you like to go on a regular basis (that you cannot get to now)?

Main Point: Places they'd like to go, but do not presently go.

**Appendix D: Survey Instrument  
Survey Questionnaire  
Homeless Mobility Project 2006-2007**

Site ID #: ___ ___	Interviewer 1 ID #: ___ ___ ___	Interviewer 2 ID #: ___ ___ ___	PRESID #: ___ - ___ - ___
Date	Start time	Finish time	
<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	AM PM	AM PM
Month	Day	___ : ___	___ : ___
		Hour Min	Hour Min

Hello, my name is [Interviewer 1's name] and this is [Interviewer 2's name]. We are part of a team of researchers from California State University, Long Beach. We are conducting a survey to obtain information about how adults who are currently homeless, or who have experienced homelessness in the last three years, access and use transportation to travel around the city and beyond. The survey will take about 45 minutes of your time. The information you give me is for statistical purposes only. None of the information you give which could identify you or this place will be released to the public, the City of Long Beach, or service providers. Participating in this survey is voluntary and there are no penalties for choosing not to answer any particular questions. Participating is NOT a requirement for receiving services at the [add name of organization]. We will compensate you for your time if you complete the questionnaire.

We would like your informed consent to participate in this study. This form explains your rights as a research participant. I will go through them with you. [Explain consent form.]

***READ: To make sure that you understand what you are agreeing to, please tell me briefly what this study is about?***

[Respondent should answer something like travel, transportation, or mobility of homeless.]

***READ: Please answer YES or NO to the following question.***

***Will your name or other identifying information appear in any report about this study?***

[Respondent should answer no.]

Please sign and date the consent form. Thank you.

If you have no further questions, we will begin.

Section A: Demographic characteristics

**READ: First, I'd like to ask you some questions about yourself.**

Q1. What is your date of birth (mm/dd/yyyy)? \_\_\_ \_\_\_ / \_\_\_ \_\_\_ / \_\_\_ \_\_\_ \_\_\_ \_\_\_

Don't know 77 / 77 / 7777

Refused 88 / 88 / 8888

Q2. Are you ...(**READ 1-3**)?

Male	1	Don't know	7
Female	2	Refused	8
Transgender	3		

Q3. Do you consider yourself Latino, Hispanic, or Spanish?

No 0

**IF NO, GO TO Q4.**

Yes 1

Don't know 7

Refused 8

Q3a. If **Yes**, are you ...**READ 1-6 (CIRCLE ONE)**?

Mexican 01

Mexican American, or Chicano 02

Puerto Rican 03

Cuban 04

Dominican Republican 05

Other Latino/Hispanic/Spanish 06

Don't know 77

Refused 88

Skip 99

Q4. Do you consider yourself ... **READ 1-7 (CIRCLE ONE)?**

American Indian or Alaskan Native	01
Asian	02
Black or African-American	03
Native Hawaiian or Other Pacific Islander	04
White	05
Multiracial	06
Other, Specify,	07
<hr/>	
Don't know	77
Refused	88

Q5. Do you consider yourself ... **READ 1-4 (CIRCLE ONE):**

Heterosexual	1
Homosexual	2
Transsexual	3
Bisexual	4
Don't know	7
Refused	8

Q6. How much school have you completed? **READ: You may answer this directly.**

**(DO NOT READ LIST; PROBE TO CLARIFY IF NECESSARY. CIRCLE ONE.)**

No school completed	01
Preschool/ Kindergarten	02
1 <sup>st</sup> , 2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> grade	03
5 <sup>th</sup> , 6 <sup>th</sup> , 7 <sup>th</sup> , 8 <sup>th</sup> grade	04
9 <sup>th</sup> grade	05
10 <sup>th</sup> grade	06
11 <sup>th</sup> grade	07
12 <sup>th</sup> grade, No Diploma	08
High School Graduate	09
GED	10
Vocational training certificate	11
Some college but no degree	12
Associate's Degree in college – Occupational program	13
Associate's Degree in college – Academic program	14
Bachelor's degree	15
Professional school degree	16
Doctorate degree	17
Don't know	77
Refused	88

Q7. Have you ever served on active duty in the U.S. Armed Forces, Military Reserve, or National Guard? **(CIRCLE ONE.)**

Yes, now on active duty	1
Yes, on active duty in the past, but not now	2
No, training for Reserves or National Guard only	3
No, never served in the military	4
Don't know	7
Refused	8

Q8. Have you been diagnosed by a professional or counselor with any of the following conditions?

<b>READ: You may answer yes or no to each option.</b>	No	Yes	Don't know	Refused
a. Substance use disorder	0	1	7	8
b. Serious mental illness	0	1	7	8
c. Developmental disability	0	1	7	8
d. Chronic physical illness or disability	0	1	7	8

Q9. Do you live with any of the following? (**READ a, c, d**)

	No	Yes	Don't know	Refused	Skip
a. Children under 18 years ( <b>IF NO, SKIP b.</b> )	0	1	7	8	
<b>b. IF YES, how many children?</b> — —			7	8	9
c. A husband or wife	0	1	7	8	
d. A partner/boyfriend/girlfriend	0	1	7	8	

Section B: Place of residence

**READ: Now I'd like to ask you some questions about your current living arrangements.**

Q10. As of today, do you consider yourself to be homeless?

No	0
Yes	1
Don't know	7
Refused	8

**IF YES, SKIP Q10a; GO TO Q11.**

**IF NO, ASK Q10a.**

Q10a. During your last period of homelessness, how long were you homeless?

Years	___ ___
Months	___ ___ ___
Weeks	___ ___ ___
Days	___ ___ ___
Don't know	777
Refused	888
Skip	999

**SKIP Q11; GO TO Q12.**

Q11. How long have you been homeless (that is, without a place to stay, such as a house, apartment, room or other housing)?

**Respondent may select unit of time.**

Years	___ ___
Months	___ ___ ___
Weeks	___ ___ ___
Days	___ ___ ___
Don't know	777
Refused	888
Skip	999

Q12. During this time period were you continuously homeless?

No	0
Yes	1
Don't know	7
Refused	8

Q13. How many times within the last 3 years were you homeless (without a place to stay, such as a house, apartment, room or other housing)?

Times	— —
Don't know	77
Refused	88

***If continually homeless within the last 3 years, enter 1 time.***

Q14. As of today, in what kind of place do you live now?

**(READ OPTIONS; SHOW CARD A; CIRCLE ONE.)**

An emergency shelter (up to six-months stay)	01
A transitional shelter/housing (up to 24-months stay)	02
Permanent supportive housing	03
A welfare or voucher hotel	04
A car or other vehicle	05
An abandoned building	06
A transportation site (bus station, airport, subway station)	07
At a place of business (all night movie, bar, laundromat, all-night restaurant)	08
Anywhere outside (streets, park, campground, tent, cardboard boxes, etc.)	09
Hotel or motel (that you paid for yourself)	10
A house (includes trailer and mobile home, that is not part of an emergency, transitional, or permanent supportive housing program)	11*
An apartment (that is not part of an emergency, transitional, or permanent supportive housing program)	12*
A room (other than hotel, that is not part of an emergency, transitional, or permanent supportive housing program)	13*
Other, specify _____	14
	Don't know 77
	Refused 88

**\*IF ANSWER #11, #12, OR #13 IS CIRCLED, GO TO Q14a.  
FOR ALL OTHERS, SKIP Q14a; GO TO Q15.**

Q14a. Is this house, apartment, or room that you are living in now a.....?  
**(READ 1-4. CIRCLE ONE.)**

- Place you own or rent 1
- Family member's place 2
- Friend's place 3
- Someone else's place 4
- Specify \_\_\_\_\_
- Don't know 7
- Refused 8
- Skip 9

Q15. How long have you lived in the place you are living now?

- Years \_\_\_\_\_
- Months \_\_\_\_\_
- Weeks \_\_\_\_\_
- Days \_\_\_\_\_
- Don't know 777
- Refused 888

Q16. In what city and state did you FIRST become homeless?

- City \_\_\_\_\_ State \_\_\_\_\_
- Not in US 66
  - Don't know 77
  - Refused 88

Q17. In what city are you living now? \_\_\_\_\_

- City \_\_\_\_\_ State \_\_\_\_\_
- Not in US 66
  - Don't know 77
  - Refused 88

**IF Q16 AND Q17 ARE THE SAME, SKIP Q18; GO TO Q19.**

Q18. Which of the following reasons best explains why you left the city in which you first became homeless [City from Q16]? **(READ LIST; SHOW CARD B; CIRCLE ONE.)**

No affordable housing available	01
No jobs available	02
No help available from family	03
No services available	04
Used available services until exceeded time limit	05
Evicted from or asked to leave last residence	06
Forced to leave (e.g., given bus fare to leave town, driven to county line)	07
End of agricultural season	08
Entered institution in another city (e.g., jail, hospital)	09
Bus/train went to Long Beach	10
Lack of transportation made it difficult to get around	11
Other, specify _____	12
	Don't know 77
	Refused 88
	Skip 99

Q19. How long have you been living in the city you are living in now [Q17]?

Years	___ ___
Months	___ ___ ___
Weeks	___ ___ ___
Days	___ ___ ___
Don't know	777
Refused	888

**IF CITY IS LONG BEACH, SKIP Q20; GO TO Q21.**

**IF NOT LIVING IN LONG BEACH [Q17], ASK:**

Q20. How long have you been in Long Beach?

Years	___ ___
Months	___ ___ ___
Weeks	___ ___ ___
Days	___ ___ ___
Hours	___ ___ ___
Don't know	777
Refused	888
Skip	999

Q21. Which of the following reasons best explains why you came to Long Beach? (**READ LIST; SHOW CARD C; CIRCLE ONE.**)

Long Beach is my home so I didn't come here	01
For a job/employment	02
To look for work (e.g., heard about job opportunities in Long Beach)	03
To look for housing	04
Had friends and/or relatives in Long Beach	05
To look for or stay at an emergency or transitional shelter	06
To access service and other programs (e.g., food, case management, showers)	07
To go to school	08
For the climate/weather	09
Just passing through	10
No particular reason	11
Other, specify _____	12
Don't know	77
Refused	88

**IF RESPONDENT GREW UP IN LONG BEACH, LEFT, BUT CAME BACK, CIRCLE 01.**

Q22. When you last had a place of your own, was that address in Long Beach?

No	0
Yes	1
Don't know	7
Refused	8

**IF YES, SKIP Q23-24; GO TO Q25.**

Q23. Have you ever lived in Long Beach before?

No	0
Yes	1
Don't know	7
Refused	8
Skip	9

**IF NO, SKIP Q24; GO TO Q25.**

**IF YES, ASK:**

Q24. What years did you live in Long Beach? Year(s): a. \_\_\_\_ to b. \_\_\_\_

Don't know	7777
Refused	8888
Skip	9999

Q25. Do you have family who live in Long Beach?

No	0
Yes	1
Don't know	7
Refused	8

Q26. Do you have friends who live in Long Beach?

No	0
Yes	1
Don't know	7
Refused	8

Q27. Have you ever worked in Long Beach?

No	0
Yes	1
Don't know	7
Refused	8

Q28. Are you currently working in Long Beach?

No	0
Yes	1
Don't know	7
Refused	8

**If YES,** Q28a. Do you receive a pay stub for your work?

No	0
Yes	1
Don't know	7
Refused	8
Skip	9

Q29. Have you ever attended school in Long Beach?

No	0
Yes	1
Don't know	7
Refused	8

**IF YES,**

**READ: Which of the following have you attended?**

	No	Yes	Don't know	Refused	Skip
a. K-12 <sup>th</sup> grade	0	1	7	8	9
b. Vocational school	0	1	7	8	9
c. College	0	1	7	8	9
d. Other, specify _____	0	1	7	8	9

Section C: Travel Behavior

**READ: Now I have some questions about your travel behavior.**

Q30. Do you own a ...? (**READ LIST AND CIRCLE ONE FOR EACH.**)

<b><i>You may answer yes or no to each option.</i></b>	No	Yes	Don't know	Refused	Q31. In the last 7 days, how many times did you use your ...?
a. Car/automobile (van, truck, RV)	0	1	7	8	___
b. Motorcycle	0	1	7	8	___
c. Other motorized vehicle (motorized bicycle, motorized scooter)	0	1	7	8	___
d. Bicycle	0	1	7	8	___
e. Scooter	0	1	7	8	___
f. Skateboard	0	1	7	8	___
g. Other, specify _____	0	1	7	8	___

**IF NO FOR ALL, SKIP Q31, GO TO Q32.**

Q31. *See table above, last column.*

Q32. In the last 7 days, how many times did you travel by ... ?

**POINT A TO POINT B (ONE WAY TRIP) COUNTS AS 1 TIME.**

	Times	Don't know	Refused
a. Public transit (bus/train)	___ ___	77	88
b. Getting a ride from a friend	___ ___	77	88
c. Getting a ride from a stranger (hitch-hiking)	___ ___	77	88
d. Borrowing a car or other vehicle	___ ___	77	88
e. Riding a shuttle van from a service provider	___ ___	77	88

Q33. Were the last 7 days typical of your regular routine for the last month (30 days)?

No	0
Yes	1
Don't know	7
Refused	8

**IF YES, GO TO Q34..**

**IF NO, ASK**

Q33a. Do you usually travel ...?

A lot more	1
A little more	2
A little less	3
A lot less	4
Don't know	7
Refused	8
Skip	9

**READ: Now I am going to ask you about public transit use.**

Q34. Did you use public transit (bus/train) in the last 30 days?	No	0
	Yes	1
	Don't know	7
	Refused	8

**IF NO, SKIP Q35-Q41, GO TO Q42.**

Q35. When you used public transit (bus/train) in the last 30 days, how did you pay for it? **(READ LIST; CIRCLE ONE FOR EACH ROW.)**

<b>READ: You may answer yes or no to each option. In the last 30 days, did you ...?</b>	No	Yes	Don't know	Refused	Q36. Rank
a. Pay with cash	0	1	7	8	_____
b. Pay with monthly pass you purchased	0	1	7	8	_____
c. Pay with pass/token given to you	0	1	7	8	_____
d. Hop on without paying	0	1	7	8	_____
e. Barter/bargain with driver for reduced fare	0	1	7	8	_____
f. Negotiate with driver for free ride	0	1	7	8	_____
g. Other, specify _____	0	1	7	8	_____

**IF ANSWERED YES FOR MORE THAN ONE PAYMENT TYPE ABOVE, ASK**

Q36. Of these payment methods, what was the most common way you paid for public transit? What was the second most common? What was the third? ... etc.

**(IF NEEDED, SHOW CARD D; MARK "YES" ANSWERS; PLACE RANK IN LIST ON RIGHT ABOVE.)**

Q37. In the last 30 days, which transit companies did you use?

<b>READ: You may answer yes or no to each option. Did you use ...?</b>	No	Yes	Don't know	Refused	Q38. Rank
a. Long Beach Transit (bus)	0	1	7	8	_____
b. Orange County (bus)	0	1	7	8	_____
c. Torrance Transit (bus)	0	1	7	8	_____
d. LA Metro (bus)	0	1	7	8	_____
e. LA Metro (train)	0	1	7	8	_____
f. Southern California Metrolink (train)	0	1	7	8	_____
g. Other, specify_____	0	1	7	8	_____

Q38. Of these transit companies, which one did you use most often? What was the second most often? What was the third? ... etc.

**(PLACE RANK IN LIST ON RIGHT ABOVE.)**

Q39. When you used public transit in the last 30 days, did you experience any of the following situations?

<b>READ: You may answer yes or no to each option. Did you experience a ...</b>	No	Yes	Don't know	Refused	Skip	Q40. Rank
a. Bus/train operator who was helpful	0	1	7	8	9	_____
b. Bus/train operator who was not helpful	0	1	7	8	9	_____
c. Bus/train operator who gave you a free ride	0	1	7	8	9	_____
d. Bus/train operator who refused to let you on	0	1	7	8	9	_____
e. Bus/train operator who did not stop to pick you up	0	1	7	8	9	_____
f. Bus/train operator who said your pass was fake	0	1	7	8	9	_____
g. Bus/train operator who gave you a reduced fare	0	1	7	8	9	_____
h. Other bus/train passengers who hassled you	0	1	7	8	9	_____
i. Other, specify_____	0	1	7	8	9	_____

Q40. Of these situations, which one did you experience most often? What was the second most often? What was the third? ... etc.

**(IF NEEDED, SHOW CARD E. PLACE RANK IN LIST ON RIGHT ABOVE.)**

Q41. In the last 30 days, did you use public transit (bus/train) at least one time per week?

No	0
Yes	1
Don't know	7
Refused	8

**IF YES, SKIP Q42-Q43; GO TO Q44.**

**IF NO, ASK,**

Q42. If you did **NOT** use public transit (e.g., bus/train) at least one time per week in the last 30 days, what explains why you didn't? (**READ LIST; CIRCLE ONE FOR EACH ROW.**)

<b>READ: You may answer yes or no to each option. You didn't use public transit because...</b>	No	Yes	Don't know	Refused	Skip	Q43. Rank
a. You used other means of transportation	0	1	7	8	9	_____
b. Bus/train was too expensive	0	1	7	8	9	_____
c. Bus/train operators were unhelpful	0	1	7	8	9	_____
d. Bus/train did not go where you needed or wanted it to go	0	1	7	8	9	_____
e. Bus/train was too dangerous	0	1	7	8	9	_____
f. Other bus/train passengers hassled you	0	1	7	8	9	_____
g. Bus/train was too crowded	0	1	7	8	9	_____
h. Bus/train did not come on schedule	0	1	7	8	9	_____
i. Other, specify_____	0	1	7	8	9	_____

**IF NO FOR a-i, SKIP Q43, GO TO Q44.**

Q43. Of these reasons, what was the most common reason you did **NOT** use public transit? What was the second most common? What was the third? ... etc. (**SHOW CARD F AND CROSS OUT "NO" ANSWERS FROM ABOVE; PLACE RANK IN LIST ON RIGHT ABOVE.**)

**READ: Now, I would like you to think about the specific places you went to last week.**

Q44. In the last 7 days, where was the most important place you went? (*By important we mean the place you needed or had to go*). **READ: You may answer this directly.**  
**(DO NOT READ LIST; PROBE TO CLARIFY IF NECESSARY; CIRCLE ONE.)**

Job	01
School or employment training	02
Job interview or to look for work	03
Hospital, medical clinic, or doctor's appointment	04
Social service appointment for case management	05
Mental health services or counseling appointment	06
Home of a friend or family member	07
Shelter	08
Public Park	09
Beach	10
Pick-up point for shuttle service	11
Food bank or soup kitchen	12
Church service	13
Court or legal services appointment	14
Other, specify _____	15
Don't know	77
Refused	88

Q45. How did you get to that place? (**READ LIST; CIRCLE ONE.**)

Walked entire way	01
Rode bus/train	02
Drove your car/automobile (including other motorized vehicles)	03
Someone gave you a ride in their car/automobile (including other motorized vehicles)	04
Rode shuttle van provided by service provider	05
Rode bicycle, scooter or skateboard	06
Other, specify _____	07
Don't know	77
Refused	88

**PROBE FOR MODE OF TRANSPORTATION THAT WAS MOST CRUCIAL TO GETTING TO DESTINATION. IF A COMBINATION OF MODES WAS CRUCIAL SELECT "OTHER, SPECIFY".**

Q46. When you traveled in the last 7 days, what did you do with your belongings (stuff)? (**READ LIST; CIRCLE ONE FOR EACH ROW.**)

<b>READ: You may answer yes or no to each option. Did you ...</b>	No	Yes	Don't know	Refused
a. Take your stuff with you (i.e., clothing, large amounts of stuff)	0	1	7	8
b. Leave your stuff at houses/apts of family or friends (people you know well)	0	1	7	8
c. Leave your stuff at houses/apts of acquaintances (people you recently met and/or don't know well)	0	1	7	8
d. Put your stuff in storage you paid for	0	1	7	8
e. Put your stuff in storage at location of service provider or shelter	0	1	7	8
f. Leave your stuff in a location outdoors	0	1	7	8
g. Leave your stuff in a vehicle	0	1	7	8
h. Leave your stuff at a church	0	1	7	8
i. Other, specify _____	0	1	7	8

**READ: Now I'm going to ask you questions that compare when you first became homeless to now.**

Q47. Before you became homeless, did you have previous experience using public transit (bus/train)?

No	0
Yes	1
Don't know	7
Refused	8

Q48. When you first became homeless, what was your best source of information on public transit? **(READ LIST; SHOW CARD G, CIRCLE ONE ANSWER.)**

Family or friends (people you know well)	01
Acquaintances or strangers (people you recently met and/or don't know well)	02
Service providers	03
Bus/train drivers	04
Bus/train schedules, paper versions	05
Bus/train schedules, posted at stops	06
Internet (including electronic bus/train schedules)	07
Telephone information line	08
Newspapers or magazines	09
Other, specify _____	10
	Don't know 77
	Refused 88

Q49. As of today, what is your best source of information on public transit? **(READ LIST; SHOW CARD G, CIRCLE ONE ANSWER.)**

Family or friends (people you know well)	01
Acquaintances or strangers (people you recently met and/or don't know well)	02
Service providers	03
Bus/train drivers	04
Bus/train schedules, paper versions	05
Bus/train schedules, posted at stops	06
Internet (including electronic bus/train schedules)	07
Telephone information line	08
Newspapers or magazines	09
Other, specify _____	10
	Don't know 77
	Refused 88

**Section D: Travel Destinations**

**READ: Now, I'm going to ask you about the places you've visited in the last month.**

Q50. List the cities you have traveled to in the last 30 days.	Q51. In the last 30 days, how many times did you travel to [Read name of each city]?	Q52. What was your primary reason for going to [Read name of each city]? ( <b>DO NOT READ LIST; PROBE TO CLARIFY IF NECESSARY. IF RESPONDENT WENT TO CITY MORE THAN ONE TIME, ASK FOR THE PRIMARY REASON AND SELECT ONE.</b> )												
		Visit Family/ friends	Get to or do your job	Look for work or get to job interview	For fun, recreation, shopping, eating out, or something to do	Forced to move by police or to avoid police (not in prison)	Access shelters, services, or free meals	Look for permanent housing	Get to appointment with medical or mental health professional	Engage in illegal activity	Other (Specify under city name)	Don't know	Refused	Skip
a. Where were you 30 days ago? City _____ State _____ Other reason, specify #10 _____	9 9	01	02	03	04	05	06	07	08	09	10	77	88	99
b. City _____ State _____ Other reason, specify #10 _____	__ __	01	02	03	04	05	06	07	08	09	10	77	88	99
c. City _____ State _____ Other reason, specify #10 _____	__ __	01	02	03	04	05	06	07	08	09	10	77	88	99
d. City _____ State _____ Other reason, specify #10 _____	__ __	01	02	03	04	05	06	07	08	09	10	77	88	99

Q50. List the cities you have traveled to in the last 30 days.	Q51. In the last 30 days, how many times did you travel to [Read name of each city]?	Q52. What was your primary reason for going to [Read name of each city]? (DO NOT READ LIST; PROBE TO CLARIFY IF NECESSARY. IF RESPONDENT WENT TO CITY MORE THAN ONE TIME, ASK FOR THE PRIMARY REASON AND SELECT ONE.)												
		Visit Family/ friends	Get to or do your job	Look for work or get to job interview	For fun, recreation, shopping, eating out, or something to do	Forced to move by police or to avoid police (not in prison)	Access shelters, services, or free meals	Look for permanent housing	Get to appointment with medical or mental health professional	Engage in illegal activity	Other (Specify under city name)	Don't know	Refused	Skip
e. City _____ State ____ Other reason, specify #10 _____	__ __	01	02	03	04	05	06	07	08	09	10	77	88	99
f. City _____ State ____ Other reason, specify #10 _____	__ __	01	02	03	04	05	06	07	08	09	10	77	88	99
g. City _____ State ____ Other reason, specify #10 _____	__ __	01	02	03	04	05	06	07	08	09	10	77	88	99
h. City _____ State ____ Other reason, specify #10 _____	__ __	01	02	03	04	05	06	07	08	09	10	77	88	99

Q50. List the cities you have traveled to in the last 30 days.	Q51. In the last 30 days, how many times did you travel to [Read name of each city]?	Q52. What was your primary reason for going to [Read name of each city]? (DO NOT READ LIST; PROBE TO CLARIFY IF NECESSARY. IF RESPONDENT WENT TO CITY MORE THAN ONE TIME, ASK FOR THE PRIMARY REASON AND SELECT ONE.)												
		Visit Family / friends	Get to or do your job	Look for work or get to job interview	For fun, recreation, shopping, eating out, or something to do	Forced to move by police or to avoid police (not in prison)	Access shelters, services, or free meals	Look for permanent housing	Get to appointment with medical or mental health professional	Engage in illegal activity	Other (Specify under city name)	Don't know	Refused	Skip
i. City _____ State ____ Other reason, specify #10 _____	__ __	01	02	03	04	05	06	07	08	09	10	77	88	99
j. City _____ State ____ Other reason, specify #10 _____	__ __	01	02	03	04	05	06	07	08	09	10	77	88	99
k. City _____ State ____ Other reason, specify #10 _____	__ __	01	02	03	04	05	06	07	08	09	10	77	88	99
l. City _____ State ____ Other reason, specify #10 _____	__ __	01	02	03	04	05	06	07	08	09	10	77	88	99

**READ: I am going to ask you questions about services and where you access them.**

**ONLY ASK Q53 IF RESPONDENT IS STAYING IN A SHELTER. IF NOT IN A SHELTER, SKIP TO Q54.**

Q53. In the last 7 days, have you received assistance with any of the following on site at the place you are staying now (i.e., these services are located at the place you are staying) **(READ OPTIONS; CIRCLE ONE FOR EACH.)**

<b>READ: You may answer yes or no to each option. In the last 7 days, did you receive help on site with free or subsidized ...?</b>	No	Yes	Don't know	Refused
a. Alcohol/Drug Rehab	0	1	7	8
b. Bus/train pass or token	0	1	7	8
c. Bleach kit	0	1	7	8
d. Case management	0	1	7	8
e. Child Care	0	1	7	8
f. Clothing	0	1	7	8
g. Counseling (Ind./Group)	0	1	7	8
h. Food/Hot Meals	0	1	7	8
i. HIV/STD Testing	0	1	7	8
j. Hygiene Kit/Toiletries	0	1	7	8
k. Job Counseling	0	1	7	8
l. Laundry	0	1	7	8
m. Legal services	0	1	7	8
n. Life Skills Classes (e.g., money management, parenting)	0	1	7	8
o. Medical Care (including eye or dental)	0	1	7	8
p. Showers	0	1	7	8
q. Shuttle van transportation	0	1	7	8
r. Storage/Lockers	0	1	7	8
s. Other, specify _____	0	1	7	8
t. Other, specify _____	0	1	7	8
u. Other, specify _____	0	1	7	8

Q54. In the last 7 days, have you received assistance with any of the following off site from the place you are staying now (i.e., you traveled to a location somewhere else) **(READ OPTIONS; CIRCLE ONE FOR EACH.)**

<b>READ: You may answer yes or no to each option. In the last 7 days, did you receive help off site with free or subsidized ...?</b>	No	Yes	Don't know	Refused
a. Alcohol/Drug Rehab	0	1	7	8
b. Bus/train pass or token	0	1	7	8
c. Bleach kit	0	1	7	8
d. Case management	0	1	7	8
e. Child Care	0	1	7	8
f. Clothing	0	1	7	8
g. Counseling (Ind./Group)	0	1	7	8
h. Food/Hot Meals	0	1	7	8
i. HIV/STD Testing	0	1	7	8
j. Hygiene Kit/Toiletries	0	1	7	8
k. Job Counseling	0	1	7	8
l. Laundry	0	1	7	8
m. Legal services	0	1	7	8
n. Life Skills Classes (e.g., money management, parenting)	0	1	7	8
o. Medical Care (including eye or dental)	0	1	7	8
p. Showers	0	1	7	8
q. Shuttle van transportation	0	1	7	8
r. Storage/Lockers	0	1	7	8
s. Other, specify_____	0	1	7	8
t. Other, specify_____	0	1	7	8
u. Other, specify_____	0	1	7	8

**READ: I will now ask you a series of questions about your travel yesterday [IF MONDAY, ASK ABOUT TRAVEL ON FRIDAY].**

Q55. What time did you wake up? \_\_\_\_ \_\_\_\_ : \_\_\_\_ \_\_\_\_ AM / PM (**CIRCLE AM OR PM.**)  
Hour Min

Q56. Where did you wake up? \_\_\_\_\_, \_\_\_\_\_  
Location City State

	<b>Q56a</b>	<b>Q56b</b>	<b>Q56c</b>	<b>Q56d</b>	<b>Q56e</b>	<b>Q56f</b>	<b>Q56g</b>
<b>Question to ask</b>	<i>Where did you go next?</i>	<i>Where is that located?</i>	<i>Approximately, what time did you leave to get there?</i>	<i>How did you get there?</i>	<i>What time did you arrive?</i>	<i>Did you travel with anyone? Who?</i>	<i>What was the reason for going there?</i>
<b>Description</b>	<i>Name of location</i>	<i>Address or cross streets and city name</i>	<i>Departure time to get to location</i>	<i>Mode of travel to location (Walk, Car, Bus, Train, Bicycle, Service Van)</i>	<i>Arrival time at destination</i>	<i>Traveled with (description of person – friend, family member, outreach worker, child)</i>	<i>Person to see (description of person – friend, family member, outreach worker, child) or reason/activity</i>
<b>1.</b>							
<b>2.</b>							
<b>3.</b>							
<b>4.</b>							

<b>Question to ask</b>	<b>Where did you go next?</b>	<b>Where is that located?</b>	<b>What time did you leave to get there?</b>	<b>How did you get there?</b>	<b>What time did you arrive?</b>	<b>Did you travel with anyone? Who?</b>	<b>Why did you go there/who did you go to see?</b>
<b>Description</b>	<i>Name of location</i>	<i>Address or cross streets and city name</i>	<i>Departure time to get to location</i>	<i>Mode of travel to location (Walk, Car, Bus, Train, Bicycle, Service Van)</i>	<i>Arrival time at destination</i>	<i>Traveled with (description of person – friend, family member, outreach worker, child)</i>	<i>Person to see (description of person – friend, family member, outreach worker, child) or reason/activity</i>
5.							
6.							
7.							
8.							

<b>Question to ask</b>	<b><i>Where did you go next?</i></b>	<b><i>Where is that located?</i></b>	<b><i>Approximately, what time did you leave to get there?</i></b>	<b><i>How did you get there?</i></b>	<b><i>What time did you arrive?</i></b>	<b><i>Did you travel with anyone? Who?</i></b>	<b><i>What was the reason for going there?</i></b>
<b>Description</b>	<i>Name of location</i>	<i>Address or cross streets and city name</i>	<i>Departure time to get to location</i>	<i>Mode of travel to location (Walk, Car, Bus, Train, Bicycle, Service Van)</i>	<i>Arrival time at destination</i>	<i>Traveled with (description of person – friend, family member, outreach worker, child)</i>	<i>Person to see (description of person – friend, family member, outreach worker, child) or reason/activity</i>
9.							
10.							

Section E: Employment and Income

**READ: Now I have some questions about your work history and income.**

Q57. Please describe your work situation in the last 30 days?

**(DO NOT READ LIST; PROBE TO CLARIFY; CIRCLE ONE.)**

Working full-time, 35 hours or more a week (receiving pay stub)	01
Working part-time, less than 35 hours a week (receiving pay stub)	02
Working, but not receiving a pay stub	03
Working, but on extended leave due to illness, maternity leave, furlough, or strike	04
Unemployed or laid off and looking for work	05*
Unemployed and not looking for work	06*
Full-time homemaker	07*
In school full-time	08*
Retired	09*
Disabled, not able to work	10*
In the military	11*
Other, specify _____	12*
	Don't know 77
	Refused 88

**IF NOT WORKING (RESPONDENT ANSWERED 05\*-12\*), SKIP Q58-59, GO TO Q60.**

**IF #01-04, ASK,**

Q58. What is the name and street address of your primary workplace?

Name of employer: \_\_\_\_\_

\_\_\_\_\_  
Street Number

\_\_\_\_\_  
Street Name (or Cross-streets)

\_\_\_\_\_  
City

\_\_\_\_\_  
State

\_\_\_\_\_  
Zip Code

Don't know 77

Refused 88

Skip 99

Q59. How long have you been currently working?

Years	___ ___
Months	___ ___ ___
Weeks	___ ___ ___
Days	___ ___ ___
Don't know	777
Refused	888
Skip	999

Q60. What is your primary occupation? \_\_\_\_\_

Don't know	77
Refused	88
Skip	99

Q61. In the last 30 days, have you received money or income subsidy from any of these sources? **(READ LIST; CIRCLE ONE FOR EACH ROW.)**

<b>READ: You may answer yes or no to each option.</b>	No	Yes	Don't know	Refused
a. Paid work (receiving pay stub)	0	1	7	8
b. Paid work, but not receiving pay stub	0	1	7	8
c. General assistance such as cash aid (CA), general relief (GR), general relief opportunities for work (GROW)	0	1	7	8
d. Temporary Assistance for Needy Families (TANF)	0	1	7	8
e. Social Security (Survivors and Retirement)	0	1	7	8
f. Food stamps or other food assistance (Women, Infants, & Children (WIC), Emergency Food Assistance Program (EFAP)	0	1	7	8
g. Housing subsidy/assistance	0	1	7	8
h. Supplemental Security Income (SSI) Aged, Blind, and Disability	0	1	7	8
i. Veteran's disability payments	0	1	7	8
j. Veteran's pension (not disability related)	0	1	7	8
k. Other pensions, specify _____	0	1	7	8
l. Other survivor benefits, specify _____	0	1	7	8
m. Private disability insurance	0	1	7	8
n. Unemployment compensation	0	1	7	8
o. Child support	0	1	7	8
p. Other spousal benefits (alimony)	0	1	7	8
q. Spouse	0	1	7	8
r. Parents	0	1	7	8
s. Other relatives	0	1	7	8
t. Friends (includes boyfriends/girlfriends)	0	1	7	8
u. Peddling or selling personal belongings	0	1	7	8
v. Asking for money on the streets	0	1	7	8
w. Donating blood or plasma	0	1	7	8
x. Illegal activities	0	1	7	8

Q61 *continued*. Any other income, specify:

***IF NO, CIRCLE 0 FOR y-cc.***

y. Any other income, specify _____	0	1	7	8
z. Any other income, specify _____	0	1	7	8
aa. Any other income, specify _____	0	1	7	8
bb. Any other income, specify _____	0	1	7	8
cc. Any other income, specify _____	0	1	7	8

Q62. What was your income for the last month?

\$ \_\_\_\_\_

**(ROUND TO WHOLE DOLLAR  
AND CIRCLE BY FRAME; YOU MAY  
WRITE ON SURVEY TO HELP  
CALCULATE TOTAL.)**

Annually 0  
Monthly 1  
Biweekly 2  
Weekly 3  
Daily 4  
Hourly 5  
Don't know 7  
Refused 8

Q63. Are you looking for work now?

No 0  
Yes 1  
Don't know 7  
Refused 8

**IF YES, SKIP 64; GO TO Q65.**

**IF NO, ASK**

Q64. Which of the following reasons describes why you are **not** looking for work?  
**(READ LIST; CIRCLE ONE FOR EACH ROW.)**

<b><i>You may answer yes or no to each option.</i></b>	No	Yes	Don't know	Refused	Skip
a. You already have a job	0	1	7	8	9
b. You believe no work is available in your line of work or area	0	1	7	8	9
c. You could not find any work in the past	0	1	7	8	9
d. You lack necessary schooling, training, skills or experience	0	1	7	8	9
e. You are in ill health or have a physical disability	0	1	7	8	9
f. You would not be able to arrange child care	0	1	7	8	9
g. You have family responsibilities	0	1	7	8	9
h. You are in school or other training	0	1	7	8	9
i. You lack transportation to go to work	0	1	7	8	9
j. Other, specify _____	0	1	7	8	9

Q65. In the last 30 days, have you received assistance in any of the following areas (i.e., free or subsidized services)? **(READ OPTIONS; CIRCLE ONE FOR EACH.)**

<b>READ: You may answer yes or no to each option. In the last 30 days, did you receive help with free or subsidized...?</b>	No	Yes	Don't know	Refused
a. Alcohol/Drug Rehab	0	1	7	8
b. Bus/train pass or token	0	1	7	8
c. Bleach Kit	0	1	7	8
d. Case Management	0	1	7	8
e. Child Care	0	1	7	8
f. Clothing	0	1	7	8
g. Counseling (Ind./Group)	0	1	7	8
h. Drop-in center services	0	1	7	8
i. Emergency Shelter	0	1	7	8
j. Food/Hot Meals	0	1	7	8
k. HIV/STD Testing	0	1	7	8
l. Hygiene Kit/Toiletries	0	1	7	8
m. Job Counseling	0	1	7	8
n. Laundry	0	1	7	8
o. Legal services	0	1	7	8
p. Life Skills Classes	0	1	7	8
q. Medical Care (including eye or dental)	0	1	7	8
r. Permanent Supportive Housing	0	1	7	8
s. Rental Assistance (e.g., first and last month's rent)	0	1	7	8
t. Section 8 housing voucher	0	1	7	8
u. Showers	0	1	7	8
v. Shuttle van transportation	0	1	7	8
w. Storage/Lockers	0	1	7	8
x. Transitional housing (up to 24 months)	0	1	7	8
y. Other, specify _____	0	1	7	8
z. Other, specify _____	0	1	7	8

Q65 *continued*. Any other free or subsidized services received in the last 30 days?

***IF NO, CIRCLE 0 FOR y-ee.***

aa. Other, specify _____	0	1	7	8
bb. Other, specify _____	0	1	7	8
cc. Other, specify _____	0	1	7	8
dd. Other, specify _____	0	1	7	8
ee. Other, specify _____	0	1	7	8

Is there anything else that you would like to share with us related to this project or your experiences?

***That completes our survey. Thank you for your participation.***

Finish time:

AM PM

\_\_\_\_ : \_\_\_\_

Hour Min

Section F: Post Interview Evaluation

	No	Yes
Q66. Interview completion status:		
a. Interview completed	0	1
b. Interview stopped	0	1
c. Interview not conducted	0	1
<b><i>IF YES FOR INTERVIEW STOPPED OR NOT CONDUCTED, ANSWER</i></b>		
Q67. Reason for non-interview or stopped interview:		
a. Had someplace else to go	0	1
b. Refused	0	1
c. Uncooperative	0	1
d. Mentally or physically incapable	0	1
e. Language barrier	0	1
f. Drunk	0	1
g. Under the influence of drugs	0	1
h. Threatening to interviewer	0	1
i. Other, Specify _____	0	1
Q68. Did respondent appear to be:		
a. Lucid and alert	0	1
b. Drunk	0	1
c. Under the influence of drugs	0	1
d. Physically ill	0	1
e. Confused	0	1
f. Incoherent	0	1
g. Other, Specify _____	0	1
Q69. Further interview concerns:		
a. Did the respondent have any difficulty in understanding the questions?	0	1
b. Was the respondent honest?	0	1
c. Was the respondent able to answer the questions?	0	1
d. Did you feel confident about the accuracy of the answers?	0	1

Please explain Q70a–d from above. Please list general observations as well as question specific comments. For the latter, please include the page number and question number. Thank you.

Q70a. Did the respondent have any difficulty in understanding the questions?

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Q70b. Was the respondent honest?

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Q70c. Was the respondent able to answer the questions?

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Q70d. Did you feel confident about the accuracy of the answers?

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