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# Towards Data and Solution-Focused Approaches for Homeless Populations on PublicTransit

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# Toward Data and Solution-Focused Approaches to Support Homeless Populations on Public Transit

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NATIONAL INSTITUTE FOR TRANSPORTATION AND COMMUNITIES nitc-utc.net

# TOWARD DATA AND SOLUTION-FOCUSED APPROACHES FOR HOMELESS POPULATIONS ON PUBLIC TRANSIT

## **Final Report**

## NITC-RR-1508

by

Anne Nordberg Jaya Davis Stephen Mattingly Nithisha Gudipati Ebonie Kinney Hadiisha Butts

The University of Texas at Arlington

for

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## **EXECUTIVE SUMMARY**

Transportation has historically not been a variable of interest in studying homelessness (Murphy, 2019). Transportation planning has often failed to meet the needs of many low-income populations, including people experiencing homelessness (PEH), those who have been justice-involved, and other environmental justice (EJ) populations (Mattingly et al., 2018; Nordberg et al., 2021). PEH frequently rely on public transit systems and facilities as more than a mode of transportation to needed services, but also as safe shelters from weather and danger. This is a challenge for many transit agencies and impacts transit employees and passengers (NASEM, 2016).

By collecting data from homeless service providers and people experiencing homelessness, this project examined barriers and facilitators to access and use for people experiencing homelessness. Second, this project aimed to identify how interventions and practices deployed by transit agencies are experienced by people experiencing homelessness. With guidance from a 10-person TAC of national transit experts and homelessness experts, the study team distributed a national synthesis survey of service providers and assessed the interface and gaps between the perspectives of the transit agencies, service providers and individuals experiencing homelessness. Also, with in-depth interviews from individuals experiencing homelessness locally and homeless service providers nationally we gained insight into use of transit among the homeless population, and what improvements can be made to encourage non-rider use.

To answer the research questions posed, this study used a concurrent triangulation mixed-method design with two streams of data collection: 1.) quantitative surveys were administered nationally to homeless service providers, and 2.) qualitative interviews with people experiencing homelessness locally and homeless service providers locally and nationally. The study team received a total of 97 completed surveys for a survey response rate over 21%. Interviews were conducted with 42 consented PEH participants and 30 homeless service providers.

Findings confirm that public transportation is a critical resource for most PEH to meet their weekly, if not daily, needs. Also, it is an important component of the quest of PEH to exit homelessness. Barriers include inadequate coverage; first- and last-mile challenges; safety issues; stigma associated with public transit; discrimination experienced from transit workers; buses that do not run when or where they are most needed; long commutes; and prohibitive cost.

There are significant differences of experience among providers from places of different population and transit size. The PEH we spoke with were very knowledgeable about transit rules, routes, problems, and advantages. Providers, however, were less knowledgeable about transit as it impacted PEH.

Based on our findings, we make the following four recommendations:

### 1. Future Research Should be Local with Multiple Sites

As researchers, we propose that a study of longer duration with multiple sites could add significantly to the knowledge base in this area. Due to national variations in transit service and homelessness, we contend that only with deep local understanding can appropriate and comprehensive needs assessment and solutions be obtained.

#### 2. Pedagogical Opportunities

As educators we realize that programs like schools of social work provide much of the service provider workforce, including executive directors. There is such limited knowledge of transportation in accredited programs of social work. Similarly, transportation specialties including civil engineering and urban planning may have limited knowledge of EJ populations. We recommend trauma-informed practices in addition to existing transit worker training.

<u>3. Multi-professional Counsels for Effective and Respectful Approaches to PEH Mobility</u> We recommend that local counsels be established as best practices that could include academics, executive directors of homeless service agencies, people who have experienced homelessness, people living in poverty, transit agencies, and other transportation services. Only a coalition of multiple stakeholders and decision makers can effectively change practices and policies. Approaches tried, evaluations, and reenvisioning should be transparent and widely disseminated to help ignite creative solutions in different local contexts across the country.

Approach recommendations that emerge from this work:

### 1. From "Housing First" to "H+T First"

"Housing First" is a homeless assistance approach that prioritizes permanent housing before attending to other important concerns including employment, budgeting properly, or attending to substance use issues. The Center for Neighborhood Technology's Housing and Transportation (H+T®) Affordability Index provides a comprehensive way of thinking about affordability that explicitly combines housing (H) and transportation (T). We propose a new model that is an evolution that borrows elements from both "Housing First" and the "H+T Index" to become, what we coin, the "H+T First" approach to ending homelessness. This links housing and transportation in a dyad that *must* be considered together to successfully and sustainably assist a person exiting homelessness. Like the H&T Index, H&T First links transportation and housing and like Housing First, it prioritizes the H&T dyad before other important aspects of a person's successful homeless recovery.

# 1. BACKGROUND

Transportation has historically not been a variable of interest in studying homelessness (Murphy, 2019). Transportation planning has often failed to meet the needs of many low-income populations, including people experiencing homelessness (PEH), those who have been justice-involved, and other environmental justice (EJ) populations (Mattingly et al., 2018; Nordberg et al., 2021). The National Academies of Sciences, Engineering, and Medicine (NASEM) synthesized transit practices interacting with PEH and found homelessness was an issue for most transit agencies, especially larger agencies (2016). The economic impact of homelessness on these agencies varies, but the cost is considerable and motivates many transit agencies to develop solutions. PEH frequently rely on public transit systems and facilities as more than a mode of transportation to needed services, but also as safe shelters from weather and danger. This is a challenge for many transit agencies and impacts transit employees and passengers (NASEM, 2016).

Dallas Area Rapid Transit (DART) serves Dallas, Texas, and 12 surrounding cities covering a 700-square-mile service area (dart.org). Dallas and the surrounding counties have the largest homeless population in Texas (Martin, 2020), and they rely heavily on DART in the sprawling Dallas-Fort Worth metroplex. Further, the COVID-19 pandemic has exacerbated homelessness and its impact on transit agencies (Loukaitou-Sideris et al., 2020). Given the expanding number of PEH and extreme weather conditions experienced in the area, it is no surprise that riders complain that some routes have become "roaming homeless shelters" (Rowles, 2017). It is recognized that social services partnerships and security are needed to effectively address the public transit ridership (NASEM, 2016). Security may encourage ridership but it, alone, cannot be the long-term solution to this problem, particularly considering the needs of the full population, including those experiencing homelessness. To best consider the needs of PEH, this project asked four research questions. How does DART meet the daily needs of individuals experiencing homelessness? What are the nationwide service provider practices for providing mobility for individuals experiencing homelessness? Why do individuals experiencing homelessness not use public transit? What are the reactions of individuals experiencing homelessness and homeless service providers to potential transit agency interventions identified in earlier research? Building on research presented by Loukaitou-Sideris et al. (2020; 2021), this project aimed to systematically collect data to inform next steps to work toward positive solutions for both PEH and housed riders. Specifically, we examined proposed interventions identified in previous research from a bottom-up perspective, that of PEH and service providers that are frequently gatekeepers to transit fares.

This project aimed to increase access to opportunities for PEH. By collecting data from homeless service providers and PEH, this project examined barriers and facilitators to access and use for PEH. Second, this project aimed to identify how interventions and practices deployed by transit agencies are experienced by PEH. With guidance from a TAC of national transit experts and homeless service providers and a national synthesis survey of service providers, we assessed the interface and gaps between the

perspectives of the transit agencies, service providers and individuals experiencing homelessness. Also, with in-depth interviews from individuals experiencing homelessness locally and homeless service providers nationally we gained insight into use of transit among the homeless population, and what improvements can be made to encourage non-rider use.

# 2. METHODOLOGY

To answer the research questions posed, this study used a concurrent triangulation mixed-method design with two streams of data collection: 1.) quantitative surveys were administered nationally to homeless service providers, and 2.) qualitative interviews with PEH locally and homeless service providers locally and nationally. We explore how, when, and why PEH utilize DART/transit and why they do not. These data sources were designed to be triangulated with the professional perspectives of homeless service providers, often gatekeepers of access to transportation among PEH.

A TAC of five homelessness experts (including academics and service providers) and five transit experts was established in early 2022. They were given a copy of the draft survey and we convened a meeting on February 17, 2022, to brainstorm revisions to the survey.

### 2.1 QUANTITATIVE SURVEY OF SERVICE PROVIDERS

The research team, with the guidance of the TAC and relevant literature, developed a survey instrument to collect data from homeless service providers about their practices, approaches and interventions for providing mobility for their clients. The survey was developed, distributed to the TAC and an interactive TAC workshop was held to brainstorm revisions. After IRB approval of the finalized instrument, questions and responses were stored via secure access to QuestionPro online survey software. The survey was designed with primarily closed response options that focused on agency policies and actions. Major service providers were identified through public facing, online advertisements of their services.

This study synthesizes the current practices being used by homeless service providers to provide mobility for individuals experiencing homelessness using public transportation and coordinate with public transportation agencies. The research team gathered a list of homeless service providers across the United States through a web search followed by phone calls. Care was taken to identify agencies in all states and in rural, suburban, and urban areas. This process developed a database of 500 homeless service providers name, their contact information, and address.

The survey questionnaire is designed using an online survey platform, QuestionPro, to incorporate all the survey logics and to track the responses. The researchers emailed the link to the QuestionPro survey to the list of homeless agencies. As the database contains 500 agencies, the research team set permissions and licenses, through QuestionPro and The University of Texas at Arlington, for the emails to not be classified as spam. The research team distributed 500 survey invitation emails beginning on June 21, 2022. During the subsequent three weeks, the researchers conducted follow-up contacts with the prospective participants using phone calls and emails to increase participation. No incentive was offered to complete the survey. The initial distribution successfully reached 453 participants because 47 emails were delivered to inactive or

incorrect email addresses. The study conducted follow-up phone calls to the agencies that did not answer the survey a week after the initial invitation email. The follow-up phone calls started with the agencies that started but failed to complete the survey to see if agencies had any questions regarding completing the survey.

Three weeks after the initial invitation, the researchers distributed a second round of invitation emails as a reminder to the agencies that had not completed the survey. The study also distributed new invitations to the agencies that requested the survey be sent to a different person or email address. The study team received a total of 97 completed responses for a survey response rate over 21%.

### 2.1.1 Survey Participant Characteristics

response rate.

From the recruitment efforts, 97 participants completed surveys, which was a 21%

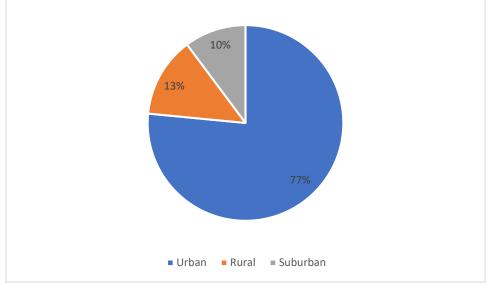


Figure 2.1: Type of participant agency

The 97 completed survey responses were mostly urban agencies (n=74), which included smaller and similar numbers of rural and suburban agencies (n=13 rural agencies and n=10 suburban agencies) (Figure 2.1). Two of the 97 agencies only provided mobile homeless service in urban settings, 36 agencies partially provided mobile homeless services, and 59 agencies did not report providing any mobile homeless services. Half of the agencies in suburban settings, almost 40% of the agencies in urban settings, and over 20% of the agencies in rural settings provide some mobile homeless services. The distribution of agencies by the type of agencies and mobile homeless services is shown in Table 2.1.

	Overall	Urban	Rural	Suburban
Exclusively a mobile homeless service provider	2	2	0	0
Partially a mobile homeless service provider	36	27	3	5
Not a mobile homeless services provider	59	45	10	5

 Table 2.1 Type of service provider by type of agency

Figure 2.2 depicts the percentage of agencies offering different types of in-house services. Almost 94% of the agencies provide case management as an in-house service; most of the agencies also offer food (87%), help with I.D. needs (84%), and shelter (78%). Over 70% of the agencies provide in-house services like computer access, employment services, and laundry facilities. Almost 40% of the agencies offer health care, mental health, and substance misuse services in-house.

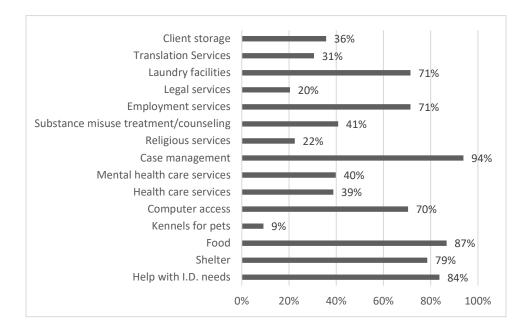


Figure 2.2: In-house services provided by agencies

Figure 2.3 shows the variation in percentage of agencies providing in-house services based on the agency location. A statistical analysis (one-tail t-test for proportions at the 95% level) of the survey results indicates no significant difference between the services provided by urban and rural agencies. However, significantly more often, urban and rural agencies provide substance misuse treatme31nt/counseling and employment

services compared to suburban agencies. Significantly more often, urban agencies also offer legal services than suburban agencies. The agency location may impact some of the likely services available to clients.

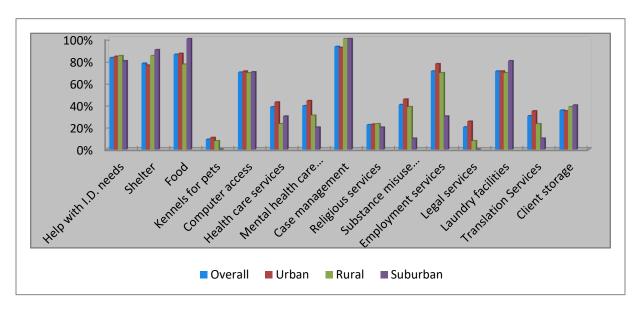
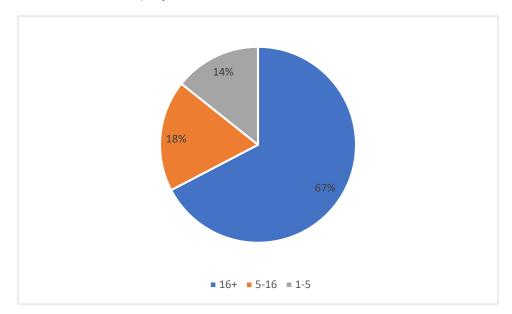


Figure 2.3: Percentage of agencies providing in-house services by location

Figure 2.4 shows the percentage of responses by agency size based on employees. Most (65 out of 97, or 67%) of the participant responses come from large agencies with more than 16 full-time employees. Medium-sized agencies with six to 15 employees account for 18% of the responses, and 14% of responses come from small agencies with one to five full-time employees.



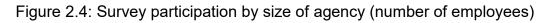


Figure 2.5 shows the percentage of agencies of different sizes offering various in-house services. Large agencies provide in-house health care, mental health, and substance misuse services more often than small and medium agencies. Small agencies offer food, shelter, computer access, kennels, legal services, and religious services as often as the average of all agencies, but are less likely to offer other in-house services. Significantly more often, medium-sized agencies provide case management services compared to small agencies. Large agencies offer mental health care services and substance misuse treatment/counseling more frequently than medium-sized agencies. Large agencies are significantly more likely to provide help with ID needs, health care services, mental health care services, case management, employment services, and translation services. Thus, the size of the agency appears to directly impact the number of services offered to clients.

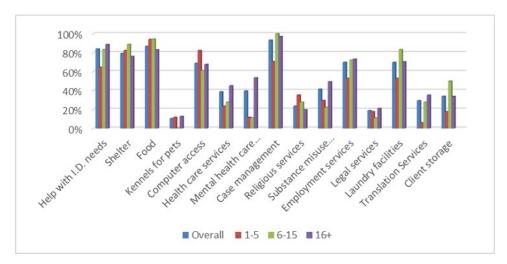


Figure 2.5: In-house services by agency size

### 2.2 QUALITATIVE

For all interview questions, we utilized a descriptive phenomenological research design and a conventional content analysis to reach our stated objectives. Descriptive phenomenology is appropriate when little is known about the topic being explored (Giorgi, 2009). Adequate sample size is 15 or greater for this approach and that became our minimal recruitment goal. The approach is both deductive and inductive and, therefore, allowed us to utilize what the small number of previous studies may tell us about this topic. We created semi-structured interview schedules (that included demographic questions) based on previous studies and consultations with the TAC members. For each broad topic we asked about, we also constructed open-ended questions to allow participants to discuss topics that have perhaps not yet been explored in studies. Also, we included prompts for more detail such as "Please tell me more about that,"

### 2.2.1 Interviews with People Experiencing Homelessness

Following UTA IRB approval of the study and concurrent with the distribution of the national survey, the PI contacted a Dallas County community-based organization that serves the homeless population. They agreed to have our team onsite for in-person interviews, a better modality than Zoom to successfully conduct interviews within this population. One UTA criminal justice student, one social work graduate student, the PI, and one Co-PI conducted interviews with people experiencing homelessness who do and do not use DART or who are reluctant to use DART. The interviews occurred during the spring of 2021, and our 4-person interview team conducted 42 total interviews over two days. The organization gave us unused cubicles to conduct interviews with some privacy, though our space was adjacent to a large waiting room. We recruited participants by walking up to people, showing them a flyer, and explaining the study. Due to the nature of the service organization the potential pool of participants was often more than 2 dozen people waiting for case management and other services. Thus, recruitment was time efficient and convenient for participants. If they expressed interest, we confirmed they met the approved inclusion criteria of being fluent in English, having some experience with DART and/or other transit systems, being over 18 years old, and being currently or recently (within a year) homeless. Participants were consented and offered a copy of the consent. All participants received a \$5 7-11 gift card to compensate them for their time. Interviews were audio recorded and uploaded to IRBapproved Teams at the end of the day. The average duration of interviews was 12 minutes, 29 seconds. Project team members de-identified and transcribed each interview before analysis. Directed content analysis (Hsieh & Shannon, 2005) guided the analysis to extract relevant information for comparison with Loukaitou-Sideris et al.'s (2020; 2021) proposed transit interventions and to integrate with the survey responses. The Rapid and Rigorous Qualitative Data Analysis (RADaR) technique (Watkins, 2017) using Excel helped the team manage the data analysis, comparisons and integration, and answer the relevant research questions.

### 2.2.1.1 PEH Participant Characteristics

Demographic characteristics were collected as part of the interview conducted. Interviewers varied in whether those questions were asked at the beginning of the interview or at the end. Some interviews were prematurely ended, mostly due to interruptions from the site and participants being called into service appointments. Therefore, while 42 consented participants participated in interviews, only some have complete demographic data and this is presented below with variations in the n reported.

The average age of PEH participants was 47 (n=32) and ranged from 27 to 73. Of the 31 participants who provided an answer to the question, "with what gender do you identify?", most (65%, n=20) of the sample identified as male, followed by female (29%, n=9), transgender (3%, n=1), and other (3%, n=1). Thirty-three participants reported how they identified racially. Most participants identified as Black or African American (76%, n=25), followed by White or Caucasian (12%, n=4), Hispanic, Latino/a/x (6%, n=2), other (3%, n=1), and mixed (3%, n=1).

### 2.2.2 Interviews with Homeless Service Providers

The survey concluded with a question inviting the respondents to participate in a followup interview. A total of 54 survey respondents consented for the follow-up interview. A UTA social work student coordinated with the civil engineering graduate student who led the survey efforts to identify service providers who consented for an interview. The student contacted each of the 54 consented participants by email and arranged a mutually convenient time for a Zoom or Teams interview (the participant chose the platform with which they were most comfortable). Of the 54 people who signed consent, 30 followed through with an interview. All participants were sent a Target e-gift card for \$30 for their time. Each interview was audio recorded, the recording was uploaded to the Teams channel, and de-identified and transcribed by team members. Directed content analysis (Hsieh & Shannon, 2005) guided the data analysis to extract relevant information for comparison with Loukaitou-Sideris et al.'s (2020; 2021) proposed transit interventions and to integrate with the survey responses. The RADaR technique (Watkins, 2017) using Excel helped the team manage the data analysis, comparisons and integration, and answer the relevant research questions.

#### 2.2.2.1 Provider Participant Characteristics

Twenty-eight service provers reported race, while 29 participants reported age, gender, and location of their agencies. The average age of provider participants was 45 (n=29) and ranged from 26 to 70. Most of the sample identified as female (72%, n=21) and White (64%, n=18), followed by Black or African American (21%, n=6), Hispanic, Latino/a/x (10%, n=3), and "Black and White" (4%, n=1). Participants were located in 18 different states from various regions including Alaska. There were multiple participants from four states: Texas (seven participants, all from the Dallas-Fort Worth Metroplex); Utah (three participants); Kentucky (two participants); and New Mexico (two participants).

# **3 FINDINGS**

The study findings are organized in this section by research question. The four research questions for this study that form the structure of this section are: 1. How does DART meet the daily needs of individuals experiencing homelessness? 2. What are the nationwide service provider practices for providing mobility for individuals experiencing homelessness? 3. Why do individuals experiencing homelessness not use public transit? 4. What are the reactions of individuals experiencing homelessness and homeless service providers to potential transit agency interventions identified in earlier research?

### 3.1 Transportation, PEH, and the Agencies that Serve Them: General Findings

Figure 3.1 provides the frequency that clients use different transportation modes based on agency location. Most (greater than 80%) clients use public transportation and walk. Over half of the clients also use a bicycle or automobile (either their own or from a friend/family member) for mobility. Rural clients rely more frequently on a friend or family member's automobile and less frequently on public transportation, ride hailing, and organizational and non-profit mobility services. Suburban clients rely more frequently on ride hailing and less frequently on public transportation and non-profit mobility services.

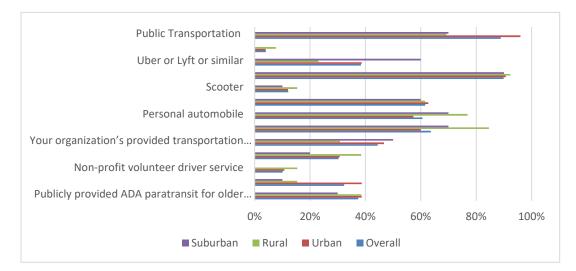


Figure 3.1: Most used transportation modes by agency location

Interviews with PEH and providers all agreed that public transportation was a critical resource for most PEH if they lacked a personal vehicle. Some characterized it as a stepping stone to a personal vehicle. One PEH explained the importance by simply stating, "you have to get places." A service provider, speaking about public transit, said,

"It's important for people experiencing homelessness or people who are very low income. They are not rolling around, even in a Ford Escort. They need public transportation and you have got to have it close to where they live, and a lot of people say why don't you build a bunch of housing out in....Timbuktu. Well, they don't have any transportation. Now you have isolated them, right? They need to be able to get places just like the rest of us."

Most (83%) agencies report a transit stop within a quarter of a mile of their location, which qualifies as accessible using the typical public transportation accessibility metrics. Sixty-one percent of the agencies said the earliest public transportation vehicle at these stops arrives between 6:00 - 7:00 a.m. (Figure 3.2), and the latest service occurs either from 9:00 - 11:00 p.m. or after 11:00 p.m. (Figure 3.3). However, 20% of agencies are not sure about the latest transit weekday service. Weekend service at these transit stops appears less understood because over a third of the agencies do not know the service hours, which might be useful information to assist clients in transit use. Over a quarter of the agencies have weekend public transportation service starting between 6:00 - 7:00 a.m. and another 20% have service starting between 7:00 - 8:00 a.m. (Figure 3.4). Weekend service ends earlier in some cases, with over half of the agencies reporting service ending between 4:00 - 11:00 p.m. (Figure 3.5). The statistical analysis indicates that public transportation services begin significantly later on weekends than weekdays, but no significant difference occurs for the end of service between weekdays and weekends.

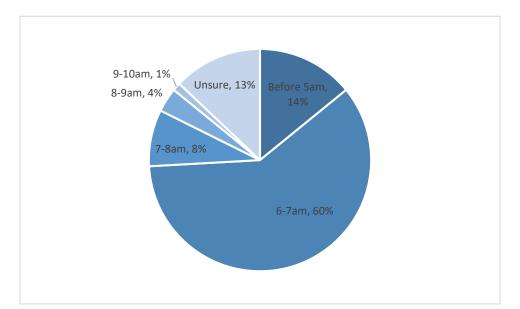


Figure 3.2: Earliest transit vehicle during weekday

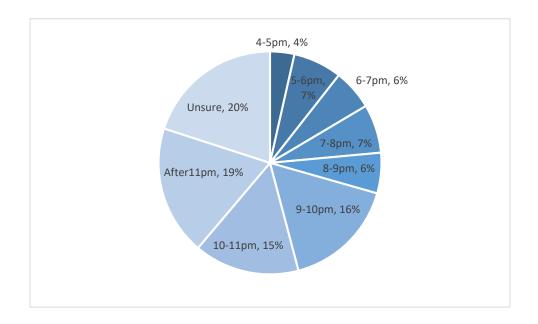


Figure 3.3: Latest transit vehicle during weekday

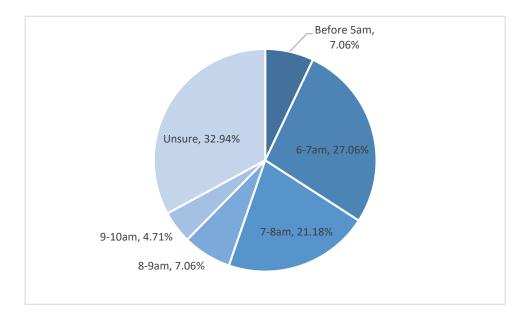


Figure 3.4: Earliest transit vehicle during weekend

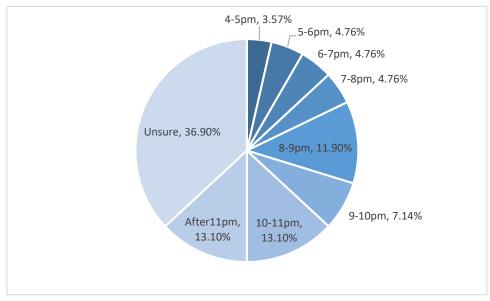


Figure 3.5: Latest transit vehicle during weekend

Clearly there is a fair amount of variation, and this was supported by interviews with service providers. The implications for people searching for employment was summarized by one provider participant as, "they don't always go where you need it to go, limited service on weekends and very limited service during evenings and really no service at night," making employment outside 9-5 or on the outskirts of town difficult to access. And yet, that is often where jobs suitable for this population are located and they frequently require shift work.

Figure 3.6 indicates that most (75% or more) agencies report that their clients experience difficulties accessing employment/employment opportunities, routine health care and mental health care due to transportation. More than half of the agencies serve clients with difficulties accessing grocery stores; experience chronic health care problems; have criminal justice services/obligations; need assistance with identity paperwork; and would like education/skill training. Clients served by rural agencies generally experience greater difficulties accessing all opportunities, but grocery store; employment/employment opportunities; and visiting family, friends, and other social connections appear significantly more difficult. Suburban agencies' clients typically find greater difficulty in assessing mental health care, criminal justice services/obligations, and employment/employment opportunities. However, they face fewer challenges in accessing emergency and chronic health care services; religious community; other essential services; and family, friends, and other social connections due to transportation. The statistical analysis also indicates that urban clients experience significantly higher difficulty accessing emergency health care and chronic health care services than suburban clients.

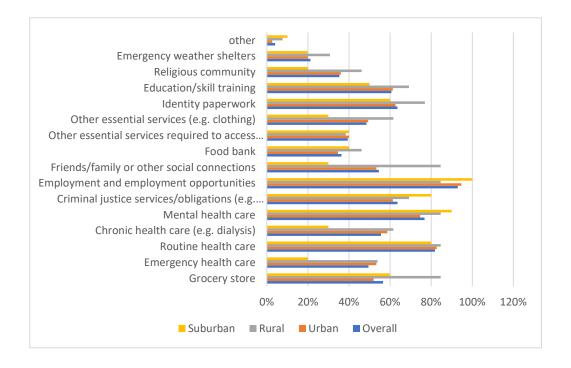


Figure 3.6: Difficulty in access to opportunities due to lack of transportation based on agency location

Agency location can impact the availability of services and their ease of access. One PEH participant offered insight into their experiences getting to a decent paying job. They said, "It's kinda hard because the buses be late getting to the destination where you're going, so sometimes my appointment might be at 10:00 and I get to the bus at 9:00. Sometimes it take 15 or 20 minutes and they are right on time, sometimes they don't even stop also takes a long time. I have to wait for a bus to come because no buses or trains are running. And then on the weekend it's almost a 3-hour bus ride. Just to get there. Because I have to walk 25 minutes to get there because it doesn't run as far on weekends. But for \$14/hour I will do it."

Many things changed during the pandemic, not least of which were public transit. The top two reasons (over 50%) noted by agencies for a change in transportation modes during the pandemic are reduced public transit routes or hours of operation and reduced use of public transit due to health concerns.

In summary, public transit is a critical resource for people experiencing homelessness to access jobs and services, though transit routes and schedules do not always meet these needs.

# <u>3.2 RQ1: How does DART meet the daily needs of individuals experiencing homelessness?</u>

Figure 3.7 shows the portion of clients who rely almost exclusively on public transportation to meet their transportation needs. Ten percent of agencies report they could not assess their clients' reliance on public transportation. For the agencies that estimated their clients' reliance on public transportation, almost 59% of agencies believe

over half their clients rely almost exclusively on public transportation. Only about 12% of agencies report fewer than 25% of their clients rely on public transportation.

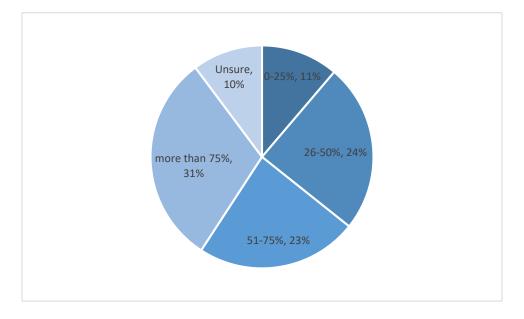


Figure 3.7: Percentage of clients depending on public transportation

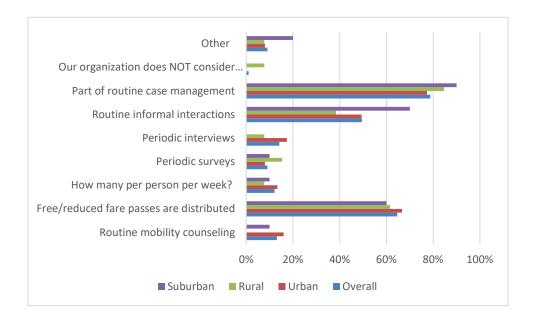
Interviews with both PEH and providers included guestions directly related to how public transit helped PEH meet their daily needs. Consistent with the survey findings just summarized, all but one of the PEH participants endorsed public transit (DART) as important to meet their daily needs. One participant said, "In my experience it is helpful, it really is. I need it and I have to go every day and take it to chemotherapy, so I need it to get where I need to go." A second said, "It helps me get around because I don't have a car and my anxiety gets real bad when I drive, so it helps me go to point A to point B, doctor's appointments, handle my business." This participant goes further than explaining what aspects of daily life transit help with, but touches on mental health issues that are assuaged by using public transit. Many PEH suffer with serious mental health issues that may require transportation to access treatment services, and which may actually necessitate transit use even if they had access to a personal vehicle. Providers we interviewed also endorsed that "most" of their clients relied on public transit to meet their transportation needs. One respondent expanded on their estimate that 51-75% of clients relied on public transportation. They said, "The city has added new overnight shelters in the past couple of years, but unfortunately because of density issues the shelters have been moved to the outskirts, where there is no direct public transportation. So that has been an issue for people. So, somebody is working but they want to be in shelter, but to get from the shelter to their job every day and some people walk, but it's several miles. So we know we have a problem and this is not just from our perspective, but it's from the community of providers and the city knows it's an issue as well. We provide one service, the overnight shelter, which is great, but not if we are accompanying that with access to transportation for people."

In summary, both qualitative interviews with PEH and providers and survey responses endorse the centrality of transit use among PEH to meet basic daily needs including connected shelter, services, and employment.

# <u>3.3 RQ2: What are the nationwide service provider practices for providing mobility for individuals experiencing homelessness?</u>

While agencies lack many formal processes to evaluate the transportation needs of clients, almost 80% of agencies could estimate the unmet transportation needs of their clients. Of those agencies able to estimate their clients' unmet transportation needs, almost 56% of their clients have more than half their transportation needs unmet before services. Agency interventions help meet about 25% of clients' needs; however, a quarter of the clients still have more than half of their transportation needs unmet and no more than half of their needs fully met. The statistical analysis indicates that agency interventions significantly reduce the clients' unmet transportation needs.

Most (79%) responding agencies evaluate the unmet transportation needs of their clients through routine case management. Many (65%) report that they distribute free or reduced fare passes to their clients. Only one agency responded that they do not consider the transportation needs of their clients because they do not have any public transportation in their area. Figures 3.8 and 3.9 show the methods of evaluating the unmet transportation needs of clients based on the agency location and size. Overall, agencies rarely use formal processes to evaluate the unmet transportation needs of their clients. While urban agencies trail the rural and suburban agencies in their attention to unmet transportation needs, there is no statistically significant difference in formally evaluating unmet transportation needs based on agency location. However, size of agencies is found to significantly affect the methods such as periodic surveys chosen by agencies with 1-5 vs 6-15 full-time employees.



# Figure 3.8: Evaluation methods of clients' unmet transportation needs by agency location

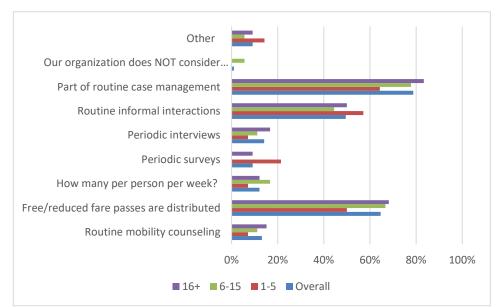


Figure 3.9: Evaluation methods of clients' unmet transportation needs based on agency size

Forty percent of agencies have access to free passes for clients to access specific locations, and about 56% do not provide passes for specific destinations (Figure 3.10).

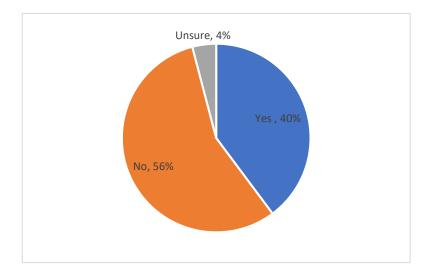


Figure 3.10: Percentage of agencies sharing free passes

Some (24%) agencies report having an agreement with their local public transportation agency, but most (69%) agencies lack any agreement. Out of the 23 agencies that have agreements with their local public transportation agency (Figure 3.11), 54% indicate that their agreements include discounted rides for their clients purchased by organization and 38% of the agreements include free rides for their clients.

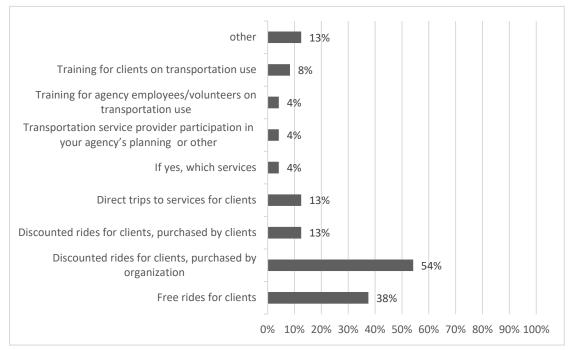


Figure 3.11: Useful clauses included in agreements between agencies and public transportation agencies

Most (80%) of agencies coordinate their services through a continuum of care (Figure 3.12).

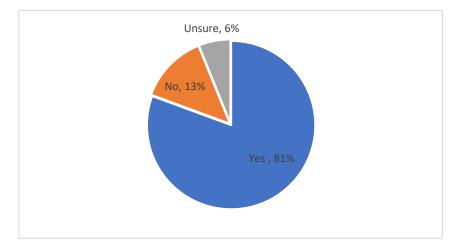


Figure 3.12: Agencies coordinating with continuum of care

Of the 78 agencies that coordinate their services with a continuum of care, two thirds of these agencies do not coordinate transportation and access to all services within the continuum of care (Figure 3.13).

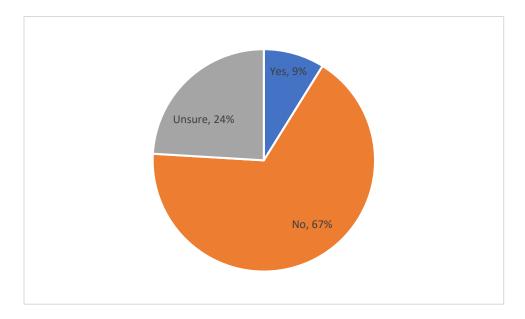
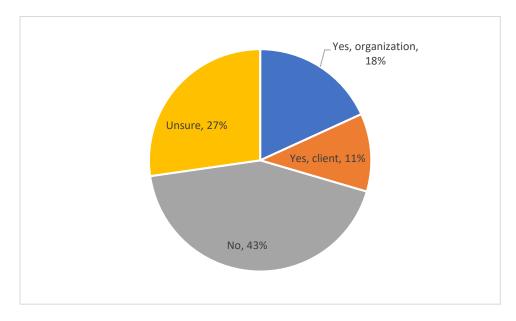


Figure 3.13: Agencies coordinating transportation and access to services within continuum of care

Only 9% of agencies report coordinating transportation and access to all services within the continuum of care. Some (18%) agencies pay for their clients to use transportation services provided by continuum of care, while about 11% of agencies require their clients to pay to use these services (Figure 3.14).





Only 12% of agencies hire or contract staff primarily to address client mobility. Figure 3.15 shows the hiring practices for this role based on the size of the agency. Maximizing the benefits of a continuum of care likely requires more attention to coordinating access to the necessary transportation for clients.

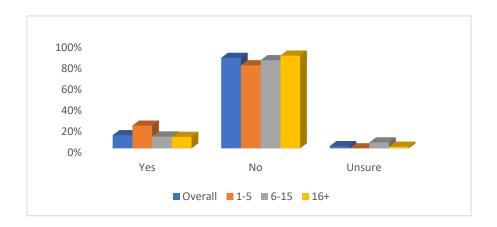


Figure 3.15: Agencies hiring staff to address client mobility based on their size

Table 3.1 describes the transportation service providers currently holding an agreement with the agencies, and agreements or partnerships with providers the agencies would like to create. Less than 20% of agencies have agreements with any type of transportation service provider, but over 38% of the agencies operate their own transportation service like a shuttle for clients. Over a third of the agencies appear interested in developing agreements with transportation service providers to support their clients' needs. The number of agencies of the 97 agencies that are aware of any actions taken by their local public transit authority in response to homelessness are tabulated in Table 3.2.

	Current agreement	Interest in agreement	No agreement
ADA paratransit for older adults and people with disabilities	7	36	61
Non-profit transportation service (e.g., van)	19	37	49
Non-profit volunteer driver service	10	37	55
Service provided transportation (e.g., shuttle to dialysis treatment)	5	35	61

Table 3.1: Status of agreements with public transportation providers

Organization operates its own transportation (e.g., shuttle)	38	10	51
Uber or Lyft or similar	9	38	56

## Table 3.2: Agencies aware of actions by local transit authority

Actions taken by local public transit authority in response to homelessness	Agencies (%)
Enforcement of anti-loitering laws	33
Requirement that riders exit the transit vehicle at the last stop or pay additional fare to return	16
Sweeps of areas where people experiencing homelessness are known to congregate	29
Clearance of encampments used by people experiencing homelessness from transit settings/property	37
Installation of structural elements to discourage sleeping at stops and stations	31
Discounted or free fares for people experiencing homelessness	23
Allows people experiencing homelessness to use transit facilities to spend the night	4
Discounted or free bike share for people experiencing homelessness	5
Using vehicles or facilities as heating/cooling shelters in extreme weather	11
Additional services or routes to access shelters	7
I am unaware of any of these actions	40

Table 3.3 describes the practices agencies use to provide mobility to their clients. Only about 5% of the agencies do not have any practices to provide mobility to their clients. Most (62%) of the agencies provide daily public transportation passes, and almost half of the agencies provide their own transportation service. Agencies use ride hailing and discounted public transportation passes less frequently.

Table 3.3: Practices followed by agencies to provide	de mobility to their clients
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Practices by agency	Agencies (%)
Organization provided transportation (e.g., shuttle bus)	49
Organization provided daily/single ride public transportation passes (how many at once? How frequently?)	62
Organization provided weekly/monthly public transportation passes	29
Organization provided discounted daily/single ride public transportation passes	14
Organization provided discounted weekly/monthly public transportation passes	9
Organization provided mobility counseling to clients	21
Organization partnered with another non-profit to provide transportation	19
Organization partnered with Mobility-on-Demand company (e.g., Uber or Lyft)	10
Organization provided telephone or computer access for scheduling ADA paratransit or other rides	41
Organization does NOT provide any assistance to clients for their mobility	5
other	12

Agencies indicate the effectiveness of mobility practices in Table 3.4 and report effectiveness that appears close to their frequency of adoption; however, providing telephone or computer access for scheduling ADA paratransit or other rides appears less effective than its adoption rate.

Effective practice	Agencies (%)
Providing transportation (e.g., shuttle bus)	57
Providing daily/single ride public transportation passes (how many at once? How frequently?)	59
Providing weekly/monthly public transportation passes	32
Providing discounted daily/single ride public transportation passes	16
Providing discounted weekly/monthly public transportation passes	13
Providing mobility counseling to clients	18
Partnership with other non-profit to provide transportation	17
Partnership with Mobility-on-Demand company (e.g., Uber or Lyft)	15
Providing telephone or computer access for scheduling ADA paratransit or other rides	24
other	11

### Table 3.4: Effective practices to provide mobility to clients

About a third of the agencies provide internal training to their employees and volunteers related to client transportation, and smaller agencies appear to conduct training less frequently.

Table 3.5 describes the frequency that the 32 agencies providing training cover different topics in their internal training related to client transportation. Almost all (88%) of the training includes the transportation needs of clients. Over half of the trainings discuss possible transportation alternatives for clients, and how to use public transportation and assess the clients' transportation needs.

Topics covered in training	Agencies (%)
Transportation needs of clients	88

Table 3.5 <sup>.</sup> ]	Fopics covere	ed in trainin	a of agency	staff
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Possible transportation alternatives for clients	63
Public transportation agency policies and rules	19
Other transportation service provider policies and rules	9
How to use public transportation	59
How to assess transportation need of client	53
When to distribute transportation resources (e.g., free/reduced passes or provide a ride on your organization's shuttle)	23
How to use other transportation services	34
Travel times and fees associated with the transportation alternatives	9
How to engage with public transportation agency	6
How to engage with public transportation agency	13
How to provide effective mobility counseling	16
Existing agreements with transportation providers	6
other	6

In summary, agencies reported that more than half of clients' transportation needs remain unmet. Only one quarter of the agencies had a formal agreement with their local transit agency and few of these had access to free and discounted fares as part of that agreement. Most agencies transportation services left significant gaps in access for clients despite internal training efforts, fares purchased at full fare, and provision of agency transportation services for clients.

#### 3.4 RQ3: Why do individuals experiencing homelessness not use public transit?

Most (76%) agencies report encountering resistance when suggesting that their clients use public transportation. Eight agencies report consistently receiving resistance from their clients about public transportation usage, and 15 agencies report either receiving no resistance or reported that they do not encourage public transportation use.

For agencies that encountered resistance from clients (82 agencies), Figure 3.16 shows reasons clients resist using public transportation. Clients most often resist public

transportation due to the long travel times; its route structure and access to preferred destinations; cost; and difficulty navigating the system such as understanding routes and transfer processes.

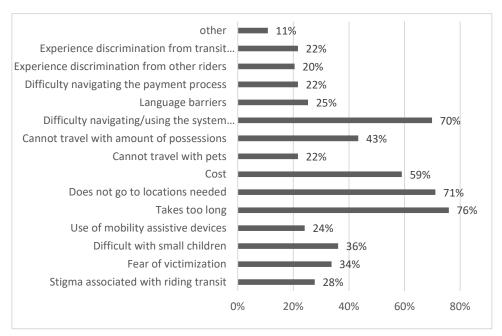


Figure 3.16: Reasons for clients resisting public transportation usage

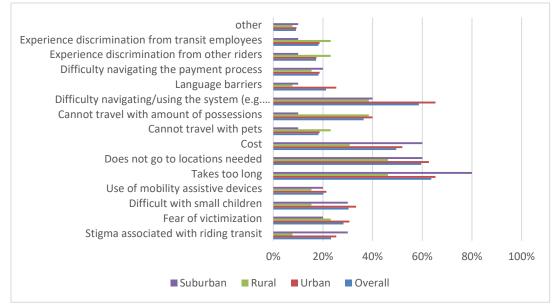


Figure 3.17: Percentage of reasons clients resist using public transportation by agency location

Figure 3.17 depicts client resistance to public transportation by agency location. Suburban agencies register more complaints about long travel times and cost and fewer concerns about victimization, discrimination, and navigating the system. Rural agencies hear more concerns about discrimination. Significantly more often, clients of urban agencies express concerns about the difficulty of navigating or using the system than in both rural and suburban agencies; this likely occurs because rural and suburban networks are limited in size and complexity. Clients are more concerned about traveling with their possessions in suburban rather than urban areas. Rural agencies generally field more complaints from clients about utilizing public transportation. However, a significantly larger percentage of clients in suburban agencies express concerns about cost, travel time, and stigma associated with using public transportation.

Figure 3.18 depicts the availability of clients' resources and knowledge to use available transportation, However, 21% of agencies report not being able to assess their clients' resources and knowledge to use available transportation. About a third of agencies indicate their clients have the knowledge to use available transportation but do not have the resources. Only 23% of the responding agencies indicate their clients have the resources and knowledge to use available transportation. About 16% of the responding agencies indicate their clients have neither the resources nor knowledge to use available transportation.

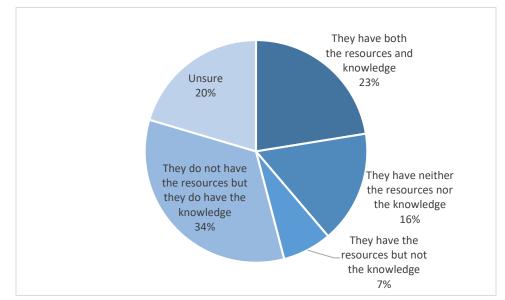


Figure 3.18: Clients having the resources or knowledge to use transportation

Most (76%) agencies (Figure 3.19) identify not having fare/ticket money as the primary barrier for their clients to use available transportation. Most agencies also indicate their clients have no bank account or credit cards, and lack of knowledge to navigate the transit routes to arrive at desired activities or use public transportation represent notable barriers to using transportation alternatives.

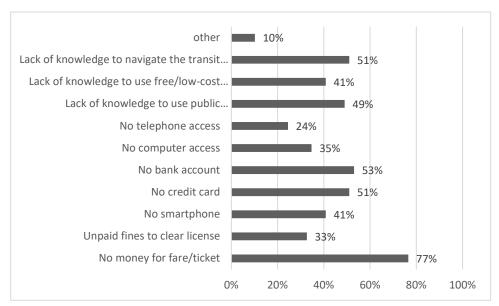


Figure 3.19: Primary barriers to using transportation

Interviews with PEH confirm many of the survey findings about barriers to use. Many cited cost as a barrier to use. Others offered more nuanced barriers to use than the

surveys captured. They cited safety on trains, rudeness of drivers, not having correct change, and fellow riders who were aggressive and violent. Interviews also revealed how limited routes and schedules, as well as inconsistency of transit, can exacerbate problems that prevent people from exiting homelessness. For example, one participant said they lost their job because, "It was constantly late. Sometimes it breaks down." Another explained how transit inconsistency can impact shelter access. They said, "It freaks me out because if I am not back by 6 I'll be on the streets for the night. So, it's big serious problem."

In summary, survey and qualitative interviews were consistent that transit was costly, took too long and failed to adequately deliver PEH to needed services.

### <u>3.5 RQ4: What are the reactions of individuals experiencing homelessness and</u> homeless service providers to potential transit agency interventions identified in earlier research?

This question relates specifically to the punitive and supportive approaches identified by Loukaitou-Sideris et al. (2021). Each PEH was asked about various interventions, both punitive and supportive. Providers were similarly asked about these interventions.

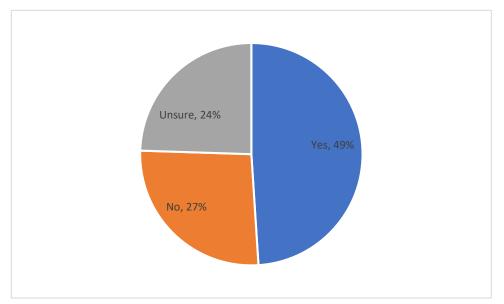


Figure 3.20: Percentage of clients using public transportation for shelter

Shelter obviously represents a significant challenge for this population and enclosed transportation alternatives often fill this need. Figure 3.20 shows the percentage of clients using public transportation as shelter from the environment on hot, cold, or inclement days. A quarter of the agencies are unsure if their clients use public transportation for shelter. For the agencies providing a "yes" or "no" response, 64% indicate that their clients use public transportation for shelter. Most (58%) agencies have clients who use a private vehicle as shelter from the environment on hot, cold, or inclement days (Figure 3.21). Sixteen percent of agencies report they do not know if their clients use a private vehicle as shelter.

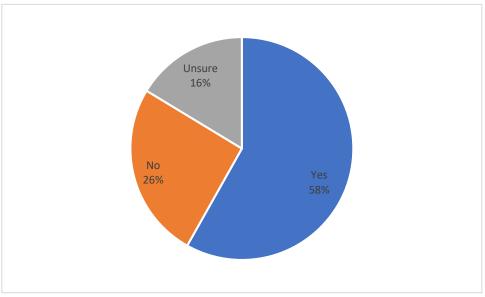


Figure 3.21: Percentage of clients using private vehicle for shelter

Interviews with PEH occurred in Dallas where winter temperatures can dip below freezing and summer temperatures are routinely over 100 degrees Fahrenheit. Many PEH endorsed using buses and trains to shelter from the cold and the heat. DART enforcement was described as mostly supportive and sympathetic, but neither buses nor trains run through the night so this was a temporary shelter solution.

One provider participant was very experienced with the punitive interventions deployed by local transit authorities on their properties and described his job as, "interacting with 'rapid' police where homeless people congregate, attempting to de-escalate situations."

Most (55%) agencies appear unsure about state, region, city, or transit agency laws or policies that preclude the use of public transportation facilities and associated vehicles as shelter from the weather during regular operating hours. Some (24%) agencies indicate that their state, region, city, or transit agency have laws or policies that preclude the use of public transportation facilities and associated vehicles as shelter from the weather during regular operating hours. Agencies may benefit from greater interaction

with public transportation providers to understand laws and policies. This finding was also supported by the interviews in that providers seemed unaware of policies or laws unless the provider participant was themselves a transit user (which was the case with one participant).

In summary, both punitive and supportive transit policies and practices emerged from the research. Specifically, transit vehicles and properties were used as shelter from inclement weather and PEH described some of the punitive approaches they experienced. However, service providers were usure of local transit policies and procedure except in the handful of cases where a provider participant was also a transit user.

## **4** CONCLUSIONS

This research created, disseminated a national synthesis survey, conducted interviews nationally with homeless service providers, and interviewed PEH about their experiences with public transit. Firstly, and unsurprisingly, we conclude that public transportation is a critical resource for most PEH to meet their weekly, if not daily, needs. Those needs include medical and mental health services; replacement of identification; mandatory parole or probation visits; job-seeking activities; commuting to work; visiting family; attending religious services; picking up mail; grocery and other shopping; and recreation. It should be extended that public transit does more than meet needs, it is an important component of the guest of PEH to exit homelessness. It remains vital despite many problems (which vary from place to place) including inadequate coverage; first- and last-mile challenges; safety issues; stigma associated with public transit; discrimination experienced from transit workers; buses that do not run when or where they are most needed; long commutes; and prohibitive cost. It is the most affordable mode of transportation apart from walking and bicycling (which may not be feasible depending on the sprawl of the location), but given the very low incomes of most PEH it is simply too costly for most. The burden of cost then shifts to homeless service providers. Many provider agencies pay full price for fares and then distribute them (usually in small numbers) to PEH clients. This shifts the financial burden from PEH to cash-strapped providers who struggle to help clients with their transportation needs, sometimes resorting to driving them in personal vehicles to bus stops or appointments. Thus, the burden shifts again to people who themselves who are very low income.

There are significant differences of experience among providers from places of different population and transit size. For example, cities like Los Angeles and its environs see people from all walks of life using transit. Riders in smaller cities often serve primarily people living in poverty and PEH. Riders in very cold places like Alaska understand that riding the bus means survival and transit workers allow riders to seek shelter. In small cities, workers know the local PEH well enough to know who can pay and cannot, who would take advantage of an extra token and who would not. Furthermore, interviews revealed that workers in smaller towns and cities will often know PEH by name and drive them places themselves, even setting alarms to wake up and pick someone up from a new job. In very large urban places, where transit systems cover extended areas and have many routes and schedules, transfers may be tricky to both navigate and understand.

These significant variations lead us to consider how public transit agencies might effectively identify the mobility and service needs of individuals experiencing homelessness. While interviewing a service provider located in Utah, they mentioned the utility of local university researchers' work at transit properties. The participant noted, "The University of Utah has somebody that often shows up just because they do a lot of studies, which is nice. That's how we came about to know that we needed to add that extra stop at that track station because they conducted a lot of surveys." It is clear that service providers and, indeed, many transit agencies do not have the personnel or other resources to conduct extensive studies of client mobility needs, but universities do. This comment indicates a level of coordination and responsiveness that might be a model for future best practices and this is reflected in our recommendations below.

However, not all transit authorities are responsive. One participant tried to have a removed transit stop restored. About this experience she said, "I complained to the city about it, that we needed that bus stop restored and they didn't give a rat's ass. It went nowhere. They had some explanation. I don't even remember what it was, but they had zero concern or empathy for what I was describing. And I went through the formal process, filled out the form and everything, but it went nowhere. We have agency vehicles and our staff transport a lot and what it did was create more of a hardship for us because we might need to take someone to the bus stop, you know or go get them at the bus stop, that kind of thing. If they are not going that far we might as well take them. So, it becomes a burden on social service agencies." Even when the stops are in the optimal locations and a person has access to transit, transfers over large metropolitan areas can be problematic. One provider, herself a transit user, explained from her perspective some of the challenges that she faces while transferring on the local transit system during her commute. She described a transfer as a two-minute window during which she rushed to catch the appropriate bus, and said it was challenging for her and would be for anyone with mobility or health issues or anyone carrying bags or pushing baby carriages. In other words, tight transfers might facilitate shorter ride times but be burdensome for PEH and other EJ populations.

Ultimately, we hoped that the methods we utilized in this study might offer transit agencies a model to effectively assess the needs of PEH riders and pathways towards respectful solutions. However, interviews with PEH are difficult for many reasons, including relying on memory; concerns that compensation, which is the ethical practice for study participants, is coercive even in very small amounts; PEH may fear saying anything negative or trying to offer what they think the researcher is looking for (social desirability bias); and the challenges of hearing only one side of the recalled interactions.

In addition to gathering information to inform solutions in the local community, this research was anticipated to act as a methodological approach to engage with homeless populations, extending the scope of research in this area. We remain convinced that a bottom-up approach *will* extend previous work focused on homelessness and transit services and could illustrate the gaps between transit authority intentions and approaches and the experiences of PEH. However, based on our findings and experience we recommend a different approach than what we deployed here.

The PEH we spoke with were very knowledgeable about transit rules, routes, problems, and advantages. Providers, however, were less knowledgeable about transit as it

impacted PEH. Of the 11 executive directors we interviewed, most understood and some participated in local meetings with transit authorities to advocate for PEH. Some endorsed excellent productive relationships and others were less positive. But some seemed naïve about transportation, with one participant explaining they were currently writing a grant to cover bus fares but was unsure of who the funder was and wondered aloud if she was writing the grant to the transit agency. Providers who identified their roles as something other than executive director had less knowledge of the advocacy and fare procurement processes, and could only speak to the distribution of fares among clients. This naiveté among executive directors and other providers was captured well by the survey. Findings confirmed that fully 40% of providers surveyed were unaware of actions by their local transit authority. Of the many possible actions presented on the survey, awareness varied from 4% (Allows people experiencing homelessness to use transit facilities to spend the night) to 37% (Clearance of encampments used by people experiencing homelessness from transit settings/property).

#### **Limitations**

Several limitations of method and design should be noted. The first is that due to study duration, resources, and a community partner withdrawal, we can derive limited conclusions regarding how transit agencies can most effectively establish the needs of PEH riders. We recruited service providers of any job description, but the knowledge of executive directors compared with other more client-facing roles (such as case manager) varied greatly, making comparison of providers challenging and effectively fragmenting the sample. This variation in knowledge may also be reflected in the survey results as the provider interview consents were obtained from providers who had completed the survey. The demographics of service providers was overwhelmingly White and female (which mirrors service providers and especially social work practitioners), but is different from the PEH demographic which was majority Black and male. Thus, comparing the two participant populations' perspectives may suffer from lack of provider client race/ethnicity/gender pairing that often leads to better understanding. Several different members of the research team, with various levels of experience, completed the PEH interviews. This resulted in guality differences among these interviews and some missing data. PEH were interviewed while attending a service provider in Dallas that was busy, noisy, and not entirely private. Many participants had to end the interview abruptly and prematurely when their name was called by the agency. While the surveys covered many states, the interviews of PEH were local and made connections between these data challenging. Finally, while national samples of survey participants and provider interviews has some strengths, detailed local data was sacrificed for geographic spread.

## **5 RECOMMENDATIONS**

Based on what we achieved we have three recommendations for future research, training, and local multi-professional efforts.

### 1. Future Research Should be Local with Multiple Sites

As researchers, we propose that a study of longer duration with multiple sites could add significantly to the knowledge base in this area. Specifically, we recommend teams of survey administrators/observers interact directly with riders on properties and vehicles. The teams should minimally include one researcher, one mental health professional, and might include enforcement if deemed critical. They could survey and interview riders and observe interactions among riders and riders and transit workers. They would aim to collect firsthand data related to actual processes (preferred to recalled processes of what should occur). They should also attend case management interactions at local service providers, community meetings that engage providers with transit agencies, and coordinate with street outreach workers for their perspectives. We contend that only with deep local understanding can appropriate and comprehensive needs assessment and solutions be obtained.

### 2. Pedagogical Opportunities

As educators we realize that programs like schools of social work provide much of the service provider workforce, including executive directors. There is such limited knowledge of transportation in accredited programs of social work. Similarly, transportation specialties including civil engineering and urban planning may have limited knowledge of EJ populations. Program content infusion should be a long-term goal to produce a future workforce with more and better background understanding. Part of understanding vulnerable populations is paying attention to trauma-informed practices and this should be part of an expanded pedagogical approach. This should also be a key component of client-facing transit training. This leads directly to the next recommendation.

### 3. <u>Multi-professional Counsels for Effective and Respectful Approaches to PEH Mobility</u>

We recommend that local counsels be established as best practices that could include academics; COC reps; executive directors; formally homeless and people living in poverty; transit agencies; and other transportation services. Only through a coalition of multiple stakeholders and decision makers can effect changes to practices and policies be put in place and evaluated. Approaches, evaluations and re-envisioning should be transparent and widely disseminated to help ignite creative solutions in different local contexts across the country.

This research supports much previous work in stressing the importance of transportation among people experiences homelessness and in their quest to exited

homelessness and thus housing. Therefore our final recommendation concerns a new approach that we have called "Housing & Transportation First" (H&T First).

#### From "Housing First" to "H+T First"

"Housing First" is a homeless assistance approach that prioritizes permanent housing before attending to other important concerns including employment, budgeting properly, or attending to substance use issues. The Center for Neighborhood Technology's Housing and Transportation (H+T®) Affordability Index provides a comprehensive way of thinking about affordability that explicitly combines housing (H) and transportation (T). We propose a new model that is an evolution that borrows elements from both "Housing First" and the "H+T Index" to become, what we coin, the "H+T First" approach to ending homelessness. This links housing and transportation in a dyad that *must* be considered together to successfully and sustainably assist a person exiting homelessness. Like the H&T Index, H&T First links transportation and housing and like Housing First, it prioritizes the H&T dyad before other important aspects of a person's successful homeless recovery.

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### **APPENDIX A**

#### **University Institutional Review Board Approval**



#### 3/21/2022

#### **IRB Approval of Exempt Protocol**

PI: Dr. Anne Nordberg Department: Social Work IRB Protocol #: 2022-0166 Study Title: Towards Data and Solution Focused Approaches for Homeless Populations on Public Transit Exempt Category: 2

#### Effective Approval: 3/18/2022

#### **Protocol Details**

- Original Protocol Approval Date: 3/18/2022
- Federally Funded: DOT, Mentis BlueSheet #2017-609-S36
- Subject to 45 CFR 46.104 (d)(2), Revised 2018
- Continuing Review Required: No

The IRB has approved the above referenced submission in accordance with applicable regulations and/or UTA's IRB Standard Operating Procedures.

#### Principal Investigator and Faculty Advisor Responsibilities

All personnel conducting human subject research must comply with UTA's <u>IRB Standard Operating</u> <u>Procedures</u> and <u>RA-PO4</u>, <u>Statement of Principles and Policies Regarding Human Subjects in</u> <u>Research</u>. Important items for PIs and Faculty Advisors are as follows:

- \*\*Notify <u>Regulatory Services</u> of proposed, new, or changing funding source\*\*
- Fulfill research oversight responsibilities, IV.F and IV.G.
- Obtain approval prior to initiating changes in research or personnel, IX.B.
- Report Serious Adverse Events (SAEs) and Unanticipated Problems (UPs), IX.C.
- Fulfill Continuing Review requirements, if applicable, IX.A.
- Protect human subject data (XV.) and maintain records (XXI.C.).
- Maintain HSP (3 years), GCP (3 years), and RCR (4 years) training as applicable.

REGULATORY SERVICES

The University of Texas at Arlington 219 W Main St, Arlington, Texas 76010, Box #19188 (Phone) 817-272-3723 (Email) regulatoryservices@uta.edu

### **APPENDIX B**

### University Approved Quantitative Survey

Informed Consent document will begin the survey and will go here. The survey will only appear if the participant consents.

Your Name: Agency/Organization Name: Agency/Organization Address: City: State: ZIP: Your Position/Title: # Years in current position # Years at current agency/organization Total years (even if not consecutive) working with people experiencing homelessness Tel: Email:

Is your agency primarily:

Urban Rural Suburban

Does your agency provide mobile services?

Yes, we are exclusively a mobile service provider. Yes, we are partially a mobile service provider. No, we do not include mobile services.

Please check all the in-house services your organization provides to clients:

Help with I.D. needs Shelter Food Kennels for pets Computer access Health care services Mental health care services Case management Religious services Substance misuse treatment/counseling Employment services Legal services Laundry facilities Translation Services Client storage How many full-time employees does your agency have?

1-5 6-15 16+

Please describe the client sub-population your organization serves (unaccompanied adults, families, etc.)–[comment box]

Do you encounter resistance from clients when suggesting they use public transportation?

Yes – We consistently receive resistance from clients.

Sometimes – Resistance is situational and it can include factors related to the client, routes, previous experience, destination, etc.

No – We do not typically receive resistance from clients.

We do not encourage public transportation use.

(If yes or sometimes) Why do clients resist using public transportation?

Stigma associated with riding transit

Fear of victimization

Difficult with small children

Use of mobility assistive devices

Takes too long

Does not go to locations needed

Cost

Cannot travel with pets

Cannot travel with amount of possessions

Difficulty navigating/using the system (e.g. understanding routes, transfer process, etc.)

Language barriers

Difficulty navigating the payment process

Experience discrimination from other riders

Experience discrimination from transit employees

Other (comment box)

How does your organization evaluate if clients have unmet transportation needs? (Check all that apply.)

Routine mobility counseling Free/reduced fare passes are distributed How many per person per week? (comment box) Periodic surveys Periodic interviews Routine informal interactions Part of routine case management

Our organization does NOT consider clients' transportation needs

Other (comment box)

[If you responded "Our organization does NOT consider clients' transportation needs" above] Why do you not consider your clients' transportation needs?

Our services are mobile so we bring services directly to clients We partner with another agency that addresses transportation needs We provide limited or targeted services Public transportation is not available in our area Public transportation is unreliable in our area Public transportation has become problematic due to Covid 19 concerns or restrictions Other (comment box)

[Skip, if you responded "Our organization does NOT consider clients' transportation needs" above] What activities do your clients typically need/want to access but have difficulty due to transportation? (Check all that apply.)

Grocery store Emergency health care Routine health care Chronic health care (e.g. dialysis) Mental health care Criminal justice services/obligations (e.g. probation) Employment and employment opportunities Friends/family or other social connections Food bank Other essential services required to access shelter Other essential services (e.g. clothing) Identity paperwork Education/skill training Religious community Emergency weather shelters Other (comment box)

[Skip, if you responded "Our organization does NOT consider clients' transportation needs" above] What portion of your clients' transportation needs are **unmet** without your organization's intervention?

0-25% 26-50% 51-75% 76-100% Unsure [Skip, if you responded "Our organization does NOT consider clients' transportation needs" above] What portion of your clients' transportation needs do you estimate remain unmet after your organization's intervention?

0-25% 26-50% 51-75% more than 75% Unsure

[Skip, if you responded "Our organization does NOT consider clients' transportation needs" above] What transportation modes do your clients typically use? (check all that apply)

Publicly provided ADA paratransit for older adults and disabled Non-profit transportation service (van) Non-profit volunteer driver service Service provided transportation (e.g. shuttle to dialysis treatment) Your organization's provided transportation (e.g. shuttle) Friend or family with automobile Personal automobile Bicycle Scooter Walk Uber or Lyft or similar Other (comment box) Public transportation

If public transportation checked above, the following 5 questions will be presented:

 Please estimate how far away the nearest transit stop is from your location? Less than ¼ mile Between ¼ and ½ mile Between ½ and ¾ mile Between ¾ and 1 mile Greater than 1 mile Unsure

2. What is the earliest weekday vehicle that serves this stop?

- Before 5am 6-7am
- 7-8am
- 8-9am
- 9-10am
- Unsure

- 3. What is the latest weekday vehicle that serves this stop?
  - 4-5pm
  - 5-6pm
  - 6-7pm
  - 7-8pm
  - 8-9pm
  - 9-10pm
  - 10-11pm
  - After11pm Unsure
- 4. What is the earliest weekend vehicle that serves this stop?
  - Before 5am
  - 6-7am
  - 7-8am
  - 8-9am
  - 9-10am
  - Unsure
- 5. What is the latest weekend vehicle that serves this stop?
  - 4-5pm 5-6pm 6-7pm 7-8pm 8-9pm 9-10pm 10-11pm After11pm
  - Unsure

[Skip, if you responded "Our organization does NOT consider clients' transportation needs" above] Have transportation modes used by your clients changed during the Covid-19 Pandemic for any of the following reasons?

Reduced public transit routes/hours of operation Reduced use of public transit due to health concerns Reduced use of public transit due to mask requirements Reduced use of other modes (e.g. private van) due to health concerns Reduced use of other modes due to mask requirements Elimination of transportation modes used by clients I have not noticed any change in transportation related to the Covid-19 Pandemic Other (comment box)

[Skip, if you responded "Our organization does NOT consider clients' transportation needs" above] What portion of your clients' rely almost exclusively on public transportation to meet their transportation needs?

0-25% 26-50% 51-75% more than 75% Unsure

[Skip, if you responded "Our organization does NOT consider clients' transportation needs" above] Do your clients have the resources available (e.g. smart phone, credit card/bank account) and knowledge to use available transportation?

They have both the resources and knowledge They have **neither** the resources nor the knowledge They have the resources but **not** the knowledge They do **not** have the resources but they **do** have the knowledge Unsure

[Skip, if you responded "Our organization does NOT consider clients' transportation needs" above] What represents the primary barriers for your clients to use available transportation? (check all that apply)

No money for fare/ticket Unpaid fines to clear license No smartphone No credit card No bank account No computer access No telephone access Lack of knowledge to use public transportation Lack of knowledge to use free/low-cost transportation alternatives (e.g. non-profit services and service provided)

Lack of knowledge to navigate the transit routes to arrive at desired activities Other (comment box)

Do you have access to free passes for clients to access specific locations? If so, please list locations.

Yes (comment box) No Unsure

Please list any services your clients cannot access via existing transportation routes. (Comment box)

Do your clients use public transportation as a shelter from the environment on hot, cold, or inclement days?

Yes No Unsure

Do your clients use a private vehicle as a shelter from the environment on hot, cold, or inclement days?

Yes [what percentage of clients shelter in this manner/] No Unsure

Does your state, region, city, or transit agency have laws or policies that preclude the use of public transportation facilities and associated vehicles as shelter from the weather during regular operating hours?

Yes No Unsure

Does your organization have an agreement with your local public transportation agency?

\_ Yes \_ No \_ Unsure

[You responded YES above] What do this/ese agreement(s) include? (Check all that apply)

Free rides for clients

Discounted rides for clients, purchased by organization

Discounted rides for clients, purchased by clients

Direct trips to services (e.g. criminal justice, health, jobs, etc.) for clients

If yes, which services (comment box)

Transportation service provider participation in your agency's planning (through a board position) or other (comment box)

Training for agency employees/volunteers on transportation use

Training for clients on transportation use

Other (comment box)

What types of coordination could be useful to add to your agreement(s) or for a future agreement? (Check all that apply)

Free transit passes or tickets for clients

Discounted transit passes or tickets for clients (purchasable by organization)
 Transit security/police transfer individuals experiencing homelessness

trespassing on public transportation agency property to your organization

Coordination to provide first-mile/last-mile access to services and resources for clients

Coordination with the public transportation agency to develop policies that address the needs of the homeless population

Public transportation participation in your agency's planning (through a board position)

Participation in public transportation agency planning (through a community engagement program)

Mobility counseling/navigators for clients

Training for employees/volunteers on public transportation use

Other (comment box)

None – already do all of this

Which transportation service providers do you currently have agreements with or would consider in the future?

	Current	Interest in	No
	agreement	agreement	agreement
ADA paratransit for older adults and			
people with disabilities			
Non-profit transportation service			
(e.g. van)			
Non-profit volunteer driver service			
Service provided transportation			
(e.g. shuttle to dialysis treatment)			
Your organization operates your			
own transportation (e.g. shuttle)			
Uber or Lyft or similar			

Are you aware of any of the following actions taken by your local public transit authority in response to homelessness? (Check all that apply)

Enforcement of anti-loitering laws

Requirement that riders exit the transit vehicle at the last stop or pay additional fare to return

Sweeps of areas where people experiencing homelessness are known to congregate

Clearance of encampments used by people experiencing homelessness from settings/property

Installation of structural elements to discourage sleeping at stops and stations

Discounted or free fares for people experiencing homelessness

Allows people experiencing homelessness to use transit facilities to spend the night

Discounted or free bike share for people experiencing homelessness

Using vehicles or facilities as heating/cooling shelters in extreme weather

Additional services or routes to access shelters

Does your organization coordinate with a continuum of care?

] Yes (Please identify)

] Unsure

[You CHECKED YES above] Does the continuum of care coordinate transportation and access to all services within the continuum of care?

Yes
No
Unsure

[You CHECKED YES above] Does your organization or clients have to pay anything for using the transportation services provided by the continuum of care? (check all that apply)

] Yes, organizati	on
] Yes, client	
] No	
] Unsure	

Does your agency hire or contract staff that has as their primary job duty addressing client mobility?

\_ Yes \_ No ☐ Unsure

What practices does your agency use to provide mobility to clients? (check all that apply)

My organization provides transportation (e.g. shuttle bus)

We provide daily/single ride public transportation passes (how many at once? How frequently?)

We provide weekly/monthly public transportation passes

We provide discounted daily/single ride public transportation passes

We provide discounted weekly/monthly public transportation passes

We provide mobility counseling to clients

We partner with other non-profit to provide transportation

We partner with Mobility-on-Demand company (e.g. Uber or Lyft)

We provide telephone or computer access for scheduling ADA paratransit or other rides

Our organization does **NOT** provide any assistance to clients for their mobility
 Other (comment box)

[Skip, if you responded "Our organization does NOT provide any assistance to clients for their mobility at all" above] Which practices seem to be the most effective? (check all that apply)

providing transportation (e.g. shuttle bus)

Providing daily/single ride public transportation passes (how many at once? How frequently?)

providing weekly/monthly public transportation passes

Providing discounted daily/single ride public transportation passes

Providing discounted weekly/monthly public transportation passes

Providing mobility counseling to clients

Partnership with other non-profit to provide transportation

Partnership with Mobility-on-Demand company (e.g. Uber or Lyft)

Providing telephone or computer access for scheduling ADA paratransit or other rides

Other (comment box)

Does your organization provide internal training to your employees and/or volunteers related to client transportation?

Yes
No

Unsure

[You responded YES above] What topics does the training cover? (check all that apply)

Transportation needs of clients

Possible transportation alternatives for clients

Public transportation agency policies and rules

Other transportation service provider policies and rules

How to use public transportation

How to assess transportation need of client

When to distribute transportation resources (e.g. free/reduced passes or provide

a ride on your organization's shuttle)

] How to use other transportation services

Travel times and fees associated with the transportation alternatives

How to engage with public transportation agency

How to engage with other transportation providers

How to provide effective mobility counseling

Existing agreements with transportation providers

Other (comment box)

Are you interested and able to participate in a follow-up interview that would be conducted by telephone, zoom, or Teams for 30-60 minutes at a convenient time. You would be compensated with a Target e-gift card (value \$30) for your time.

🗌 Yes

🗌 No
------

[If NO] Thank you for participating in this survey. [If YES] Thank you for participating in this survey. We will contact you shortly to arrange an interview.

## APPENDIX C

### University-Approved Informed Consents

#### For Service Provider Surveys

My name is Dr. Anne Nordberg and I am asking you to participate in a UT Arlington research study titled, "Towards Data and Solution Focused Approaches for Homeless Populations on Public Transit." This research study is about exploring the experiences of people experiencing homelessness with the transit system. You can choose to participate in this research study if you are at least 18 years old, speak English, currently work for a homeless service organization in the United States, and have professional understanding of how your organization interacts with local transit systems.

Reasons why you might want to participate in this study include to share your professional experience with transit and homelessness, but you might not want to participate if you are uncomfortable sharing your professional experiences with researchers. Your decision about whether to participate is entirely up to you. If you decide not to be in the study, there won't be any punishment or penalty; whatever your choice, there will be no impact on any benefits or services that you would normally receive. Even if you choose to begin the study, you can also change your mind and quit at any time without any consequences.

If you decide to participate in this research study, the list of activities that I will ask you to complete for the research are to complete an online survey. It should take about 30 minutes. At the end of the survey, I will ask if you would like to also participate in an individual interview on the same topic. Although you probably won't experience any personal benefits from participating, the study activities are not expected to pose any additional risks beyond those that you would normally experience in your regular everyday life.

There are no alternative options to this research project.

The research team is committed to protecting your rights and privacy as a research subject. We may publish or present the results, but your name will not be used. While absolute confidentiality cannot be guaranteed, the research team will make every effort to protect the confidentiality of your records as described here and to the extent permitted by law. If you have questions about the study, you can contact me at 817-408-6786 or annenordberg@uta.edu. For questions about your rights or to report complaints, contact the UTA Research Office at 817-272-3723 or regulatoryservices@uta.edu.

You are indicating your voluntary agreement to participate by beginning this survey.

### For Interviews with Homeless Service Providers

My name is Dr. Anne Nordberg and I am asking you to participate in a UT Arlington research study titled, "Towards Data and Solution Focused Approaches for Homeless Populations on Public Transit." This research study is about exploring the experiences of people experiencing homelessness with the transit system. You can choose to participate in this research study if you are at least 18 years old, speak English, currently work for a homeless service organization in the United States, and have professional understanding of how your organization interacts with local transit systems.

Reasons why you might want to participate in this study include to share your professional experience with transit and homelessness, but you might not want to participate if you are uncomfortable sharing your professional experiences with researchers. Your decision about whether to participate is entirely up to you. If you decide not to be in the study, there won't be any punishment or penalty; whatever your choice, there will be no impact on any benefits or services that you would normally receive. Even if you choose to begin the study, you can also change your mind and quit at any time without any consequences.

If you decide to participate in this research study, the list of activities that I will ask you to complete for the research are to complete an individual telephone interview. It should take about 30-60 minutes and will be recorded. Although you probably won't experience any personal benefits from participating, the study activities are not expected to pose any additional risks beyond those that you would normally experience in your regular everyday life.

The will receive a \$30 target gift card for your time, which will be electronically delivered to you after the interview is complete. There are no alternative options to this research project. The Internal Revenue Service (IRS) considers all payments made to research subjects to be taxable income; this may require additional information to be collected from you for tax purposes, such as your social security number.

The research team is committed to protecting your rights and privacy as a research subject. We may publish or present the results, but your name will not be used. While absolute confidentiality cannot be guaranteed, the research team will make every effort to protect the confidentiality of your records as described here and to the extent permitted by law. If you have questions about the study, you can contact me at 817-408-6786 or annenordberg@uta.edu. For questions about your rights or to report complaints, contact the UTA Research Office at 817-272-3723 or regulatoryservices@uta.edu.

You are indicating your voluntary agreement to participate by selecting the "yes" option below and by providing your name and contact information in order to arrange an interview date and time.

### For Interviews with People Experiencing Homelessness

My name is Dr. Anne Nordberg and I am asking you to participate in a UT Arlington research study titled, "Towards Data and Solution Focused Approaches for Homeless Populations on Public Transit." This research study is about exploring the experiences of people experiencing homelessness with the transit system. You can choose to participate in this research study if you are at least 18 years old, speak English, have experienced homelessness within the last year or are currently experiencing homelessness, and are familiar with the Dallas Area Rapid Transit (DART), Trinity Metro, or other transit system.

Reasons why you might want to participate in this study include to share your experience as a person who is experiencing or has experienced homelessness and is familiar with the DART system, but you might not want to participate if you are uncomfortable sharing your personal experiences with researchers. Your decision about whether to participate is entirely up to you. If you decide not to be in the study, there won't be any punishment or penalty; whatever your choice, there will be no impact on any benefits or services that you would normally receive. Even if you choose to begin the study, you can also change your mind and quit at any time without any consequences.

If you decide to participate in this research study, the list of activities that I will ask you to complete for the research are to talk with a researcher about your experiences with DART. It should take about 30-60 minutes and will be recorded. Although you probably won't experience any personal benefits from participating, the study activities are not expected to pose any additional risks beyond those that you would normally experience in your regular everyday life or during routine medical / psychological visits.

You will receive \$5 7-11 or QT giftcard for participating in this research study, which will given to you in person after you have completed the interview. There are no alternative options to this research project. The Internal Revenue Service (IRS) considers all payments made to research subjects to be taxable income; this may require additional information to be collected from you for tax purposes, such as your social security number.

The research team is committed to protecting your rights and privacy as a research subject. We may publish or present the results, but your name will not be used. While absolute confidentiality cannot be guaranteed, the research team will make every effort to protect the confidentiality of your records as described here and to the extent permitted by law. If you have questions about the study, you can contact me at 817-408-6786 or annenordberg@uta.edu. For questions about your rights or to report complaints, contact the UTA Research Office at 817-272-3723 or regulatoryservices@uta.edu.

You are indicating your voluntary agreement to participate by signing below.

I voluntarily consent to participate in this study.

Please sign your name

Please print your name

Date

## APPENDIX D

### Recruitment Script: Flyer for People Experiencing Homelessness

Do you wish to volunteer for a research study? We are looking for participants to interview about DART experiences. To be considered you should be:

- Over 18 years of age
- Speak English
- Are homeless or were homeless within the last year
- Have some experience with DART system in Dallas

There will be 1 interview that will last 30-60 minutes. We can interview you in person or by phone. We offer a \$5 7-11 gift card to compensate you for your time. Please email [name of student to be determined] at [email address to be determined] or call at [phone number here to be determined].

### Recruitment Script: Homeless Service Providers 1<sup>st</sup> email

Dear Homeless Service Provider:

People experiencing homelessness often face great barriers related to transportation and those of us who serve this population struggle to assist them. There is exciting research happening now across the country but it is all focused on the perspectives of transit authorities. Our research project is called "Towards Data and Solution Focused Approaches for Homeless Populations on Public Transit" and we are focused on the perspectives of people experiencing homelessness and those who serve them to round out our understanding. So, we are conducting a survey of national homeless service providers about transit use among clients.

The survey will take up to 20 minutes to complete and once finished, you may then volunteer for an interview to go into greater detail. The survey is important as we strive for a stronger justice-focused approach to people experiencing homelessness and their interface with transit organizations. You will not be paid for completing the survey but should you choose to participate in a remote (zoom or Teams) interview, you will receive a \$30 e-gift card to Target as compensation for your time.

# It is respectfully requested that your agency complete and submit the questionnaire online by **March 31, 2022**.

Please click here [link to combined consent and survey in QuestionPro goes here] o access the informed consent and survey.

If you should have any questions about this survey in terms of how the data will be used, clarifying questions included in the survey, please contact the Principal Investigator, Dr. Anne Nordberg, of The University of Texas at Arlington. Her contact information is as follows:

Anne Nordberg, Ph.D., MSW Email: <u>annenordberg@uta.edu</u>

Your time and effort are greatly appreciated in the support of this important and timely research effort.

Sincerely,

DR. ANNE NORDBERG Associate Professor, School of Social Work Faculty Affiliate, Center for African American Studies (CAAS) annenordberg@uta.edu https://mentis.uta.edu/explore/profile/anne-bain Pronouns: she/her/hers

**211 South Cooper Street** Building A, Room 101B Arlington, TX 76019-0129

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### Recruitment Script: Homeless Service Provider Telephone Follow-up

Hello [Homeless Agency Provider],

My name is [Ebonie, or Hadiisha], and I am a researcher on a project called "Towards Data and Solution Focused Approaches for Homeless Populations on Public Transit." You were recently sent an invite to participate in a survey about transit use among clients who are experiencing homelessness.

The survey was sent out on May 2, 2022. However, if your agency is not able to locate the survey, it can be resent to your agency.

The survey will take about 20 mins to complete and in return, if you agree to participate in a remote interview via Zoom or Teams to provide more insight, we are offering a \$30 e-gift card to Target as compensation for your time.

I would greatly appreciate your participation, as my research team strives for stronger justice-focused approaches to people experiencing homelessness and their interface with transit organizations.

It is respectfully requested that your agency complete and submit the questionnaire online by **[appropriate date here]**, **2022**.

Your time and effort are greatly appreciated in the support of this important and timely research effort.

Thank you!

### Recruitment Script: Homeless Service Provider Email Follow-up

Dear [Homeless Agency Provider],

An invite was recently sent to you requesting your participation in a survey about transit use among clients who are experiencing homelessness.

The survey will take about 20 mins to complete and in return, if you agree to participate in a remote interview via Teams, we are offering a \$30 Target e-gift card as compensation for your time.

Your feedback matters a great deal to our research team, and your response will help us develop solution-focused approaches for people experiencing homelessness who rely on public transit.

Please click here [https://utaedu.questionpro.com/homelessnesssurvey] to access the informed consent and survey.

It is respectfully requested that your agency complete and submit the questionnaire online by **[appropriate date here]**, 2022.

Your time and effort are greatly appreciated in the support of this important and timely research effort.

Sincerely,

### **DR. ANNE NORDBERG**

Associate Professor, School of Social Work Faculty Affiliate, Center for African American Studies (CAAS) annenordberg@uta.edu https://mentis.uta.edu/explore/profile/anne-bain Pronouns: she/her/hers 211 South Cooper Street Building A, Room 101B Arlington, TX 76019-0129

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## APPENDIX E

### Demographic and Interview Questions for People Experiencing Homelessness

Demographic questions: How old are you? What is your gender? Race? Are you currently experiencing homelessness? How long have you been housed? Interview Questions: Please tell me about your experiences with DART. Possible probing questions: Please tell me more about\_\_\_\_\_. Such as? Can you give me an example of ? Would you recommend DART services to a friend? Why? (or why not?) What is the best experience you had on DART? What is the worst experience you have had on DART? When was the last time you rode on DART? Where do you get the fare? If you had extra money, how likely would you be to spend money on DART? What role do you think DART plays in your life? What role do you think DART plays in your quest to exit homelessness? Exit questions: 1. Is there anything else about DART and transit use and transit properties that you wish to tell me?

- 2. What is the most important thing about DART?
- 3. How are you feeling right now?

## APPENDIX F

### Demographic and Interview Questions for Homeless Service Providers

Demographic questions:

How old are you?

What is your gender? Race?

Where is your current employer? What is the organizational name?

How long have you been employed there?

What is your highest level of education? And year of graduation?

What is your role at the organization?

Interview Questions:

Please tell me about your as a professional experiences with local transit authorities.

Possible probing questions: Please tell me more about\_\_\_\_\_. Such as? Can you give me an example of\_\_\_\_\_?

What role do you think transit plays in the loves of your clients?

What role do you think transit plays in their quest to exit homelessness?

Do you distribute fares to clients? If yes, what policies surround that? If no, why not? How well do you think the system works?

What is your local transit agencies approach to riders experiencing homelessness? What are the pros of transit for your clients? What are the cons?

Do you think your organization's approach is equitable? How could it be improved?

Exit questions:

- 1. Is there anything else about transit use and transit properties that you wish to tell me?
- 2. What is the most important thing about transit to you as a professional service organization that serves PEH?