

How Regional Transit Agencies Can Serve the Daily Mobility Needs of the Unhoused Population

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Executive Summary

Transit agencies are tasked with providing a service that enables people to move between home, work, school, commercial ventures, and places of leisure. Increases in the population of people experiencing homelessness (PEH) in California cities has led some transit agencies to more comprehensively address the needs of unhoused riders, a population which historically may have not been included in their planning processes. Some transit agencies, including those in the San Diego region, have largely overlooked the needs of PEH as users of public transit. We use this research synthesis to draw greater attention to the ways that transit agencies, like those in San Diego, can serve the mobility needs of PEH. This synthesis is divided into four sections, summarized below.

- **A synthesis of the research literature on public transit and homelessness.** We focus especially on studies that seek to understand the needs of PEH as users of transit. Research suggests that people experiencing homelessness rely on public transit for the same wide variety of reasons that all riders do, and that like other riders they find it difficult to reach necessary appointments, places of employment, and social engagements due to prohibitive costs and transit schedules that do not meet their needs. Higher usage of social services may make the transit needs of some unhoused people different from housed individuals, which is difficult on public transit. Forced mobility caused by law enforcement and other disruptions when a person is sleeping in a place not meant for human habitation may also lead to transit needs not common in the general population.
- **An overview of policies and programming that impact PEH at twelve transit agencies in California.** Our overview is based on a review of 94 policy and programming documents and interviews with transit representatives from the Bay Area Rapid Transit (BART) and Los Angeles County Metropolitan Transportation Authority (L.A. Metro) systems. Most transit agencies we studied in California made some reference to unhoused people but just seven of twelve addressed the transit needs of PEH, and only three addressed those needs through a dedicated program. Other topics included in the documents and interviews were outreach efforts to PEH in transit environments and rider concerns about homelessness. We used the interviews and document review to develop a typology of how transit agencies are addressing homelessness. This typology consists of four categories that encapsulate the approach of most major public transit agencies in the state: needs of PEH as transit users, rider concerns related to homelessness, security response to PEH, and outreach efforts to PEH.
- **A study of transit accessibility and homelessness in San Diego County.** We review policy and planning documents from San Diego's three transportation agencies: San Diego Metropolitan Transit System (MTS), North County Transit District (NCTD), and San Diego Association of Governments (SANDAG), which is a metropolitan planning organization (MPO). Our policy overview is complemented by interviews with four San Diego transportation representatives and three advocates for people experiencing homelessness. Historically, San

Diego agencies have done very little to incorporate the needs of unhoused riders, although interest in conducting outreach and promoting mobility for this population is growing. To support growing efforts to meet the needs of unhoused riders, we conduct a geospatial analysis of transit accessibility from locations where PEH have been known to congregate, specifically homeless shelters and encampments of unsheltered persons identified through the 2020 San Diego Regional Task Force on Homelessness Point-in-Time Count (PITC).

- **Policy recommendations.** Finally, we conclude with some policy recommendations. We make five suggestions for transit agencies seeking to improve the mobility of PEH, with an eye toward influencing transit policy in San Diego. First, we recommend establishing coordinated outreach programs in transit environments through partnerships with trained outreach workers. Second, in the absence of adequate public transit, we recommend the provision of shuttle services by homeless shelters and other service providers seeking to support employment and other actions that will allow people to resolve their homelessness. Third, we recommend improving transit services in ways that lead to fewer missed connections and more efficient service. Fourth, we support existing fare assistance programs for PEH and advocate for their expansion. And fifth, we encourage the incorporation of expertise from people with lived experience of homelessness in transit planning.

We view this report as a first step toward a longer-term research agenda documenting the uses of transit by unhoused riders and how policies could better meet the needs of this population so that they can access employment and educational opportunities, services, and family members.

Introduction

Transportation and land use planning historically focused on moving people between homes, jobs, and other destinations through origin-and-destination analysis, and more recently, the Vehicle Miles Traveled (VMTs) reduction approach. These planning frameworks assume people have fixed addresses and stable housing, excluding the perspective of unhoused and unstably housed Californians, whose ranks have grown substantially since 2016 (United States Interagency Council on Homelessness, n.d.; Cuellar Mejia, Johnson, and Herrera, 2022).

Much of the research on homelessness and transportation focuses on the presence of people, identified as homeless by transportation workers or researchers, who are staying in fixed locations at transit stops, such as on transportation agency properties (including rights-of-way) (Bassett, Tremoulet, and Moe, 2013; Ding, Loukaitou-Sideris, and Wasserman, 2021). In this research synthesis, we shift the focus to PEH as active users of transportation. This focus is motivated by acknowledging that transportation should be considered alongside, and should complement, other services that support individuals' efforts to exit homelessness (Hui and Habib, 2017).

Research on the mobility of unhoused persons suggests it is possible to incorporate their needs into regional planning, despite heterogeneity (e.g., age, physical and mental health and capabilities, employment status, ownership of a vehicle, etc.) within the population. In general, unhoused people tend to stay in areas where they have family, friends, and other systems of support (Wolch and Rowe, 1992). Unhoused persons are less mobile and transient than is often assumed and tend to have established patterns and needs for daily movement between shelter, services, work, and social connections (Gowan, 2010; Langedegger and Koester, 2016). Determining the transportation needs and patterns of unhoused and unstably housed individuals, and establishing a framework for regional transportation planning that takes this information into account, is critical to providing appropriate and equitable transportation services to all California residents.

This synthesis was guided by conversations with two local organizations which advocate for PEH: Think Dignity and the San Diego Housing Federation's HEAL Network. Think Dignity is a non-profit advocacy agency working with PEH to provide legal and other services. The HEAL Network, or Homeless-Experienced Advocacy and Leadership Network, elevates the voices of people with lived experience of homelessness in order to contribute their perspective in local discussions about public policies and strategies to reduce homelessness. Before reviewing the literature and transit agency documents, we spoke with representatives from these agencies to better understand what they saw as barriers to transit use by PEH. Think Dignity staff explained that much of their work around transit has focused on the cost of fares, which are high for PEH, and transit ordinance violation tickets and fines. People with lived experience of homelessness from the HEAL Network explained that transit reliability and connectivity were also major issues. We centered these perspectives by keeping them as focal topics in our review of the literature, overview of policy documents, and interviews with transit agency staff and other advocates for PEH.

Literature Synthesis

In this literature synthesis, we organize our review of previous studies around a series of questions regarding the relationship between people experiencing homelessness (PEH) and public transit. Past studies have shown that public transit is critical for unhoused and unstably housed people. In particular, scholars have focused on the ways that fares, the criminalization of homelessness, and geographic and physical accessibility can be barriers to transit ridership for highly disadvantaged populations like PEH. Studies also review the ways that transit agencies can become assets to this population by partnering with service agencies to connect homeless riders with services and reduce negative outcomes caused by the criminalization of homelessness.

What are the most common uses of transit for PEH?

Research makes clear that public transit is the primary method of transportation identified by unhoused riders, with walking the second most common form of mobility reported (Murphy, 2019). Studies have shown that PEH have transit needs similar to housed riders (Murphy, 2019; Smith, Moore, and Canham, 2021). Like all people, PEH need to access employment, social functions, medical appointments, and training and education opportunities. Some of the differences between housed and unhoused riders include barriers related to stigma, discrimination, and fare cost which may reduce transit use (Jocoy and Del Casino, 2010). Social service dependence may make transit uses for unhoused people appear a bit different as well (Jocoy and Del Casino 2010). Being severely low-income, research shows that PEH are less likely to have a car than the average person, making them very reliant on public transit for a wide range of appointments and tasks, so that when they could not take transit they missed important opportunities (Scott, Bryant, and Aquanno, 2020). Studies centering the perspectives of people experiencing homelessness suggest that cars and bikes provided only limited mobility to navigate cities so public transit was especially important (Murphy, 2019; Smith, Moore, and Canham, 2021).

Not all movement for people experiencing homelessness is voluntary, however, because their mobility is sometimes caused by forced actions. Mobility is a resource that can be differentially distributed depending on a person's status (Cresswell, 2010). People move for very different reasons: some move purely for enjoyment or recreation, while others move out of necessity, to arrive at work or an appointment. Others move because they are forced to do so, having little choice in whether they move (Bauman, 1997). This is the case in and around transit hubs (Loukaitou-Sideris et al., 2020). PEH may congregate there but only temporarily, until asked to leave by security or law enforcement.

Transit agencies gather very little information on PEH as users of public transit. Official, agency-led (or contracted) counts of unhoused riders are extremely rare: just six percent of surveyed agencies counted homeless riders and just 17 percent had access to counts created by another organization or agency, according to surveys with representatives of transit agencies (Loukaitou-Sideris et al., 2020). When transit operators and staff were asked for their perception of the volume of homeless riders,

researchers found that large transit operators reported a significantly larger number than smaller transit operators (Loukaitou-Sideris et al., 2020). Importantly, observations by transit operators about the number of PEH riding transit or seen in transit environments depends on perceptions of how a person experiencing homelessness typically appears. Researchers have not asked transit operators how they know the people they are counting as unhoused belong in this category, nor how one might identify a person experiencing homelessness in the first place. Missing in any such count, then, would be persons who may meet standard definitions of homelessness but do not have the appearance of being unhoused. For example, overall counts reported by Loukaitou-Sideris et al. (2020) were based on perceptions rather than counts: researchers asked survey respondents to give their personal best estimates. Information about how many people experiencing homelessness in a given transit environment should be understood to mean the number of people transit operators judged to be visibly homeless.

What barriers interfere with the ability of unhoused people to use public transit?

Scholars who focus on the experiences of unhoused people as users of public transportation identify a range of barriers to consistent ridership and barriers to reaching desired destinations, especially cost, criminalization, and accessibility.

Cost

Cost has been identified as a significant barrier to public transit use according to interview-based studies of people experiencing homelessness (Brallier, Southworth, and Ryan, 2019; Scott, Bryant, and Aquanno, 2020). Transit agencies understand that cost can be a barrier for a variety of populations and many of the largest transit agencies in the U.S. offer reduced or free fare programs to select populations (Darling, Carpenter, Turley Voulgaris, 2021; Loukaitou-Sideris et al., 2021a). Cost may persist as a barrier, however, because reduced fare programs are sometimes insufficiently publicized, difficult to access, available only for people with disabilities or for a person heading to a job interview, or because people experiencing homelessness struggled to qualify for a program or lost their reduced fare cards (Guo, 2017; Scott, Bryant, and Aquanno, 2020). Individual circumstances may influence the perception of cost as well. In their study, Hui and Habib (2016) point to the wide variation in schedules and activities among the unhoused in Toronto. Whether interviewees relied heavily on public transportation, how much they walked, presence or lack of time-sensitive appointments, and other factors led to widely varying perceptions of public transportation's quality and cost. Those who relied more on transportation struggled to afford it.

Loukaitou-Sideris et al. 's (2021b) recent research suggests that transit agency representatives view reduced and free-fare programs positively, but believe that they may have minimal impact because unhoused riders may already be evading fares so programs would not alleviate financial concerns for individuals. Given no data confirming this suspicion, it should not be accepted as proof of a widespread

practice on the part of unhoused riders, or that there is any qualitative difference in how often PEH evade fares compared to other riders.

Criminalization

The National Alliance to End Homelessness defines the criminalization of homelessness as the “policies, laws, and local ordinances that make it illegal, difficult, or impossible for unsheltered people to engage in the normal everyday activities that most people carry out on a daily basis, or in activities that help make them safer” (2021). Numerous scholars have shown that cities use ordinances and law enforcement to monitor and physically move homeless encampments and unhoused individuals, especially in response to complaints (Grainger, 2021; Herring, 2021; Kaufman, 2022). Less attention has been paid to the criminalization of homelessness by transportation agencies and their security forces, such as when transit security remove people identified as homeless from staying on transit platforms or at transit stations, or from riding public transit, which they may do in order to rest and be off the streets (California Transit Association, 2019).

In a recent UC ITS survey-based study, the vast majority of surveyed transit operators said homelessness was a problem for their transit system and 86 percent reported that they had received complaints from housed riders about (perceived) unhoused riders. Furthermore, 60 percent perceived a decline in housed riders during the Covid-19 pandemic that was attributable to the presence of homeless riders. There is no actual evidence that the presence of homeless riders is what led to declines in housed riders, as the survey asks transit operators about their personal views.¹ Transit operators reported that respondents expressed concerns related to hygiene, aggressive behavior, fear, discomfort, and cleanliness in 2020 much more than they did in 2016 (Loukaitou-Sideris et al., 2021b).

Even though many transit agencies lack formal policies on riders experiencing homelessness, they do respond to homelessness: just 19.3 percent reported having formal policies, such as those written in reports, internal documents, or online, while 38.6 percent reported having informal policies (Loukaitou-Sideris et al., 2021b, Table 4-2). Most reported responses involve supporting law enforcement to remove unhoused individuals from transit settings. A smaller number of agencies have taken steps to provide outreach and services, such as discounted or free fares for unhoused riders, or offering vehicles and facilities as shelters during extreme weather (Loukaitou-Sideris et al., 2021b, 2022). Loukaitou-Sideris et al. (2021b) suggest that transit operators see reduced or free fares as a positive step toward reducing confrontation between security staff and unhoused riders.

Transit schedules and accessibility

¹ The survey question reads, “In your view, does the presence of homeless people affect the transit ridership of non-homeless customers?” Respondents could report no different, some difference, or a major difference.

Other challenges to ridership by people experiencing homelessness are those that affect many riders, such as infrequency of vehicle arrivals (Hui and Habib, 2014), operation times, and geographic coverage (Brallier, Southworth, and Ryan, 2019). Some segments of the unhoused population may be more negatively affected by transit effectiveness and reliability than others: a study of homeless pregnant women in Florida showed that a lack of timely, efficient public transportation was a leading barrier to accessing prenatal care (Bloom et al., 2006). The “last mile problem” may also be a major barrier for PEH, although research does not focus on unhoused individuals specifically. In general, however, a lack of sidewalks or safe pathways between origin and transit stop, or transit stop and destination, deters riders (Tilahun and Li, 2015). Given the high costs associated with maintaining a personal vehicle or using taxi services, public transportation systems are vital for the mobility of unhoused people.

How PEH experience movement depends on their physical (dis)ability, as well as their need to carry their belongings with them, but researchers have not focused on these topics. This is a problematic oversight given that social service agencies for people experiencing homelessness are predicated on the idea that the unhoused are physically able to travel in order to access services. Given the fact that a growing number of PEH are aging, transportation policies that are targeted towards senior riders may also benefit PEH (Kushel, 2016).

How well is public transit working for people experiencing homelessness?

An overview of transportation and homelessness research suggested that, in the United States, transportation is frequently a barrier to employment, housing, and maintaining health (Murphy 2019). In an experimental model in Toronto, transportation costs in particular were found to be a barrier to accessing employment (Hui and Habib, 2017). Researchers have found that public transportation led to complications in attending medical appointments, accessing services, and getting to work (Murphy, 2019; Smith, Moor, and Canham, 2021). Missed appointments were reported as frequent consequences for not having sufficient money to pay a transit fare (Scott, Bryant, and Aquanno, 2020).

Due to service gaps, unaffordability, and other access limitations, transit has the potential to structure the movement patterns of people experiencing homelessness. Forced mobility may also be caused by transit agencies asking people who appear unhoused to leave transit environments. Researchers found that unhoused people with the worst shelter conditions, specifically those staying on the street, faced the most forced mobility (Simon 2020). People experiencing homelessness are also unlikely to remain in an encampment or shelter for long and therefore live constantly with the possibility that they will need to move their belongings to a new location. In the next section, we provide an overview of transit policy approaches that may impact the mobility and wellbeing of PEH, with a focus on PEH as transit riders. Our aim in doing so is to understand the breadth of how California transit agencies have reacted to homelessness and to consider ways that San Diego regional transit agencies might improve services for all riders, including those experiencing homelessness.

Transit Planning and Homelessness Among California Transit Agencies

In this section, we report on a review of transit agency documents for twelve California transit agencies outside of our focal region, San Diego. Our review of three San Diego transit agencies' policies and programs follows this section.

Methodology

To conduct our review of transit agency and metropolitan planning organization (MPO) documents, we compiled a list of transit agencies in the State of California. We selected transit agencies that served the regions with the largest per capita homeless populations based on estimates by regional continuums of care (State of California Business, Consumer Services and Housing Agency, 2022). The California counties (which typically map on to regional CoC boundaries) with the largest unhoused populations per capita are Kern, Los Angeles, San Diego, San Francisco, and Santa Clara. We also included the Fresno area since this was part of our original proposal. For San Diego County, Los Angeles County, and several counties in the San Francisco Bay Area (including San Francisco, Contra Costa, Alameda, San Mateo, and Santa Clara counties), the list of transit agencies was compiled from those agencies which were part of the area's unified transit fare payment cards. These unified transit fare cards included PRONTO, TAP, and CLIPPER, respectively. A list of agencies was gathered from each of the fare payment card websites.

From this list of California transit agencies, the research team then selected agencies for further review based on their size: transit agencies that only operate a few services, or had a small service area, were excluded from the research project at this point. The transit agencies that were selected for further review include:

- Alameda Contra-Costa Transit District (AC Transit) [San Francisco Bay Area]
- Antelope Valley Transit Authority (AVTA) [Los Angeles County]
- San Francisco Bay Area Rapid Transit District (BART) [San Francisco Bay Area]
- Central Contra Costa Transit Authority (CCCTA) [San Francisco Bay Area]
- Foothill Transit [Los Angeles County]
- Fresno Area Express (FAX) [Fresno County]
- Golden Empire Transit District (GET Bus) [Kern County]
- Los Angeles County Metropolitan Transportation Authority (LA Metro) [Los Angeles County]
- Long Beach Transit (LBT) [Los Angeles County]
- Muni - San Francisco Municipal Transportation Agency (SFMTA) [San Francisco Bay Area]
- San Mateo County Transit District (SamTrans) [San Francisco Bay Area]
- Santa Clara Valley Transportation Authority (VTA) [San Francisco Bay Area]

North County Transit District (NCTD), San Diego Metropolitan Transit System (MTS), and the MPO for San Diego County, the San Diego Association of Governments (SANDAG), were also included in the

review but these agencies' work is described in a separate section below that focuses on San Diego County. Documents were gathered through agency websites and general web searches. Documents included long and short range plans, customer satisfaction surveys, passenger rider brochures, transit board meeting minutes, or other planning related documents. We reviewed every document we could locate online and excluded those with no relevance to the project (e.g., an MPO report about highways, a transit agency report focused exclusively on new vehicles).

We developed twelve themes based on our literature synthesis and conversations with advocates for the unhoused, in particular colleagues at the San Diego non-profits Think Dignity and San Diego Housing Federation HEAL Network. The themes include: 1) document target audience; 2) any mentions of PEH; 3) accessibility of transit vehicles; 4) accessibility of platforms, sidewalks, stations, and other transit facilities; 5) reduced or free fares; 6) fare enforcement (e.g., surveillance, security); 7) penalties for fare evasion; 8) other fare topics; 9) transit security; 10) personal property guidelines; 11) other rider rules of conduct; and 12) schedule or route efficiency improvements. For those documents that mentioned PEH, we reviewed documents a second time to identify themes related to homelessness. During this secondary review, we identified four agency approaches to homelessness on transit: addressing the cost of fares for PEH, describing rider concerns related to homelessness, describing security response to PEH, and detailing outreach efforts to PEH. In this section, we report findings for transit agencies outside of San Diego County. We also used this methodological approach for our review of San Diego agency documents and this analysis is presented in the section "Transit Accessibility in San Diego."

Homelessness and Transit Typologies

The needs of riders experiencing homelessness were explicitly addressed by nine of the twelve agencies we reviewed. The fact that the majority of agencies we reviewed mentioned homelessness to some degree perhaps reflects the troubling rise in homelessness seen in California since the pandemic began. In San Diego County alone, the Point-in-Time Count for 2022 revealed that the number of people experiencing homelessness increased by 10.3 percent compared to 2020, the last year in which a full Point-in-Time Count was conducted (San Diego Regional Task Force on Homelessness, 2020; 2022). Los Angeles County experiences a 4.1 percent increase in the number of people experiencing homelessness between 2020 and 2022 (Los Angeles Homeless Services Authority, 2022). In the San Francisco Bay Area, the increase in homelessness has been even more troubling. Indeed, counties in the Bay Area, such as Contra Costa and Alameda, experienced increases in their homelessness populations by 35.8 percent since 2020 and by 21.5 percent since 2019, respectively (Contra Costa Health Services, 2022; City of Alameda, 2022). San Francisco County itself experienced a 3.5 percent decrease in the number of people experiencing homelessness between 2020 and 2022 (San Francisco Department of Homelessness and Supportive Housing, 2022). However, there is still an overall increase in homelessness as witnessed in the other California counties (Cuellar Mejia, Herrera, and Johnson, 2022).

We categorized the documents we reviewed into four categories, based on how they described people experiencing homelessness. These are shown in Table 1.²

Table 1. Typologies of how homelessness is addressed in publications for nine California transit agencies or MPOs

	Fare supports for riders experiencing homelessness	Rider concerns related to homelessness	Security response to PEH	Outreach efforts to PEH
Alameda Contra-Costa Transit District (AC Transit)				
Antelope Valley Transit Authority (AVTA)	x	x		
Bay Area Rapid Transit (BART)		x	x	x
Central Contra Costa Transit Authority (CCCTA)				
Foothill Transit			x	x
Fresno Area Express (FAX)				
Golden Empire Transit (GET)	x			

² This overview represents information that was publicly available and should not be interpreted as a definitive demonstration of how each transit agency is approaching homelessness. Rather, it should be considered a demonstration of how well they communicate their approach publicly.

Bus)				
Los Angeles County Metropolitan Transportation Authority (LA Metro)	x	x	x	x
Long Beach Transit (LBT)	x			
Muni - San Francisco Metropolitan Transit Authority (SFMTA)	x			
San Mateo County Transit District (SamTrans)	x			
Santa Clara Valley Transportation Authority (VTA)	x			

Fare supports for riders experiencing homelessness

Based on our content analysis, the documents identified that the primary way agencies addressed the transit needs of people experiencing homelessness was by offering, and advertising, free fare programs for unhoused (and in some instances, unstably housed) individuals. A policy addressing fare costs for some segment of the unhoused population was in place for seven agencies, as shown in Table 1. For example, SFMTA did not describe outreach work in their program reports, but they did have information about their Access program. People experiencing homelessness can apply to and receive a pass to ride Muni vehicles for free through this program (San Francisco Municipal Transportation Agency [SFMTA], n.d.). The process of completing an Access pass also initiates a process by which people can have past fare and transit violations forgiven. Long Beach Transit

participates in LIFE, and the LA Metro program which provides free transit access for people experiencing homelessness (Los Angeles County Metropolitan Transportation Authority [LACMTA], n.d.).

All twelve transit agencies promoted reduced fare programs for riders with disabilities, those who are 65 or older, Medicare recipients, young riders, and/or people with low incomes. Federal law requires that any transit agency receiving a federal subsidy must charge less than half of the peak fare during off-peak hours for seniors, people with disabilities, and Medicare cardholders (Federal Transit Law, 2022). Most agencies go further by discounting fares for these riders at all times, charging less than is required, and/or extending reduced fares to other populations in an effort to promote equitable access. Although not explicitly for people experiencing homelessness, these fare reduction programs can benefit some people who may be more likely to experience homelessness. Research shows that people over the age of 62 are the most rapidly growing segment of the unhoused population and that PEH are more likely to report having a disability (Sermons and Henry, 2014; Crane et al., 2014). Thus, even though five of the twelve agencies did not explicitly address fare discounts for riders experiencing homelessness, some of their policies may have benefited these riders.

The content analysis revealed that three agencies, BART, SamTrans, and Muni, all participate in a Metropolitan Transportation Commission (MTC) pilot program begun in 2020 which offers reduced fares to people with low incomes. Muni and SamTrans charge half the price of a regular fare, BART discounts fares by 20 percent (San Francisco Bay Area Rapid Transit District [BART], 2021; Metropolitan Transportation Commission [MTC] n.d.). CCCTA has designated certain routes fare-free in order to defray riders costs for frequently used routes (Central Contra Costa Transit Authority [CCCTA], 2016). Students also receive discounted fares in several transit systems, including Foothill Transit, Fresno Area Express, and LA Metro. LA Metro's program subsidizes transit for the entire family of the student in the hopes that this defrays at least one cost for low-income families (Burrell Garcia and Jones, 2022; Foothill Transit, 2022). SamTrans launched their Youth Unlimited pilot program in January, 2022, which provides free bus fares to students determined to be "socioeconomically disadvantaged," including "students eligible for the Free and Reduced-Price Meal program; students experiencing homelessness; foster-youth; migrant students; or students whose parents did not graduate high school" (San Mateo County Transit District [SamTrans], 2022, p. 3). Again, while these policies are not explicitly targeting unhoused riders, they may support them by reducing transit cost burdens.

Besides offering and advertising free or reduced fares for PEH, the Golden Empire Transit District (GET Bus) of Bakersfield, California, noted attending outreach events at homeless centers to promote its transit services (Golden Empire Transit District [GET Bus], 2022).

Rider concerns related to homelessness

The analysis identified reports about riders' concerns related to homelessness in publications from three agencies. These reports referenced surveys of, and/or focus groups with, riders and non-riders. Riders and non-riders were questioned so that transit agencies could identify ways to improve their

services. Homelessness arose as a topic, always in relation to discussions of safety and hygiene. An AVTA strategic report from 2020 noted that both riders and non-riders described safety concerns related to certain bus stops and buses, a problem which was “exacerbated in areas where there is a large homeless presence” and long wait times (AVTA, 2020, p. 202). Non-riders specified a need to know that AVTA was proactively managing homelessness and other “issues” before they would feel comfortable riding (AVTA, 2020, p. 205). Similarly, a BART rider poll found that rider satisfaction had dropped since 2016 (BART, 2021). BART rider satisfaction was lowest for the agency’s approach to homelessness in both 2018 and 2020 (BART, 2021). Poll takers expressed frustration that more action was not being taken by BART staff to monitor the behavior of PEH in transit or to assist PEH by connecting them with services. The poll BART used to survey riders included optional comment sections. Poll takers used these to elaborate on why they ranked BART’s approach to homelessness so low. The most common comments “mentioned issues of cleanliness, drug use, fare evasion, personal security, and some riders who appeared to be homeless not wearing face coverings” (BART, 2021, p. 16). Riders did not necessarily see criminalization as the answer: “While most commenters felt that the number of homeless riders on BART was an issue, specifically those causing disturbances, some noted that they did not want to see aggressive means being used to address homelessness” (BART, 2021, p. 16).

Security response to people experiencing homelessness

The ways in which transit agencies address security and safety measures can also impact PEH. This includes PEH who are staying on or near transit property, as well as PEH using public transit. The Metro Vision 2028 Strategic Plan, for example, discusses Metro’s commitment to improving security. This includes, among other things, better enforcing Metro’s Code of Conduct and reducing fare evasion (LACMTA, 2018). Enforcing codes of conduct and fare policies are particularly of note as the impact of these policies may be especially hard-felt by PEH. Indeed, Metro’s Code of Conduct contains a number of sections that may impact PEH through enforcement by security personnel. This includes prohibitions against loitering on Metro property and vehicles, policies banning carts, strollers, and luggage that is overly large or in unsafe condition, as well as nuisance odors (LACMTA, 2022). While the enforcement of these policies may impact PEH, the consequences associated with violating these policies can be especially burdensome on PEH. For example, those who violate the Customer Code of Conduct may be subject to ejection from Metro, as well as be subject to pay fines and other penalties. Riders who are cited three times or more for the same violation within a twelve month period, or failed to pay the fines associated with their violation, or who have outstanding warrants, pending trials, or who are convicted with a California Penal Code offense that occurred on transit, may be subject to exclusion from Metro for a period of time or indefinitely (LACMTA, 2022). Metro has subsequently been taking steps towards improving safety and security for PEH. This involves a community based approach to safety and security, which includes the establishment of a Transit Public Safety Advisory Committee. This committee includes perspectives from PEH and aims to provide alternatives to law enforcement when responding to nonviolent crimes and code of conduct violations, education about reduced fare programs, and homeless outreach, among others (LACMTA, 2020). This education includes that done by outreach organizations, such as People Assisting the Homeless (PATH), who educate riders to pay

their fares and give riders advanced notice of when fare or law enforcement will be present (Burrell Garcia and Jones, 2022). This community based approach aims to reduce the burden of enforcement on PEH and offer alternatives such as support and education.

The general safety and security context in which homelessness was mentioned can also be seen in planning documents by other transit agencies. AVTA, for example, discusses the presence of PEH around its stations as a safety concern for its riders, especially when faced with long wait times (AVTA, 2020). In addition to safety concerns at bus stops in general, the presence of PEH was mentioned concurrently with “crime, and other unsafe behaviors” when proposing the addition of a stop at the Lancaster Metrolink station (AVTA, 2020). Discussing PEH in the context of the safety and security of other riders is not unique to Southern California. BART also addresses this in its publications, specifically referring to comments regarding the presence of homeless riders adjacent to corners of fare evasion and drug use (BART, 2021). Similar to LA Metro, BART is taking steps towards addressing homelessness, including outreach and addressing mental health issues through its partnerships with other agencies, such as county public health departments and its own Crisis Intervention Teams (BART, 2021). BART’s approach to homelessness also included the creation of the Progressive Policing and Community Engagement Bureau, which is tasked with addressing issues, such as homelessness, that do not necessarily require the help of a sworn police officer (BART, 2021). The Progressive Policing and Community Engagement Bureau consists of Crisis Intervention Specialists, who take a more personal and paced approach compared to traditional law enforcement, as well as Transit Ambassadors. For example, Crisis Intervention Specialists carry clothing for those using BART who need a change (Lahanas and Sandoval, 2022). Additionally, Crisis Intervention Specialists have a longer time frame perspective compared to law enforcement, which tends to just kick them out of the transit facility (Lahanas and Sandoval, 2022). BART also has Transit Ambassadors who serve an important role in the functioning of the system as they are unarmed employees who reach out to BART riders (Lahanas and Sandoval, 2022). These programs illustrate the ways that BART acknowledges the multifaceted nature of addressing homelessness and helping PEH. This acknowledgement signals a shift away from simply citing PEH for their violations or moving them off transit property and vehicles.

Outreach efforts to people experiencing homelessness

As shown in Table 1, there are efforts on the part of some transit agencies to get involved in supportive services and outreach for people experiencing homelessness. Interviews we conducted with staff from BART and LA Metro reflect the tension transit agency administrators feel in regards to this aspect of their work. As one outreach supervisor explained:

Transit is a business, it’s a transit agency. Trains have to move, people need to pay fees. That influences our approach. There is pressure on law enforcement to support that. For the [outreach workers], they may be ready to deal with people on a long-term basis and are less concerned with the timetables (Lahanas and Sandoval, 2022)

This is further complicated by the complaints transit agencies receive about homelessness from some riders. As explained in a LA Metro document from 2018:

Homelessness is a crisis not only for people who cannot obtain shelter, but for all County residents. In terms of transportation impacts specifically, the presence of homeless people on Metro services and properties can deter other potential riders and affect mobility. For Metro, the critical challenge is to balance our commitment to delivering excellent customer experiences with our commitment to also assist homeless individuals. (LACMTA, 2018, p. 38)

Staff at LA Metro with whom we spoke further explained that they receive complaints daily about homelessness, but their response remains to provide outreach workers who can increase the comfort levels of all riders—housed and unhoused—without increasing criminalization or rider conflicts. This better serves the needs of PEH and can serve an educational function for riders with low tolerance for visible homelessness. In addition, staff from LA Metro’s Office of the CEO have worked on an informal, ad hoc basis to educate law enforcement, transit staff, and others in the agency about myths versus realities around homelessness, such as the reality that people experiencing homelessness are more likely to be victims of crimes than to commit crimes themselves.

UC ITS researchers have previously published reports and articles describing the homeless outreach and engagement efforts of transit agencies across the country, including California’s three largest agencies (BART, Muni, LA Metro) and the Sacramento Regional Transit District (Loukaitou-Sideris, Wasserman, Caro, and Ding, 2021). Rather than repeat this information, we focus our document synthesis and interview overview on the ways that select California agencies have worked to reduce transit access barriers for riders experiencing homelessness. We do this by focusing on San Diego County as discussed in the next section.

Transit Accessibility and Homelessness in San Diego County

San Diego Transit Agencies and MPO Approaches to Homelessness

In order to compare San Diego’s two transit agencies and MPO to transit agencies in other parts of the state, we applied the document review developed for the statewide analysis to a similar review for North County Transit District (NCTD), San Diego Metropolitan Transit System (MTS), and the San Diego Association of Governments (SANDAG). The service areas for NCTD and MTS are shown in Figure 1, below.

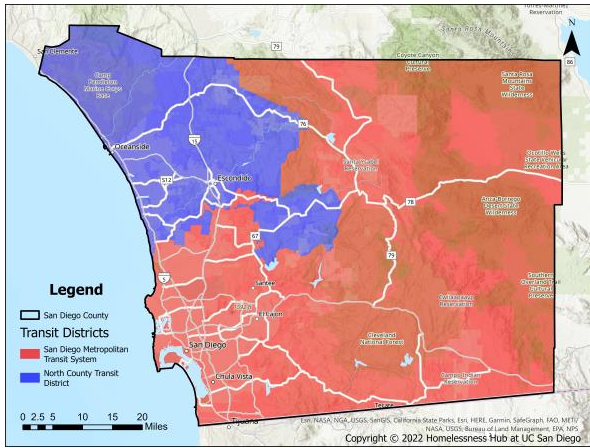


Figure 1. Map of Transit Districts in San Diego County.

Link to full-size image: <https://its-21-22-report-ucsdonline.hub.arcgis.com/pages/san-diego-county-transit-districts>

Our review of these agencies' published documents showed little direct engagement with the issue of homelessness. We also interviewed staff from MTS and SANDAG.³ To our knowledge, based on document reviews and interviews with transit agency staff and advocates for people experiencing homelessness, NCTD and MTS do not offer passes or fare discounts to unhoused people, have not reported anything in transit environments related to how riders view homelessness, and do not have coordinated outreach programs (see Table 2). Local news agencies have written about riders' views, but since riders were not systematically surveyed we excluded that information.

Table 2. Typologies of how homelessness is addressed in publications by San Diego's two transit agencies and MPO

	Fare supports for riders experiencing homelessness	Rider concerns related to homelessness	Security response to PEH described	Description of outreach efforts to PEH
North County Transit District (NCTD)				

³ Despite numerous attempts to set up a meeting with NCTD staff over a three month period, we were unable to speak with anyone at NCTD about efforts related to homelessness, so all information about this agency is based on document review.

San Diego Metropolitan Transit System (MTS)			x	
San Diego Association of Governments (SANDAG)	x			

Below, we provide more detailed information about the categories in Table 2 for this limited data we were able to collect.

Destination and rider needs for PEH

SANDAG was the only agency in the San Diego region explicitly facilitating ridership for some segments of the unhoused population. In their Coordinated Plan for 2016-2020, SANDAG described the results of their transportation needs assessment for youth and paid special attention to the needs of low-income and/or homeless youth (San Diego Association of Governments [SANDAG], n.d.). The authors noted,

Low-income and/or homeless youth are significantly disadvantaged as they may lack the ability to pay for transit or other means of transportation. As transit is the most cost-effective option available to this group, the service parameters for this group involve connecting this population with the existing fixed-route services and finding resources to subsidize the travel. Specific travel needs vary from accessing shelter, assistance programs, medical facilities, and where applicable, education/employment facilities. Transportation to these previously mentioned destinations is a critical component for homeless youth in the transitional process to more stable living conditions (p. 5-20).

Other programs with the potential to impact a segment of the unhoused population are the PRONTO Extend (a pilot program used by both MTS and NCTD) and NCTD Service Agency Day Pass programs. PRONTO Extend provides free transit passes to former foster care youth, up to age 24. This program is not intended for PEH, but transit officials told a local newspaper that foster youth are more likely than youth with no experience in the foster care system to experience homelessness, making transit accessibility especially important to their ability to maintain work, housing, and educational opportunities (Danemann, 2022). The NCTD Service Agency Day Pass program is a one-day NCTD Day Pass sold in bulk to social service agencies. Agencies provide them to clients. The pass allows riders unlimited travel on the rail and fixed-route bus systems of NCTD (SANDAG, 2021).

In compliance with federal law, MTS and NCTD have reduced fare programs for senior riders and riders with a disability or Medicare card. Both MTS and NCTD offer half-priced fares in accordance with 49

U.S.C. Section 5307(d)(1)(D) of the Federal Transit Act (Federal Transit Law, 2022).⁴ In addition to these programs, which comply with federal law, SANDAG worked with MTS and NCTD to start the Youth Opportunity Pilot program in Summer 2022. The Youth Opportunity Pilot provides free transit passes to youth throughout San Diego County. The Youth Opportunity Pilot was initiated in response to calls for service expansion and lower fares by community-based organizations, including the City Heights Community Development Corporation and Mid-City Community Advocacy Network. These programs, like PRONTO Extend and the NCTD Service Agency Day Pass are not targeted to PEH, but could benefit them. For example, policies targeting senior riders could benefit riders experiencing homelessness because rates of senior homelessness have increased and PEH are more likely than most to have a disability (United States Interagency Council on Homelessness, 2018).

Security response to PEH

NCTD's security is handled by both NCTD employees and external, contracted security officers. NCTD hires peace officers and contracts with a private security firm to monitor security cameras and respond to problems (NCTD, 2016; NCTD, 2019). NCTD also coordinates with local law enforcement agencies to handle emergencies and other problems at stations and encourages riders to call 9-1-1 with any problems (NCTD, n.d.). In-person security personnel focus on the SPRINTER stations that have the highest volume of rider traffic, or people and vehicles moving through service areas. Peace officers also check for fare payment on the SPRINTER and can ticket people for a fare violation (NCTD, 2019).

MTS serves more passengers and operates more vehicles and therefore has a larger security force than NCTD, including more than 200 contracted security officers and a Transit Security Taskforce that works with local law enforcement agencies (SDMTS, 2016). MTS makes no explicit connections between security and homelessness in official publications. In MTS Board Meetings, there has been discussion of PEH in transit settings and the security response, which are described below under Outreach Efforts and PEH.

The most active way MTS security personnel are engaged on issues related to homelessness is through their fare diversion program. In 2020, an article in the *San Diego Union Tribune* revealed that MTS had been citing people for fare violations at much higher rates than comparable transit agencies (Emerson Smith, 2020). In response to this report and pressure from advocates for the unhoused, MTS has implemented a "diversion program," which allows people with fare violation citations to resolve those citations with minimal cost and no court involvement (SDMTS, n.d.). This program can be used by anyone with a fare violation. It provides alternative methods for handling transit policy violations, such as by paying a reduced fine or volunteering to "work off" the fine. Unhoused people have been prioritized to take advantage of this program. The San Diego Public Defender's office has worked with other agencies, both governmental and non-profit, to create a "Homeless Court." People experiencing homelessness opt into the program when they begin working with a service provider to resolve their

⁴ Also see <https://www.transit.dot.gov/are-transit-providers-required-offer-reduced-transit-fares-seniors-people-disabilities-or-medicare>

homelessness. The program assists them in entering a specially structured plea agreement to resolve most misdemeanor offenses and some felony convictions. Many infractions relate to transit fare or other code violations, which helps people regain their rights for riding transit and provides additional benefits, like greater eligibility for employment, improved credit, and more (Wechter, 2022).

Outreach efforts to PEH

Thus far, San Diego transit agencies have not initiated any kind of systematic outreach program to PEH. This is not to suggest that efforts have not been made. In the meeting minutes for the April, 2022 meeting of the Security and Passenger Safety Community Advisory Group (CAG) for MTS, minutes indicated that Committee Chair Megan Welsh inquired about whether MTS had made efforts to “educate homeless individuals regarding programs available to them.” MTS General Counsel Karen Landers stated that “MTS officers carry outreach information for those experiencing homelessness” (SDMTS, 2022, p. 3). In February of 2022, Director of Transit Security and Passenger Safety at MTS, Al Stiehler, told the Security and Passenger Safety CAG about the initiation of an outreach effort at one downtown transit stop. The team doing this outreach included two code compliance officers, an outreach worker from a non-profit that does homeless outreach downtown, and an employee from the San Diego County Health and Human Services Agency. As far as the authors know, this effort is the first of its kind for MTS. In separate interviews with Al Stiehler, a person with lived experience of homelessness, and an outreach worker with People Assisting the Homeless (PATH) San Diego, we learned that Director Stiehler has been proactive in designing collaborative outreach partnerships and moving MTS in the direction of greater outreach and crisis intervention. Director Stiehler told us that his goal is for MTS to move toward a collaborative approach, where transit safety and security officers are teamed up with homeless outreach workers to provide the best possible support for people experiencing homelessness while meeting safety and security for all transit riders.

In the following section we provide an analysis of transit accessibility to shelter and unsheltered persons for the San Diego region. We do this to support burgeoning efforts by MTS, SANDAG, and service providers to incorporate the needs of unhoused riders in their planning efforts.

Geospatial Evaluation of Transit Accessibility to Homeless Shelters and Unsheltered Persons

In order to gauge how well public transit serves homeless shelters and documented encampment sites in the San Diego region, we provide summary statistics and visualizations of the proportion of homeless shelters and unsheltered persons within SANDAG Transit Priority Areas (TPAs) and the distances between homeless shelters and transit stops and documented encampment sites and transit stops. Homeless shelters in this analysis are built structures where staff from non-profit and/or governmental entities provide on-site services. Unsheltered persons may set up encampments to stay overnight, and often for days or weeks at a time. These are informal and often in violation of local ordinances that prohibit sleeping in places not meant for human habitation. Overall, the findings from our analysis show that the majority of PEH in the Point-in-Time Count (PITC) from 2020, as well as homeless shelters, are

within one-quarter mile of a public transit stop. This is important as a quarter mile is generally considered to be the walkable distance to and from transit (Walker, 2012; Diepeveen and Skidmore, 1994). However, based on the 2020 PITC, it was observed that some homeless shelters and encampment sites are located in areas that are well outside a quarter-mile radius from public transit, with certain unsheltered persons being located over six miles from a transit stop.⁵ However, being physically proximate to transit stops does not mean transit is necessarily accessible. Other issues may make transit difficult to access from sheltered and unsheltered persons, including topography or barriers of the built environment, such as roadways that are illegal or unsafe to cross. In addition, there may be some individuals experiencing homelessness who intentionally distance themselves from populated, trafficked areas, so transit accessibility may not be a desired amenity (Herring, 2014). This is uncommon, but nevertheless relevant. However, people avoiding trafficked areas and analysis of the accessibility barriers posed by obstacles to transit are beyond the scope of this project. Our methods and data of our analysis are described below, followed by figures, tables, maps, and additional text describing our findings.

Data and Method

We obtained data regarding the location of encampment sites from the San Diego Regional Task Force on Homelessness (RTFH). As the region's HUD Continuum of Care program administrator, RTFH is tasked each year with conducting a census—or "Point-in-Time Count" (PITC)—of the sheltered and unsheltered homeless populations in the region. Volunteers spread out across the region to count, and sometimes briefly survey, people who are unsheltered. This includes people sleeping in places not designed for human habitation such as riverbeds, parks, and sidewalks. Homeless shelters report the number of occupied beds on the night of the count as well. The data we use in the figures and maps below shows only those people reported to be unsheltered on the night of the 2020 PITC, that being 3,941 unsheltered persons.⁶ RTFH shared the data as a spreadsheet of X and Y coordinates, which we converted to a spatial layer using ESRI's ArcGIS Pro.

We identified homeless shelters and verified their locations using four sources: the Department of Housing and Urban Development, the County of San Diego HHSA or what part of the County?, 2-1-1 San Diego, and the San Diego Housing Commission websites. For the purpose of our analysis, we only included homeless shelters that had 20 or more beds and for which we had physical addresses. The result is a list of 19 homeless shelters throughout San Diego County. We obtained transit stop data from the SanGIS/SANDAG GIS Data Warehouse (SanGIS, n.d.). We also obtained data regarding the location of rapid transit stops and Transit Priority Areas through the SANDAG SD Forward ArcGIS Online webpage (SANDAG, n.d.). For the purposes of this project, 'rapid transit stops' include transit

⁵ Distances exclude outliers.

⁶ X and Y coordinate data for the 2022 PITC is not available at the time of writing, and the full PITC was not conducted in 2021. There were, however, 4,106 unsheltered persons in San Diego County during the 2022 PITC.

stops served by rail or bus rapid transit, or both.⁷ Transit Priority Areas are officially defined by the California Public Resource Code as an area within one half mile on an existing or planned major transit stop, with major transit stops including those stops served by rail or bus rapid transit, a ferry terminal with rail or bus connections, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods (Cal. Pub. Res. Code, 2013; Cal. Pub. Res. Code, 1972).

Findings

Figure 2 shows the distribution of distances between people counted as unsheltered during the 2020 PITC and the nearest transit stop. The distance in miles is shown on the X-axis, and the number of people identified as unsheltered within each distance range is shown on the Y-axis. Each bar represents the number of unsheltered persons within a specified distance range, with the total number of people within that distance range labeled at the top of the bar. So, for example, there were 1,242 unsheltered individuals within 0 and 0.05 miles of a transit stop. This is 31.6 percent of the total unsheltered population enumerated in the 2020 PITC, excluding outliers. The mean and median distances are represented by the blue and purple vertical lines, respectively. The majority of unsheltered persons were relatively close to transit stops, with only a small number of unsheltered persons at a distance of over 1 mile from a transit stop.

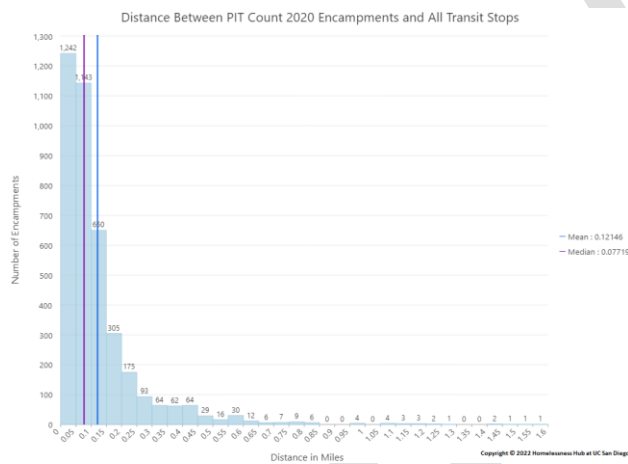


Figure 2. Distance between PITC 2020 unsheltered persons and all transit stops⁸

Link to full-size image: <https://its-21-22-report-ucsdonline.hub.arcgis.com/pages/graph-pit-count-all-stops-exclude-outliers>

Figure 3 shows the distribution of distances between unsheltered persons and the nearest rapid transit stop. The X and Y axes in Figure 3 are set up similarly to those of Figure 2, with the distance in miles shown on the X-axis, and the number of unsheltered persons within each distance range shown on the

⁷ Includes all rail and bus rapid transit stops at the time of the 2020 PITC.

⁸ Overly large outliers were excluded from the graphs based on significant breaks in the data.

Y-axis. Here again, each bar represents the number of unsheltered persons within a specified distance range, with the total number of unsheltered persons within that distance range labeled at the top of the bar. The mean and median distances are represented by the blue and purple vertical lines, respectively. A large number of unsheltered persons were located relatively close to rapid transit stops, with 926 out of 3869 unsheltered persons within a quarter mile of a rapid transit stop, and 1644 out of 3869 within a half mile. However, more unsheltered persons were located greater than one mile away from a rapid transit stop, compared to all transit stops, and some unsheltered persons were located over 5 miles away from a rapid transit stop.

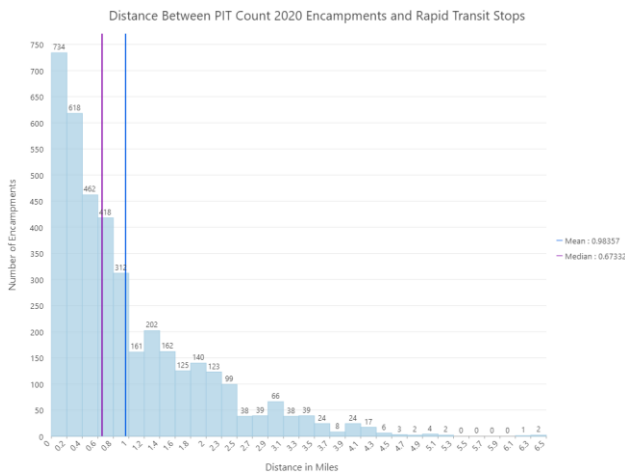


Figure 3. Distance between PITC 2020 unsheltered persons and rapid transit stops.

Link to full-size image: <https://its-21-22-report-ucsdonline.hub.arcgis.com/pages/graph-pit-count-rapid-transit-stops-excluding-outliers>

As illustrated in Figure 2, the mean distance between an encampment site and a transit stop, excluding outliers, was 0.12 miles, and the median distance was 0.08 miles. However, as shown in Figure 3, the mean and median distances increased when only considering rapid transit stops. The mean distance between a documented encampment and a rapid transit stop was 0.98 miles, and the median distance was 0.67 miles.

Figure 4 illustrates the distance distribution between homeless shelter sites and the nearest transit stop. The X-axis shows the distance in miles, and the Y-axis shows the number of homeless shelters. The bars indicate the number of homeless shelters within a certain distance range, for example, there are six homeless shelters within the distance range of 0.02 and 0.03 miles. The mean distance is represented by the blue vertical line, and the median distance is represented by the purple vertical line.

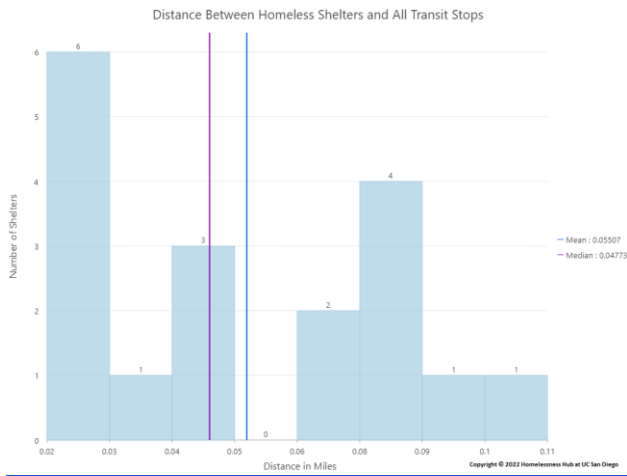


Figure 4. Distance between homeless shelters and all transit stops.

Link to full-size image: <https://its-21-22-report-ucsdonline.hub.arcgis.com/pages/graph-shelters-all-stops-excluding-outliers>

Figure 5 shows the distance distribution between homeless shelter sites and the nearest rapid transit stop. Rapid transit stops include transit stops served by either rail transit or bus rapid transit. The X-axis depicts the distance in miles, and the Y-axis the number of homeless shelters. The bars in the chart represent the number of homeless shelters within a certain distance range. The mean and median distances of all homeless shelters to their nearest rapid transit stop are represented by the blue and purple vertical lines, respectively.

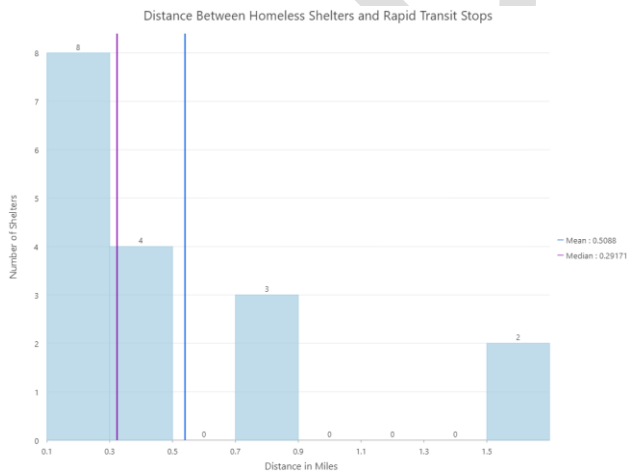


Figure 5. Distance between homeless shelters and rapid transit stops.

Link to full-size image: <https://its-21-22-report-ucsdonline.hub.arcgis.com/pages/graph-shelters-rapid-transit-stops-excluding-outliers>

Similar to PITC points showing unsheltered persons, the mean and median distances between shelter locations and all transit stops is less than that of shelter locations and only rapid transit stops. For example, Figure 4 shows the mean distance to be 0.06 miles between a shelter and any transit stop, while the median distance is 0.05 miles. This increases to a mean distance of 0.51 miles when only considering rapid transit stops, and a median distance of 0.29 miles, as shown in Figure 5.

In addition to determining the mean and median distances between PEH and transit, a spatial analysis regarding the proportion of the unsheltered persons and homeless shelters within certain transit areas was also conducted. These transit areas include Transit Priority Areas, as well as ½ and ¼ mile radii around all transit stops in San Diego County. The results are shown in the tables and their accompanying maps below.

Table 3. Proportion of unsheltered persons and homeless shelters within 2025 Transit Priority Areas.

	Number within TPA / Total	Percentage
Unsheltered Persons	2,929/3,941	74.3%
Homeless Shelters	16/19	84.2%

Table 4. Proportion of unsheltered persons and homeless shelters within a half of a mile of any transit stop.

	Number within ½ mile radius / Total	Percentage
Unsheltered Persons	3,827/3,941	97.1%
Homeless Shelters	19/19	100%

Table 5. Proportion of unsheltered persons and homeless shelters within a quarter of a mile of any transit stop.

	Number within ¼ mile radius / Total	Percentage
Unsheltered Persons	3,514/3,941	89.2%

Homeless Shelters	18/19	94.7%
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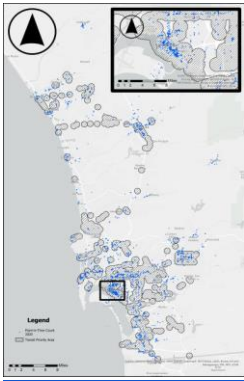


Figure 6. Location of 2020 PITC unsheltered persons in relation to 2025 Transit Priority Areas.

Link to full-size image: <https://its-21-22-report-ucsdonline.hub.arcgis.com/pages/transit-priority-area-pitc>



Figure 7. Location of homeless shelters in relation to 2025 Transit Priority Areas.

Link to full-size image: <https://its-21-22-report-ucsdonline.hub.arcgis.com/pages/transit-priority-area-shelters>

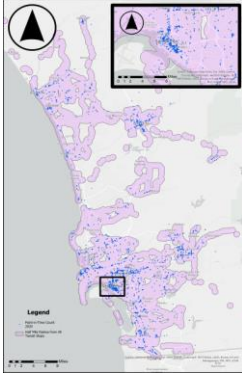


Figure 8. Location of encampment sites in relation to ½ mile buffer around all transit stops.

Link to full-size image: <https://its-21-22-report-ucsdonline.hub.arcgis.com/pages/all-transit-stops-half-mile-pitc>

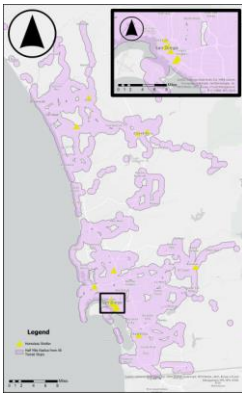


Figure 9. Location of homeless shelters in relation to ½ mile buffer around all transit stops.

Link to full-size image: <https://its-21-22-report-ucsdonline.hub.arcgis.com/pages/all-transit-stops-half-mile-shelters>

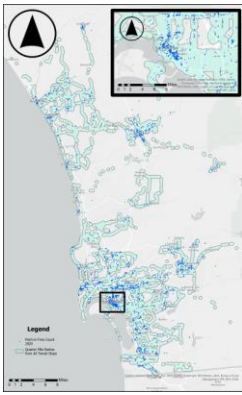


Figure 10. Location of encampment sites in relation to a 1/4 mile buffer around all transit stops.

Link to full-size image: <https://its-21-22-report-ucsdonline.hub.arcgis.com/pages/all-transit-stops-quarter-mile-pitc>

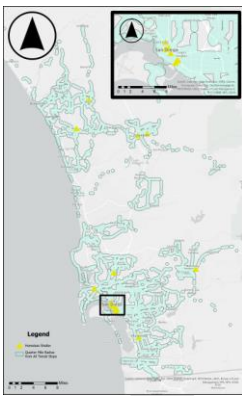


Figure 11. Location of homeless shelters in relation to a 1/4 mile buffer around all transit stops.

Link to full-size image: <https://its-21-22-report-ucsdonline.hub.arcgis.com/pages/all-transit-stops-quarter-mile-shelters>

The spatial analysis of accessibility for PEH revealed that the vast majority of encampment sites and homeless shelters fell within areas of reasonable transit accessibility. This included the fact that nearly $\frac{3}{4}$ of documented encampment sites from the 2020 PITC fell within a Transit Priority Area. When expanding the analysis to include all transit stops, 97.1% of all sites from the 2020 PITC were situated within $\frac{1}{2}$ mile and 89.2% were situated within $\frac{1}{4}$ mile of a transit stop. When looking at the accessibility of homeless shelters and transit, similar accessibility was noted. For example, over 80% of homeless shelters from the homeless shelters in our study were within Transit Priority Areas. This figure increases when considering all transit stops, with 100% and 94.7% of all homeless shelters within $\frac{1}{2}$ mile and $\frac{1}{4}$ mile radii of all transit stops, respectively.

However, our accessibility analysis only considers the distance between unsheltered persons or homeless shelters and transit. It only partly considers the level of transit service at transit stops, such as through filtering the data to only include Transit Priority Areas, or only rapid transit stops. The actual travel patterns and origin-destination pairs that PEH have not been considered. Thus, while a PEH might theoretically be in close proximity to a transit stop, the routes serving that particular stop may not take them to the places they wish to go, or if they can find a way to reach their desired destination, the routing may be circuitous and significantly time consuming. The analysis also does not consider physical factors, such as topography or the built environment. For example, an unsheltered person may need to climb a steep hill, or traverse roadways or intersections in order to reach a transit stop. Thus, it may be physically demanding to reach these transit stops, especially for those PEH with disabilities. Of course, these transit accessibility problems impact everyone, not just PEH. By improving accessibility in areas related to transit services, everyone benefits.

Policy Options for San Diego

San Diego's transit agencies and SANDAG are behind their peer agencies in addressing the ridership needs of PEH and conducting outreach to PEH in transit environments. What can San Diego transit agencies learn from research and other California transit agencies? Our answers to this question are outlined in the policy recommendations below. The transit improvements we describe would not only help riders experiencing homelessness, but all transit riders.

Implement Outreach

Outreach in transit environments largely targets PEH who are using transit to rest or take shelter for a period of time. UC ITS researchers recently recommended that outreach be increased and enforcement (e.g. ticketing people for loitering) decreased for PEH, as done in LA Metro, BART, and several transit agencies outside of California (Loukaitou-Sideris et al., 2021b). Our research synthesis confirms Loukaitou-Sideris and co-authors' conclusion. MTS has made strides to decrease ticketing and provide alternative means of code violation resolution through its diversion program, but on outreach, San Diego agencies are behind California's other major transit agencies.

Critical to transit outreach to PEH is hiring staff whose responsibility is to build ongoing relationships. Interviewees on BART and LA Metro staff emphasized this point and explained that outreach is meant to support people and connect them with services, rather than clear them out of the system (Burrell Garcia and Jones, 2022; Lahanas and Sandoval, 2022). This type of work is time intensive as outreach workers' role is to form trusting relationships. Outreach workers can also act as a signal to everyone using transit, showing both PEH and the public that the humanitarian crisis of homelessness is receiving the attention it deserves (Burrell Garcia and Jones, 2022).

Besides connecting PEH to services, outreach workers can also reduce negative interactions between unhoused people and security. LA Metro staff explained that outreach workers act as an 'early warning system' for those individuals experiencing homelessness, informing them about the times and locations when transit enforcement will be present so they can clear out, if necessary (Burrell Garcia and Jones, 2022). This approach, while not addressing the causes of homelessness, addresses negative externalities resulting from sheltering in transit environments, such as fines and citations.

A first step to improve homelessness services is for MTS and NCTD to form partnerships with organizations specializing in homeless outreach. Doing so would complement the work already being done at MTS to divert people from negative security interactions due to code violations and the MTS Community Advisory Group, where the issue of riders experiencing homelessness has been discussed previously (San Diego Metropolitan Transit System, 2022). Cooperation between transit agencies and outreach workers will bring MTS and NCTD into the fold of organizations working to resolve homelessness and can reduce punitive measures while also saving costs on operating a program internally.

Improve Transit Reliability to Homelessness Services

In interviews, people with lived experience of homelessness expressed their inability to rely on public transit due to delays, inconvenient schedules, or limited hours of operation. Delays were especially impactful when commuting to and from their place of employment, as a delay on a certain route could mean that they were late for work, and thus more prone to losing their job (Hancock, 2022). For homeless shelters and programs working to support people as they seek employment and work to resolve their homelessness, improving mobility is crucial (Wechter, 2022). This could be done by providing shuttle service to and from work or other highly-frequented destinations for shelter residents. This shuttle service could be operated by the homeless shelter or service provider themselves, or by a contract executed between a shelter and transit agency, and thus be specifically tailored to the needs of people experiencing homelessness (Hancock, 2022).

Improvements to communication between transit vehicles could also help to improve the transit experience and reliability for those experiencing homelessness, but also for all transit riders. For example, if a rider needs to transfer from one vehicle to another in order to make a connection, communication between vehicles could be improved such that bus operators could inform each other of the connecting rider, and thus ensure that the connection is made (Hancock, 2022). Improving inter-vehicle communication could ensure that transit riders make their connections, thereby improving the reliability of transit, insofar as it would not delay other vehicles or scheduling considerably.

Transit reliability can also be improved by increasing transit frequency. This is done by reducing the headway between transit vehicles. Improving the frequency provides benefits twofold. First, it allows for more convenient schedules, not just for PEH, but for all transit riders. With frequent transit, riders are not bound to a strict timetable (Walker, 2012). Second, increasing transit frequency can reduce connection times between vehicles, even when connections are missed (Walker, 2012). In the case that a connection is missed, the time until the next vehicle can be reduced, from say 20 or 30 minutes, to 10 minutes, if frequency is improved. Indeed, improvements to frequency should coincide with improvements to the hours of transit operation by offering more service during off-peak periods, including late nights, early mornings, weekends, and holidays (Walker, 2012). These operational improvements can help PEH to resolve their homelessness as they can more easily use transit to reach their places of employment or important appointments.

Reduce Barriers to Ridership by Lowering Costs

Transit agency officials and advocates for PEH both emphasized the importance of reducing or eliminating the cost of transit (Kearney, 2022; Woodson, 2021). This could come in the form of fare assistance to those experiencing homelessness, including the distribution of loaded fare cards by any government agency distributing common forms of aid (e.g., food stamps) or through the creation of free fare zones. Loaded fare cards could be purchased from the transit agency in bulk (ideally for a discounted rate) and then distributed to those people experiencing homelessness through their shelter or service provider (Wechter, 2022). The PRONTO Extend pilot program, used by both NCTD and

MTS, could be expanded to include any person working with a homelessness service agency. Fare reduction or elimination can also prevent fare violations and the fines associated with fare violations.

SANDAG officials described their goal to move both of the county's transit agencies toward free fare systems during the next 15 years (Lane, Bradt, and Wiley, 2022). They noted that a shift to free fares will require new revenue sources as demand is likely to increase, so public buy-in to support revenue-generating tax measures will be crucial. We strongly support the implementation of tax measures to support a more reliable, and no cost, transit system. Moving toward improved public transit can promote the dignity of people struggling to pay, including riders experiencing homelessness.

Conclusion

Although they have not historically done so in San Diego, our research synthesis shows that public transit agencies and metropolitan planning organizations have an important role to play in supporting service delivery for PEH. They can do this by enabling the mobility of PEH in order to facilitate access to employment, services, and other opportunities, and affirming a Housing First response to our state and region's homelessness crisis.

References

- Antelope Valley Transit Authority. (2020 December 8). *Strategic Plan for Integrated Transportation for the Antelope Valley*.
https://www.avta.com/userfiles/files/Strategic_Plan_for_Integrated_Transportation_in_the_Antelope_Valley_120820.pdf
- Bassett, E. M., Tremoulet, A., & Moe, A. (2013). Relocation of homeless people from ODOT rights-of-way. <https://doi.org/10.15760/trec.67>
- Bauman, Z. (2013). *Postmodernity and Its Discontents*. Germany: Polity Press.
- Bloom, K. C., Bednarzyk, M. S., Devitt, D. L., Renault, R. A., Teaman, V., & Van Loock, D. M. (2004). Barriers to prenatal care for homeless pregnant women. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 33(4), 428-435. <https://doi.org/10.1177/0884217504266775>
- Brallier, S., Southworth, S., & Ryan, B. (2019). Rolling forward: addressing needs in the homeless community. *Journal of Social Distress and the Homeless*, 28(2), 186-192.
<https://doi.org/10.1080/10530789.2019.1646477>
- Burrell Garcia, J., & Jones, D. Los Angeles County Metropolitan Transportation Authority, Office of the CEO. (2022 August 9). Interview with the authors.
- California Public Resource Code, § 21064.3 (1972)
- California Public Resource Code, § 21099 (2013)
- California Transit Association. (2019 March). *Seeking Refuge Public Transit Agencies Increase Efforts to Address Homeless Crisis*. <https://caltransit.org/news-publications/publications/transit-california/transit-california-archives/2019-editions/march/seeking-refuge/>
- Central Contra Costa County Transit Authority. (2016 March 16). *2016-2025 Short Range Transit Plan*.
<https://countyconnection.com/wp-content/uploads/2010/06/2016-2025-Short-Range-Transit-Plan-3-16-16.pdf>
- City of Alameda. (2022). *Alameda City 2022 Point In Time Count Unsheltered & Sheltered Report*.
<https://www.alamedaca.gov/files/assets/public/departments/alameda/econ-dev-amp-comm-services/community-services/homelessness-initiatives/2022-alameda-city-pit-results-infographic.pdf>
- Colburn, G., & Aldern, C. P. (2022). *Homelessness Is a Housing Problem: How Structural Factors Explain US Patterns*. Univ of California Press.

- Contra Costa Health Services. (2022). *Contra Costa 2022 Homeless Point-in-Time Count & Survey*. <https://cchealth.org/h3/coc/pdf/PIT-infographic-2022.pdf>
- Crane, M., & Joly, L. (2014). Older homeless people: increasing numbers and changing needs. *Reviews in Clinical Gerontology*, 24(4), 255-268. <https://doi.org/10.1017/S095925981400015X>
- Cresswell, T. (2010). Towards a politics of mobility. *Environment and planning D: society and space*, 28(1), 17-31. <https://doi.org/10.1068/d11407>
- Cuellar Mejia, M., Herrera, J., & Johnson, H. (2020 June 7). *Early Evidence of Shifts in Local Homeless Populations during the Pandemic*. <https://www.ppic.org/blog/early-evidence-of-shifts-in-local-homeless-populations-during-the-pandemic/>
- Cuellar Mejia, M., Johnson, H., & Herrera, J. (2022 March 2). *A Snapshot of Homeless Californians in Shelters*. <https://www.ppic.org/blog/a-snapshot-of-homeless-californians-in-shelters/>
- Danemann, D. (2022 June 28). Damian's Report: New Program Offers Free Transit for San Diegans Leaving Foster Care. *San Diego Union-Tribune*. <https://www.sandiegouniontribune.com/news/transportation/story/2022-06-28/damian-free-transit-foster-care>.
- Darling, W. E. Carpenter, C. Turley Voulgaris. (2021). Comparison of Reduced-Fare Programs for Low-income Transit Riders. *Transportation Research Record: Journal of the Transportation Research Board*, Vol 2675 (7): 335 - 349. <https://doi.org/10.1177/03611981211017900>
- Diepeveen, J. L., & Skidmore, O. (1994). *Planning for Transit-Friendly Land Use: A Handbook for New Jersey Communities: June 1994: Prepared for the Federal Transit Administration* (No. NJ-08-7001). United States. Department of Transportation. Federal Transit Administration.
- Ding, H., Loukaitou-Sideris, A., & Wasserman, J. L. (2022). Homelessness on public transit: A review of problems and responses. *Transport Reviews*, 42(2), 134-156. <https://doi.org/10.1080/01441647.2021.1923583>
- Emerson Smith. J. (2020 January 11). MTS Cracks down on Trolley Riders without Tickets. Officials Raise Concerns about Criminalizing Poverty. *San Diego Union-Tribune*. <https://www.sandiegouniontribune.com/news/transportation/story/2020-01-10/mts-tickets-for-fare-evasion-spike-criminalizing-poverty>.
- Federal Transit Law, 49 U.S.C § 5307(d)(1)(D) (2022) <https://www.transit.dot.gov/regulations-and-guidance/legislation/chapter-53-amended-ijj>
- Foothill Transit. (2022 June 24). *Agenda Packet Governing Board Meeting*. <http://foothilltransit.org/wp-content/uploads/2022/06/06-24-2022-Agenda-Packet-Governing-Board-Meeting.pdf>

- Gowan, T. (2010). *Hobos, hustlers, and backsliders: Homeless in San Francisco*. U of Minnesota Press.
- Grainger, G. L. (2021). Punishment, support, or discipline? Taking stock of recent debates about homeless governance in neoliberal cities. *Sociology Compass*, 15(8), e12909. <https://doi.org/10.1111/soc4.12909>
- Guo, J. (2017). Barriers for Homeless People in San Jose when Accessing Valley Transportation Authority (VTA)'s Transit Service.
- Hancock, D.. (2022 August 1). Interview with the authors.
- Herring, C. (2019). Complaint-oriented policing: Regulating homelessness in public space. *American Sociological Review*, 84(5), 769-800. <https://doi.org/10.1177%2F0003122419872671>
- Herring, C. (2014). The New Logics of Homeless Seclusion: Homeless Encampments in America's West Coast Cities. *City and Community*, 13(4), 285-309. <https://doi.org/10.1111/cico.12086>
- Hui, V., & Habib, K. N. (2014). *An investigation of transport-related social exclusion of the at-risk community (homeless people) in Toronto, Canada* (No. 14-1575).
- Hui, V., & Habib, K. N. (2016). Transportation related social exclusions and homelessness: What does the role of transportation play in improving the circumstances of homeless individuals. *Transportation Research Record: Journal of the Transportation Research Board*, 2664, 1-19.
- Hui, V., & Habib, K. N. (2017). Homelessness vis-à-vis transportation-induced social exclusion: An econometric investigation of travel behavior of homeless individuals in Toronto, Canada. *Transportation research record*, 2665(1), 60-68. <https://doi.org/10.3141/2665-07>
- Jocoy, C. L., & Del Casino Jr, V. J. (2010). Homelessness, travel behavior, and the politics of transportation mobilities in Long Beach, California. *Environment and Planning A*, 42(8), 1943-1963. <https://doi.org/10.1068/a42341>
- Kaufman, D. (2022). Expulsion: A type of forced mobility experienced by homeless people in Canada. *Urban Geography*, 43(3), 321-343. <https://doi.org/10.1080/02723638.2020.1853919>
- Kearney, M. (2022, July 28). Interview with the authors.
- Kushel, M. (2016). How the homeless population is changing: It's older and sicker. *The Conversation*.
- Langegger, S., & Koester, S. (2016). Invisible homelessness: Anonymity, exposure, and the right to the city. *Urban Geography*, 37(7), 1030-1048. <https://doi.org/10.1080/02723638.2016.1147755>
- Lahanas, C. & Sandoval, A. San Francisco Bay Area Rapid Transit District Police Department. (2022, July 21). Interview with the authors.

- Lane, B., Bradt, Z., and Wiley, A. (2022, August 26). Interview with the authors.
- Los Angeles County Metropolitan Transportation Authority. (2018). *Metro Vision 2028 Strategic Plan*. https://www.dropbox.com/sh/qgborjogck3dsm8/AAB7Fo2cq8JblbCEgUwYvleja/Metro_Vision2028_Plan_2018_English.pdf
- Los Angeles County Metropolitan Transportation Authority. (2022 January 1). *Metro Customer Code of Conduct*. https://www.dropbox.com/s/mvvcceb5yvbb14w/22-1285_bk_CusCodeConduct_eng_2022_web.pdf
- Los Angeles County Metropolitan Transportation Authority. (2022 June 18). *2020-0429 - A Community Safety Approach to System Security and Law Enforcement*. <https://boardagendas.metro.net/board-report/2020-0429/>
- Los Angeles County Metropolitan Transportation Authority. (n.d.). *Low-Income Fare is Easy (LIFE)*. <https://www.metro.net/riding/life/>
- Los Angeles Homeless Services Authority. (2022 September 8). *2022 Greater Los Angeles Homeless Count - Los Angeles County*. <https://www.lahsa.org/documents?id=6515-lacounty-hc22-data-summary>
- Loukaitou-Sideris, A., Wasserman, J. L., Caro, R., & Ding, H. (2020). Homelessness in Transit Environments Volume I: Findings from a Survey of Public Transit Operators. <https://doi.org/10.17610/T6V317>
- Loukaitou-Sideris, A., Wasserman, J. L., Caro, R., & Ding, H. (2021a). Transit Agency Responses to Homelessness.
- Loukaitou-Sideris, A., Wasserman, J. L., Caro, R., & Ding, H. (2021b). Homelessness in Transit Environments Volume II: Transit Agency Strategies and Responses. <https://doi.org/10.17610/T6JK5S>
- Metropolitan Transportation Commission. (n.d.). *Save on San Francisco Bay Area transit*. <https://www.clipperstartcard.com/s/>
- Murphy, E. R. (2019). Transportation and homelessness: A systematic review. *Journal of Social Distress and the Homeless*, 28(2), 96-105. <https://doi.org/10.1080/10530789.2019.1582202>
- National Alliance to End Homelessness. (2021 June 1). *Is Being Homeless a Crime?*. <https://endhomelessness.org/blog/is-being-homeless-a-crime/>
- North County Transit District. (2016 June). *Comprehensive Strategic Operating and Capital Plan FY2017 - FY2026*. <https://lfportal.nctd.org/WebLink/0/edoc/78523/Comprehensive%20Strategic%20Operating%20and%20Capital%20Plan%20FY2017%20-%20FY2026.pdf>

North County Transit District. (2019 February 21). *Ordinance No. 3 - Establishing the NCTD's Code of Regulations*. <https://lportal.nctd.org/WebLink/0/edoc/118525/Ordinance%20No.%203%20-%20Establishing%20the%20NCTDs%20Code%20of%20Regulations.pdf>

North County Transit District. (n.d.). *Safety & Security*. <https://gonctd.com/about-nctd/safety-security/>

San Diego Association of Governments. (2016 July). *Coordinated Plan, 2016-2022*. https://www.sandag.org/uploads/publicationid/publicationid_2056_20920.pdf

San Diego Association of Governments. (2019 February 8). *Comprehensive Fare Ordinance*. https://www.sandag.org/uploads/projectid/projectid_288_25338.pdf

San Diego Association of Governments. (2021 April 16). *Comprehensive Fare Ordinance*. https://www.sandag.org/uploads/publicationid/publicationid_4776_29158.pdf

San Diego Association of Governments. (n.d.). *SDForward Open Data*. <https://sdforwarddata-sandag.hub.arcgis.com/>

San Diego Metropolitan Transit System. (2016). *Community Impact and Performance Report*. <https://www.sdmts.com/sites/default/files/attachments/commreport-web1.pdf>

San Diego Metropolitan Transit System. (2022). *Meeting of the San Diego Metropolitan Transit System Security & Passenger Safety Community Advisory Group (CAG) April 12, 2022*. <https://www.sdmts.com/sites/default/files/2022-04-12-final-meeting-minutes-electronic.pdf>

San Diego Metropolitan Transit System. (n.d.). *Diversion Program Resolve your MTS Fare Citation*. <https://www.sdmts.com/rider-info/mts-security/diversion-program>

San Diego Regional Task Force on Homelessness. (2020). *2020 WellCount Report*. <https://www.rtfhsd.org/wp-content/uploads/2020-WeAllCount-Report-10.pdf>

San Diego Regional Task Force on Homelessness. (2022 May 19). *County of San Diego 2022 Point-in-Time Data*. https://www.rtfhsd.org/wp-content/uploads/2022-San-Diego-Region-FINAL_05192022-1.pdf

San Francisco Bay Area Rapid Transit District. (2021 March 22). *2020 BART Customer Satisfaction Study*. https://www.bart.gov/sites/default/files/docs/CS2020_Report_Issued032221.pdf

San Francisco Bay Area Rapid Transit District. (2021 September). *Annual Prohibition Order Report to the California State Legislature*. <https://www.bart.gov/sites/default/files/docs/San%20Francisco%20Bay%20Area%20Rapid%20Transit%20Annual%20AB%20730%20Report%20for%202020.pdf>

San Francisco Municipal Transportation Agency. (n.d.). *Access Pass*. <https://www.sfmta.com/fares/access-pass>

- San Mateo County Transit District. (2022 July). *SamTrans Youth Unlimited Pilot Evaluation Report*. <https://www.samtrans.com/media/20023>
- SanGIS. (n.d.). *SanGIS/SANDAG GIS Data Warehouse*. <https://rdw.sandag.org>
- Scott, H., Bryant, T., & Aquanno, S. (2020). The role of transportation in sustaining and reintegrating formerly homeless clients. *Journal of Poverty*, 24(7), 591-609. <https://doi.org/10.1080/10875549.2020.1740375>
- Sermons, M. W., & Henry, M. (2010). Demographics of homelessness series: The rising elderly population. *Washington (DC): National Alliance to End Homelessness*, 1(8).
- Šimon, M., Vašát, P., Daňková, H., Gibas, P., & Poláková, M. (2020). Mobilities and commons unseen: spatial mobility in homeless people explored through the analysis of GPS tracking data. *GeoJournal*, 85(5), 1411-1427. <https://doi.org/10.1007/s10708-019-10030-4>
- Smith, E., Moore, P., & Canham, S. (2021). Examining the needs of persons experiencing homelessness: Bringing the voice of lived experience to policy priorities. *International Journal on Homelessness*, 1(1), 14-31. <https://doi.org/10.5206/ijoh.2021.1.13651>
- State of California Business, Consumer Services and Housing Agency. (2022). *Acting to Prevent, Reduce and End Homelessness*. <https://www.bcsb.ca.gov/calich/hdis.html>
- Tilahun, N., Li, M. (2015). Walking Access to Transit Stations: Evaluating Barriers with Stated Preference. *Transportation Research Record: Journal of the Transportation Research Board*, Vol 2534(1): 16-23. <https://doi.org/10.3141/2534-03>
- United States Interagency Council on Homelessness. (2018 August). *Homelessness in America: Focus on Chronic Homelessness Among People With Disabilities*. https://www.usich.gov/resources/uploads/asset_library/Homelessness-in-America-Focus-on-chronic.pdf
- United States Interagency Council on Homelessness. (n.d.). *California Homelessness Statistics*. <https://www.usich.gov/homelessness-statistics/ca/>
- Walker, J. (2012). *Human transit: How clearer thinking about public transit can enrich our communities and our lives*. Island Press.
- Wechter, M. (2022 July 12). Interview with the authors.
- Wolch, J. R., & Rowe, S. (1992). On the streets: Mobility paths of the urban homeless. *City & Society*, 6(2), 115-140. <https://doi.org/10.1525/city.1992.6.2.115>
- Woodson, M. (2021, December 13). Conversation with authors.