



The Long Road Home: Housing and Service Needs of People Who Inhabit Oversized Vehicles in Oakland's Public Parking

Benioff Homelessness and Housing Initiative



University of California
San Francisco

Authors:

Graham J. Pruss PhD

Kelly R. Knight PhD

Ned Resnikoff MPP

Margot Kushel MD

Contents

Executive Summary	3
1. Introduction	4
2. Background	5
A. Vehicle Residency in the nine San Francisco Bay Area Counties	5
B. Safe RV Parking and Rental Parking Programs.....	6
C. COROVA Report Background.....	7
3. Study Methods	8
4. Study Findings.....	9
A. How people came to live in oversized vehicles in Oakland	9
B. Housing Preferences	10
C. Health and Social Service Engagement	11
D. Perspectives on Safe RV Parking and proposed Rental Parking Programs	12
5. Recommendations.....	14
6. Discussion.....	15
7. About the Benioff Homelessness & Housing Initiative	16
8. Acknowledgements	16
9. Appendix	17
A: Study Sample Characteristics	17
10. References	18

Executive Summary

We conducted in-depth interviews with residents of oversized vehicles (n=48) from across five sites of public parking in Oakland, CA during July 2021 to understand their housing and service needs. The interviews assessed resident's views on the current **Safe RV Parking Program** and a proposed **Rental Parking Program model**, based on Oakland land-use code changes adopted in 2021. **Safe RV Parking Programs** provide long-term parking spaces with security and access to water, electricity, mobile showers, toilets, laundry, and health and social services. A proposed **Rental Parking Program model** would provide long-term privately operated parking spaces with security, water, electricity, hygiene facilities and would adhere to California State Mobile home park laws, grant tenants' rights to their occupants, and would not require that renters participate in social services or case management.

Overview of findings

Housing Preferences:

- Participants preferred staying in oversized vehicles to other unsheltered settings or congregate shelters.
- Participants were reluctant to accept non-permanent housing options (e.g., rapid rehousing or transitional housing) because they feared they would return to homelessness after the subsidies or temporary housing came to an end. They were not willing to give up their vehicles for a non-permanent exit from homelessness.
- The majority would have preferred to live in permanent housing but noted that they could not afford to do so. A minority reported preferring living in their vehicles to housing.

Health and Social Service Engagement:

- Participants had limited engagement with social services or healthcare.
- Participants were unaware of eligibility requirements for the currently operating Safe RV Parking Program.
- Participants concerns about the security of their vehicle when they were not in them (e.g., tickets, towing, loss of property) made them reluctant to seek social services or healthcare.

Benefits of currently operating Safe RV Parking and a proposed Rental Parking Program:

- Participants expressed positive opinions of **Safe RV Parking**, noting the following potential benefits: security, hygiene infrastructure, a location other than public space.
- Participants expressed positive opinions of a proposed **Rental Parking Program model** noting the positive benefits: security, hygiene infrastructure, a location other than public space, *and* lease/tenancy rights and community building.
- Study participants said they were willing to pay approximately one-third of their income for rent in the proposed Rental Parking Program model.

Key Study Recommendations:

- Consider expanding Safe RV Parking as a form of non-congregate shelter.
- Safe RV Parking residents should be offered housing-directed services, although they may lack of enthusiasm for programs that offer only short-term interventions.
- Study the feasibility of implementing a Rental Parking Program model and identify potential sites. Feasibility studies should explore cost, funding, regulatory structures, and private property management.

1. Introduction

A growing number of people experience homelessness in their vehicles across the Western United States.¹ People experiencing homelessness may choose vehicles over other options (e.g. encampments, emergency shelter, or staying intermittently with friends or family) because they see their vehicle as more secure and safe.ⁱ People who live in their vehicles because they have no housing meet the Federal definition of homelessness, as set out by the Homelessness Emergency Assistance and Rapid Transition to Housing (HEARTH) Act and are considered to be “unsheltered.”² In the United States, approximately 39% of people experiencing homelessness are unsheltered; in California, 70% of people experiencing homelessness are unsheltered.³

Without accessible, legal, private space for parking, vehicle residents park in public parking spaces, where they risk harm from ticketing, impoundment, vandalism, and theft.⁴ Up to half of vehicles lived in by people experiencing homelessness are “oversized,” such as recreational vehicles (RVs), detached trailers, school busses, or commercial trucks.ⁱⁱ Municipal codes restrict oversized vehicles to parking overnight in industrial zones. These zones tend to lack trash receptacles, toilets, fresh water, and be far from social services.

Few studies have examined the social determinants, conditions, or outcomes of experiencing homelessness in vehicles.⁵ However, there is limited research focused on those who occupy an oversized vehicle in public spaces.⁶ In Spring 2021, City of Oakland staff reached out to researchers at the University of California San Francisco Benioff Homelessness and Housing Initiative (BHHI) to learn more from residents of oversized vehicles about their housing preferences, service utilization, and preferences regarding existing and proposed parking programs. Researchers at the UCSF Benioff Homelessness and Housing Initiative (BHHI) conducted the CCOVID-19-Oriented Resident of Oversized Vehicle Assessment (**COROVA**) to investigate this population’s personal preferences, needs, barriers, and capacity to access medical care and social or housing services during the COVID-19 pandemic. We aimed to inform the development of interventions to incorporate residents of oversized vehicles into housing, social services, and medical services.

ⁱ Although many vehicle residents do not self-identify as homeless, people who live in vehicles are considered to be homeless by the current Federal definition of homelessness. People who experience homelessness are classified as either sheltered or unsheltered. People living in their cars are classified as “unsheltered” according to the US Code: “an individual or family with a primary nighttime residence that is a public or private place not designed for or ordinarily used as a regular sleeping accommodation for human beings, including a car, park, abandoned building, bus or train station, airport, or camping ground” (USC Title 42, §11302)

ⁱⁱ California Vehicle Code 630 & 670 defines vehicles that exceed 25 feet in length, 80 inches in width, or 82 inches in height as “oversized”

2. Background

A. Vehicle Residency in the nine San Francisco Bay Area Counties

Vehicles are the most common sleeping location of people who experience unsheltered homelessness in six of the nine California Bay Area counties (Table 1). According to the 2019 Point-In-Time (PIT) counts,ⁱⁱⁱ vehicle residents represented 26% of the total homeless population (in the eight Bay Area counties that recorded vehicular homelessness) and 36% of unsheltered people.⁷ San Mateo County had the largest proportion of vehicle residency, representing 45% of the total homeless population and 75% of the unsheltered population.

County	Three Most Common Forms of Shelter in local PIT Reports	Total Vehicle Residents	Total Homeless Community	VR % of Homeless Community	Total Unsheltered Community	VR % of Unsheltered Community
Alameda	1. Vehicle ("Car/Van": 23%, "RV": 22%): 45% 2. "Tent": 27% 3. "Street/outdoors": 15%	2817	8022	35%	6312	45%
Contra Costa ^{1 2}	1. Vehicle ("RV": 17%, "Car": 15%, "Van": 5%): 37% 2. "Tent/make-shift shelter": 34% 3. "Street/sidewalk": 18%	581	2277	26%	1570	37%
Marin ¹	1. "Vehicle" : 25% 2. "Tent": 15% 3. "Boat" & "On the Street": 12%	258	1034	25%	708	36%
Napa ³	N/A	N/A	[323]	N/A	[151]	N/A
San Francisco ¹	1. "Outdoors/Streets/Parks/Tents": 65% 2. "Vehicle" : 35% 3. "Abandoned Building": <1%	1813	8011	23%	5180	35%
San Mateo	1. Vehicle ("RVs": 55%, "Cars": 20%): 75% 2. "Streets": 17% 3. "Tents/Encampments": 7%	678	1512	45%	901	75%
Santa Clara ^{1 4}	1. "Outdoors/Streets/Parks/Encampments": 34% 2. "Vehicle" : 18% 3. "Structure not Meant for Habitation" & "Other": 13%	1747	9706	18%	7922	22%
Solano ¹	1. "Vehicle" : 37% 2. "On the Street": 28% 3. "Tent/Encampment": 15%	426	1151	37%	932	46%
Sonoma ¹	1. "Vehicles" : 29% 2. "On the Street": 24% 3. "Tents": 10%	856	2951	29%	1957	44%
Total		9176	34664	26%	25482	36%
Average Vehicle Residency in PIT Reports Across 8 Counties				30%		43%
Median Vehicle Residency in PIT Reports Across 8 Counties				27%		41%

1 = Total Vehicle Residents calculated from reported percentage

2 = 2020 data (2019 unavailable)

3 = PIT data from Napa County is not included in average and total calculations because disaggregated information was not published

4 = Disaggregation in Santa Clara report is based on PIT *Survey* not PIT *Count*

Table 1: Vehicle Residents (VR) in Point-In-Time (PIT) reports in the nine SF Bay Area Counties (2019).

Alameda County reported the largest number of vehicle residents in the Bay Area. The largest city in Alameda County is Oakland, which is home to over half of the county's total homeless population. The official Point-In-Time Count in Oakland showed that vehicle residents represented 45% of the unsheltered population (N=3210).⁸ Roughly half of these 1,430 vehicle residents slept in oversized automobiles.

ⁱⁱⁱ Due to concerns over risks of COVID-19 transmission, many continuums of care – including Oakland – did not conduct their biennial 2021 PIT count. Data from the recently conducted 2022 PIT count will not be available until late Spring.

B. Safe RV Parking and Rental Parking Programs

A growing number of communities across the US operate “**safe parking programs**” to provide vehicle residents temporary off-street places where they can access a safe place to park, water, toilets, case management and housing navigation.⁹ Oakland launched **Safe RV Parking sites** for oversized vehicles in 2019, shortly after Alameda County began an overnight-only Safe Car Parking for non-oversized vehicles. Oakland’s **Safe RV Parking** sites are managed and operated by local organizations, including the Housing Consortium of the East Bay (HCEB) and Building Opportunities for Self-Sufficiency (BOSS). These sites provide long-term parking spaces with 24-hour security and access to water, electricity, mobile showers, toilets, laundry, and health and social services.

The City of Oakland proposed land use and policy changes in 2021 that would allow for the private development of **Rental Parking Programs**. A proposed Rental Parking Program model would adhere to the California State Mobile Home and Special Occupancy Parks Acts,^{iv} and grant tenants’ rights to their occupants.¹⁰ Table 2 summarizes the similarities and differences between the existing Safe RV Parking Program and a proposed Rental Parking Program model. We asked COROVA study participants about their thoughts and preferences regarding these.

Safe RV Parking (currently operating)		Rental Parking Program (proposed model)	
Amenities	Rules	Amenities	Rules
water, electricity, & 24/7 security	social services and housing navigation is available but not required	water, electricity, & 24/7 security	social services and housing navigation is available but not required
mobile toilets, shower, & laundry services	no rent	adheres to CA State Mobilehome & Special Occupancy Park Acts [§18200-18774]	resident pays rent for lease
adult guests & pets allowed	limited to vehicles manufactured for habitation , such as an RV or detached trailer	adult & minor guests, & pets allowed	limits on vehicle type (e.g., RV, trailer, bus, camper truck or van) are at the discretion of site owner
	not intended for permanent stay; program has goal for participant to exit to permanent housing	rental assistance	lease terms at discretion of site owner; no goal for lessee to exit site to permanent housing
	only adults are eligible	tenant rights	adults with children are eligible

Table 2: Characteristics of Oakland’s currently operating Safe RV Parking and proposed Rental Parking Program model

^{iv} California State Law: HSC §18200-18774

C. COROVA Report Background

During the COVID-19 pandemic, there was an increase in the number of people living in oversized vehicles throughout Oakland. Oakland's 2019 Point-in-Time (PIT) count found that 703 people living in RVs, compared to 413 in 2018. It found 727 people living in standard-sized (non-oversized) vehicles, compared to 399 in 2018.¹¹ The 2021 count was cancelled; the results from the 2022 count will be available later this Spring.^v

In early 2021, the Office of Oakland Mayor Libby Schaaf contacted the University of California San Francisco Benioff Homelessness & Housing Initiative (BHHI) to learn more about Oakland residents who inhabit oversized vehicles in Oakland. Oakland operates several programs that provided off-street parking space for oversized vehicles (detailed in Table 2, above). Policymakers wanted to know about the housing and service needs of people who were *not using* these programs and their thoughts on a proposed land use change to support development of rentable parking spaces, similar to mobile home or RV parks (The proposed Rental Parking Program model).

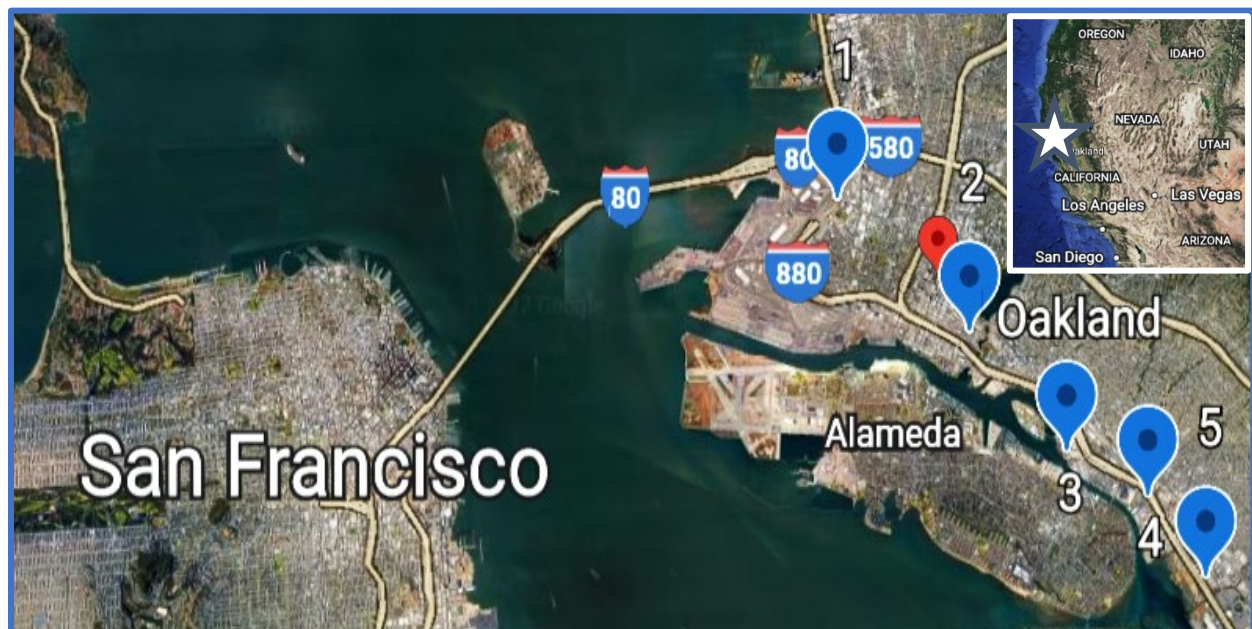
In response, BHHI researchers worked with City of Oakland staff and service providers to develop the COROVA study. We conducted interviews at a variety of study sites, including busy streets where the inhabitants of RVs and detached trailers described moving regularly and cul-de-sacs where people had inhabited immobile vehicles for years. At some sites, residents of oversized vehicles constructed outdoor food gardens and verandas for visitors; at others, residents built multi-story structures on top of immovable RVs and detached trailers. Researchers consulted frequently with city staff, social service providers, parking enforcement officers, and community health outreach workers. They provided guidance in the selection of study sites, development of interview questions, the amount of participant compensation, and strategies to recruit participants.

^v The 2022 PIT was conducted in February, 2022, but results are not yet available.

3. Study Methods

We designed this study to understand the preferences of and use of housing and social services among residents of oversized vehicles. We conducted semi-structured interviews that focused on participant background and experiences with, preferences for, and access to social and housing services. Unlike survey research, qualitative research does not estimate proportions or provide numerical estimates.

Our research teams conducted 48 semi-structured interviews in English and Spanish with adult residents of oversized vehicles throughout West Oakland (see Figure 1) during July 2021. Interviews lasted between 20 minutes and two hours. We recruited study participants at five sites using convenience and snowball (referral) sampling. We audio recorded and selectively transcribed interviews into an online survey form. We then coded and thematically analyzed the data. We included verbatim quotes from our study participants in this report to illustrate the overarching themes.



1. Wood St
2. Laney College Neighborhood
3. Union Point Neighborhood
4. Alameda Ave
5. Independent Rd

Figure 1: Study Sites in Oakland (CA)

4. Study Findings

A. How people came to live in oversized vehicles in Oakland

We asked participants the city where they lived when they were last housed, what events or conditions led to their becoming homeless, and their rationales for staying in oversized vehicles at their current locations.^{vi}

This [place where I park my vehicle] is usually where I resort to. It's only comfortable because it's what I know and I feel safest. First of all [a nearby business] has a bathroom. Second of all, I just feel more safe. It's not like I'm in the middle of nowhere where there's no one around. If something happens, someone can hear you scream. I grew up in Alameda, and other than that this is where I've been.

- Amy, 32-year-old woman, vehicle resident for 3 years

Theme A1: Three quarters of study participants became homeless in Alameda County, and one-half became homeless in Oakland.^{vii} Most participants reported losing their previous housing because of employment loss and/or medical/mental health crises. Many had been evicted due to their inability to pay rising rents or the actions of others (such as a housemate failing to pay/stealing rent from a sublessee). Participants explained that they stayed where they were staying (as opposed to on private property or in a protected setting), because they could not identify any private property or protected space to stay in.

It means a lot to me to be here in Oakland living in my camper. As little and old as it is, I'm still proud of what I have. It's mine, I paid for it. Some people are [living in a vehicle] because of their income, their health - there's all different types of situations that play into why people are here. Just because they're in a camper doesn't mean they're on drugs. And if they are, look to the reason why they are. Everyone has a story, and they can't just fit everybody's story like it's just one person. It's different, it's individuality. It's the truth.

- Alyssa, 40-year-old woman, vehicle resident for 4 years

Theme A2: Study participants lived where they did to preserve connections with local neighborhoods, employment opportunities, family, friends, social services and healthcare. Participants parked near their childhood homes, families, or neighborhoods. Some moved from nearby areas because of parking restrictions. Some parked near opportunities for formal and informal work, and some near medical or substance use treatment facilities to maintain access to care.

You could say [the people who live in this place] are like family. When I need something, I ask one of them and they either help or try to help me. When I go to work, they take care of my place. We take care of each other here, and it's a little difficult because when you return someone stole this or that from you, but you can't always be here too. It's hard to explain but I do feel a part of Oakland, a resident of Oakland.

- Cecilia, 40-year-old woman, vehicle resident for 8 years

^{vi} All participant names are pseudonyms

^{vii} The study employed a qualitative methodology focused on participants' experiences. We did not design it to estimate proportions. Thus, these proportions should be interpreted cautiously.

B. Housing Preferences

We asked participants about their preferences for housing, asking participants to evaluate how living in their vehicle compared to other forms of shelter (e.g., unsanctioned tent encampment, congregate shelters). Participants described their experiences with temporary housing subsidies and temporary rental support.

Theme B1: Participants preferred oversized vehicles to staying in congregate shelters or in other unsheltered settings. Participants perceived that their oversized vehicles offered more safety for their property and themselves compared to other forms of unsheltered homelessness. Participants reported that they would not trade their vehicle residence for a place in a congregate shelter because they wanted to stay with their pets, partners, and property. They feared leaving their vehicle unsecured due to concerns about theft, damage or fines. Even if offered a place to safely store their vehicle, they noted that they would not choose to stay in a congregate shelter.

My current residency is that RV, motor home, and that's my life. If I ain't got that, I'm totally screwed because I ain't got no place to go... at least this way here I have a little more stability for me. Not much, but a little bit. And I DON'T want to be in a tent.

- Enola, 49-year-old woman, vehicle resident for 4 years

Theme B2: Participants did not trust rapid rehousing (or other temporary subsidies or housing), for fear that they would return to homelessness. Participants described low levels of trust in temporary housing programs. Some participants had re-entered homelessness when short-term housing subsidies expired, while others had been waiting years for a permanent housing voucher. Participants were not willing to trade their vehicle for temporary housing subsidy or temporary housing due to their experiences and fears of returning to homelessness without their vehicle.

It doesn't seem plausible that I would be able to get housing out here. All these places that they're building, they always say a portion will be low-income. I went through Bay Area Community Services and if THEY couldn't help me?! Then I know I'm screwed. If I don't hit the lotto, if I don't find a leather bag or manila folder on the ground full of money - let's be honest, I don't see it happening.

- Jemal, 33-year-old man, vehicle resident for 4 years

Theme B3: The majority of participants preferred permanent affordable housing but could not afford rent and cost of living. A minority preferred to remain living in their vehicles. Most participants reported regular income from low paying work or benefits; however, they could not afford the cost of housing and living in Oakland. Study participants reported a median annual income of \$9,000 (range \$0-\$32,800), well below an average annual cost of at least \$20,000 to rent a 1-bedroom apartment in Oakland during our study.¹²

I miss having place at night where I can feel safe, lock my door, and take a shower, draw a bath, or go pee. I hella miss using a regular bathroom. But I'm not going to lie to myself and try to get something I can't afford. And the hardest part is saving up the money to move in. [Landlords] want you to show them you have three times rent in your bank account. It's hard to save up that kind of money when you have to buy all these things like propane, gas, this and that. There's no way you're going to save money [to rent an apartment].

- Amy, 32-year-old woman, vehicle resident for 3 years

Some participants preferred access to a short-term Safe Parking spot, hoping that they would be able to move into permanent housing quickly. Others preferred a longer-term parking space where they could await permanent housing vouchers. Some participants preferred to live someplace where they could stay permanently in their oversized vehicle, such as an RV park with tenant protections.

Of course, I would want affordable housing. I apply every time there's a Section 8. But, I don't think that's the problem, I don't think there's enough housing or apartments for the people out here. They have to build those first before they can make those possible. I think they should make more things accessible for people, especially with children - not just adults. We don't always want to live in a shelter and work for their help. I do good on my own. I go to work. My kid goes to school. But, it would be nice if we had more security. Even though we live in an RV, we still try to function like normal people.

- Joy, 32-year-old woman, vehicle resident for 3 years

C. Health and Social Service Engagement

We asked participants about their awareness of, access to, and utilization of health and social services.

Theme C1: Participants had limited engagement with social services or healthcare.

Most participants reported not being engaged with social services, healthcare or housing navigation services, and being unable to access trash receptacles and toilets. Although one large site we recruited participants from received regular visits from social service outreach and mobile care, participants in our other study sites reported rarely receiving visits from outreach workers.

If the social workers come out to talk to people living in RVs, and people aren't home, they never leave contact information or anything. They never follow up. I never heard back from them. I've been in the street three years and they never helped me with anything.

- Carlos, 38-year-old man, vehicle resident for 2 years

Theme C2: Participants expressed reluctance to seek social services or healthcare due to fears of consequences from leaving their vehicle (e.g., tickets, towing, loss of property). Participants reported barriers to accessing services. These include risk to their vehicle and possessions if left unattended, lack of transportation to services, lack of familiarity with available social service programs, and inability to access online resources due to advanced age, limited English-language proficiency, or limited literacy.

It's hard for me to leave for a long period of time because I'm scared that I'm going to come back and [the RV] is going to be gone. Or somebody's going to have ransacked it and everything. It's hard for me to leave for a long period of time, but sometimes I just gotta do it. I go and hope and pray for the best, and come back. And, whatever they decide to leave me is what they left me, be grateful and go on. It's really hard.

- Enola, 49-year-old woman, vehicle resident for 4 years

Participants described negative experiences with law enforcement, city officials, and news media. As a result, they tended to distrust outsiders. We observed police officers ticket and impound vehicles while we were conducting interviews. This event led some nearby vehicle residents to decline study participation, and others to discuss the trauma they experienced from their displacement and property loss.

[My trailer] was something, especially at my age, that I was able to proudly say was my own. Something I worked hard for, that I didn't have to buy illegally. Something I didn't have to steal. Something I was blessed with, was able to maintain, and make look good. It's had a little wear and tear since I've been gone. I went to jail, bailed out on a couple different warrants because I was scared I was going to lose my stuff. An officer had seen me sleeping in my vehicle one day after I got off work. He knew who I was, he knew what I was, he knew my truck had been parked there for a while. So, he harassed me and threw me in jail. I thought I was going to get 15 years, I ended up getting probation. So, I got back out here, to my pad, to my house. I see it the way it is (now), it's like there's been a hurricane in it. I've seen my stuff all the way down the street, in different areas of camp, and with people in different areas. It is what it is.

- Tim, 34-year-old man, vehicle resident for 9 months

D. Perspectives on Safe RV Parking and proposed Rental Parking Programs

We detailed the characteristics of the currently operating Safe RV Parking Program and the proposed Rental Parking Program model (see Table 2 on page 6), then asked participants to describe their perspectives on both programs, including perceived benefits and potential drawbacks.

D1. Views on Currently Operating Safe RV Parking Programs

Theme D1: Study participants identified benefits and barriers to currently operating Safe RV Parking Programs. Benefits included protection from tickets, impoundment, theft and vandalism, which participants noted in their current situations. Participants noted that Safe RV Parking Programs could be beneficial due to their offering security for their vehicle, as well as bathrooms, water, electricity, garbage receptacles, and access to social services.

Participants noted the following barriers to Safe RV Parking Program participation: lack of understanding about eligibility and availability, as well as restrictions on personal behaviors and family visitation.

[Study participant was parked adjacent to a currently operating Safe RV Parking Site] They don't really come tell us about it [the currently operating Safe RV Parking Site]. There's like a group that does activism type meetings and stuff, but I don't even know if they're officially working with the city, or anything like that. Because the information they have isn't all the correct either. I don't really know too much about it other than it's behind a gate. I don't think that they get any more benefit than [parking on the street]]. If anything, they might even lose some things. But, to each their own. I don't know what they're really doing.

- Jake, 39-year-old man, vehicle resident for 8 months

D2. Views on a proposed Rental Parking Program model

Theme D2: Study participants responded positively to the proposed Rental Parking Program model. In addition to the benefits from utilizing Safe RV Parking, they recognized additional benefits to Rental Parking, including lease/tenancy rights and community building. Study participants reported being willing to pay approximately one-third of their (\$9000 median annual) income for rent in a proposed Rental Parking Program model – or, \$250 per month.

My RV would be one less RV out here that's taking up the sidewalks. You know, people could use the parking space, because I'd be in a designated area, that's reserved [in the proposed Rental Parking program model]. It's another level of stability, because I won't be in fear of the cops coming and saying, 'Hey, you have to (move)' - because, you know, every now and then everybody has to move for three days so that they can do a deep clean. And I won't have to worry about that. I would be in a gated community, so my belongings would be more secure, because there's always a neighbor looking out. Nobody's gonna be dinking around in my stuff, because you make it your business to look out for your neighbor. It would bring more community. It makes things warmer. There's just certain times when you need the support of a community.

- Carl, 42-year-old man, vehicle resident for 5 years

5. Recommendations

While the currently operating Safe RV Parking programs have services (e.g., case management and housing assistance), many residents doubt that the housing options they are presented with offer enough stability to make it worthwhile for them to give up their oversized vehicles. While most participants preferred housing, they were cautious. They noted that if homeless, their oversized vehicle was preferable to other options (congregate shelters, being unsheltered without a vehicle). They would only relinquish their vehicle for a housing option that they believed would be permanent. They recognized that transitional housing or short-term subsidies (like in rapid rehousing programs) presented a high risk of returning to homelessness—and therefore, were unacceptable. Residents of oversized vehicles carefully considered the benefits and drawbacks of housing options relative to the risks of losing access to their vehicles.

The participants noted that both the existing Safe Parking Program and a proposed Rental Parking Program model had benefits compared to their current situation of living in vehicles outside of designated or private settings. Recognizing the increased interest in non-congregate shelter options, and based on our findings, our recommendations include:

1. **Expand currently operating Safe RV Parking Programs** for people who inhabit oversized vehicles. Consider these a form of non-congregate shelter that can serve as interim housing while individuals await permanent exits.
2. **Continue to seek long-term housing vouchers for residents in Safe RV Parking and a proposed Rental Parking model.** Understand and plan for the possibility that they may reject other offers (e.g., rapid rehousing) for fear that they will be left worse-off than they are currently.
3. **Identify sites and conduct feasibility studies about a proposed Rental Parking Program model,** exploring costs, funding, regulatory structures, and private property management. Assume that residents may be willing to pay up to one-third of their income in rent, while recognizing that their annual incomes and thus cost recovery, will be low.

6. Discussion

In this study of residents of oversized vehicles in Oakland, we found that vehicle residents were from Oakland or other parts of Alameda County. While disconnected from social services, they sought a stable place to live and participate in their community. These findings are consistent with prior research.¹³ They were extremely low-income. Study Participants generally preferred housing to living in their oversized vehicles, but preferred living in their vehicles to other forms of homelessness (i.e., congregate shelters or other forms of being unsheltered). They recognized the fragility of current homelessness exits, fearing that without permanent subsidies or permanently affordable housing, they would return to homelessness. They were unwilling to trade the relative safety of their vehicles for a short-term solution, fearing that they would be worse off when the short-term solution ended. While in their vehicles, participants wanted a stable space to park, where they could be safe from personal harm, property theft, vandalism, tickets, and impounds.

While study participants identified benefits to Safe RV Parking Programs (e.g., security, hygiene facilities, electricity, water, and access to mobile services), they reported barriers to participating (for example, not understanding eligibility requirements, lack of availability, and restrictions on personal behaviors and visitation). Study participants responded positively to a proposed Rental Parking Program model and were willing to pay one-third of their income to receive tenancy rights, security, bathrooms, and the opportunity to develop a community.

Our study results demonstrate a need to (1) expand the currently operating Safe RV Parking Programs for people who want to move from their vehicles into housing, (2) develop the Rental Parking Program for people who want to secure a lease and tenancy rights, and (3) increase opportunities for permanent housing exits through long-term vouchers or permanently affordable housing.

7. About the Benioff Homelessness & Housing Initiative

The UCSF Benioff Homelessness & Housing Initiative (BHHI) is a research and policy translation center at UCSF that focuses on preventing and ending homelessness through the development and translation of research into evidence-based action. The BHHI uses the principles of strategic science, to engage with end-users to develop actionable research questions.

8. Acknowledgements

This report was funded by the University of California San Francisco Benioff Homelessness & Housing Initiative at the Center for Vulnerable Populations. We are grateful to our colleagues and funders who made this research possible. Our special thanks to COROVA research staff: Haley Bayuga Graff, Celeste Enriquez, and Jake Sonnenberg and the residents of oversized vehicles in Oakland, who shared their stories and insights.

The authors wish to acknowledge the support of the City of Oakland, Office of Mayor Libby Schaaf, in addition to city staff and service providers including Peter Radu, Darin Ranelletti, LaTonda Simmons, Jasmine Pournavab, Talia Y. Rubin LCSW, and Oakland Police Lt. Sean Fleming; Lucy Kasdin LCSW, Ted Ames PhD with the Street Health Program at Alameda County Health Care for the Homeless; Ryan Wythe, Jose Garcia, and Sonni Belcher-Collins RN with LifeLong Medical Care Street Health team; and Noha Aboelata MD, Maggie McNair, Matthew Long and Lee Jackson with the Street Team Outreach Medical Program (STOMP) at the Roots Community Health Center.

The views expressed here are those of the authors and should not be attributed to the University of California or the City of Oakland.

9. Appendix

A: Study Sample Characteristics

	Study Participants (n=48)
Age, median (range)	41.5 (23-74)
Months currently homeless, median (range)	48 (1-300)
Total months inhabiting vehicles, median (range)	42 (1-312)
Months inhabiting current vehicle, median (range)	11 (.5-120)
Total number of vehicles inhabited, median (range)	3.5 (1-200)
Annual income, median (range)	8.9K (0-32.8k)
Male, No. (%)	27 (56%)
Black/African American, No. (%)	11 (23%)
US Veteran, No. (%)	3 (6%)
Disabling Condition, No. (%)	29 (60%)
Chronically Homeless (Federal Definition), No. (%)	27 (56%)
Never Slept in an Emergency Shelter, No. (%)	31 (65%)
Didn't Use Social Services that required them to leave vehicle in Past Year, No. (%)	42 (87%)
Has Access to Traditional Housing, No. (%)	6 (13%)
Alameda County resident before housing loss	38 (79%)

Table 3: Sociodemographic Background of COROVA Study Participants

10. References

- ¹ (Berton 2021) Berton, M. (2021). The Rise of Vehicular Homelessness and the Safe Parking Movement. *Kennedy School Review* (41-46). <https://ksr.hkspublications.org/wp-content/uploads/sites/18/2021/08/KSR-2021-full.pdf>
- ² (HUD 2021) US Department of Housing and Urban Development (2021). Homeless Emergency Assistance and Rapid Transition to Housing Act (2009). Retrieved from <https://www.hudexchange.info/homelessness-assistance/hearth-act/>
- ³ (HUD 2020) US Department of Housing and Urban Development: The 2020 Annual Homelessness Assessment Report to Congress. Retrieved from <https://www.huduser.gov/portal/sites/default/files/pdf/2020-AHAR-Part-1.pdf>
(California State Senate 2021) *Fact Sheet: Homelessness in California (2020)*. Retrieved from <https://shou.senate.ca.gov/sites/shou.senate.ca.gov/files/Homelessness%20in%20CA%202020%20Numbers.pdf>
- ⁴ (Pruss and Cheng 2020) Pruss, G. J. and Cheng, K. (2020). The “Punitive Push” on Mobile Homes. *Cityscape: Journal for the US Department of Housing and Urban Development*. 22(2). 87-94. Retrieved from: <https://www.huduser.gov/portal/periodicals/cityscape/vol22num2/article6.html>
(NHLHC 2019) National Homelessness Law Center. (2019). Housing Not Handcuffs 2019: Ending the Criminalization of Homelessness in U.S. Cities. *National Law Center on Homelessness & Poverty*. Retrieved from: <https://homelesslaw.org/wp-content/uploads/2019/12/HOUSING-NOT-HANDCUFFS-2019-FINAL.pdf>
- ⁵ (Hartwigsen and Null 1991) Hartwigsen, G. and Null, R. (1991). Full-Timers. *Journal of Housing for the Elderly*. 7(1):133-14.
(Counts and Counts 1996) Counts, D. R. and Counts, D. A. (1996). *Over the Next Hill: An Ethnography of RVing Seniors in North America*. Ontario, CA: Broadview Press.
(Mendoza 1997) Mendoza, C. L. (1997). Not a House but a Home: The Centennial Car Camp for the Homeless. *Yearbook of the Association of Pacific Coast Geographers*. 59. 30-50.
(Cervený and Baur 2020) Cervený, L. K. and Baur, J. R. (2020). Homelessness and Nonrecreational Camping on National Forests and Grasslands in the United States: Law Enforcement Perspectives and Regional Trends. *Journal of Forestry*. 118(2). 139–153.
- ⁶ (Southard 1997) Southard, P.A. Dee. (1997). Uneasy sanctuary: Homeless campers living on rural public lands. *Visual Studies*. 12(2):47-64
(Wakin 2005) Wakin, M. (2005). Not Sheltered, Not Homeless: RVs as Makeshifts. *American Behavioral Scientist*. 48(8). 1013-1032.
(Wakin 2014) Wakin, M. (2014). *Otherwise Homeless: Vehicle Living and the Culture of Homelessness*. Boulder, USA: FirstForum Press.
- ⁷ (Applied Survey Research 2019a) *Alameda County Homeless Census & Survey Comprehensive Report 2019*. Retrieved from <https://homelessness.acgov.org/homelessness-assets/docs/2019AlamedaCountyHomelessCountReport.pdf>
(Applied Survey Research 2019b) *Marin County Homeless Census & Survey Comprehensive Report 2019*. Retrieved from https://www.marinhhs.org/sites/default/files/files/servicepages/2019_07/2019hirdreport_marincounty_final.pdf
(Applied Survey Research 2019c) *San Francisco County Homeless Census & Survey Comprehensive Report 2019*. Retrieved from https://hsh.sfgov.org/wp-content/uploads/2020/01/2019HIRDReport_SanFrancisco_FinalDraft-1.pdf
(Applied Survey Research 2019d) *Santa Clara County Homeless Census & Survey Comprehensive Report 2019*. Retrieved from <https://osh.sccgov.org/sites/g/files/exjcpb671/files/2019%20SCC%20Homeless%20Census%20and%20Survey%20Report.pdf>
(Applied Survey Research 2019e) *Solano County Homeless Census & Survey Comprehensive Report 2019*. Retrieved from <http://nebula.wsimg.com/830dd7dcf077684b5f5a500f7aafdbed?AccessKeyId=B6ADA8353DCF8737BDC0&disposition=0&alloworigin=1>

-
- (Applied Survey Research 2019f) *Sonoma County Homeless Census & Survey Comprehensive Report 2019*. Retrieved from <https://www.srcity.org/DocumentCenter/View/24921/2019-Sonoma-County-Homeless-Census-and-Survey-Comprehensive-Report?bidId=>
- (Focus Strategies 2019) 2019 *San Mateo County One Day Homeless Count and Survey*. Retrieved from <https://www.smcgov.org/media/33506/download?inline=>
- (Contra Costa Health Services 2020) 2020 *Contra Costa County Annual Point in Time Count Report*. Retrieved from <https://cchealth.org/h3/coc/pdf/PIT-report-2020.pdf>
- (County of Napa 2019) *Homeless and Housing Services Division: 2019 Point In Time Count*. Retrieved from <https://services.countyofnapa.org/AgendaNet/DownloadDocument.aspx?type=BOS&doctype=ATTA&id=51074>
- ⁸ (Applied Survey Research 2019g) *City of Oakland Homeless Census & Survey Comprehensive Report 2019*. Retrieved from <https://cao-94612.s3.amazonaws.com/documents/2019-Oakland-Point-In-Time-Count.pdf>
- ⁹ (McElwain et al., 2021) McElwain, L., Schiele, D., Waheed, L., Weare, C., and Nadel, G. (2021). *Smart Practices for Safe Parking: A nationwide review of safe parking programs for people sheltering in vehicles*. University of Southern California Sol Price School of Public Policy and the Center for Homeless Inquiries. Retrieved from: <https://priceschool.usc.edu/wp-content/uploads/2021/06/Smart-Practices-for-Safe-Parking-USC-2021.pdf>
- ¹⁰ (California State Legislature 2022:18200-18874). *Health and Safety Code: Division 13. Housing. Part 2.1-2.3*. Retrieved from https://leginfo.ca.gov/faces/codes_displayexpandedbranch.xhtml?tocCode=HSC&division=13.&title=&part=&chapter=&article=&nodetreepath=21
- ¹¹ (Applied Survey Research 2019g:14) *City of Oakland Homeless Census & Survey Comprehensive Report 2019*. Retrieved from <https://cao-94612.s3.amazonaws.com/documents/2019-Oakland-Point-In-Time-Count.pdf>
- ¹² (Weilbaker 2021) Weilbaker, S. (2021, July 2). The Average Rent in Oakland. *ApartmentGuide.com*. Retrieved from <https://www.apartmentguide.com/blog/average-rent-in-oakland/>
- (Zumper 2022) Oakland, CA Rent Prices. *Zumper.com*. Retrieved from: <https://www.zumper.com/rent-research/oakland-ca>
- ¹³ (Counts and Counts 1996) Counts, D. R. and Counts, D. A. (1996). *Over the Next Hill: An Ethnography of RVing Seniors in North America*. Ontario, CA: Broadview Press.
- (Mendoza 1997) Mendoza, C. L. (1997). Not a House but a Home: The Centennial Car Camp for the Homeless. *Yearbook of the Association of Pacific Coast Geographers*. 59. 30-50.
- (Southard 1997) Southard, P.A. Dee. (1997). Uneasy sanctuary: Homeless campers living on rural public lands. *Visual Studies*. 12(2):47-64
- (Wakin 2005) Wakin, M. (2005). Not Sheltered, Not Homeless: RVs as Makeshifts. *American Behavioral Scientist*. 48(8). 1013-1032.
- (Wakin 2014) Wakin, M. (2014). *Otherwise Homeless: Vehicle Living and the Culture of Homelessness*. Boulder, USA: FirstForum Press.
- (Cervený and Baur 2020) Cervený, L. K. and Baur, J. R. (2020). Homelessness and Nonrecreational Camping on National Forests and Grasslands in the United States: Law Enforcement Perspectives and Regional Trends. *Journal of Forestry*. 118(2). 139–153.