

# Final Project

## Introduction

The ReFresh Spot, also known as the “Oasis in Skid Row,” is a community-focused project that addresses the urgent needs of the unhoused population in Los Angeles. Located at 544 Towne Avenue, the facility is operated by Homeless Health Care Los Angeles and has been serving the Skid Row community since its opening in December 2017. Skid Row, one of the most densely populated areas for unhoused individuals in the United States, is home to thousands of people facing homelessness, poverty, and a lack of access to basic resources. The ReFresh Spot was established to respond to these challenges, offering essential services such as showers, restrooms, laundry facilities, and drinking water in a safe and welcoming environment. Open 24/7, the facility is accessible to all, regardless of background, and provides additional amenities like WiFi, phone charging stations, hygiene kits, and overdose prevention supplies. The ReFresh Spot collaborates with over a dozen community organizations to connect individuals to health, housing, and legal services. Making it the reliable resource for Skid Row residents.

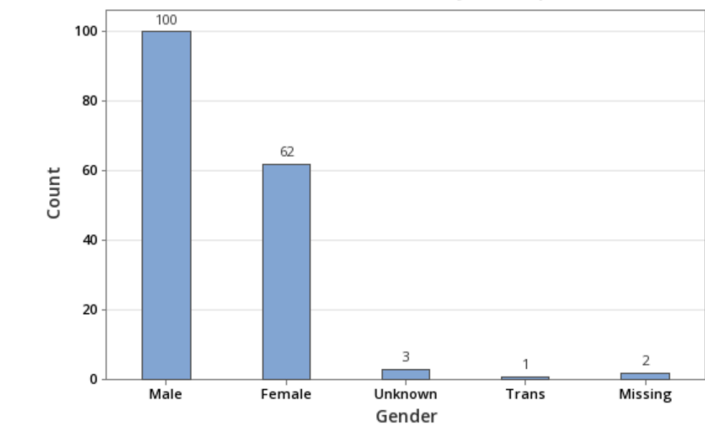
This project examines data collected from a survey of 168 ReFresh Spot users, conducted in March 2018 by LMU student volunteers and community activists. The survey aimed to evaluate the facility’s impact on users’ emotional well-being, comfort, and overall experience. The assumed population under study includes unhoused individuals and other residents of Skid Row who utilized the ReFresh Spot during this time. While the survey sample provides valuable insights, it may not fully represent the broader population of unhoused individuals due to potential selection bias and the inherent variability in the demographics of Skid Row residents.

The survey comprised a variety of questions designed to measure both objective and subjective aspects of users’ experiences. Key topics included demographic information like gender, age, race/ethnicity, frequency of facility use, and pre and post visit assessments of mood, comfort, and satisfaction. Questions about users’ sense of safety and access to additional services were also included.

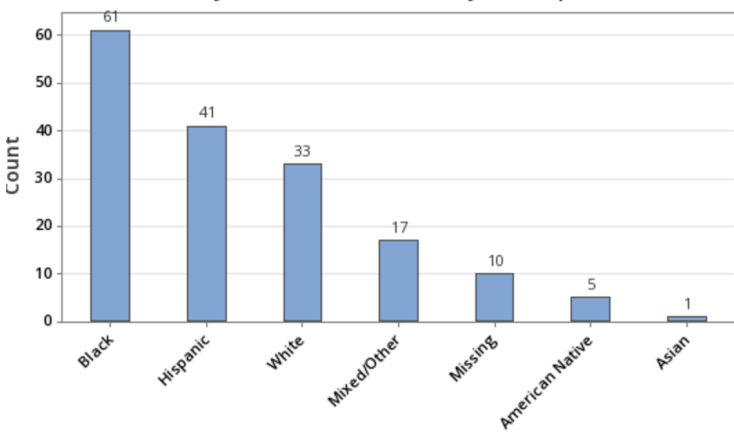
Responses were primarily recorded using scales like 1–5 ratings or binary checkboxes, and categorical options for demographic variables. The pre-visit and post-visit questions allowed our researchers to assess changes in mood and well-being resulting from the use of the facility. This report will analyze the survey data to evaluate the ReFresh Spot’s effectiveness as a resource for the unhoused community. Statistical methods will be applied to explore key variables and identify trends, to provide insights into the facility’s impact and hopefully guide improvements.

# Variable Summaries and Analyses

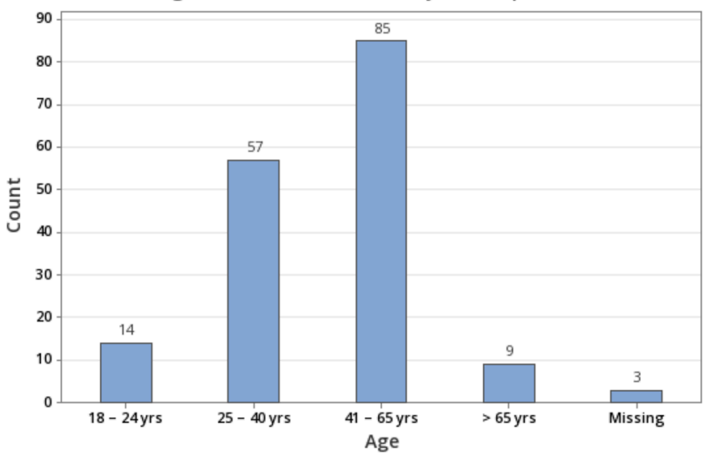
Gender Distribution of Survey Participants



Ethnicity Distribution of Survey Participants

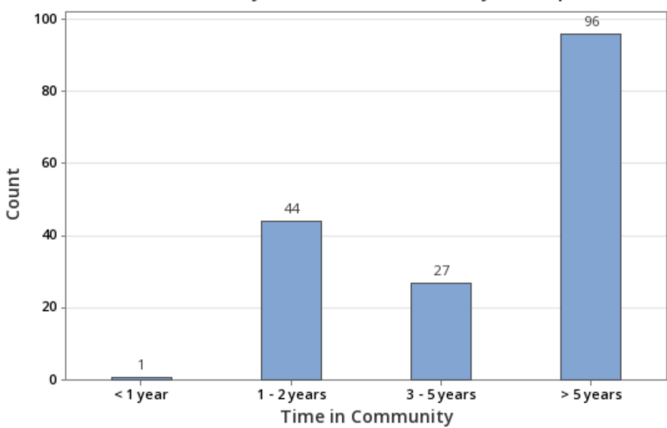


Age Distribution of Survey Participant

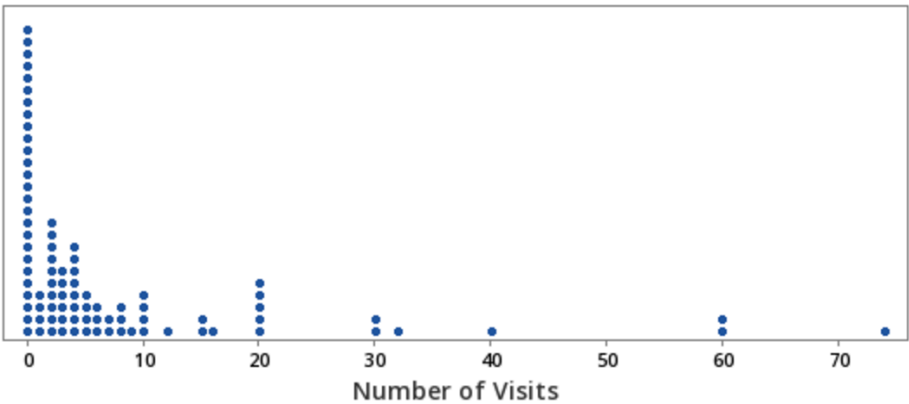


Ethnicity

Time in Community Distribution of Survey Participants



Visit Frequency Distribution of Survey Participants  
Each symbol represents 2 observations



The demographic analysis of the survey participants reveals a couple of notable trends. Gender distribution shows a majority of male respondents, 60%, compared to female respondents, 37%, with very few identifying as nonbinary, transgender, or having unknown/missing gender data. Ethnic representation highlights diversity within the community, with Black participants comprising the largest group (36%), followed by Hispanic (24%) and White participants (20%), while smaller groups include Mixed/Other, American Native, and Asian ethnicities. Age distribution indicates that most respondents are middle-aged, with 41–65 years being the largest group (51%), followed by 25–40 years (34%); younger (18–24 years), and older (>65 years) groups are underrepresented. Time in the community shows that the majority of respondents have lived in the area for over five years (57%), while smaller groups report residing there for shorter durations. Visit frequency reveals a highly skewed distribution, with most participants visiting fewer than 10 times and only a few reporting very high visit counts, indicating asymmetry in the data. These findings provide a good view of the population served by the ReFresh Spot and reflect the diversity and varying experiences within the Skid Row community.

## Descriptive Statistics

Sample	N	Mean	StDev	SE Mean
Happy_Pre	165	3.800	1.303	0.101
Happy_Post	165	4.533	0.927	0.072

I used a paired t-test comparing happiness levels before and after using the ReFresh Spot which showed a significant increase in happiness. Participants had an average happiness score of 3.8 before their visit, which went up to 4.5 after their visit, resulting in an average increase of 0.7 points. The confidence interval for this difference ranges from 0.54 to 0.92, meaning we can be 95% confident that the true increase falls within this range. The statistical test gave us a t-value of -7.57 and a p-value of less than 0.001, which confirms that this change is highly unlikely to be due to random chance. These results indicate that the ReFresh Spot has a meaningful positive effect on participants' emotional well-being.

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Age	3	1.032	0.3439	0.53	0.661
Error	159	102.735	0.6461		
Total	162	103.767			

I conducted a one-way ANOVA to compare comfort levels after visiting the ReFresh Spot across different age groups. Which showed no significant differences in comfort levels between the groups. The average comfort scores ranged from 4.64 to 5.00 across the age groups, with substantial overlap in the confidence intervals, indicating no clear variation. The statistical test produced an F-value of 0.53 and a p-value of 0.661, which means that any differences observed were not statistically significant. These results suggest that participants' age does not matter when it comes to how comfortable they feel after using the ReFresh Spot.

### Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Recoded Age	4	5.273	1.318	0.87	0.485
GenderRecode	3	20.165	6.722	4.42	0.005
<input type="checkbox"/> Error	156	237.061	1.520		
Lack-of-Fit	4	7.639	1.910	1.27	0.286
Pure Error	152	229.422	1.509		
Total	163	261.098			

After conducting a two-way ANOVA on the effects of age group and gender on self-consciousness levels after visiting the ReFresh Spot. The analysis revealed no significant effect of age on self-consciousness, with a p-value of 0.485 and an F-value of 0.87. This indicates that self-consciousness levels were consistent across all age groups. However, gender was found to have a significant effect on self-consciousness levels, with a p-value of 0.005 and an F-value of 4.42. This suggests that gender plays a meaningful role in how self-conscious participants felt after their visit. The R-squared value was 9.21%, indicating that only a small portion of the variability in self-consciousness levels is explained by these factors.

The results suggest that while age does not significantly influence self-consciousness levels, gender differences should be further explored to understand their impact on participants' post-visit experiences.

## Chi-Square Test

	Chi-Square	DF
Pearson	4.889	9
Likelihood Ratio	5.823	9

I conducted a chi-square test to examine whether the frequency of first-time visits to the ReFresh Spot varied significantly by age group. The results showed a chi-square value of 4.889 with 9 degrees of freedom, indicating no statistically significant association between these variables. The likelihood ratio was 5.823, and there were only two cells with expected counts less than 1, confirming that the test assumptions were mostly met. These results suggest that the likelihood of a participant visiting the facility for the first time is not strongly related to their age group.

## Test

Null hypothesis  $H_0: \eta_1 - \eta_2 = 0$

Alternative hypothesis  $H_1: \eta_1 - \eta_2 \neq 0$

Method	W-Value	P-Value
Not adjusted for ties	42075.00	0.000
Adjusted for ties	42075.00	0.000

I performed a Mann-Whitney test comparing the Helpful\_Post scores between two age groups, individuals aged 18–24 years (Group 1) and individuals aged over 65 years (Group 2). The median score for Helpful\_Post in Group 1 was 5, while for Group 2 it was 0. The estimated difference between the medians is 5, with a 95% confidence interval also indicating a difference of 5. The p-value from the test is less than 0.001, confirming that the difference in median Helpful\_Post scores between the two age groups is statistically significant. This result suggests a meaningful distinction in how helpful respondents rated their post-experience based on age group.

## Discussion

The demographic summaries provide us with context for the ReFresh Spot's user base. The majority of respondents were male and identified as Black or Hispanic, indicating that the ReFresh Spot serves a population reflective of Los Angeles' un-housed community. The largest age group was between 41 and 65 years, which emphasizes the importance of middle-aged adults in utilizing such facilities. Most users reported being part of the community for more than five years, and visit frequency data suggested that many users rely on the ReFresh Spot repeatedly, showcasing its ongoing utility as a crucial resource.

The results of all the analyses help to provide a meaningful insight into the impact and utility of the ReFresh Spot on its users. The paired t-test comparing happiness levels before and after using the ReFresh Spot showed a significant increase in happiness, with participants reporting an average increase of 0.7 points on a 5-point scale. This statistically significant change, with a p-value less than 0.001, highlights ReFresh Spot's positive effect on emotional well-being. Similarly, the Mann-Whitney test showed us substantial differences in perceived helpfulness of the experience among age groups, with younger respondents aged 18 to 24 years reporting significantly higher helpfulness scores than older respondents above 65 years. This suggests that the ReFresh Spot resonates particularly well with younger users, but additional outreach or tailored services may be needed to better address the needs of older populations.

In conclusion, the data reveal that the ReFresh Spot provides significant benefits for its users, especially in emotional well-being, while suggesting opportunities for more tailored services to broaden its impact. With its current model, the ReFresh Spot is an essential resource for the un-housed in Los Angeles, and it could serve as a blueprint for similar initiatives in other urban areas seeking to address homelessness. Future efforts should focus on leveraging the insights from this analysis to refine and expand the program's reach, ensuring its sustained effectiveness for all members of the community.

## References

Homeless Health Care Los Angeles. (n.d.). Programs. Retrieved December 2, 2024, from <https://www.hhcla.org/programs>  
Los Angeles Public Library. (n.d.). Skid Row Community ReFresh Spot. Retrieved December 2, 2024, from <https://www.lapl.org/stable-living/resource-centers/skid-row-community-refresh-spot>