Policy Brief Homeless Shelter Capacity and Seasonal Demand Across U.S. Cities

By Gianna Wu

Executive Summary

This policy brief analyzes shelter data from ten major U.S. cities collected in 2024, focusing on seasonal changes in shelter use, differences across cities, demographic characteristics of shelter residents, and the distribution of available beds. The results show a clear and consistent seasonal pattern: shelter occupancy rises noticeably during the winter months and decreases in the spring and summer. At the city level, the variation is also significant. Mid-sized and large cities show distinct patterns of shelter utilization. Cities such as Phoenix, Dallas, and Chicago maintain the highest average occupancy rates, indicating more concentrated demand pressure, while cities like New York exhibit comparatively lower rates, reflecting the buffering effect of a larger shelter network.

In terms of demographics, the data indicate that shelter residents are predominantly male, and the average age in many cities clusters around the mid-40s, suggesting a relatively consistent user profile across locations. In addition, the availability of beds varies widely from city to city. Some cities show much greater fluctuation in how resources are distributed, while others maintain a more stable pattern.

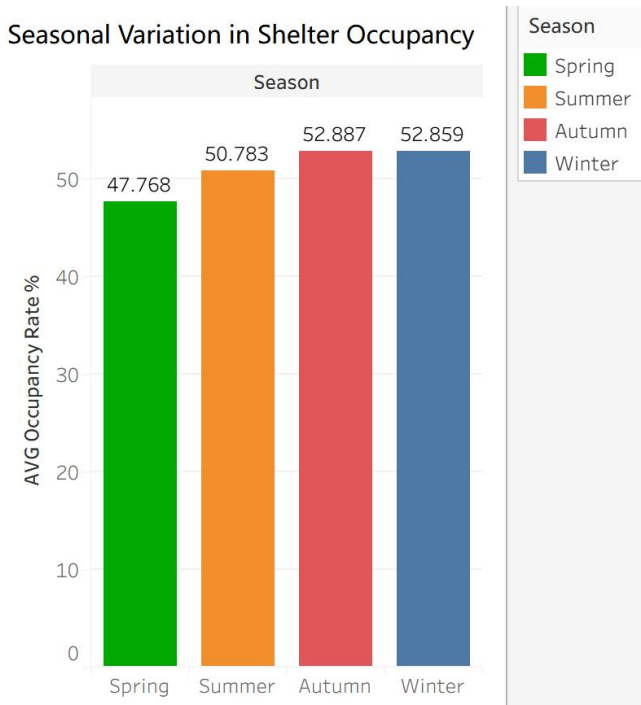
These findings offer a clearer foundation for understanding the sources of pressure within the shelter system and the characteristics of the populations it serves. They also provide an important basis for evaluating the efficiency of resource allocation and anticipating future trends in shelter demand.

Background

In recent years, the number of people experiencing homelessness in the United States has continued to rise, placing increasing pressure on the capacity and services of urban shelter systems. According to the U.S. Department of Housing and Urban Development's 2024 Annual Homeless Assessment Report, the national homeless population grew by approximately 18 percent in the past year, marking the largest increase since the report was first published. This trend suggests that seasonal fluctuations in demand, the distribution of available beds, and the demographic characteristics of shelter users have all become critical factors affecting the stability of local shelter systems. Therefore, systematically comparing occupancy patterns, seasonal variations, and demographic differences across cities is essential for understanding current service pressures and planning for future resource needs.

Seasonal Analysis

From the overall trends observed in 2024, shelter usage shows a clear and recurring seasonal pattern. The average occupancy rates in autumn and winter are approximately 53 percent, which is noticeably higher than the spring average of 48 percent and also higher than the level seen in summer. This gap indicates that as temperatures drop, people become more dependent on indoor shelter, while the warmer months bring more stability and a temporary easing of pressure on the system, particularly during the spring.



This pattern is especially pronounced in states located in the northern United States. Cities in Wisconsin and the broader Upper Midwest often experience harsher and longer-lasting cold conditions during the winter months, meaning that even brief drops in temperature can have an immediate impact on the safety and survival of people experiencing homelessness. The added pressure brought by severe weather has been documented in multiple studies. For example, Jadidzadeh and Kneebone (2015) found that the use of emergency shelters tends to rise significantly when temperatures fall or when adverse weather conditions occur, a trend that aligns closely with the higher occupancy rates observed in colder states during winter.

Figure 1

Seasonal variation in average shelter occupancy rates, with autumn and winter showing the highest levels in 2024.

Overall, seasonal patterns shape not only the annual rhythm of shelter use but also the degree of pressure faced by colder states and northern cities during winter. As the national homeless population continues to grow, the surge in winter demand has become an important indicator of a shelter system's resilience. To maintain stability during these high-demand periods, local governments need to prepare additional beds, staffing, and operational resources ahead of the winter season, ensuring that the most vulnerable individuals can access safe and reliable shelter during severe weather conditions.

Occupancy Rate in City-Level Analysis

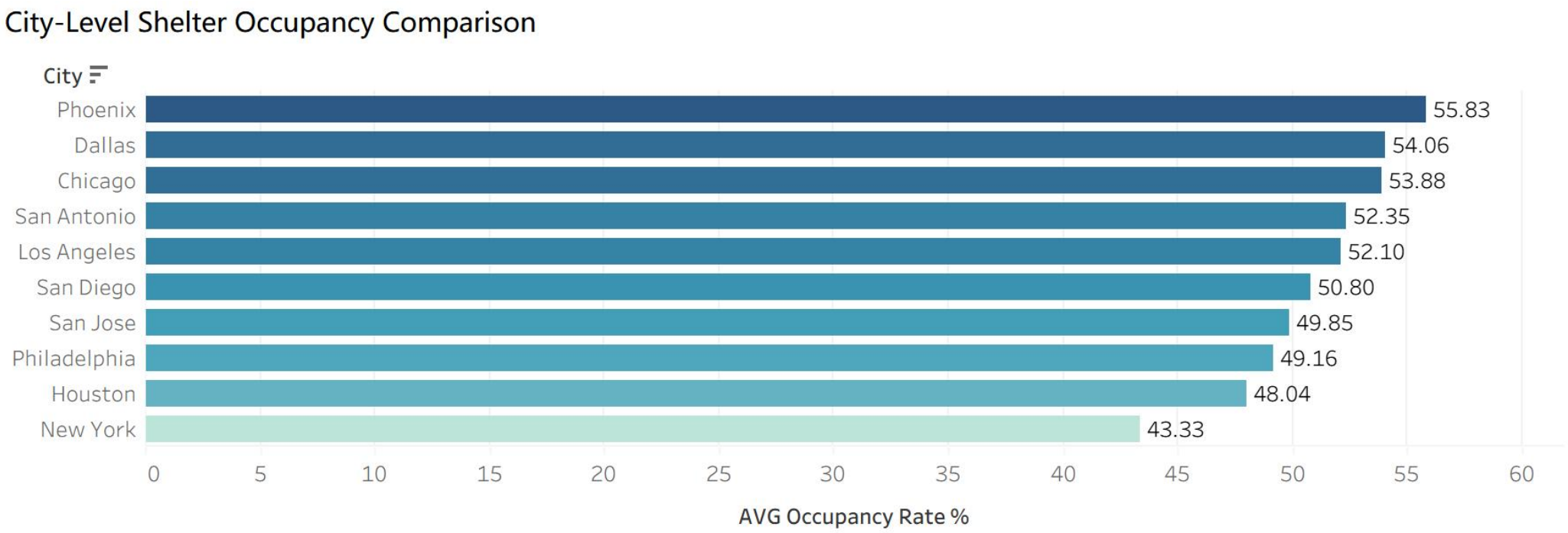


Figure 2

Average shelter occupancy rates across major U.S. cities in 2024.

City-level differences in shelter occupancy reveal clear variations in local demand pressure. Phoenix, Dallas, and Chicago exhibit the highest average occupancy rates, exceeding 53 percent. This pattern suggests that these cities face more concentrated and persistent demand for emergency shelter services. Cities such as San Antonio, Los Angeles, and San Diego also remain above or near the 50 percent level, indicating moderate but steady pressure across the system.

In contrast, San Jose, Philadelphia, and Houston show slightly lower occupancy rates, falling just below 50 percent. These levels imply that while demand remains present, these cities may experience more consistent turnover or less concentrated usage compared to the highest-pressure regions.

Notably, New York records the lowest average occupancy rate at roughly 43 percent. Despite having one of the largest homeless populations in the country, its extensive shelter network distributes demand across a much broader system, resulting in a comparatively lower percentage of beds filled at any given time. This contrast highlights how shelter capacity, policy frameworks, and local population dynamics jointly shape the occupancy patterns observed across cities.

Demographics Analysis (Gender & Age)

Shelter demographics across cities show a notably consistent pattern. Men make up the majority of shelter residents, typically over 55 percent, indicating that single middle-aged men remain the primary users of emergency shelter services. The age distribution is similarly concentrated, with most cities reporting average ages between 39 and 44, suggesting that shelters primarily serve adults rather than children or older individuals.

These stable gender and age trends highlight the importance of tailoring services to the needs of this core population while ensuring that smaller groups, including women and other vulnerable demographics, continue to receive adequate and accessible support.

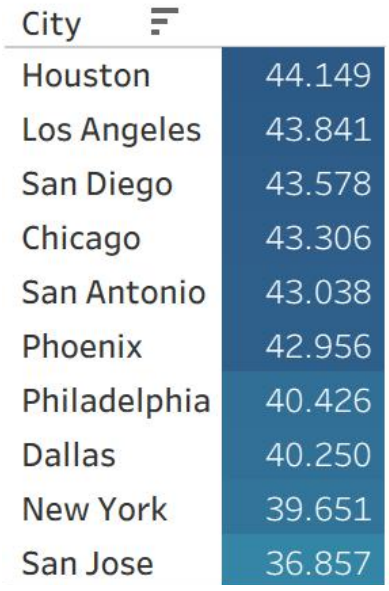


Figure 3
Average age of shelter residents across major U.S. cities in 2024.

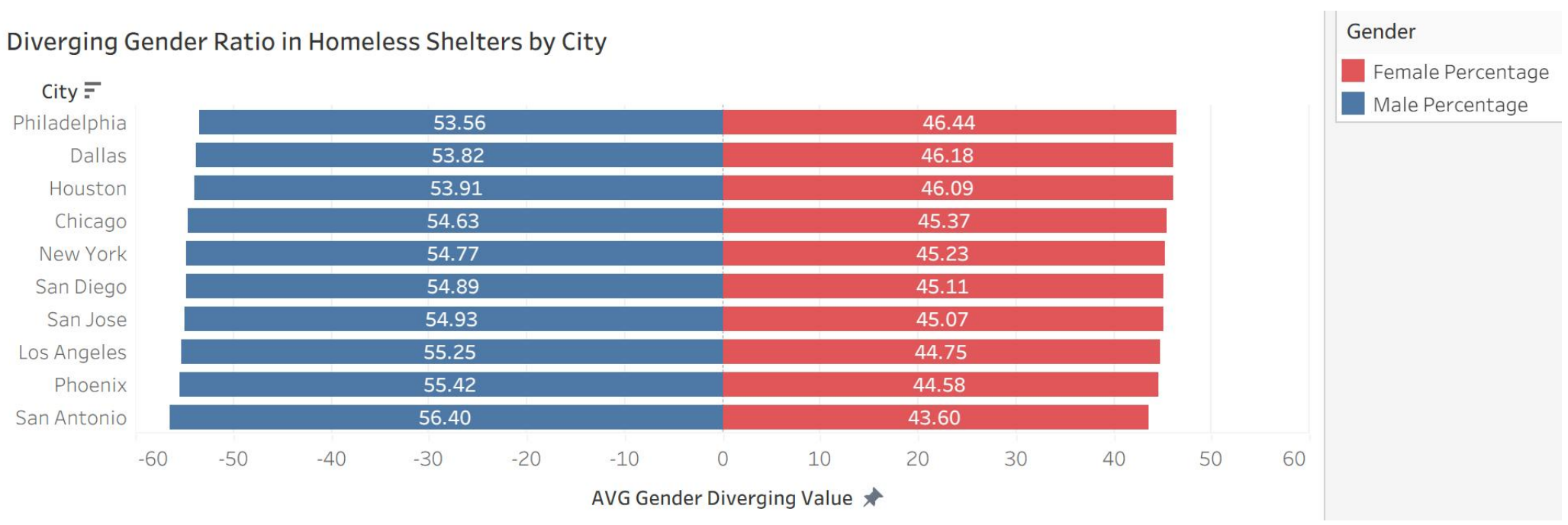


Figure 4
Gender distribution in shelters across cities, showing consistently higher male representation.

Availability Analysis

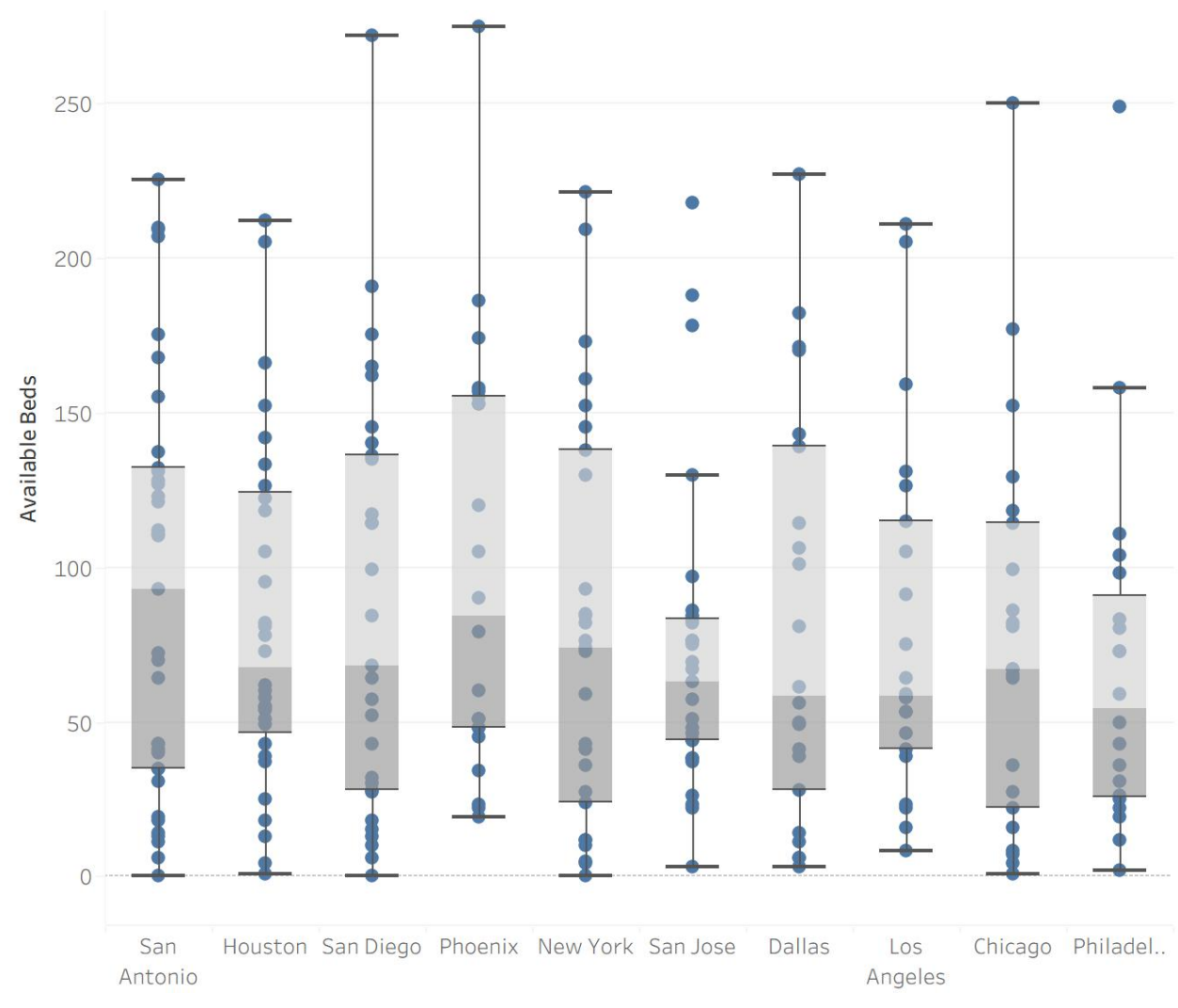


Figure 5
Distribution of available shelter beds across major U.S. cities, showing substantial within-city variation in 2024.

Shelter bed availability varies widely both across cities and within individual local systems. The overall distribution shows that

cities such as Phoenix, San Antonio, and San Diego experience broader fluctuations in available capacity, while Philadelphia and Houston display more stable patterns. These differences suggest that cities operate under distinct rhythms of turnover and demand pressure.

However, the most striking disparities occur within cities rather than between them. In Dallas, for example, records from August and September 2024 reveal a significant gap between shelters operating only weeks apart. On August 18, Pathway Place reported 221 available beds, while on September 7, Safe Haven listed only 4 beds. Such a sharp contrast, within the same city and within a short period of time, shows that even when total capacity appears adequate, internal mismatches can prevent residents from accessing shelter when they need it most.

These imbalances have practical consequences. Smaller shelters may reach capacity quickly while larger facilities still have many open beds, meaning individuals are turned away simply because they first approach a site with limited space. Florida Innovation Research Center (2025) notes that, without a real-time capacity tracking system, bed availability information often moves slowly across agencies, leading to unused space and localized bottlenecks.

Given these challenges, improving availability requires more than increasing the total number of beds. Cities also need to reduce internal inefficiencies by developing real-time bed tracking systems, strengthening cross-site referral processes, and planning shelter locations in ways that distribute pressure more evenly. These steps can help ensure that available beds flow more effectively toward areas of highest demand and reduce the chances of overcrowding and underutilization occurring simultaneously within the same city.

Policy Recommendations

Improving the coordination of available beds has emerged as one of the most urgent needs in the shelter system. The simultaneous presence of shelters with “no available beds” and others with large numbers of empty beds suggests that, although total capacity may appear adequate, resources are not effectively coordinated across facilities. Without timely communication, available beds cannot be redirected to the locations where demand is highest. To reduce these internal imbalances, local governments and shelter operators should establish more efficient information-sharing mechanisms that allow real-time updates and cross-agency bed referrals. Such systems would enable faster responses during periods of rising demand and help ensure that existing resources are used more effectively.

Seasonal pressures create additional challenges, especially in colder regions. Higher winter occupancy rates indicate that demand becomes more concentrated during periods of low temperature. Cities therefore need to plan ahead by increasing temporary capacity before winter arrives, such as adding seasonal beds, extending service hours, or creating short-term warming centers in specific neighborhoods. Strengthening information flow between shelters can also help distribute seasonal pressure more evenly across the network, allowing the system to function more steadily during peak periods.

Finally, demographic patterns show that middle-aged men make up the majority of shelter users, but women and other vulnerable groups still have ongoing needs that are often overlooked. As cities work to improve coordination and resource allocation, policies should also ensure that services remain inclusive. This may involve expanding bed types suitable for different populations, improving safety and privacy features, and refining referral processes to reduce barriers in accessing shelter. By combining more efficient coordination with demographic-informed planning, cities can build a shelter system that responds more effectively to the needs of diverse communities.

Data Resource

Shamimhasan8. (n.d.). Homelessness & Shelter Data [Data set]. Kaggle.

https://www.kaggle.com/datasets/shamimhasan8/homelessness-and-shelter-data

Reference

U. S. Department of Housing and Urban Development. (2024). *The 2024 Annual Homeless Assessment Report (AHAR) to Congress: Part 1—Point-in-Time Estimates of Homelessness in the United States*.

https://www.huduser.gov/portal/sites/default/files/pdf/2024-AHAR-Part-1.pdf

Jadidzadeh, A., & Kneebone, R. (2015). Shelter from the Storm: Weather-Induced Patterns in the Use of Emergency Shelters. The School of Public Policy Publications, University of Calgary.

https://www.policyschool.ca/wp-content/uploads/2016/03/weather-and-homeless-kneebone-jadidzadeh.pdf

Florida Innovation Research Center. (2025). Enhancing Accessibility: Real-Time Capacity Tracking for Shelters and Resource Centers.

https://floridainnovation.org/2025/05/26/enhancing-accessibility-real-time-capacity-tracking-for-shelters-and-resource-centers/

Tableau Links

Seasonal analysis

https://us-west-2b.online.tableau.com/t/lis407/views/final-Gianna_17648169545660/1?:origin=card_share_link&:embed=n

City-Level occupancy analysis

https://us-west-2b.online.tableau.com/t/lis407/views/final-Gianna_17648169545660/2?:origin=card_share_link&:embed=n

https://us-west-2b.online.tableau.com/t/lis407/views/final-Gianna_17648169545660/3?:origin=card_share_link&:embed=n

Demographic analysis

Age:

https://us-west-2b.online.tableau.com/t/lis407/views/final-Gianna_17648169545660/6?:origin=card_share_link&:embed=n

Gender:

https://us-west-2b.online.tableau.com/t/lis407/views/final-Gianna_17648169545660/4?:origin=card_share_link&:embed=n

Availability analysis

https://us-west-2b.online.tableau.com/t/lis407/views/final-Gianna_17648169545660/7?:origin=card_share_link&:embed=n

Dashboard

https://us-west-2b.online.tableau.com/t/lis407/views/final-Gianna_17648169545660/1_1?:origin=card_share_link&:embed=n