Policy Brief:

Chicago Public Transit Experiences with a Focus on Black Rider Responses in Agency Surveys

This policy brief describes public transit rider experiences and satisfaction in Chicago, Illinois based on two survey datasets. It focuses on Black riders using the Chicago Transit Authority (CTA) service and how experiences compare to other racial groups. Of course, significant differences in experiences and perceptions exist within racial groups. Nonetheless, the following analysis finds generally distinct experiences for Black riders, especially relative to White riders.

Data analysis uses the Chicago Metropolitan Agency for Planning (CMAP) 2019 household travel survey (opt-in participation with distribution via media, social media, schools, community groups and transit stations) and CTA's 2022 customer satisfaction survey (distributed via email to registered farecards and at transit stations). Neither survey was designed for the purpose of this analysis and the identified trends should be interpreted cautiously given the distribution methods, unplanned analysis, and limited sample sizes at the disaggregated level. In addition, CMAP's survey pre-dates the COVID-2019 shutdowns and notable increases in remote work. However, these datasets are the most comprehensive data on race and public transit for the City of Chicago (U.S. Census Bureau data only reflect travel to work).

While responses varied within racial categories, Black CTA riders were much less likely to report riding public transit because of preference, while White riders were much more likely to ride out of a preference (including not having a car because of a preference to ride). Asian and Latine[1] respondents fell in between. The majority of Black respondents (62 percent) and Latine respondents (56.7 percent) either lacked car access or driving capacity.

[1] This policy brief uses the gender-neutral term Latine as an alternative for Hispanic/Latino/Latina/Latinx identify.

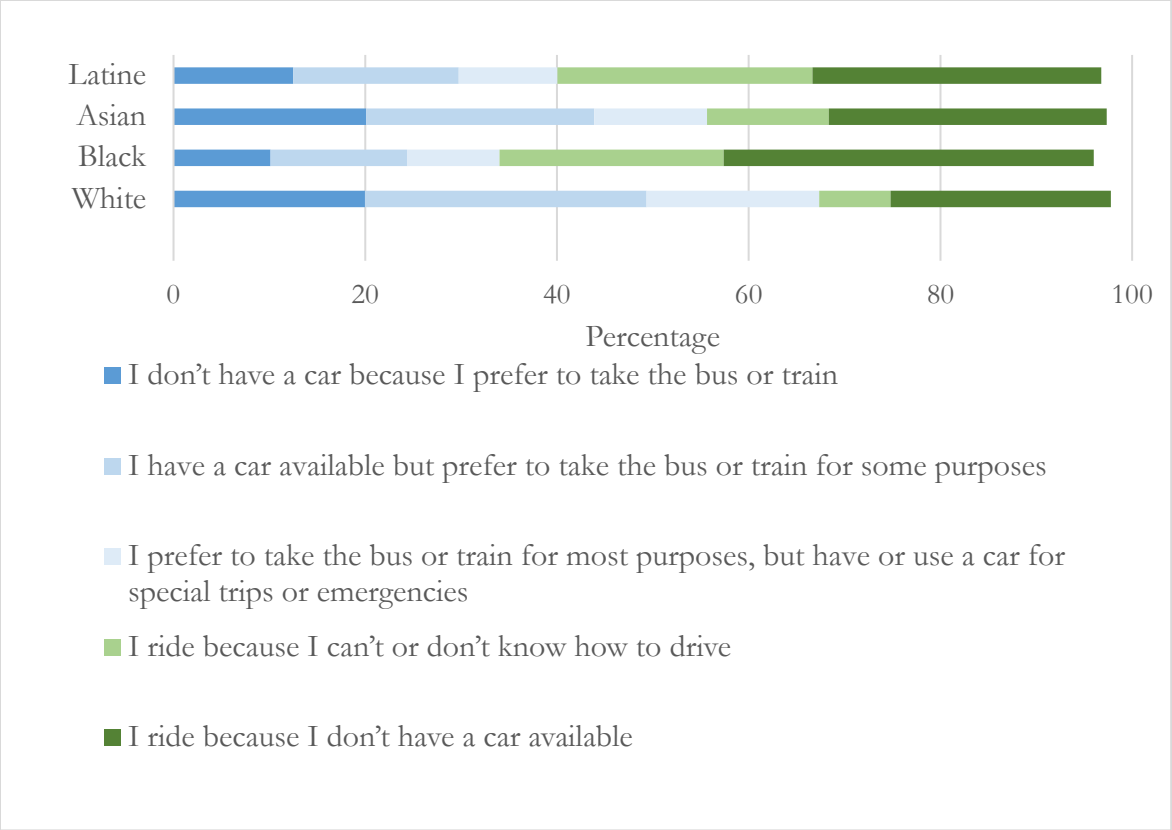

Figure 1: Reason for riding the CTA (CTA 2022 data)
Note: Responses do not total 100 percent because the "other" category is not depicted.

A notable majority of respondents across racial groups agreed that in deciding where to live and work, CTA access was important. White respondents were most likely to agree (91.6 percent), and Black respondents were the least likely to agree (82.5 percent). Once again, Asian and Latine respondents fell between White and Black respondents, as depicted in Figure 1. Residential and work locations are influenced by decades of racial segregation (Acs et al., 2017; Hernández, 2022; Johnston et al., 2018; Lipsitz, 2011; Moore, 2016; Pattillo, 2007), inequitable investment (Theodos et al., 2019) and other interlocking systems of structural racism. The responses by Black riders, thus, may influenced by the racial residential segregation that limits Black household residential patterns.

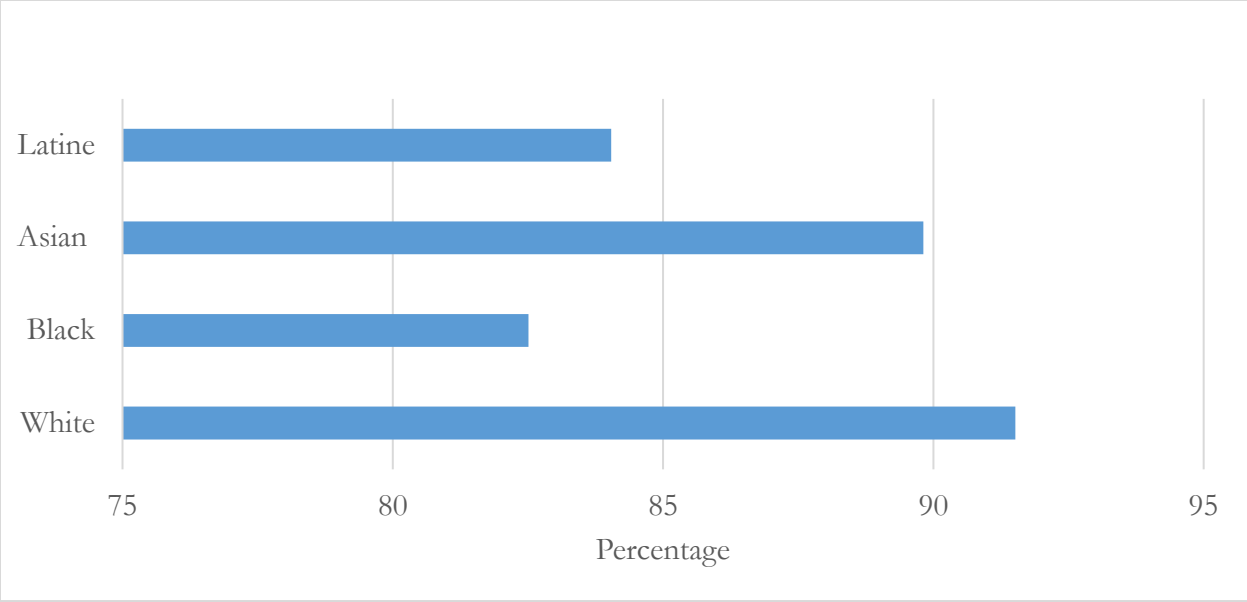

Figure 2: Respondents indicating agree or strongly agree that in determining where to live and work, it is important to be able to access the CTA (CTA 2022 data).

Perhaps due to constrained automobile access reported above, differential rates of remote work, the higher concentration of destinations in walking distance for White neighborhoods (Lowe et al., 2023) or other factors, the majority of Black and Latine respondents rode CTA 5 or more days per week, while only 38 percent of White respondents did, as seen in Table 1.

	Percent Overall	White	Black	Asian	Latine
Less than weekly	10.1	15.6	6.0	14.4	7.1
1 or 2 days	12.0	20.4	6.2	14.2	7.9
3 or 4 days	22.4	26.0	18.4	25.9	21.2
5 or more days	55.5	38.0	69.5	45.4	63.8

Table 1: Frequency of CTA use per week (CTA 2022 data)

While bus service accounts for the majority of CTA rides (Chicago Transit Authority, n.d.), a slight majority of White respondents (50.7 percent) reported a heavy rail or L route as their primary route. Black respondents were least likely to report rail as a primary route (see Figure 3). The CTA has distinct 'L' investments in Black neighborhoods including stations (Purifoye, 2020) that are farther apart; lack of express trains; minimal free transfer points between train lines; and no train service south of 95th Street to the southern city border at 130th.This racialized use of rail versus bus as a primary route aligns with national trends (Taylor & Morris, 2015) and has implications for the speed of travel. Total trip time, however, is influenced not just by the speed of vehicle travel, but also by transfers, access to stations/stops, and total trip distance. Trip distance has a strong relationship to

land use and inequities (e.g. "food deserts"), factors beyond direct agency control, as are roadway conditions that buses face.

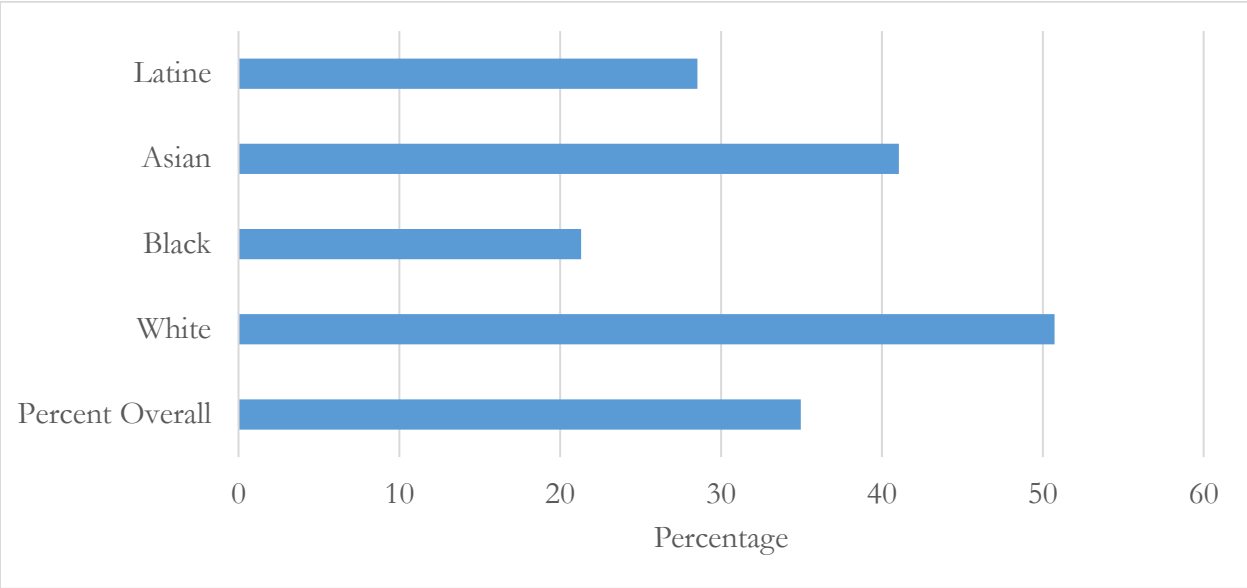

Figure 3: Percent respondents reporting an L line as their primary CTA route (CTA 2022 data)

CMAP analysis (Chicago Metropolitan Agency for Planning, n.d.) shows travel time and speed disparities when all travel modes (including private vehicle trips) are combined; analysis of public transit linked trips based on a sub-set of the data shows travel time disparities persist in public transit even when disaggregated by mode. Black riders reported the longest L and bus only trips; White riders had relatively quick trip time. Asian and Latine respondents had the longest mixed mode trips (mixed mode trips will always include at least one transfer, while single mode trips may or may not include a transfer).

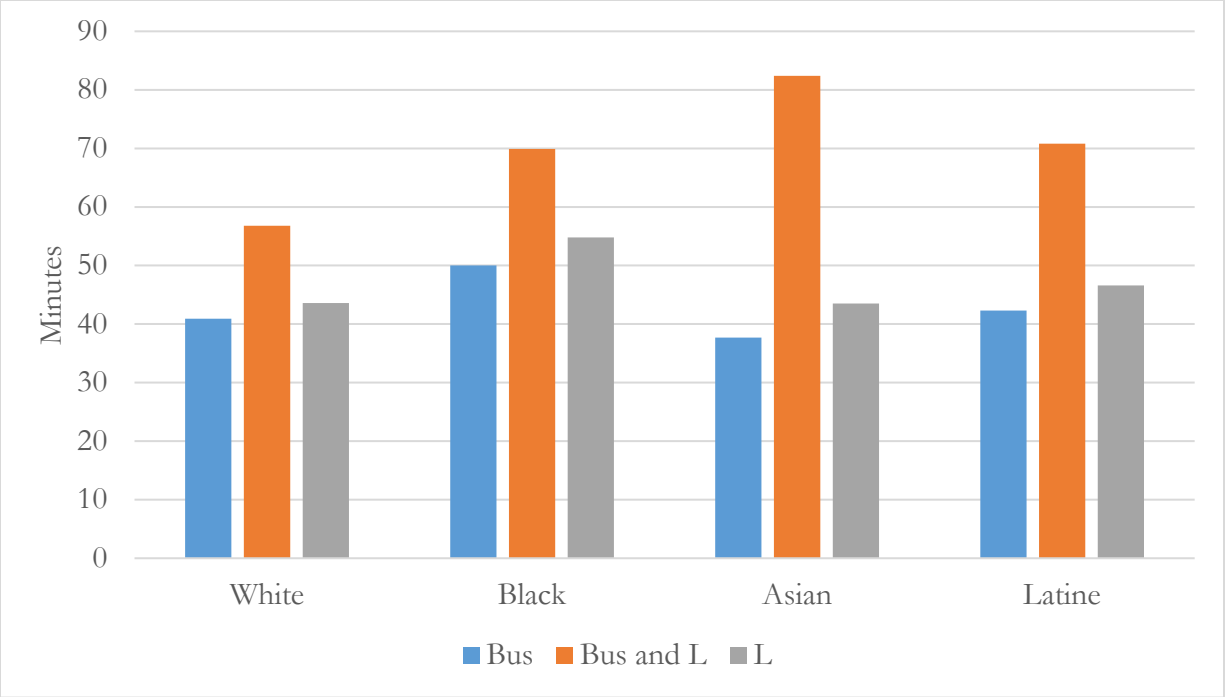

Figure 4: Time in minutes per linked trips (CMAP 2019 data)
Note: Some links between trip segments are inferred and Asian (n=23) and Latine (n=90) combination trips had small sample sizes.

Average trip time reflects distance, vehicle speed, wait time and transfers. Average reported distance differed by mode and by race, although distances were not as consistently disparate. For instance, bus trips by White riders were on average shorter than those by Black bus riders, but L trips by Black riders were on average the furthest. Combined mode trips across each racial group were furthest, but as noted above, inherently include at least one transfer.

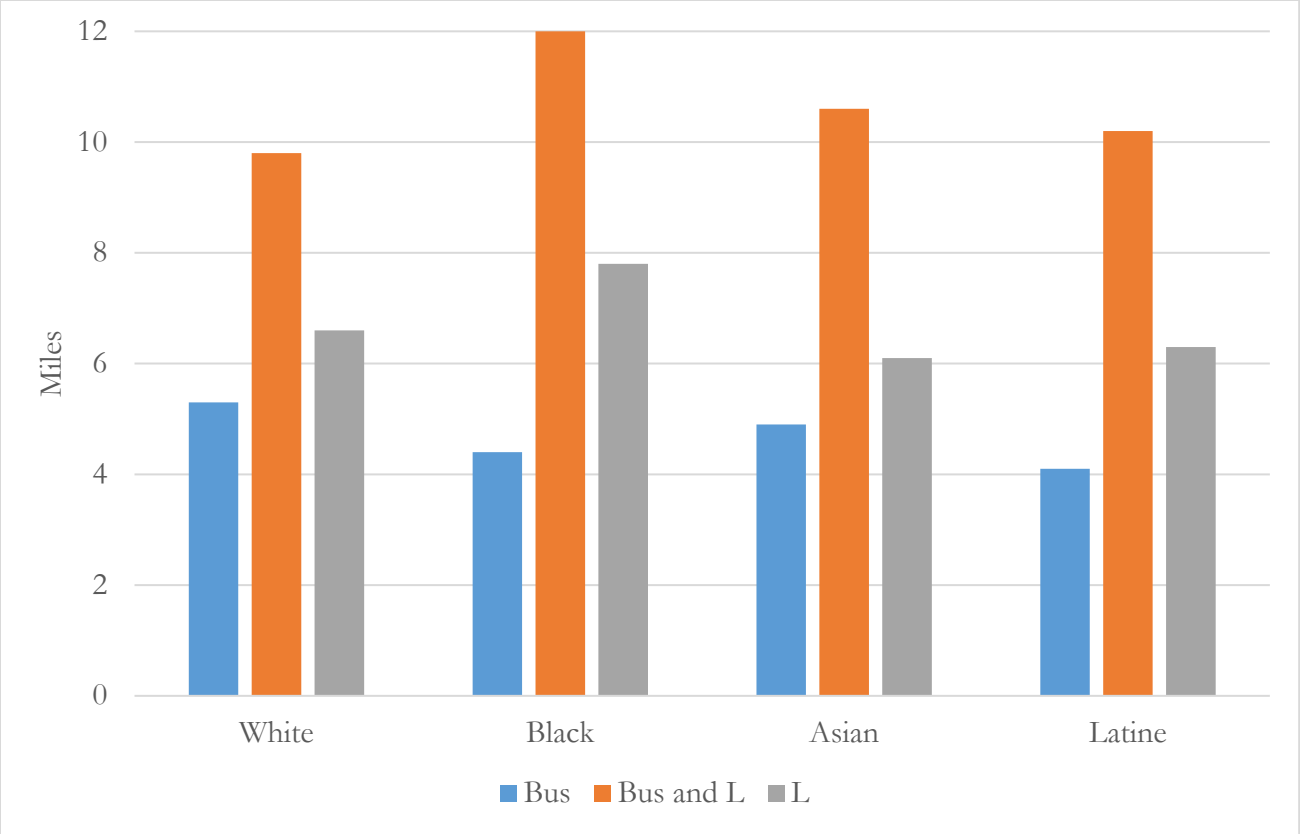

Figure 5: Average trip distance in miles by mode and race (CMAP 2019 data)

Distance contributes to overall trip time, as do transfers. White riders in CTA data reported the highest occurrence of zero-transfer trips, and Black riders the lowest occurrence of zero-transfer trips on the typical one-way trip. Responses show significant variability within racial groups of typical transfers, indicating that even while racial disparities persist in the aggregate, individuals have diverse riding experiences. Although accounting for a minority of trips, Black riders did have the highest occurrence of typical trips with 3 or more transfers, as shown in Figure 6.

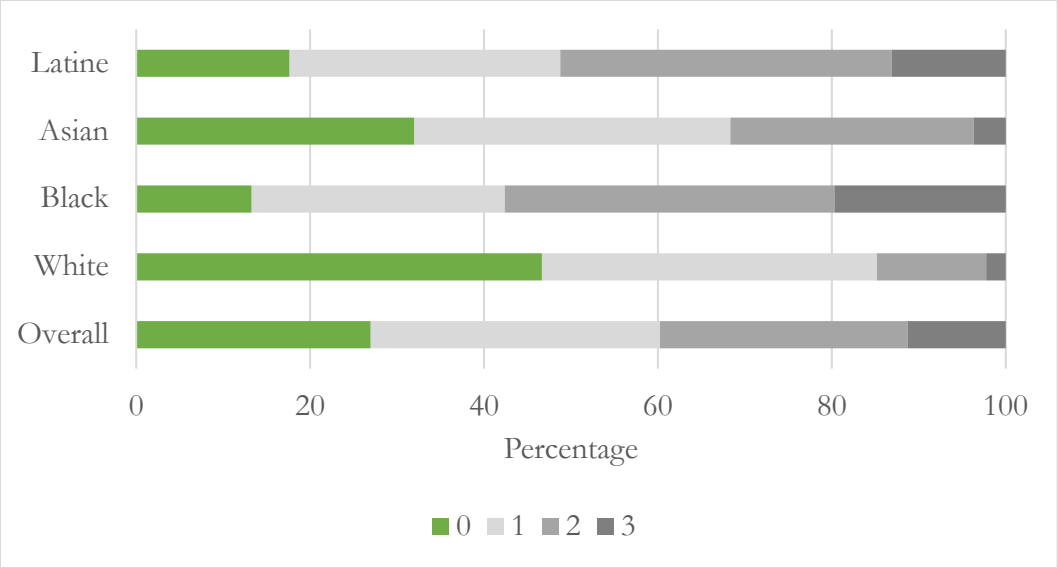

Figure 6: Number of transfers on typical one-way trip (CTA 2022 data)

When distance is divided by time, results show different *effective speed*, but again this is not simply a reflection of transit vehicle speed, since other trip factors, from waiting to accessing stops are inputs into this average. However, Black riders experience the slowest speed via bus trips, with White and Asian riders experiencing the fastest speed on bus trips. White riders also had the average speediest L trips, with other combinations and racial categories falling across the spectrum, as shown in Table 2.

	White	Black	Asian	Latine
Bus	7.8	5.3	7.8	5.8
Bus and L	10.4	10.3	7.7	8.6
L	9.1	8.5	8.4	8.1

Table 2: Effective trip speed in miles per hour (CMAP 2019 data)
Note: this is not vehicle speed but overall trip speed as an output of distance divided by time.

Given these racial disparities, it is not surprising that dissatisfaction with overall trip time was most frequently reported by Black riders, as seen in Table 3. Yet, across racial groups the majority of riders reported satisfaction with overall trip time. Again, responses show both divergent experiences and perspectives among riders with shared racial identities and across racial categories.

	Percent Overall	Percent White Respondents	Percent Black Respondents	Percent Asian Respondents	Percent Latine Respondents
Unsatisfied (1-4)	17.6	13.8	22.2	16.7	16.4
Indifferent (5-6)	29.2	30.5	26.3	31.9	30.5
Satisfied (7-10)	53.2	55.6	51.5	51.4	53.1

Table 3: Satisfaction with overall trip time (1=very dissatisfied, 10= very satisfied; CTA 2022 data)

Black respondents also reported the lowest satisfaction across various aspects of safety, as seen in Figure 7. There are racial disparities in rates of experiencing community and vehicular violence (Chicago Department of Transportation, 2024), as well as other issues beyond transit agency control, that shape safety experiences. A majority of respondents across racial groups reported satisfaction with CTA vehicle operational safety.

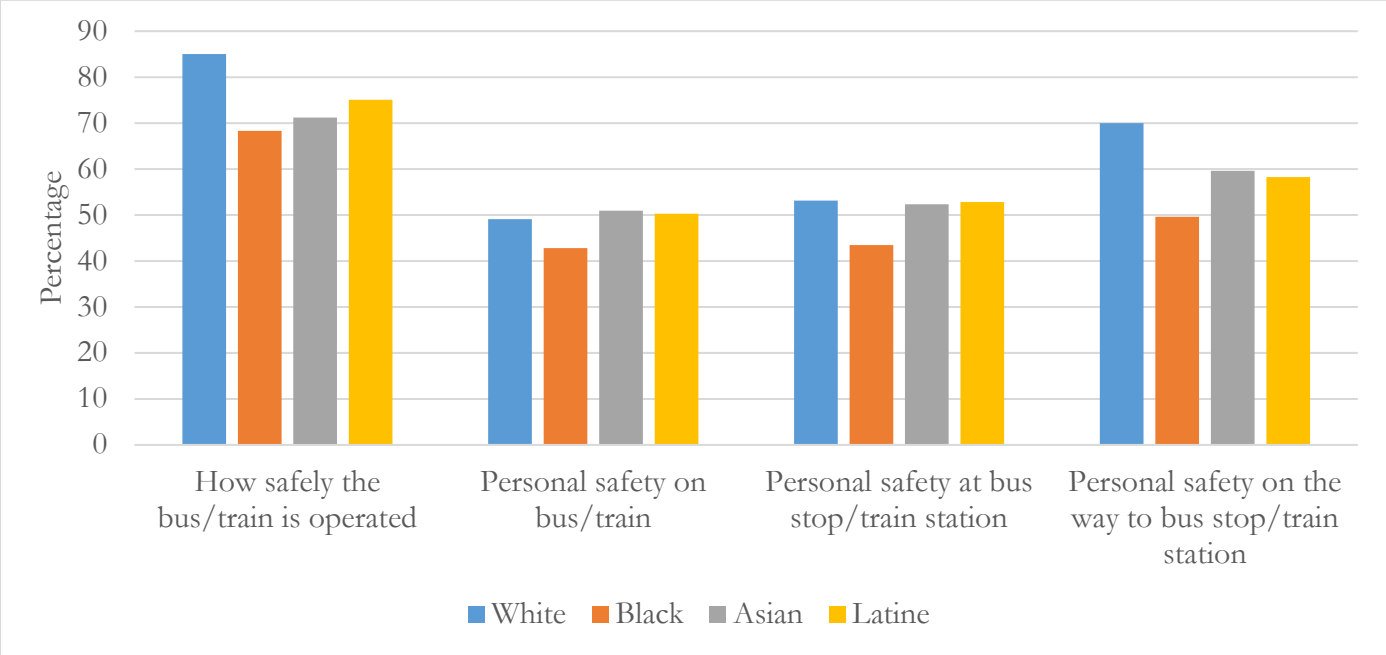

Figure 7: Share reporting satisfaction (6-10) with various aspects of transit use safety (CTA 2022 data)

Across racial groups, the majority of respondents reported satisfaction with the availability of transit service near home and work, as well as when they needed to travel. However, the lowest share of Black riders reported being satisfied, and the highest share of White riders reported satisfaction. Shares of Latine and Asian riders reporting satisfaction with these aspects of service fell in between Black and White rider shares, as shown in Figure 8.

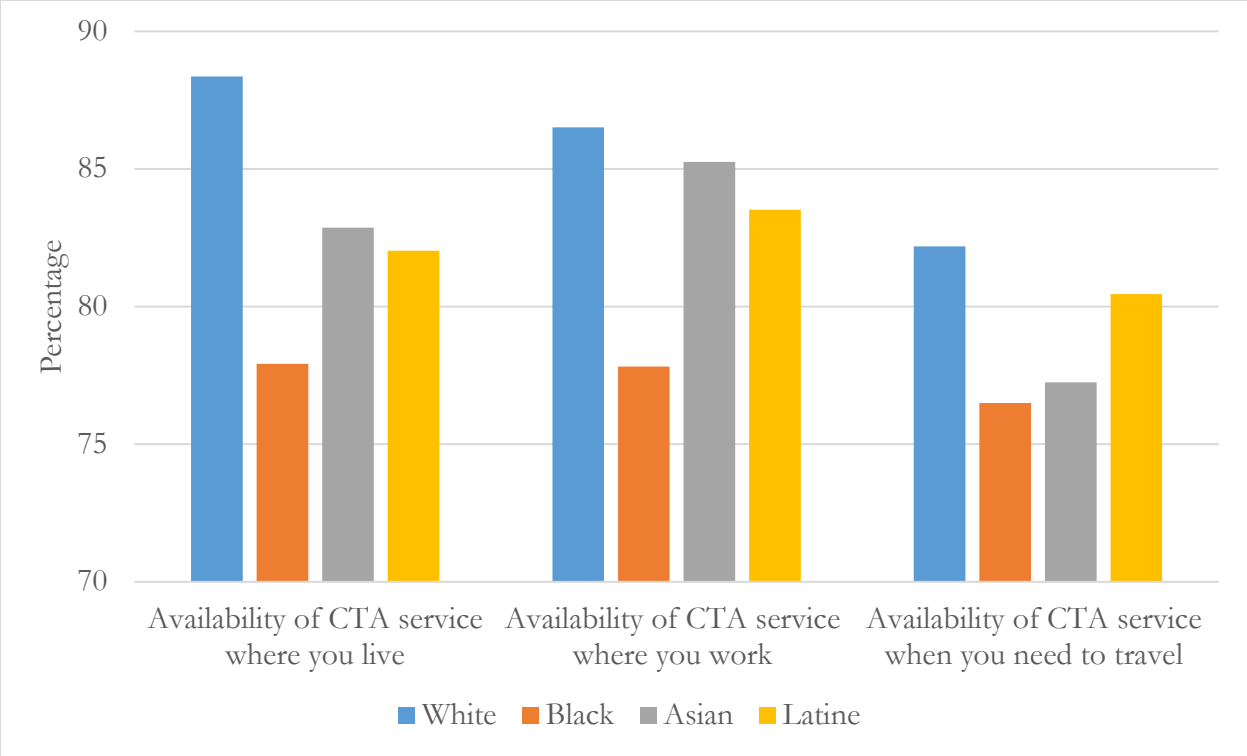

Figure 8: Percentage of respondents reporting scores of 6-10 (satisfaction) with various aspects of CTA service (CTA 2022 data)

Across racial groups, similar levels of satisfaction were reported regarding the CTA overall, getting to destinations on time, peak hour frequency, and consistency of time between transit vehicles. Yet, the data presented above suggest notable racial differences in experiences of using CTA service, some directly tied to service provision by the CTA and other experiences primarily shaped by private actors (e.g., private development land use decisions) or other public agencies (e.g., roadway design decisions for roads owned by the Illinois Department of Transportation). Results have not been tested for statistical significance due to response rates, sample sizes, mixed distribution methods, and analysis outside of the preplanned use. Nonetheless, findings demonstrate the value of analyzing and understanding variability across and within racial groups with public transit experiences.

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Acknowledgments

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