



2017/2018 Regional Travel Survey In-Depth Analysis

Late-Night Travel: Characteristics of Travelers and Trips

In the Fall of 2019, TPB staff began releasing the preliminary results of the Regional Travel Survey. The RTS is a once-a-decade household travel survey which collected detailed information about households and their daily travel obtained from a travel diary. TPB staff asked regional stakeholders to offer questions that the RTS might help inform. The piece is part of a series of responses to thought provoking questions offered by our stakeholders.

QUESTION

What are the characteristics and trip patterns of people who travel during late-night hours? What are the characteristics and trip patterns of people who travel during late-night hours?

INTRODUCTION

Travel needs and choices vary between daytime and late-night hours. This question evaluates characteristics and trip patterns for respondents who reported late-night hour trips in the 2017/18 Regional Travel Survey (RTS). A one-day travel diary was completed by each member of the household who participated in the RTS which captured the start and end times of each trip; this served as the primary source of data to answer this question.

APPROACH

We defined late-night travel using the period that corresponds with transit providers' night owl service hours, midnight to 4 am. Then we examined two dimensions of this question: characteristics of people who travel during late-night hours and their trip patterns. The characteristics of travelers include age, gender, race/ethnicity, and household income. The trip patterns include the travel mode and trip purpose. Travel mode was categorized into automobile modes (auto driver, auto passenger), transit, taxi/ridehail, and walk/bicycle. Trip purposes were based on primary destination activity and were categorized into work, work-related, drop off/pick up, school, personal business, shop/meal, and social/recreation trips. Finally, the characteristics and trip patterns of all travelers were compared with those of late-night hour travelers. This analysis was performed for the TPB Planning Region.

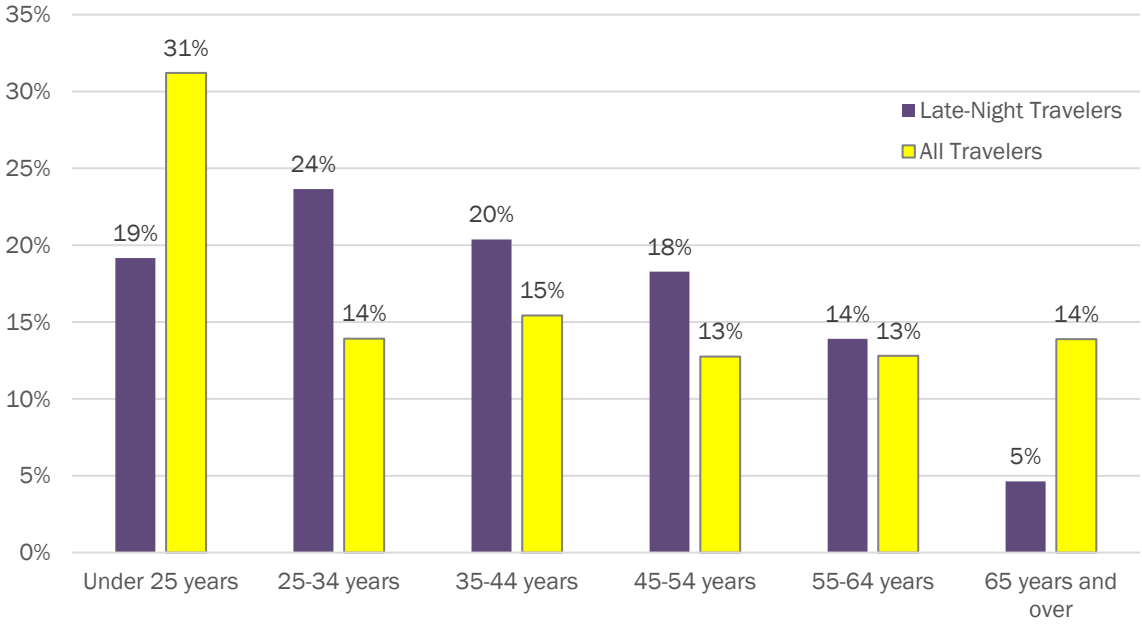
Detailed breakdowns of each part of these questions are shown in the tables and charts below, with key takeaways for each. Highlighting is used in certain tables for emphasis. In advance of preparing these responses, the tabulations were reviewed for accuracy and robustness. To create these tables for the TPB Planning Region, the survey results were expanded using weights that considered the probability of selection of individual households as well as adjustments for household size, workplace location, and Metrorail ridership.

ANALYSIS AND KEY FINDINGS

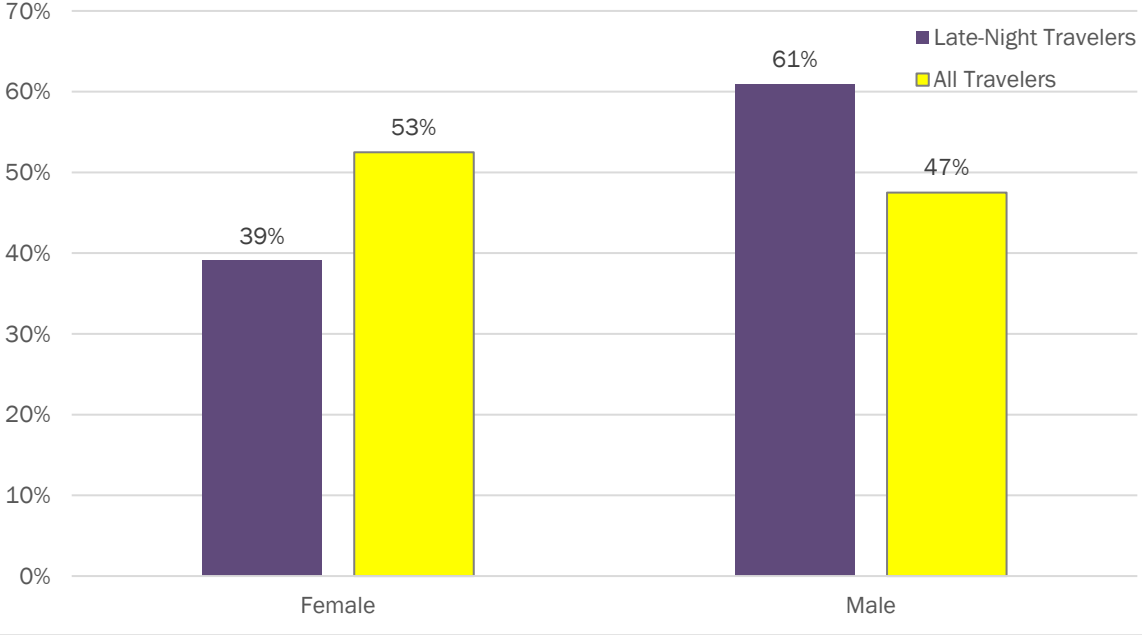
A. Characteristics of Persons who travel during late-night hours

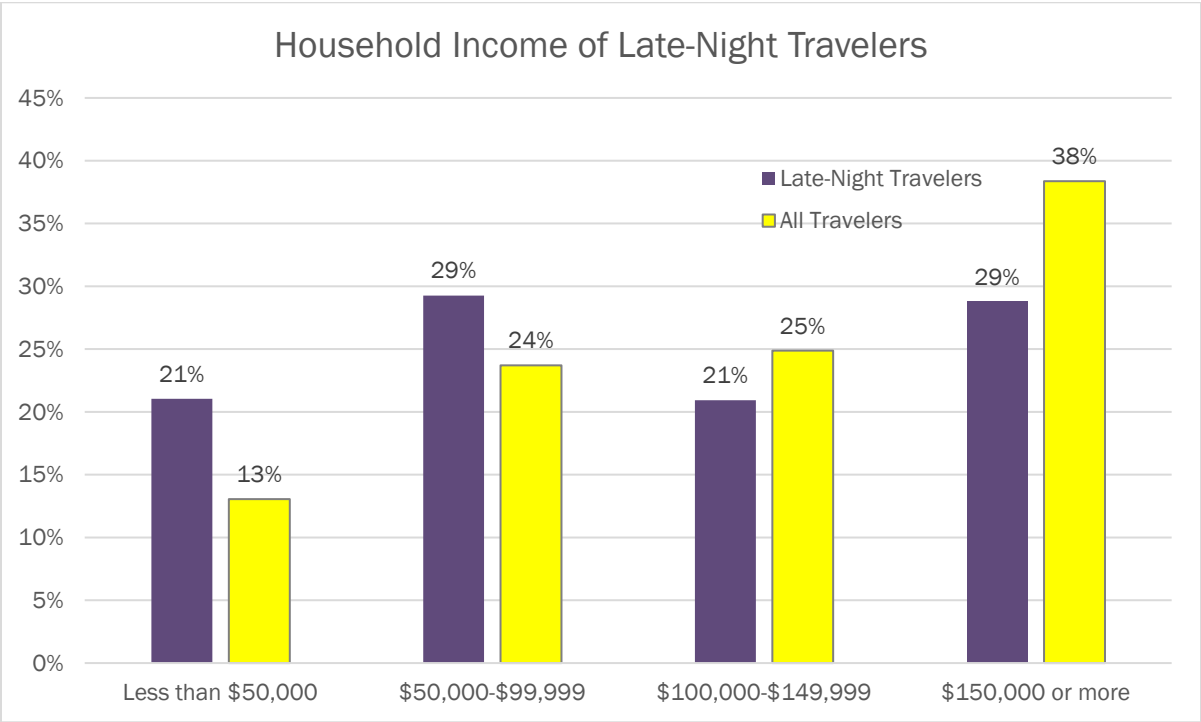
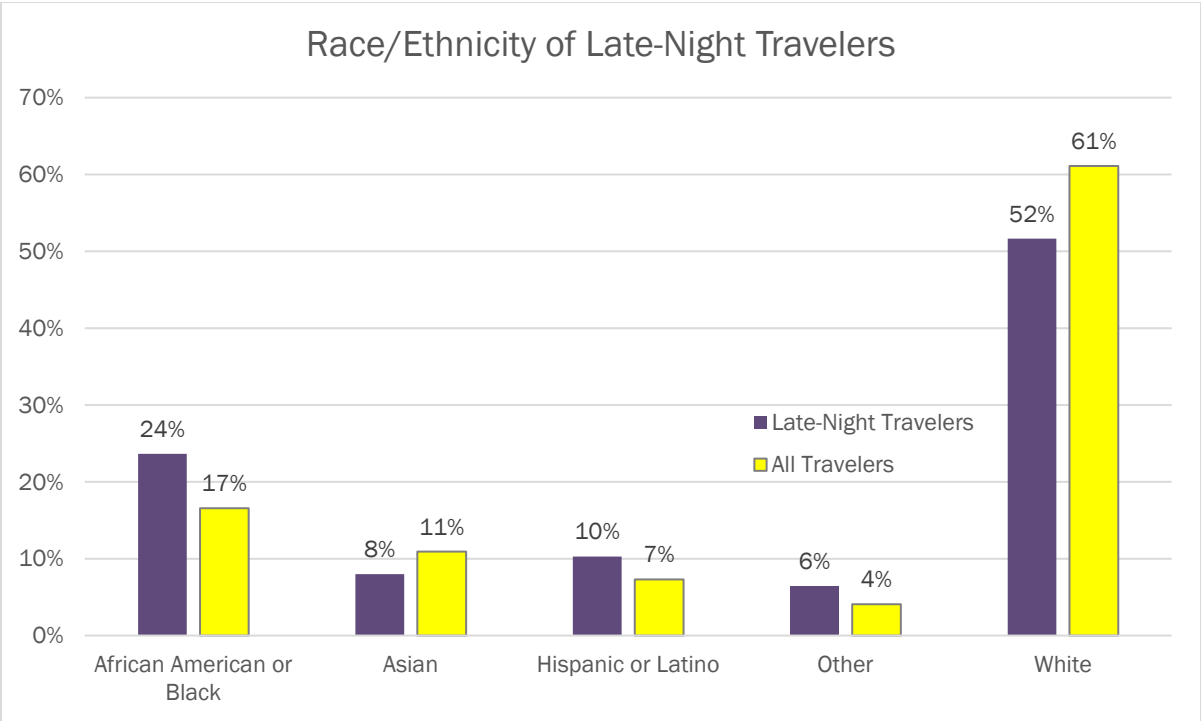
	Late Night Travelers (Midnight – 4 AM)	All Travelers
Age Group	Percent	Percent
Under 25 years	19	31
25-34 years	24	14
35-44 years	20	15
45-54 years	18	13
55-64 years	14	13
65 years and over	5	14
Gender		
Female	39	53
Male	61	47
Race/Ethnicity		
African American or Black	24	17
Asian	8	11
Hispanic or Latino	10	7
Other	6	4
White	52	61
Household Income		
Less than \$50,000	21	13
\$50,000-\$99,999	29	24
\$100,000-\$149,999	21	25
\$150,000 or more	29	38

Age Groups of Travelers



Gender of Travelers





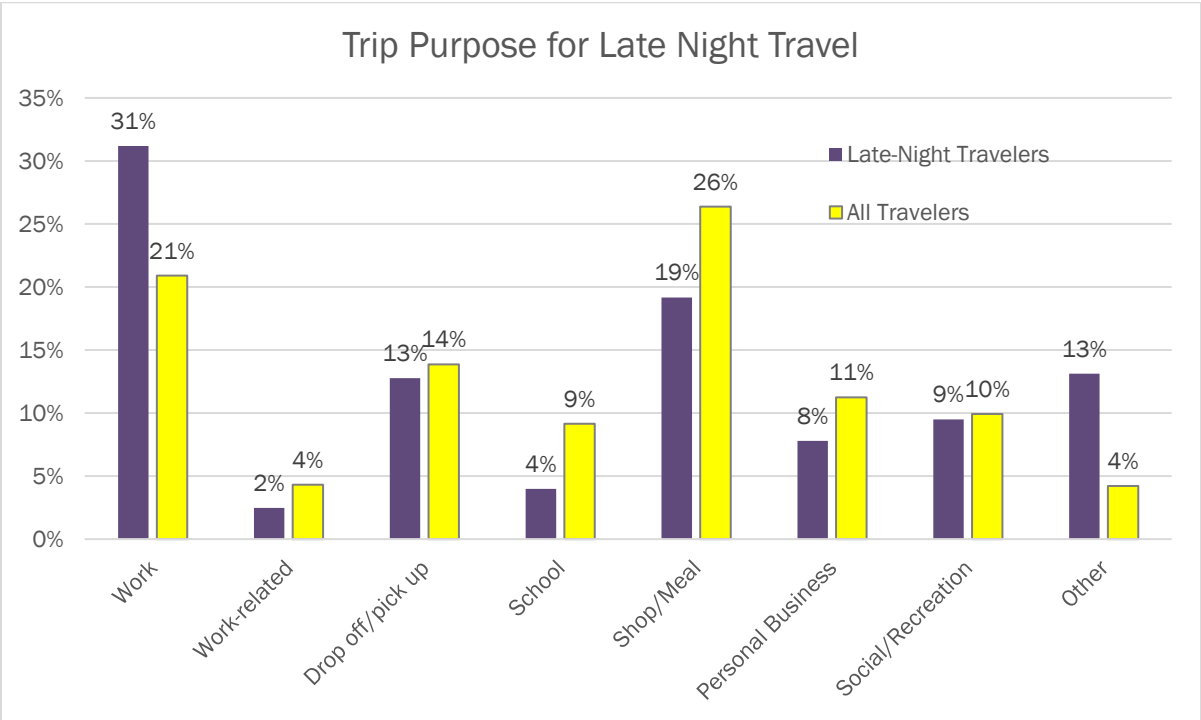
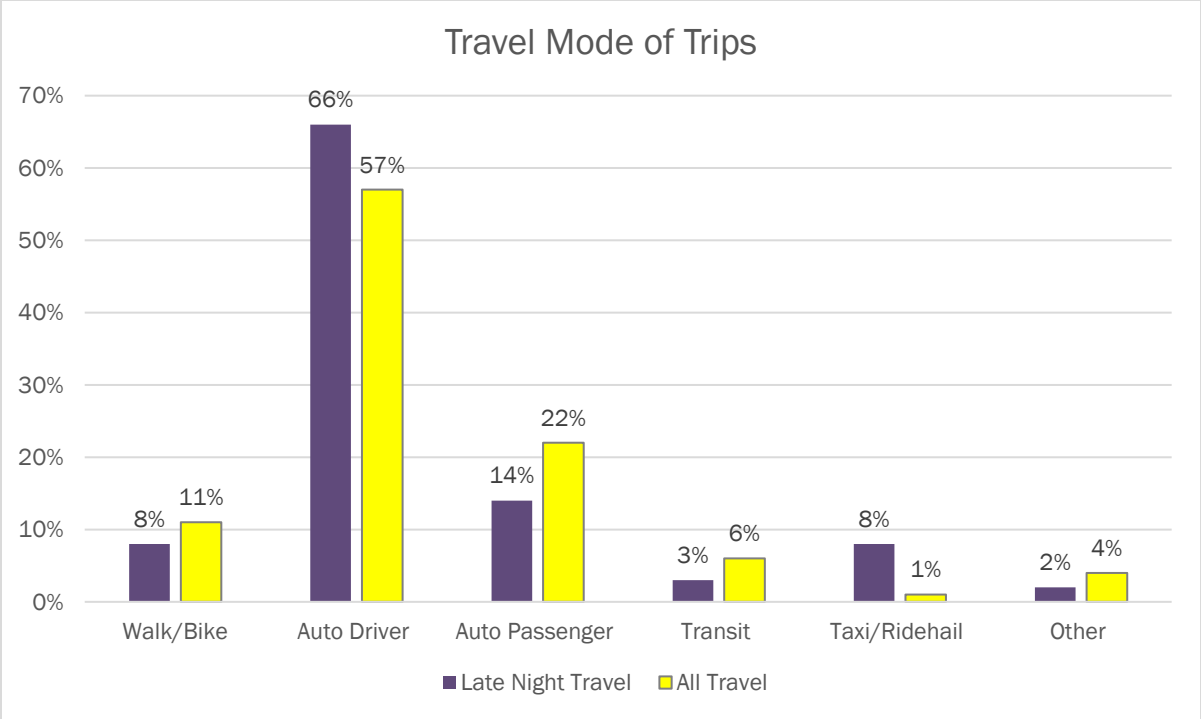
Key findings for Characteristics of Late-Night Travelers:

- Age
 - Persons between 25 and 34 years old make up the highest proportion of late-night travelers.
 - Compared with all travelers, there is a lower proportion of persons under 25 years old and 65 years and older among late-night travelers.
- Gender
 - Compared with all travelers, a larger percentage of late-night travelers is male.
- Race/Ethnicity
 - White travelers are less likely to be late night travelers compared with all travelers.
 - African American travelers are more likely to be late night travelers compared with all travelers.
 - Hispanic or Latino travelers are more likely to be late night travelers compared with all travelers.
- Household Income
 - Much larger proportion of lower household income travelers (less than \$50,000) is observed among late night travelers compared with all travelers.
 - Much lower proportion of higher household income travelers (\$150,000 or more) is observed among late night travelers compared with all travelers.

B. Characteristics of Late-Night Trips

	Late-Night Travelers (Midnight – 4 AM)	All Trips
Travel Mode	Percent	Percent
Walk/Bike	8	11
Auto Driver	66	57
Auto Passenger	14	22
Transit	3	6
Taxi/Ridehail	8	1
Other	2	4
Trip Purpose		
Work	31	21
Work-related	2	4
Drop Off/Pick Up Someone	13	14
School	4	9
Shop/Meal	19	26
Personal Business	8	11
Social/Recreation	9	10
Other	13	4

* Home is excluded as a trip purpose in this table



* Home is excluded as a trip purpose in this chart.

Key findings for Characteristics of Late-Night Trips:

- The dominant travel mode for late-night trips is auto driver (two-thirds of all late-night trips), followed by auto passenger, taxi/ridehail, walk/bike, and transit.
- Compared with travel mode for all trips, much lower shares of transit and walk/bike are observed for late-night trips.
- The share of trips by automobile (auto driver and auto passenger) is similar for all trips and late-night trips. However, the share of trips by auto driver is much higher for late-night trips than for all trips, and the share of auto passenger trips is much lower for late-night trips than for all trips.
- The most common purpose for late night trips is to travel to work, followed by shop/meal, drop off/pick up someone, social/recreation, and personal business trips.
- Compared with the trip purpose of all trips, a higher share of late-night trips is for work. Lower shares of late-night trips are observed for shop/meal, school, and personal business.

SUMMARY OF FINDINGS

The RTS data reveal that the characteristics of late-night travelers and late-night trips are significantly different from all travelers and all trips.

- The predominant age group for late-night travelers is 25 to 34 years; late-night travelers are more likely to be of prime working age (25 to 54 years).
- Persons under 25 years old and 65 years and over are less likely to travel late at night compared with other age groups.
- Compared with all travelers, a larger share of late-night travelers is male.
- Whites and Asians are less likely to be late night travelers compared with all travelers; African Americans and Hispanic/Latinos are more likely to travel late at night.
- A larger share of lower household income travelers is late night travelers compared with all travelers; a smaller share of higher household income travelers is late night travelers.
- While the primary travel mode for late-night trips is auto driver, the share of taxi/ridehail trips is much higher for late-night trips and shares of transit and walk/bike trips are much lower for late-night trips compared with all trips.
- The main purpose of late-night trips is work, while the main purpose of all trips is shop/meal. The share of work trips is much higher for late-night trips compared with all trips.

These findings have significant social equity implications and highlight socioeconomic differences in late night travel patterns. Late night travelers are dominated by late evening/graveyard shift workers which tend to be lower income; they are also more likely to be African American and Hispanic/Latino. In terms of gender, males are more likely to be late night travelers compared with females, which support previous studies that women tend to be more concerned about personal safety. These findings also suggest that travel mode options are limited during late night hours, particularly the availability of transit, since a larger share of taxi/ridehail trips is during late-night hours compared with transit trips. In sum, these findings illustrate the need to address social inequities in transportation access and availability.