2017-2018 REGIONAL TRAVEL SURVEY: IN-DEPTH ANALYSIS

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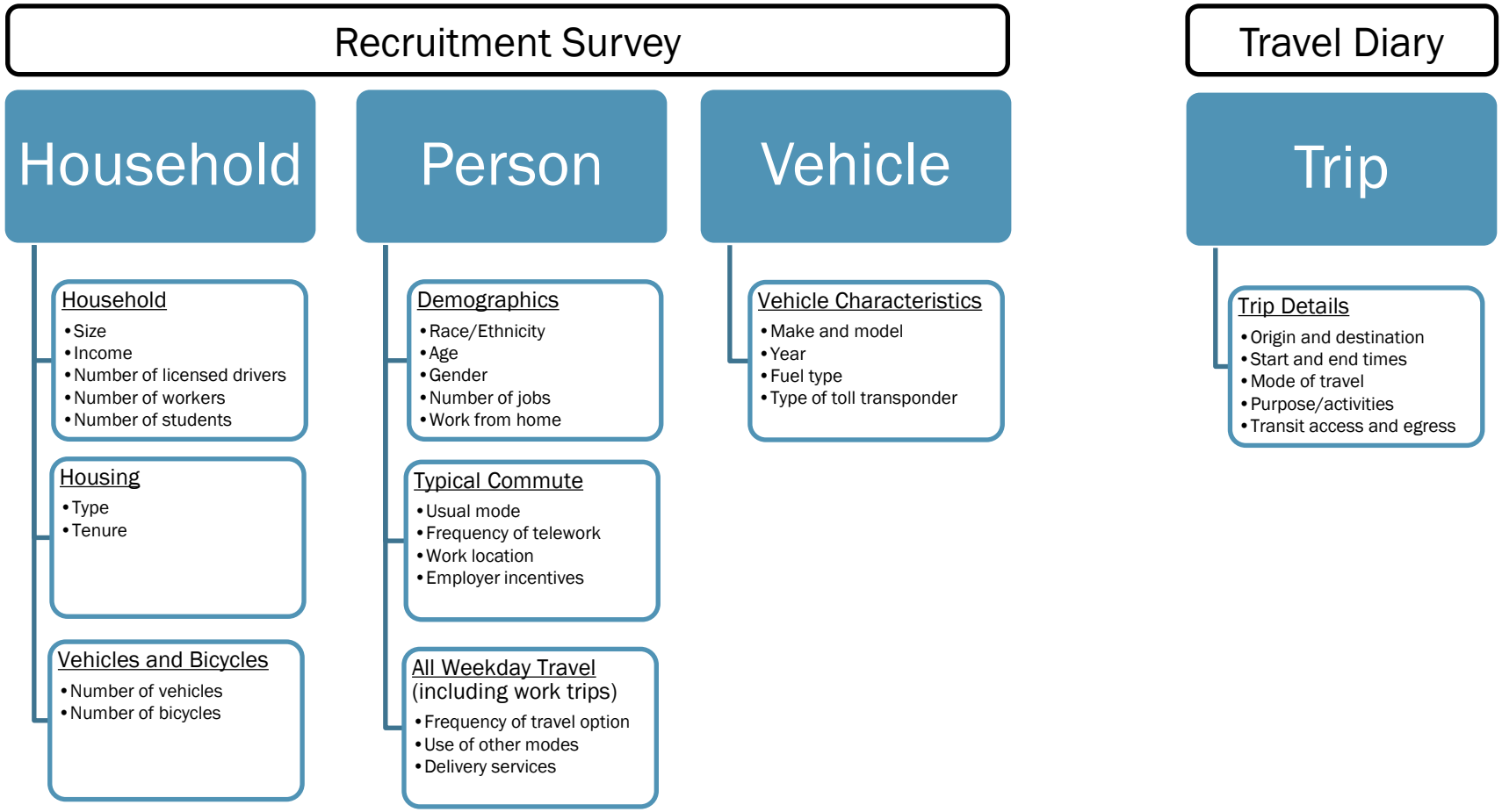
Agenda Item 6

National Capital Region
Transportation Planning Board

Overview of Regional Travel Survey (RTS) and In-Depth Analysis of Stakeholder Questions

- The 2017/2018 Regional Travel Survey (RTS) is a once-a-decade household travel survey for the National Capital Region
- The RTS 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; TPB staff conducted an in-depth analysis of these questions for the TPB Planning Region
- This presentation highlights a few of the responses to the questions offered by our stakeholders

Overview of Regional Travel Survey Information



RTS In-Depth Analysis Questions

Topic	Question
Travel Patterns for Low-Income Households	How do travel patterns (by travel mode, trip purpose, trip length, and trip duration) differ for very low (less than $25,000) and low-income ($25,000 - $49,999) households?
Work Start and End Times	How have average work start and end times changed over the past ten years?
Growth in Telework Eligibility & Frequency	What are the temporal patterns of teleworking? How are they changing?
Telework and Proximity to High-Capacity Transit (HCT)	How does proximity to high-capacity transit (HCT) correspond with telework eligibility and frequency?
Dimensions and Characteristics of Peak and Off-Peak Travel	How do travel modes differ for peak and off-peak travel? How do trip purpose, trip length, and trip duration differ for peak and off-peak travel? How do they differ for all travel modes versus transit modes? What is the income and race/ethnicity breakdown for persons traveling during off-peak hours? How do they differ for all travel modes vs. transit modes?
Transit Riders: Commute-only versus All-Purpose Socio-economic Characteristics	Do commuters who use transit differ in socio-demographic characteristics from all-purpose transit riders?
Transit ridership, free parking, and transit subsidies	Do free parking and transit subsidies influence the choice of taking public transit? Did it change between 2007/2008 and 2017/2018?
Late-Night Travel: Characteristics of Travelers and Trips	What are the characteristics and trip patterns of people who travel during late-night hours?
Trends in Late-Night Travel Modes	Have the travel modes of late-night travelers changed over time (from 2007/08 to 2017/18)?
Use of Personal Vehicles for Activities After Using Transit for Work Commute Trips	What is the incidence rate of weekday commuters returning home via public transit and heading out again by using a personal vehicle to shop? When weekday commuters head home via public transit, what reasons do they have for heading out by personal vehicle? What travel activities do weekday commuters engage in after heading home via public transit?
School Trips: Share of Total Trips, Trip Times	• What share of drop off/pick up trips in the TPB Planning Region are school and day care trips? • What share of school trips are performed by university students in the TPB Planning Region? • What share of drop off/pick up trips in the TPB Planning Region are performed in the following time periods? (AM peak, midday, PM peak, all other times) • What is the share of school trips out of total trips for the region, subregional area, and county-level jurisdiction?

Travel Patterns for Low-Income Households

How do travel patterns (by travel mode, trip purpose, trip length, and trip duration) differ for very low (less than $25,000) and low-income ($25,000 - $49,999) households?

- Travel mode, trip purpose, trip length, and trip duration for work and non-work trips
- Travel modes: automobile modes (auto driver, auto passenger), transit (rail/bus), taxi/ridehail, walk/bicycle
- Trip purposes: work, work-related, drop off/pick up, school, shop/meal, personal business, social/recreation, other

Travel Patterns for Low-Income Households

Primary Travel Mode by Household Income

Travel Mode (%)	<$25K	$25-50K	$50-75K	$75-100K	$100-150K	>$150K
Drive Alone	33.1	40.7	44.9	42.1	41.3	40.2
Drive Others	10.9	15.0	15.0	16.2	16.7	16.4
Auto Passenger	21.7	18.7	19.7	22.7	22.5	22.8
Rail Transit	3.3	2.7	3.6	4.3	3.6	3.6
Bus Transit	10.7	5.4	2.1	1.4	1.4	0.9
Other	0.7	0.5	0.3	0.3	0.4	0.5
Taxi/Ridehail	1.9	1.7	1.0	1.0	0.7	0.8
School Bus	3.1	5.3	3.0	2.3	3.6	3.5
Walk	13.3	9.0	9.0	8.8	8.5	9.7
Bike	1.2	0.9	1.3	1.0	1.2	1.6

Travel Patterns for Low-Income Households

Primary Trip Purpose by Household Income

Trip Purpose (%)	<$25K	$25-50K	$50-75K	$75-100K	$100-150K	>$150K
Work	14.1	19.0	20.4	21.5	21.4	21.5
Work-related	4.9	5.1	3.8	4.2	4.5	4.1
Drop off/pick up	9.5	10.9	10.5	12.8	13.4	16.4
School	8.8	10.9	7.6	6.7	8.5	10.6
Personal Business	16.1	12.5	12.0	11.9	10.7	10.5
Shop/Meal	32.4	27.8	30.6	29.1	27.3	22.9
Social/Recreation	8.7	8.4	9.9	9.7	10.1	10.3
Other	5.7	5.5	5.2	4.1	4.1	3.7

Travel Patterns for Low-Income Households

Trip Length by Household Income

Median Trip Length (Miles)	<$25K	$25-50K	$50-75K	$75-100K	$100-150K	>$150K
All Trips	2.7	3.1	2.9	3.4	3.2	2.9
Commute Trips	5.2	6.6	7.4	8.1	8.4	8.9

Travel Patterns for Low-Income Households

Trip Duration by Household Income

Trip Duration – All Trips (%)	<$25K	$25-50K	$50-75K	$75-100K	$100-150K	>$150K
Less than 15 min	29.5	30.6	36.9	33.8	37.6	38.2
15 - 30 min	34.9	37.6	33.0	36.4	33.9	33.9
30 - 45 min	17.5	16.2	15.7	16.3	15.2	15.1
45 - 60 min	5.9	6.8	6.5	6.2	5.9	6.0
60 - 90 min	7.0	5.7	5.0	4.9	5.0	4.5
Greater than 90 min	4.9	2.9	2.7	2.2	2.2	2.1

Trip Duration – Commute Trips (%)	<$25K	$25-50K	$50-75K	$75-100K	$100-150K	>$150K
Less than 15 min	14.1	16.4	12.0	10.5	10.1	10.8
15 - 30 min	29.3	26.1	27.7	27.2	29.0	25.4
30 - 45 min	22.3	22.7	26.1	28.2	25.2	29.2
45 - 60 min	7.9	13.6	14.3	15.1	15.6	15.7
60 - 90 min	12.8	15.5	13.2	14.2	15.6	13.9
Greater than 90 min	11.4	5.2	6.6	4.5	4.5	4.8

Travel Patterns for Low-Income Households

Summary of Findings

- For travel mode, very low-income households are less likely to drive and much more likely to use bus transit, taxi/ridehail, or walk; low-income households are more likely to take the bus and use taxi/ridehail.
- Very low- and low-income households are less likely to take work trips and social/recreation trips.
- For median trip lengths, commute trip lengths increase with household income, but non-commute trip distances do not vary as much.
- For trip duration, lower income households have a slightly lower share of very short trips (less than 15 minutes) but are much more likely to experience very long commute trips (greater than 90 minutes), especially for the lowest income group.

Late-Night Travel

What are the socio-demographic characteristics of late-night travelers?

What are the travel mode and trip purpose of late-night travelers?

- Late-night travel = midnight to 4 am
- Socio-demographic characteristics of travelers include age, gender, race/ethnicity, household income
- Travel modes: automobile modes (auto driver, auto passenger), transit (rail/bus), taxi/ridehail, walk/bicycle
- Trip purposes: work, work-related, drop off/pick up, school, shop/meal, personal business, social/recreation, other

Late-Night Travel

Socio-demographic Characteristics of Late-Night Travelers vs. All Travelers

	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

Late-Night Travel

Travel Mode and Trip Purpose of Late-Night Trips vs. All 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

Late-Night Travel

Summary of Findings

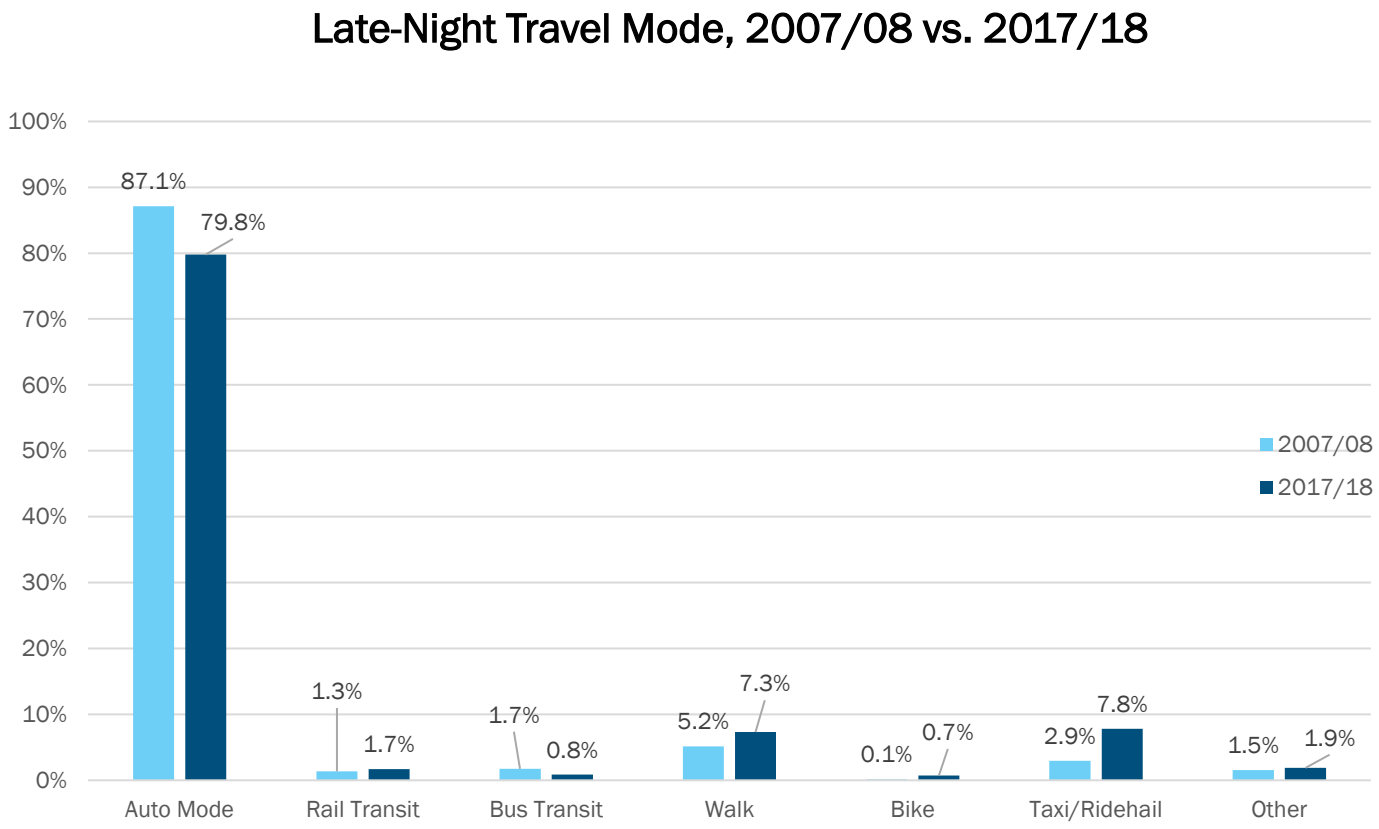
- The largest group for late-night travelers is 25 to 34 years; late-night travelers are more likely to be of prime working age (25 to 54 years)
- Late-night travelers are more likely to be male, African American, Hispanic/Latino, and from lower income households
- The share of taxi/ridehail trips is much higher for late-night trips; shares of transit and walk/bike trips are much lower for late-night trips
- The share of work trips is much higher for late-night trips compared with all trips

Trends in Late-Night Travel Modes

Have the travel modes of late-night travelers changed over time (from 2007/08 to 2017/18)?

- Late-night travel = midnight to 4 am
- 2007/08 data from Household Travel Survey (HTS)
- 2017/18 data from Regional Travel Survey (RTS)
- Travel modes: automobile modes (auto driver, auto passenger), transit (rail/bus), taxi/ridehail, walk/bicycle

Trends in Late-Night Travel Modes



Trends in Late-Night Travel Modes

Summary of Findings

- While auto modes dominate late-night travel, non-automobile modes such as taxi/ridehail, walk, and bike trips have increased during late-night hours.
- Much of the growth in taxi/ridehail trips can be attributed to the emergence of ridehailing, which was introduced after 2007/08.
- Non-motorized modes such as walk and bicycle trips significantly increased for late-night travel.

RTS In-Depth Analysis Questions and RTS Resources

- RTS In-Depth Analysis Questions is posted on the RTS website (https://www.mwcog.org/transportation/data-and-tools/household-travel-survey/)
- Other RTS Resources available on the RTS website:
  - RTS Technical Documentation
  - RTDC RTS Tabulations
  - RTS Public Files

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