

2017/2018 Regional Travel Survey In-Depth Analysis

Telework and Proximity to High-Capacity Transit (HCT)

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

How does proximity to high-capacity transit (HCT) correspond with telework eligibility and frequency?

INTRODUCTION

While telework is growing in popularity, it is more common in some areas of the region than others. This question considers how proximity to high-capacity transit corresponds with telework prevalence as defined by telework eligibility and frequency. HCT includes Metrorail, commuter rail, light rail, streetcar, bus rapid transit, and multimodal stations. The 2017/18 Regional Travel Survey (RTS), which provides residential and work locations of workers in the region, as well as their telework activities, is used as the primary data source for this analysis.

APPROACH

We started by determining if a respondent's living or working locations are within a half-mile or a tenminute walk on average of a HCT station. This is the maximum distance planners generally assume people can be expected to walk to a transit station. To do this, we used a list of TAZs associated with high-capacity transit at the half-mile scale. Only the HCT stations that were in operation while the RTS was conducted are used in this analysis. Next, we examined telework eligibility and telework frequency, respectively, for workers living within a half-mile of a HCT station, living outside a half-mile of a HCT station, working within a half-mile of a HCT station, working outside a half-mile of a HCT station, both living/working within a half-mile of a HCT station, and both living/working outside a half-mile of a HCT station. This analysis was limited to respondents who live within the TPB Planning Region.

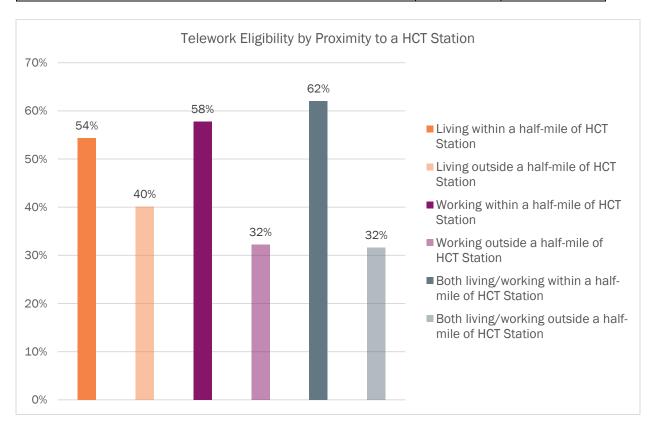
Detailed breakdowns of each part of this question are shown in the tables and charts below, with key takeaways for each. Highlighting is used in certain tables for emphasis. In advance of preparing these responses, the tabulations were reviewed for accuracy and robustness. To create these tables for the TPB Planning Area, 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. Telework Eligibility and Proximity to High-Capacity Transit (HCT) Stations

This analysis is based on whether a person's living or working locations' TAZs are within a half-mile of a HCT station.

Living/Working TAZ	Eligible (%)	Not Eligible (%)
Living within a half-mile of HCT Station	54	46
Living outside a half-mile of HCT Station	40	60
Working within a half-mile of HCT Station	58	42
Working outside a half-mile of HCT Station	32	68
Both living/working within a half-mile of HCT Station	62	38
Both living/working outside a half-mile of HCT Station	32	68



Telework Eligibility by Household Income					
Living/Working TAZ	Less Than \$50,000 (%)	\$50,000 or more (%)			
Living within a half-mile of HCT Station	36	56			
Living outside a half-mile of HCT Station	29	41			
Working within a half-mile of HCT Station	38	60			
Working outside a half-mile of HCT Station	26	33			
Both living/working within a half-mile of HCT Station	41	64			
Both living/working outside a half-mile of HCT Station	26	32			

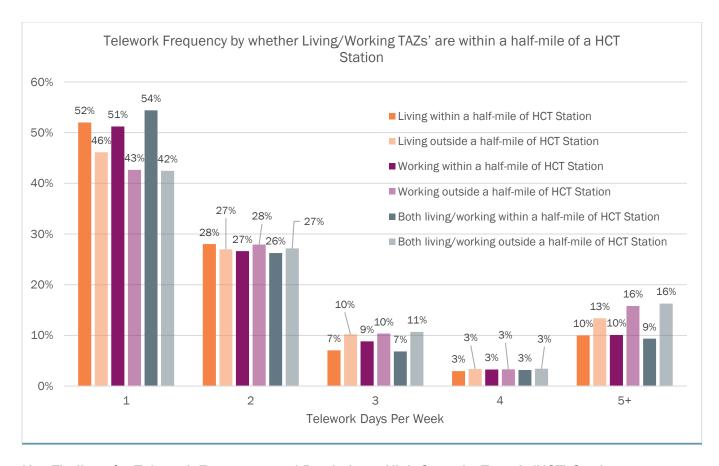
All Areas	36	56

Key findings for telework eligibility and proximity to high-capacity transit:

- Workers living within a half-mile of HCT stations have much higher telework eligibility than workers living outside of a half-mile of HCT stations.
- Similarly, persons working within a half-mile of HCT stations have much higher telework eligibility than persons working outside of a half-mile of HCT stations.
- Telework eligibility is highest for persons both living and working in TAZs that are within a half-mile of HCT stations. Telework eligibility is lowest for workers neither living nor working in TAZs that are within a half-mile of HCT stations.
- Workers with a household income of \$50,000 or more have much higher telework eligibility
 than workers with a household income less than \$50,000, regardless the proximity to highcapacity transit stations. The correlation between telework eligibility and proximity to highcapacity transit is similar for the two household income groups.

B. Telework Frequency and Proximity to High-Capacity Transit (HCT) Stations

Telework	Living within	Living	Working	Working	Both living/working	Both
Days Per	a half-mile of	outside a	within a half-	outside a half-	within a half-mile	living/working
Week	HCT Station	half-mile of	mile of HCT	mile of HCT	of HCT Station (%)	outside a half-mile
	(%)	HCT Station	Station (%)	Station (%)		of HCT Station (%)
		(%)				
1	52	46	51	43	54	42
2	28	27	27	28	26	27
3	7	10	9	10	7	11
4	3	3	3	3	3	3
5+	10	13	10	16	9	16



Key Findings for Telework Frequency and Proximity to High-Capacity Transit (HCT) Stations:

- Persons who either live and/or work within a half-mile of HCT are more likely to telework one day per week than persons who live and/or work outside of a half-mile of a HCT station.
- Persons who work and/or live outside a half-mile of HCT are more likely to telework five or more days a week than persons who live and/or work within a half-mile of HCT.

SUMMARY OF FINDINGS

The RTS data reveal that there is a correlation between proximity to high-capacity transit and telework patterns.

- For telework eligibility, workers living or working within a half-mile of HCT stations have much
 higher telework eligibility than workers living or working outside of a half-mile of HCT stations.
 Workers both living and working within a half-mile of HCT stations have the highest telework
 eligibility, however, workers neither living nor working within a half-mile of HCT stations, have the
 lowest telework eligibility.
- Workers from households earning less than \$50,000 have much lower telework eligibility than
 workers from households earning \$50,000 or more; however, the correlation between the
 proximity to high-capacity transit and the telework eligibility is similar for the two household
 income groups.
- For telework frequency, workers who either live and/or work within a half-mile of HCT stations are more likely to telework one day per week than persons who live and/or work outside of a

half-mile of a HCT station. Instead, workers who work and/or live outside a half-mile of HCT stations are more likely to telework five or more days a week than persons who live and/or work within a half-mile of a HCT station.

These findings suggest that areas around HCT stations have higher telework prevalence. This could partially reflect the type of employers that locate near HCT stations, as transit-focused areas tend to also attract employers who allow teleworking (i.e., white collar jobs). This finding has equity implications as workers living further away from transit stations, especially in the outer suburbs, are more likely to endure a daily commute that is not as feasible by transit and less likely to enjoy teleworking privileges. This highlights a spatial mismatch between residential location and jobs and the importance of promoting more teleworking options for workers in the region.