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# KEY TRANSPORTATION STATISTICS

From the 2016 Commuter Survey

## ABSTRACT

This document is an overview of the primary results of the second biennial Virginia Tech Commuter Survey in 2016, prepared for the Board of Visitors. The survey, conducted by the office of Alternative Transportation in the spring of 2016, found that single occupancy vehicles remain the primary mode of transportation on campus, however, bike usage is on the rise.

Respondents were also asked to detail their perception of mode usage on campus, which indicated that a perception of a larger reliance on alternative modes of transportation. (Respondents perceived greater modeshare percentages for all included modes of alternative transportation than is seen in practice and a significantly lower use of single occupancy vehicles than is observed.) This is a form of cognitive dissidence which could and should be addressed, via education and outreach efforts, in pursuit of the Transportation Demand Management goals of the university.

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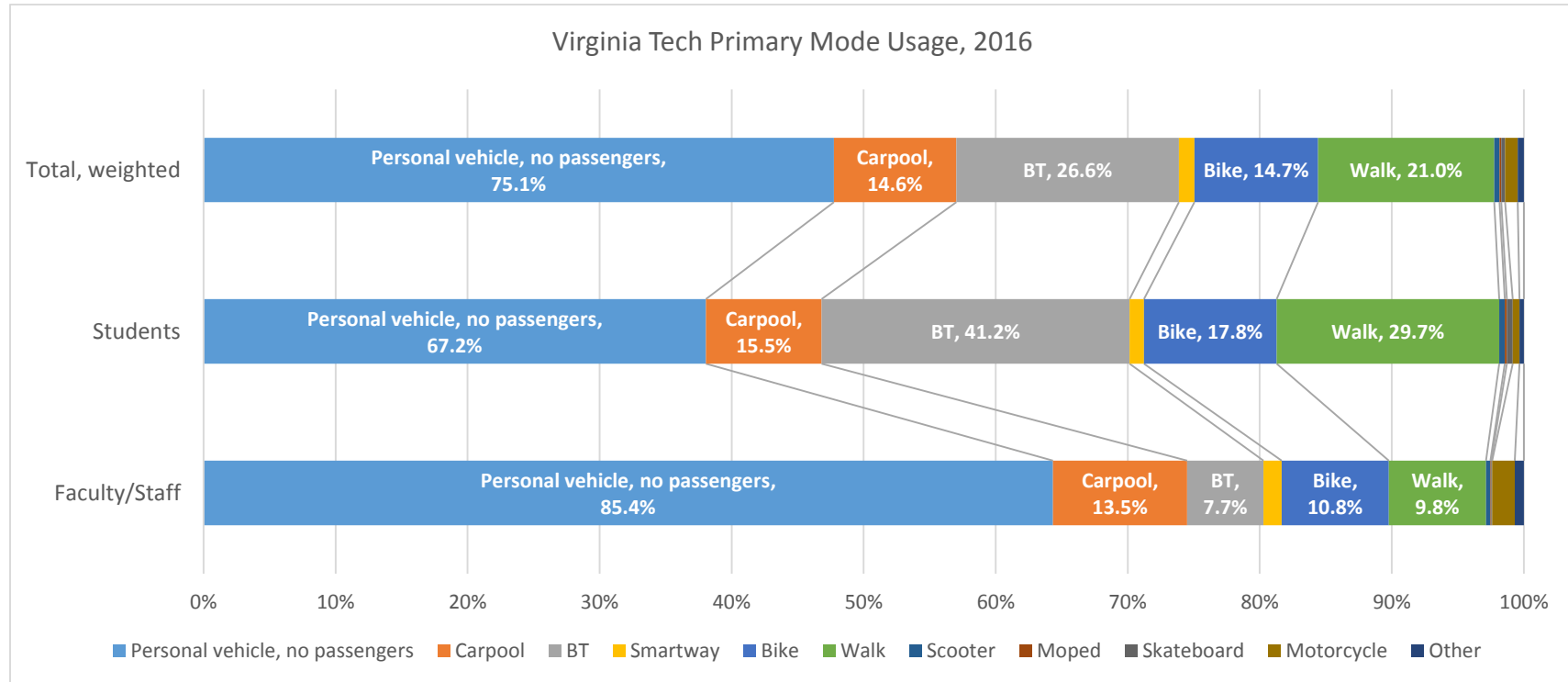
## Introduction

The Virginia Tech Office of Alternative Transportation conducted the university’s first Commuter Survey in the spring of 2014. The purpose of this survey was to afford Parking and Transportation a more thorough understanding of how people commute to, from and around the Blacksburg campus. The second iteration of the survey was conducted in the spring of 2016 and was available to the campus community from March, 21st, 2016 to May 12th, 2016.

Ultimately, 2,527 valid survey responses were complete, accounting for 6.8% of the Blacksburg campus affiliates (students, faculty and staff). While this number of respondents falls short of a statistically significant 10%, this is double the percentage of representation garnered in the prior iteration of the survey (3.4%), and valuable insights can be drawn from this data. Despite this success it should be noted that the increase in respondents came disproportionately from faculty and staff. The resulting data set is thus less representative of the population distribution on campus, than its predecessor, over representing faculty and staff and underrepresenting undergraduates. Graduate students, however, are fairly portrayed in these figures.

Undergraduate students account for 65% of total campus affiliates and 37% of survey respondents, graduate students comprise 12% of campus affiliates and 19% of respondents and finally, faculty and staff account for 22% of campus affiliates and 44% of respondents

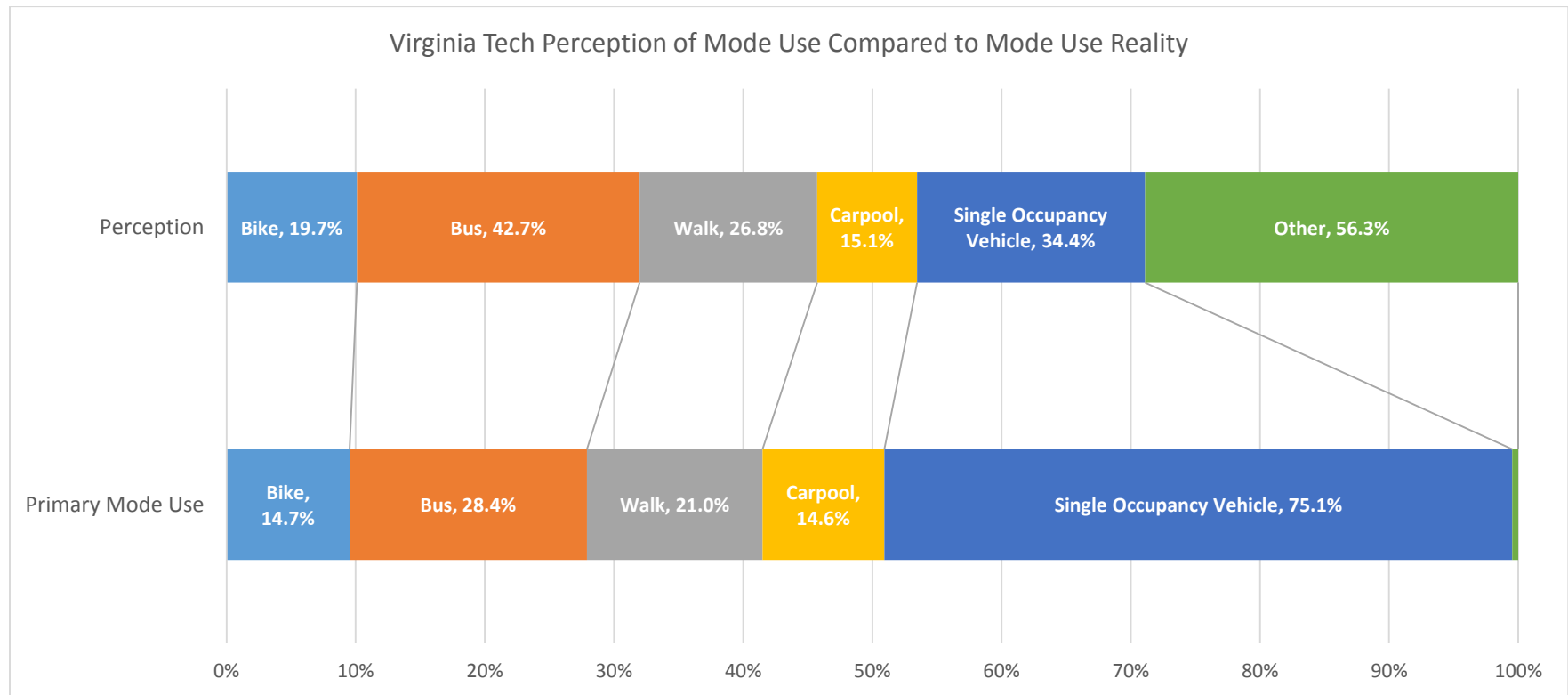
## Virginia Tech Primary Mode Usage, 2016



- Respondents were asked the following question: “What is (are) your primary mode(s) of transportation?” and directed to select 1 or 2 options.”
- Single Occupancy Vehicles are the most common primary mode of transportation for each subset and for the campus as a whole.
  - The second most relied on mode of transportation among the campus community is Blacksburg Transit
- Students are more likely to use alternative modes of transportation than are staff.
- Biking and walking represent 14.7% and 21.0% of Virginia Tech mode share, respectively.
  - The percentage of bicycle use on campus (14.7%) is significantly higher than the national average of people who commute to work via bicycle (0.6%), according to the COMMUTING CHARACTERISTICS BY SEX, 2010-2014 American Community Survey 5-Year Estimates  
[http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_14\\_5YR\\_S0801&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_S0801&prodType=table)

- The percentage of walking on campus (21.0%) is significantly higher than the national average of people who walk to work (2.8%), according to the COMMUTING CHARACTERISTICS BY SEX, 2010-2014 American Community Survey 5-Year Estimates ([http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\\_14\\_5YR\\_S0801&prodType=table](http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_S0801&prodType=table))

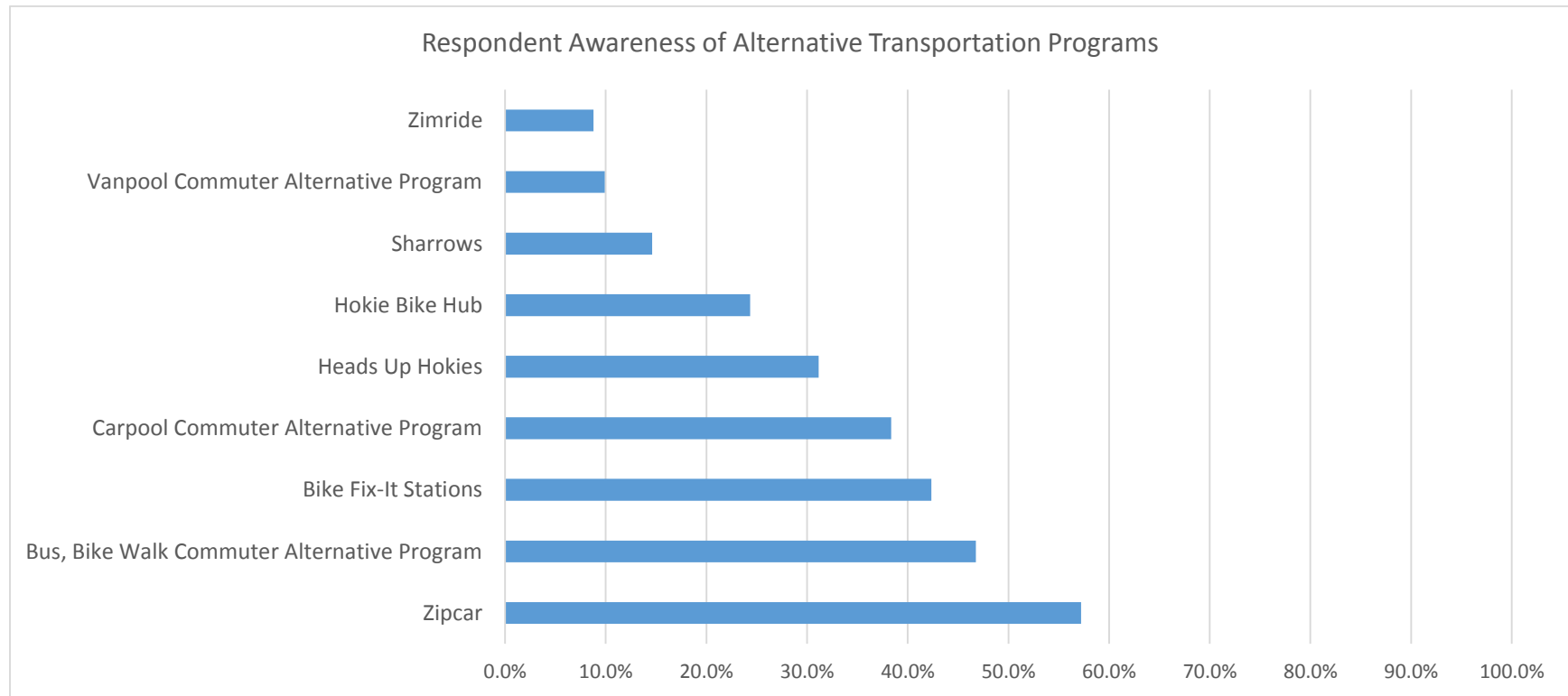
## Virginia Tech Perception of Mode Use Compared to Mode Use Reality



- Here respondents were asked to answer the following question: “What percentage of campus-related travel do you think takes place using each of the following modes of transportation? Please slide each scale to the desired percentage. (Individual percentages do not have to sum to 100.)”
- The difference in the public perception of mode usage in a community and the reality of mode usage identifies areas having potential for improvement in outreach and education efforts to encourage use of alternative modes of transportation.

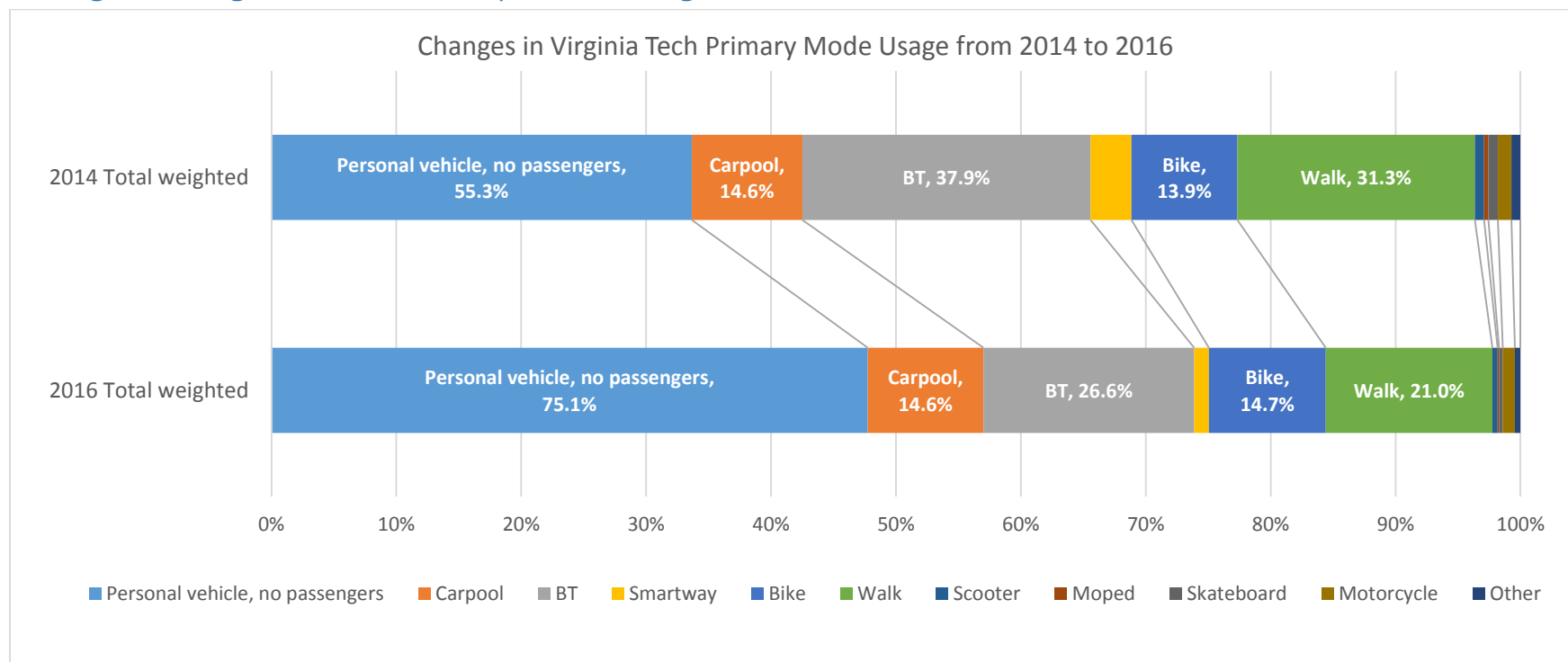
- The results of this survey show that the Virginia Tech community thinks that more travel takes place via alternative modes of transportation than actually does. This is true for all modes of alternative transportation
  - Similarly, there is a perception that single occupancy vehicle usage is significantly lower than the reality.
  - These two disconnects between perception and reality indicate a cognitive dissidence on campus which could and should be used to inform future educational and outreach initiatives.

## Respondent Awareness of Alternative Transportation Programs



- Respondents were asked the following question: “Have you heard about the following initiatives on campus? (Select all that apply)”
- The results of this question can be used to inform the distribution of advertising effort, on the part of Alternative Transportation, for all programs.
- Zipcar is the most widely recognized program conducted by Alternative Transportation.

## Changes in Virginia Tech Primary Mode Usage from 2014 to 2016



- The first iteration of this survey was conducted in 2014. The numbers from the 2014 survey were used here to create a comparison of results across time. An error was found in the 2014 calculations which was corrected here.
- In both iterations of the survey (2014 followed by 2016) respondents were asked: “What is (are) your primary mode(s) of transportation?” and directed to select 1 or 2 options.”
- The percentage of use of the following modes went **up** by the enumerated number of percentage points:
  - Single Occupancy Vehicles: 19.8
  - Bike: 0.8
- The percentage of use of the following modes went **down** by the enumerated number of percentage points:
  - Blacksburg Transit (BT): 11.3
  - Walking: 10.3