



Blacksburg Transit Ridership Survey

Summary of Results

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Table of Contents

Section Title	Page Number
Introduction	1
1 Methodology	2
2 Respondent Profile	3
3 Survey Findings	5
4 Data Transmission and Retention	12
Appendix A	Survey Instrument
Appendix B	Email Invitation Text
Appendix C	Overall Response Frequencies
Appendix D	Response Frequencies by Respondent University Affiliation
Appendix E	Responses to Open-ended Survey Items

Introduction

The Virginia Tech Center for Survey Research (CSR) was retained by Blacksburg Transit (BT) in the Town of Blacksburg, Virginia to conduct a survey with Virginia Tech community members regarding aspects of BT ridership. Specifically, a web-based survey was designed and administered to Virginia Tech community members in order to gather specific ridership information and to learn more about the communication preferences of BT stakeholders in the university community.

For the administration of the Blacksburg Transit Ridership Survey, the CSR gathered data from 5,811 Virginia Tech community members (including faculty, staff, graduate students, and undergraduate students). This report summarizes the data collection procedures and results of the survey. Section 1 provides an overview of the survey instrument development and data collection procedures utilized by the CSR for the collection of the data. Section 2 provides a demographic profile of the survey respondents. Section 3 provides the findings from the survey and Section 4 provides information on data delivery and retention for the study.

The survey instrument is included in *Appendix A*. *Appendix B* includes the text of the electronic message invitation that was sent to the respondent pool in order to solicit response to the survey. *Appendix C* provides tables of response frequencies to all close-ended survey items. *Appendix D* provides response frequencies by the type of affiliation of the respondent to Virginia Tech. *Appendix E* lists all responses provided by respondents to open-ended survey questions. All open-ended survey items are listed along with the CSR-assigned respondent number that may

be used in linking the open-ended responses to each respondent's answers on the dataset (also delivered with this summary) to other items on the survey.

1

Methodology

Sampling, Survey Instrument, and Data Collection Procedures

The survey instrument was developed by representatives from Blacksburg Transit with assistance from the CSR. The CSR gathered contact information for the 34,928 community members at the Blacksburg campus of Virginia Tech from the Virginia Tech Registrar and Human Resources Offices for inclusion in the survey pool. The survey instrument was administered by CSR via the web using personalized web links embedded in electronic message invitations. Each member of the survey pool received an invitation message describing the purpose of the survey and instructions for completing the survey.

The CSR established personalized links such that sample members could be identified by CSR without necessitating that survey respondents enter a password or user identification number to complete the survey. CSR assigned each sample member a randomly generated, unique identification number that was embedded in the electronic invitation at the end of the survey link for this purpose. Using the unique identifying number, CSR was able to eliminate sample members who had already submitted a response to the survey from subsequent electronic reminders requesting survey participation. All non-respondents to the survey were sent five

reminders to complete the survey. The survey administration began in February 2016 and ended in April 2016. The survey was programmed by CSR using Qualtrics software.

Based on a total of 5,811 completed surveys, the survey has a sampling error of ± 1.2 percent. Therefore, in 95 out of 100 surveys completed with this number of cases using the same sampling methodology and parameters, the results obtained would fall in a range of ± 1.2 percent of the results that would be achieved if surveys were completed with every potential respondent included in the Virginia Tech community (Blacksburg campus). Smaller sampling errors are present for items on which there is polarized response (e.g. 90 percent identical response on an item).

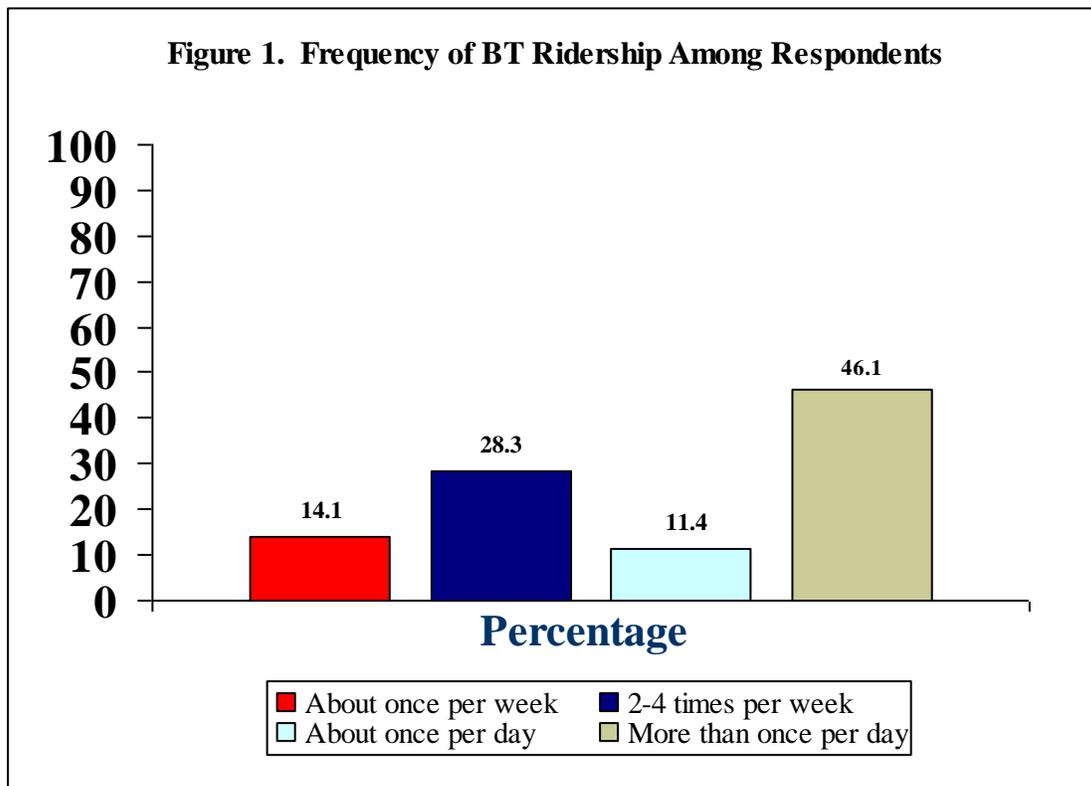
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Respondent Profile

As expected, and proportionate to the population within the Virginia Tech community, undergraduate students were the largest group of respondents to the survey. Specifically, 3,490 undergraduate students responded to the survey, with 966 graduate students, and 1,355 faculty and staff members responding. Almost half of survey respondents (49%) reported that they are age 22 years or younger, with 29% reporting their age as between the years of 23 and 35, and 22 percent of survey respondents reporting they are older than 35 years of age.

The majority of respondents to the survey (63%) reported that they currently ride Blacksburg Transit (BT) during a typical week. Among those respondents who reported riding BT in a typical week, 14 percent ride about once per week, 28 percent ride 2-4 times per week, 11 percent ride about once per day, and 46 percent ride more than once per day.

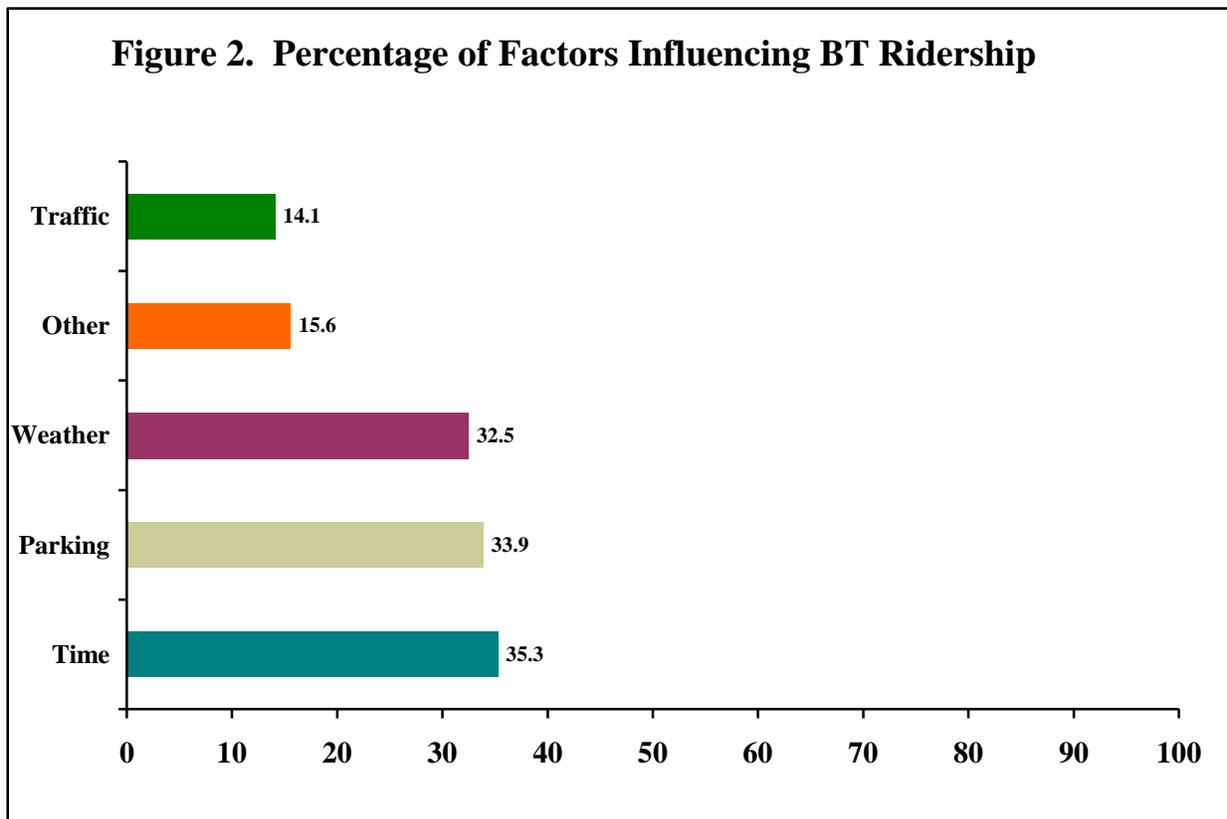
Figure 1 depicts the frequency of BT ridership among respondents to the survey (among those respondents who reported riding BT during a typical week).



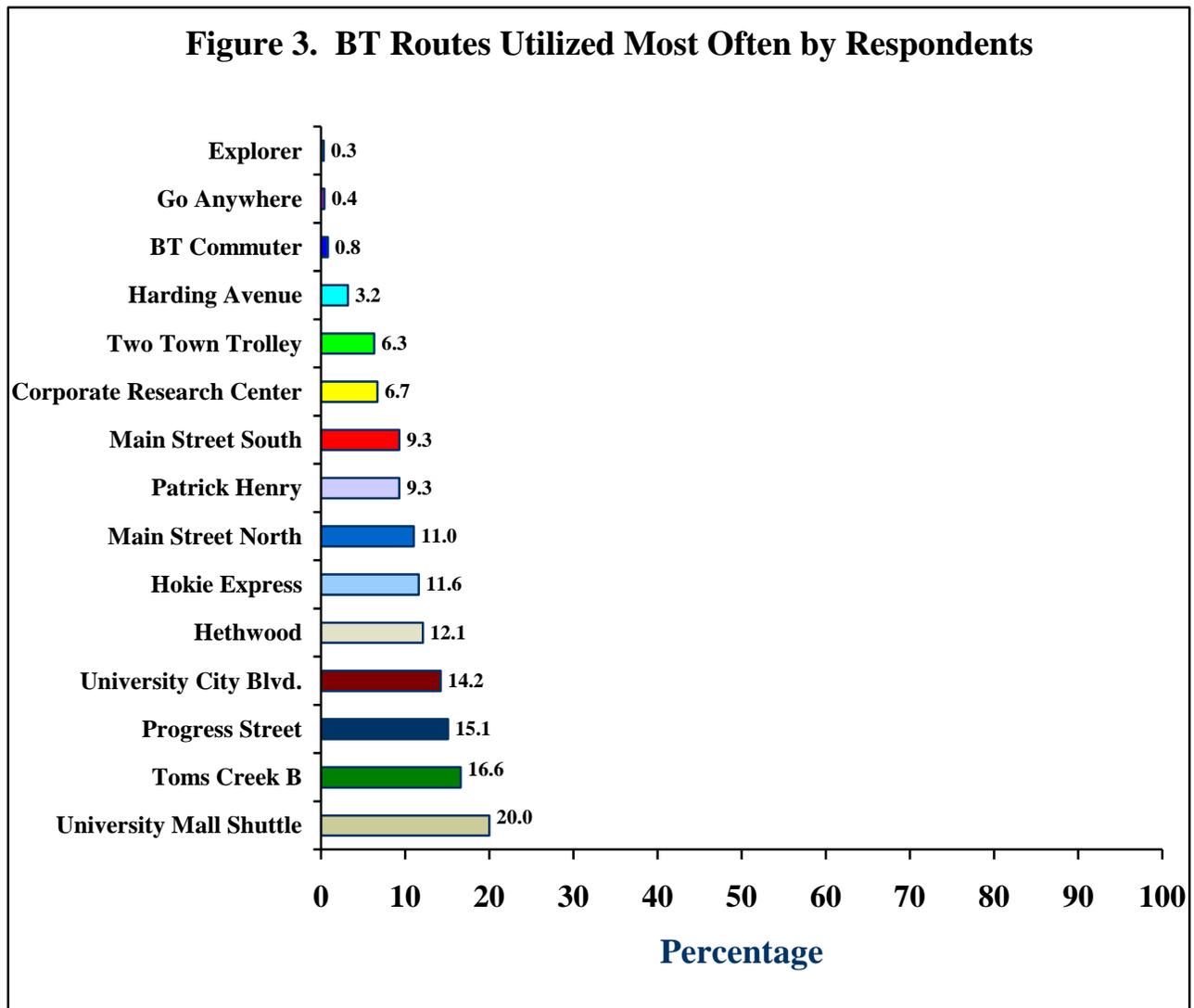
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Survey Findings

The survey instrument includes an item that presents factors that might influence individuals to ride the BT. **Figure 2** depicts the findings regarding factors that influence respondents to ride BT. Time, parking and weather were the top three factors that influence Virginia Tech community members to ride BT. A number of other factors such as needing to share a vehicle and having a desire to reduce environmental impacts were reported by respondents as “other” factors influencing their decision to use Blacksburg Transit.



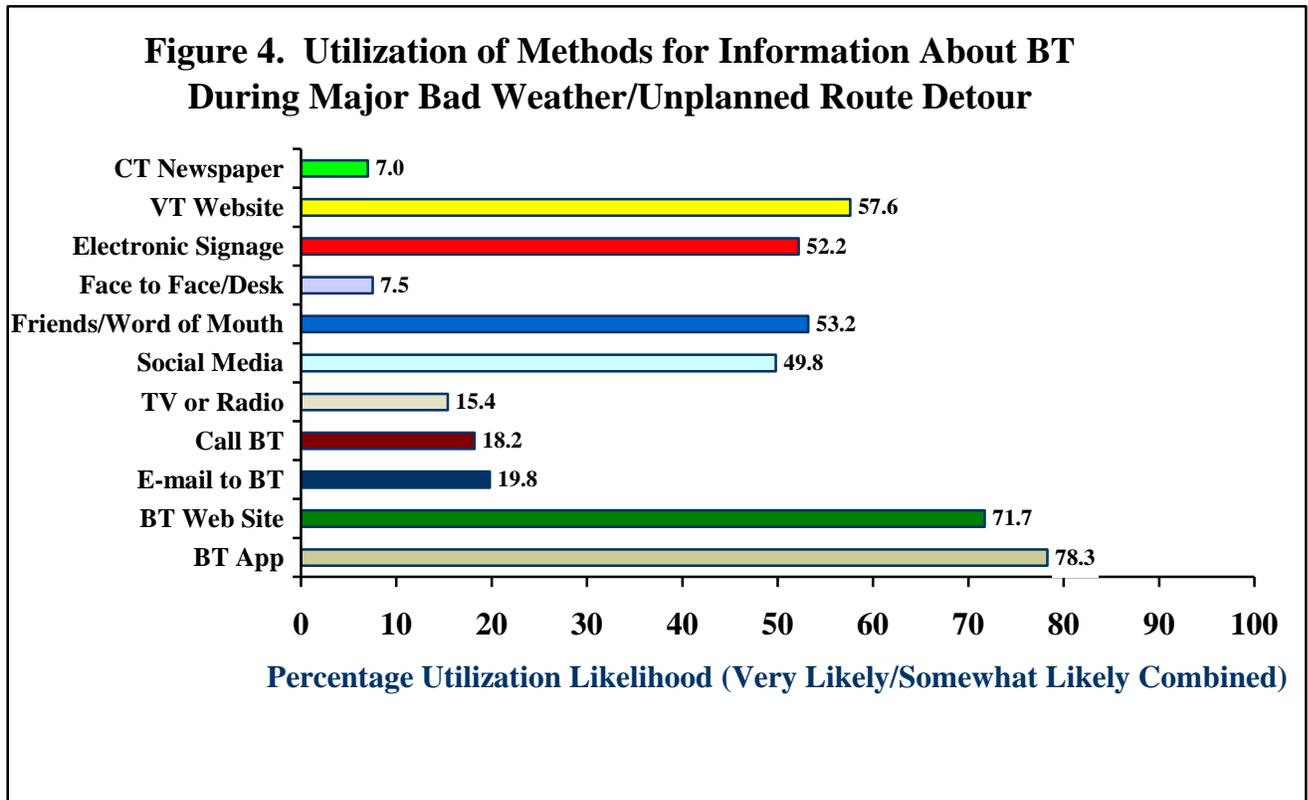
Respondents who ride BT were asked which routes they utilize most often. **Figure 3** depicts the survey findings regarding BT routes utilized most often by respondents. The three routes utilized most frequently by Virginia Tech community members are: the University Mall Shuttle, Toms Creek B, and Progress Street.



It was assumed that campus community members utilize BT during the day to come to the Virginia Tech campus but a better understanding of the purposes of evening and weekend utilization of BT was sought in the study. Specifically, survey participants were asked the frequency with which they ride BT during the evening or on weekends to participate in a variety of activities. The findings from this multi-part survey item are provided in **Table 1**.

Ride Purpose	More Than Once Per Day	About Once Per Day	2-4 Times Per Week	About Once Per Week	Less Than Once Per Week
Go to or from campus	26.2	13.9	21.1	16.6	22.2
Run errands such as going to the grocery store or bank	1.4	1.8	6.0	20.5	70.3
Go to or from employment other than on campus	2.1	1.7	4.5	4.2	87.4
Go to local restaurants, coffee shops, or bars	1.2	1.9	6.9	18.2	71.8
Go to meet friends at their homes	1.4	2.0	8.3	18.3	70.0
Go to local cultural events such as films, plays, concerts, etc.	0.9	1.1	2.8	10.8	84.5
Go to the gym or to participate in sports activities	1.9	4.6	9.6	13.0	70.9
To go out of Blacksburg to Christiansburg or to another bus to go to Roanoke	0.7	0.6	1.7	7.7	89.3

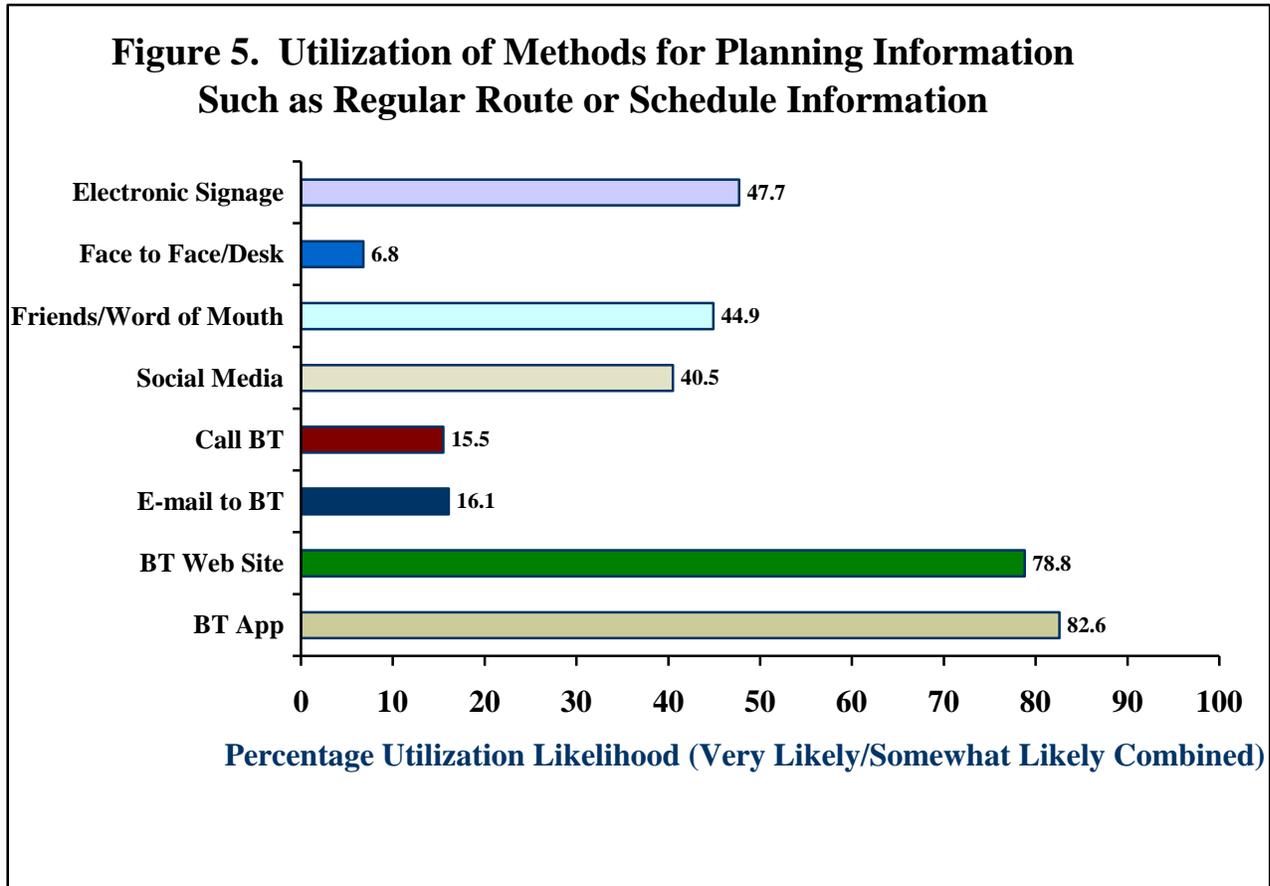
The survey was designed to allow BT to learn more about the communication preferences of Virginia Tech community members and how they would like to receive information about BT services. A multi-part survey item asked respondents how likely they would be to use a number of communication methods to get information about BT service during a major bad weather event or an unplanned route detour. **Figure 4** depicts the findings from this survey item.



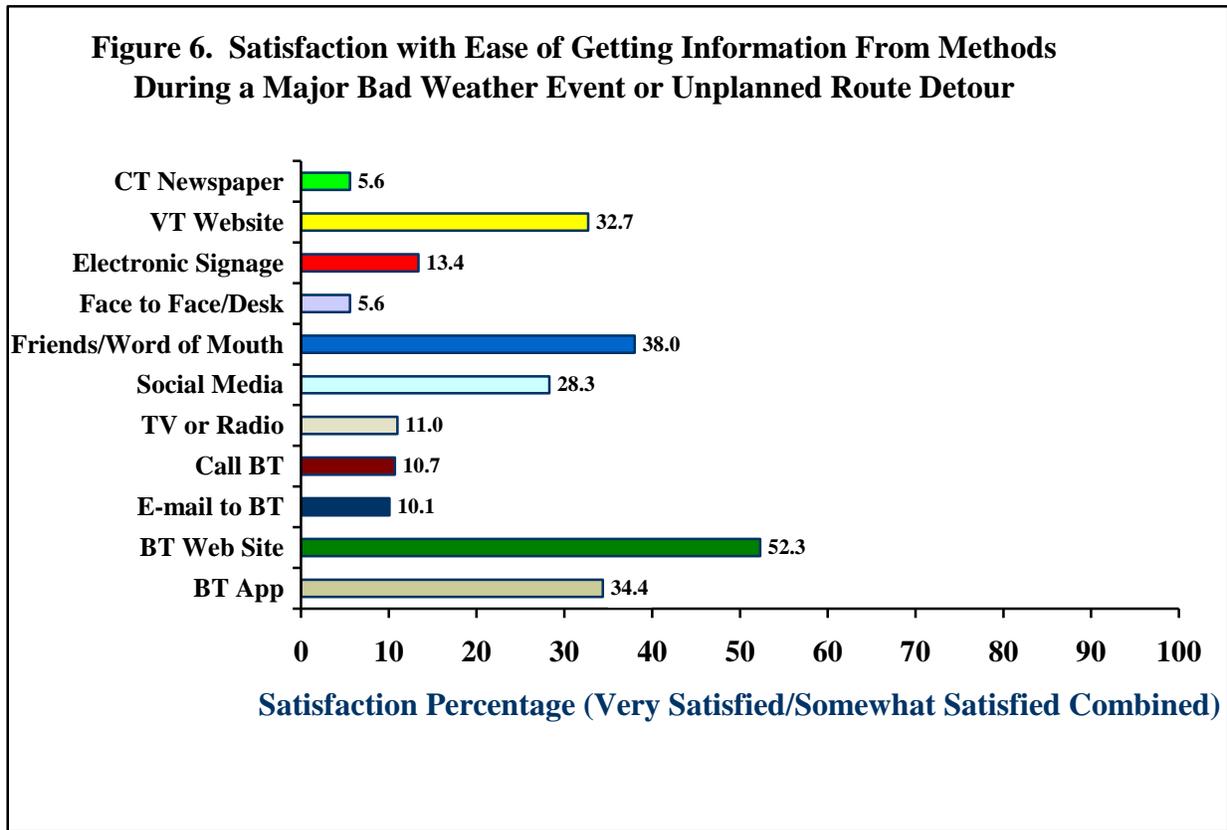
Survey respondents were also asked about the methods they would be most likely to use to gather planning information such as regular route or schedule information. The findings for this item are depicted in **Figure 5**.

While the BT app was the most common communication method for both unplanned/emergency events as well as planned/routine usage, survey respondents did have a number of suggestions for improvements to the BT app which were reported in open-ended survey items (provided in *Appendix E*). The BT website was the second most prevalent method

of communication preferred by VT community members for both routine and unplanned situations.

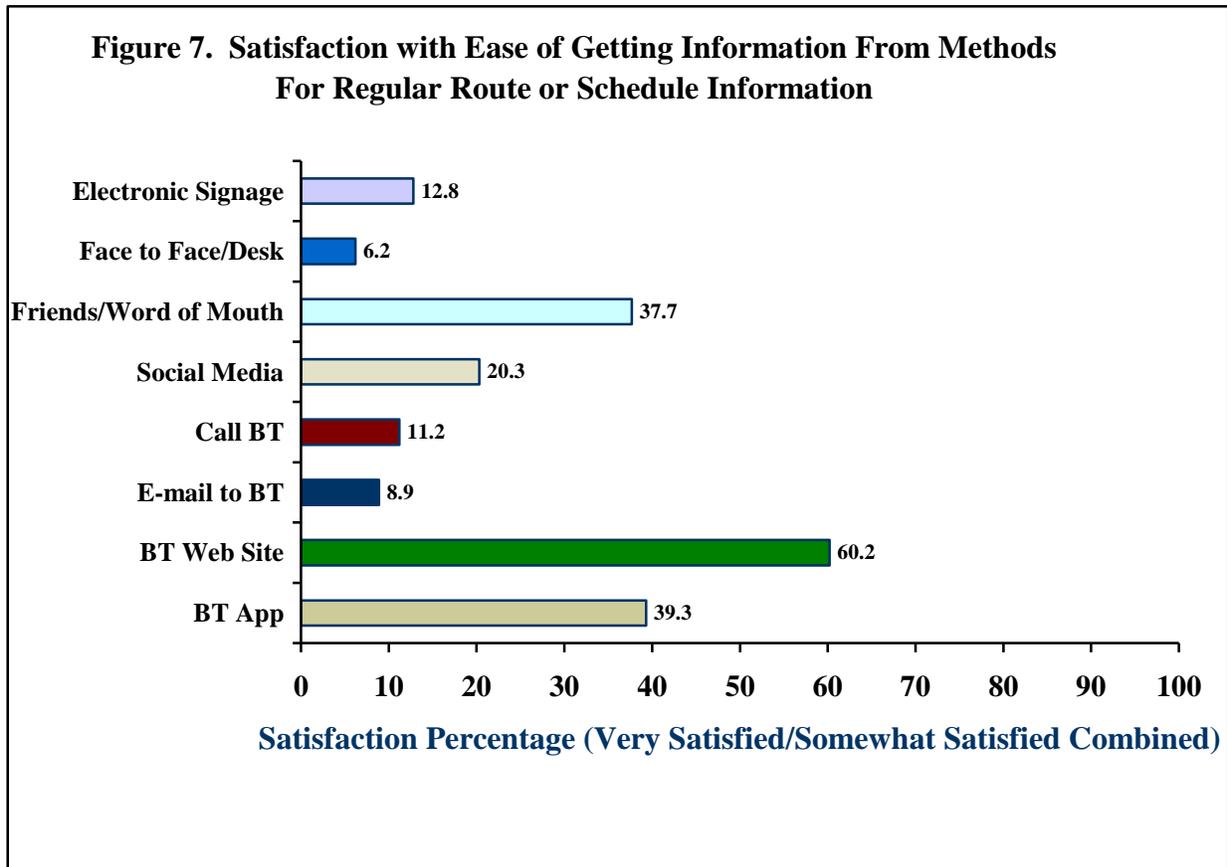


Survey respondents were asked to rate their level of satisfaction with the variety of sources of information presented in the survey and were asked to report their reasons for dissatisfaction if they indicated they were ‘somewhat dissatisfied’ or ‘not at all satisfied’ with a source of information for either unplanned or routine usage. The levels of satisfaction reported for the different information sources are provided in **Figure 6**.

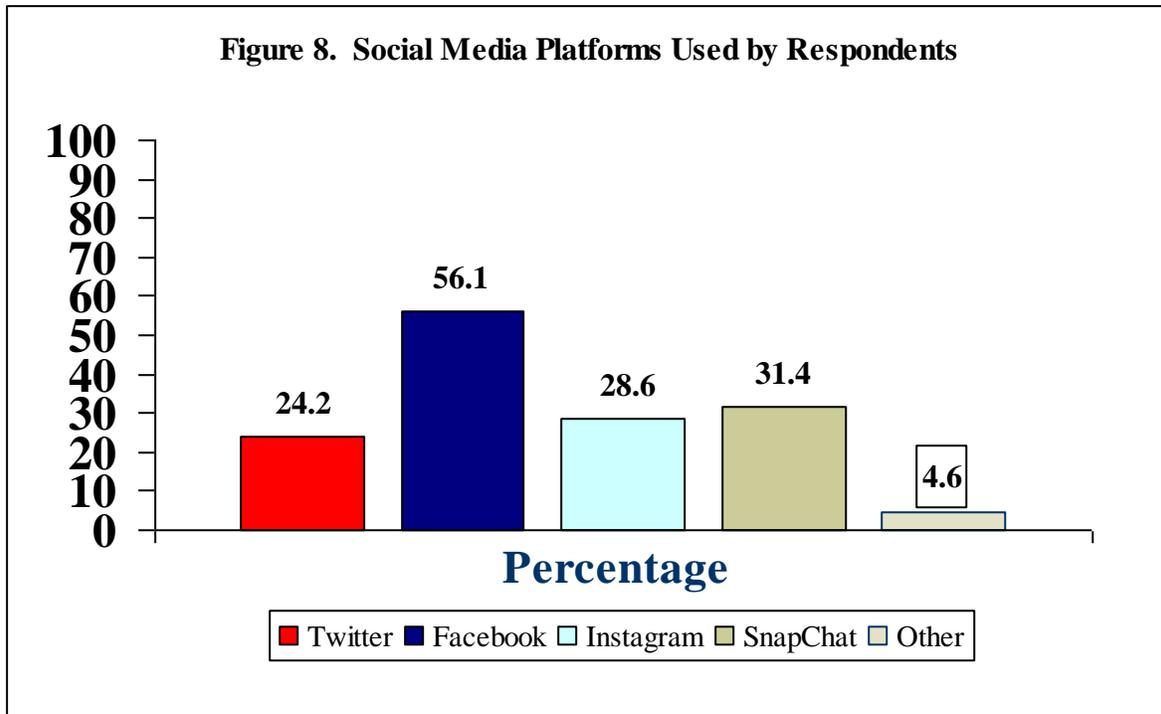


Levels of satisfaction among VT community members were lower for the primary information sources during major bad weather events or unplanned route detours than for routine planning. However, levels of satisfaction with the all information sources was relatively low (less than half of respondents satisfied) for all information sources for both unplanned and planned usage with the exception of the BT Web site which had the highest levels of satisfaction.

Figure 7 depicts the levels of satisfaction for the information sources presented in the survey for regular route or schedule information.



With almost 50 percent of survey respondents reporting they use social media to get BT information for unplanned events and 40 percent of survey respondents reporting they use social media to get BT information for regular planning, knowing which social media platforms are used by VT community members is important. **Figure 8** depicts the percentages for which social media platforms are used by respondents. Facebook, Snapchat, Instagram, and Twitter all appear to be viable communication methods for information exchange regarding BT services. A number of comments related to the utility of social media in getting information about BT services were provided by respondents and may be found in *Appendix E*.



4 Data Transmission and Storage

An SPSS dataset from which the data in this summary report were derived accompanies this report in electronic format. All variable and value labels are provided on the SPSS dataset. All electronic files of the survey instrument, report, and tabulations are the property of Blacksburg Transit. However, the Center for Survey Research will retain copies of all project materials for a period of at least one year. No information from this survey will be shared by the CSR with anyone other than project team members from Blacksburg Transit without the express permission of that office.