



## **Binghamton Metropolitan Transportation Study (BMTS)**

### **Bus Survey Report**

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## **Executive Summary**

The following report summarizes the results of a survey of Broome County Transit (BCT) and Off Campus College Transport (OCCT) riders conducted in the fall of 2009. In addition, it compares relevant data from a similar BCT survey conducted in the spring of 2007.

This study finds that the share of unemployed riders and disabled riders using the BCT bus service has significantly increased since 2007. It also concludes that the most popular form of fare payment is the 31-day pass, which represents a change since 2007. Impressions among 2009 BCT riders were generally favorable. Respondents had especially favorable impressions in the following areas: ease of obtaining a bus schedule, ease of getting to the bus stop, ability of bus routes to meet their needs, and perceived safety on the bus. However, a comparison with the 2007 survey results indicate a significant decrease in rider satisfaction with the reasonability of the fare, bus service reliability, and bus driver knowledge and demeanor. The study found — again, despite generally favorable impressions — that there is room for improvement in the areas of bus punctuality and frequency of the service.

The data collected in the OCCT Survey indicates that a rather homogeneous population of students between the ages of 18 and 34 is the primary group using this service. Among OCCT riders, impressions were overwhelmingly favorable. Despite this, the results of the OCCT

Survey also suggest there is room for improvement in the areas of bus punctuality and frequency of the service. In addition, nearly one in six of the OCCT respondents did not think that the bus routes meet their needs.

### **Introduction**

In partnership with the Binghamton Metropolitan Transportation Study (BMTS), graduate level students enrolled in PAFF 510 (Fall 2009 semester) conducted a survey focused on Broome County Transit (BCT) and Off Campus College Transport, (OCCT) bus services. The survey asked questions regarding information about riders' current trip, rider assessments of the transit system's overall services, and rider background information. This survey is a follow-up survey to one conducted in 2007. The findings of this report overall are positive. The BMTS will be able to use the results of this report to assist with their efforts to improve service efficiency and quality. This survey will also assist with travel modeling, long range and area wide planning, route planning, and scheduling. In addition, it assesses riders' views of the transit provider's performance which might provide a basis for service changes.

### **Potential Threats to Validity and Reliability and Strategies for Minimizing these Threats**

Prior to conducting the survey, students discussed potential threats to reliability, measurement validity, and generalizability. These threats are due to common mistakes made in

survey research. Errors can reflect non-response (in whole or part) to the survey, exclusion of key segments of the population, non-representative sampling, internal design shortcomings and inaccurate measurement. Strategies were developed by the students for minimizing as many of these potential threats as possible.

Assuming that the phenomenon being studied has not changed, survey measurements are reliable when they generate consistent results. Reliability is threatened if the survey is not administered in the same way each time which can result in inconsistent interpretation of the questions among respondents. One key potential threat to the reliability of our survey related to the method of using multiple researchers for collecting and entering data. If these researchers had approached their work differently, it could have resulted in data inconsistencies. However, the project teams took important strategic steps to minimize this threat, namely, training the students collecting and entering data to follow clearly defined protocols for their respective tasks.

Another threat to reliability – one that often exists in survey-based research – is that lack of clarity in the wording of some questions may generate significant variance in subject interpretation of questions. However, the class used a pre-existing survey instrument which had already been pre-tested and revised, reducing the likelihood of reliability errors due to confusing questions.

Measurement validity is another important aspect of research design. Researchers must be careful that their measurement methods and instruments systematically, accurately and fully assess the concepts being studied. Measurement validity is threatened when the survey instrument contains confusing and biased questions, causing respondents to give answers that do not reflect their actual thoughts. When this happens, researchers are not measuring what they want to measure and instead are measuring the flaws in their questions. Similarly, the presence of several consecutive questions using the same rating scale can threaten validity by leading individuals to follow a pattern in their answering that does not necessarily reflect their true beliefs. A similar outcome could also result from a long survey if respondents start simply checking boxes in order to finish the survey without carefully reading the questions. The key strategies for protecting our survey's validity against these types of threats were pre-testing the instrument and using outside consultation. PAFF 510 students in a previous semester carried out these activities.

Generalizability exists when the sample is representative of the target population of the study. When the survey sample is representative, researchers can feel more confident that conclusions drawn from the sample data will hold true for the larger population to which the study is to be generalized. One important threat to generalizability is a low response rate. If a

low percentage of distributed surveys are returned, it is not possible to make generalizations based on the sample to the larger population of bus riders. This is because the sample would not be large enough to assume that it is representative of the larger population. To reduce this threat, data collectors distributed surveys to every person who entered the bus rather than leaving the surveys on the front seat for riders to take with them. Also as part of their training, data collectors were instructed to be polite and approachable in order to maximize our survey return rate. Overall, our response rates were very good: 68.6% for the BCT Survey and 84.2% for the OCCT Survey. This suggests that the threat of a low response rate was effectively addressed.

An additional threat to generalizability arises when the sample is a poor representation of the larger population. One strategy used in this study to minimize this threat was having BMTS randomly select the bus routes on which the surveys were distributed. It should be noted that, because the instrument requires reading, non-readers and non-English speaking subjects may have declined to take the survey. This situation might threaten the generalizability of the research findings to some degree because an important segment of the population might not be represented in the sample. At the data collectors' meeting it was determined, given the research context, that it would not be possible to minimize this threat by providing an option for respondents to take the survey verbally (with the data collector reading it to them).

## **Methodology**

In October 2009, PAFF 510 graduate students re-administered a 2007 survey to assess current riders' usage and perceptions of service quality. Unlike the 2007 survey which only collected data from BCT riders, both BCT and OCCT riders were surveyed in October 2009. The purpose of the survey was to gather information to help identify areas for potential service improvements.

Students from both sections of the Fall 2009 PAFF 510 course were responsible for collecting and analyzing the survey data. In accordance with the policies and procedures upheld by Binghamton University's Human Subjects Research Review Committee (HSRRC), the course instructor and all PAFF 510 students successfully completed the Human Subject Research Certification course prior to conducting this research. An application to conduct the survey was also submitted by the class and approved by the HSRRC.

The course instructor and the students established the protocol for collecting the data prior to data collection. As noted, BMTS staff randomly selected the bus routes for survey distribution. As passengers boarded, a student asked them if they would complete the survey. When passengers agreed, the student supplied them with the appropriate paper survey (BCT or OCCT). The participants read the survey and marked their responses directly on the paper

survey instrument. Participants were not required to answer every question and were able to stop taking the survey at any time. Participants could ask the student(s) distributing the survey for additional information. The paper survey instructed participants to return their surveys to the student before exiting the bus. Additional protocol for the survey specified that if a participant asked how the results of the survey were to be used, the student would respond that the results would be shared with the BMTS.

Participation in the survey was completely anonymous and voluntary. Children were not surveyed. Participants were asked to select their age range when completing the survey. Any survey completed by someone indicating their age was less than 18 was not included in the final database. Any other person entering the bus that was handed a survey was included in the sample.

The data collectors gave the completed surveys to other PAFF 510 students who entered the data. Over the course of the data collection period from October 13, 2009 to October 27, 2009, seven hundred twenty-six (726) BCT surveys were distributed, and four hundred ninety-eight (498) were returned, resulting in a survey response rate of 68.6%. The BCT survey response rate for the 2009 survey was slightly higher than the response rate for the 2007 survey. In 2007, seven hundred and thirty-five (735) BCT surveys were distributed, and four hundred

sixty-two (462) were returned, resulting in a survey response rate of 62.9%. For the OCCT portion of the study, three hundred ninety-eight (398) surveys were distributed and three hundred thirty-five (335) were returned, yielding a response rate of 84.2%.

Questions were divided into the following three sections on both the BCT and OCCT surveys: Today's Trip, Assessment of Services, and Background. Copies of the two surveys are included in Appendix 1. The responses from the *Background* section of the survey are summarized in the Survey Respondent Demographics section of this report. The results based on the other sections of the BCT and OCCT surveys follow in the Findings section. Reported chi square findings were tested at the 5% significance level. Significant findings indicate that there is a less than 5% probability that any observed differences are due to chance. The reported percentages are based on the number of people who answered each question, and not on the entire group who returned surveys.

## **Survey Respondent Demographics**

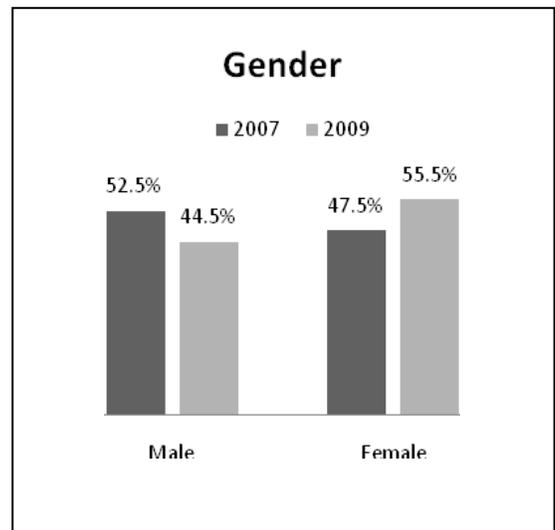
### *BCT Respondents' Demographic Information*

The *Background Information* questions for the 2009 BCT Survey pertained to gender, age, race/ethnicity, disability, and annual household income. This section of the survey also included questions regarding the number of cars in the household, availability of a vehicle,

frequency of bus usage, number years using BCT and if a long term rider, whether they were riding more or less than a year ago. A breakdown of these additional survey results can be found in tables in Appendix 2. In addition, a table comparing riders' backgrounds from 2007 to 2009 is found in Appendix 4.

In the BCT Survey for 2009, 55.48% of the respondents were female. Female survey respondents increased by 8.01 percentage points from 2007 to 2009 (See Figure 1.) The majority of respondents reported that they were between 18 and 34 years old in both 2007 (63.23%) and 2009 (59.28%). The next most

Figure 1



highly represented age range in both years was 35 – 54, with 28.19% of respondents selecting that range in 2009 and 26.70 % choosing it in 2007. In the BCT Surveys, the most common response for race/ethnicity was White, in both 2007 (47.42%) and 2009 (45.65%). With regard to the other race/ethnicity categories, 21.09% of the 2009 respondents were African-American, 10.87% were Asian, and 8.70% were Hispanic-American. In total, 13.7% of respondents chose the “other” category or indicated that they preferred not to answer this question. There was a significant decrease between 2007 and 2009 in the percentage

of respondents who indicated their ethnicity was Asian. In 2007, 16.43% of respondents indicated that they were Asian compared to 10.87% of respondents in 2009.

In 2009, significantly more BCT survey respondents reported that they were disabled

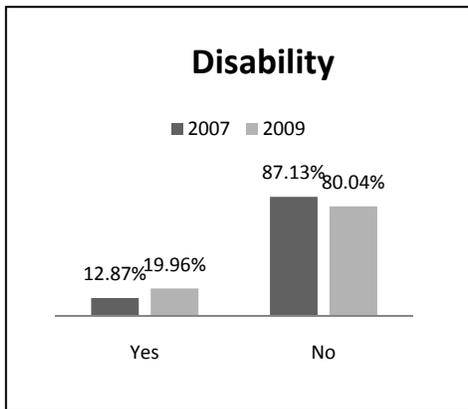


Figure 2

than in 2007 (See Figure 2.) In 2007, 12.87% of respondents indicated that they were disabled compared to 19.96% of respondents in 2009. For the 2009 respondents that indicated that they had a disability, more than half specified that it was mobility impairment.

The employment status of 2009 survey respondents is as follows: 29.89% were employed full-time; 28.51% were students, 17.93% were employed part time, 16.09% were unemployed, and 7.59% were retired. When compared with the 2007 employment status of

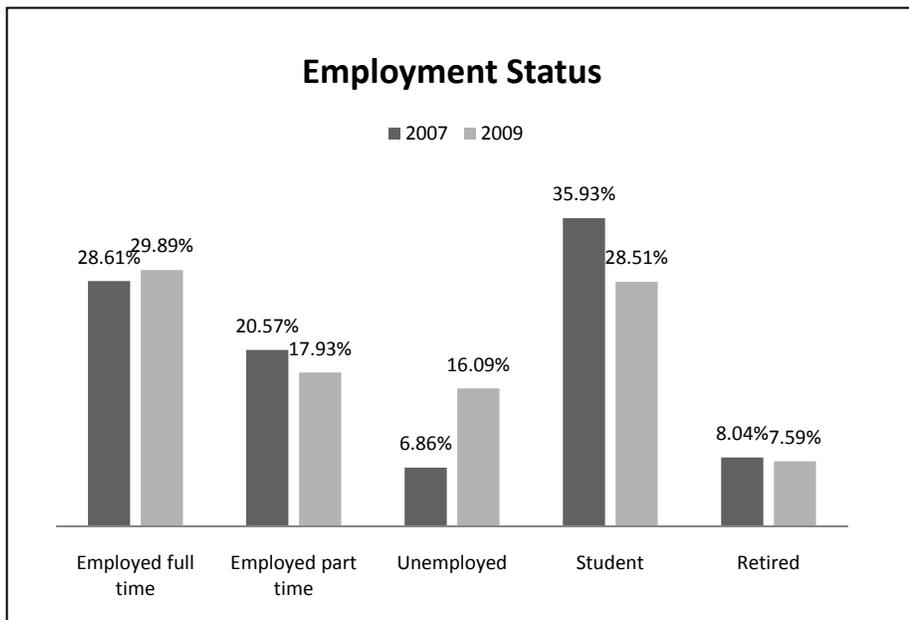


Figure 3

respondents, there was a significant increase in the percentage of respondents who indicated that they were “unemployed.” The percentage of respondents who were unemployed increased 9.23 percentage points from 2007 to 2009. There was also a 7.42 percentage point decrease in the share of survey respondents indicating that they were “students.” (See Figure 3.)

The greatest share of respondents indicated that their annual household income was less than \$15,000 for both the 2007 (41.11%) and 2009 (35.18%) surveys. The second largest segment of respondents reported that their annual household income was between \$15,000 and \$29,999. Nearly 24% of 2007 respondents and 28% of 2009 respondents preferred not to answer this question.

In a survey planning meeting with the graduate students, a BMTS representative mentioned that one goal was to increase ridership among people who have alternative means of transportation. However, a trend in the data from 2007 to 2009 does not suggest progress has been made toward achieving this goal. The share of respondents that said a vehicle was available to them decreased by 8.59 percentage points between 2007 and 2009.

In summary, the demographics of the 2009 surveyed population of BCT are as follows: the largest segments of the respondents were female, Caucasian, between the ages of 18-34, unemployed, and from households with incomes less than \$15,000.

### *OCCT Respondent Demographic Information*

The *Background Information* questions on the 2009 OCCT Survey were very similar to the ones on the 2009 BCT Survey. The only major differences were that the 2009 OCCT Survey did not ask riders about their annual household income and the number of cars in their household. The information described below for survey respondents of the 2009 OCCT Survey is detailed in Appendix 3.

The vast majority of the riders surveyed, 95.99%, indicated that they were between 18 and 34 years old. There were 2.78% that specified that they were between the ages of 35 and 54. Very few respondents indicated that they were more than 55 years of age. Of those surveyed, the greatest share of respondents classified their race or ethnicity as Asian (43.89%). With respect to other race/ethnicity categories, 28.53% of the respondents selected White, 9.40% selected African-American, 7.21% chose Hispanic-American, and 10.97% of the respondents identified themselves as other, or preferred not to answer. With respect to gender, 58.20% of respondents were male.

The vast majority of the survey respondents (96.87%) indicated that they did not have a disability. Of those that did have a disability, 35.71% of them specified that it was a vision impairment while, 14.29% indicated that they had a mobility impairment. An additional 50% of

those who indicated that they had a disability reported that the disability was something other than a vision or mobility impairment.

Of those surveyed, 70.70% of the riders indicated that they did not have a vehicle available to use. Those who had a vehicle and those who had one only sometimes were equally divided at 14.65%. Approximately two-thirds of survey respondents (66.15%) indicated that they use the OCCT bus 5 or more times per week while 21.12% of respondents used it 3 to 4 and 8.39% used it 1 or 2 times. Four percent of riders rode the OCCT bus less than once a week. The majority (64.91%) of the survey respondents indicated that that they have been riding the OCCT bus for between 1 and 5 years. Thirty-one percent of survey respondents had been riding the bus less than one year, and 3.11% had been riding for more than 5 years. Of those who have been riding more than one year, 46.04 % are riding more often now than a year ago while 13.67% are riding less often. About 26.63% are riding the same as they did a year ago, and 13.67% have not been riding for more than a year. These survey results regarding the length of time riders have used the bus service and the change in their riding frequency should be interpreted with caution. The data collected on the 2009 survey indicates that some of the respondents were not reading these questions completely before responding.

In summary, the demographics of the 2009 surveyed population of OCCT are as follows: the largest segments of the respondents were between the ages of 18 and 34, male, Asian, and had no disabilities. Also, the majority of the respondents did not have a vehicle available to use and use the bus five or more times a week.

## **Findings**

### *BCT Today's Trip*

In the *Today's Trip* section, the respondents answered questions about their trip taken on the day the survey was administered. A large majority (84.19%) of the survey respondents indicated that it took ten minutes or less to reach the bus stop in 2009, an increase of about 25 percentage points from 2007, when only 59.35% of riders indicated their trip to the stop was either 1-5 minutes or 6-10 minutes. In 2009, approximately 95% of respondents walked to get to the bus stop, a very slight change from the 93% of respondents who walked to the bus stop in 2007.

In comparison with the 2007 survey, there was a significant increase (18.33%) in the use of the 31 day bus pass as a form of fare. In addition to changes in the way riders are paying for fare, there has been about a 10% decrease between 2007 and 2009 in the selection of "school" as the purpose of the bus trip. There was a very slight increase in the share of respondents selecting

shopping, leisure and medical appointments as the purpose of their trip. A table comparing 2007 and 2009 responses for questions regarding fare type and trip purpose appears in Appendix 5.

While there has been a slight variation in trip purpose for riders, the overall travel patterns seem unchanged. Approximately 45% of riders needed a transfer in 2009 compared to 42% in 2007. The locations of each transfer remained similar as well. Respondents were asked how they may have made their trip without the bus service. In 2009, 22.94% of respondents said they would take a taxi, 21.47% would ride with someone, and 20% said they would “walk”. Only 4.41% of respondents said they would drive and only 2.94% said they would use a bicycle. Approximately 28% of respondents in 2009 said they would not make their trip without the bus service. The portion of respondents who indicated that they would not make their trip without the bus increased from approximately 13% in 2007.

A cross-examination of the 2009 data yields additional findings. For example, males and females differ significantly in their purposes for riding the bus. Males are more likely to use the bus for work and leisure, while females are more likely to ride the bus to get to school, shopping and medical appointments.

*BCT Assessment of Services*

In the *Assessment of Services* section of the BCT Survey, respondents indicated their level of agreement with several statements about different aspects of the bus service. Survey respondents were also given a “don’t know” option when answering these questions. A majority of respondents to the 2009 BCT Survey expressed agreement with 13 of the 18 service assessment questions by selecting either strongly agree or agree. Particularly large majorities of respondents expressed agreement with four questions, suggesting that large segments of riders had an especially favorable impression of these aspects of service. Slightly more than 70% agreed that the bus schedule was easy to obtain; nearly 68 % agreed that they feel safe on the bus; 66.38% agreed that bus stops were easy to get to; and nearly 61% agreed that bus routes meet their needs.

A majority of respondents did not express disagreement with any of the statements in the *Assessment of Services* section. However, respondents did indicate higher levels of disagreement with two questions compared to the others. In response to questions regarding the frequency and punctuality of the bus service, 27.29% and 28.45 % of riders, respectively, expressed disagreement by selecting disagree or strongly disagree. A large share of respondents also disagreed (18.88%) that bus fares were reasonable. In addition, a particularly high portion of

respondents (27.38 %) chose the “don’t know” option in response to the question asking if the BCT website is easy to use. This suggests that more than one-quarter of BCT riders may not have experience using the organization’s website. There does not appear to be a relationship between respondent age and the likelihood of not knowing if the website is easy to use.

Overall, the riders’ assessment of BCT services was favorable. When compared with the results of a similar survey conducted in 2007, however, it is apparent that fewer riders express favorable impressions regarding these service features today than did so two years ago. On 14 of the 18 service assessment questions, agreement declined *and* disagreement grew between 2007 and 2009. Of particular significance is the change in riders expressing agreement in response to the question, “Is the bus fare reasonable?” The share of respondents who agreed or strongly agreed that bus fares were reasonable decreased significantly, dropping by nearly 24 percentage points from 2007 to 2009. Moreover, the share who disagreed that fares were reasonable increased by a little more than 12 percentage points. A cross-examination of 2009 data shows that there is no significant difference in rider impressions of fare reasonability based on either household income or employment status. This fact is especially interesting since the share of unemployed riders has increased significantly since 2007. It is unclear why, then, rider impressions of fare reasonability have worsened. It could possibly relate to the poor economy or

to the recent fare increase instituted by BCT, but this survey did not collect data that would help determine the reason for the change.

Reliability of service is another area where rider impressions have worsened since last assessed. In 2007, 10.65% of respondents disagreed that service was reliable, while 15.82% disagreed that service was reliable in 2009. This increase in the percentage of riders expressing disagreement that bus service is reliable is significant. Rider ratings of the bus drivers' service knowledge and demeanor have declined significantly as well. On the question of bus drivers' knowledge of services, rider agreement declined by nearly eight percentage points. Agreement with driver professionalism and courtesy dropped by 9.46 and 10.63 percentage points, respectively. See Table 1 for a snapshot of the findings discussed above. Appendix 6 compares the 2007 and 2009 BCT rider assessments for all services.

<b>2009</b>			<b>2007</b>			
<b>Question</b>	<b>Strongly Agree &amp; Agree</b>	<b>Disagree &amp; Strongly Disagree</b>	<b>Strongly Agree &amp; Agree</b>	<b>Disagree &amp; Strongly Disagree</b>	<b>2007 – 2009 Change in Agreement</b>	<b>2007 – 2009 Change in Disagreement</b>
Is bus fare reasonable?	49.36%	18.88%	73.08%	6.79%	-23.72%	12.10%
Is the bus service reliable?	58.90%	15.82%	68.29%	10.65%	-9.39%	5.18%
Is the bus driver knowledgeable about services?	57.14%	12.97%	64.97%	10.67%	-7.82%	2.29%
Is the bus driver professional?	59.07%	14.16%	68.53%	10.72%	-9.46%	3.44%
Is the bus driver courteous?	55.26%	14.04%	65.89%	10.90%	-10.63%	3.13%

Table 1

A cross-examination of the 2009 survey results reveals other noteworthy insights. For example, males are significantly more likely than females to report feeling safe on the bus (73% of males versus 63% of females), as well as at the bus stop (69% of males versus 53% of females). In addition, those who said they transferred buses were somewhat more likely than those who did not transfer to say that bus routes did not meet their needs, although this difference falls short of statistical significance. Not surprisingly, those who need more time to get to the bus stop were significantly more likely to express disagreement that bus stops are easy to get to. Of those needing only 1-5 minutes to reach their stop, 7.61% disagreed that stops are easy to get to, compared with 17.58% of those needing 6-10 minutes and 19.44% of these needing 11-15 minutes to reach their stop.

### *OCCT Today's Trip*

In the *Today's Trip* section of the OCCT Survey, riders answered questions regarding their trip on the day the survey was administered. Eighty percent of riders took 10 minutes or less to reach the bus stop while 5.15% took more than 26 minutes to get there. Of the 325 individuals who answered how they got to the bus stop, 96.92% got there by walking; 1.54% used a bicycle; less than 1% were dropped off, and less than 1% used a wheelchair. Ninety-three percent of the individuals who boarded the bus did not use a lift or ramp in order to get on the

bus. The OCCT bus is primarily for students, so it was not surprising to see that 77.70% of the respondents used today's trip to get to school. Nine percent used it to get to work and 12.59% used it for shopping and leisure. Only 7.34% of riders needed to transfer to another bus and, of those riders, 40.74% transferred at the junction, 48.15% at Binghamton University, 3.70% at Endicott/Washington stop and 7.41% transferred in downtown Johnson City. There were some inconsistencies in our data as 3 people who said they did not transfer checked a transfer location. When asked about alternatives to taking the bus, 25.10% would not have made the trip if the bus was not available, while 24.28% would have ridden with someone else. The other riders would have taken a taxi (12.35%), driven (10.70%), walked (8.23%), or used a bicycle (2.47%). Sixteen percent of those who took the trip did not specify what their alternative means of transportation would be. Fifty-six percent of survey respondents were making 2 one-way trips and 10.48 % were making more than 4 one-way trips.

### *OCCT Assessment of Services*

Survey results indicate that riders generally have favorable impressions of OCCT services. A majority of respondents expressed agreement in response to all 16 of the service assessment questions presented in the survey, and at least sixty percent of respondents indicated that they agreed with 14 statements in this section. The statements that at least sixty percent of

respondents agreed with related to the following service areas: perceived safety on the bus (80.98% agreement), ease of understanding the bus schedule (79.01 % agreement), ease of obtaining a bus schedule (73.77% agreement), ease of getting to the bus stops (73.01% agreement), bus cleanliness (72.62% agreement), ease of website use (72.19 % agreement), courtesy of the bus driver (69.78% agreement), perceived safety at the bus stop (69.04 % agreement), comfort of bus seating (67.08% agreement), reliability of bus service (66.15% agreement), professionalism of the bus driver (66.05% agreement), ability of bus routes to meet rider needs (64.11% agreement), comfort of bus temperature (68.92% agreement), and knowledge of the bus driver (60.87% agreement).

There were two questions that generated agreement from slimmer majorities. These pertained to bus frequency (53.99% agreement; 22.39% disagreement; 20.86% neutral; 2.76% don't know) and punctuality (56.31% agreement; 24.92% disagreement; 17.85% neutral; 0.92% don't know.) In addition, while slightly more than 64% of riders agreed that bus routes meet their needs, a full 15.95% disagreed with that assertion. In summary, approximately one in four OCCT riders does not think buses are frequent or punctual enough, and one in six does not think the current bus routes serve their needs.

Among sub-groups of OCCT riders, some impressions differ. For example, female riders are somewhat less likely than male riders to feel safe on the bus (85 % of males feel safe versus 75% of females) although this difference was not significant. A smaller portion of females than males also report feeling safe at the bus stop (78% of males versus 57% of females). This difference was significant. Another significant relationship exists between the length of time it takes a rider to reach the bus stop and the rider's agreement in response to the question, "Are the bus stops easy for you to get to?" Seventy-four percent of riders who took between one and five minutes to reach their stop expressed agreement with bus stop convenience, compared with only 52 % of riders who needed 11 – 15 minutes to get to their stop.

### **Conclusion and Discussion**

The demographics of the BCT survey respondents have changed to some extent since the 2007 survey. The percentage of respondents that are unemployed has increased by close to nine percentage points, to 16.09% in 2009. Approximately 20% of the 2009 respondents have disabilities as compared to nearly 13% in 2007, and more than half of these disabilities are mobility impairments. Also, a greater share of 2009 riders does not have a vehicle available to them compared with 2007 riders.

Overall, riders' assessments of BCT services remain favorable. A majority of respondents had favorable impressions regarding 13 of the 18 aspects of service that were asked about on the survey. Respondents had especially favorable impressions in the following areas: ease of obtaining a bus schedule, ease of getting to the bus stop, ability of bus routes to meet their needs, and perceived safety on the bus. However, the survey results also suggest areas for service improvement which include increasing the frequency and the timely arrival of the buses. In addition, the bus fares are not perceived to be as reasonable as they were in the previous survey.

More than 50% of OCCT survey respondents were male, used the bus five or more times a week and used the bus to get to school. Among OCCT respondents, the most frequently selected racial/ethnic category was Asian. Almost all of the OCCT respondents were between the ages of 18 and 34. One quarter of OCCT respondents indicated that they would not have made the trip if the bus was unavailable.

Similar to the BCT survey results, the impressions of the OCCT survey respondents regarding bus services were generally positive. Respondents had especially favorable impressions in the following areas: perceived safety on the bus, ease of understanding the bus schedule, ease of obtaining a bus schedule, ease of getting to bus stops, bus cleanliness, ease of

website use, courtesy of the bus driver, perceived safety at the bus stop, comfort of bus seating, reliability of bus service, professionalism of the bus driver, ability of bus routes to meet rider needs, comfort of bus temperature, and knowledge of bus driver. On the other hand, the survey results suggest that OCCT could improve the frequency and punctuality of their buses. Also, in regards to responses by gender, fewer females than males feel safe on the bus and at the bus stops.

## Technical Appendices

### APPENDIX 1: The Survey Instruments

**2. Race/Ethnicity:**  
 African-American  
 Asian  
 Hispanic-American  
 White  
 Other  
 Prefer not to answer

**3. Gender:**  
 Male  Female

**4. Employment status:**  
 Employed full time  
 Employed part time  
 Unemployed  
 Student  
 Retired

**5. Do you have a disability?**  
 Yes  No  
If yes,  Mobility impairment  
 Vision impairment  
 Other

**6. What is your annual household income?**  
 Less than \$15,000  
 \$15,000-\$29,999  
 \$30,000-\$49,999  
 \$50,000 or higher  
 Prefer not to answer

**7. How many cars in your household?**  
 0  1  2  More than 2

**8. Is there a vehicle available for you to use?**  
 Yes  No  Sometimes

Please turn the page over →

**9. How many days a week, on average, do you use BC-Transit?**  
 5 or more  
 3 to 4  
 1 to 2  
 Less than once a week

**10. How many years have you been using BC-Transit?**  
 Less than 1 year  
 1 to 5 years  
 More than 5 years

**11. If you have been riding more than one year, are you riding more or less than one year ago?**  
 Riding more often  
 Riding less often  
 About the same  
 Have not been riding the bus for more than a year

*Thank You!*

For Surveyor Use



**We Go Where  
You Go!**

**BC-TRANSIT  
RIDER SURVEY**

BC-Transit is conducting a survey of its customers. The information we gather will be used to improve BC-Transit services. Please take a few minutes to complete this survey.

When you leave the bus, please return the survey to the person who gave you the survey.

Your survey responses will be kept anonymous. If you decide to participate, you do not have to answer all questions and may stop at anytime.

Thank you so much for your time!

Binghamton Metropolitan Transportation Study  
PO Box 1766  
Binghamton, NY 13902-1766

Today's Trip

**1. How long did it take you to reach the bus stop?**  
 1 – 5 minutes  
 6 - 10 minutes  
 11 - 15 minutes  
 16 - 20 minutes  
 21 - 25 minutes  
 26 minutes or more

**2. How did you get to the bus stop?**  
 (check all that apply)  
 Walked  Bicycle  Dropped off  
 Used a wheelchair  
 Other \_\_\_\_\_

**3. How did you pay your fare?**  
 Cash  
 Single ride pass  
 2-way ride pass  
 12 ride pass bought at Weis  
 BU ID  
 Medical voucher  
 31 day bus pass  
 Other \_\_\_\_\_

**4. Did you use the lift/ramp to board the bus?**  
 Yes  No

**5. Did you use the bicycle rack?**  
 Yes  No

**6. What is the purpose of today's trip?**  
 (check all that apply)  
 Work  School  Shopping  
 Leisure  
 Medical appointment  
 Other \_\_\_\_\_

**7. Do you need to transfer buses today?**  
 Yes  No

**If yes, where?**  
 BC Junction  
 Binghamton University  
 Endicott/Washington Ave  
 Downtown Johnson City

**8. If bus service were not available, how would you have made your trip?** (check all that apply)  
 Drive  Ride with someone  Taxi  Bicycle  
 Walk  Would not make this trip  Other \_\_\_\_\_

**9. How many one-way trips are you going to make today?**  
 1  2  3  4 or more

Assessment of Services

**Please rate bus services using a scale from 1 to 6 where:**

1 = Strongly agree  
 2 = Agree  
 3 = Neutral  
 4 = Disagree  
 5 = Strongly Disagree  
 6 = Don't know

**1. Is the bus fare reasonable?**  
 1  2  3  4  5  6

**2. Is it easy to purchase swipe cards?**  
 1  2  3  4  5  6

**3. Is the bus schedule easy to understand?**  
 1  2  3  4  5  6

**4. Is the bus schedule easy to obtain?**  
 1  2  3  4  5  6

**5. Is the BC Transit website easy to use?**  
 1  2  3  4  5  6

**6. Are the bus stops easy for you to get to?**  
 1  2  3  4  5  6

**7. Do the bus routes meet your needs?**  
 1  2  3  4  5  6

**8. Is the bus service frequent enough to meet your needs?**  
 1  2  3  4  5  6

**9. Are the buses consistently on time?**  
 1  2  3  4  5  6

**10. Is the bus driver knowledgeable about services?**  
 1  2  3  4  5  6

**11. Is the bus driver professional?**  
 1  2  3  4  5  6

**12. Is the bus driver courteous?**  
 1  2  3  4  5  6

**13. Are the buses clean inside?**  
 1  2  3  4  5  6

**14. Is the bus seating comfortable?**  
 1  2  3  4  5  6

**15. Is the bus temperature comfortable?**  
 1  2  3  4  5  6

**16. Is the bus service reliable?**  
 1  2  3  4  5  6

**17. Do you feel safe on the bus?**  
 1  2  3  4  5  6

**18. Do you feel safe at the bus stop?**  
 1  2  3  4  5  6

Background Information

**1. Age:**  
 Under 18  18 – 34  35 – 54  
 55 – 64  65 or older

Please turn the page over →

4. Do you have a disability?  
 Yes  No  
If yes,  Mobility impairment  
 Vision impairment  
 Other

5. Is there a vehicle available for you to use?  
 Yes  No  Sometimes

6. How many days a week, on average, do you use OCCT?  
 5 or more  
 3 to 4  
 1 to 2  
 Less than once a week

7. How many years have you been using OCCT?  
 Less than 1 year  
 1 to 5 years  
 More than 5 years

8. If you have been riding more than one year, are you riding more or less than one year ago?  
 Riding more often  
 Riding less often  
 About the same  
 Have not been riding the bus for more than a year

*Thank You!*

For Surveyor Use



**OCCT  
RIDER SURVEY**

OCCT is conducting a survey of its customers. The information we gather will be used to improve OCCT services. Please take a few minutes to complete this survey.

When you leave the bus, please return the survey to the person who gave you the survey.

Your survey responses will be kept anonymous. If you decide to participate, you do not have to answer all questions and may stop at any time.

Thank you so much for your time!

Binghamton Metropolitan Transportation Study  
PO Box 1766  
Binghamton, NY 13902-1766

**Today's Trip**

**1. How long did it take you to reach the bus stop?**  
 1 - 5 minutes  
 6 - 10 minutes  
 11 - 15 minutes  
 16 - 20 minutes  
 21 - 25 minutes  
 26 minutes or more

**2. How did you get to the bus stop?**  
 (check all that apply)  
 Walked  Bicycle  Dropped off  
 Used a wheelchair  
 Other \_\_\_\_\_

**3. Did you use the lift/ramp to board the bus?**  
 Yes  No

**4. What is the purpose of today's trip?**  
 (check all that apply)  
 Work  School  Shopping  
 Leisure  
 Medical appointment  
 Other \_\_\_\_\_

**5. Do you need to transfer buses today?**  
 Yes  No

**If yes, where?**  
 BC Junction  
 Binghamton University  
 Endicott/Washington Ave  
 Downtown Johnson City

**6. If bus service were not available, how would you have made your trip?** (check all that apply)  
 Drive  Ride with someone  Taxi  Bicycle  
 Walk  Would not make this trip  Other

**7. How many *one-way* trips are you going to make today?**  
 1  2  3  4 or more

**Assessment of Services**

Please rate bus services using a scale from 1 to 6 where:

1 = Strongly agree  
 2 = Agree  
 3 = Neutral  
 4 = Disagree  
 5 = Strongly Disagree  
 6 = Don't know

**1. Is the bus schedule easy to understand?**  
 1  2  3  4  5  6

**2. Is the bus schedule easy to obtain?**  
 1  2  3  4  5  6

**3. Is the OCCT website easy to use?**  
 1  2  3  4  5  6

**4. Are the bus stops easy for you to get to?**  
 1  2  3  4  5  6

**5. Do the bus routes meet your needs?**  
 1  2  3  4  5  6

**6. Is the bus service frequent enough to meet your needs?**  
 1  2  3  4  5  6

**7. Are the buses consistently on time?**  
 1  2  3  4  5  6

**8. Is the bus driver knowledgeable about services?**  
 1  2  3  4  5  6

**9. Is the bus driver professional?**  
 1  2  3  4  5  6

**10. Is the bus driver courteous?**  
 1  2  3  4  5  6

**11. Are the buses clean inside?**  
 1  2  3  4  5  6

**12. Is the bus seating comfortable?**  
 1  2  3  4  5  6

**13. Is the bus temperature comfortable?**  
 1  2  3  4  5  6

**14. Is the bus service reliable?**  
 1  2  3  4  5  6

**15. Do you feel safe on the bus?**  
 1  2  3  4  5  6

**16. Do you feel safe at the bus stop?**  
 1  2  3  4  5  6

**Background Information**

**1. Age:**  
 Under 18  18 - 34  35 - 54  
 55 - 64  65 or older

**2. Race/Ethnicity:**  
 African-American  
 Asian  
 Hispanic-American  
 White  
 Other  
 Prefer not to answer

**3. Gender:**  
 Male  Female

Please turn the page over →

*APPENDIX 2: BC Transit Rider Survey Results*

<b>BCT TODAY'S TRIP</b>		
Question	Frequency	Distribution
<b>Q1. How long did it take you to reach the bus stop</b>		
1-5 Minutes (1)	315	64.68%
6-10 Minutes (2)	95	19.51%
11-15 Minutes (3)	36	7.39%
16-20 Minutes (4)	15	3.08%
21-25 Minutes (5)	8	1.64%
26 Minutes or more (6)	18	3.70%
Total Responses	487	
<b>Q2. How did you get to the bus stop</b>		
Walked (1)	455	95.39%
Bicycle (2)	5	1.05%
Dropped Off (3)	14	2.94%
Used a wheelchair (4)	2	0.42%
Other	1	0.21%
Total Responses	477	

Q3. Form of fare		
Cash	146	30.23%
Single ride pass	15	3.11%
Two way ride pass	12	2.48%
12 ride pass	11	2.28%
BU ID	96	19.88%
Medical voucher	7	1.45%
31 day bus pass	196	40.58%
Other	0	0.00%
Total Responses	483	
Q4. Use of Lift/Ramp		
Yes	17	3.53%
No	464	96.47%
Total Responses	481	
Q5. Use of Bike Rack		
Yes	17	3.53%
No	465	96.47%
Total Responses	482	
Q6. Purpose of Trip		
Work	124	30.17%
School	110	26.76%
Shopping	62	15.09%
Leisure	43	10.46%
Medical appointment	40	9.73%
Other	32	7.79%
Total Responses	411	

Q7. Need of Transfer		
Yes	213	45.32%
No	257	54.68%
Total Responses	470	
Q7b. If Transfer, Where Transfer		
BC Junction	189	83.26%
Binghamton University	18	7.93%
Endicott/Washington Ave	13	5.73%
Downtown Johnson City	7	3.08%
Total Responses	227	
Q8. How Would Trip be Made Without Buses		
Drive	15	4.41%
Ride with someone	73	21.47%
Taxi	78	22.94%
Bicycle	10	2.94%
Walk	68	20.00%
Would not make trip	96	28.24%
Other	0	0.00%
Total Responses	340	
Q9. Number of One-way Trips (454 responses)		
1	126	27.75%
2	216	47.58%
3	41	9.03%
4 or more	71	15.64%
Total Responses	454	

**BCT ASSESSMENT OF SERVICES**

Q1. Is the bus fare reasonable?

Strongly agree	119	25.54%
Agree	111	23.82%
Neutral	114	24.46%
Disagree	57	12.23%
Strongly Disagree	31	6.65%
Don't Know	34	7.30%
Total Responses	466	

Q2. Is it easy to purchase swipe cards?

Strongly agree	131	28.85%
Agree	103	22.69%
Neutral	90	19.82%
Disagree	28	6.17%
Strongly Disagree	34	7.49%
Don't Know	68	14.98%
Total Responses	454	

Q3. Is the bus schedule easy to understand?

Strongly agree	136	29.12%
Agree	142	30.41%
Neutral	69	14.78%
Disagree	56	11.99%
Strongly Disagree	33	7.07%
Don't Know	31	6.64%
Total Responses	467	

Q4. Is the bus schedule easy to obtain?		
Strongly agree	193	41.24%
Agree	135	28.85%
Neutral	46	9.83%
Disagree	39	8.33%
Strongly Disagree	21	4.49%
Don't Know	34	7.26%
Total Responses	468	

Q5. Is the BC Transit website easy to use?		
Strongly agree	109	25.29%
Agree	90	20.88%
Neutral	60	13.92%
Disagree	28	6.50%
Strongly Disagree	26	6.03%
Don't Know	118	27.38%
Total Responses	431	

Q6. Are the bus stops easy for you to get to?		
Strongly agree	179	38.83%
Agree	127	27.55%
Neutral	71	15.40%
Disagree	27	5.86%
Strongly Disagree	26	5.64%
Don't Know	31	6.72%
Total Responses	461	

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Q7. Do the bus routes meet your needs?

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Strongly agree	148	32.17%
Agree	132	28.70%
Neutral	79	17.17%
Disagree	46	10.00%
Strongly Disagree	28	6.09%
Don't Know	27	5.87%
Total Responses	460	

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Q8 - Is the bus service frequent enough to meet your needs?

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Strongly agree	106	23.14%
Agree	121	26.42%
Neutral	78	17.03%
Disagree	75	16.38%
Strongly Disagree	50	10.92%
Don't Know	28	6.11%
Total Responses	458	

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Q9. Are the buses consistently on time?

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Strongly agree	75	16.41%
Agree	131	28.67%
Neutral	95	20.79%
Disagree	77	16.85%
Strongly Disagree	53	11.60%
Don't Know	26	5.69%
Total Responses	457	

---

Q10. Is the bus driver knowledgeable about services?		
Strongly agree	127	27.91%
Agree	133	29.23%
Neutral	98	21.54%
Disagree	36	7.91%
Strongly Disagree	23	5.05%
Don't Know	38	8.35%
Total Responses	455	

Q11. Is the bus driver professional?		
Strongly agree	142	31.42%
Agree	125	27.65%
Neutral	87	19.25%
Disagree	32	7.08%
Strongly Disagree	32	7.08%
Don't Know	34	7.52%
Total Responses	452	

Q12. Is the bus driver courteous?		
Strongly agree	137	30.04%
Agree	115	25.22%
Neutral	108	23.68%
Disagree	36	7.89%
Strongly Disagree	28	6.14%
Don't Know	32	7.02%
Total Responses	456	

Q13. Are the buses clean inside?		
Strongly agree	92	20.18%
Agree	149	32.68%
Neutral	117	25.66%
Disagree	45	9.87%
Strongly Disagree	31	6.80%
Don't Know	22	4.82%
Total Responses	456	

Q14. Is the bus seating comfortable?		
Strongly agree	78	17.11%
Agree	134	29.39%
Neutral	129	28.29%
Disagree	59	12.94%
Strongly Disagree	32	7.02%
Don't Know	24	5.26%
Total Responses	456	

Q15. Is the bus temperature comfortable?		
Strongly agree	103	22.54%
Agree	160	35.01%
Neutral	109	23.85%
Disagree	44	9.63%
Strongly Disagree	22	4.81%
Don't Know	19	4.16%
Total Responses	457	

Q16. Is the bus service reliable?		
Strongly agree	111	24.40%
Agree	157	34.51%
Neutral	91	20.00%
Disagree	50	10.99%
Strongly Disagree	22	4.84%
Don't Know	24	5.27%
Total Responses	455	

Q17. Do you feel safe on the bus?		
Strongly agree	150	32.75%
Agree	161	35.15%
Neutral	71	15.50%
Disagree	29	6.33%
Strongly Disagree	24	5.24%
Don't Know	23	5.02%
Total Responses	458	

Q18. Do you feel safe at the bus stop?		
Strongly agree	128	28.13%
Agree	144	31.65%
Neutral	90	19.78%
Disagree	33	7.25%
Strongly Disagree	31	6.81%
Don't Know	29	6.37%
Total Responses	455	

<b>BCT BACKGROUND INFO</b>		
<b>Q1. Age</b>		
Under 18	0	0.00%
18-34	265	59.28%
35-54	126	28.19%
55-64	30	6.71%
65 or older	26	5.82%
Total Responses	447	
<b>Q2. Race/Ethnicity</b>		
African-American	97	21.09%
Asian	50	10.87%
Hispanic-American	40	8.70%
White	210	45.65%
Other	27	5.87%
Prefer not to answer	36	7.83%
Total Responses	460	
<b>Q3. Gender</b>		
Male	203	44.52%
Female	253	55.48%
Total Responses	456	
<b>Q4. Employment status</b>		
Employed full time	130	29.89%
Employed part time	78	17.93%
Unemployed	70	16.09%
Student	124	28.51%

Retired	33	7.59%
Total Responses	435	

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Q5. Do you have a disability

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Yes	90	19.96%
No	361	80.04%
Total Responses	451	
If yes,		
Mobility impairment	28	54.90%
Vision impairment	23	45.10%
Other	0	0.00%
Total Responses	51	

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Q6. What is your annual household income

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Less than \$15,000	159	35.18%
\$15,000-\$29,999	110	24.34%
\$30,000-\$49,999	39	8.63%
\$50,000 or higher	19	4.20%
prefer not to answer	125	27.65%
Total Responses	452	

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Q7. How many cars in your household

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0	305	66.16%
1	105	22.78%
2	37	8.03%
More than 2	14	3.04%
Total Responses	461	

---

Q8. Is there a vehicle available for you to use		
Yes	46	10.07%
No	292	63.89%
Sometimes	119	26.04%
Total Responses	457	
Q9. How many days a week, on average, do you use BC-Transit		
5 or more	291	67.52%
3 to 4	93	21.58%
1 to 2	35	8.12%
Less than once a week	12	2.78%
Total Responses	431	
Q10. How many years have you been using BC-Transit		
Less than 1 year	116	26.91%
1 to 5 years	172	39.91%
More than 5 years	143	33.18%
Total Responses	431	
Q11. If you have been riding more than one year, are you riding more or less than one year ago		
Riding more often	178	46.23%
Riding less often	40	10.39%
About the same	109	28.31%
Have not been riding the bus for more than a year	58	15.06%
Total Responses	385	

*APPENDIX 3: OCCT Rider Survey Results*

<b>OCCT TODAY'S TRIP</b>		
Questions	Frequency	Distribution
<b>Q.1 How long did it take you to reach the bus stop</b>		
1 - 5 minutes	219	66.36%
6 - 10 minutes	44	13.33%
11 - 15 minutes	24	7.27%
16 - 20 minutes	13	3.94%
21- 25 minutes	13	3.94%
26 minutes or more	17	5.15%
Total Responses	330	
<b>Q2. How did you get to the bus stop</b>		
Walked	315	96.92%
Bicycle	5	1.54%
Dropped off	3	0.92%
Used a wheelchair	2	0.62%
Other	0	0.00%
Total Responses	325	
<b>Q3 Did you use the life/ramp to board the bus</b>		
Yes	24	7.41%
No	300	92.59%
Total Responses	324	

Q4. What is the purpose of today's trip		
Work	26	9.35%
School	216	77.70%
Shopping	17	6.12%
Leisure	18	6.47%
Medical appointment	1	0.36%
other	0	0.00%
Total Responses	278	
Q5. Do you need to transfer buses today		
Yes	24	7.34%
No	303	92.60%
Total Response	327	
If yes, where?		
BC Junction	11	40.74%
Binghamton University	13	48.15%
Endicott/Washington Ave	1	3.70%
Downtown Johnson City	2	7.41%
Total Responses	27	
Q6. If bus service were not available, how would you have made your trip		
Drive	26	10.70%
Ride with someone	59	24.28%
Taxi	30	12.35%
Bicycle	6	2.47%
Walk	20	8.23%
Would not make this trip	61	25.10%
Other	41	16.87%
Total Responses	243	

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Q7. How many one-way trips are you going to make today		
1	67	21.27%
2	176	55.87%
3	39	12.38%
4 or more	33	10.48%
Total Responses	315	

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**OCCT ASSESSMENT OF SERVICES**

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Q1. Is the bus schedule easy to understand?		
1 Strong Agree	154	47.53%
2 Agree	102	31.48%
3 Neutral	22	6.79%
4 Disagree	15	4.63%
5 Strongly Disagree	18	5.56%
6 Don't Know	13	4.01%
Total Responses	324	

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Q2. Is the bus schedule easy to obtain?		
1 Strong Agree	155	47.84%
2 Agree	84	25.93%
3 Neutral	37	11.42%
4 Disagree	15	4.63%
5 Strongly Disagree	13	4.01%
6 Don't Know	20	6.17%
Total Responses	324	

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Q3. Is the OCCT website easy to use?		
1 Strong Agree	136	42.50%
2 Agree	95	29.69%
3 Neutral	27	8.44%
4 Disagree	14	4.38%
5 Strongly Disagree	14	4.38%
6 Don't Know	34	10.63%
Total Responses	320	

Q4. Are the bus stops easy for you to get to?		
1 Strong Agree	150	46.01%
2 Agree	88	26.99%
3 Neutral	39	11.96%
4 Disagree	19	5.83%
5 Strongly Disagree	16	4.91%
6 Don't Know	14	4.29%
Total Responses	326	

Q5. Do the bus routes meet your needs?		
1 Strong Agree	112	34.36%
2 Agree	97	29.75%
3 Neutral	53	16.26%
4 Disagree	28	8.59%
5 Strongly Disagree	24	7.36%
6 Don't Know	12	3.68%
Total Responses	326	

Q6. Is the bus service frequent enough to meet your needs?		
1 Strong Agree	85	26.07%
2 Agree	91	27.91%
3 Neutral	68	20.86%
4 Disagree	39	11.96%
5 Strongly Disagree	34	10.43%
6 Don't Know	9	2.76%
Total Responses	326	

Q7. Are the buses consistently on time?		
1 Strong Agree	65	20.00%
2 Agree	118	36.31%
3 Neutral	58	17.85%
4 Disagree	48	14.77%
5 Strongly Disagree	33	10.15%
6 Don't Know	3	0.92%
Total Responses	325	

Q8. Is the bus driver knowledgeable about services?		
1 Strong Agree	94	29.19%
2 Agree	102	31.68%
3 Neutral	59	18.32%
4 Disagree	16	4.97%
5 Strongly Disagree	16	4.97%
6 Don't Know	35	10.87%
Total Responses	322	

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Q9. Is the bus driver professional?

---

1 Strong Agree	109	33.64%
2 Agree	105	32.41%
3 Neutral	64	19.75%
4 Disagree	9	2.78%
5 Strongly Disagree	19	5.86%
6 Don't Know	18	5.56%
Total Responses	324	

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Q10. Is the bus driver courteous?

---

1 Strong Agree	119	37.07%
2 Agree	105	32.71%
3 Neutral	46	14.33%
4 Disagree	19	5.92%
5 Strongly Disagree	19	5.92%
6 Don't Know	13	4.05%
Total Responses	321	

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Q11. Are the buses clean inside?

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1 Strong Agree	113	34.77%
2 Agree	123	37.85%
3 Neutral	42	12.92%
4 Disagree	16	4.92%
5 Strongly Disagree	20	6.15%
6 Don't Know	11	3.38%
Total Responses	325	

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Q12. Is the bus seating comfortable?

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1 Strong Agree	111	34.15%
2 Agree	107	32.92%
3 Neutral	58	17.85%
4 Disagree	18	5.54%
5 Strongly Disagree	22	6.77%
6 Don't Know	9	2.77%
Total Responses	325	

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Q13. Is the bus temperature comfortable?

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1 Strong Agree	103	31.69%
2 Agree	121	31.69%
3 Neutral	46	14.15%
4 Disagree	23	7.08%
5 Strongly Disagree	24	7.38%
6 Don't Know	8	2.46%
Total Responses	325	

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Q14. Is the bus service reliable?

---

1 Strong Agree	92	28.31%
2 Agree	123	37.85%
3 Neutral	54	16.62%
4 Disagree	27	8.31%
5 Strongly Disagree	22	6.77%
6 Don't Know	7	2.15%
Total Responses	325	

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Q15. Do you feel safe on the bus?

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1 Strong Agree	144	44.17%
2 Agree	120	36.81%
3 Neutral	24	7.36%
4 Disagree	5	1.53%
5 Strongly Disagree	16	4.91%
6 Don't Know	17	5.21%
Total Responses	326	

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Q16. Do you feel safe at the bus stop?

---

1 Strong Agree	102	31.58%
2 Agree	121	37.46%
3 Neutral	45	13.93%
4 Disagree	23	7.12%
5 Strongly Disagree	18	5.57%
6 Don't Know	14	4.33%
Total Responses	323	

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**OCCT BACKGROUND INFO**

Questions	Frequency	Distribution
Q1. Age		
Under 18	0	0.00%
18-34	311	95.99%
35-54	9	2.78%
55-64	2	0.62%
65 or older	2	0.62%

Total Responses 324

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Q2. Race/Ethnicity

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African-American	30	9.40%
Asian	140	43.89%
Hispanic-American	23	7.21%
White	91	28.53%
Other	12	3.76%
Prefer not to answer	23	7.21%
Total Responses	319	

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Q3. Gender

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Male	188	58.20%
Female	135	41.80%
Total Responses	323	

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Q4. Do you have a disability

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Yes	10	3.13%
No	309	96.87%
Total Responses	319	
If yes,		
Mobility impairment	2	14.29%
Vision impairment	5	35.71%
Other	7	50.00%
Total Responses	14	

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Q5. Is there a vehicle available for you to use		
Yes	46	14.65%
No	222	70.70%
Sometimes	46	14.65%
Total Responses	314	

Q6. How many days a week, on average, do you use OCCT		
5 or more	213	66.15%
3 to 4	68	21.12%
1 to 2	27	8.39%
Less than once a week	14	4.35%
Total Responses	322	

Q7. How many years have you been using OCCT		
Less than 1 year	103	31.99%
1 to 5 years	209	64.91%
More than 5 years	10	3.11%
Total Responses	322	

Q8. If you have been riding more than one year, are you riding more or less than one year ago		
Riding more often	128	46.04%
Riding less often	38	13.67%
About the same	74	26.62%
Have not been riding the bus for more than a year	38	13.67%
Total Responses	278	

*APPENDIX 4: BC Transit Background 2007 / 2009 Comparison*

<b>Gender</b>	<b>2007 BC-Transit Survey Results</b>	<b>2009 BC-Transit Survey Results</b>
Female	47.47%	55.48%
Male	52.53%	44.52%
<b>Age</b>	<b>2007 BC-Transit Survey Results</b>	<b>2009 BC-Transit Survey Results</b>
18-34	63.23%	59.28%
35-54	26.70%	28.19%
55-64	6.79%	6.71%
65 or older	3.28%	5.82%
<b>Race/Ethnicity</b>	<b>2007 BC-Transit Survey Results</b>	<b>2009 BC-Transit Survey Results</b>
African-American	17.37%	21.09%
Asian	16.43%	10.87%
Hispanic-American	7.51%	8.70%
White	47.42%	45.65%
Other	4.23%	5.87%
Prefer not to answer	7.04%	7.83%
<b>Disability</b>	<b>2007 BC-Transit Survey Results</b>	<b>2009 BC-Transit Survey Results</b>
Yes	12.87%	19.96%
No	87.13%	80.04%
<b>Employment Status</b>	<b>2007 BC-Transit Survey Results</b>	<b>2009 BC-Transit Survey Results</b>
Employed full time	28.61%	29.89%
Employed part time	20.57%	17.93%
Unemployed	6.86%	16.09%
Student	35.93%	28.51%
Retired	8.04%	7.59%
<b>Household Income</b>	<b>2007 BC-Transit Survey Results</b>	<b>2009 BC-Transit Survey Results</b>
Less than \$15,000	41.11%	35.18%
\$15,000-\$29,999	23.80%	24.34%
\$30,000-\$49,999	7.93%	8.63%
\$50,000 or higher	4.33%	4.20%
prefer not to answer	22.84%	27.65%

*APPENDIX 5: BC Transit Today's Trip 2007/2009 Comparison (Form of Fare & Trip Purpose)*

<b>Form of Fare</b>	<b>2007 BC-Transit Survey Results</b>	<b>2009 BC-Transit Survey Results</b>
Cash	30.23%	28.19%
Single ride pass	3.11%	9.69%
Two way ride pass	2.48%	1.98%
12 ride pass	2.28%	1.76%
BU ID	19.88%	31.94%
Medical voucher	1.45%	1.98%
31 day bus pass	40.58%	22.25%
Other	0.0%	2.20%
<b>Purpose of Trip</b>	<b>2007 BC-Transit Survey Results</b>	<b>2009 BC Transit Survey Results</b>
Work	29.7%	30.17%
School	37.82%	26.76%
Shopping	13.92%	15.09%
Leisure	7.42%	10.46%
Medical Appointment	3.94%	9.73%
Other	7.19%	7.79%

APPENDIX 6: BC Transit Assessment of Services 2007 / 2009 Comparison

**2009**

**2007**

Question	Strongly Agree & Agree	Neutral	Disagree & Strongly Disagree	Don't Know		Question	Strongly Agree & Agree	Neutral	Disagree & Strongly Disagree	Don't Know	2007 – 2009 Change in Agreement	2007 – 2009 Change in Disagreement
Is bus fare reasonable?	49.36%	24.46%	18.88%	7.30%		Is bus fare reasonable?	73.08%	13.12%	6.79%	6.79%	-23.72%	12.10%
Is it easy to purchase swipe cards?	51.54%	19.82%	13.66%	14.98%		Is it easy to purchase swipe cards?	49.05%	13.33%	10.24%	27.38%	2.49%	3.42%
Is the bus schedule easy to understand?	59.53%	14.78%	16.49%	6.64%		Is the bus schedule easy to understand?	66.97%	12.53%	15.49%	5.01%	-7.44%	1.00%
Is the bus schedule easy to obtain	70.09%	9.83%	12.82%	7.26%		Is the bus schedule easy to obtain	76.71%	9.36%	7.76%	6.16%	-6.63%	5.06%
Is the BC Transit Web site easy to use?	46.17%	13.92%	12.53%	27.38%		Is the BC Transit Web site easy to use?	43.02%	13.27%	9.61%	27.46%	3.15%	2.92%
Are the bus stops easy for you to get to?	66.38%	15.40%	11.50%	6.72%		Are the bus stops easy for you to get to?	72.31%	11.67%	10.98%	5.03%	-5.93%	0.51%
Do the bus routes meet your needs?	60.87%	17.17%	16.09%	5.87%		Do the bus routes meet your needs?	64.76%	16.25%	14.87%	4.12%	-3.89%	1.21%
Is the bus service frequent enough to meet your needs?	49.56%	17.03%	27.29%	6.11%		Is the bus service frequent enough to meet your needs?	48.26%	14.15%	33.41%	4.18%	1.30%	-6.12%
Are the buses consistently on time?	45.08%	20.79%	28.45%	5.69%		Are the buses consistently on time?	49.07%	23.02%	23.26%	4.65%	-3.99%	5.19%

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<b>Question</b>	<b>Strongly Agree &amp; Agree</b>	<b>Neutral</b>	<b>Disagree &amp; Strongly Disagree</b>	<b>Don't Know</b>		<b>Question</b>	<b>Strongly Agree &amp; Agree</b>	<b>Neutral</b>	<b>Disagree &amp; Strongly Disagree</b>	<b>Don't Know</b>	<b>2007-2009 Change in Agreement</b>	<b>2007-2009 Change in Disagreement</b>
Is the bus driver knowledgeable about services?	57.14%	21.54%	12.97%	8.35%		Is the bus driver knowledgeable about services?	64.97%	13.92%	10.67%	10.44%	-7.82%	2.29%
Is the bus driver professional?	59.07%	19.25%	14.16%	7.52%		Is the bus driver professional?	68.53%	13.52%	10.72%	7.23%	-9.46%	3.44%
Is the bus driver courteous?	55.26%	23.68%	14.04%	7.02%		Is the bus driver courteous?	65.89%	18.33%	10.90%	4.87%	-10.63%	3.13%
Are the buses clean inside?	52.85%	25.66%	16.67%	4.82%		Are the buses clean inside?	56.05%	22.33%	18.14%	3.49%	-3.20%	-1.47%
Is the bus seating comfortable?	46.49%	28.29%	19.96%	5.26%		Is the bus seating comfortable?	51.04%	26.33%	18.48%	4.16%	-4.55%	1.48%
Is the bus temperature comfortable?	57.55%	23.85%	14.44%	4.16%		Is the bus temperature comfortable?	64.04%	20.19%	12.53%	3.25%	-6.49%	1.91%
Is the bus service reliable?	58.90%	20.00%	15.82%	5.27%		Is the bus service reliable?	68.29%	17.36%	10.65%	3.70%	-9.39%	5.18%
Do you feel safe on the bus?	67.90%	15.50%	11.57%	5.02%		Do you feel safe on the bus?	70.14%	15.51%	9.49%	4.86%	-2.23%	2.08%
Do you feel safe at the bus stop?	59.78%	19.78%	14.07%	6.37%		Do you feel safe at the bus stop?	68.14%	16.05%	10.70%	5.12%	-8.36%	3.37%