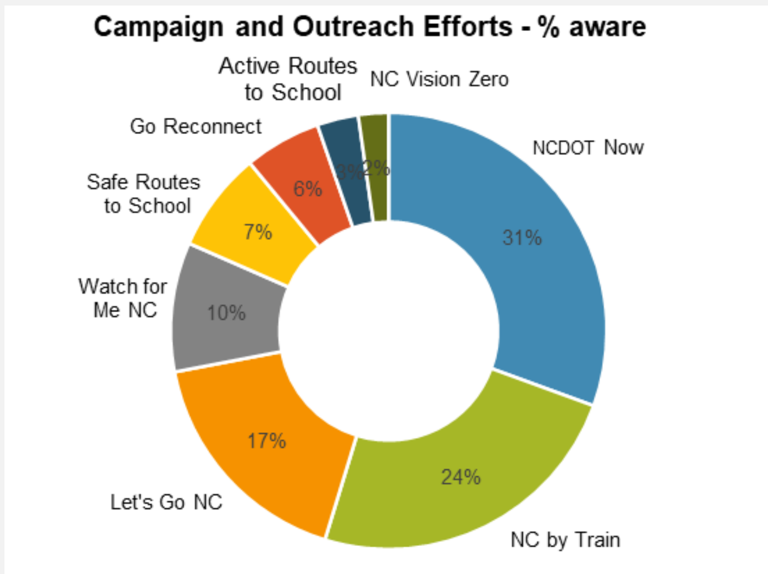
RESEARCH & DEVELOPMENT

NCDOT Statewide Customer Service Survey 2019-20



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16. Abstract

Across North Carolina, the North Carolina Department of Transportation (NCDOT) provides transportation services for a variety of functions and uses. Customer satisfaction is identified as an NCDOT priority as part of the department's Strategic Plan. Since 2015, NCDOT has measured customer service through a statewide survey focused on asking customers about key elements of interest to the department. This survey continues to provide useful insights that can be used to improve customer satisfaction and track progress over time, with a focus on NCDOT's mission and goals.

This summary outlines the results of the 2019-20 survey, which was completed by over 2,300 North Carolina residents. The 2019-20 version of the survey was updated to improve the quality of responses and capture potential changes in habits due to the COVID-19 pandemic. This customer survey was conducted in the fall of 2020 using random sampling, with an additional oversampling method to reach typically hard-to-reach demographics.

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Executive Summary:
2019-20 NCDOT Statewide Customer Service Survey

Introduction

The North Carolina Department of Transportation (NCDOT) provides transportation services for a variety of purposes to customers across the state. Customer satisfaction is a priority for NCDOT that is empathized in the department's Strategic Plan. Since 2015, NCDOT has measured customer service through a statewide survey focused on asking customers about key elements of interest to the department. This survey continues to provide useful insights that can be used to improve customer satisfaction and track progress over time, with a focus on NCDOT's mission and goals.

This summary outlines the results of the 2019-20 survey (referred to as the "2020" survey in this document), which was answered by more than 2,300 North Carolinians. Compared to previous years, the 2020 version of the survey was updated to improve the quality of responses and capture potential changes in habits due to the COVID-19 pandemic. This customer survey was conducted in the fall of 2020 using random sampling, with an additional oversampling method applied to survey demographic groups that are typically challenging to reach.

Demographics

The following data presents a summary of the direct participant demographics for both the traditional random sample as well as the oversampling effort. The oversampling effort helped make the survey participant sample align more closely with the actual demographic composition of North Carolina adults. This summary shows the percentage of each demographic type (such as gender) that a given demographic group (such as female) comprises in the random survey sample respondents compared to the North Carolina population as a whole. The state-level data utilized to measure representation is based on the results of the 2018 United States Census American Community Survey and 2019 NC State Demographer data.[1] These results are not weighted because the demographics were reasonably close to the actual population of North Carolina.

Gender

- Adult Males: 47.8% of North Carolina, 50.3% of survey respondents
- Adult Females: 52.2% of North Carolina, 49.7% of survey respondents

Age

- 18-24 Years: 12.7% in North Carolina, 6% of survey respondents
- 25-34 Years: 16.6% in North Carolina, 11.2% of survey respondents
- 35-44 Years: 16.3% in North Carolina, 17.2% of survey respondents
- 45-54 Years: 16.8% in North Carolina, 19.2% of survey respondents
- 55-64 Years: 16.4% in North Carolina, 21.6% of survey respondents
- 65 or Older: 21.2% in North Carolina, 24.9% of survey respondents

Race

- White/Caucasian: 72.2% of North Carolina, 66.9% of survey respondents
- Asian or Pacific Islander: 2.8% of North Carolina, 1.5% of survey respondents
- Native American including Alaskan Native: 1.7% of North Carolina, 1.5% of survey respondents
- Black/African American: 21.5% of North Carolina, 22.4% of survey respondents
- Hispanic/Latino: 10.84% of North Carolina, 6% of survey respondents
- Multiracial: 2.2% of North Carolina, 1.8% of survey respondents

Oversampling Results

To reach specific demographics and to provide a more representative survey sample, an oversampling effort was conducted in addition to the base survey sample. A total of four demographic groups were targeted: individuals ages 18 to 24 and ages 25 to 34, individuals who identify as Black/African American, and individuals who identify as Hispanic. Oversampling of these groups resulted in representation that more closely aligned with the actual demographic composite of North Carolina, as displayed in Figures 1 and 2.

[1] Note: Respondents who did not answer or input “NA,” “other,” or “prefer not to answer” were not included in this analysis.

Figure 1: Participants by Race

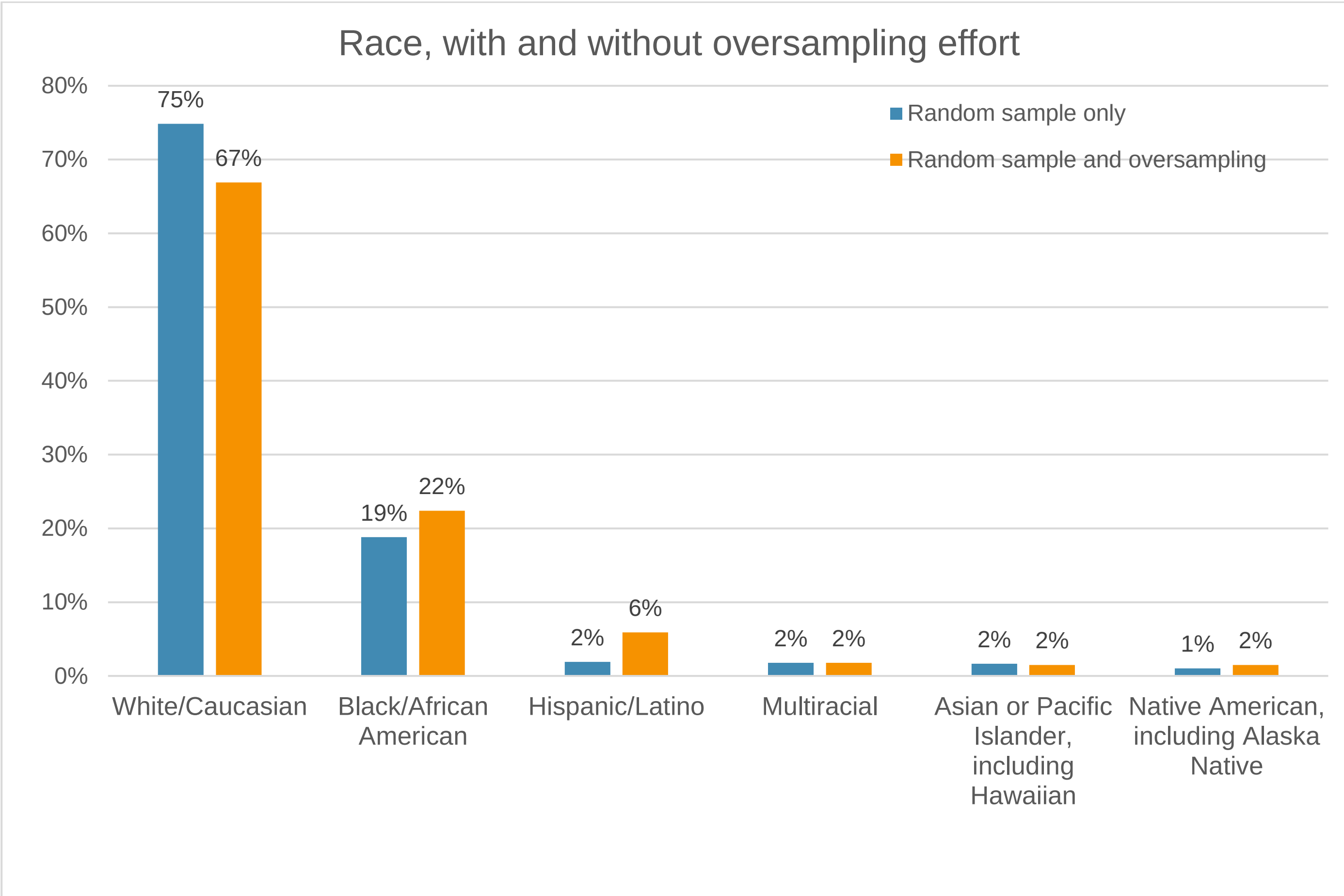
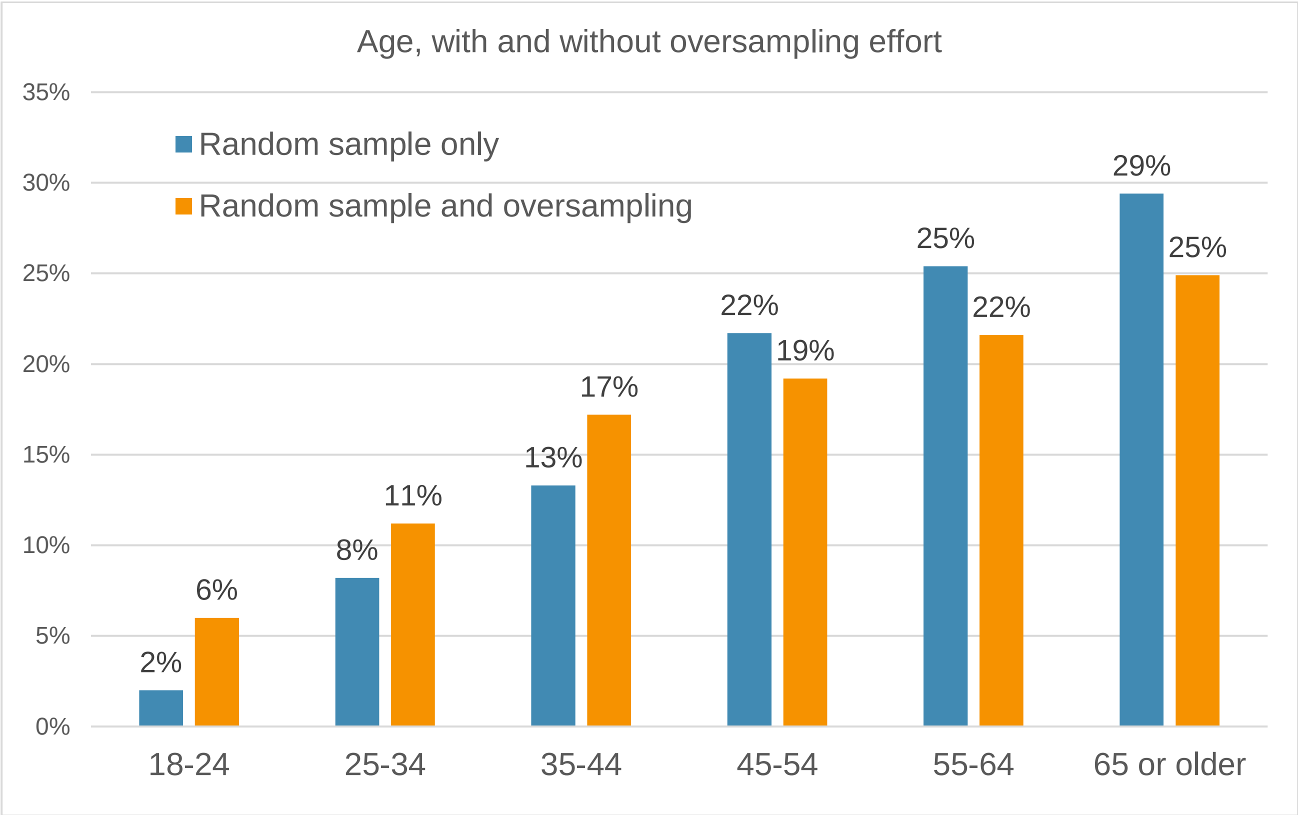


Figure 2: Participants by Age



Survey Adjustments

Compared to the previous year, several adjustments were made to the 2020 survey.

Several new questions and response options were added to the survey to better capture how respondents and their transportation habits may have been affected by the COVID-19 pandemic, while some others were altered. For some questions, the wording was updated to clarify the timeframe the respondent should consider in evaluating their use and attitudes of various modes of transportation. For example, a question that would have previously read “In the last year, on average, how often did you walk, jog, or run?” was changed to ask respondents “Since March, on average, how often did you walk, jog, or run?”. These adjustments were designed to account for a potential shift in behaviors between the beginning of 2020, before the COVID-19 pandemic, and after the pandemic might have affected how North Carolinians traveled.

A question asking respondents how their use of a specific mode changed compared to the same time last year was also added. Additionally, in some cases, response options were added to measure whether respondents had concerns about their health across various modes. For example, respondents were asked if health precautions factored into why they chose not to ride buses more frequently.

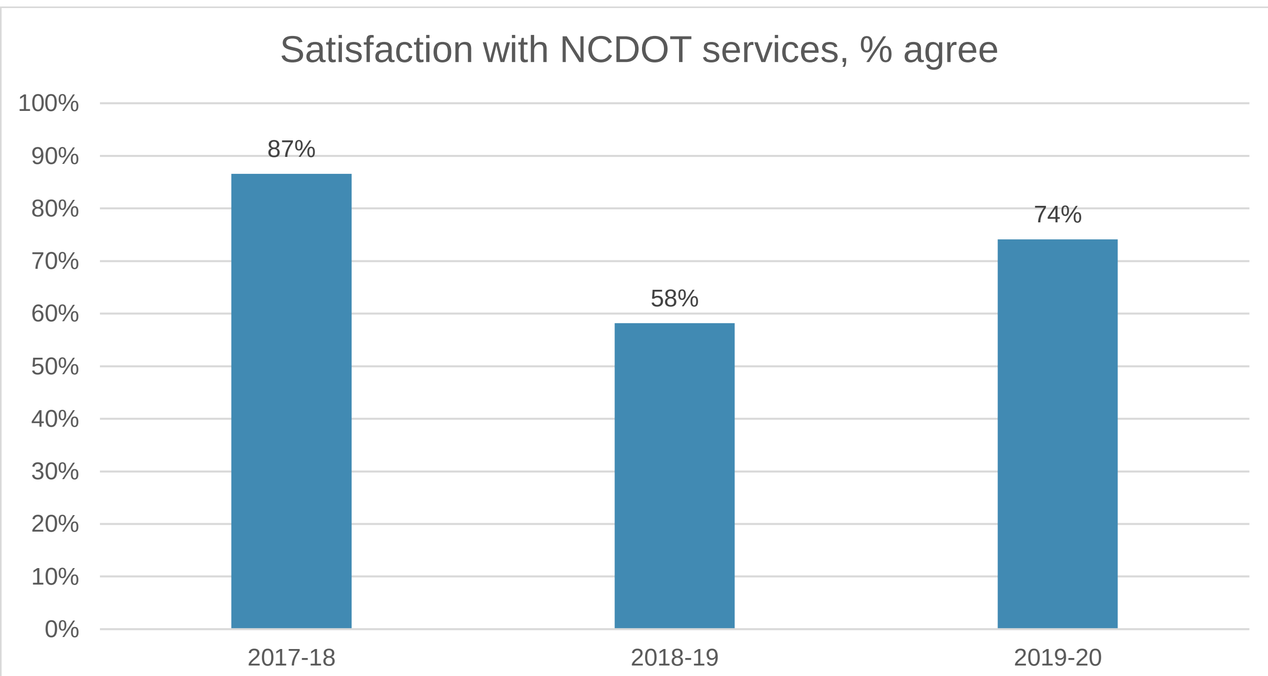
Adjustments were also made to the 2020 survey to improve response quality. Parts of the survey (such as questions pertaining to demographic information and general satisfaction) were moved to the beginning of the questionnaire to capture these before respondents may experience fatigue or drop off of the survey entirely. During the previous survey iteration (2018-19 survey), more significant changes were made to reduce the length of the survey and to more effectively capture recent travel trends. These changes were maintained as part of the 2020 survey.

Overall Satisfaction Rate

The overall satisfaction rate for the 2020 survey was 74%, a significant increase compared to the 2018-19 survey results (referred to as the “2019” survey in this document). This satisfaction rate is compared to that of previous survey years in Figure 3. However, caution should be used when comparing satisfaction across years, as some of the survey methods have changed over time.

The satisfaction rate for the 2019 survey is notably lower than other years. This may be the result of some changes to the survey at that time. For example, the results of the 2019 survey included a combination of convenience and random oversampling. Additionally, the 3-point Likert scale used in previous survey years was converted to a 5-point Likert scale in 2019, which may have resulted in fewer respondents opting to select the “neutral” satisfaction category. Respondents who may have otherwise reported their satisfaction as “neutral” in previous years may have selected a different response option in the new, broader scale because they felt that it better represented their opinion, reducing the overall satisfaction rate compared to past years.

Figure 3: Level of Satisfaction



Overall Responses

The following section outlines the results of the random and oversampling effort conducted through this study. Note that not all participants responded to all questions.

- 74% of respondents said they were satisfied with transportation services in North Carolina.
- In terms of the respondents' primary means of transportation:
  - 96% of respondents use a personal vehicle as their primary means of transportation (78.5% as a driver and 17.5% as a passenger).
  - 2% use a work vehicle
  - 1% walk
  - <1% use public transportation
  - <1% use a personal bicycle
  - <1% use another mode as a primary means of transportation
- 64% of survey respondents have lived in North Carolina for more than 30 years (96% have lived in North Carolina for more than 10 years).

Respondents rated the following services as the three that should receive the most emphasis over the next two years:

- Maintenance of roadways (32%)
- Safety of roadways (22%)
- New construction of roadways (18%)
- Local/public/city buses (8%)
- Pedestrian transportation (6%)
- Trains (6%)
- Bicycle transportation (5%)
- Airports (2%)
- Ferries (1%)

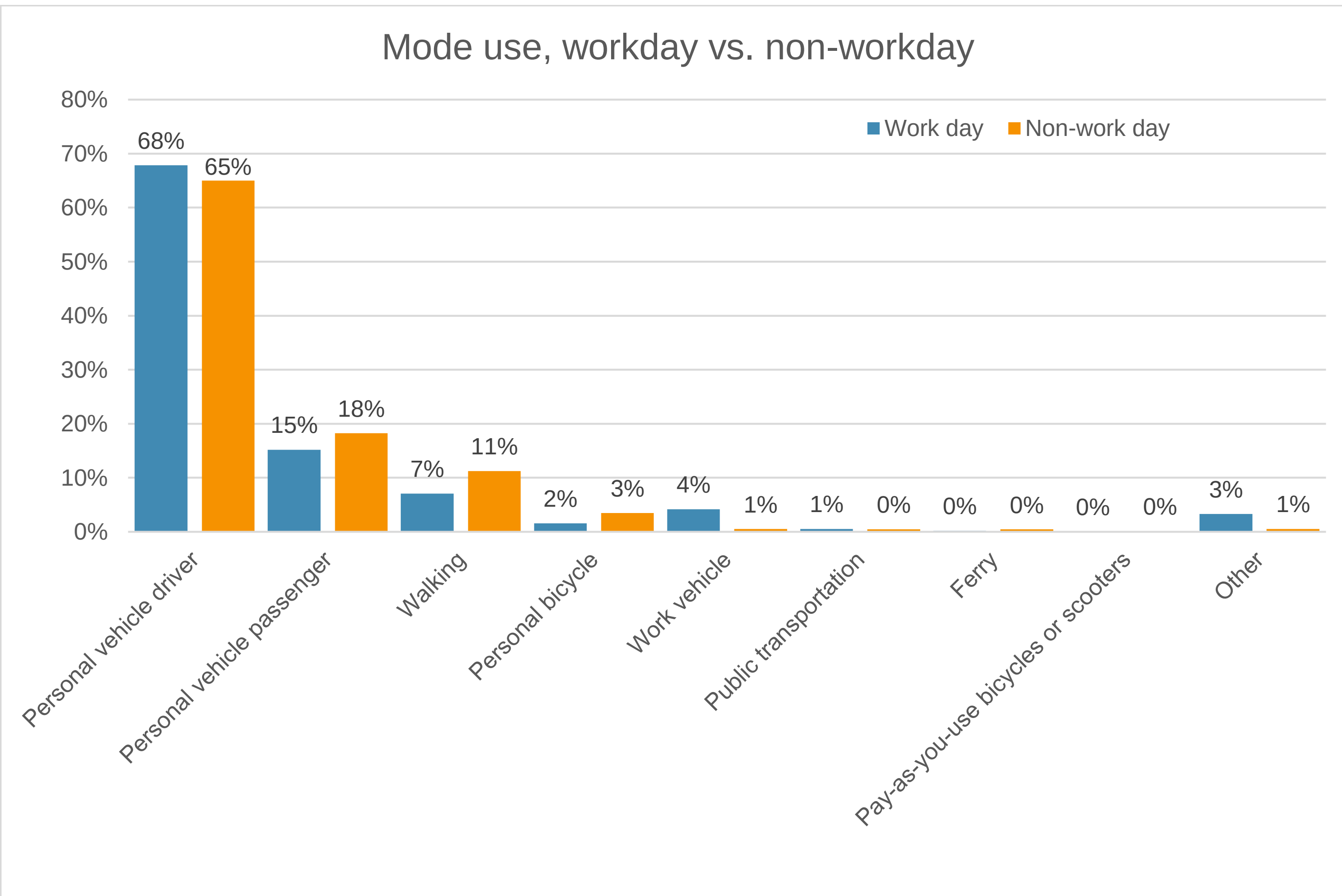
Key Findings

In addition to the overall results described in previous sections, the research team identified survey findings of interest related to travel trends and patterns identified in the data. These results are described in the following sections.

Work vs. Non-Workdays

Travel mode usage patterns varied slightly between workdays and non-workdays, as shown in Figure 4. In general, respondents were more likely to walk, use a bicycle, or be a passenger in a vehicle on days that they do not work. They were also slightly less likely to drive a personal vehicle on non-work days. In 2019, there was more variance between workdays and non-workdays. Patterns between workdays and non-workdays may be more homogenous since the start of the COVID-19 pandemic because more people were working from home compared to previous years.

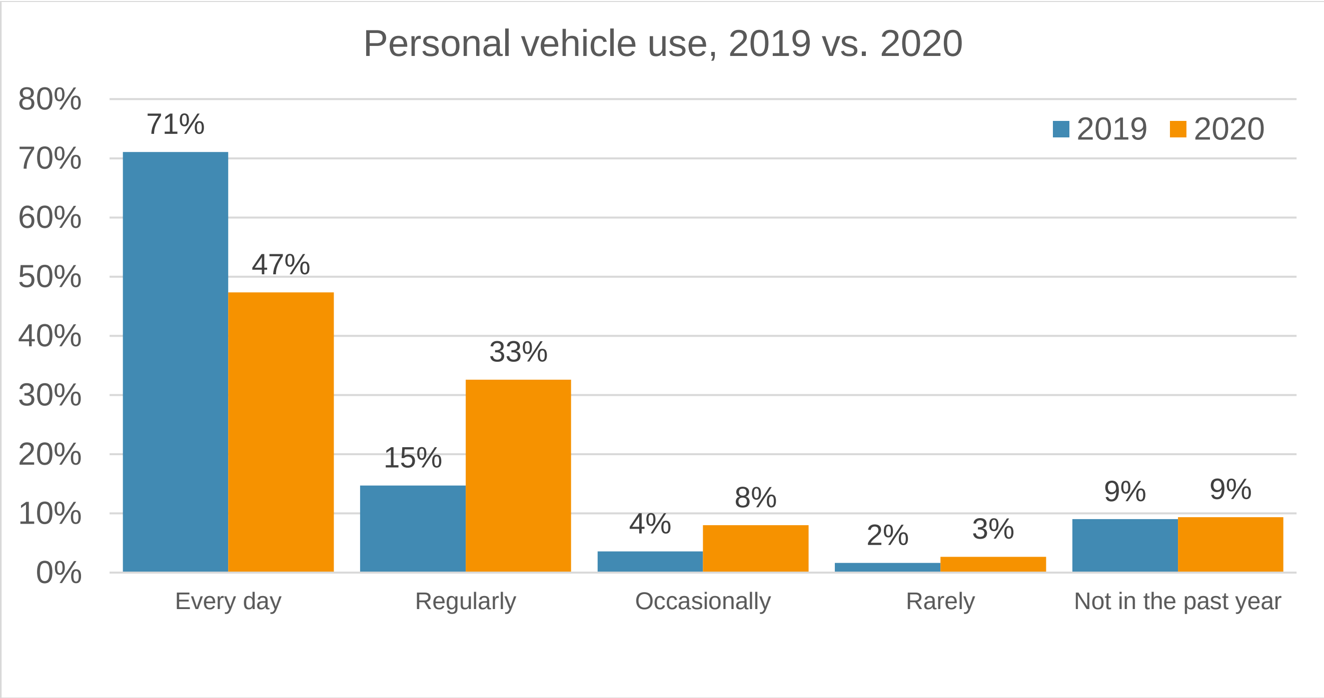
Figure 4: Workday Versus Non-Workday Usage



Personal Vehicle Use by Year

In both 2019 and 2020, respondents were asked how frequently they drove or rode in a personal motor vehicle. Overall ridership was slightly down in 2020 compared to 2019, as shown in Figure 5. However, an interesting trend emerged: a shift from everyday usage to regular usage (defined as driving or riding in a personal motor vehicle at least once a week). This may be attributed to an increase in working from home, as many respondents may now drive only a few days a week while before the COVID-19 pandemic they may have commuted to work every day in addition to driving for other activities like running errands, visiting friends, and/or attending appointments. Most of the 9% of respondents who indicated they did not use a personal motor vehicle at all were aged 65 years or older.

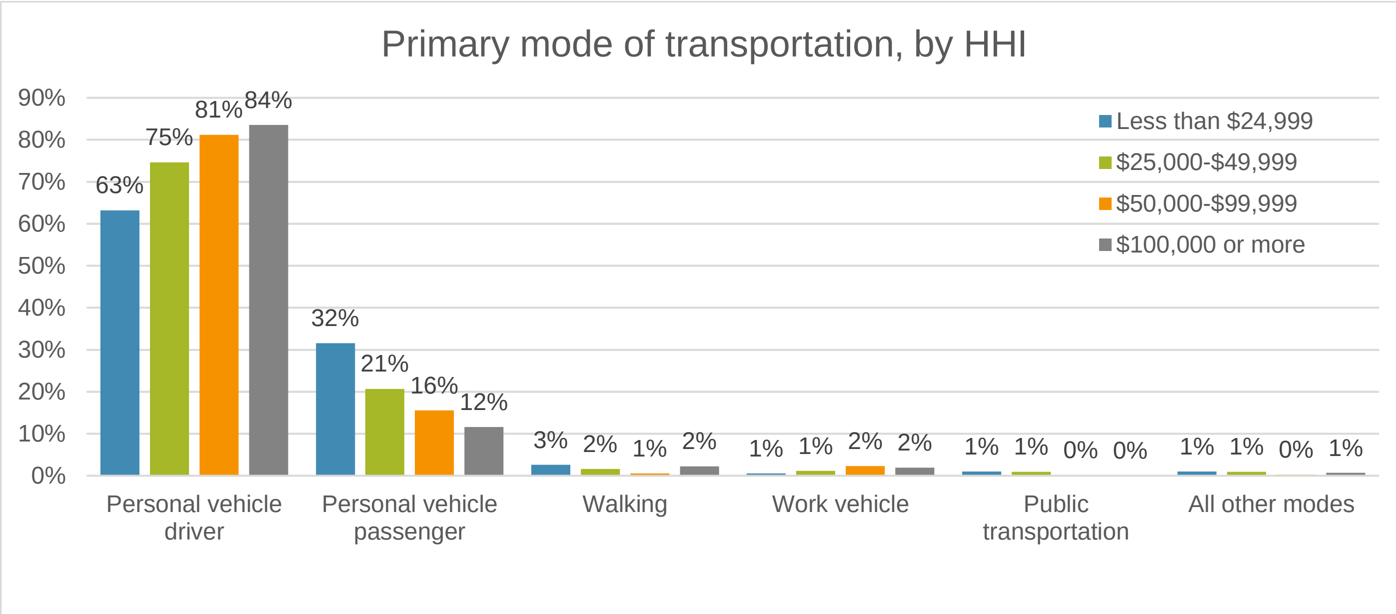
Figure 5: Personal Vehicle Use, 2019 vs 2020



Variance by Income

Furthermore, primary mode use differed between income brackets, as shown in Figure 6. Respondents in lower income groups, specifically those who earn less than $25,000 per year, were more likely to be a personal vehicle passenger than those in higher income groups. This may be due to challenges associated with affording a personal vehicle and/or the affordability of riding with someone else due to fuel cost. Additionally, respondents may have also opted to share rides as an alternative to using public transportation, for which service was reduced at times by some agencies due to the COVID-19 pandemic.

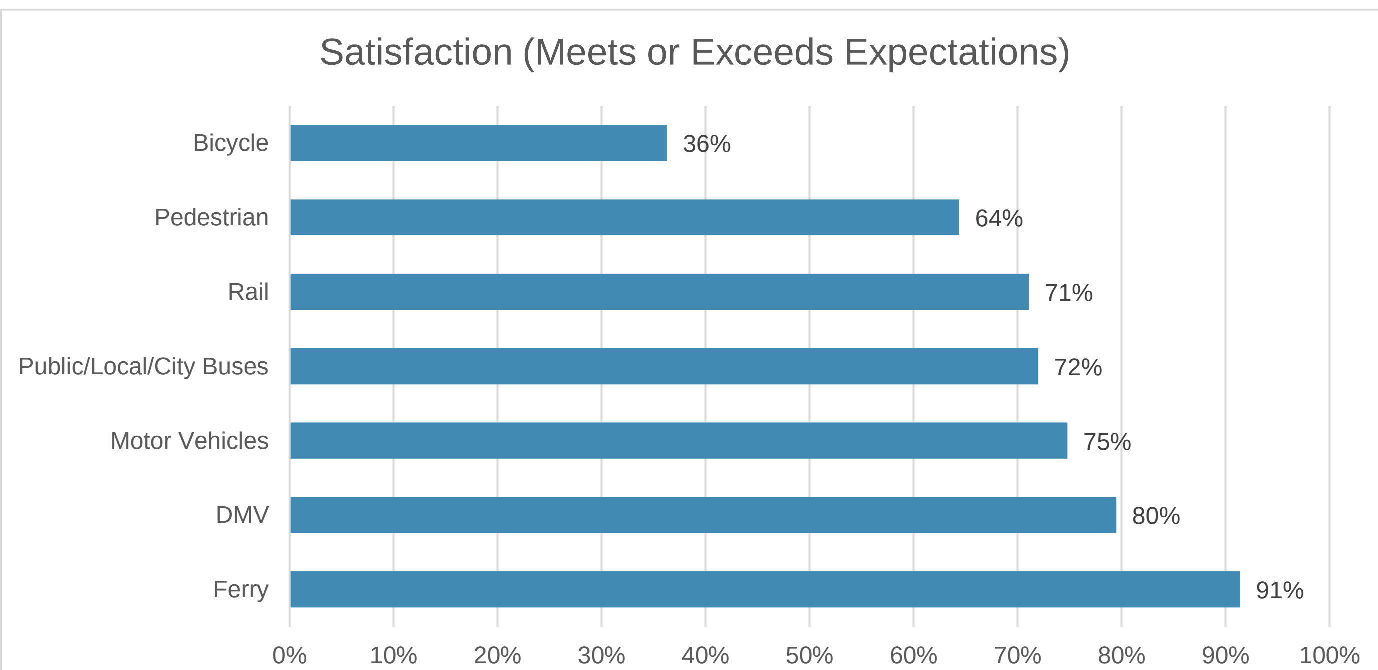
Figure 6: Modal Choice Variance by Household Income



Satisfaction by Mode

For all modes except bicycle, expectations across categories were met or exceeded within each mode category. This is typical across survey years. For the DMV and bicycle, pedestrian, rail, motor vehicle modes, satisfaction was slightly lower than in 2019. For public/local/city buses and ferries, satisfaction was slightly higher in 2020. However, the sample size for these modes is too small to make meaningful year-over-year comparisons. These results are shown in Figure 7.

Figure 7: Expectation Achievement by Mode



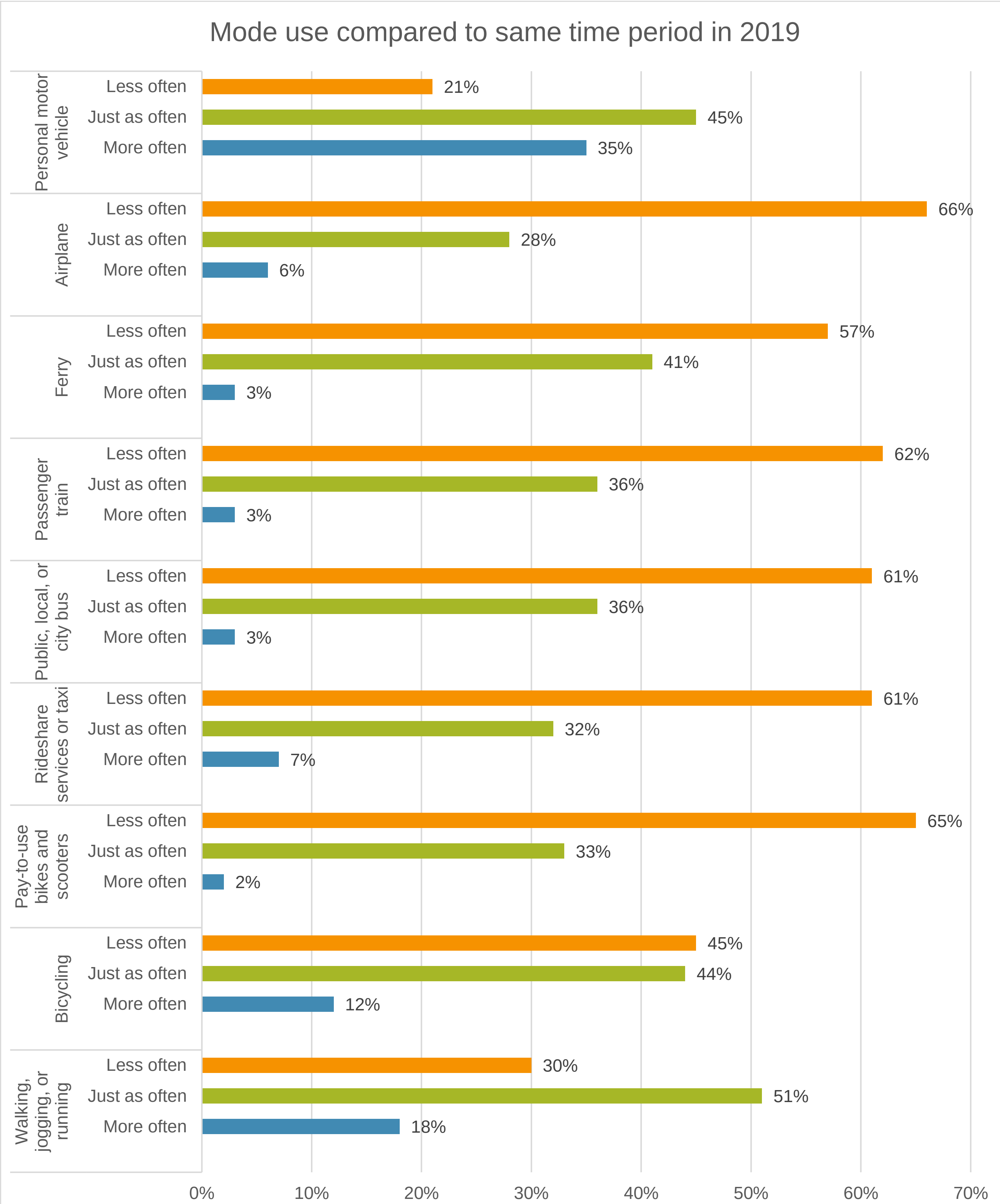
Potential COVID-19 Impacts on Travel Trends

Several questions were added to the survey to capture how transportation usage has changed as a result of the COVID-19 pandemic. Respondents were asked if they used the following modes more often, just as often, or less often compared to this time last year. Overall, the modes with the biggest increase compared to 2019 were personal motor vehicle and walking, jogging, or running. Airplanes use saw the biggest decrease, with 66% of respondents flying less often.

While responses indicated an increase in walking, jogging, and running since the start of the COVID-19 pandemic, the growth in the use of these modes was not as significant as expected based on other data sources such as trail usage counts. This is potentially related to changes in behavior throughout the pandemic. While data sources outside of the survey indicated that more people were participating in outdoor recreation and exercise activities on greenways and trails in early to mid-spring, the transportation habits of respondents may have shifted to a more normal level by the time this survey was deployed in the fall of 2020.

Similar to walking, jogging, and running trends, the number of respondents who indicated that they bicycled did not greatly increase as expected. However, those who indicated that they used pedestrian and bicycling facilities indicated that their usage did not decrease and in many cases reported an increase in usage.

Figure 8: Mode Use in 2019 vs. 2020



Results by Mode

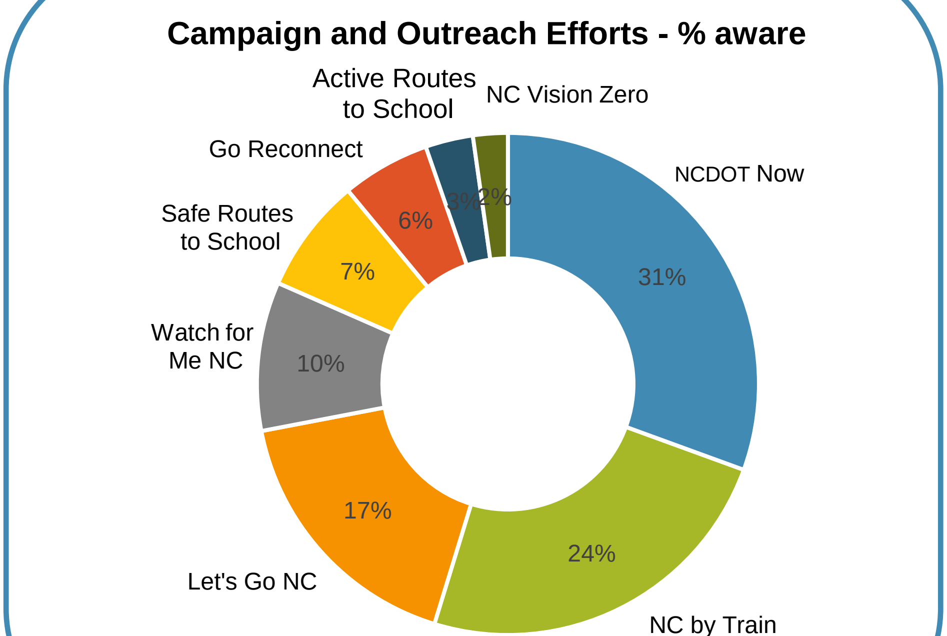
The survey also included both mode-specific and general agency-level questions, the results of which are described in the following section.

NCDOT Communications

Twenty-two percent of respondents reported that electronic message boards on highways were the most effective way for NCDOT to provide information such as traffic conditions and roadway projects. An additional 17% of respondents said that signs on roadways were the most effective, and 12% said local TV was the most effective method. Fewer respondents reported that social media was effective compared to the 2019 survey.

Top 5 most effective ways to provide information:

- Electronic message boards (22%)
- Signs on roadways (17%)
- Local TV (12%)
- Email (9%)
- Social media (8%)



Overall, respondents' knowledge of various campaigns and outreach efforts shifted slightly compared to the 2019 survey. More respondents reported an awareness of the NC by Train (24%), Let's Go NC (17%), and NCDOT Now (31%) programs, while fewer respondents were aware of Safe Routes to School (7%), NC Vision Zero (2%), and Watch for Me NC (10%). Because the previous survey utilized a convenience sample, it is possible that respondents were more interested in transportation in North Carolina than the random sample in 2020, which may have resulted in less knowledge about some campaign and outreach efforts.

Division of Motor Vehicles

Because of the COVID-19 pandemic, questions regarding online Division of Motor Vehicles (DMV) services that were previously removed were added back to the survey to capture the expected influx of online users.

Forty-two percent of respondents said they visited a Driver License DMV office in North Carolina in the past year. The following results include responses from survey participants who reported that they visited a North Carolina DMV at least once in the past year. In deciding which DMV office to visit, respondents considered location (51%), shorter wait times (18%), previous experience (11%), the attitude of employees and customer service (8%), and hours of operation (6%).

Top 3 most important DMV service characteristics:

- Length of wait time at DMV office (32%)
- Overall quality of customer service at DMV office (20%)
- Convenience of hours of operation at DMV office (19%)

All services met or exceeded the expectations of 80% of respondents. This is roughly 10% higher than the 2019 survey. The length of wait time at the DMV office was the least satisfactory service, with 37% of respondents reporting it did not meet their expectations. Respondents rated the length of wait time at a DMV office (32%), overall quality of customer service at a DMV office (20%), and convenience of hours of operation at a DMV office (19%) as the three most important services on which to focus.

57% of respondents used the DMV website in the past year, while only **32%** of respondents visited a physical DMV office.

Fifty-seven percent of respondents reported that they visited the DMV website in the past year and half of the respondents used the DMV website to renew registration or plates. The majority of respondents indicated that the DMV website clearly explained what services are offered (82%), featured sufficient information (79%), and had a clear and easily navigable format (79%).

Personal Vehicle Drivers and Passengers

Fewer respondents reported that they drove or rode in a vehicle every day compared to the 2019 survey. In 2019, 71% of respondents drove or rode every day, while 47% of respondents indicated they did so in 2020. Regular use (driving or riding in a vehicle more than once per week) increased in 2020 from 15% to 33%.

The median time spent in a vehicle was reported as approximately 40 minutes on Tuesday, Thursday, and Saturday and 30 minutes on Sunday. Of the survey participants who reported that they drove or rode in a motor vehicle in North Carolina at least a couple of times in the past year, the amount of time spent in a car on an average day did not change substantially compared to the 2019 survey. On Tuesday, Thursday, and Saturday, the average time spent in a car was 40 minutes and the average time was 30 minutes for Sunday.

Fewer respondents are driving or riding in a car every day, but more report that they still drive or ride in a car at least once a week.

Thirty-five percent of respondents rely on their past experience with roadways to help them make decisions about their morning commute, while an additional 32% use apps like Waze or Google Maps.

Generally, the majority of respondents reported that services met or exceeded their expectations. Across all categories, 75% of respondents indicated that services either met or exceeded their expectations, while 44% of respondents reported that the smoothness of highway and interstate surfaces did not meet their expectations. Interestingly, in the previous survey, the latter category was rated as exceeding expectations by the highest percentage of respondents.

Top 3 most important vehicle services:

- Smoothness of highway and interstates (30%)
- Safety of highway and interstates (25%)
- Overall flow of traffic on highways and interstates (23%)

Respondents rated smoothness of highways and interstates (30%), the safety of highways and interstates (25%), and overall flow of traffic on highways and interstates (23%) as the most important services on which to focus.

Bicyclists

Nine percent of respondents said they ride a bicycle every day or more than once a week, while an additional 12% responded that they ride a bicycle a couple of times each month. The median daily travel time was approximately 48 minutes. This is a slight decrease from the 2019 survey, most likely because of the change in sampling method from a convenience sample to a random sample.

The following results include responses from survey participants who reported that they rode a bicycle in North Carolina at least a couple of times in the past year. Respondents who did not travel by bicycle in the past year indicated that they did not use the mode because they were not interested in doing so (32%), did not own a bicycle (26%), had safety concerns about drivers (13%), or felt there was a lack of infrastructure or safe places to bike (10%).

Respondents who did travel by bicycle in the past year did so for exercise and recreation (70%), to visit friends and family (9%), and for general errands (6%).

Top 3 most important bicycle services:

- Access to bike lanes, wide shoulders, and bicycle-friendly shared lanes (32%)
- Location of bike lanes, wide shoulders, and bicycle-friendly shared lanes (22%)
- Connectivity of bicycling facilities (17%)

Across all categories, 36% of respondents reported that their bicycle expectations were either met or exceeded. Location of bike lanes, wide shoulders, and bicycle-friendly shared lanes were rated as the least satisfactory, with 70% of respondents identifying this group of attributes as not meeting their expectations.
Respondents rated access to bike lanes, wide shoulders, and bicycle-friendly shared lanes (32%); location of bike lanes, wide shoulders, and bicycle-friendly shared lanes (22%); and connectivity of bicycling facilities (17%) as the three modes that should receive the most attention over the next couple of years.

Pedestrians

Thirty percent of respondents said they walk, jog, or run on a sidewalk, greenway, or walkway every day or more than once a week, while an additional 19% responded that they do so a couple of times each month. These numbers represent a decrease in pedestrian activities compared to the 2019 survey. However, the median time traveled on a typical trip was approximately 50 minutes, an increase compared to the 2019 survey results. Respondents in urban counties indicated that they walk, jog, or run more frequently than those in rural counties.

The following results include responses from survey participants who reported that they walked, jogged, or ran on a sidewalk, greenway, or in North Carolina at least a couple of times in the past year. Respondents who did not walk, jog, or run in the past year cited preference (34%), personal physical condition (21%), and lack of infrastructure (18%) as the predominant reasons as to why. Those who did walk, jog, or run in the past year typically did so for exercise or recreation (21%), to walk a pet (18%), or to go to a shopping or dining location (9%).

Top 3 most important pedestrian services:

- Safety of pedestrian walkways, sidewalks, or crossing locations (27%)
- Access to pedestrian walkways and/or sidewalks (26%)
- Visibility of lighting along greenways and paths (20%)

Across all categories, 64% of respondents rated services as either meeting or exceeding their expectations. Thirty-eight percent of respondents reported that the visibility of lighting along sidewalks and greenways did not meet their expectations.

The three transportation areas that respondents indicated should receive the most emphasis over the next two years were the safety of pedestrian walkways, sidewalks, or crossing locations (27%); access to pedestrian walkways and/or sidewalks (26%); and visibility of lighting along greenways and paths (20%).

Public Transportation

One percent of respondents said they ride a public/local/city bus in North Carolina every day or more than once a week, while an additional 3% responded that they ride a public/local/city bus a couple of times each month. This is a decrease from 2019, likely related to the effects of the COVID-19 pandemic on public transportation services. The change in the sampling method may have also contributed to this reduction.

The following results include responses from survey participants who reported that they used public/local/city buses in North Carolina at least a couple of times in the past year. Twenty-two percent of respondents reported using a bus for shopping or dining. An additional 19% of respondents used a bus to access recreation, and 13% used a bus for commuting to or from work. Twenty-nine percent of respondents reported that they would be more likely to ride the bus more frequently if there were routes that met their needs and 19% reported that stops closer to their intended destination would make them more likely to use the bus.

Overall, 61% of respondents indicated that their expectations were met or exceeded. However, half of the respondents reported that their expectations for weather protection at bus stops did not meet their expectations. This was also one of the services that most respondents (69%) indicated did not meet their expectations in the 2019 survey.

Respondents rated access to public/local/city buses (38%), weather protection at bus stops (27%), and reliability/timeless of buses (20%) as the three services that should receive the most emphasis over the next two years.

Top 3 most important bus services:

- Access to public/local/city buses (38%)
- Weather protection at bus stops (27%)
- Reliability/timeless of buses (20%)

Passenger Train (NOTE: Small sample size)

Less than one percent of respondents said they rode a passenger train in North Carolina every day, more than once a week, or a couple of times each month. Five percent responded that they ride a passenger train a couple of times per year. Overall, fewer respondents reported riding a passenger train at all in 2020 than in 2019, which is likely due to travel restrictions related to the COVID-19 pandemic.

Thirty-two percent of respondents reported not traveling by train more often because of personal preferences and 18% reported a lack of train routes where they need to go. Thirty-three percent of respondents indicated that they would travel by train more frequently if there were train routes where they needed to go, 22% there were stations closer, and 16% if it were easier. Twenty-seven percent of respondents reported riding a passenger train for recreation and to visit friends and/or family.

Top 3 most important rail services:

- Frequency of trains servicing desired route (31%)
- Access to passenger train stations and routes (21%)
- Safety and security at train stations (18%)

Overall, 71% of respondents across all satisfaction questions rated passenger train services as meeting or exceeding expectations. Fifty-seven percent of respondents rated the frequency of trains servicing their desired route as not meeting their expectations. Respondents rated frequency of trains servicing their desired route (31%), access to passenger train stations and routes (21%), and safety and security at train stations (18%) as the three services that should receive the most emphasis over the next two years.

Ferries (NOTE: Small sample size)

Seven percent of respondents said they rode a ferry in North Carolina in the past year. Reported ferry ridership is down from 2019, likely due to COVID-19 restrictions. Of the survey participants who reported that they rode on a ferry in North Carolina at least a couple of times in the past year, more than half (56%) of respondents indicated that they did not ride a ferry more frequently because they did not need to cross water to access their destination and another 16% reported that they were not interested in using a ferry.

Across all services, satisfaction was 91%. Thirty-eight percent of respondents reported that the courtesy and helpfulness of staff exceeded expectations. Twenty-eight percent reported that the availability and quality of food and drink onboard ferries did not meet their expectations.

Top 3 most important ferry services:

- Frequency of ferry service on desired route (37%)
- Availability of ferry schedule and information (23%)
- Availability and quality of food and drink onboard ferries (14%)

Respondents rated frequency of ferry service on desired route (37%), availability of ferry schedule and information (23%), and availability and quality of food and drink onboard ferries (14%) as the three services that should receive the most emphasis over the next two years.

Aviation

Reported enplanements were down significantly from 2019, likely as a result of the COVID-19 pandemic and related travel restrictions. Nineteen percent of respondents said they have flown to or from a North Carolina airport in the past year. Of the survey participants who reported that they took at least one ride on an airplane in North Carolina in the past year, 40% indicated they did not fly more frequently because they did not need to do so. An additional 25% indicated they did not fly more frequently because of health concerns, while 36% reported flying to visit friends or family, and 34% reported flying for recreational purposes such as vacation/tourism.