



**An Onboard Survey of
GoDurham Customers**

2018

A study conducted by:



In Conjunction with:



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Executive Summary

Introduction

In early October 2018, CJI Research conducted an onboard survey of GoDurham customers. The GoDurham survey includes 868 responses and has a margin of error of +/-3.3% at the 95% level of confidence.

The 2018 survey is intended to provide a baseline for comparison to later annual surveys.

PERCEPTION OF MAJOR SERVICE IMPROVEMENTS

- The survey obtained customer ratings of overall GoDurham service and nineteen specific elements of service. A seven-point scale was used on which a score of 1 means very poor and 7 means excellent. The percent rating GoDurham service overall as 7 is 27%. Another 22% rated service as 6 on the same scale, meaning that the total rating service as excellent or very good is 49%.
- Top rated elements with scores of 6 or 7 include:
 - Fare medium options (57%)
 - Weekday service hours (56%)
 - Ease of transfer within system, usefulness of printed information, and usefulness of telephone operators (55% each)
- Two operational aspects of service with more than 50% of customers giving the two top scores of 6 and 7 deserve note:
 - Weekday service frequency (53%)
 - Ease of transfers between systems (52%)
- When asked to rank areas for improvement:
 - "Buses running on time" is by far the most frequently cited aspect of service to improve. It was cited by 64% of customers as first, second, or third most important to improve among the nineteen specific aspects of service examined.
 - Second most important in this sense is "Bus interior cleanliness" (27%)
 - Third – Sunday hours of service and service frequency (24% each).
 - Fourth most important to improve was coverage, "service to all destinations" (19%)
- Another way to consider service improvement priorities is to examine the correlation of each aspect of service with the overall service rating. That technique identified three priorities that would have a significant impact on the overall GoDurham service rating: Total average time to make a trip, buses running on time, and service to all destination desired (coverage).
- Trip purpose is primarily oriented to employment (65%) and medical visits (17%), but many customers also use GoDurham for school (13%) and shopping (9%).
- Demographics
 - GoDurham provides a key support for employment and education. Of all GoDurham customers, 48% are employed full time and another 19% part time. Another 24% are students, for a total of 91% of customers being employed or students.
 - 67% of GoDurham customers identify themselves as African-American, 14% identify themselves as Caucasian/White, 6% Hispanic, 5% Asian, 3% Native American, and 5% "Other."
 - Like most bus systems in the United States, the ridership of GoDurham is young, with 49% younger than thirty-five.

- Unlike the customer base of most transit systems in the United States, an approximately equal proportion of women (50%) as men (49%) use GoDurham. (1% preferred not to answer.) Generally in the United States, the ridership of systems consists of more women than men.
- Similar to the ridership of many bus systems, many GoDurham customer households report that they have extremely low household incomes. In this survey, 42% report income of less than \$10,000 and only 8% report household incomes of \$50,000 or more.
- Customers are quite transit dependent, with 68% reporting that they have either no vehicle or no licensed driver (or neither) in the household.
- Travel characteristics
 - 35% of GoDurham customers say they are using GoDurham more often than in the previous year and 18% say they began riding only in 2018. Only 10% say they are riding less often now.
 - The percent of customers saying they make connections at least once with other buses during their trip stands at 84%.
 - When using other systems in the Triangle Region, GoDurham customers are more likely (12%) to use GoTriangle than the other systems.
- Ridesharing
 - 47% have used Uber or Lyft at least once in the thirty days prior to the survey.
 - Of the 47% using Uber or Lyft in the previous thirty days, 58% (27% of all GoDurham customers) used Uber or Lyft to replace a GoDurham trip.
 - Of that 47% who have used Uber or Lyft, 35% (or 20% of all customers) have used them as part of a GoDurham trip.
- Fare media
 - The largest percentage of GoDurham customers (34%) boarded with a day-pass purchased either on the bus (22%) or ahead of time (12%).
 - Twenty-nine percent (29%) paid their fare in cash.
 - Thus, combining the cash fare and the day-pass purchase on the bus, a total of 51% make a fare transaction on the bus
 - 49% make a prior pass purchase or use a free pass such as GoPass or a university ID, thus avoiding the delay of conducting a transaction while boarding.
- Mobile Communication
 - A transit app has been downloaded by 47% of GoDurham customers.
 - While the use of transit apps is still very much inversely related to age, the use of basic cellphones is not. For example, 91% substantial numbers of customers over the age of sixty-five use a cell phone, but only 34% of that group uses a transit app. Yet, it is interesting that even in this oldest group in the survey, one-third of the customers use a transit app.

Introduction and Methodology

Background

As part of a regional customer satisfaction measurement program, CJI Research, LLC conducted a survey of customers onboard GoDurham buses from October 6 through 9, 2018. Similar surveys were conducted during the following three weeks with customers of GoTriangle, GoCary, and GoRaleigh.

The questionnaire used in the survey was initially developed by Hugh Clark of CJI Research refined a coordinating committee from GoTriangle and CAMPO led by Elizabeth Raskopf of GoTriangle, the agency coordinating the multi-system project. The committee included representatives of all four transit agencies and CAMPO.

Methods: How the Survey Was Conducted

SAMPLE

A random sample of runs was drawn from a list of all GoDurham runs. This initial sample was examined to determine whether the randomization process had omitted any significant portion of the GoDurham system's overall route structure. The sample was adjusted slightly to take any such omissions into account.

Survey data collection occurred onboard the buses. On the bus, survey staff approached all customers rather than a sample. The only exception was that customers who appeared younger than sixteen were not approached, both for reasons of propriety and because children are typically unable to provide meaningful answers to several of the questions.

Because all customers were asked to participate rather than a sample of customers on the bus, there was little or no opportunity for a survey staff member to introduce bias in selection of persons to survey. In effect, a bus operating within a specified window of time became a sample cluster point in a sample of such clusters throughout the total system.

The GoDurham survey includes 868 respondents and has a margin of error of +/-3.3% at the 95% level of confidence. When the distribution of responses is other than 50:50 on a specific question, the sample error for a given sample size decreases somewhat. If a sub-sample is used, sample error increases somewhat. However, with an overall sample of more than 800 respondents, this would affect the findings only in a few circumstances in which only small sub-segments of the ridership were being examined separately.

Although this sample is sufficient to support an overview of the ridership as a whole, it is not large enough to be broken down at the route level. The design of the total regional study of the four area systems (GoDurham, GoTriangle, GoRaleigh, and GoCary) calls for conduct of a much large sample in one subsystem every three years. GoDurham is scheduled for such a survey in 2020. (GoRaleigh's was conducted in 2018, and GoTriangle and GoCary will be conducted in 2019.)

DATA COLLECTION

Temporary workers from the Greer Group Inc. of Durham, NC were trained to administer the surveys under the supervision of CJI Research staff. Surveyors wore smocks identifying them in large print as "Transit

Survey” workers. This uniform helps customers visually understand the purpose of why an interviewer would be approaching them, thus increasing cooperation rate.

In most cases, the survey personnel met the bus operators at pull-out, and accompanied them at the beginning of their shifts and rode the buses throughout the driver's assignment, or they took a shuttle to Durham Station to catch their assignments. In some instances, in order to assure broader coverage of certain routes, surveyors rode partial runs and then transferred to another route or run.

The questionnaire was self-administered. Survey personnel handed surveys and a pen to customers and asked them to complete the survey.

At the end of each sampled trip on a given run, the survey personnel placed the completed surveys in an envelope marked with the route, the run, the time, and the day and reported to the survey supervisors who completed a log form detailing the assignment. A total of 529 trips were sampled and recorded in this manner.

PARTICIPATION RATES

Completion Rates on GoDurham Onboard Survey, 2018

A total of	2,092	adults (16 years old or older) were riding during the surveyed trips and had a chance to participate. Of these customers:		
Of this total...	376	said they had already completed the survey	or	18%
thus,	1,716	had not yet completed the survey and were eligible to participate	or	82%
minus	707	of those who had not yet completed the survey refused outright	or	34%
minus	119	customers who spoke a language other than English or Spanish	or	6%
So	890	accepted the survey form with the apparent intention of finishing it	or	43%
Thus, these	890	customers represent, the total "effective distribution," i.e., the raw sample		
Of these...	93	accepted the survey form but did not complete it on the bus	or	14%
and	797	completed the survey on the GoDurham bus	or	90%
	71	mailed it or returned it to an operator on another bus	or	8%
Finally:	868	returned questionnaires used in the survey	or	98%
		Of rider 16 or older riding on a surveyed vehicle, including those who had already completed the survey, this represents:		41%
		Of all adults riding on a surveyed vehicle who had not yet completed the survey, this represents:		51%
		Of all the customers on sampled trips who accepted a questionnaire, this represents:		98%

Of the 868 GoDurham respondents:

- 641, or 74% completed all questions in the survey.
- Another 124, or 14% completed all but the final question, household income. Income questions always have a high refusal rate.
- Therefore, 765 completed all questions or all but the income question.
- This means that 88% of the sample answered at least 87% of the questions
- 831, or 96% of the sample completed the customer satisfaction questions. The 37 who turned in a questionnaire without at least having completed the customer satisfaction questions were dropped from the analysis.

In the analysis, those who did not respond to a question are eliminated from the computation of percentages and means unless there was a way to infer the response. For example, if a rider gave as a trip purpose *getting to or from school*, it was apparent that this was a student, and that employment could be coded as "student," even if the respondent had not responded to the employment question.

QUESTIONNAIRE

The questionnaire was self-administered. It is reproduced in Appendix A.

The questionnaires were serial numbered so that records could be kept for the route and day of the week on which the questionnaire was completed. This is a more accurate method than asking customers which route they are riding when completing the survey.

The survey is printed in English on one side and in Spanish on the other. In the survey of GoDurham customers, 46 customers, or 5% of the effective final unweighted sample identified themselves as Hispanic, but only 24, or 3% of the completed questionnaires were completed in Spanish. Stated in another way, only about one-half (52%) of the customers identifying themselves as Hispanic completed the survey in Spanish.

ANALYSIS

Analysis consists primarily of crosstabulations and frequency distributions. Tables were prepared in SPSS, version 25 and charts in Excel 2016. The GoDurham survey will be archived by CJI Research so that it will be available for further analysis as needed.

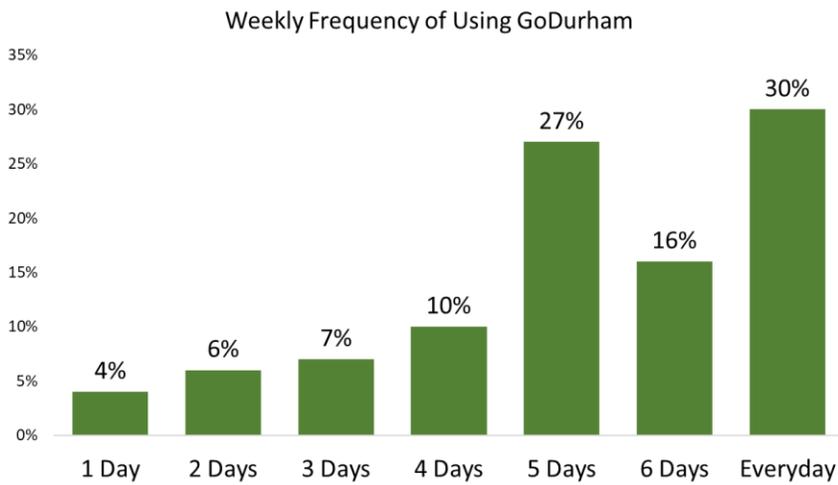
With a few exceptions, all percentages are rounded to the nearest whole number. In a few cases, when this could have caused important categories to round to zero, or when comparisons between charts would appear inconstant if tenths were not included, percentages are carried to tenths. Rounding causes some percentage columns to total 99% or 101%. These are not errors and should be ignored.

Rider Profile

Frequency of Using GoDurham

Riders were asked on how many days in a typical week they use GoDurham. For purposes of further analysis, the customers are grouped into three sets, or "segments," depending upon how frequently they

Figure 1 Frequency of Using GoDurham



use GoDurham. We refer to them as:

- One- to three-day: Those who use GoDurham one, two, or three-days a week (17%)
- Four-to-five-day: Those who use GoDurham four- or five-days a week (37%)
- Six-to-seven-day: Those who use GoDurham six-or-seven-days a week (46%)

Why segment the sample in this manner? The frequency of using public transit is the most basic

differentiating characteristic within the ridership. Understanding the ridership in groups rather than as a monolith is generally useful to those involved with planning or marketing.

Other breakdowns may also be of interest, and by request such breakdowns can be provided quickly because the survey data is maintained live to meet such requests. Such breakdowns might include level of dependency on transit, trip purpose, or demographics such as age or income. All are easily available on request.

Figure 2 Compressed Measure of Frequency of Using GoDurham

Weekly Frequency of Using GoDurham

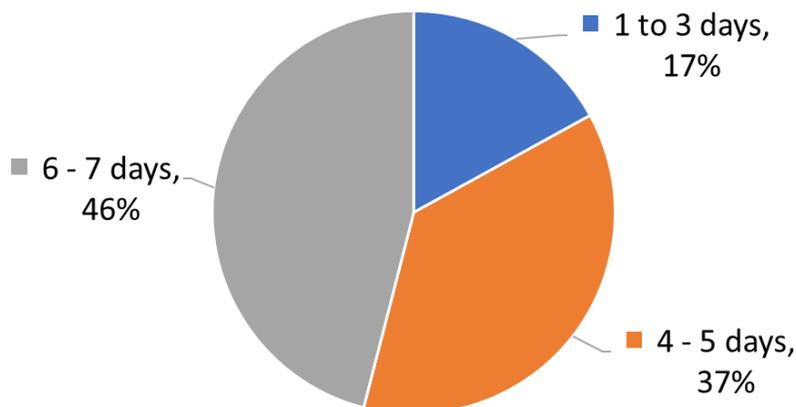
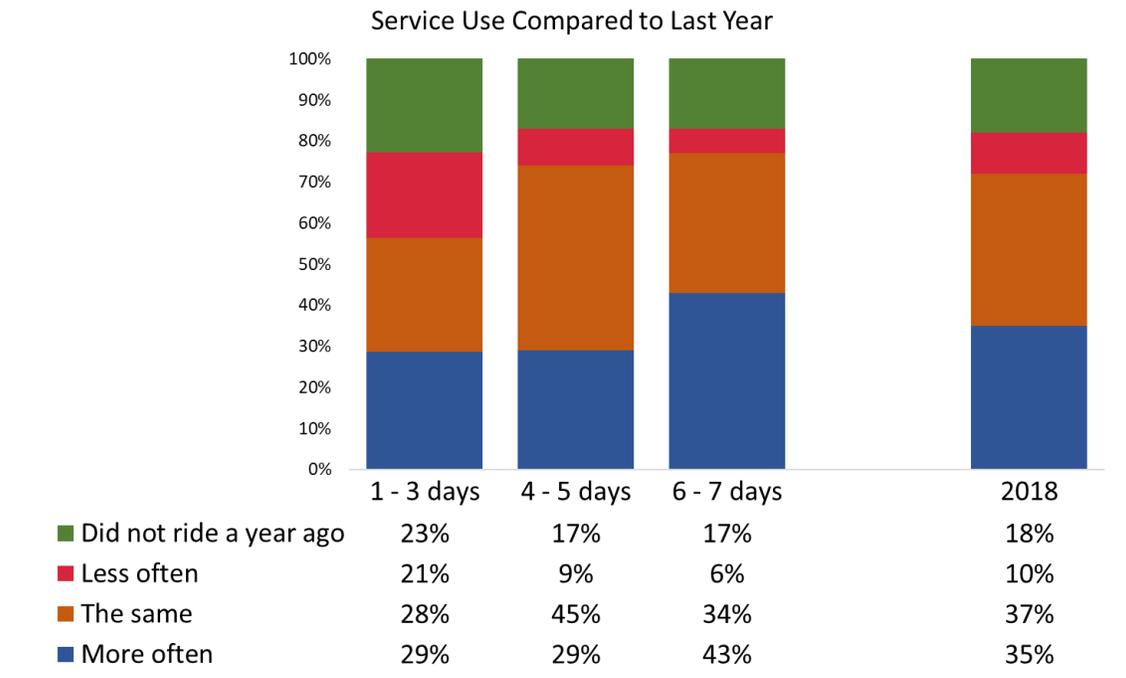


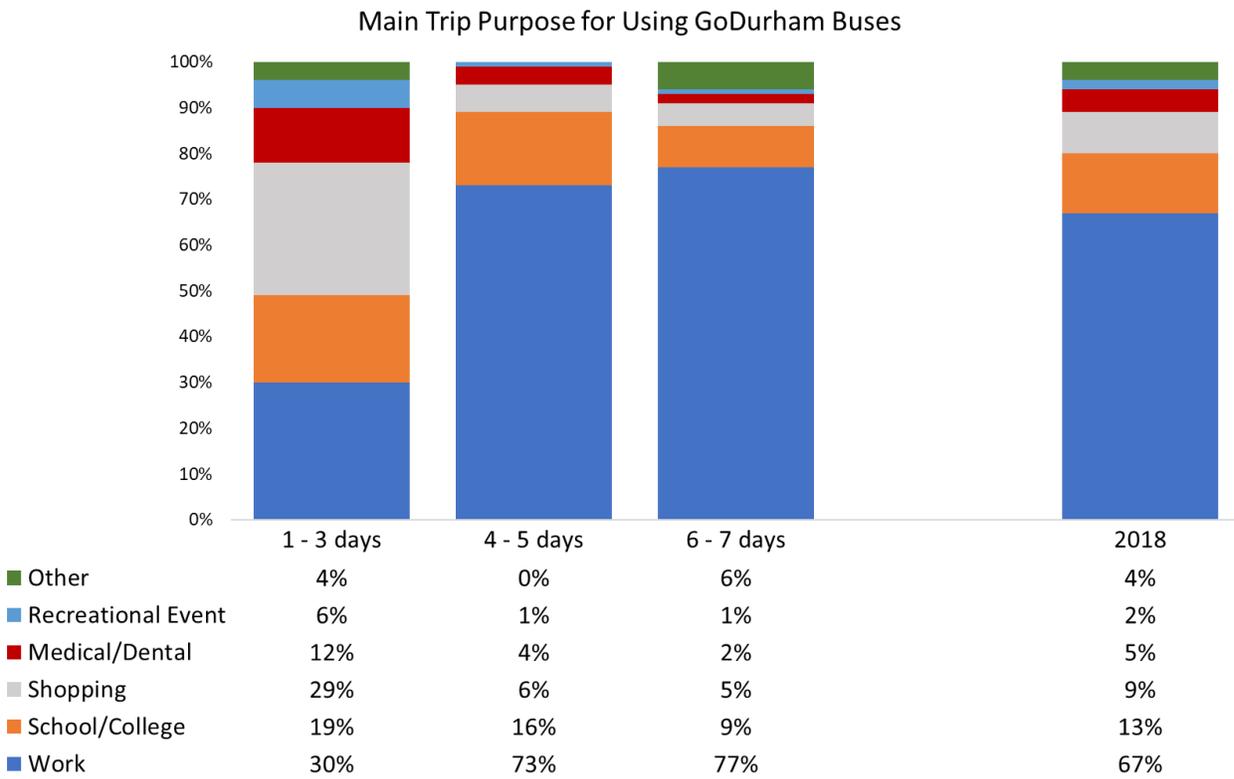
Figure 3 Compared to a Year Ago, Do You Ride More Often, Less Often or the Same?



Riding Frequency Compared to a Year Ago

Overwhelmingly, respondents say that they are riding either with same frequency (37%) or more often (35%) than a year ago, and 18% say they are new riders. Only 10% say they are riding less often. The one-to-three-day riders are the most likely to be new riders (23%), while the most frequent riders are more likely (43%) than the other segments to say they are riding more often.

Figure 4 Trip Purpose



Trip Purpose: Use of GoDurham for Various Purposes, by Segment

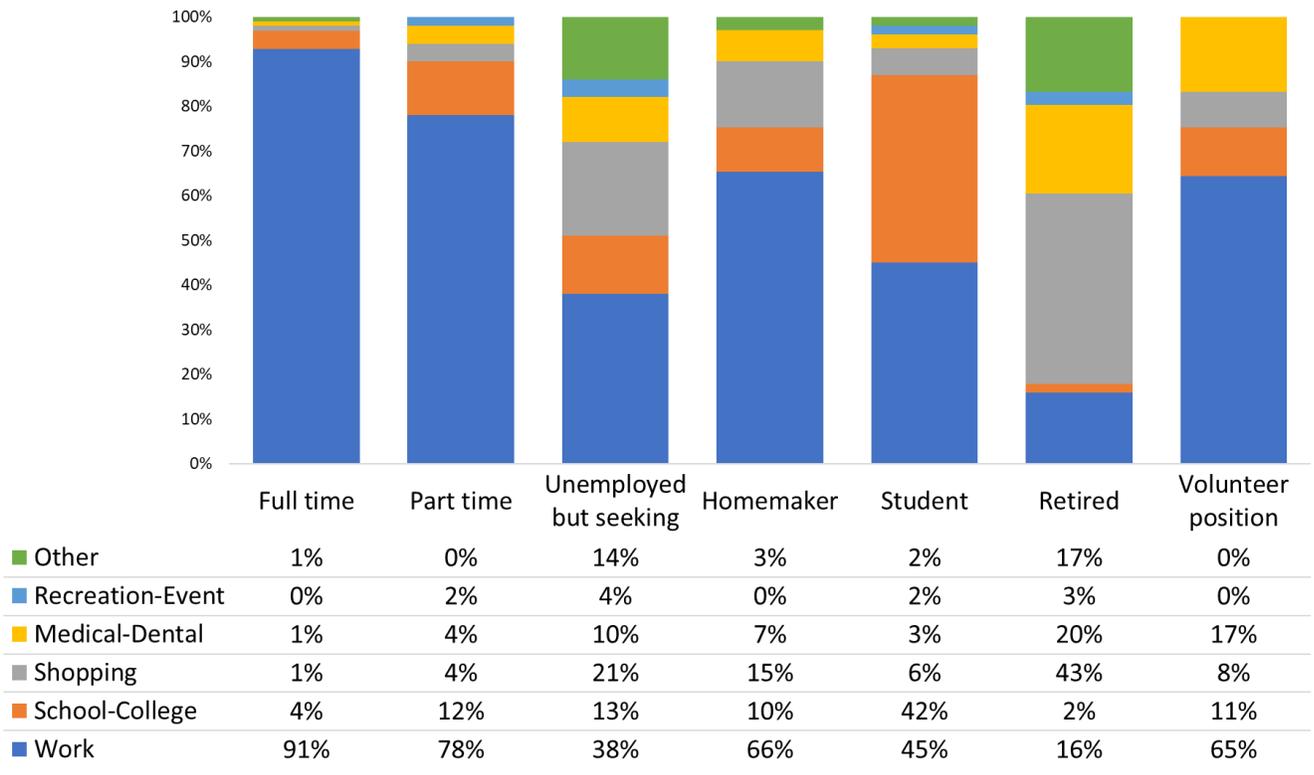
Customers were asked to name the single main purpose for which they use GoDurham.

- Getting to or from work is the primary trip-purpose, with 67% of customers citing that as their most frequent trip purpose.
- School and college trips make up another 13% of trips. Thus, GoDurham is carrying a large proportion of its customers (80%) either for work trips or for school trips, an indication of its economic impact through the labor force.
- Another 9% of the customers indicate that they use GoDurham to make shopping trips, a set of trips with immediate economic impact.
- Medical and recreational trips account for 7%

More than three-fourths of the six-to-seven-day riders (77%) and almost three-fourths of the four-to-five-day riders (73%) had made work-trips. The one-to-three-day a week riders are more likely than the other segments to have used GoDurham for each of the non-work purposes. It is interesting, however, that even among these least frequent customers, work trips are common (30%). They must either be working part-time or using different modes on different days.

Figure 5 Employment and Trip Purpose

Trip Purpose by Employment, GoDurham

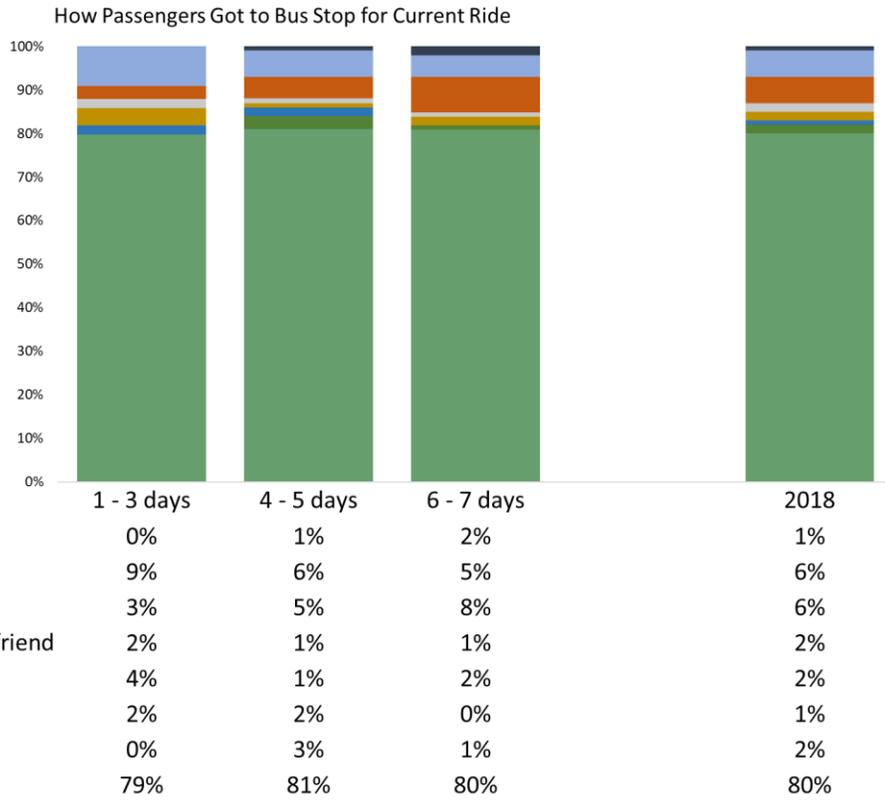


Employment and Trip Purpose

That employment would be closely related to trip purpose would appear self-evident. However, there are some variations. As expected, 91% of those employed full time use GoDurham to go to or from work, while 78% of part-time workers are headed for work, but another 12% are headed for school. These are as anticipated.

Less expected is that 38% of those who say they are unemployed say they are going to or coming from, work. Probably they are in temporary jobs of some sort while looking for work and consider themselves to be unemployed. Similarly, 16% of retirees say they are making a work trip, probably working part time but still considering themselves to be primarily retired. Many homemakers too (66%) say they are going to work. Possibly they are working part time but consider homemaker to be their main occupation. Students, as expected, are going either to work (45%) or to school (42%).

Figure 6 Mode to the GoDurham Bus Stop

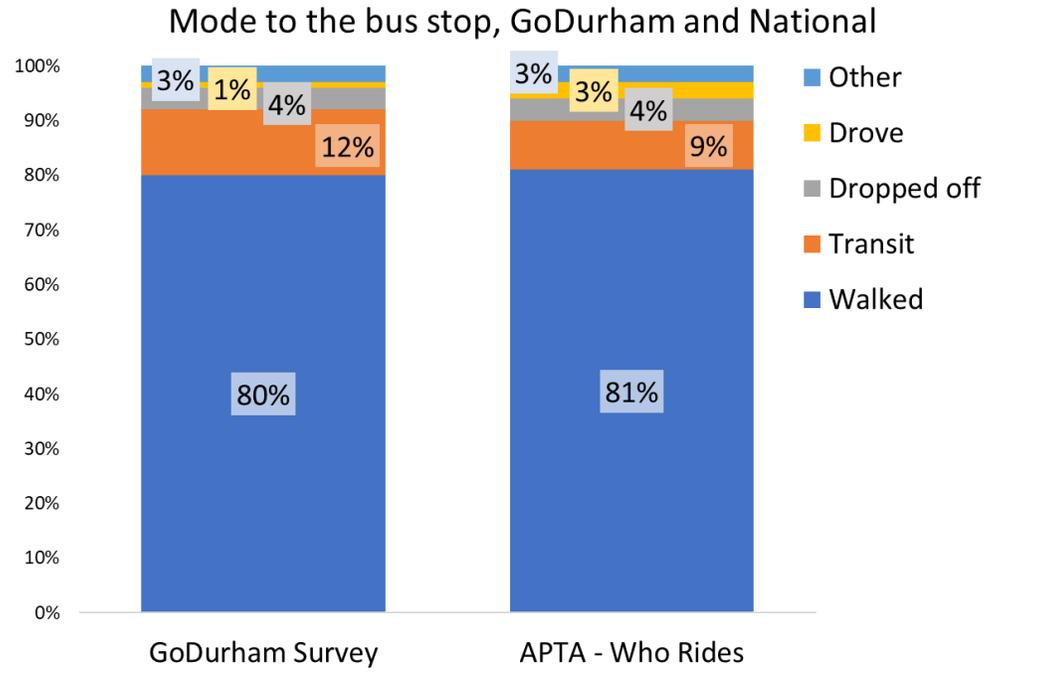


Mode to the Bus Stop

Most people, 80%, most often simply walk to the nearest bus stop. There is no major difference among the three rider segments in this respect. The only meaningful difference is in the tendency to use another GoDurham bus to get to the stop where they caught the bus on which they were using when surveyed. For the most frequent riders this is 8%, while for the occasional, one-to-three-day riders it is only 3%.

However, the total of those getting to their stop by any bus is roughly equal among the segments. Of the most frequent riders, a total of 13% get to the stop by either GoDurham or one of the other bus systems in the area, while for the least frequent riders the analogous percentage is 12%, statistically not different.

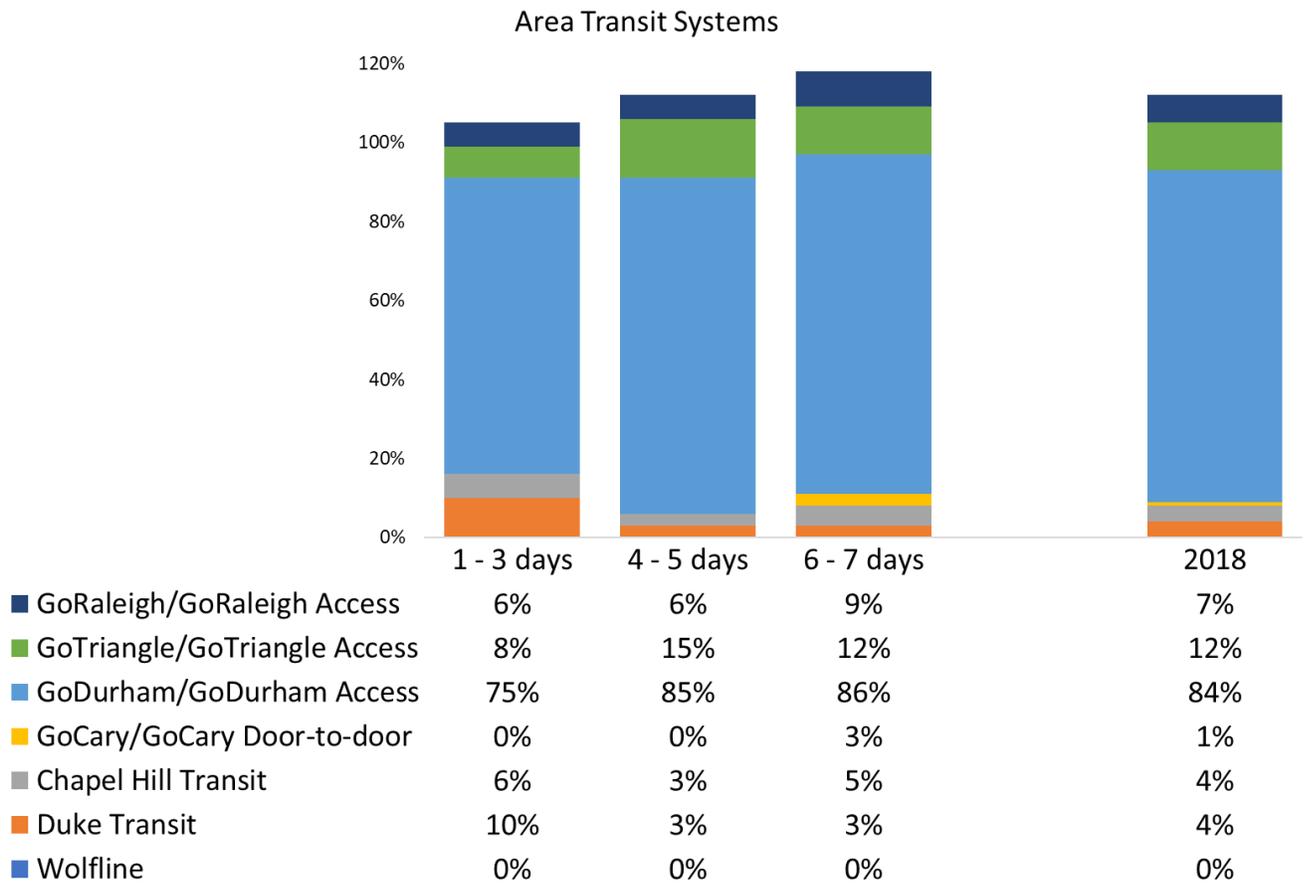
Figure 7 Access Mode – GoDurham and Nationally (GoDurham Survey and APTA, op cit)



Access Mode – GoDurham and Nationally

GoDurham is very much in line with national norms as they relate to the mode to the bus stop. Nationally, 81% of bus system riders walk to their stops, while 80% of GoDurham riders do so. While 9% of bus riders nationally, use public transit to access the stop they used for the trip on which they were surveyed, the same is true for 12% of GoDurham riders. Nationally, some of the bus riders surveyed were in systems that include rail as well as bus, thus increasing the tendency to use another transit service to access the bus stop. This may account for the difference in accessing the GoDurham stop via transit.

Figure 8 Bus Systems Used in a Typical Week



Use of Area Bus Systems

Respondents were asked which of the transit systems in the region they use in a typical week. Since they can use multiple systems, the sums of the percentages exceed 100% in Figure 8.

As expected, most riders (84%) said they use GoDurham in a typical week. Conversely, this suggests that about 16% do not use GoDurham every week and were encountered in the survey in one of their multi-system trips, or that they use GoDurham only occasionally, and not in a “typical week.”

For all segments in 2018, GoDurham customers use GoTriangle more than any other local system (12% overall). As one would expect, given that as we shall see in a later chart, they are less likely to have a personal vehicle available, the six-to-seven-day riders are more likely than others to use multiple systems.

It is not surprising that Chapel Hill Transit and Duke Transit share significantly in the GoDurham customer base because of all GoDurham customers, 24% are students.

Figure 9 GoDurham Fares at the Time of the Survey

	Full Fare	Discount Fare
Single Ride Fare	\$ 1.00	\$ 0.50
GoDurham Day Pass	\$ 2.00	\$ 1.00
GoDurham 5-Day Pass	\$ 8.50	\$ 4.25
GoDurham 7-Day Pass	\$ 12.00	\$ 6.00
GoDurham 31-Day Pass	\$ 36.00	\$ 18.00

GoDurham Fares at the Time of the Survey

The table in Figure 9, copied from the GoDurham website¹, displays the several types of pass media and special fares available at the time of the survey in 2018. In addition to the fares listed, the GoPass is accepted from customers affiliated with certain institutions.

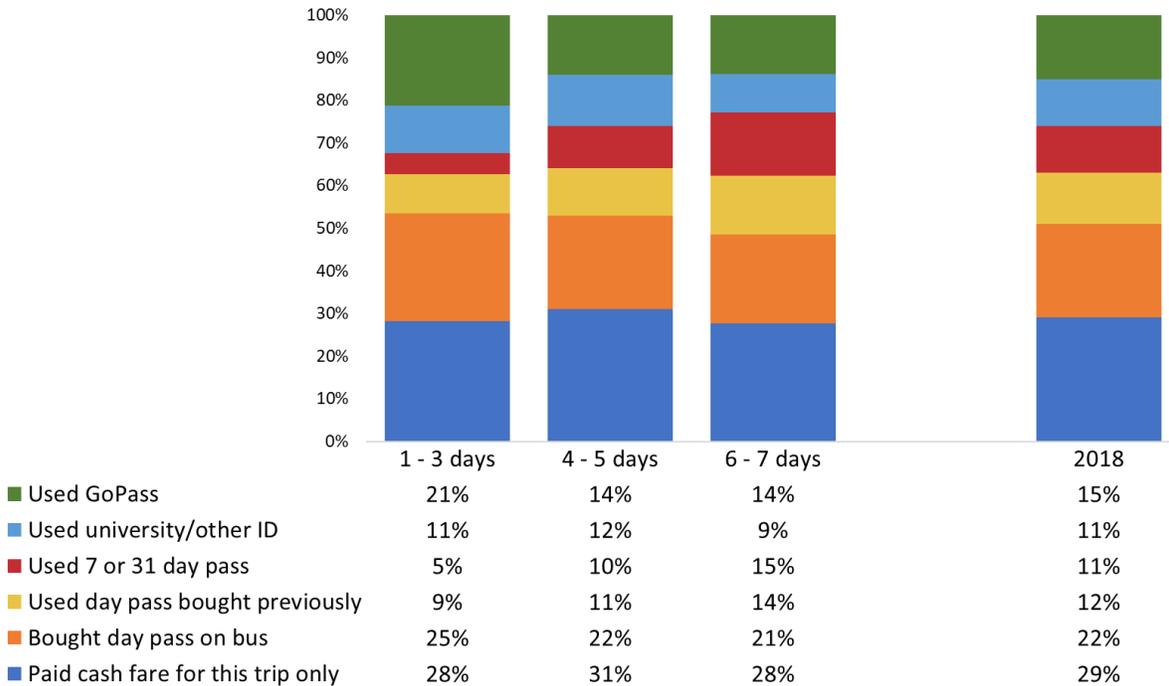
Type of Fare Used

The largest percentage of GoDurham customers (34%) boarded with a day-pass purchased either on the bus (22%) or prior to boarding (12%). Twenty-nine percent (29%) paid their fare in cash. Thus, combining the cash fare and the day-pass purchase on the bus, a total of 51% make a fare transaction on the bus.

The other customers used free or pre-paid passes of some other type. This includes 15% using the GoPass which is free to them, and 11% a university ID, also free to the user. Finally, 11% used a seven- or thirty-one-day pass.

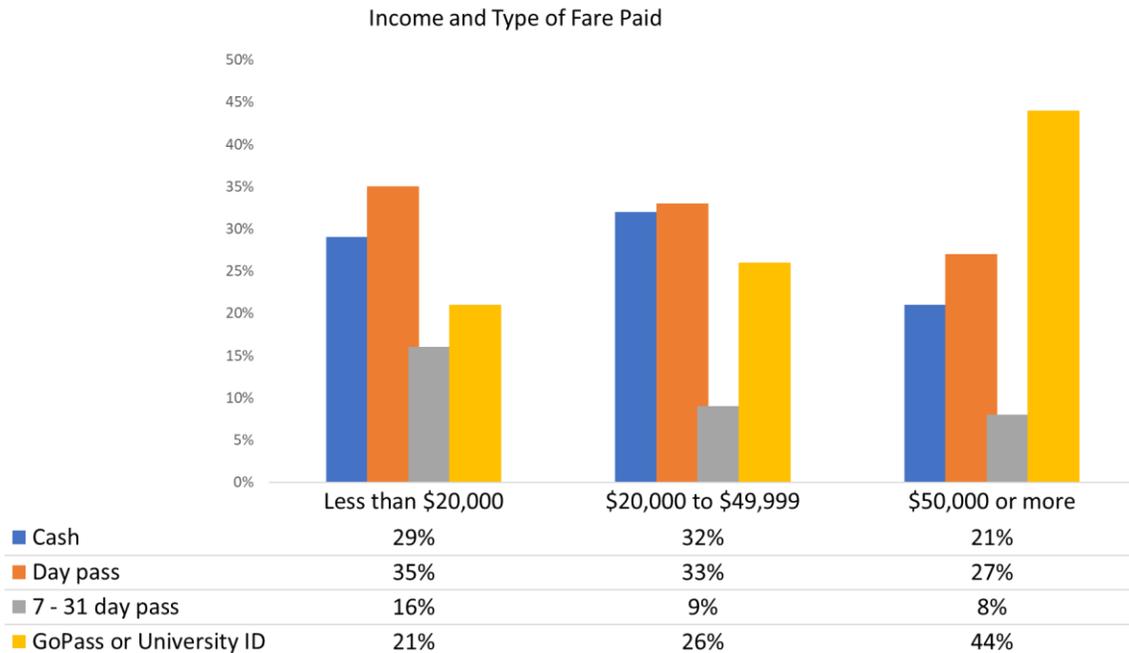
Figure 10 Fare Medium Used

Fare Medium Used for Current Trip



¹ <https://godurhamtransit.org/godurham-fares-passes>

Figure 11 Income and Type of Fare



Income and Fare Medium Used

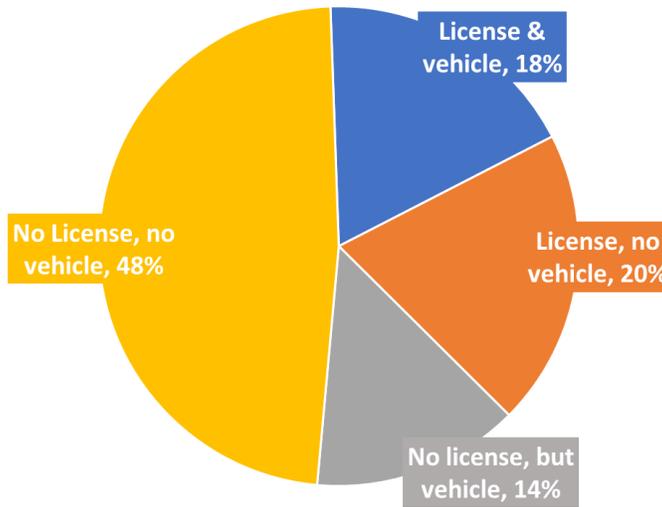
In many systems a decade or more ago, when the day-pass was not yet widely offered, the primary discounted pass option was often a monthly pass and sometimes a seven-day pass. Lower income riders rarely could afford to utilize the fare discount offered by such passes because of the challenge posed by their very limited cash flow, and the risk of committing cash in advance for a month’s or even a week’s transportation. Thus, there was a strong tendency for lower income riders to pay full cash fares, and for discounted passes to be used primarily by those with higher incomes. With the advent of the day pass, however, that inverse relationship that years ago often appeared in passenger surveys between the use of discounted multi-trip pass fare media and income has weakened to the point of almost disappearing.

The day pass rarely offers as deep a discount as a longer term pass, but it imposes little risk, no substantial cash flow problem, and does save money for the user. Also, if pre-purchased before boarding, or at the second and subsequent uses if purchased on the bus, it also saves boarding time for the system, thus providing both a social and an operational benefit.

On GoDurham, 29% of those with household income of less than \$20,000 use cash, but only slightly fewer of those with incomes of \$50,000 or more (21%) also use cash. Many at this below-\$20,000 income level use a day pass (35%). There remains one type of inverse relationship between income and fare paid, however. Those with incomes of \$50,000 or more are twice as likely (44%) as those with incomes less than \$20,000 (21%) and substantially more likely than those with incomes between \$20,000 and \$49,999 (26%) to use a GoPass or a university ID to use GoDurham service at no cost to themselves.

Figure 12 Aspects of Mode Choice: Having a License and Having a Vehicle

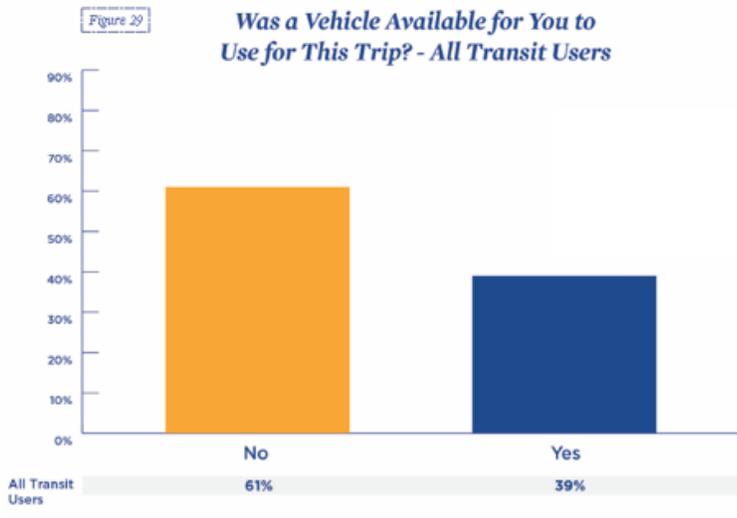
Having Valid Driver's License and Vehicle Available



Three Aspects of Mode Choice

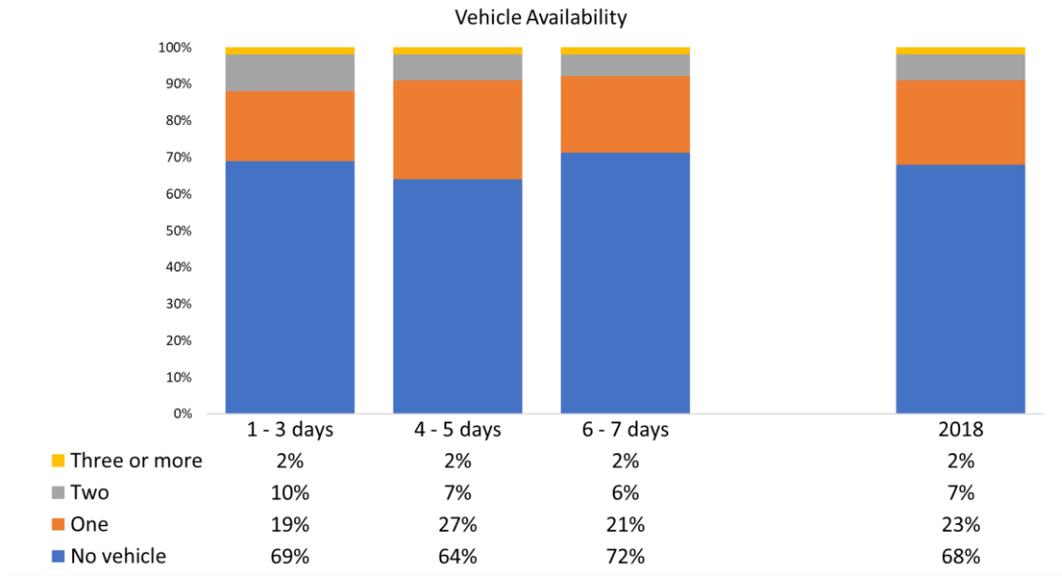
Having a choice of local transportation mode depends not only on the availability of a vehicle but also on having a valid driver's license. Figure 12 indicates that a large minority of customers (totaling 38% in the chart above) hold a valid license and 32% of customer households have a vehicle available, while, conversely, 68% do not.

Figure 13 Vehicle Availability (APTA, *op cit*)



Nationally, the meta analysis conducted by CJR Research for APTA of more than 200 onboard surveys indicated that among bus customers, 61% lacked a vehicle for the trip they were making when surveyed. At 68%, this places GoDurham only slightly above the national norm in this respect.

Figure 14 Availability of a Vehicle

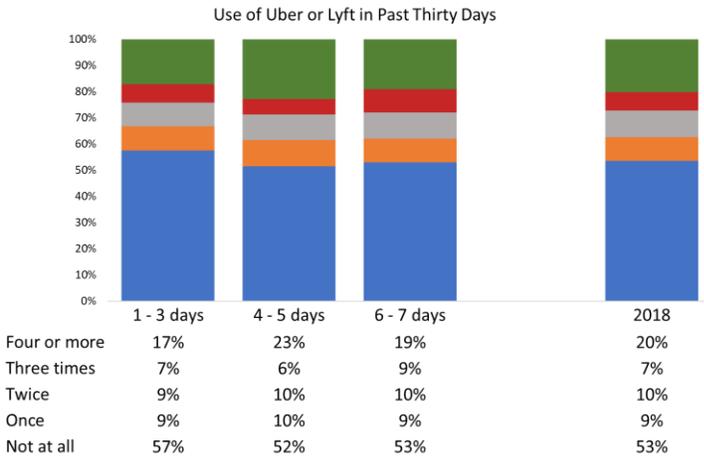


Availability of a Vehicle

Figure 13 demonstrated that 32% of the GoDurham customers have a vehicle available, although not all have a license to drive. Is availability of a vehicle related to the frequency with which customers use GoDurham? There is no consistent relationship.

Customers who use GoDurham four or five days a week are slightly more likely than others to have a vehicle available. We can assume that this is related to their slightly higher income and their resulting ability to afford a vehicle.

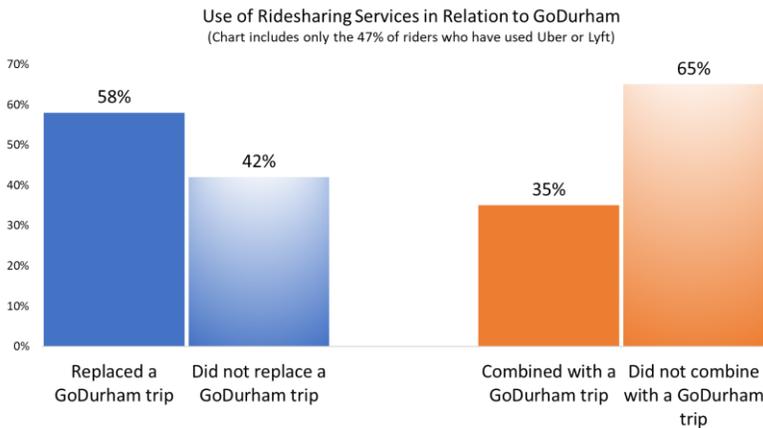
Figure 15 Use of Uber or Lyft in Past Thirty Days



Use of Uber or Lyft in past thirty days

Mode choice is no longer simply about owning or leasing a personal vehicle. Since 2015, car sharing has become mainstream. Of all GoDurham customers, 53% say they have not used car sharing services in the past thirty days. Conversely, this means that 47% have used one of the car-sharing services, including 9% who have used them only once, 10% twice, and 27% who have used them three or more times².

Figure 16 Use of Uber and/or Lyft to Supplement or Replace a Trip on GoDurham



Use of Uber and/or Lyft to Supplement or Replace a Trip on GoDurham

Figure 14 on the previous page indicated that 47% of GoDurham customers had used Uber or Lyft in the past thirty days. How have those trips interacted with GoDurham? Figure 16 provides basic answers.

Of the 47% of GoDurham customers who have used Uber or Lyft, 58% say they replaced a GoDurham trip with the ridesharing trip. This amounts to

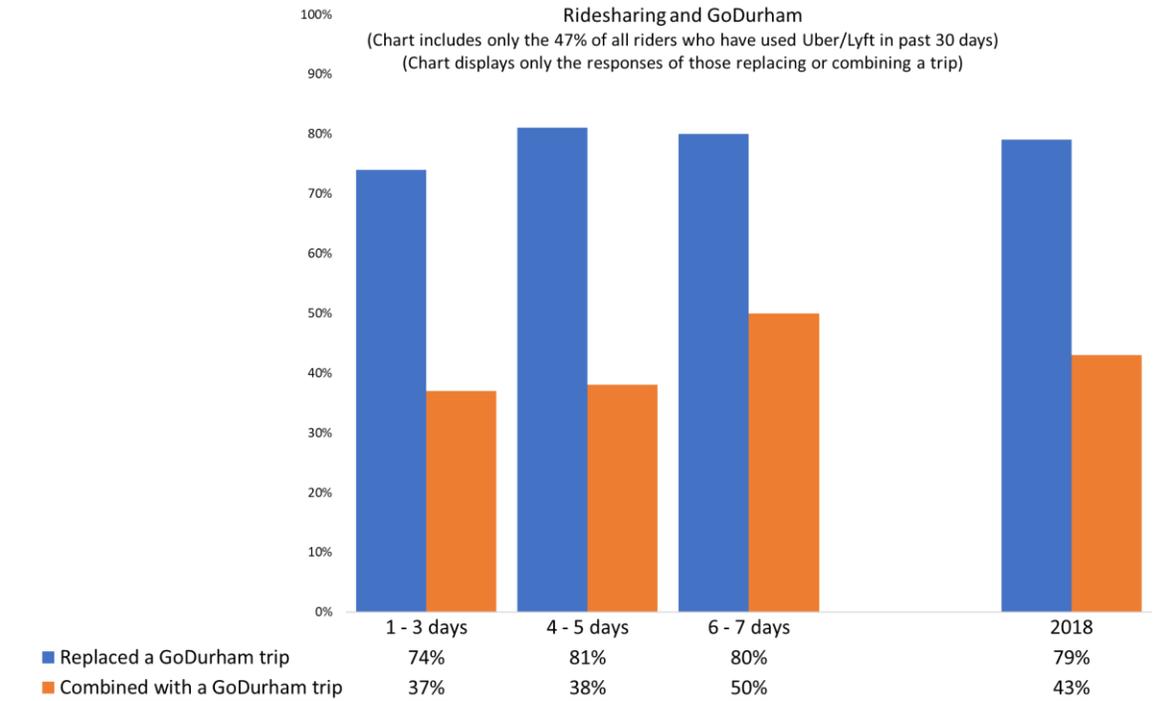
27% of all GoDurham customers (i.e. 58% of 47% = 27%).

Of the 47% of customers who have used Uber or Lyft, slightly more than one-third, 35%, say they combined a ridesharing trip with a GoDurham trip. This amounts to 20% of the ridership (i.e., 35% of 47% = 20% of the ridership) who have used a ride-sharing service, say that they have used it as part of a bus trip.

We do not know for what purpose some Uber/Lyft riders have combined a rideshare trip with a GoDurham trip. However, in Figure 6 (Mode to the GoDurham Bus Stop) only 2% said they used Uber/Lyft to get to the bus stop for their current trip. Other customers must have used ridesharing for other purposes. This issue will be worth exploring in some manner in the coming years if only on an informal basis. One question that would be helpful to understand is whether use of ridesharing is filling gaps in coverage, span, or in weekend service.

² In future surveys it may be useful to determine if customers using shared rides are doing so with dependents because that may be no more costly than multiple cash bus fares.

Figure 17 Replacing or Supplementing a GoDurham Trip, by Segment



Replacing or Supplementing a Trip, by Segment

As we saw in previous charts, 47% of GoDurham customers say they have used Uber or Lyft in the past thirty days. Of this 47% set of riders, 58% (i.e. 27% of all riders) say they replaced a GoDurham trip with a trip on a rideshare service, while 35% (i.e., 20% of all riders) have combined a rideshare trip with a GoDurham trip.

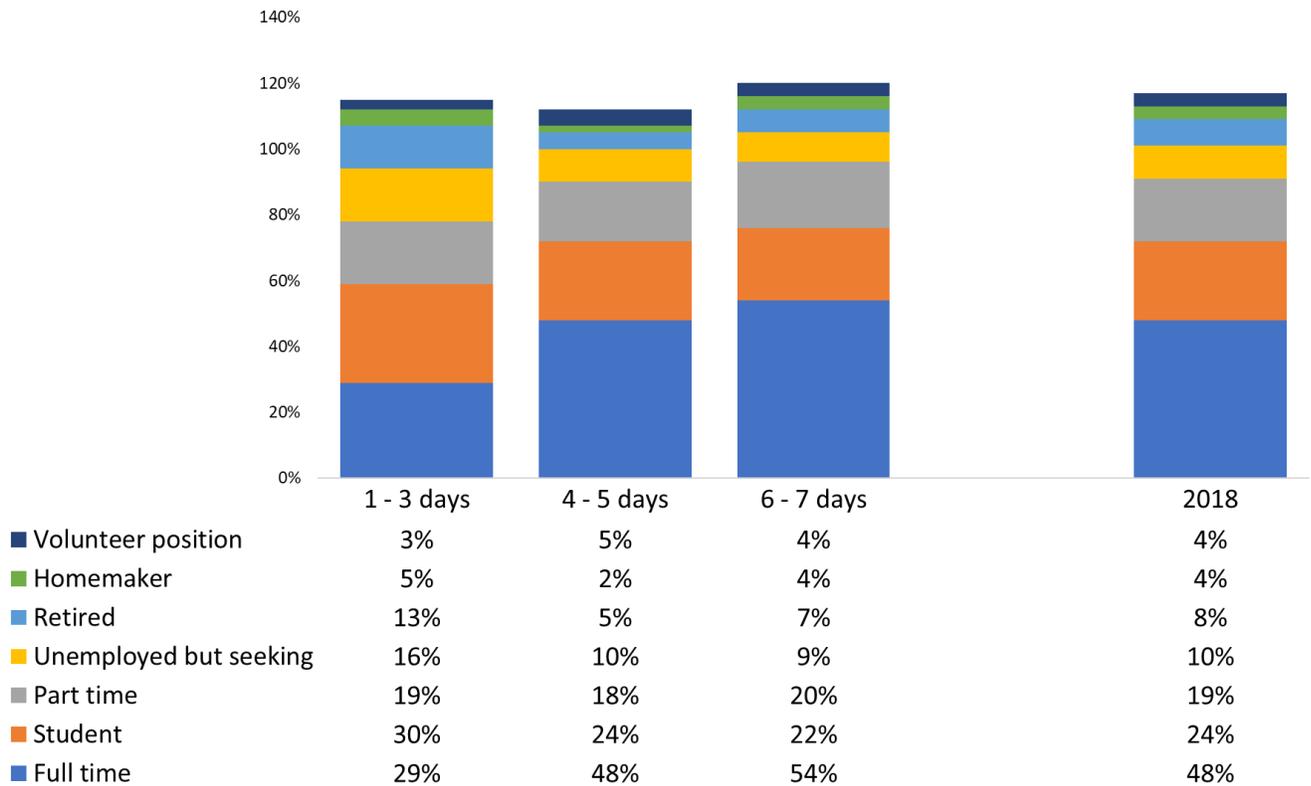
The practice of using rideshare to replace a GoDurham trip varies only slightly among the rider segments, with the four-to-five-day (81%) and the six-or-seven-day riders (80%) being more likely than the one-to-three-day riders (74%) to do so. On the other hand, for reasons not apparent in the data, the six-to-seven-day riders (50%) are more likely than others (37% and 38%) to say they combine a rideshare with a GoDurham trip. This suggests that there is some type of unmet transportation need among the most frequent GoDurham customers.

Although there are some differences among the rider segments, the differences should not obscure the main finding, that a significant proportion of riders are supplementing and even replacing some GoDurham trips with ridesharing trips. It is also important to remember that the percentages cited here are percentages of riders, not of the trips they make. Riders were not asked to estimate the number or proportion of their trips replaced in this manner. This may be a useful question to include in a future survey.

Demographics

Figure 18 Employment of Customers

Employment - Multiple responses included



Employment of Customers

Respondents were asked about their employment. In 2018, a total of 48% of GoDurham customers reported being employed full time, while another 19% said they were employed part time, and 24% said they are students. Although it is not displayed in the chart, students who are also employed full or part time comprise 8% of all riders.

Full time employment is somewhat more frequent among the six-to-seven-day riders (54%) than among the four-to-five-day riders (48%), and considerably more likely than the one-to-three-day riders (29%). On the other hand, the one-to-three-day riders are more likely than the other segments to be students (30%) than the four-to five riders (24%) or the six-to-seven-day riders (22%).

Figure 19 Unemployment Rates in NC, Wake, Durham, and Orange Counties



Source: U.S. Bureau of Labor Statistics, Unemployment Rate in North Carolina [NCUR], and selected NC counties, retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/NCUR>, February 15, 2019.

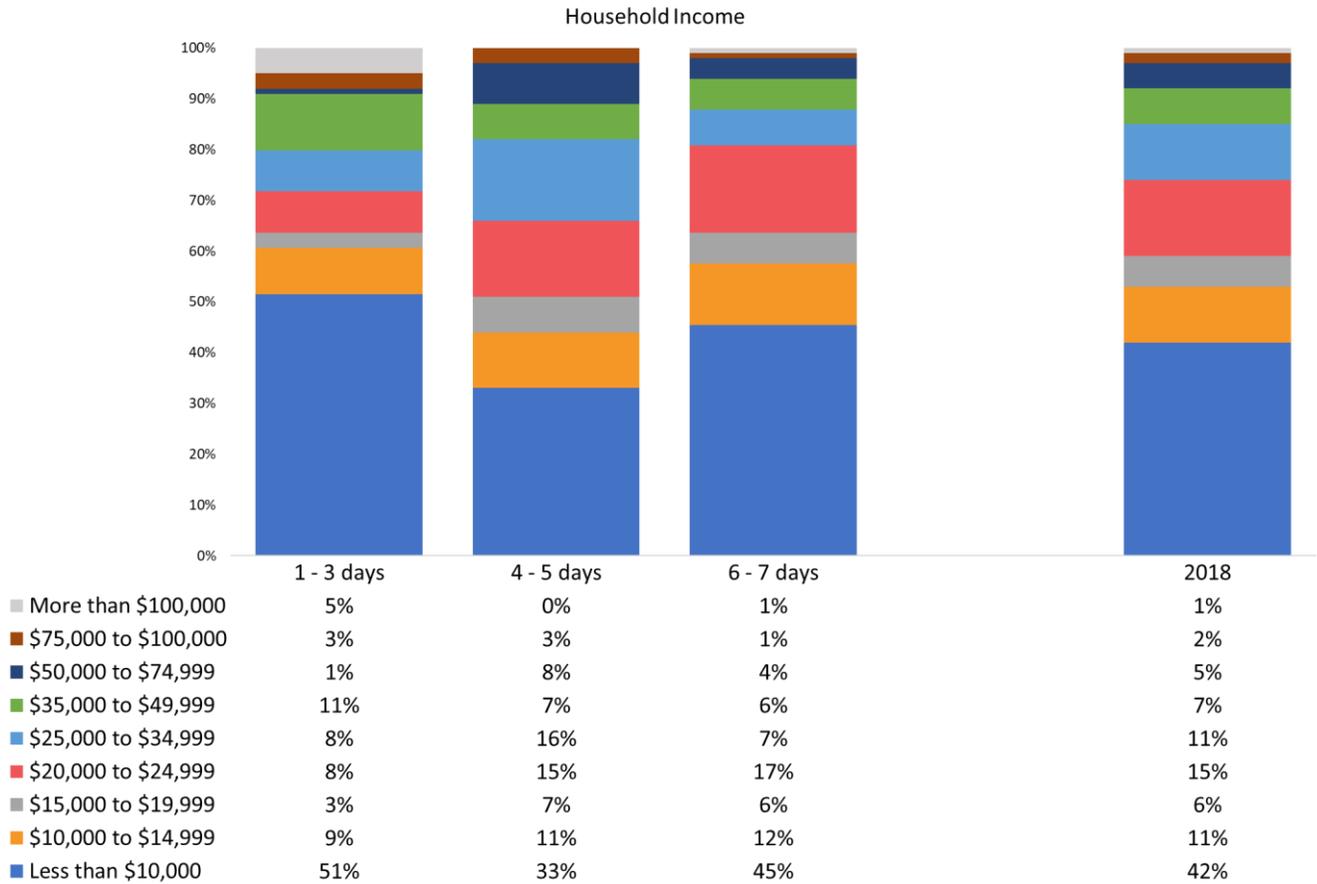
Unemployment Rates in NC, Wake, Durham, and Orange Counties

In the survey, 10% indicated that they consider themselves unemployed. We also saw in Figure 5 that 38% of these “unemployed” riders said that their trip purpose was getting to or from work. Thus, they are employed in terms used by the Department of Labor, although their employment may be only an interim tactic while seeking a new job. This would amount to about 4% of the ridership, leaving 6% unemployed and not working in the interim. How do these figures compare to the official unemployment figures in the region?

The substantial decrease in unemployment in the Triangle Region since the Great Recession is shown clearly in Figure 19. At the time of the survey, the rate was 3.7% statewide and 3.3% in Durham County. If 4% of the riders are “unemployed” but working and thus not counted in the federal figures, this would put the rate among riders at approximately 6%, somewhat higher than the total adult population, but given the relationship of income to transit use, that is not surprising.

Coupled with the fact that 91% of GoDurham riders are either employed or students (or in some cases both) the service to those between jobs and seeking employment is another illustration of the important role of GoDurham as a major factor in labor mobility and emphasizes its critical economic role in supporting the local labor force.

Figure 20 Income of Rider Households



Income of Rider Households

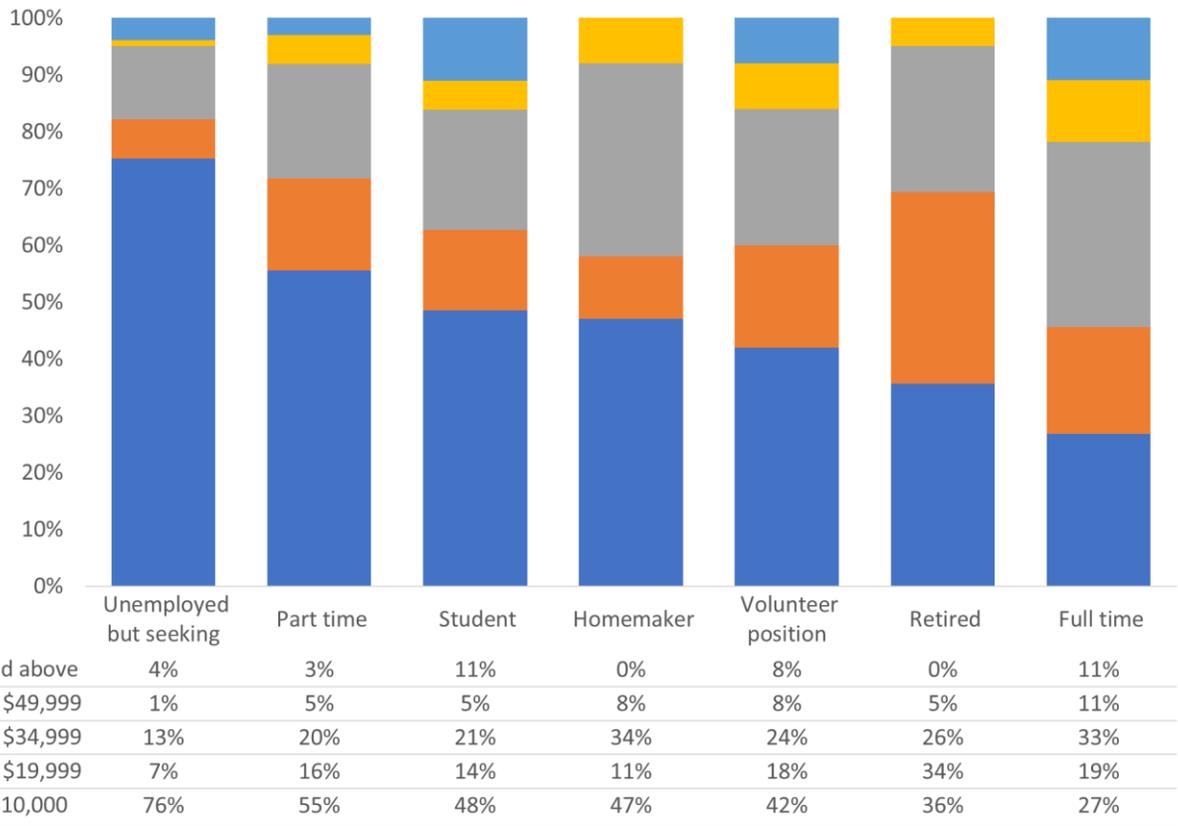
As is true of riders in many passenger transit surveys of other systems, most GoDurham riders have very low household incomes. In 2018, 42% report household incomes of less than \$10,000. Another 17% report their incomes as ranging from \$10,000 to just under \$20,000, while 41% report incomes of \$20,000 or more.

The income distribution varies somewhat among the three levels of riding frequency. Among the four-to-five-day riders, one-third (33%) report incomes below \$10,000 is 33%, a considerably smaller percentage of low incomes than for the other segments. Conversely, the percent reporting incomes of \$20,000 or more is somewhat greater among this segment (49%, compared to 36% for both, the one-to-three-day riders and for the six-to-seven-day riders).

Although the percentage of the four-to-five-day rider segment who are employed (48%) is less than that of the six-to-seven-day riders (54%), it seems likely that the types of jobs they hold conform more closely to the white collar world of four and five day commuting and pay more than jobs held by the more frequent riders.

Figure 21 Employment and Income

Household Income by Customer Employment

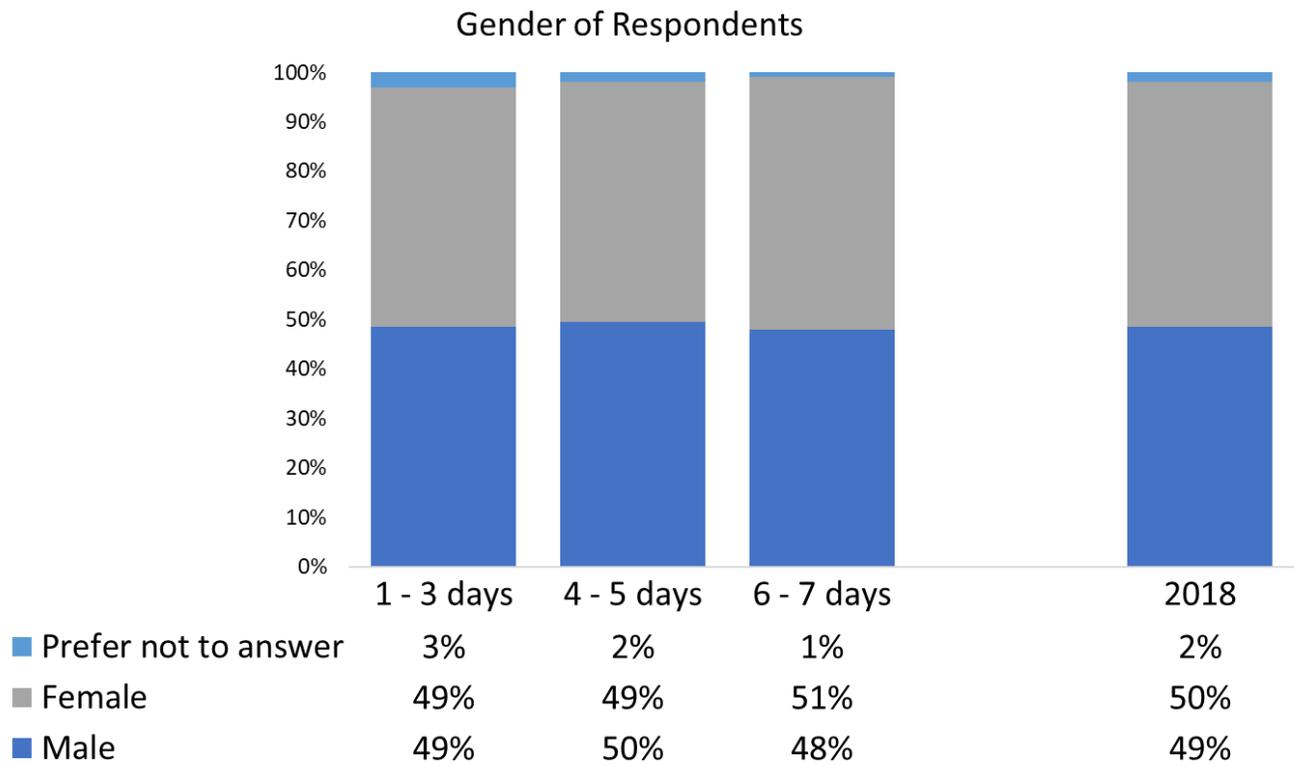


Employment and Income

In 2018, household incomes below \$10,000 seem unlikely. However, in a minimum wage job (\$7.25 in NC), even if a person worked full time for 2,000 hours a year, the income would be only \$14,500. Frequently such low wage jobs do not provide a full 2,000 hours of work with the result that incomes can fall below that level. It is important to remember that responses to the income question in surveys are approximations. For example, the real income of a household with earning income under \$10,000 is likely to be supplemented by such programs as SNAP and Medicaid. And the real incomes of those who are employed and have fully paid health insurance, and those who are sixty-five or older and on Medicare, or students on scholarships (etc.) have income supplements that are unlikely to be accounted for in a quick survey response about household income. Thus, the actual income levels may be understated. The point remains, however, that the income levels are very low.

As one would expect, income is related to the employment circumstances of customers. Of those who are unemployed and seeking work, 76% report incomes of less than \$10,000. Part time workers are next with 55% in that category, and students third, with 48%. For obvious reasons, full time workers report the highest levels of income. Retired persons are next because the percentage with mid-level incomes from \$10,000 to \$34,999 is considerably higher than for others. This may be thanks to Social Security or pensions, and for some retired customers a job in retirement.

Figure 22 Rider Segment by Gender



Gender of the Customers

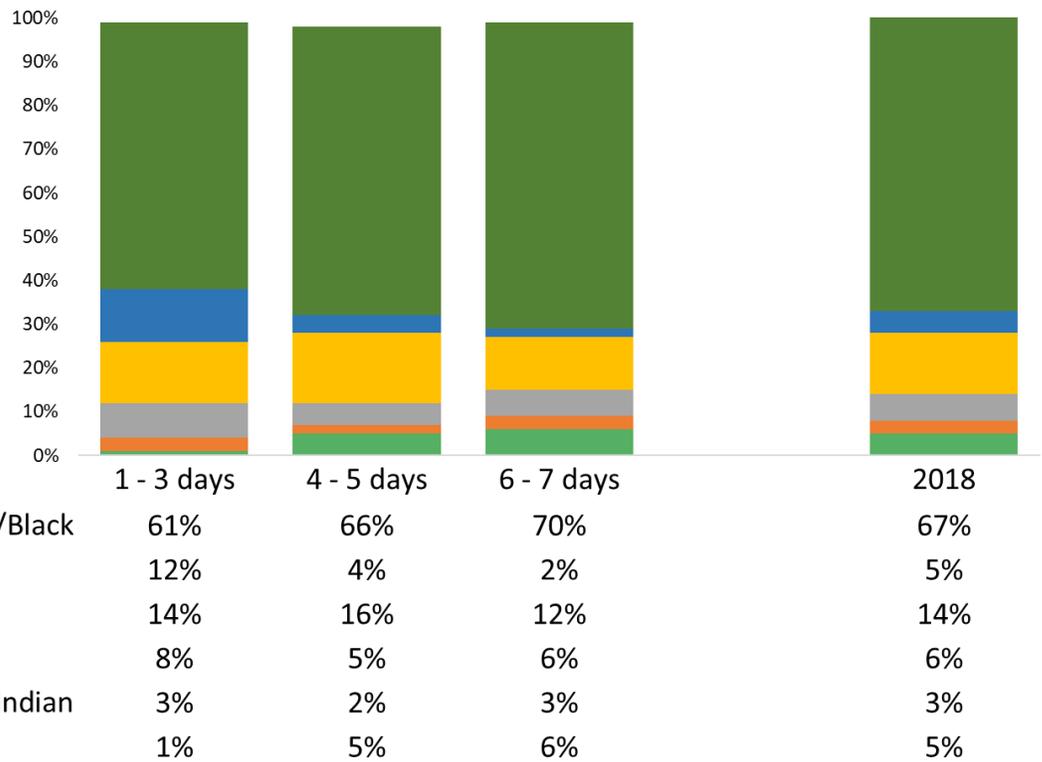
GoDurham customers are equally split by gender, 50% female and 49% male, with 2% preferring not to state a gender identity. (Rounding makes this appear to be 101%. The discrepancy is ignorable.)

The gender balance does not differ significantly among the rider segments.

Nationally, according to the CJI APTA report cited earlier, among bus customers, 56% are women. However, recent surveys by CJI and others have found a majority of males among the riders in several rider surveys. A recent joint study by CJI with EMC Research Inc in Columbus, Ohio, for example, found a 56% male ridership. Whether or not this represents a significant change in the transit market will not be known until additional studies are conducted.

Figure 23 Ethnicity of Customers

Ethnic Background of Respondents



Ethnicity of Customers

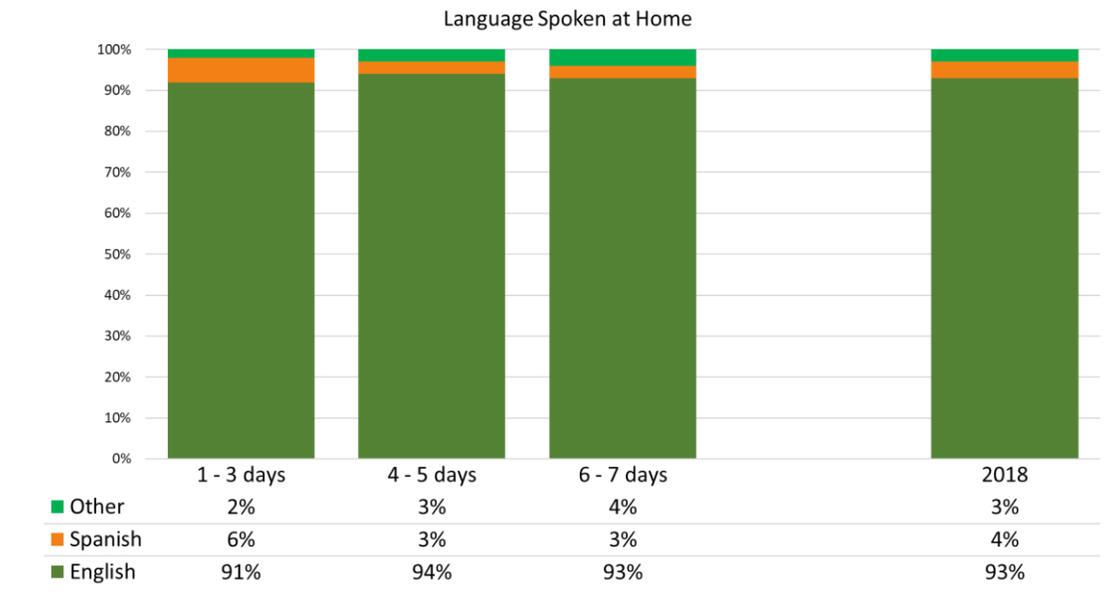
In measuring ethnicity, it is important to focus on self-identification by asking "Which do you consider yourself...?" and asking that respondents note all descriptions that apply to them. In this way surveys usually capture some overlap among the several groups. However, in spite of the instruction to "...check all that apply to you," all but a few GoDurham respondents checked only one identity, although clearly many GoDurham riders, like the general Durham population, must share multiple cultures and identities.

In 2018, 67% of the respondents identified themselves as African American/Black and 14% as Caucasian/White. These two groups total 81% of the ridership.

Those identifying as Hispanic account for 6% of the ridership, Asian as 5%, and Native American as 3%. The "Other" category allowed for a handwritten response. But the write-ins were predominantly expressions of nationality or cultural groups (Greek, Egyptian, Jewish, etc.) or notation such as "mixed," or sardonic (e.g. American, Human) and in this context are not at all helpful.

The distribution of ethnicity differs somewhat among the rider segments, with seven-day customers considerably more likely (70%) to identify as African American compared to four-or five-days customers (66%) or one-to-three-day customers (61%)

Figure 24 Language Spoken Most Often at Home

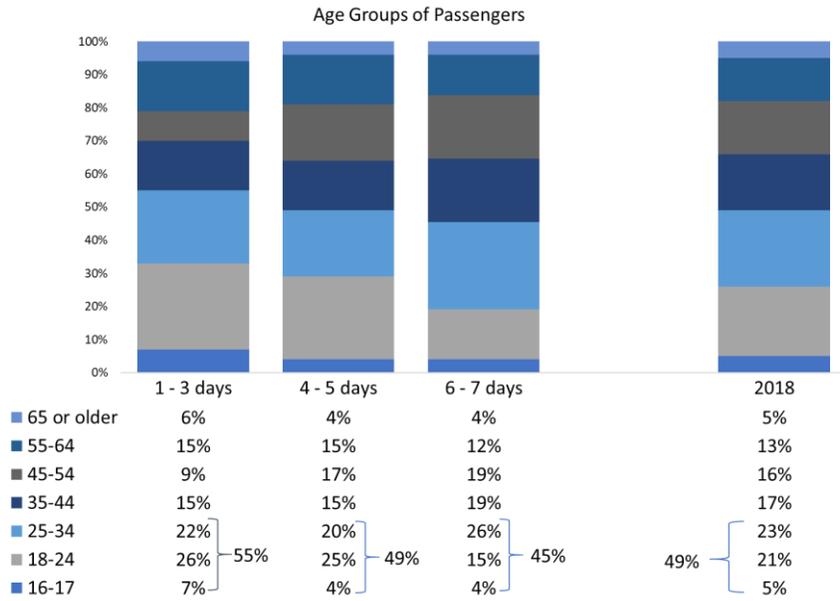


Language Spoken Most Often at Home

The overwhelming majority (93%) of GoDurham customers most often speak English at home while only 3% speak Spanish at home. The rider frequency segments do not vary significantly in this respect.

Of GoDurham customers, 46 people, or 5% of the effective final unweighted sample, identified themselves as Hispanic, but only 24, or 3% of the questionnaires were completed in Spanish. Stated in another way, only about one-half (52%) of the customers identifying themselves as Hispanic completed the survey in Spanish.

Figure 25 Age of Customers



Age of Customers

Like most bus transit systems in the United States, GoDurham has a young ridership. Of all GoDurham riders, close to half, 49%, are under the age of 35. This percentage actually underestimates the youth somewhat because for reasons of data validity and ethical practice, we did not attempt to survey anyone who appeared to be younger than 16.

The age distributions differ somewhat among the three rider segments. The most notable variation is in the total

percentage of the ridership under or over the age of thirty-five. Among the six-to-seven-day customers the percentage younger than thirty-five is 45%. Among the one-to-three-day customers, the percentage is 55%. The four-to-five-day customers fall in between with 49% in that age group. This youthful age characteristic reflects the greater proportion of students in the one-to-three-day and four-to-five-day categories that we saw earlier in Figure 18.

Age Profile of Transit Customers Nationally

Figure 26 demonstrates that nationally, the age distribution among GoDurham customers is similar to that of bus system customers in general, although the GoDurham customers tend to be slightly younger than bus riders nationally.

- Nationally, 22% of bus customers are under the age of twenty-five, a percentage slightly less than that of the 25% under twenty-five among to GoDurham customers.
- Nationally, another 21% are between twenty-five and thirty-four, compared to GoDurham's 23%.
- Another 17% are between thirty-five and forty-four, the same as GoDurham's 17%.
- Similarly, nationally, 17% are between forty-five and fifty-four compared to the 17% among GoDurham customers.
- The balance, 23% nationally and 18% for GoDurham, are fifty-five or older.

Figure 26 Age Profile of Transit Customers Nationally (APTA, op cit)

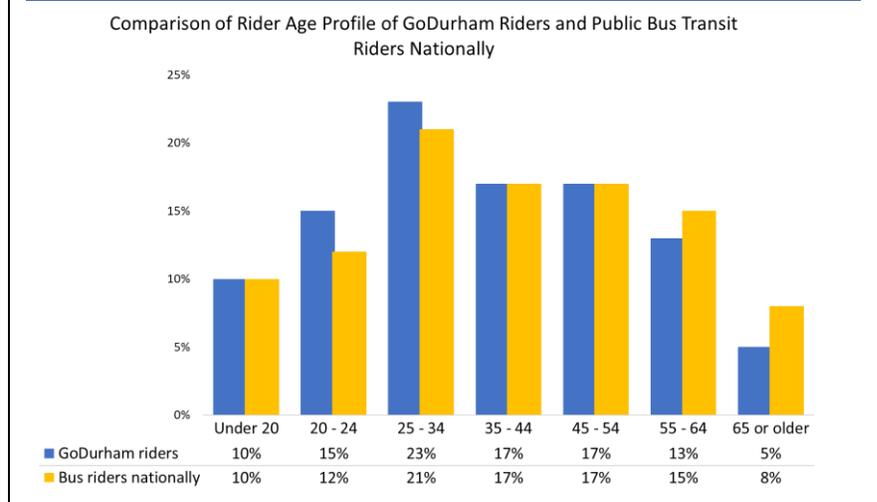
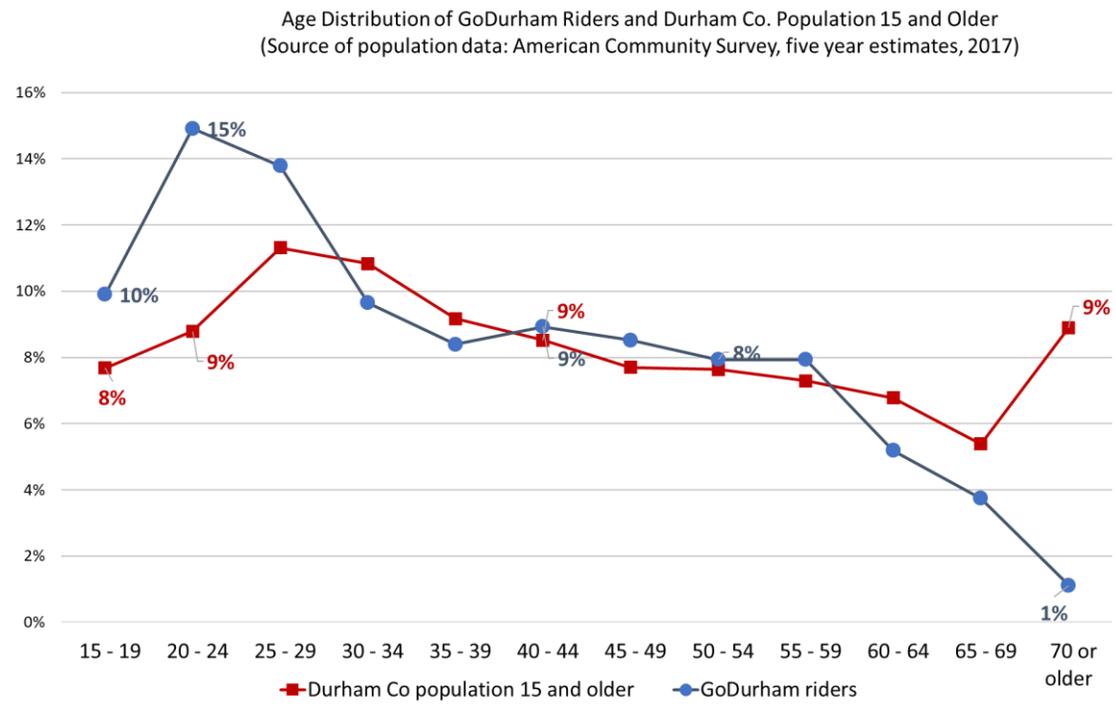


Figure 27 Age of GoDurham Customers and the Durham County Population

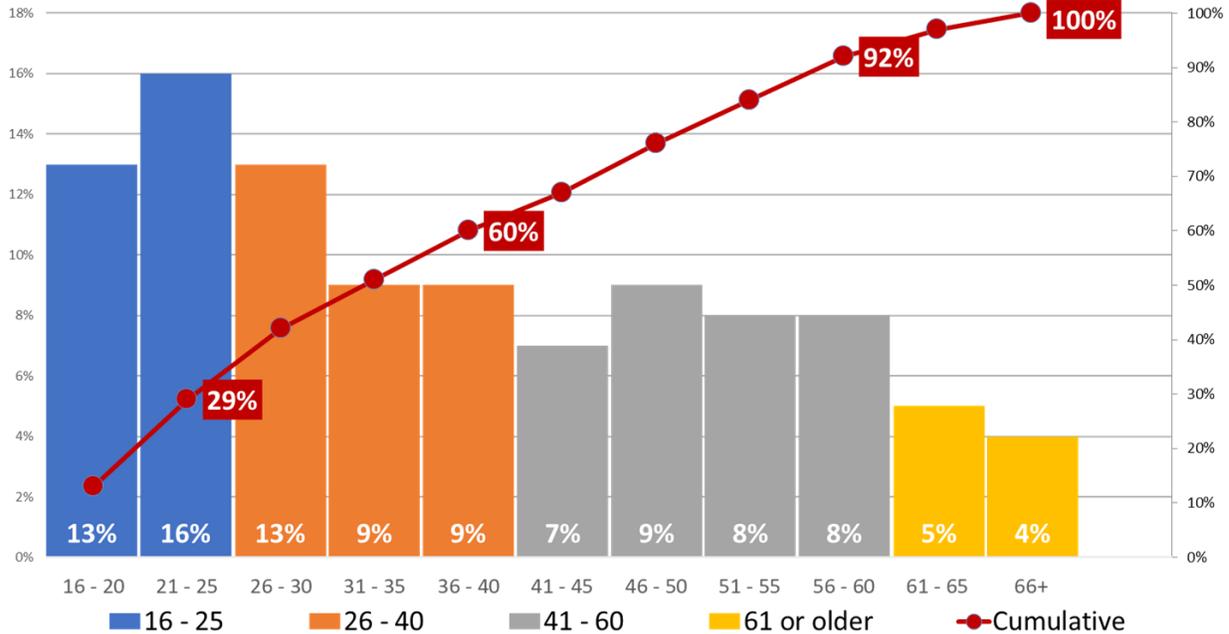


Age of GoDurham Customers and the Durham County Population

Relative to the percentages in each age group among the county population fifteen and older, GoDurham ridership diverges most in the age ranges from twenty to twenty-four and above sixty. The population in the twenty to twenty-four year old age set accounts for 9%, while in the ridership it accounts for 15%. And at the age of seventy and older, the percentage of the population is 9% while among riders it is 1%. The percentages diverge somewhat, alternating one slightly higher than the other between the ages of thirty and fifty-nine, but the differences are small.

After the age of thirty-five, the two populations follow similar gradual downward trajectories until the age of fifty-five when the percentage of the general population in each age group is greater than the percentage among riders. The difference is especially pronounced among those sixty-five or older.

Figure 28 Age Profile of GoDurham Customers



An Age Profile of GoDurham Customers

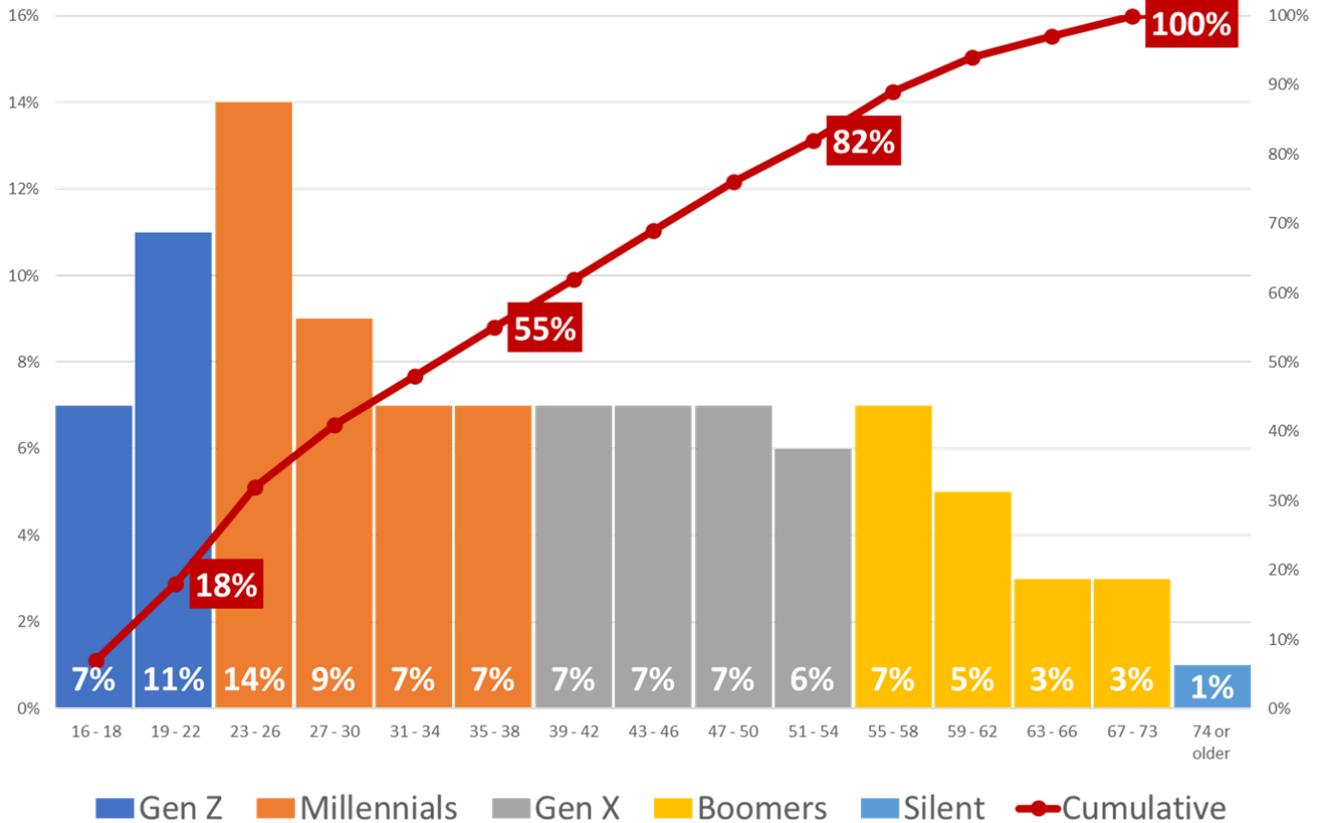
A quick glance at the chart above tells an important age story about ridership: It is somewhat disproportionately young. More than one-fourth (29%) of GoDurham riders are twenty-five or younger. Almost sixty percent (60%) are forty or younger.

In several studies of transit customers in other cities, CJI has found that the age profile of any given system’s bus ridership tends to follow an age progression similar to that shown above in Figure 28. Generally, about one-fourth to one-third of ridership falls into a youthful cohort, young, often in school or college, preparing for work-life, and ranging in age from sixteen to approximately twenty-five. After the age of twenty-five the percentage of transit customers in each age group drops off and enters a declining slope, which, for most transit systems we have studied, represents a life cycle period when many transit customers are entering a career phase of life, earning more and often buying a vehicle.

The age-curve then tends to flatten out somewhat between the ages of forty-one and sixty, in the GoDurham case averaging 8% of the ridership during that period.

After the age of 60, the percent of ridership tends to fall off as people begin to retire. Although the percentage each age group contributes to overall ridership varies somewhat, it does not vary greatly as a percentage of total ridership and averages 4.5%.

Figure 29 Generations and Ridership



Generations and Ridership

For purposes of visualizing the age characteristics of the GoDurham customer base, another way to think about the age distribution of the ridership is to apply the age-ranges popularly used to describe generational groups. We have used definitions proposed by Pew Research Center³. The age sets used by PEW and those in the survey do not entirely correspond because while Pew defines Gen Z as between the ages of seven and twenty-two, the GoDurham survey interviewed no one below the age of sixteen. Also, while Baby Boomers are said to be no older than seventy-three, there are too few riders in the survey above that age to create a separate group for the older generation (“The Silent Generation”) and they are grouped with the Boomers for purposes of the chart. However, the PEW definitions provide an adequate guide.

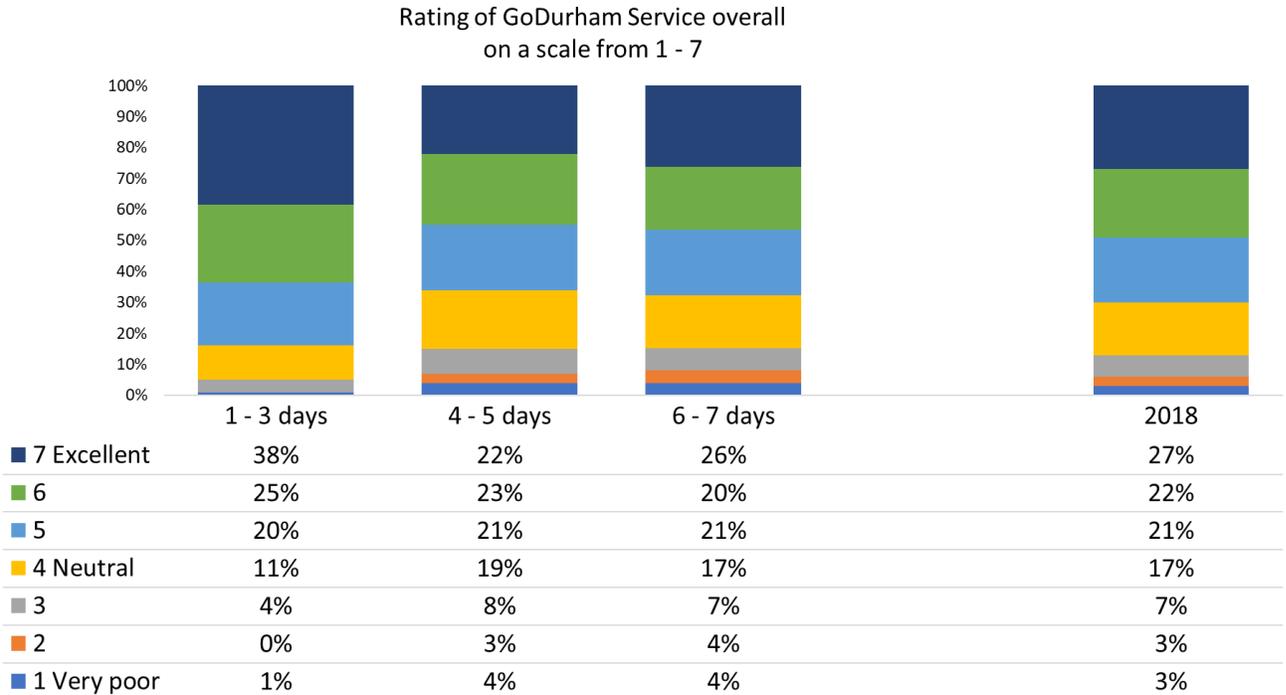
In Figure 29, we see a pattern very similar to that presented in Figure 28. Both charts make the point that a disproportionately large proportion of the ridership is young. In the case of generations, the youthful Gen Z and Millennial generations account for more than half of the total ridership (55%).

The bulge in the percentage of riders at middle age noted on the previous page represents a combination of the leading edge of Gen X and the trailing end of the Baby Boom.

³ See <http://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/>

Customer Satisfaction

Figure 30 Overall Service Rating by Rider Segment



Overall System Rating Score by Rider Segment

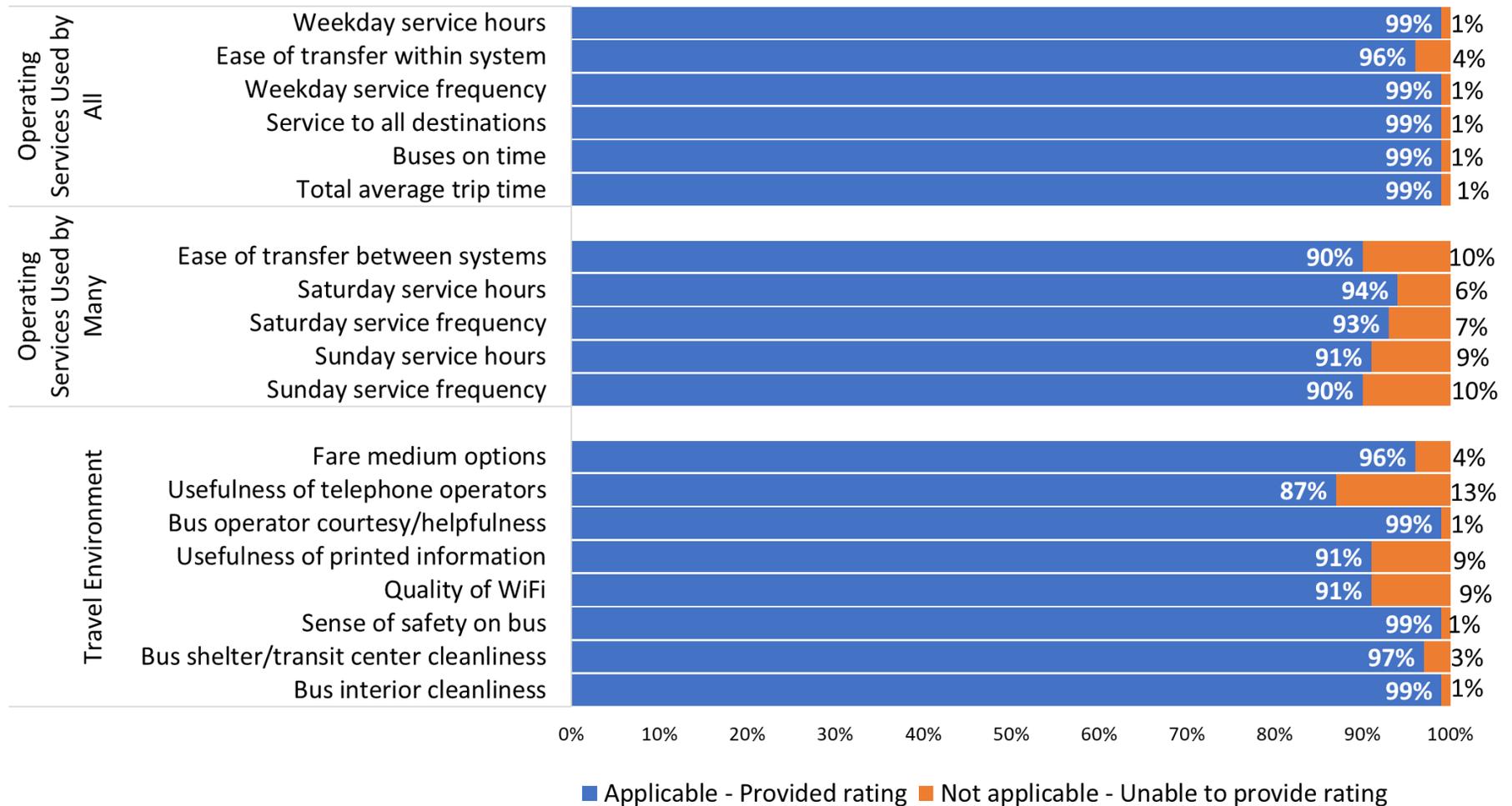
Customers were asked to rate nineteen aspects of GoDurham service using a scale from 1 to 7 on which a score of 7 means “Excellent,” and 1 means “Very poor.” They were then asked to rate the service overall (See questionnaire page 63). We begin this section of the report with the overall rating of service.

Twenty-seven percent (27%) rate service overall as 7, or excellent. Another 22% score it 6, giving a total of 49% with high satisfaction scores.

The occasional, one-to-three-day riders, offer the highest score on overall service quality, with a total of 63% scoring service overall as 6 or 7 on the seven-point scale, while fewer (46%) of the six-to-seven-day riders, and 45% of the four-to-five-day riders assign that score. The four-to-five-day riders, who typically have the most routine commutes, offer a lower “excellent” percentage than the other segments, with 22%. This apparent relative reluctance to assign a perfect score for transit service is not uncommon for this segment, probably because they are likely to rely on the service to provide an unbroken commuting routine, and in addition have slightly more income which allows them the freedom to be a bit more critical.

Figure 31 Services Included in the Survey, Grouped by Type and Showing Percentage Unable to Provide a Rating

Percent of riders providing a rating vs those saying that this aspect of service was "Not applicable" to them



Services Included in the Survey, Grouped by Type and Showing Percentage Stating that the Service was not Applicable to Them

Two interacting parameters help shape the distributions of the rating scores.

- (1) One parameter is simply the proportion of all customers who can provide a rating, thus presumably indicating that they use the service at least occasionally. We refer to this as utilization. Figure 31 displays in blue bars the percent able to provide any rating whether positive, neutral or negative. It displays in the orange portion of the bars the percent who answered that the service was not applicable to them.
- (2) The second parameter is the type of service being rated. These types are explained below, but the essence is that some are operational, and some are simply static aspects of the travel experience.

UTILIZATION

Taking utilization first, some services such as weekend service, were given ratings by fewer customers than others. We consider the extent to which customers can provide ratings a proxy for *utilization* of the service. To illustrate this changing proportion of respondents offering ratings, Figure 31 displays the percent of all respondents who offered any rating, whether positive or negative, and the percent who said that the service did not apply to them. Ratings for services with fewer users than others have a different denominator when percentages are computed for the ratings and they are thus reflective of only those who use them. The computation of the percentages in the charts which follow and show service ratings are based on only those who answered the rating question, not on the total sample.

TYPE OF SERVICE

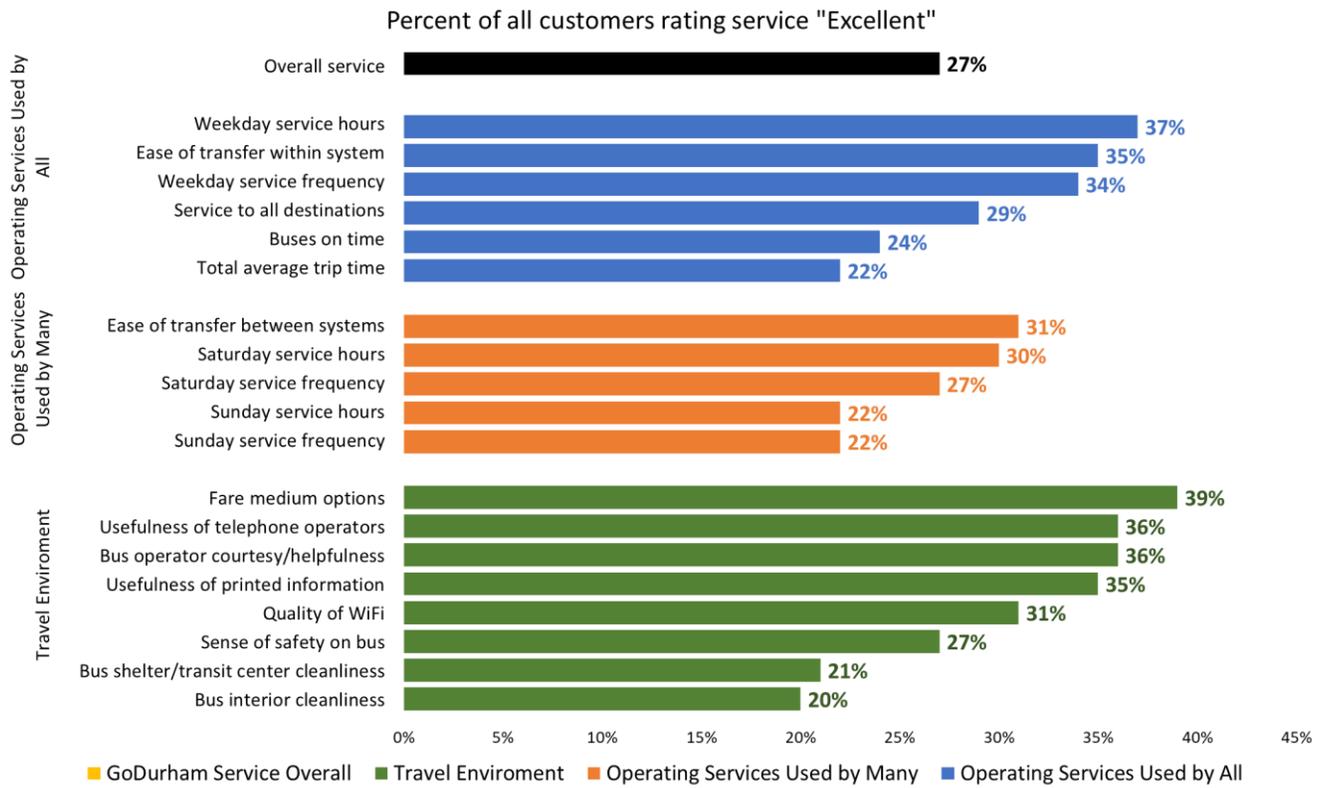
The second parameter involves the type of service. The typology is intended to put comparisons of ratings among the various services, on an apples-to-apples basis. One major factor differentiating the nineteen services included in the survey is whether the service element is *operational* in the sense that it involves some combination of system design and the ongoing process of keeping the vehicles moving and serving passengers on a daily basis or is the type of service that sets the general environment in which the customer experiences GoDurham services. To take an example, clearly the “Quality of Wi-Fi” and “Fare medium options” are service elements that help set a general environment, while “service to all destinations” and “Buses running on time” are operational matters.

In Figure 31, we apply this reasoning to differentiate three types of service elements based on two criteria: (1) the type of service (operational or travel environment) and (2) the extent to which operational services service are utilized, using the “not applicable” response as a proxy for not utilizing the service.

One can obviously debate the categorizations. For example, is interior cleanliness of the buses an operational factor or a factor that affects the customer’s perception of the travel environment? It certainly involves operational activity by GoDurham, but on the other hand, it does not impact such things as the time customers wait for a bus or their ability to get to various locations. Thus, it is categorized with other factors affecting the environment in which people travel, rather than with operations.

No specific conclusion is to be drawn from Figure 31. It is provided only to give the reader a perspective on the differences among the elements in terms of service type and the proportion of customers using the service, as scores are compared in the several figures that follow.

Figure 32 Scores of "Excellent" in 2018 on Individual Components of GoDurham Service



Rating Scores: Scores of "Excellent" in 2018 on Individual Components of GoDurham Service

Figure 32 above presents a first look at customer rating scores for individual elements of service. This chart includes only the top score of seven, or “Excellent,” on the seven-point scale.

Like Figure 31, Figure 32 is organized by the type of service being rated. At the top of the chart are three operational services fundamental to all customers. Each of these has more than 30% scoring it as excellent. Weekday service hours, ease of transferring within the system and Weekday service frequency have the highest percent excellent in the high utilization operational group, with 37%, 35%, and 34% excellent, respectively. Coverage (“Service to all destinations you want to get to”) finds fewer, but more than one-fourth of customers rating it as excellent (29%). On time performance and total time required for a trip reach almost one-fourth (24% and 22%, respectively).

Operational aspects of service that are used by fewer customers than other services, tend to have somewhat fewer ratings of excellent than the more universally used service elements⁴. This is particularly true for weekend service. Transferring between systems (31% excellent) is the one element included in this set that does not involve weekend service. It is in this set because 10% said the question did not apply to them, implying that they do not make such inter-system transfers in a “typical week.” Saturday service hours also receive excellent ratings by almost one-third (30%). Saturday service frequency falls slightly below that level at 27%. The two other service elements in this set both involve Sunday service, and both

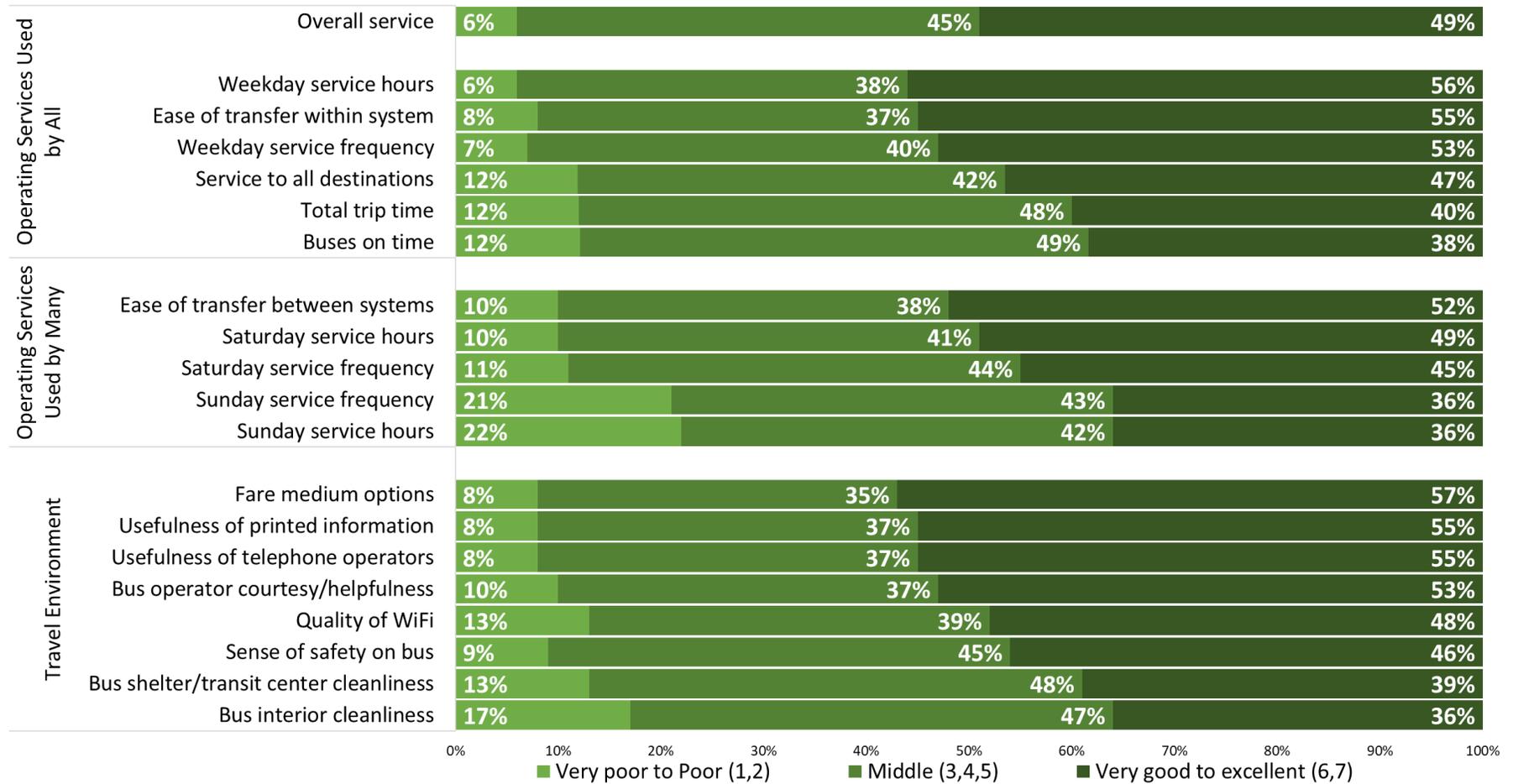
⁴ Note that the percentage is based on only those who were able to provide a rating, not the total sample so that the percent “excellent” is not falsely reduced by inclusion of those who answered “not applicable” in the denominator.

get scores of excellent by fewer than one-fourth of the customers, 22% for both service span and frequency.

The third set of services involve the environment which GoDurham customers travel. Of the eight services included in this set, five get excellent scores by more than 30% of the respondents. The fare media options, with 39%, are at the top of this list, but two personnel elements, each with 36% at the excellent score level are also at a very positive level. They are the courtesy and helpfulness of the bus operators and the usefulness of the telephone information operators. It is typical for personnel to have very good ratings. Occasional complaints notwithstanding, customers generally like the interaction with the transit personnel with whom they come in contact and give them high scores.

The quality of WiFi on the buses exceeds the 30% mark (31%). Other items fall below that mark and should be of concern. A sense of safety on the bus, at 27% suggests that there is less than unanimous feeling about personal security. The remaining two elements both involve cleanliness, of the bus shelters and transit center (21%) and the interior of buses (20%). These last three items are related. The degree of cleanliness often implies a degree of order and official attentiveness which, though unrelated to safety, can be reassuring.

Figure 33 Distribution of Grouped Service Rating Scores



Service Rating Distributions

The previous chart, Figure 32, showed the top percentages on the seven-point scale. However, so that we can see what the balance is between positive and negative ratings, it is important to also consider the distribution of scores within the full 1 – 7 range.

To simplify the chart showing the distributions, the scores of 1 to 7 have been combined into three sets as shown in Figure 33 above. The top two positive scores (6 and 7) are combined as are the bottom two scores (1 and 2). The combined middle scores of 3, 4, and 5 can be considered

neither extremely positive nor extremely negative. The scores of six or seven represent either excellent or nearly excellent scores. This is simply a way to summarize the results that also allows us to visualize the distribution of the scores.

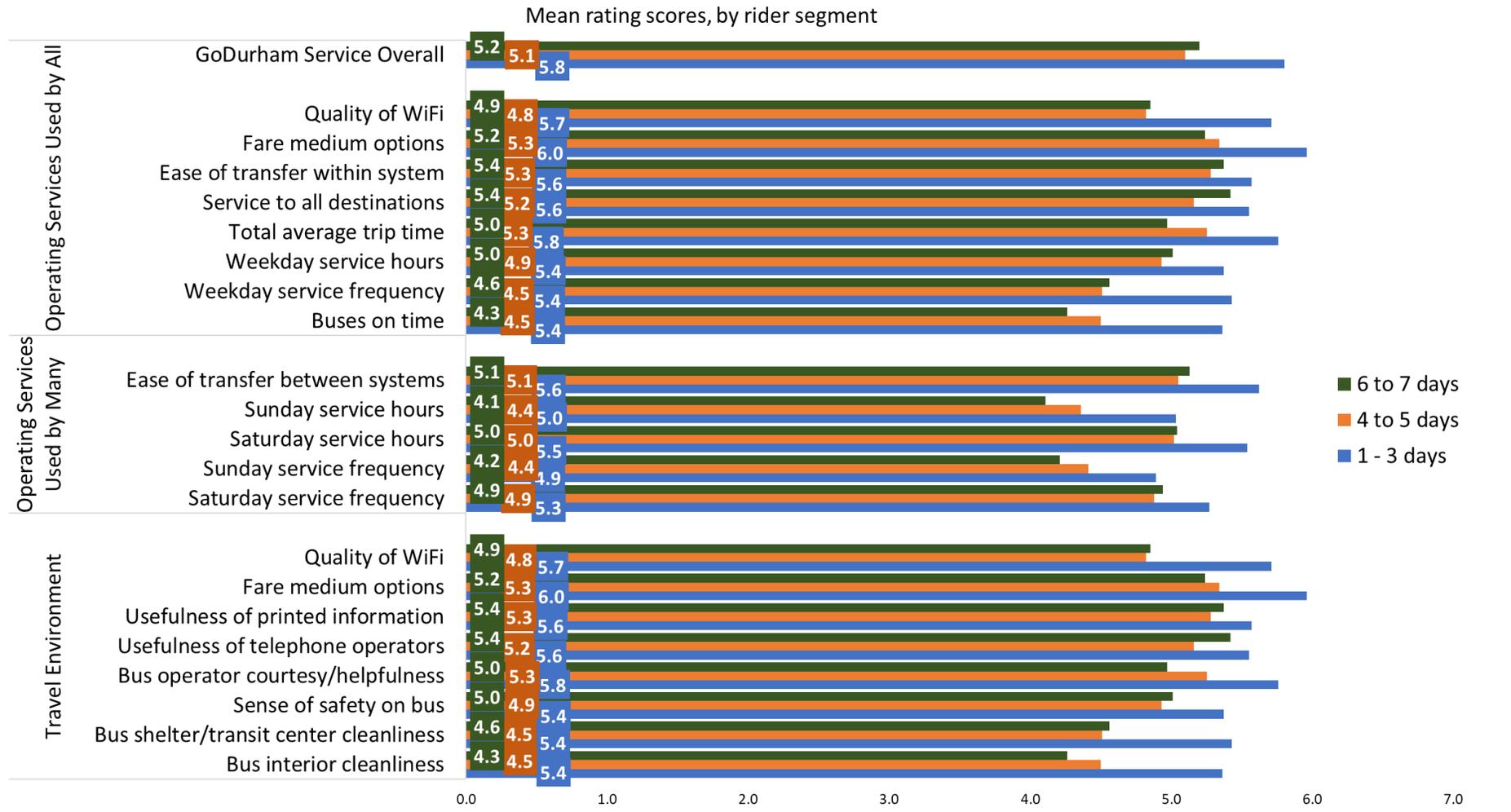
RESULTS TEND TO BE POSITIVE

The basic story of this chart is that, as with most similar surveys for other transit systems, the ratings differ primarily in the degrees of positive ratings, not in stark differences between positive and negative ratings. The percentages in the lowest rating categories of 1 and 2 tend to be 10% or less. The percentages giving positive scores of six and seven on the scale in contrast, tend to be much greater. For example, of the six operational high utilization characteristics, three have high six/seven ratings greater than 50%. The other three range from 38% to 47% in the top category.

There are exceptions which have percentages greater than 10% in the low scores. Most of these are only marginally above 10% (e.g., 12% for Service to all destinations, Total trip time and Buses being on time). More importantly the largest percentages in the lowest score category are for Sunday service frequency and hours, with 21% and 22%, respectively, in the lowest score categories. Interior cleanliness, at 17% on the low score category is clearly another aspect of service that causes some dissatisfaction.

These service elements are worth mentioning only because when low ratings significantly exceed 10% of the customer base in any industry, it is a clear signal that a significant proportion of the customer base is pushing at the limits of what the system as structured can currently provide.

Figure 34 Comparing Ratings among the Segments Using Mean Scores



Comparing Ratings among the Segments Using Mean Scores

As measured by the mean score, the rating scores of three segments tend to be mostly in agreement. This tendency for the rider frequency segments to agree in their ratings is indicated by two characteristics of this chart. First, within each of the three service types, the rank-order of their scores is similar. Second, the maximum difference among the segments is small, only 1.1, (for interior vehicle cleanliness and for buses running on time) on the seven-point scale. These two observations suggest that regardless of how often one uses GoDurham services, the

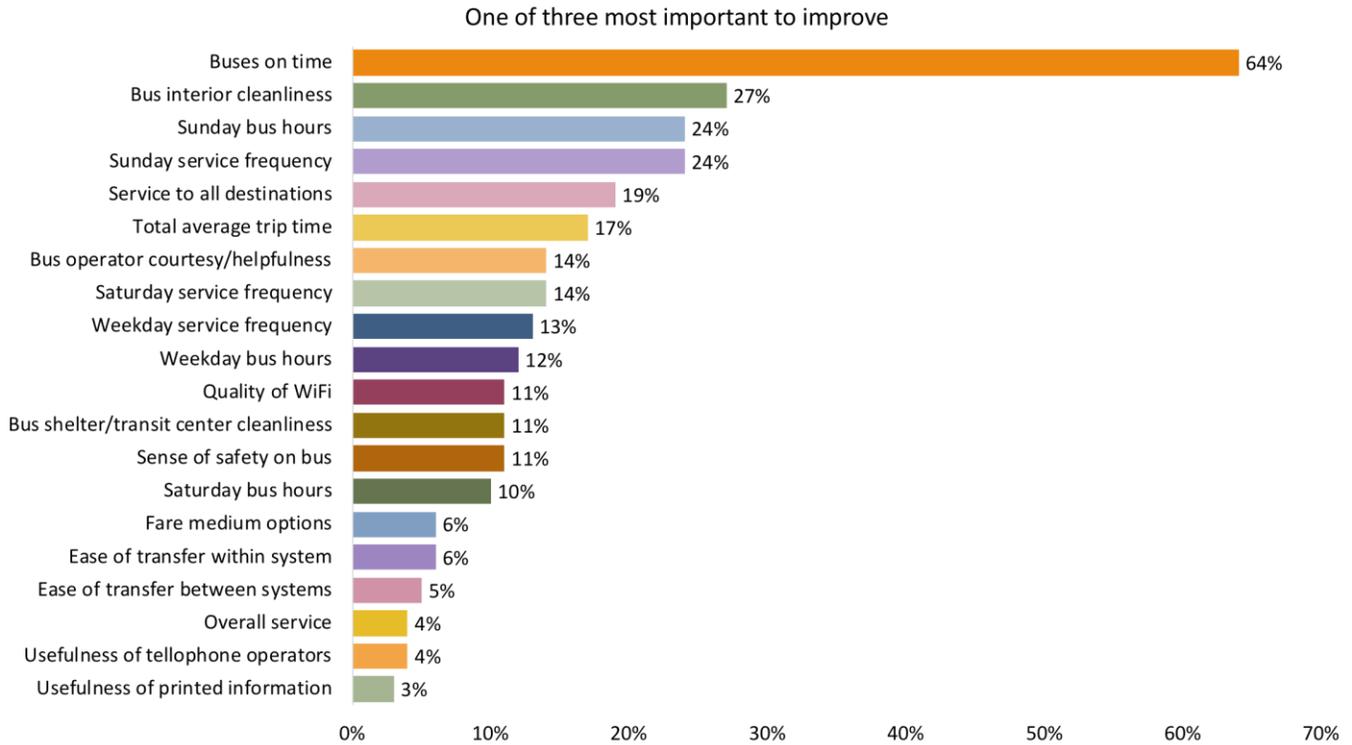
experience will tend to be perceived in generally similar ways. However, it is also true that the least frequent riders tend to give somewhat higher scores across almost all elements of service. Scores for the four-to-five and six-to-seven day riders are more similar to each other than they are to the occasional one-to-three day riders.

Determining Customer Priorities for Service Improvement

In the charts from Figure 30 through Figure 34 we have seen the opinions of GoDurham customers about service overall and of nineteen separate elements that make up GoDurham service. While these charts give us considerable information about how customers perceive GoDurham service (quite positively), it is static information – it does not tell us how to prioritize service improvements. Two methods of prioritizing are presented in Figure 35 and Figure 36:

- The first method (Figure 35) is very straightforward. It is based on customer response to the simple request: “Of the services in questions 1 – 19 above, please list the three most important to improve.”
- The second method (Figure 36) involves a combination of two statistical analyses. First it compares each service rating to the average rating of all services: Is the rating above or below the average score for all nineteen elements of GoDurham services? Second, it correlates the rating of each element of service with the rating of GoDurham service overall so that we can infer its influence on that overall score.

Figure 35 Most Important Element to Improve



One way to prioritize: Ask Customers “What Are the Three Most Important Services to Improve?”

Sixty-four percent (64%) of GoDurham customers indicate that having the buses run on-time is one of their top three improvement priorities.

It is important to keep in mind that the customer belief that on-time performance must be improved is a customer *perception*, not a measurement-based observation. Customers themselves will often arrive at their stop early, marginally on time, or a bit late for their bus and perceive that it is the bus that is off schedule. They may also not know the relationship of their stop to a time point. Thus, their perception and the reality can be quite different.

To the extent that more people begin to use real-time transit apps for bus arrival information, as 47% now do (see Figure 37), that information will decrease the anxiety of waiting and will help reduce the perception of a lack of on time performance. In addition, greater frequency will have a similar effect because even in the absence of real time information, frequent service creates certainty that the next bus will be coming soon.

The next closest priority, “Bus interior cleanliness” is rated in the top three by 27%. The third and fourth in the rank order of customer service improvement priorities, are Sunday service frequency, and Sunday bus hours with 24% each (rounded).

A second way to prioritize: Determine Which Service Elements Would Move the Needle of the Overall GoDurham Service Rating if They Were to Be Improved

Using survey data to prioritize elements of service that customers feel need improvements is a challenge. Figure 35 presented one way to do it. Figure 36 on page 56 presents a second way to accomplish it. This approach takes the pool of nineteen services and answers the question: Which of these are more important and which are less important in determining the customers' rating of GoDurham service overall? This question is answered in a matrix. The matrix itself (Figure 36, page 56) is actually less complex than it may seem, but it does require some explanation.

- The concept of the matrix in Figure 36 is as follows: Respondents rated nineteen separate aspects of GoDurham service as shown in Figure 35 on the previous page. They also rated "The quality of GoDurham services overall." We can assume that customers' ratings of the quality of services overall sum up their ratings of quality of the nineteen specific elements of service. Assuming this, we can answer the key question which is: Which elements of GoDurham services would, if improved, move the needle of the rating of GoDurham service overall?
- Two basic statistics are involved in this analysis, first the average or "mean" rating of service quality on the scale from 1 – 7 and, second, a correlation statistic that measures the strength of the relationship (i.e., the *correlation*) between each element of service and the overall service rating for GoDurham. These statistics, when used together, answer two questions: How do customers rate each of the nineteen elements of service? And how closely related is each of those ratings to the overall rating?
- To visually display the results of this kind of analysis means using a simple graph with the 1-7 rating on one axis and the correlation on the other axis. However, there are two challenges to doing this.
 - First, the numbers are of different types. The rating scale uses whole numbers specified in the questionnaire from 1 – 7. The correlation coefficients are decimal numbers ranging from -1 to +1. A perfectly negative relationship is -1 and a perfectly positive relationship is +1. As a practical matter, the correlation is always a decimal since perfect positive or negative relationships just do not exist. Rather than trying to represent whole numbers on one axis and decimals on the other, it helps to have common measurement units.
 - The second and more important challenge for the analysis is that the ratings tend to skew positive and to vary more between scores of 4 through 7 than between 1 and 3 (see Figure 30). There are very few poor ratings. This only makes sense, since if many riders rated service negatively, it would be odd if they continued to use the service. But for analysis of how to "move the needle" on the overall GoDurham service rating, the positive tilt of the ratings means that if we are to use the ratings to prioritize service improvements, we have to examine how the best scores differ from the good scores, not how the best scores differ from the worst scores.

One way to solve both of these challenges is to *standardize* the scores. This simply means to convert them statistically to comparable scores based on how each rating and each correlation differs from the average of such ratings and correlations. This procedure enables us to construct a matrix that shows the services which, if improved, would have the most powerful effect on the rating of GoDurham service overall.

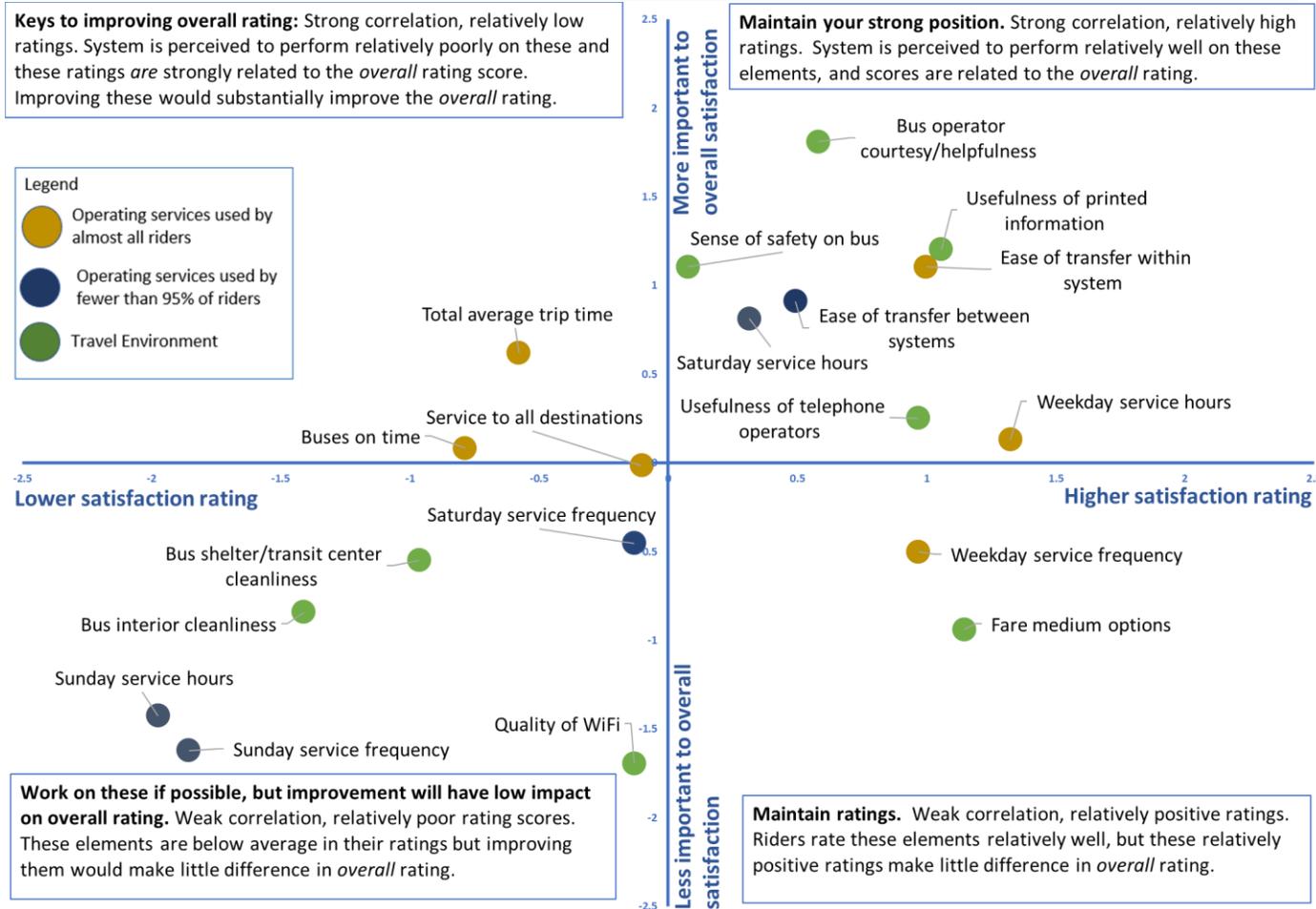
The matrix will help answer the question: What service improvements would move the needle on the rating of GoDurham service overall? To do this we look at the ratings and at the correlation of each of those ratings with the rating of GoDurham service overall. The results can be charted in a matrix like this:

When we add the actual survey statistics to fill out the matrix, it will show service improvement action priorities as shown below:

High correlation	Correlation of each service rating with the rating of overall service	<p>Relatively low ratings but relatively important to the overall rating, dragging it down</p> <p><i>Improvement here moves the needle most, but these tend to be structural and the most difficult to change</i></p>	<p>Relatively high ratings and relatively important to the overall rating</p> <p><i>Service already good and core to the overall system score. Important to maintain it or risk losing the overall rating</i></p>
		<p>Relatively low ratings but relatively unimportant to the overall rating</p> <p><i>Improvement desirable, but unlikely to move the overall quality needle much</i></p>	<p>Relatively high ratings and relatively unimportant to the overall rating</p> <p><i>Service good. Further improvement unlikely to move the overall quality needle, but deterioration may reduce the rating.</i></p>
		Service ratings	
		Low rating	High rating

Figure 36 on the following page displays how the nineteen elements of service are positioned within this priority matrix.

Figure 36 Relationship between Overall Performance Rating and Ratings of Individual Service Elements



Relationship between Overall Performance and Individual Service Elements

In the chart, the location of a service vertically, up or down along the *vertical axis indicates the strength of its correlation* with, and presumably influence on, the overall rating for GoDurham service. The higher on that axis, the more important we can assume that element is in influencing the score for service overall. The lower on the line, the weaker it is. The *horizontal axis indicates the rating score* for the individual element of service relative to the rating of all rating scores. The farther to the left, the poorer the rating compared to the average of all ratings, and the farther to the right, the better the rating compared to the average of all ratings. The two lines cross at the mid-points of the scores.

In considering Figure 36, keep in mind that the position of a service element in the matrix is based on its rating *relative to the average for all scores*. For example, a service element appearing at the right means that it is rated *better than the average of all service elements*. If, for example, the average score for all nineteen service elements were, say, 3.0, and the score for a specific element were 4, it would have a *relatively positive* score in spite of the fact that in absolute terms on a scale from 1 – 7, a 4 would be a neutral score, not a highly positive score. It would be, in short, better than average⁵.

⁵ The statistic is called the Z-score in statistics jargon and is based on the number of standard deviations from the mean for both the correlation and the satisfaction score. The scores from -2.5 to +2.5 shown on the axes are counts of the number of standard deviations from the mean.

TOP, BOTTOM, LEFT, RIGHT

- Services appearing above the horizontal line are more important to the overall rating of GoDurham service than those that appear below the line, those that appear below the line are less important.
- Services appearing at the right of the vertical line are rated better in quality than the services as the left of the line. The closer to the far right, the better the rating; the closer to the far left, the worse the rating.

Elements in the upper right of the chart are currently helping to boost the overall GoDurham service rating by being better rated than the average of all nineteen elements of GoDurham service, while others (top left quadrant) are currently detracting from it. It is elements in the latter group that require particular attention given that the objective is to improve overall customer ratings, a proxy for customer satisfaction. Elements in the lower left of the chart receive relatively poor performance scores but have relatively little influence on the overall score. Similarly, elements in the lower right quadrant have relatively high rating scores, but they too have little statistical relationship to the overall score and can be assumed to have little influence on it.

COLOR CODING SHOWS THE LOCATION OF THE SERVICE TYPES IN THE MATRIX

Notice the color coding of the service elements:

- All but one of the aspects of service we have labeled “Operating services used by almost all riders” are *above* the horizontal line that indicates average importance to the overall service rating. The exception is weekday service frequency which falls below the horizontal line indicating that in the survey statistics, it had less influence on the rating of GoDurham service overall than the operating services above the line. The fact that it is both below the line and to the right of the vertical line means that the existing level of service frequency on weekdays is acceptable to most riders and an increase would not move the needle much on overall satisfaction.
- Of the five elements we have labeled “Operating services used by fewer than 95% of riders,” three are *below* the line of average importance to the overall score, and two, Saturday service hours and ease of transferring among area systems, are above the line.

THE UPPER LEFT QUADRANT: IMPROVING THESE WOULD MOVE THE OVERALL RATING NEEDLE THE MOST

Improving service and thus ratings of the three elements in the upper left quadrant would have the greatest positive impact on the rating of GoDurham service overall. Service coverage (“Service to all destinations”), Buses running on time, and Total trip time (time the trip takes) all are fundamental aspects of service, and all appear in this quadrant. Buses running on time is a perennial desire of transit customers and is often found in this position in the matrix. In addition, it was clearly the top priority when respondents were asked to name the top three aspects to improve.

Of course, none of these three services in the upper left quadrant is easily changed. However, the Durham Transit Plan is aimed at just these kinds of structural factors, and over time we should see these scores move to the right in the chart.

THE UPPER RIGHT QUADRANT: MAINTAIN THIS RELATIVELY STRONG POSITION

At the upper right are eight elements of service that represent relative strengths among all GoDurham services because they score relatively well, and they are important to the overall GoDurham rating. Compared to all other aspects of GoDurham service, these services are relatively strong and support the current overall positive rating. Two of these, Saturday service hours, and Ease of transfer between systems are operational services used by somewhat fewer riders than other services. Two of the elements in this quadrant are operational

services used by almost all customers: Ease of transferring within the GoDurham system, and Weekday service hours. Four relate to the travel environment: Bus operators' courtesy/helpfulness, the Sense of safety on the bus, the Usefulness of the printed information provided by GoDurham, and the Usefulness of the GoDurham telephone operators. This is an interesting mix of relative strengths, combining the perennial strength of interactions with the bus operators (almost always in this quadrant in such surveys), information services, and a sense of personal safety with operational elements, including transferring within or between systems, Saturday hours of service, and weekday service hours.

The high importance and positive score of "Bus operator courtesy/helpfulness" illustrates the power of interpersonal interactions in the overall rating of a service.

THE LOWER RIGHT QUADRANT: THIS SERVICE IS GOOD, BUT IMPROVEMENT WOULD BE WELCOME

Finally, at the lower right are two service elements with high favorable ratings relative to other services, but that under current service configurations are relatively unimportant in influencing overall satisfaction. GoDurham does well on these and needs to maintain that level of satisfaction, but efforts to improve all or any one of these would have minimal impact on the rating of GoDurham service *overall*.

Weekday service frequency lies in this quadrant to the right side of the matrix indicating a positive rating, but it also lies below the line of average importance to the overall satisfaction score. We saw earlier that it earns 53% ratings of 6 or 7 (see Figure 33). This is important in that this is obviously a key element for a transit system in which two-thirds (67%) of the riders are going to or coming from work, and another 13% are going to or coming from school. Presumably most of these customers are working or attending school during the week, making weekday service a key to customer satisfaction. That 56% rate it as 6 or 7 is a positive sign in that sense.

In other words, riders are apparently satisfied with this service, with the result that it has little impact on variation in the overall rating. Moreover, it is rated in the top three elements to improve by only 13%, placing #9 in the listing of 19 service elements named as important to improve. This a key aspect of service and yet customers are not telling us that they want improvement. They are satisfied with the status quo. The converse of this, however, is that if weekday service frequencies were reduced, it would be likely to lead to rapid disappointment and could indeed have a significant, and negative, impact on the overall rating. Steady as she goes is the message here. The same is true of fare medium options. Customers are satisfied. The task in both cases is to maintain the ratings.

LOWER LEFT QUADRANT: IT WOULD BE NICE TO IMPROVE THESE ELEMENTS, BUT DOING SO WOULD NOT AFFECT THE RATING OF GODURHAM SERVICE OVERALL BY MUCH

Six elements of service appear in this quadrant. None is an operating service used by all, or almost all, riders. Instead, these are either services used by most but not all (94% at most) riders. They include Sunday service hours and frequency, and Saturday service frequency. The other elements are aspects of the overall travel environment, the cleanliness of the bus interiors and shelters, and the quality of WiFi service.

Given that the cleanliness of the bus interiors is second on the priority list of elements to improve, its presence at the left of the vertical line of average rating scores is not surprising, but that is below the line of average importance to the overall rating is somewhat surprising. However, what this indicates is that *relative* to other aspects of service which are more basic in the operational sense of getting people to where they want to go, these tend to be both lower rated, and less important than average in their impact on the overall rating.

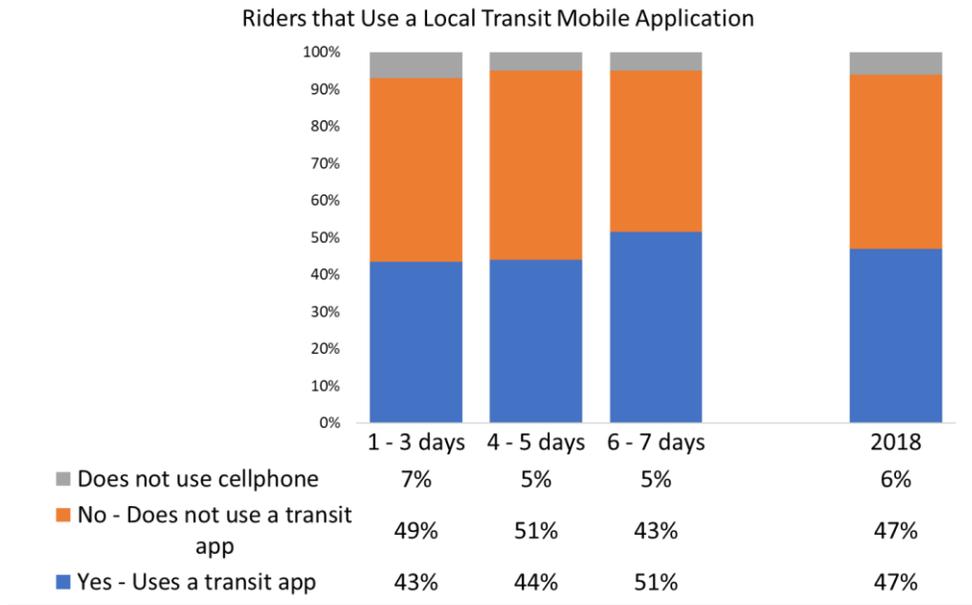
The quality of WiFi service also appears in this quadrant, just below average (i.e., just to the left of the vertical axis) and very low on that axis indicating that it has very little influence on the overall GoDurham rating.

THE POTENTIAL FOR DEMOGRAPHIC CHANGE WITHIN THE RIDERSHIP TO ALTER RATINGS AS SERVICE IS CONTINUALLY IMPROVED

Finally, the Durham Transit Plan, coupled with related transit plan in the Triangle Region, represents a profound change in transit service levels. The survey reported here deals only with the current 2018 riders. As services are continually improved, the demographic base of the ridership is likely to change. Average income, and probably average age of customers, are likely to increase. The ethnic mix might also change as new geographic areas are served. More people are likely to begin relying on the service to get to professional and other white-collar jobs. If, and when such changes occur, in spite of objective improvements in service, how they are reflected in service ratings is uncertain because new customer attracted by better service may be more demanding.

Mobile Communication

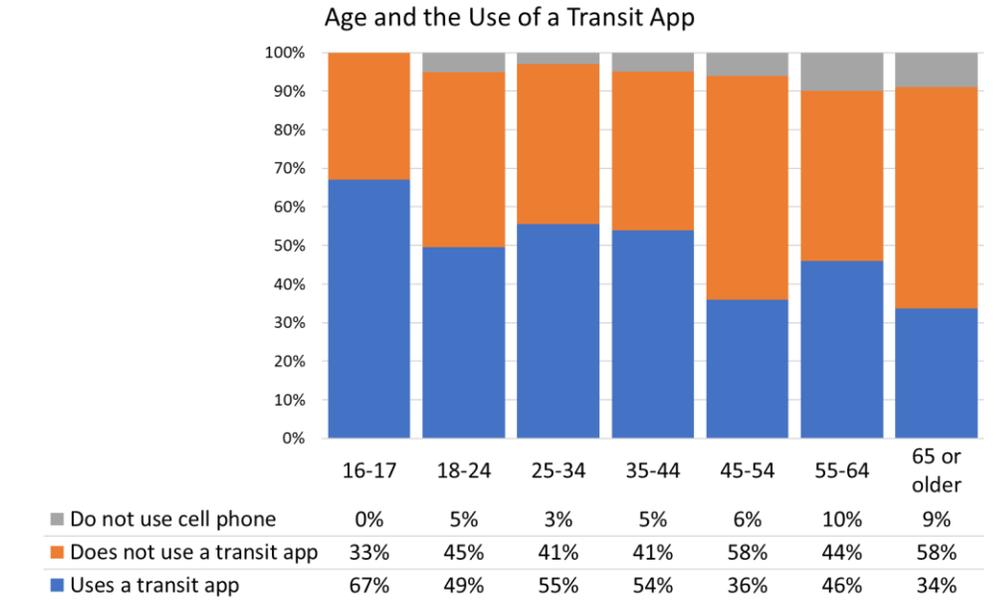
Figure 37 Use of Cell and Smart Phones



Use of Cell and Smart Phones

Among GoDurham customers, cell phone ownership is high, but not quite universal, with 94% of customers indicating they use a cell phone. Forty-seven percent (47%) of customers use a transit app on their phones.

Figure 38 Age and the Use of Mobile Transit App



The number of customers using a transit app indicates that while close to half of GoDurham customers are now using their smartphones as transit information sources, that practice is not yet universal. Other communication modes continue to be necessary.

That mobile apps cannot (yet) be relied on to provide the only communications channel to the GoDurham ridership is illustrated by the results shown in Figure 38.

That figure demonstrates that the use of such apps is quite closely related to age with a general downward trend in utilization as age increases. This means that unless something occurs to change this relationship between age and the use of mobile technology for transit, it will take at least several years for transit apps to become the primary source of information for a substantial majority of GoDurham customers.

Appendix A: Questionnaire

Please tell us about how you use GoDurham

El cuestionario en español se encuentra en la parte posterior

In the past 30 days, how would you rate GoDurham on the following services...

(Circle a rating for each question or check the box indicating that it does not apply to you)



	Excellent	Neutral	Very poor	Not applicable to me				
1. Buses running on-time	7	6	5	4	3	2	1	<input type="checkbox"/>
2. Frequency of service on weekdays (Mon-Fri)	7	6	5	4	3	2	1	<input type="checkbox"/>
3. Frequency of service on Saturday	7	6	5	4	3	2	1	<input type="checkbox"/>
4. Frequency of service on Sunday	7	6	5	4	3	2	1	<input type="checkbox"/>
5. Hours the buses operate weekdays (Mon-Fri)	7	6	5	4	3	2	1	<input type="checkbox"/>
6. Hours the buses operate Saturday	7	6	5	4	3	2	1	<input type="checkbox"/>
7. Hours the buses operate Sunday	7	6	5	4	3	2	1	<input type="checkbox"/>
8. Total time required to make your usual trip	7	6	5	4	3	2	1	<input type="checkbox"/>
9. Availability of service to all destinations you want to get to	7	6	5	4	3	2	1	<input type="checkbox"/>
10. Ease of transferring within GoDurham system	7	6	5	4	3	2	1	<input type="checkbox"/>
11. Ease of transferring between GoDurham and other area bus transit systems	7	6	5	4	3	2	1	<input type="checkbox"/>
12. Cleanliness of the bus interiors	7	6	5	4	3	2	1	<input type="checkbox"/>
13. Cleanliness of the bus shelters and transit center	7	6	5	4	3	2	1	<input type="checkbox"/>
14. Your sense of personal safety from other passengers on the buses	7	6	5	4	3	2	1	<input type="checkbox"/>
15. Courtesy and helpfulness of bus operators	7	6	5	4	3	2	1	<input type="checkbox"/>
16. Usefulness of information from 485-RIDE telephone operators	7	6	5	4	3	2	1	<input type="checkbox"/>
17. Usefulness of printed information such as schedules or brochures	7	6	5	4	3	2	1	<input type="checkbox"/>
18. Available ways for you to pay your bus fare	7	6	5	4	3	2	1	<input type="checkbox"/>
19. Quality of wireless internet (WIFI) service	7	6	5	4	3	2	1	<input type="checkbox"/>
20. The quality of GoDurham services overall	7	6	5	4	3	2	1	<input type="checkbox"/>

21. Of the services in questions 1 – 19 above, please list the three most important to improve?
 ___ Most important ___ 2nd most ___ 3rd most

22. On how many days in a typical week do you use GoDurham? (Circle only one)
 1 2 3 4 5 6 7

23. What is the ONE main purpose for which you most often use the GoDurham buses? Is it to go to or from... (Check only one)
 1 Work 2 School/college 3 Shopping
 4 Medical/dental 5 Recreation/event 6 Other _____

24. Compared to one year ago, do you currently ride GoDurham... (Check only one)
 1 More often 2 The same 3 Less often 4 Did not ride a year ago

25. For your fare on the first GoDurham bus you boarded during this trip, did you... (Check only one)
 1 ...pay cash fare for this trip only 2 ...buy a day pass on the bus
 3 ...use a day pass bought ahead of time 4 ...use a 7 or 31 day pass
 5 ...use a university or other ID 6 ...use a GoPass

26. How did you get to the stop where you got on this GoDurham bus? (Check only one)

- 1 Walked 2 Biked 3 Drove
 4 Uber or Lyft 5 Was dropped off by family/friend 6 Other GoDurham bus
 7 Bus other than GoDurham 8 Other: _____

27. In a typical week, which bus systems do you usually use? (Check all that apply)

- 1 GoRaleigh/GoRaleigh Access 2 GoTriangle/GoTriangle Access
 3 GoDurham/GoDurham Access 4 GoCary/GoCary Door-to-Door
 5 Chapel Hill Transit 6 Duke Transit 7 Wolfline

28. If you use a cell-phone, do you use a mobile app for local transit on it? (Check only one)

- 1 Yes 2 No 3 Do not use a cell phone

29. In the past 30 days, how often have you used Uber or Lyft or a similar ridesharing company? (Check only one)

- 0 times 1 time 2 times 3 times 4 or more times

If you used Uber, Lyft, or a similar ridesharing service... (Check only one)

- Did you use it in combination with a bus trip on GoDurham? 1 Yes 2 No 3 Not applicable
 Did you use it to replace a bus trip on GoDurham? 1 Yes 2 No 3 Not applicable

30. How old are you? _____ Years old

31. Please mark all of the following that apply to you. Are you: (Check all that apply)

- 1 Employed full time 2 Employed part time 3 Unemployed and seeking work
 4 Homemaker 5 Student 6 Retired
 7 Volunteer position

32. Do you have a valid driver's license? (Check only one) 1 Yes 2 No

33. How many cars or other vehicles are available for your use? (Circle only one)

- 0 1 2 3 or more

34. Do you identify as... 1 Male 2 Female 3 Prefer not to answer

35. Do you consider yourself to be... (Please Check all that apply to you)

- 1 African American/Black 2 Asian 3 Caucasian/White
 4 Hispanic 5 Native American Indian 6 Other: _____

36. What language do you most often speak at home? (Check only one)

- 1 English 2 Spanish 3 Other: _____

37. What is your total annual household income? (Check only one)

- 1 Less than \$10,000 2 \$10,000 to \$14,999 3 \$15,000 to \$19,999
 4 \$20,000 to \$24,999 5 \$25,000 to \$34,999 6 \$35,000 to \$49,999
 7 \$50,000 to \$74,999 8 \$75,000 to \$100,000 9 More than \$100,000

Comments: _____

Por favor, díganos sobre cómo utiliza GoDurham

En los últimos 30 días, Cómo calificaría a GoDurham en los siguientes servicios...

(Circule una calificación para cada pregunta o marque la casilla que indica que no se aplica a usted)



	Excelente	Neutral	My mal	No se aplica a mí				
1. Autobuses transitan a tiempo	7	6	5	4	3	2	1	<input type="checkbox"/>
2. Frecuencia de servicio entre semana (Lun-Vie)	7	6	5	4	3	2	1	<input type="checkbox"/>
3. Frecuencia de servicio el sábado	7	6	5	4	3	2	1	<input type="checkbox"/>
4. Frecuencia de servicio el domingo	7	6	5	4	3	2	1	<input type="checkbox"/>
5. Horas que autobuses operan entre semana (Lun-Vie)	7	6	5	4	3	2	1	<input type="checkbox"/>
6. Horas que autobuses operan el sábado	7	6	5	4	3	2	1	<input type="checkbox"/>
7. Horas que autobuses operan el domingo	7	6	5	4	3	2	1	<input type="checkbox"/>
8. Tiempo total requerido para hacer su viaje regular	7	6	5	4	3	2	1	<input type="checkbox"/>
9. Disponibilidad del servicio a todos los destinos que desea llegar	7	6	5	4	3	2	1	<input type="checkbox"/>
10. Facilidad de transferir dentro del sistema GoDurham	7	6	5	4	3	2	1	<input type="checkbox"/>
11. Facilidad de transferir entre GoDurham y otros sistemas de tránsito de autobuses del área	7	6	5	4	3	2	1	<input type="checkbox"/>
12. Limpieza del interior del autobús	7	6	5	4	3	2	1	<input type="checkbox"/>
13. Limpieza de los albergues de autobús y de centros de tránsito	7	6	5	4	3	2	1	<input type="checkbox"/>
14. Su seguridad personal de otros pasajeros en los autobuses	7	6	5	4	3	2	1	<input type="checkbox"/>
15. Cortesía y amabilidad de operadores de autobús	7	6	5	4	3	2	1	<input type="checkbox"/>
16. Utilidad de la información de los operadores de 485-RIDE	7	6	5	4	3	2	1	<input type="checkbox"/>
17. Utilidad de la información impresa tal como horarios o folletos	7	6	5	4	3	2	1	<input type="checkbox"/>
18. Formas disponibles para que pague su tarifa de autobús	7	6	5	4	3	2	1	<input type="checkbox"/>
19. Calidad del servicio de internet inalámbrico (WIFI)	7	6	5	4	3	2	1	<input type="checkbox"/>
20. Calidad de los servicios de GoDurham en general	7	6	5	4	3	2	1	<input type="checkbox"/>

21. De los servicios en las preguntas 1 a 19 anteriores, ¿por favor enumera los tres más importantes para mejorar? ____ Lo más importante ____ 2º más ____ 3º más

22. ¿Cuántos días en una semana típica usas GoDurham? (Circule sólo uno)
1 2 3 4 5 6 7

23. ¿Cuál es el ÚNICO propósito principal para el que usas los autobuses de GoDurham más seguido? Es ir hacia o desde... (Marque sólo una)

- 1 Trabajo 2 Escuela/colegio 3 Compras
4 Médica/dental 5 Recreación/evento 6 Otro _____

24. Comparado con hace un año, ¿actualmente usas GoDurham... (Marque sólo una)
1 Más a menudo 2 Lo mismo 3 Menos 4 No lo usaba hace un año

25. Para su tarifa en el primer autobús GoDurham que abordó en este viaje, usted... (Marque sólo una)
1 ... pago tarifa en efectivo solo por este viaje 2 ... compro el pase de 1-Día en el autobús
3 ... compro el pase de 1-Día con anticipación 4 ... uso un pase de 7 o 31-Días
5 ... uso identificación de universidad u otra 6 ... uso un GoPass

26. ¿Cómo llegaste a la parada donde subiste a este autobús de GoDurham? (Marque sólo una)

- 1 Caminado 2 Bicicleta 3 Condujo
4 Uber o Lyft 5 Lo llevo familia/amistad 6 Otro autobús de GoDurham
7 Autobús que no sea de GoDurham 8 Otro: _____

27. En una semana típica, ¿que sistemas de autobús sueles usar? (Marque todo lo que corresponda)

- 1 GoRaleigh/GoRaleigh Access 2 GoTriangle/GoTriangle Access
3 GoDurham/GoDurham Access 4 GoCary/GoCary Door-to-Door
5 Chapel Hill Transit 6 Duke Transit 7 Wolfline

28. Si usa un teléfono celular, ¿usa una aplicación móvil de tránsito local en él? (Marque sólo una)

- 1 Sí 2 No 3 No uso teléfono celular

29. En los últimos 30 días, ¿con qué frecuencia usó Uber o Lyft o una compañía de viaje compartido similar? (Marque sólo una) 0 veces 1 vez 2 veces 3 veces 4 o más veces

Si usó Uber, Lyft o un servicio de viaje compartido similar... (Marque sólo una)

- ¿Lo usaste en combinación con un viaje en autobús en GoDurham? 1 Sí 2 No 3 No aplica
¿Lo usaste para reemplazar un viaje en autobús en GoDurham? 1 Sí 2 No 3 No aplica

30. ¿Cuántos años tienes? _____ Años

31. Marque todo lo siguiente que se aplique a usted. Eres tú: (Marque todo lo que corresponda)

- 1 Empleado tiempo completo 2 Empleado medio tiempo 3 Desempleado y buscando trabajo
4 Ama/o de casa 5 Estudiante 6 Jubilado
7 Puesto de voluntario

32. ¿Tiene una licencia de conducir válida? (Marque sólo una) 1 Sí 2 No

33. ¿Cuántos automóviles u otros vehículos hay disponibles para su uso? (Circule sólo uno)

- 0 1 2 3 o más

34. ¿Te identificas como... 1 Masculino 2 Femenino 3 Prefiero no responder

35. ¿Te consideras ser... (Por favor marque todo lo que aplica a usted)

- 1 Afroamericano/Negro 2 Asiático 3 Caucásico/Blanco
4 Hispano 5 Indio Nativo Americano 6 Otro: _____

36. ¿Qué idioma habla más a menudo en casa? (Marque sólo una)

- 1 Inglés 2 Español 3 Otro: _____

37. ¿Cuál es su ingreso familiar anual en total? (Marque sólo una)

- 1 Menos de \$10,000 2 \$10,000 a \$14,999 3 \$15,000 a \$19,999
4 \$20,000 a \$24,999 5 \$25,000 a \$34,999 6 \$35,000 a \$49,999
7 \$50,000 a \$74,999 8 \$75,000 a \$100,000 9 Más de \$100,000

Comentario: _____

Appendix B: Rider Comments

GoDurham

Route	Comments
1	Some better driver who can be more helpful.
1A	Be blessed.
1A	Need a covered seat at JJ Henderson towers inbound #10. Many elderly and handicapped. Thanks.
1A	None.
1A	Sundays need more frequent bus times!
1A	Yo quisiera que lo normal los dias domingo en la calle leon st
2A	Bus systems should be more frequent and clearer.
2A	Give mike more money.
2A	I stay on Lynn road and the bus doesn't run on Sundays. It stops running at 6:00 PM so I have to walk down highway 70 with kids if we need to go anywhere on Sunday or after 6:00 PM.
2A	None.
2A	The #11 bus is always late. All lines need 24 hour service.
2A	The GoPass was a good idea. Some bus drivers are rude!!
2B	Buses should run normal hours on Sunday and holidays.
2B	Great service GoDurham.
2B	Route #6 is often late in the morning coming into the station.
2B	They are useless if you can't get to where you need to go on time and please enforce the no smoking policy at the bus station.
2B	When drivers feel that they can ride by when you are running for the bus.
2B	You're the best!
3	Buses should allow you to catch your connecting bus without missing it. Buses shouldn't leave until All buses have arrived and allowed everyone a chance to transfer.
3	Excellent.
3	Get drivers that want to work and not have attitudes.
3	God bless!
3	Have GoPasses be able to use during weekends.
3	I love GoDurham transit.
3	N/A
3	#4 is always late.
3	None.
3	Not all drivers are bad: just a few are rude.
3	Please have service run all day on Sunday. It can be 30 mins or 1 hr. Please have #15 run every 30 minutes Monday-Friday.
3	Should be able to catch connection buses. Should wait at terminal for all buses to arrive. Schedule should match bus arrivals. Hate the split schedules of buses or how one bus changes to another.
3	So far since I've ridden with GoDurham everything's good.

3	Some drivers make me mad when I have my music low and to my ear but tell me to turn it off but there is someone in the back some times and someone's listening to rap in the back and it's heard up front but the driver says nothing.
3	The buses are too crowded and usually late.
3	The #3 is always late or doesn't show up. Bus is nasty, always full. Stand up a lot on #3.
3B	Bus drivers need to meet the requirements of the rider. We are not on their time, but ours.
3B	I like the bus system.
4	Bus #11 and #2 are always late. I catch the first bus.
4	Bus #2 and bus #11 always late.
4	Bus is never at the station on time to get to other buses. Always gone, 3 need a bus for Angier avenue.
4	Bus system runs late for #2. Bus drivers don't show any sympathy. Rode the bus for over 5 years nothing was changed with buses running on time.
4	Everything is good.
4	I think GoDurham is a very good way of transportation.
4	I think the buses should run on the regular schedule on Sundays.
4	Make #4 run every half hour extended Sunday to midnight. Give grace period for late buses, waiting one hour while my bus was one minute late is ridiculous.
4	Overall positive experience with GoDurham. My transit would be greatly benefitted by direct service from Duke Regional to the main Duke University Hospital.
4	Please get rid of the new buses. They are too small.
4	The #6 bus returning to Durham Station weekdays after 4 pm is almost always consistently late, causing us to miss connections.
4	The bus system is fairly good. Some bus drivers can use people skills to avoid unnecessary confrontations. Thank you.
5	Buses are old... And we have experienced some safety issues. But, overall, good way of transportation.
5	Courtesy goes a long way. I would like my bus driver to be courteous to me if I'm being courteous to them.
5	Durham transit really needs to improve on coming on time!!
5	Make improvement on buses to run every 30 minutes on Sundays to the shopping centers.
5	More benches at bus stops.
5	No comment.
5	Thanks!
5	Usually the operator (office) doesn't give the right information about the bus schedule. Also, in Hillsborough the ODX bus does not stop at the Police station.
5K	Don't like the new buses. Don't like the new buses.
5K	Drivers are usually rude, will pull off and leave you if you aren't within a few feet of the sign even though it's obvious you are waiting on the bus.
5K	I feel the transit (Durham) system should be as the transit system in Chapel Hill. I feel that it should be a 24/7 service to the public.
5K	Need to be every five minutes, every route because we are a growing city with a growing need of transportation.

5K	None.
5K	Route #15 needs more stops.
5K	The survey was a tool for customer service. I see improvement.
5K	There are way too many rude bus drivers.
6	Great idea for service.
6	I would like you to provide more frequency of the 6 bus per half hour instead of an hour is better.
6	None.
6B	#6 could use more frequent buses. Turns into #5 and is always late to station around 3-4pm. Men's bathroom at the station *never* stocked with paper towels and rarely clean. Used 2-3 days/week for 7 months.
6B	GoDurham.
6B	Great bus.
6B	I would love the opportunity to have four buses running each hour for each bus route.
6B	More bus stops to transfer.
6B	More buses!
6B	Some buses arrive a bit too early which results in missing the bus.
6B	The bus frequency is bad.
6B	The driver personal attendance is terrible. Don't speak at times.
7	Discount fare for 62 years old instead of 65. Drivers ask people to lower volume of music instead of pretending not to hear it.
7	Drivers aren't friendly.
7	GoDurham needs to upgrade their services. Service with them has been poor. I try not to deal with GoDurham often.
7	Good job.
7	Good job.
7	I don't know.
7	I don't know.
7	I think it's very rude and unsafe to have drivers writing in journals, scratching off lottery tickets, turning around talking/looking at passengers, pouring drinks all while driving (always the same driver).
7	Idk
7	It is ok, occasionally had to tazara tarin when bus was late!
7	It would be nice if the #6 bus could be on time in the afternoon. It's always late. And some of the drivers are rude.
7	Keep it up!
7	Keep up the good work.
7	Makes a long day longer. I had to go grocery shopping. I live where the bus only goes by one-way. Its very inconvenient. Either I have to walk 25 min from a different stop or ride till the wheels fall off.
7	More seating in transit for mobile impaired.
7	N/A

7	Need more bus stop stands. Lowes one is on the wrong side and not lit well. Needs chair for mobility. Deer in woods.
7	Personal.
7	Some questions are not about the bus.
7	The buses are always late. I used the bus for all things. Take my daughter to and from school. Hate people standing up in the front of the bus. Making it hard to get on the bus.
7	This route is long and traffic makes them late sometimes.
7	Very helpful bus drivers. Learned bus routes around downtown and to Charlotte.
7	Your service is very good.
8	Bus drivers need to be more courteous and helpful.
8	Helpful to have someone hand survey.
8	I used the GoLive app and the times are never accurate when I call. Seems like they are going by GoLive also and tell me the same thing that the app is saying. When you ask to speak to a supervisor, they answer not available.
8	Overall, it's dependable.
8	Some drivers are rude and disrespectful and treat passengers any kind of way.
9A	A lot of the drivers are not customer friendly.
9A	Most bus drivers are disrespectful.
9A	Most bus drivers are disrespectful.
9A	Some drivers need customer service training. Not friendly. Buses late all the time.
9A	The Wi-Fi can be better. The buses can be on time more and run later on Sundays.
9B	Better quality of buses. Some buses are over 30 years old. Stop patching up these buses and get new buses. Get a better series. Clean these buses every day.
9B	Bus stop Mount, Level, Church road needs a stop. A lot of people in the area need development.
9B	Clean the seats.
9B	I barely complain but a lot of passengers do complain how sometimes buses are barely on time and I do not like for the seats to be nasty and dirty.
9B	I use like riding the bus but now in my 40's I don't like it the same as earlier years. Got too crowded for not enough drivers and the homeless use it as a bunk to sleep and lounge.
9B	I would really like it if GoDurham would extend the route of 9b out to Brier Rose Lane. It is a hassle to walk 15 minutes down the road to catch a bus especially with it beginning to get cold.
9B	No comment.
9B	Our suggestions and serious requests are the cleaning of buses. Thank you.
9B	Thank you! It's not even 7 AM; someone should buy you coffee! More service for far north Durham.
9B	The buses need to be clean and sprayed for bedbugs and lice.
9B	The drivers could be friendlier. Also, at the terminal if your bus is pulling in, the other buses leave before you can transfer to another bus.
9B	There is a stop need at the Dollar General on Lumely and Miami Blvd.
10A	Always on time and good service.
10A	Bus drivers pull in when they get to a bus stop earlier before they supposed to be there. Please be trying to get off work in the afternoon.

10A	Bus drivers popping gum. More responsive to unruly/rude other passengers.
10A	Durham should get the kiosk for passes. The mobile app need work (update). Some of the drivers have bad attitudes.
10A	Gracias el autobus un buen servicio
10A	Valid ID, just not for driving.
10B	Disable the stops. Need some seats and shelters.
10B	I'm homeless.
10B	It would be more convenient for a scanning phone system that I could use because I don't like carrying cash.
10B	Just wondering.... When will the GoDurham bus fare become free like our neighbors, Chapel Hill transit?
10B	Keep clean, be on time sometime, once for a mix.
10B	Keep route #10B. Not many use it but I do.
10B	Love the service. Wish it ran more frequently.
10B	None.
10B	Overall GoDurham services are great. There is minimal coverage mid-day and the bus routes are not direct for me, thus it takes me a long time to get anywhere or I end up driving/using Lyft more than I like.
10B	Stop talking to drivers (customers).
10N	Cleanliness and safety are biggest concerns. Bums at stops are why I started using Uber.
11	#8 never on time. Always too early or too late and has caused stress at my job. My only means of transport!!!
11	#11 bus is late often!
11	Great job to me GoDurham.
11	Great service love them.
11	Solo mi marido trabaja yo cuido mi hijo
11	Text does not work at the stops.
11	The loitering at terminals are completely distracting and deterrent.
11	The # 41 needs to do better.
11	The service is good, just the people on the bus!
11	Would use more frequent service on weekdays and Sundays.
11	More hours for weekdays.
12	#12 at day the bus is always late. Some drivers are not friendly and they speed.
12	Need earlier bus to Chapel Hill UNC especially on Sundays.
12	Need stop by Encore Apt.
12	None
12	Now that's a bit personal.
12	Overall good service.
12	The number #8 bus needs to run every 30 minutes on Saturday for work purposes.
12N	GoDurham full of lil funnies.
12N	Please keep bus #15 route going. That bus is my only way to work. I work for Amazon.
12N	Route #12 is usually behind schedule. Leaves last at the station and routinely the last to arrive with Route #11 a close second.

14	The buses need to run the same times 7 days a week.
15	Five years riding the bus to Durham. You guys do a pretty good job. Traffic is bad I know. Please leave route #15 alone or add an express to Durham.
15	Brier Creek needs a sitting area and cover.
15	Buses need more time for Sunday hours past 9 PM and run every 30 minutes on the weekday schedule. Keep drunks off the bus and people cussing and loud music. Drivers need to let passengers know.
15	Can a stop by Shannon Read post office be put up?
15	Durham city buses do a great job.
15	Having GoDurham passes available for purchase other than at the station (i.e. Walmart) as well as buses that are down every quarter hour. Otherwise, excellent service.
15	I just feel the #15 bus which I take to work should run every 30 minutes at least during the peak hours. Daily, except Sundays because a lot of us end up late for work if for any reason we miss those two morning runs.
15	If highway is backed up there should be another route the bus can take to remain on time so people can make their other buses.
15	Please continue to run bus #15. It is very useful for those of us who work around that area especially Brier Creek and Amazon. Thank you.
15	The safety is first priority on the bus.
15	Time management for route #15 could be greatly improved if it ran every half hour.
18BCC	Bus drivers need more help. Stop letting people put bags in seats.
18BCC	Could use better on time service.
18BCC	Great service!
18BCC	I have had a few experiences with GoDurham buses when I am at the bus stop, on time and the bus has gone past me (4 other passengers) and not stopped.
18BCC	If there is money in the budget, some benches for BCC stops would be nice
18BCC	I'm from the San Francisco Bay area, which has great public transit. I wasn't expecting much when I came here but it's very impressive and I appreciate it a lot.
18BCC	N/A
18BCC	Student
18BCC	The rider app functionality should be improved (transloc). Buses often don't show up. Also, the BCC time predictors are the research drive, roundabout ave unreliable (pauses before turning around for unpredictable length of time)