

Union City Transit

2013 Passenger Study

Draft

Survey Findings Report

Conducted
by:

Redhill Group
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EXECUTIVE SUMMARY

METHODOLOGY

Under contract to Metropolitan Transportation Commission (MTC), Redhill Group conducted a survey of Union City Transit (UCT) riders to provide accurate trip information important in supporting planning initiatives. The survey includes traditional demographics, languages spoken, fare media, and selected attitudinal questions. The survey employs a new methodology that includes a brief two-minute onboard survey that is limited to origin and destination types and rider contact information. This more concise initial survey format leads to significantly higher rider participation compared to longer traditional onboard surveys and minimizes non-response bias for short trips.

The short onboard survey is followed by a telephone survey that incorporates real-time trip mapping. Replacing a detailed self-administered paper-and-pencil survey with a telephone survey minimizes literacy issues that often result in non-response bias.

The real-time trip mapping component ensures that each component of a rider's complete trip is accurately captured including all trip segments, transfers, and logical access and egress information. These enhancements in survey methodology produce a more accurate picture of true travel patterns, enabling more effective route and schedule planning.

The goal of the survey was to collect a representative sample of five percent of all boardings for riders 16 years of age and older. Due to the 1.5 average boardings per one-way trip for UCT with most riders utilizing round-trips, the average number of boardings per unique rider is approximately three per day. Accordingly, the five percent boarding figure represents an estimated 15 percent of all riders.

The sampling plan for riders was established at 100 respondents, which is five percent of all riders. The actual number of surveys completed was 107, or 5.3 percent of all riders. Survey quotas were established by route.

Field surveying was conducted between May 7th and May 20th 2012. Follow-up telephone surveying was conducted between May 10th and June 3rd. Final results for the surveying process included totals of 107 phone surveys, and 326 field surveys.

An additional methodology change was implemented to provide more actionable reporting by combining all home-based trips, creating a new home-based trip purpose by reversing trips that were home-bound. This provides a clearer picture of outbound trips.

KEY FINDINGS

- The distribution of home-based trip purposes is diverse with work accounting for 46 percent, with K-12 school and college accounting for 20 percent. This is rounded out by 10 percent social/recreational, nine percent shopping, seven percent medical/dental, four percent maintenance, and three percent escorting others.
- The trip purpose distribution is in line with employment and school demographics. At 61 percent, over half of riders indicate that they work (50% work only; 11% work and attend school), and 33 percent indicate that they are students (22% students only; 11% both students and workers). Seventeen percent of riders are neither employed nor students.
- The vast majority of riders' (94%) access transit from home by walking while the remaining six percent bicycle (2%), are dropped off (2%), drive alone (1%), or carpool (1%). The average access walk time is 5.7 minutes. For the six percent of riders that do not walk to their first stop the average number of miles from home to their first transit stop is 3.1.
- Riders' egress mode is essentially the same as access with walking at 92 percent. The remaining eight percent is distributed between carpooling (including 3% shuttles), being picked up (3%), and bicycling (2%). The average walk time from rider's last transit stop to their destination is 5.0 minutes, likely reflecting a slightly higher density at typical non-home trip destinations than in residential areas.
- For those that bicycle or use motorized transportation from their last transit stop to their destination the average distance traveled is 3.8 miles.
- One-half of UCT riders (49%) complete their one-way trip riding only one bus. Just over one-third (36%) make one transfer and 14 percent require two or more transfers.¹
- At a majority 81 percent, cash is the most common form of fare payment; this includes 78 percent who pay with bills and coins, as well as three percent who use declining cash value on a Clipper card. Twelve percent of riders reported using a transfer from either the BART (8%) or AC Transit/Dumbarton Express (4%), and seven percent used a monthly pass.
- A majority of riders (69%) pay full adult fares. The largest discount groups are youth riders (16%), seniors (9%), and riders with disabilities (6%).

¹ Note: this includes transfers to BART, MUNI, and other agencies reflecting riders' full transit trip. As a result, the average number of transfers solely within UCT will be slightly less than the total figure.

- If UCT was not available, riders indicate that they likely would have walked (21%), had someone driven them to their destination (19%), or taken a taxi (10%). Another 15 percent of riders either would have not made the trip (6%), driven alone (4%), carpooled or vanpooled (3%), or rode a bike (2%). The “Other” category comprises 36 percent of riders who nearly all reported that they would have taken AC Transit to make their trips if UCT service was not available.
- Nearly two-thirds of riders (64%) ride UCT five or more days a week. Eighteen percent of riders ride 3-4 days a week, 14 percent ride 1-2 days a week, and the remaining five percent ride less once a month.
- Approximately one half of UCT trips are made by riders that are transit-dependent as indicated by 56 percent of riders saying they do not have a driver’s license. One-quarter (26%) have no drivable vehicles available to their household.
- Over one-third (41%) of UCT riders speak a language other than English at home. The primary non-English languages spoken at home as a percentage of all riders are Tagalog (17%, 340 boardings, 113 riders), Spanish (11%, 220 boardings, 73 riders), Cantonese Chinese (3%, 60 boardings, 20 riders), French (3%, 60 boardings, 20 riders), and Vietnamese (1%, 20 boardings, 7 riders).

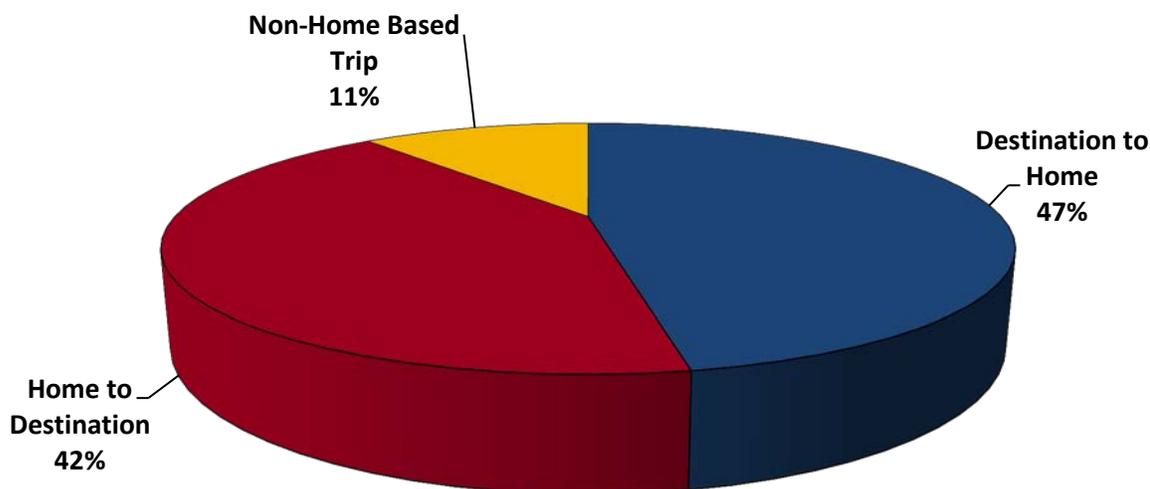
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DETAILED FINDINGS

TRIP CHARACTERISTICS

Union City Transit (UCT) riders were surveyed on five routes in both route directions. A total of 107 final surveys were completed for riders traveling on trips starting between 5:00 AM and 9:00 PM. The vast majority of UCT riders (89%) reported “Home” as either the origin or the destination of their trip, leaving a remainder of 11% of riders traveling between two non-home locations.

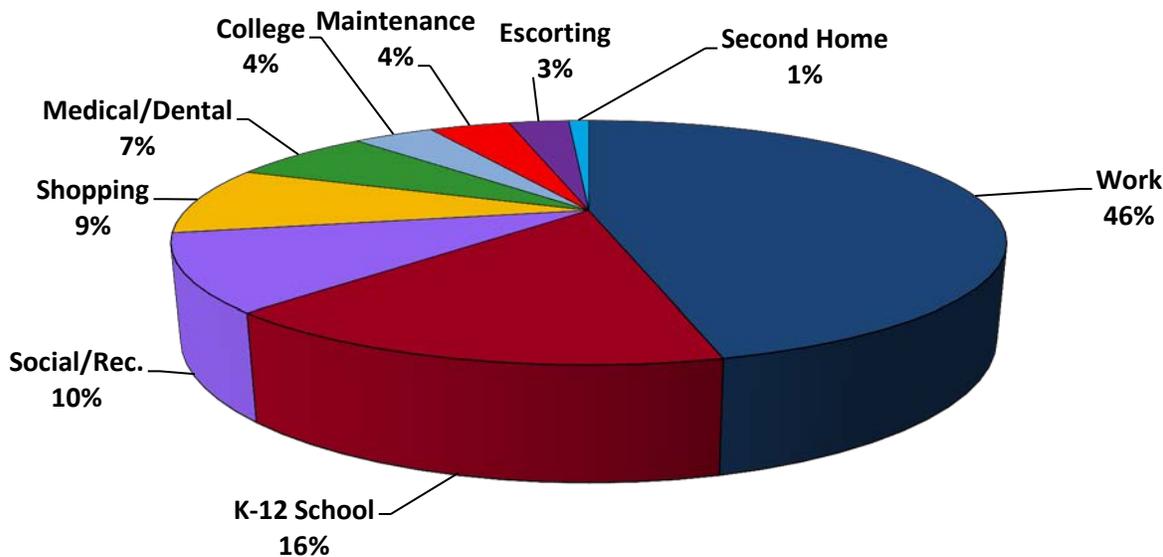
Figure 1: Is Home Your Origin or Destination?
n=107



In traditional onboard survey reporting, all origins are reported collectively regardless of the trip's direction or purpose. This results in the information about trip origins and public transit access being a combination of home, work, and other starting locations. This methodology does not produce a clear and meaningful representation of riders' trips from home to the first transit point, or of the final leg of the trip from the last alighting point to the ultimate destination.

To create a more meaningful representation of riders' public transit interaction, survey results are presented from a modified database of trips in relation to riders' homes. This approach creates a consistent picture of boarding accessibility from riders' ultimate origin, as well as the relationship between their last alighting point to their final destination to create a more meaningful and actionable picture of rider behavior.

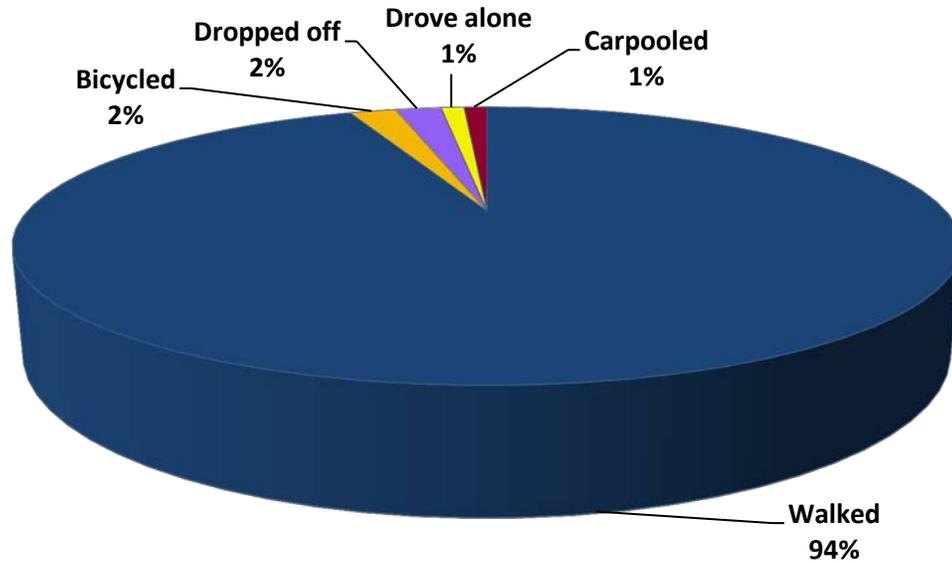
Figure 2: What Is Your Home-Based Trip Purpose?
n=95



The two most common home-based trip purposes are work and school. At 46 percent, work destinations account for the largest proportion of all trips. School-based trips consisting of “K-12” and “College/University” are the second most common destination at 20 percent total, with 16 percent K-12 and four percent college/university. The proportion of riders who indicate work and school as their destination is in line with reporting for employment and student status (Figure 17), with 61 percent of riders saying they are employed and 33 percent of riders identifying themselves as students.

Union City Transit riders’ trip purposes are diverse with non-work and non-school trips accounting for 34 percent of all the home-based trips. “Social/Recreational” destinations account for 10 percent of the trips, “Shopping” trips represent nine percent, and “Medical/Dental” trips account for seven percent. “Maintenance,” which covers errands such as dry-cleaning or auto repair accounts for four percent of travel. The smallest portion of the home-based trip purpose is comprised of “Escorting Others” (children, disabled) which comprises only three percent of the home-based trips.

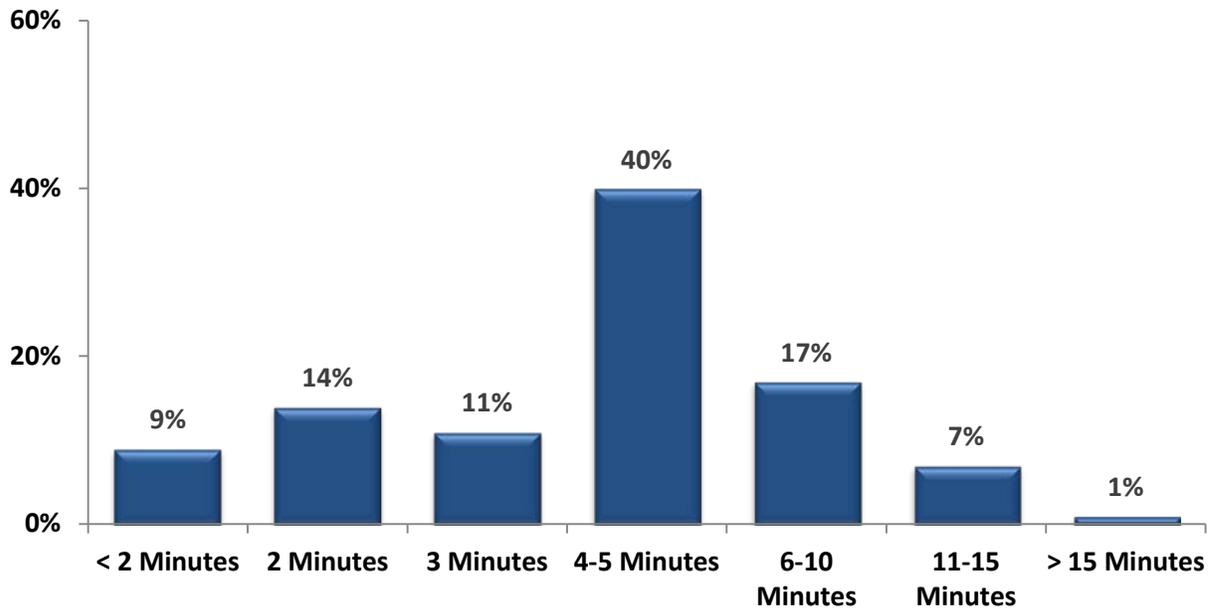
Figure 3: How Do You Get From Your Home to Your First Boarding Point?
n=95



The majority of riders (94%) walk from home to the first transit boarding point. Vehicular modes account for four percent of the trips with two percent “Dropped Off,” one percent “Drove Alone,” and one percent “Carpooled²”. Bicycle users comprise only two percent of riders. None of the riders reported taking a taxi or riding a motorcycle/scooter.

² The carpool category includes vanpools and shuttles such as pick-up vans for medical facilities, employers, or schools.

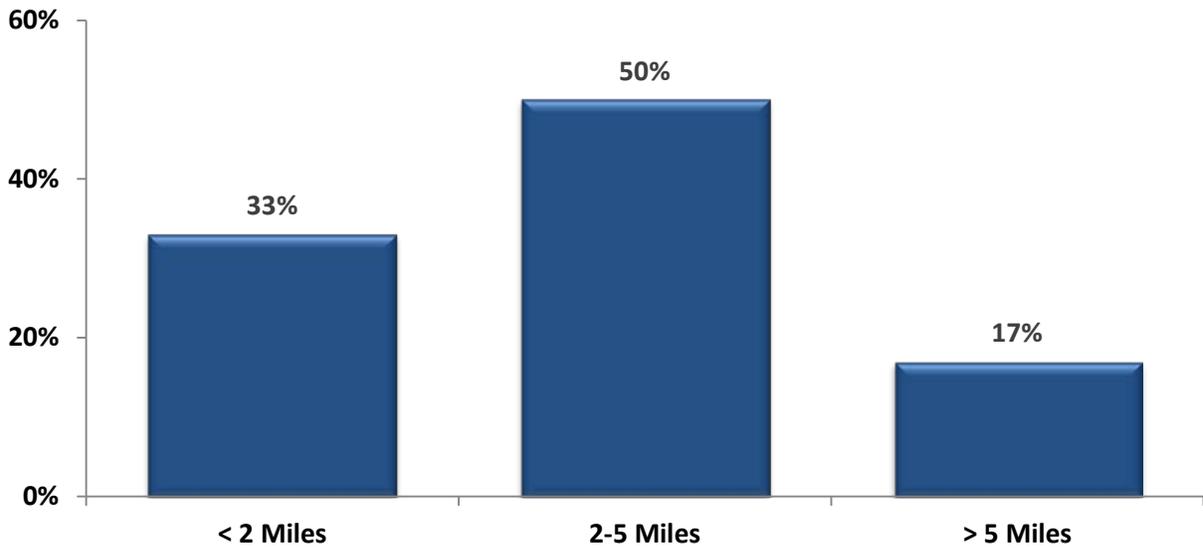
Figure 4: How Many Minutes Is Your Walk From Home to Your First Boarding Point?
n=89



The average walk time of UCT riders from home to their first boarding point is 5.7 minutes. The majority of riders (74%) indicate walking five or fewer minutes, with 40 percent walking 4-5 minutes. One-third (34%) walk three or fewer minutes, 17 percent walk between six and ten minutes, and eight percent walk over ten minutes.³

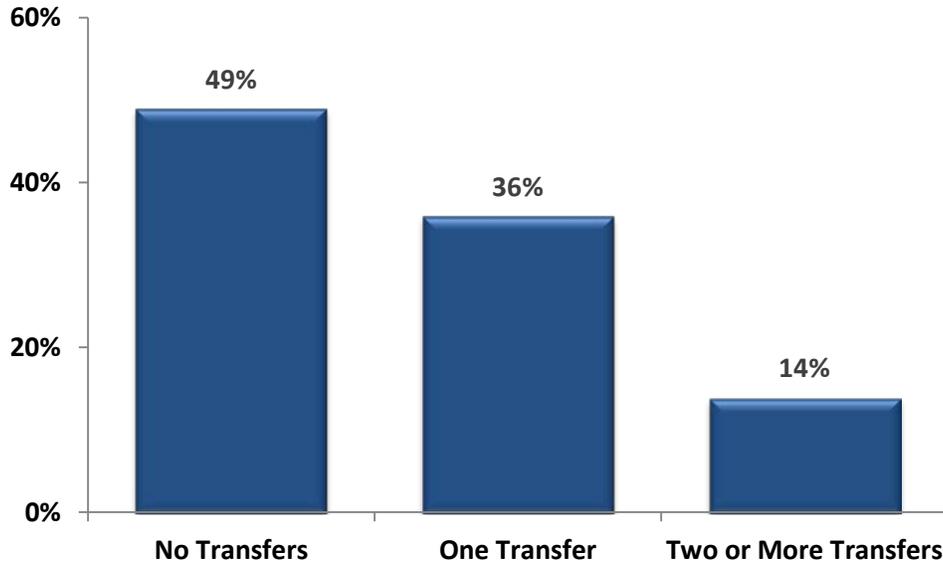
³ Percentages do not add up to 100% due to rounding.

**Figure 5: How Many Miles Is It From Your Home to Your First Boarding Point?
(Non-Walkers Only)
n=6**



For non-walkers the average travel distance from home to the first boarding point is 3.1 miles. Half of the riders indicate that they travel between two and five miles. A third (33%) travel less than two miles, and the remaining 17 percent travel over five miles.

Figure 6: How Many Transfers Are Needed To Complete Your Trip?
n=107

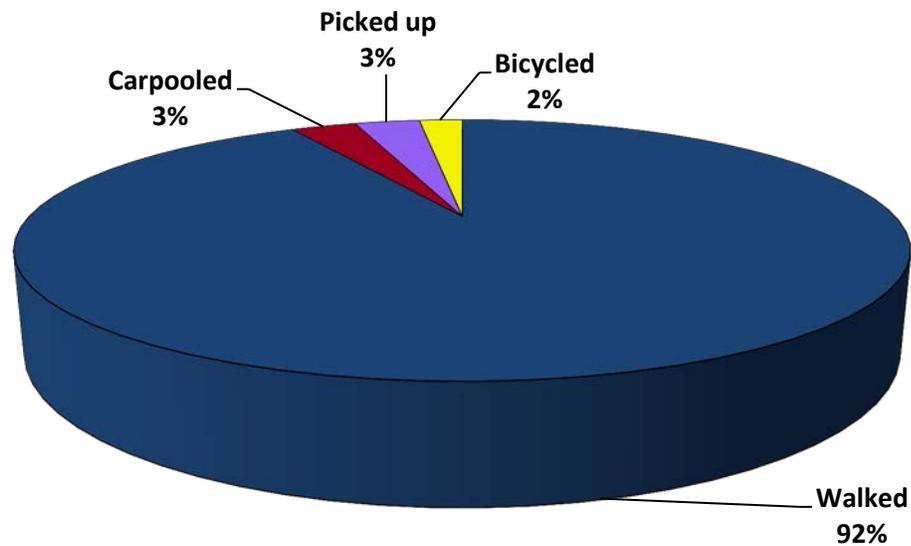


Half of the Union City Transit riders (49%) complete their trips with no transfers. Thirty-six percent of riders require one transfer to reach their destination, and 14 percent require two or more transfers.⁴ The average number of transfers is 0.7 or equivalent to 1.7⁵ trip segments.

⁴ Percentages do not add up to 100% due to rounding.

⁵ It should be noted that all transfers including out-of-system transfers are counted in this statistic, so the average number of UCT buses used to complete a one-way trip will be lower.

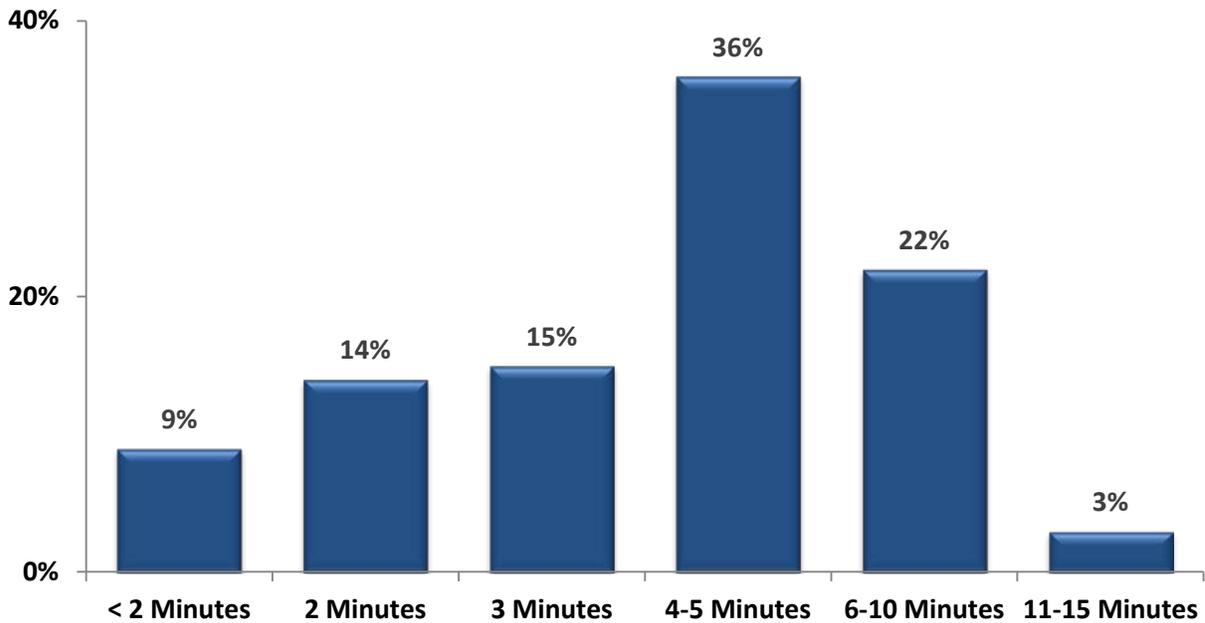
Figure 7: How Do You Get From Your Last Stop to Your Non-Home Destination?
n=95



The majority of Union City Transit riders (92%) walk from their last alighting point to their non-home destination. Vehicular modes account for six percent of trips which include “Carpooled”⁶ and “Picked Up by Someone,” with three percent allocated for each mode. Two percent of riders use a bicycle to reach their non-home destination. Other modes of travel, such as driving alone, taking a taxi, and riding a motorcycle/ scooter were not encountered.

⁶ The carpool category includes vanpools and shuttles such as pick-up vans for medical facilities, employers, or schools.

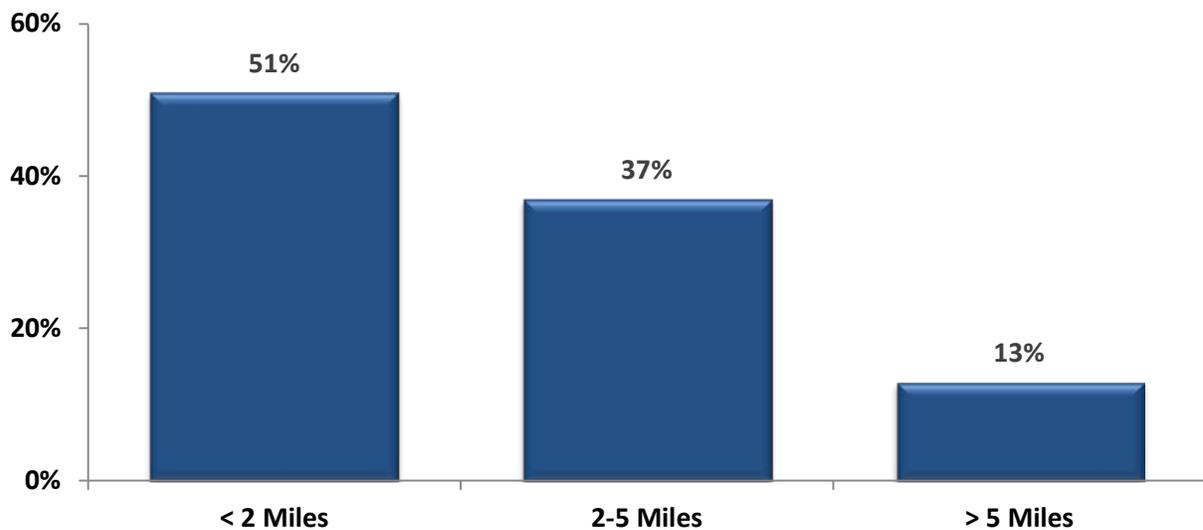
Figure 8: How Many Minutes Is Your Walk from Your Last Stop to Your Non-Home Destination?
n=87



Similar to walking to the first bus stop, the majority of Union City Transit riders (74%) responded that they walk five minutes or less from the last alighting point to reach their non-home destination. Slightly over one-third (38%) reported walking three minutes or less, and 36% walk between four to five minutes. One-quarter of the riders (22%) walk between six to ten minutes to reach their destination and only three percent walk for more than 10 minutes.⁷ The overall average walk time for riders reaching their non-home destination from their last alighting point is 5.0 minutes, slightly less than the 5.7 minutes from home to their first boarding point. This likely reflects a slightly higher density at typical non-home trip destinations than in residential areas.

⁷ Percentages do not add up to 100% due to rounding.

**Figure 9: How Many Miles Is It From Your Last Stop to Your Non-Home Destination?
(Non-Walkers)
n=8**

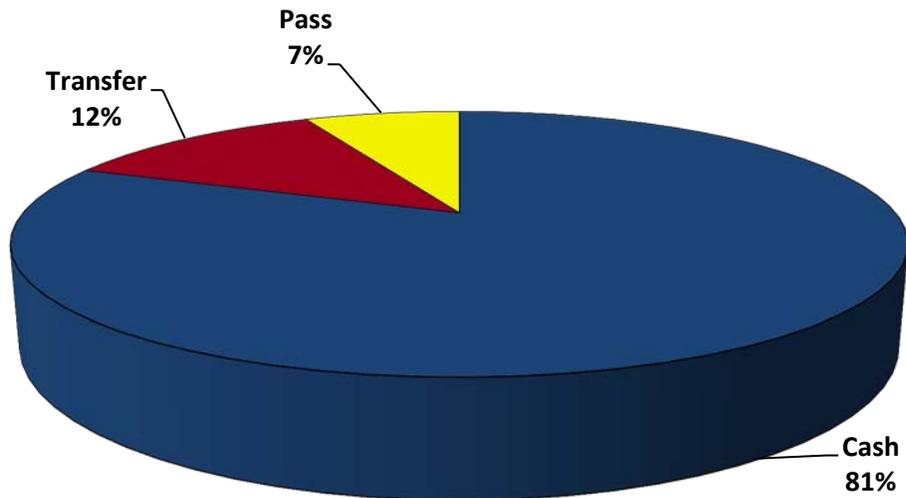


For riders who utilize travel modes other than walking, the average distance from the last stop to their non-home destination 3.8 miles. Half of the riders (51%) responded that they travel less than two miles before reaching their destination. An additional 37 percent travel between two and five miles, and the remaining 13 percent travel more than five miles.⁸

⁸ Percentages do not add up to 100% due to rounding.

FARE MEDIA

Figure 10: How Do You Pay For Your Bus Fare?
n=107

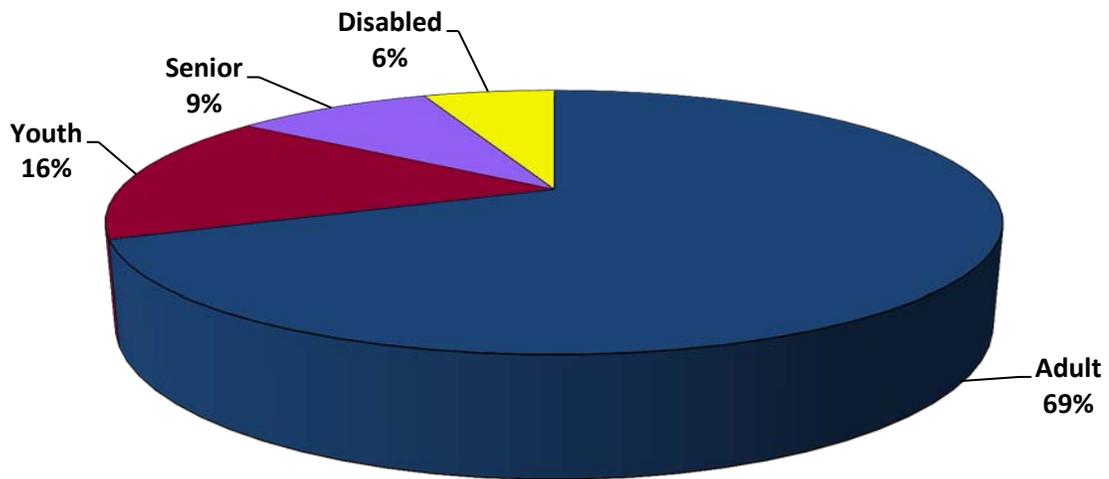


The majority of riders (81%) pay their bus fare by cash, including those who pay with bills/coins (78%) or use a cash balance on a Clipper card (3%). Twelve percent of riders reported using a transfer from either BART (8%) or the AC Transit/Dumbarton Express (4%). Monthly passes are the least frequently used payment method at seven percent.

Cash is used by 74 percent of riders under the age of 30 compared to 87 percent of riders 30 or older. This is primarily due to riders under 20 being much more likely to use a pass (20%) than those 20 or older (3%). In line with this students are more likely to use a pass (14%) than non-student riders (4%), and riders without a driver's license are more likely to use a pass than those with a driver license (12% and 2%, respectively).

Hispanic riders are more likely to use cash (91%) than Non-Hispanic riders (79%).

Figure 11: What Type of Fare Do You Pay?
n=107

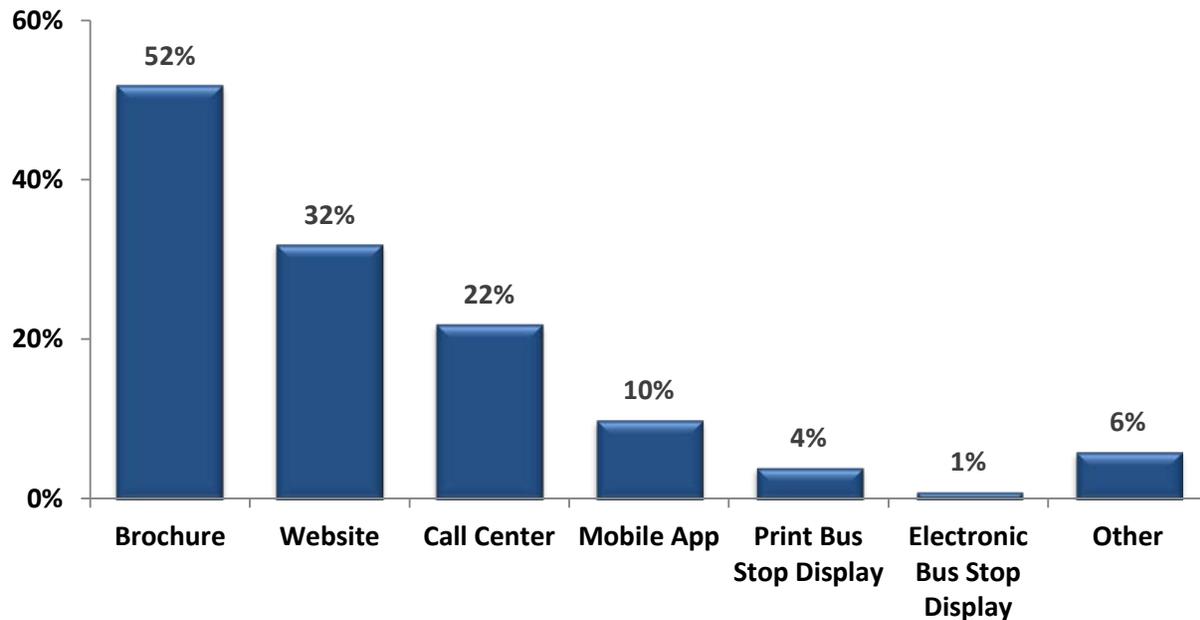


Slightly less than a third (31%) of riders pay a discounted rate including 16 percent for youth fares, nine percent senior fares and six percent disability fares. The remaining 69 percent pay full adult fares.

As would be expected, the proportion paying adult fares is highest for riders 30 to 59 years old (88%) and lower for those under 20 (35%) who generally pay a youth fare (65%), and those 60 or older (10%) who generally pay a senior discount fare (91%). In line with this, riders that are unemployed, who are more likely to be young students and older retired persons, are also much less likely to pay a full adult fare (38%) compared to those that are employed (89%). Students, who are likely to be under 20 also are much more likely to pay a youth fare (46%) than non-students (1%).

UNION CITY TRANSIT INFORMATION SOURCE

**Figure 12: How Would You Prefer To Obtain Union City Transit Information?
n=107
(Multiple Response)**

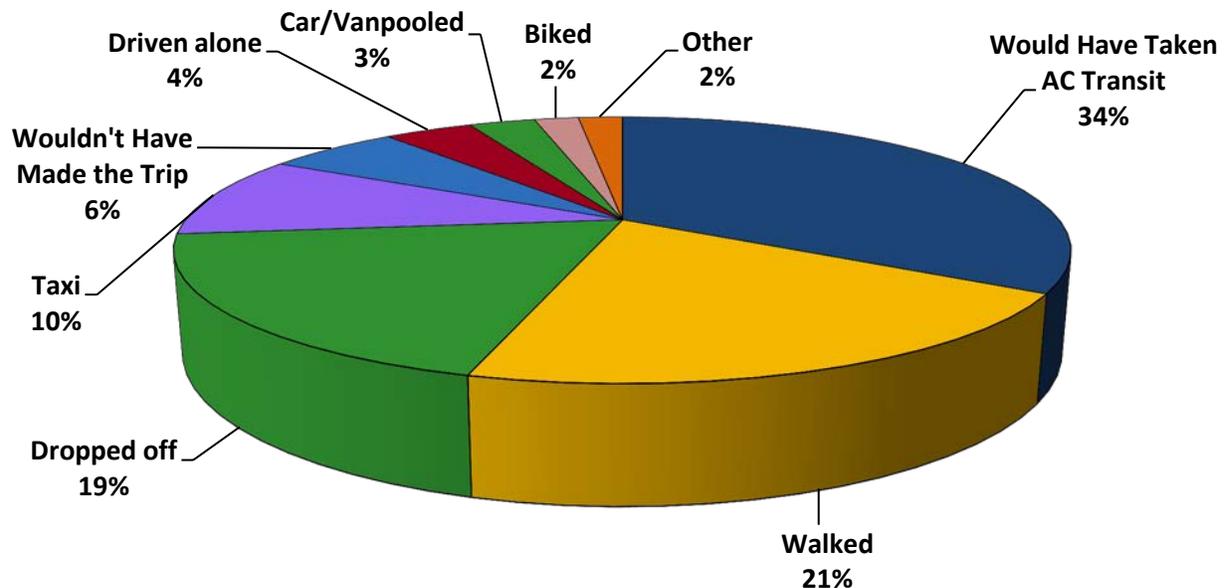


The three most preferred methods for obtaining Union City Transit information consist of printed brochures (52%), a website (32%), and a call center (22%). Ten percent of riders prefer a mobile app, four percent prefer printed bus stop displays, and only one percent prefer electronic bus stop displays.

As might be expected age plays a key role in the most desired delivery method for transit information. Riders that are 40 or older are more likely to prefer printed information or to call to get information by at least two to one at 75 percent and 32 percent respectively vs. 33 percent and 16 percent respectively for those under 40. Conversely, those under 40 are more likely to prefer a website or mobile app by at least two to one at 44 and 17 percent respectively compared to 18 and two percent for those 40 or older.

ALTERNATIVES TO UNION CITY TRANSIT

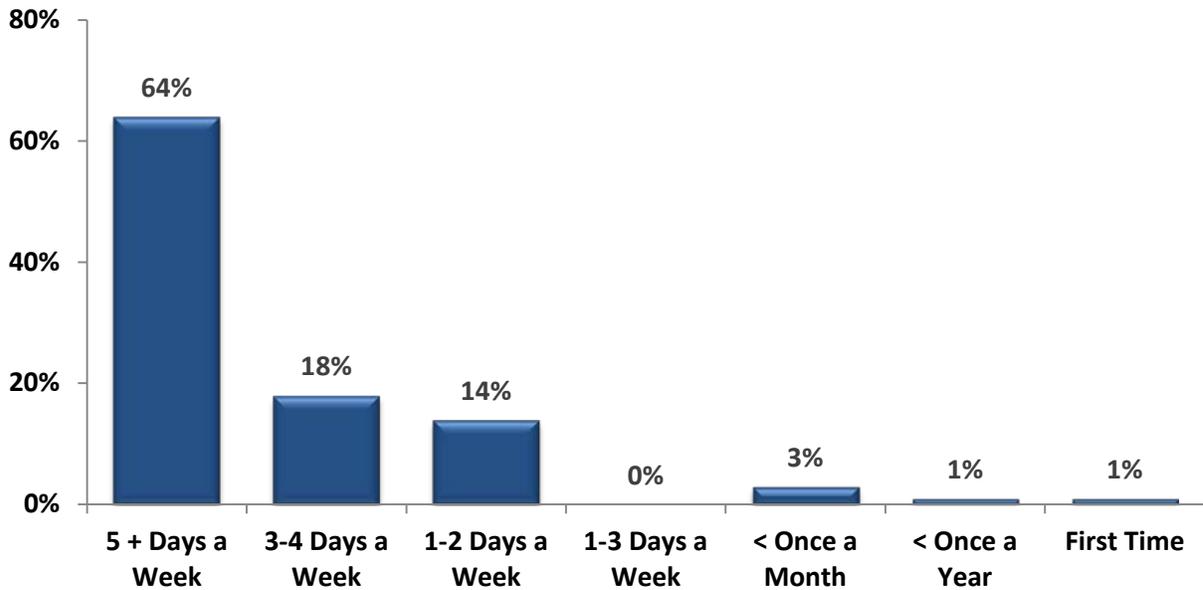
Figure 13: If the Union City Transit Bus You Rode Was Not Available, How Would You Have Made Your Trip?
n=107



When riders were asked how they would make their trip if the Union City Transit bus they rode was not available, the largest proportion of riders (34%) indicate that they would take an AC Transit bus. For those who do not have an acceptable AC Transit substitute the primary alternatives were walking (21%), being dropped off (19%), and taking a taxi (10%). Since a majority (56%) of riders do not have a driver's license (Figure 15) and only 17 percent are not workers or students (Figure 17), only six percent said they would not make the trip. The remaining riders said they would drive alone (4%), car/vanpool (3%), bicycle (2%), or other (2%). Those without a driver's license would be more likely to take an AC Transit bus (42%) than those with a license (23%).

TRANSPORTATION DEMOGRAPHICS

Figure 14: How Often Do You Ride Union City Transit?
n=107

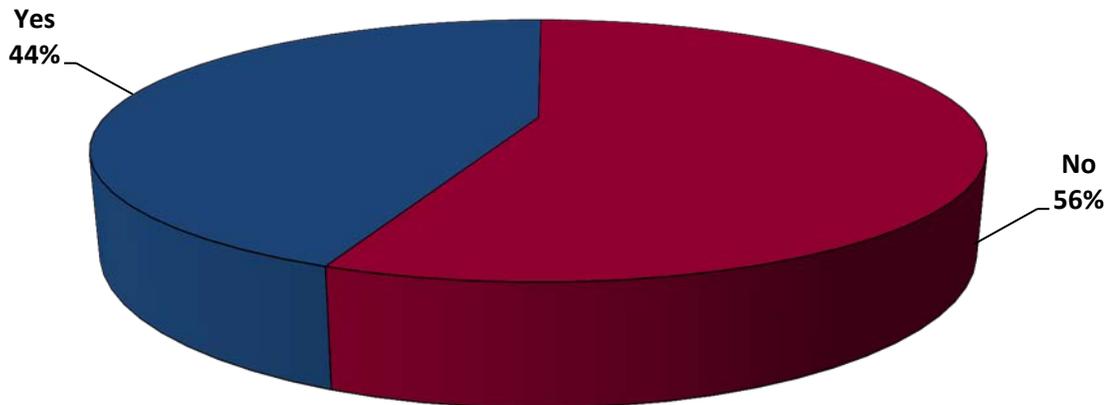


Nearly two-thirds of riders (64%) ride Union City Transit five or more days a week. Eighteen percent of riders ride 3-4 days a week, 14 percent ride 1-2 days a week, and the remaining five percent ride less than once a month.⁹

Not surprisingly, riders that have a pass are more likely to ride five days a week, as are riders whose trip purpose is either work or K-12 school.

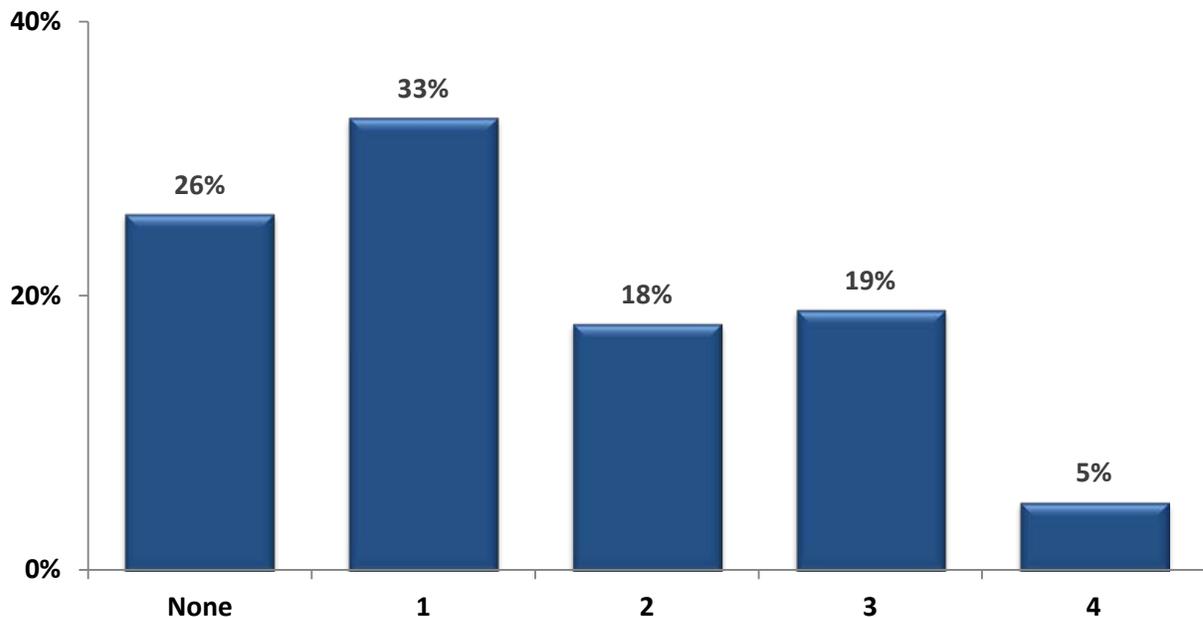
⁹ Percentages do not add up to 100% due to rounding.

Figure 15: Do You Currently Have a Driver License?
n=107



A majority (56%) of Union City Transit riders do not have a driver's license. Not having a license is higher for riders under 20 years of age (85%), those paying a youth fare (88%), unemployed persons (76%), and students (69%).

**Figure 16: How Many Drivable Vehicles Are Available To Your Household?
n=107**



The average number of drivable vehicles per household is 1.4. A majority of riders (74%)¹⁰ have a least one drivable vehicle available to their household and nearly two-thirds (64%) of riders with household incomes of \$35,000 or more have more than one vehicle available, compared to 22 percent for riders with household incomes below \$35,000.¹¹

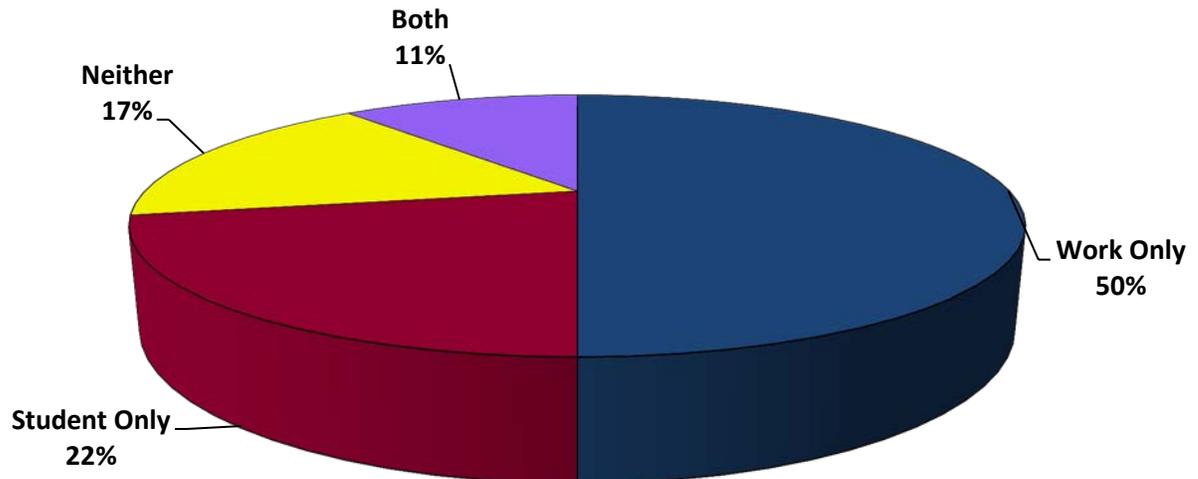
Although riders under 20 years of age are least likely to have a driver license, they are the most likely age category to have at least one vehicle available to their household (88%). Conversely, nearly three-quarters (72%) of riders 60 and older do not have a vehicle available to their household, compared to only 22 percent of riders younger than 60.

¹⁰ Sum of individual categories is one percent higher than the total due to rounding.

¹¹ Percentages do not add up to 100% due to rounding.

RIDER DEMOGRAPHICS

Figure 17: Are You Currently Employed and/or a Student?
n=107

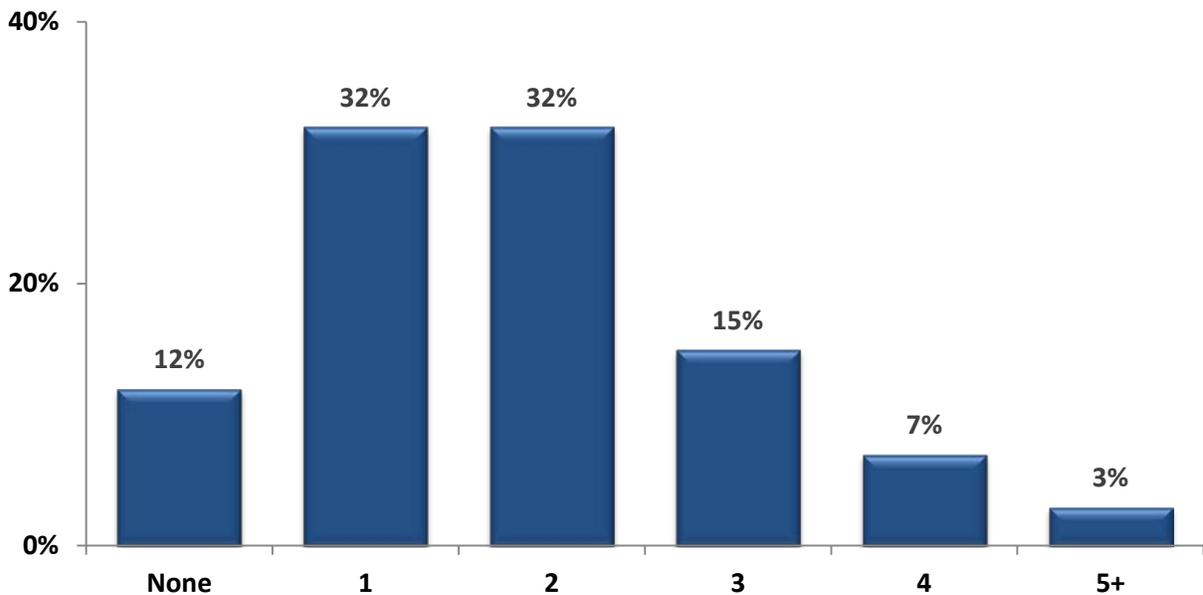


Eighty-three percent of Union City Transit riders are either employed, students, or both. Riders who only work comprise the largest proportion, accounting for 50 percent of ridership. Roughly one-quarter of UCT riders (22%) are students only, and 11 percent are both employed and a student. Seventeen percent of riders are neither employed nor students.

As would be expected, riders that are only students are most prevalent in the under 20 age category at 58 percent. Conversely, the percentage of riders who neither work and nor attend school is lowest for riders under 30 (2%), increasing to 18 percent for riders in their 30s, 40s, and 50s, and reaching a high of 71 percent for riders 60 or older.

Eighteen percent of employed riders are also students, and one-third of students are also employed. Over one-half (56%) of unemployed riders are students, and three-quarters (74%) of non-student riders are employed.

Figure 18: How Many People Are Employed in Your Household?
n=106



The average number of employed persons per household is 1.8. Eighty-eight¹² percent of riders indicate at least one person in their household works either full or part-time. Twelve percent of riders do not have anyone in their household who is employed, 32 percent have one person, and another 32 percent of riders come from households with two workers. Fifteen percent of riders have three people employed in their household, and 10 percent have four or more workers.¹³

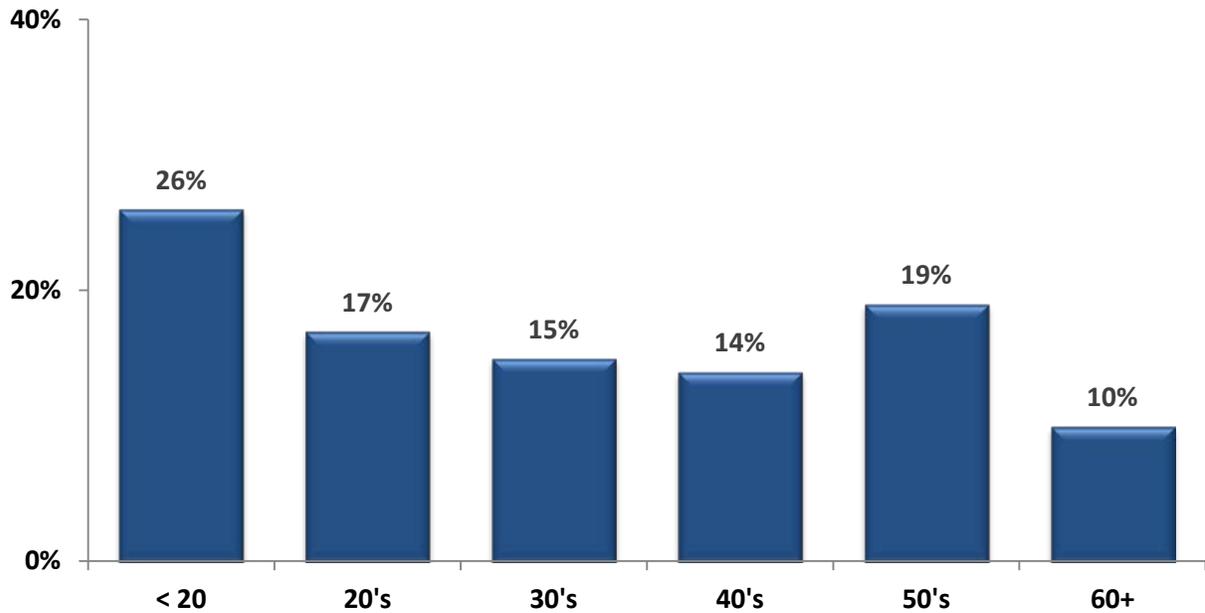
Fifty-four percent of riders 60 and older do not have anyone in their household who is employed. This compares with eight percent for riders under the age of 60.

One-third (33%) of unemployed riders have no one who is employed in their household.

¹² Sum of individual categories is one percent higher than the total due to rounding.

¹³ Percentages do not add up to 100% due to rounding.

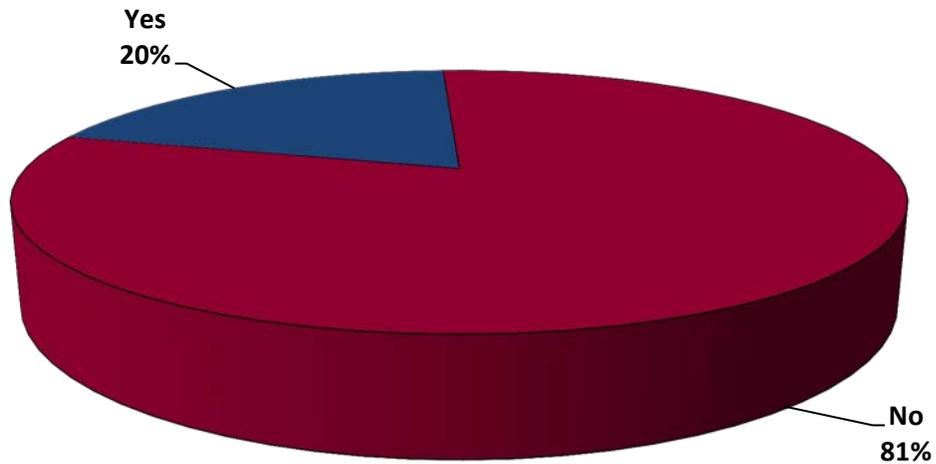
Figure 19: What Is Your Age Category?
n=102



Riders under the age of 20 represent the largest portion of ridership at 26 percent. All other age categories have a fairly even distribution. Seventeen percent of riders are in their 20s, 15 percent are in their 30s, 14 percent are in their 40s, 19 percent are in their 50s, and 10 percent are 60 or older.¹⁴

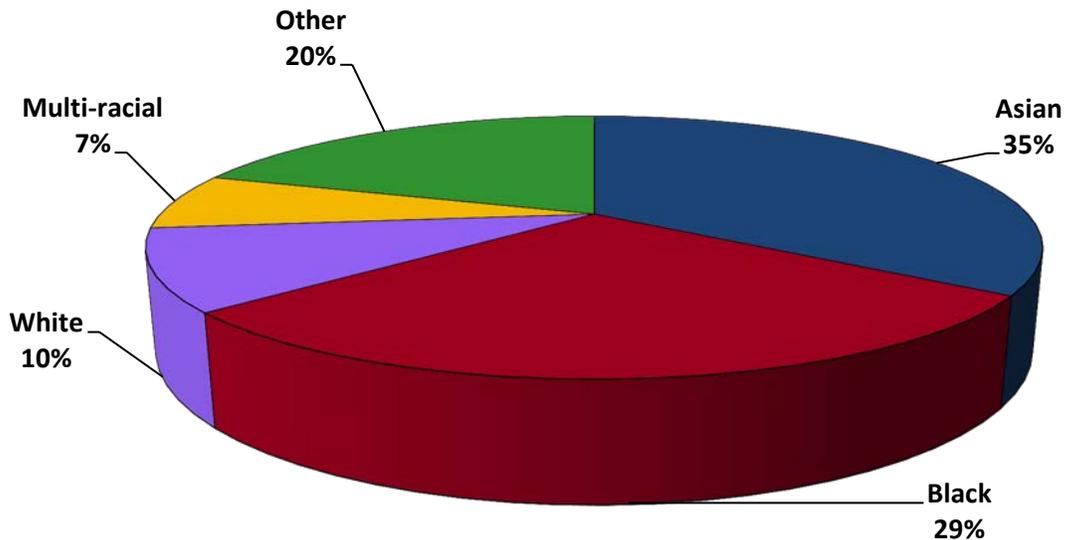
¹⁴ Percentages do not add up to 100% due to rounding.

Figure 20: Are You Hispanic, Latino or of Spanish Origin?
n=106



Twenty percent of riders identified themselves as Hispanic, Latino, or of Spanish origin.¹⁵ Among this percentage, 48 percent speak only English at home and 52 percent speak Spanish at home.

Figure 21: Which of the Following do You Identify With?
n=104

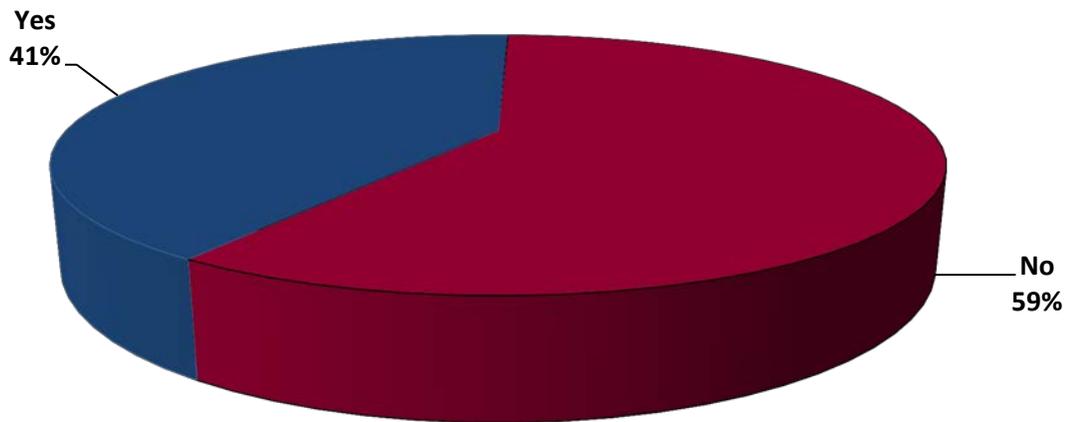


Union City Transit riders were asked to select the United States Census race category with which they identify. The largest proportion (35%) of UCT riders identified

¹⁵ Percentages do not add up to 100% due to rounding.

themselves as Asian who primarily speak Tagalog at home (48%), followed by riders who identified themselves as Black (29%) who mainly speak English at home (86%). Ten percent of riders identified themselves as White and seven percent identified themselves as Multiracial. Twenty percent of riders identify themselves as “Other”.¹⁶ The majority of this group said they are “Hispanic” or “Latino”.

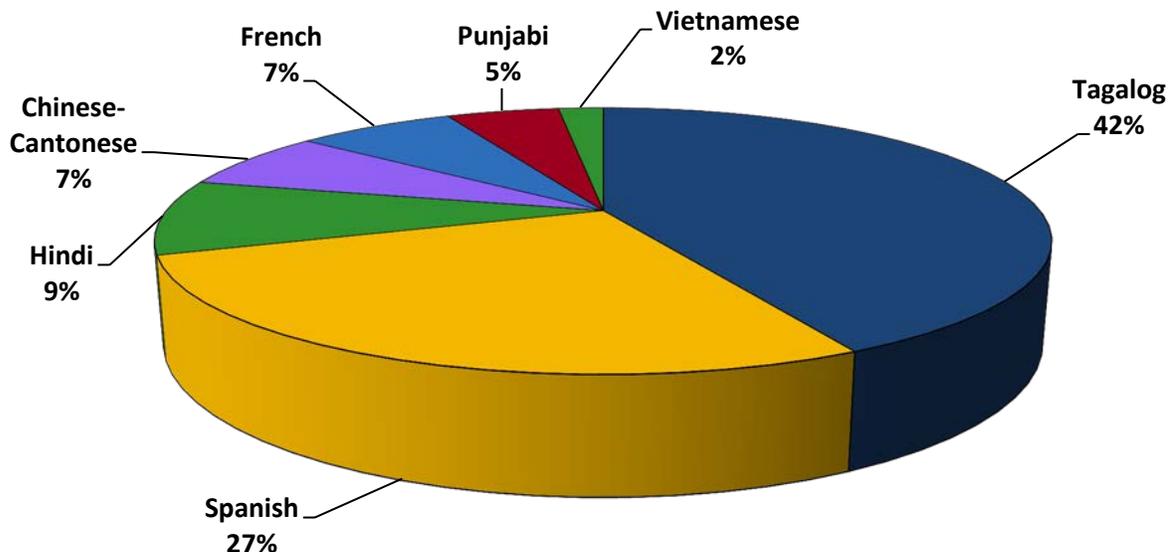
Figure 22: Do You Speak a Language Other Than English at Home?
n=107



Over one-third (41%) of riders speak a language other than English at home, while 59 percent do not. Seventy-three percent of Asian riders, 52 percent of Hispanic riders, 14 percent of Multiracial riders, and 10 percent of Black riders speak a language other than English at home.

¹⁶ Percentages do not add up to 100% due to rounding.

**Figure 23: What Language Other Than English Do You Speak at Home?
(Only Respondents Who Speak a Language Other Than English at Home)
n=44**



Tagalog is spoken by 42 percent of riders who speak a language other than English at home. The second most common language spoken at home is Spanish (27%), followed by Hindi (9%), Chinese-Cantonese (7%), French (7%), Punjabi (5%), and Vietnamese (2%).¹⁷

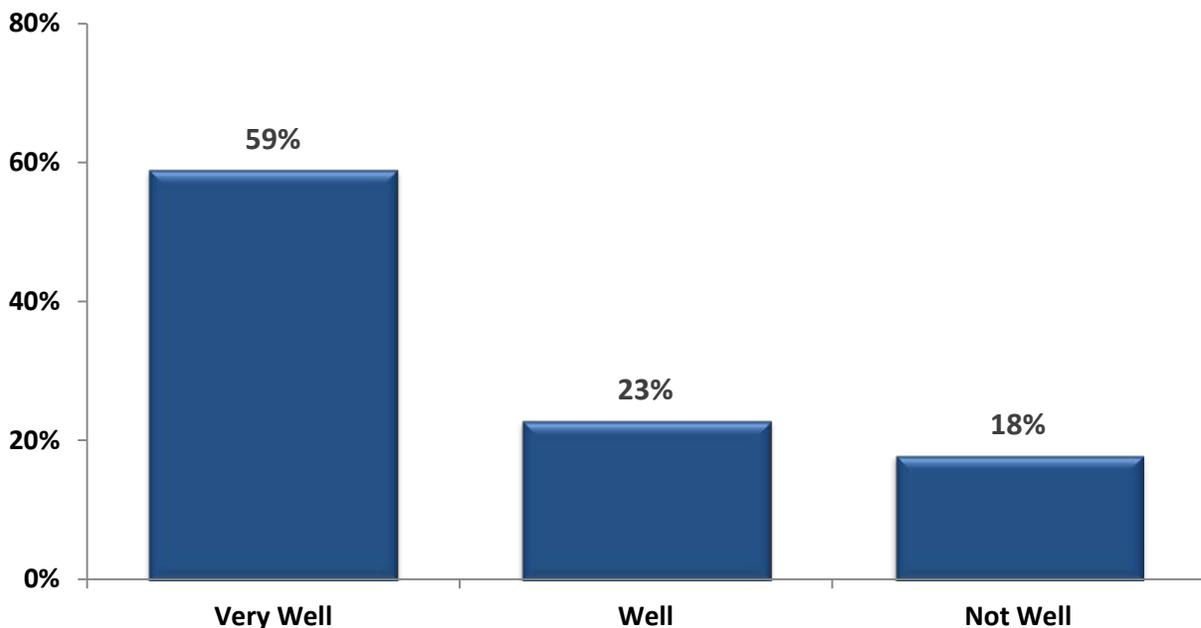
It is useful to convert these language percentages to the percentage of all boardings that speak another language home. It is important to note that almost all riders make round trips from home to some location and then returning. The average number of buses used in a one-way trip is also 1.7 vehicles. Finally, given a relatively high level of transit dependency, it is likely that many riders make more than one round-trip per day, going out more than once a day for shopping, recreation, etc. Given this, a best conservative estimate of the number of boardings per day for the average rider is 3.0. This means that the actual number of unique riders is approximately one-third of boardings.

Accordingly, we will present the results in three ways, as a percentage of all boardings, the actual number of boardings, and the number of unique riders, estimated by dividing the number of boardings by 3.0. The percentages, boardings, and estimated unique riders that speak languages other than English at home are: Tagalog (17%, 340 boardings, 113 riders), Spanish (11%, 220 boardings, 73 riders), Hindi (4%, 80

¹⁷ Percentages do not add up to 100% due to rounding.

boardings, 27 riders), Chinese-Cantonese (3%, 60 boardings, 20 riders), French (3%, 60 boardings, 20 riders), Punjabi (2%, 40 boardings, 13 riders), and Vietnamese (1%, 20 boardings, 7 riders).

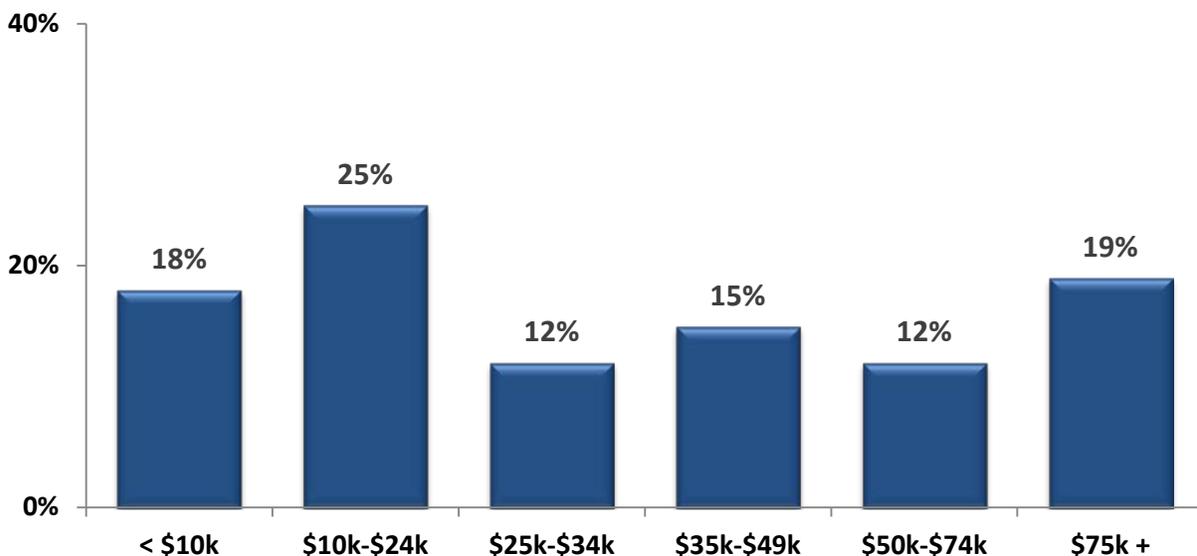
**Figure 24: How Well Would You Say You Speak English?
(Only Respondents Who Speak a Language Other Than English at Home)
n=43**



Of the Union City Transit riders who speak a language other than English at home, 59 percent indicate that they speak English “Very Well,” 23 percent indicate that they speak it “Well,” and 18 percent indicate that they speak it “Not Well.” No riders indicate that they do not speak English at all.

Almost two-thirds (65%) of Hispanic riders and almost half (47%) of Asian riders indicate that they speak English “Very Well.” Sixty-eight percent of the riders who speak Spanish at home indicate that they speak English “Very Well.” This percentage is similar for those who speak Cantonese at home (67%), but somewhat lower for those who speak Tagalog at home (50%).

Figure 25: What is Your Total Household Income?
n=85

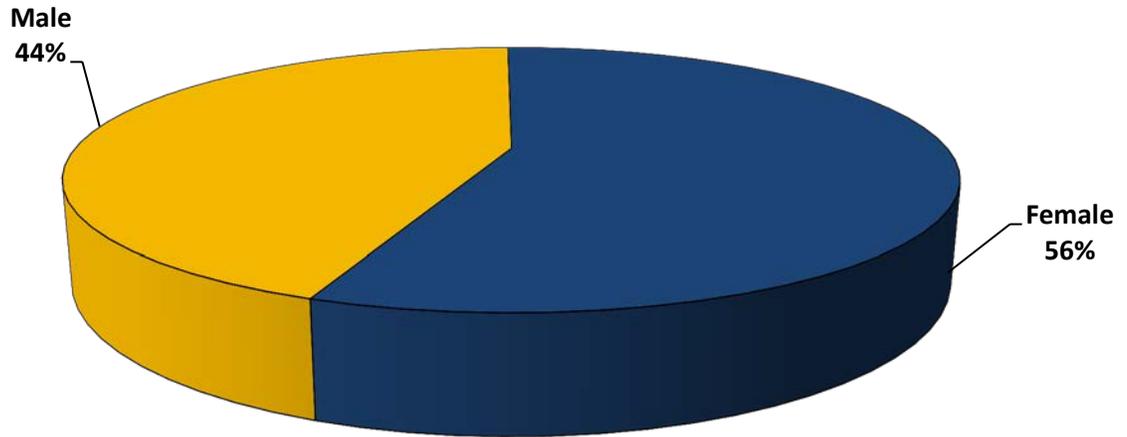


A majority of UCT riders (54%) have a total household income of under \$35,000. This breaks down into 18 percent under \$10,000, 25 percent within the \$10,000 to \$24,999 range, 12 percent within the \$25,000 to \$34,999 range.¹⁸ Forty-six percent have a household income of \$35,000 or more, and this breaks down into 15 percent within the \$35,000 and \$49,999 range, 12 percent within the \$50,000 to \$74,999 range, and 19 percent at \$75,000 or higher.¹⁹

¹⁸ Percentages under and over \$35,000 are slightly different than the sum of the individual categories due to rounding.

¹⁹ Percentages do not add up to 100% due to rounding.

Figure 26: Gender
n=107



Union City Transit riders are slightly more likely to be female (56%) than male (44%).