



Fort Collins Travel Diary Study Report of Results

July 2017



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Executive Summary

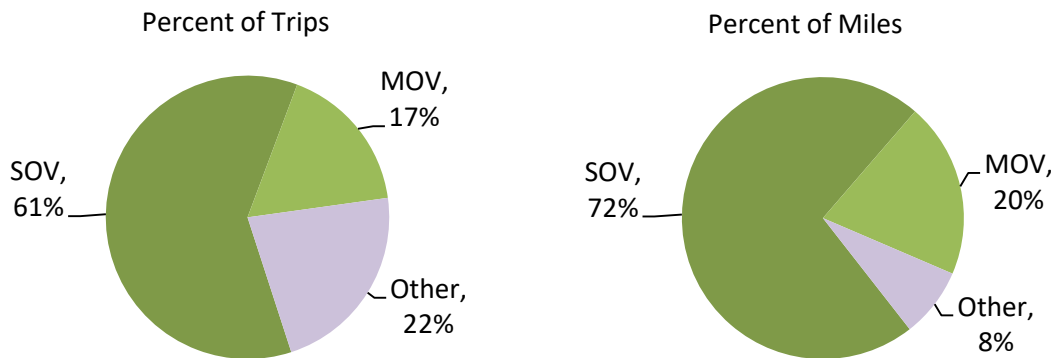
Survey Background

National Research Center, Inc. (NRC) was contracted to conduct a travel diary study for the City of Fort Collins. Residential addresses were selected via stratified random sampling and invitations were mailed to 7,650 households to solicit participation in the study. A random sample of 700 students who lived in CSU residence halls was also selected and emailed invitations. Respondents could participate in the study using an app on their smartphone or by filling out paper materials. The study had two components: a short Household Survey about individual and household characteristics and a one-day Trip Diary in which residents tracked all their trips for a 24-hour period (noting start and end locations and times, distance, mode and purpose).

Survey Results

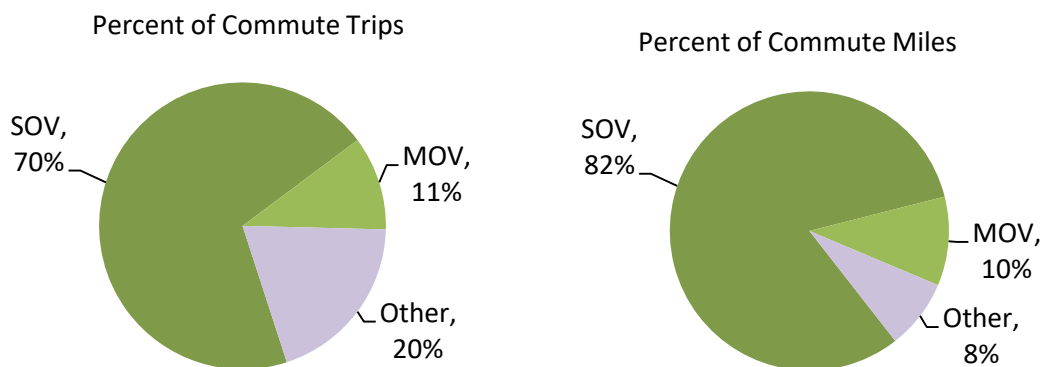
Most trips and trip miles were traveled in a personal vehicle.

Single-occupancy vehicles (SOVs) were used for the majority of trips taken on the diary day and this accounted for 72% of the total miles traveled. Many also drove with people in their vehicles (MOV, multiple-occupancy vehicles). About 22% of trips and 8% of miles traveled were by other modes (foot, bike, bus, motorcycle or ride-share).



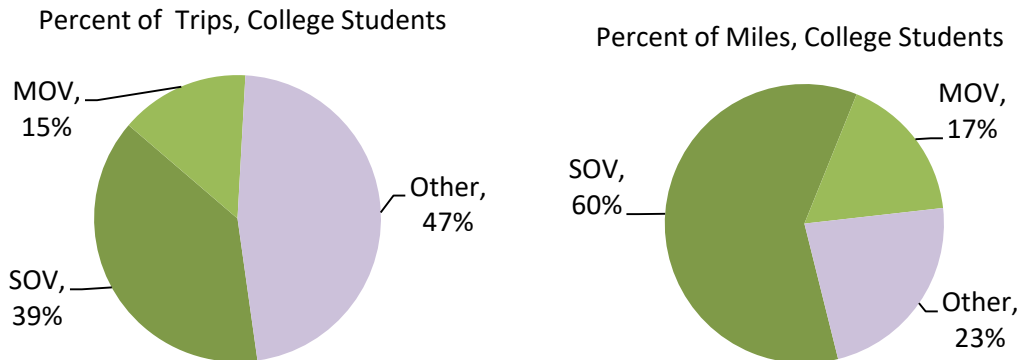
Commute trips were more reliant on SOV.

SOVs were used for 70% of the commute trips taken on the diary day (82% of the total miles traveled for a commute to or from work). About 10% of trips were with other people in a personal vehicle and 2% were by other modes.



College students were much less likely to travel by SOV.

College students used SOVs for about 40% of their trips and 60% of the miles they traveled and used “other” modes (foot, bike, bus, motorcycle or ride-share) for almost half of trips and a quarter of all miles traveled. .



Transit usage was small proportion of all trips, but more likely with a bus pass.

Overall, about 4% of respondents used transit on their diary day and it accounted for 1.8% of all trips and 1.4% of miles traveled, but 19% said they had taken MAX at least once in the past month and 9% had taken a bus. Bus ridership was much higher for those who said they had a bus pass, with 54% of those with a pass saying they had used MAX and 27% taking a bus in the month prior to the survey.

About half of respondents had biked recently, but only 4% had on the diary day.

Biking accounted for about 8% of all trips and 4% of all miles traveled on the diary day and was used for about 12% of commute trips and 6% of commute miles. When asked about biking in the month prior to participating in the study, 52% of respondents said they had biked at least once. About one-quarter of households have no bikes available.

Most people walked, but not to get to work.

About 7 in 10 respondents had walked in the 30 days prior to the study and 2 in 10 walked on their diary day, but walking accounted for only 12% of all trips and 1.6% of all miles traveled and 4% of all commute trips and 0.6% of all miles traveled for a commute to or from work.

Survey Background

The City of Fort Collins contracted with NRC to conduct a trip diary study to better understand the modal share and trip-making behavior of residents. The information gained from this project will be used to assist transportation planning and evaluation. For this study, residents were asked to maintain a diary of all their trips for a full 24-hour period (noting details about the distance, purpose and mode) and to complete a survey to provide further details about the demographic and household characteristics that likely influence travel choices. A copy of the Household Survey and Trip Diary can be found in *Appendix E: Survey Materials*. The diary and survey could also be completed by downloading an app. The app tracked trips using the smartphone or tablet's GIS functions and asked questions to annotate the trips (with details about purpose and mode). The app also included the survey questions from the Household Survey. To manage parts of the outreach, NRC created a project specific website where selected residents could find instructions, privacy information, contact information and links to download the app or to download and print paper versions of the survey and diary.

All households in the Fort Collins Growth Management Area (GMA, see map on page 59) were eligible for participation in the study. A total of 7,650 household addresses and 700 students living in residence halls at CSU were randomly selected to be contacted by mail or email and invited to participate in the study. They were contacted as follows.

- 2,550 residents received a postcard invitation to access the study via the website. The postcard also included a note in Spanish about accessing paper materials in Spanish via the website or calling the City to request to have them mailed to the household.
- 5,100 residents were sent a postcard invitation to access the study via the website and one week later were mailed a paper version of the study materials. A subset of this group (507) who lived in five census tracts identified as having a higher ratio of Spanish speakers were mailed both English and Spanish versions of the paper materials.
- 700 students living in residence halls at CSU were emailed an invitation to access the study via the website.

A total of 573 residents participated in the study for an overall response rate of 7.1%. Survey results were weighted so that respondent age, gender, race and housing tenure status (rent versus own) and region were represented in the proportions reflective of the entire population. The margin of error is plus or minus four percentage points around any given percent for all results (N=573). More information about the survey methodology can be found in *Appendix D: Study Methodology*.

The body of the report includes graphs and tables summarizing results related to mode share and travel behavior. Detailed results for each question on the Household Survey can be found in *Appendix A: Responses to the Household Survey*. Detailed comparisons of mode share by respondent, household and geographic characteristics can be found in *Appendix B: Overall Mode Share by Respondent and Household Characteristics* and *Appendix C: Commute Mode Share by Respondent and Household Characteristics*.

When a table for a question that only permitted a single response does not total to exactly 100%, it is due to the customary practice of rounding percentages to the nearest whole number. When the total exceeds 100% in a table for a multiple response question in which the respondent can choose more than one category, it is because some respondents are counted in multiple categories.

Travel Mode

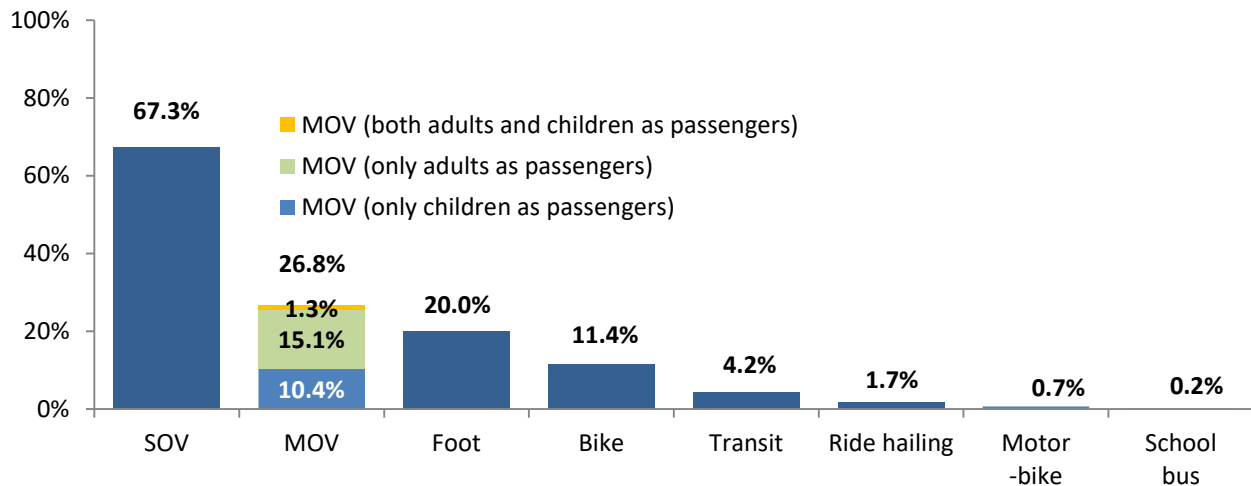
Overall Mode Use

Of the people completing the Trip Diary, 11% did not travel on their diary day. These households are excluded from mode share calculations as they had no trips or mileage to report.

About two-thirds of respondents who traveled somewhere had at least one trip on their diary day where they drove alone in a car, pickup truck, SUV, minivan or van (single-occupancy vehicle, SOV). Just over one-quarter (28.1%) of respondents drove with someone else in a car, pickup truck, SUV, minivan or van as a driver or passenger (multiple-occupancy vehicle, MOV). Many people also walked (20%) or biked (11.4%) on their diary day and a few used public transit (4.2%). No one reported using a commercial truck or a bike from a bike share, and these were not included in the chart below.

A multiple occupancy vehicle is any vehicle where there is a driver and one or more passengers, but for policy discussion it can be helpful to think about defining in different ways, related to whether or not one of the passengers is a child. Here it is split into three groups: only adults in the car, one adult driver and only children as passengers and an adult driver with both children adults in the car. Overall, 26.8% of the respondents drove with another person on their diary day, 10.4% were driving with children only and 15.1% were driving with adults only.

Figure 1: Proportion of People Using Mode at Least Once During Diary Day



Source: Trip Diary; Proportions sum to more than 100% as respondents could use multiple modes during the day. No respondents reported using a commercial truck or a bike from a bike share.

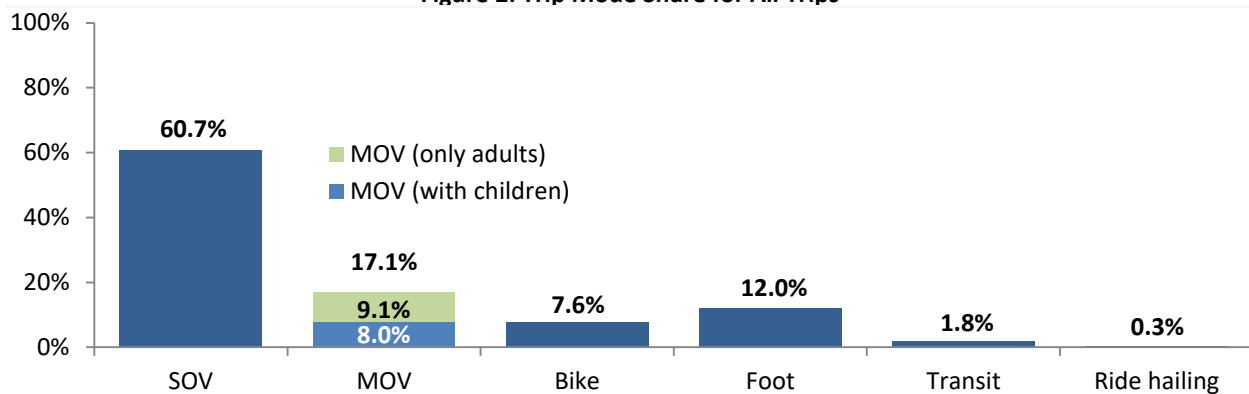
Overall Mode Share

While about two-thirds of all respondents drove in a SOV at least once on their diary day (Figure 1), the proportion of trips made by SOV was lower. Of all the trips taken, about 61% were in vehicles with no passengers. About 9% of trips taken were in vehicles with only adult passengers and another 8% were in vehicles with children (some of these trips include other adults as well, but most trips were children-only as passengers). Walking, jogging or running accounted for 12% of all trips taken while biking made up about 8% of all trips. Transit was used for about 2% of the trips, but very few were taken on a motorbike (0.1%) or by hailing a ride (0.3%).

This were fewer trips by SOV/MOV (77.8%) and more by bike (7.6%) than the 2009 national average, which was 83.4% of trips by SOV/MOV, 1.9% by transit and 10.4% walking and 4.2% by other modes (NHTS, USDOT 2009).

The average number of trips taken in a day was 4.8, with a mode of 4, a minimum of 0 and a maximum of 16. A trip for the purpose of the diary is a one-way trip with no stops (e.g., going directly to work is one trip, but if a person stops for coffee and then goes to work it is considered two trips).

Figure 2: Trip Mode Share for All Trips



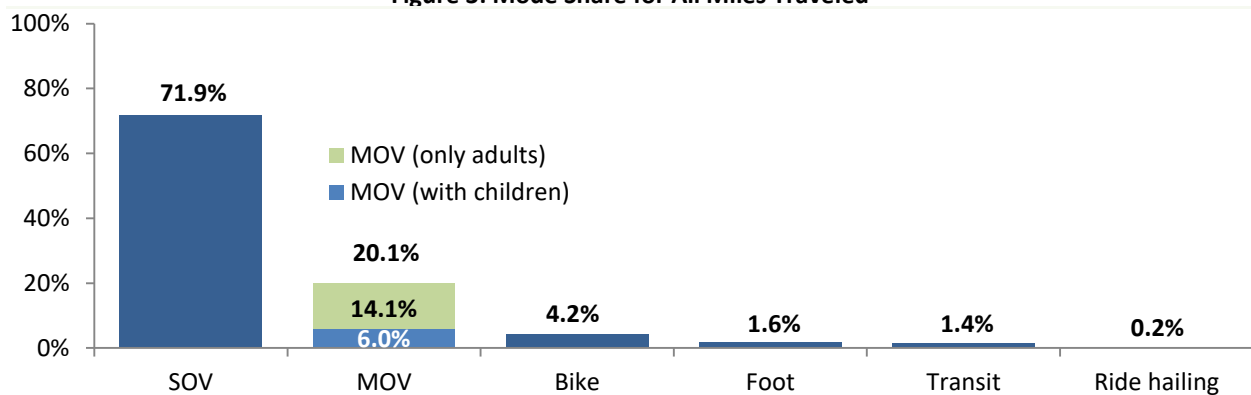
Source: Trip Diary; Proportion of all trips recorded from all Diary entries. No respondents reported using a commercial truck or a bike from a bike share and the few school bus and motorcycle trips represented 0.1% or less than of all trips.

Longer trips are more likely to be taken by car and so the proportion of miles traveled in an SOV is higher than the proportion of trips traveled in a SOV.

Of all the miles traveled, about 72% were in vehicles with no passengers. About 20% of miles traveled were in vehicles with a passenger; 6% drove at least on child and 14% were in vehicles with no children. Biking trips covered 4.2% of the miles traveled, 1.6% of the miles were on foot and 1.4% were on a bus.

Fort Collins had slightly more miles traveled by SOV/MOV (92%) than the 2009 national average, which was 88.4% of miles by SOV/MOV, 1.5% by transit and 10.2% by other modes (NHTS, USDOT 2009).

Figure 3: Mode Share for All Miles Traveled



Source: Trip Diary; Proportion of all miles traveled from all Diary entries. No respondents reported using a commercial truck or a bike from a bike share and the few school bus and motorcycle trips represented 0.1% or less of all miles traveled.

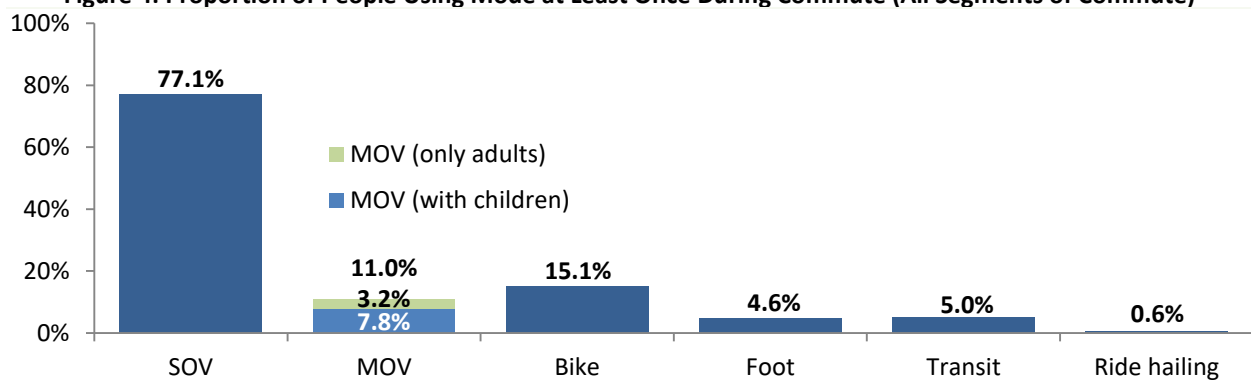
Commute Mode Use

Commute trips are all the trips where a respondent went from home to work or from work to home. These do not include trips made mid-shift at work where a respondent leaves from work and returns to work. Additionally, trips are not counted as part of a commute if a respondent goes from home to another activity and then later in the day continues on to work, or goes from work to an activity and then later on goes home. However, if a respondent stops briefly (less than 20 minutes) on the way from home to work or work to home (to drop off a child, get coffee, etc.) all segments of the journey to work are counted as part of the commute. Below this is presented in two charts, first showing the proportion of all segments traveled for a commute and second for only the longest segment traveled for a commute journey.

Almost 8 in 10 respondents made at least one of their commute segments by SOV (77.1%) and 73.7% drove alone for the longest segment(s) to and/or from work. Biking was the most popular commute mode after SOV, with about 15.1% using a bike for at least part of their commute, while 7.8% drove a child and 3.2% drove with an adult (MOV no child). About 5% used transit and 4.6% walked for all or part of their commute.

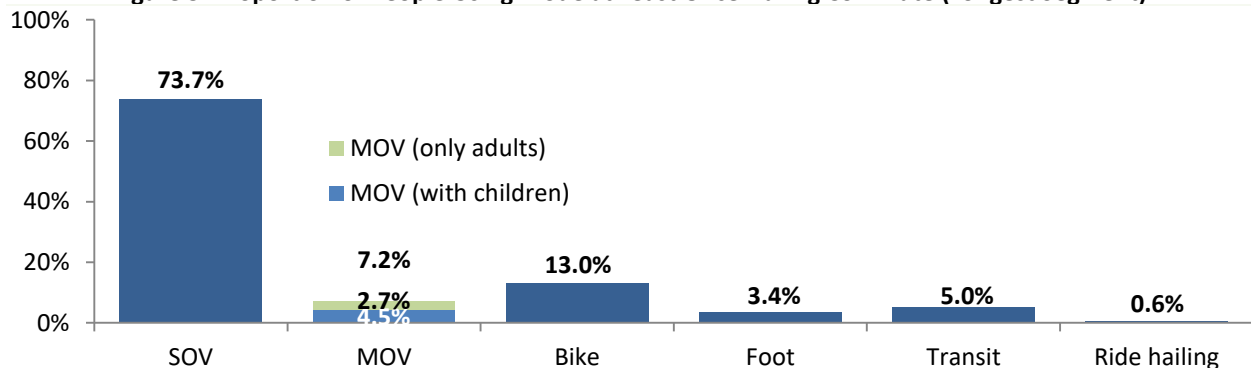
Compared to the national average from the 2010 Census¹, more Fort Collins residents biked and fewer used SOV for the longest proportion of their commute.

Figure 4: Proportion of People Using Mode at Least Once During Commute (All Segments of Commute)



Source: Trip Diary; Proportion of all trips recorded from all Diary entries. No respondents reported using a commercial truck or a bike from a bike share and the few school bus and motorcycle trips represented 0.1% or less of all trips.

Figure 5: Proportion of People Using Mode at Least Once During Commute (Longest Segment)



Source: Trip Diary; Proportion of all trips recorded from all Diary entries. No respondents reported using a commercial truck or a bike from a bike share and the few school bus and motorcycle trips represented 0.1% or less of all trips.

¹ Excluding those who worked at home, 79.8% of people said they drove alone for their commute, 10.1% carpooled, 5.2% used public transit, 2.9% walked, 0.6% biked and 1.2% used other means.

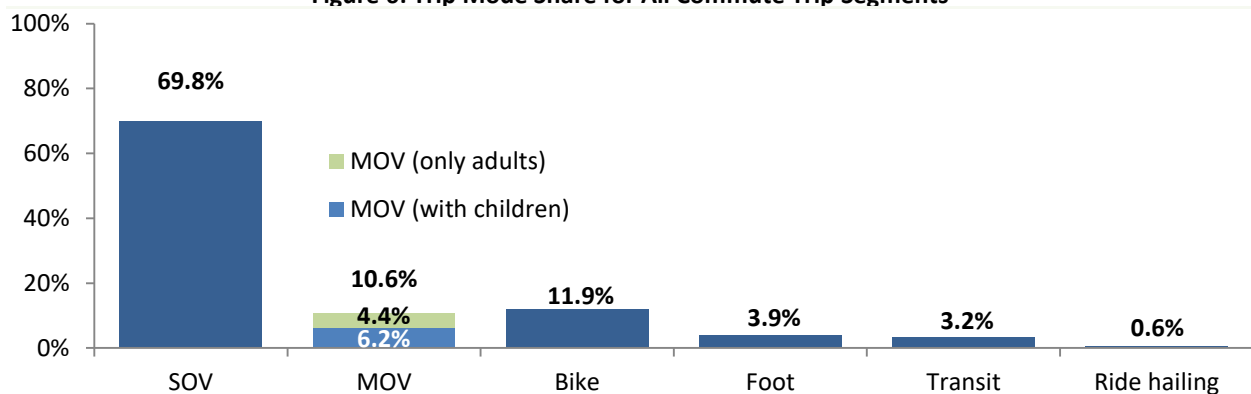
Commute Mode Share

SOV was the mode used on the most commute trip segments (Figure 6) and for the most commute miles (Figure 7). Biking was second most common for the number of commute trips (11.9%), but covered fewer miles than MOVs. About 4% of commute trips (or trip segments) were on foot, but they covered less than 1% of the miles traveled. Transit was used for about 3% of trips and covered about 4% of the miles.

Fort Collins had fewer transit and more bike trips than the 2009 national average, which was 89.4% of trips by SOV/MOV, 5.1% by transit and 2.8% walking and 2.7% by other modes. Also fewer miles by transit and more miles by bike than the 2009 national average, which was 94.9% of miles by SOV/MOV, 4.2% by transit and 0.9% by other modes (NHTS, USDOT 2009).

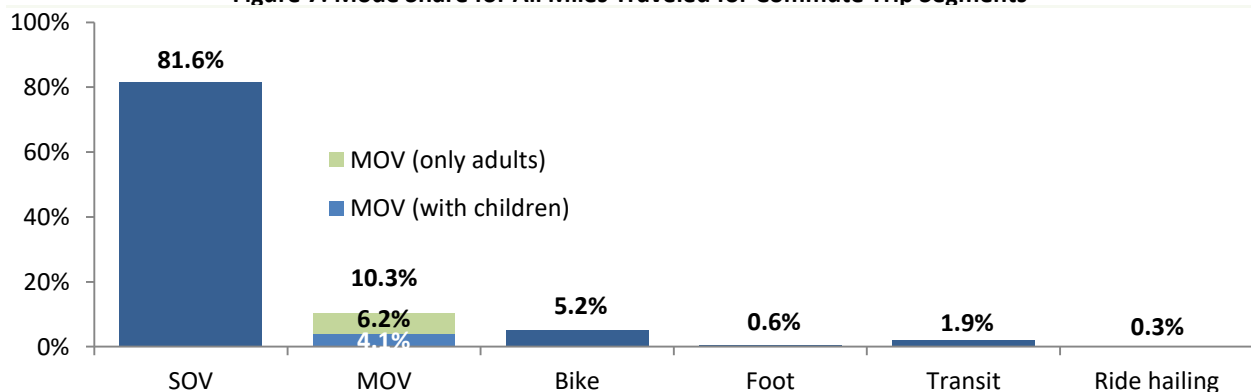
The average number of all trips taken in a day by those who went to work was 5.0, with a mode of 2, a minimum of 0 and a maximum of 14. The average was similar to the general population, but the mode was lower. The average number of commute trips was 1.8.²

Figure 6: Trip Mode Share for All Commute Trip Segments



Source: Trip Diary; Proportion of all trips recorded from all Diary entries. No respondents reported using a commercial truck or a bike from a bike share and the few school bus and motorcycle trips represented 0.1% or less of all trips.

Figure 7: Mode Share for All Miles Traveled for Commute Trip Segments



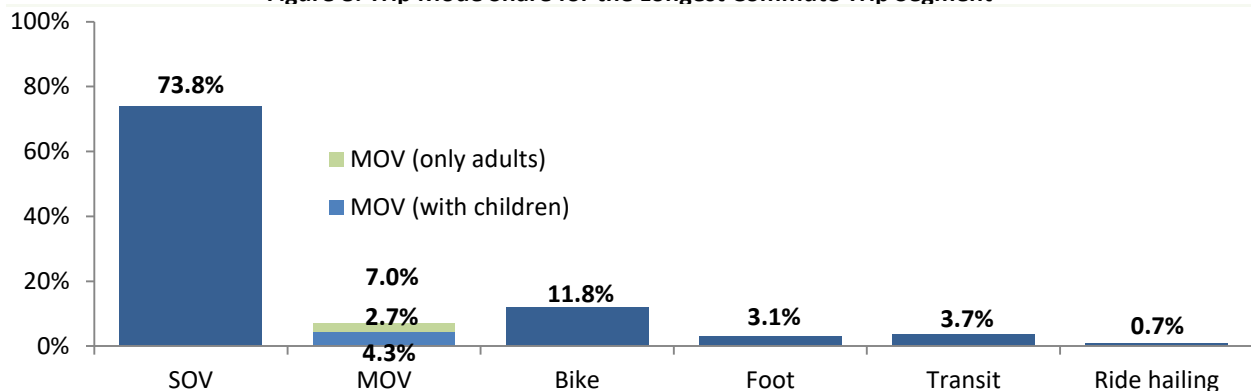
Source: Trip Diary; Proportion of all trips recorded from all Diary entries. No respondents reported using a commercial truck or a bike from a bike share and the few school bus and motorcycle trips represented 0.1% or less of all trips.

² Intuitively we expect people to have at least two commute trips in a day (to work and back home) but in the study typology, trips are not counted as part of a commute if the respondent goes from home to another place and then more than 20 minutes later continues on to work, or goes from work to another place and then more than 20 minutes later continues on to home.

As discussed above, when a person makes short stops on their commute each segment is considered part of their work journey, and in Figure 6 and Figure 7 each segment was counted as a trip. This is because the segments each have a different purpose, and may have different modes. While this should be an accurate account of miles by mode, it may inflate the number of “trips” by mode (if you stopped 3 places on the way to work, it is 4 trips). As such, it is also interesting to consider the mode of the primary (longest) segment of the work commute. The tables below show the mode shares for trips and miles for only the longest segments of the commute. Because many commutes are direct to work, the results are mostly similar to those that include all commute segments of the commute trip.

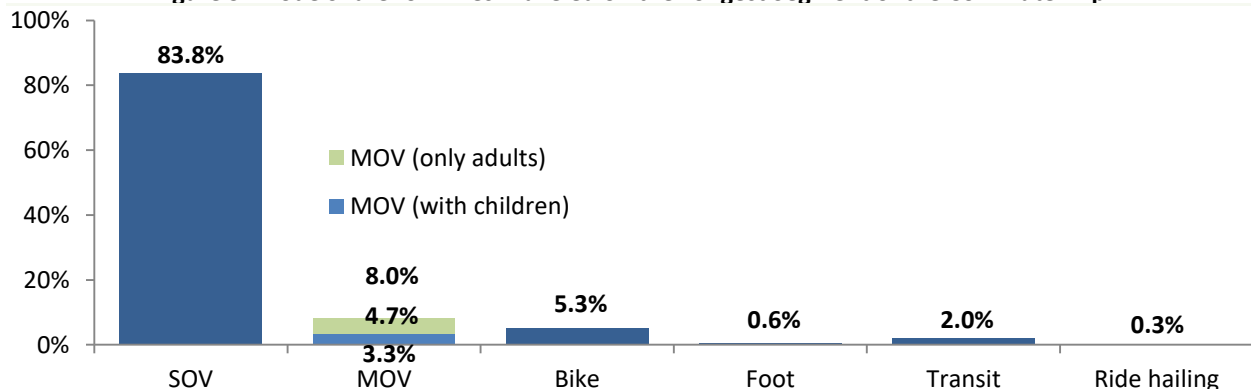
Including only the longest segment reduces the proportion of MOV trips with children, which suggests that the trip to from home to school/daycare (or wherever the children are dropped off) is shorter than the segment from school/daycare to work.

Figure 8: Trip Mode Share for the Longest Commute Trip Segment



Source: Trip Diary; Proportion of all trips recorded from all Diary entries. No respondents reported using a commercial truck or a bike from a bike share and the few school bus and motorcycle trips represented 0.1% or less of all trips.

Figure 9: Mode Share for Miles Traveled on the Longest Segment of the Commute Trip



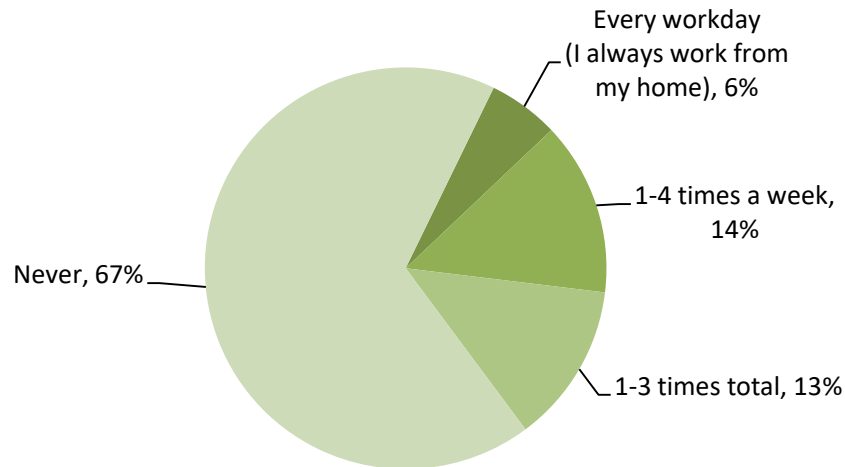
Source: Trip Diary; Proportion of all trips recorded from all Diary entries. No respondents reported using a commercial truck or a bike from a bike share and the few school bus and motorcycle trips represented 0.1% or less of all trips.

Telecommuting

In the Household Survey one-third of the employed respondents indicated that they telecommuted at least once a month and 6% said they telecommuted every workday.

Figure 10: Frequency of Telecommuting, if Work

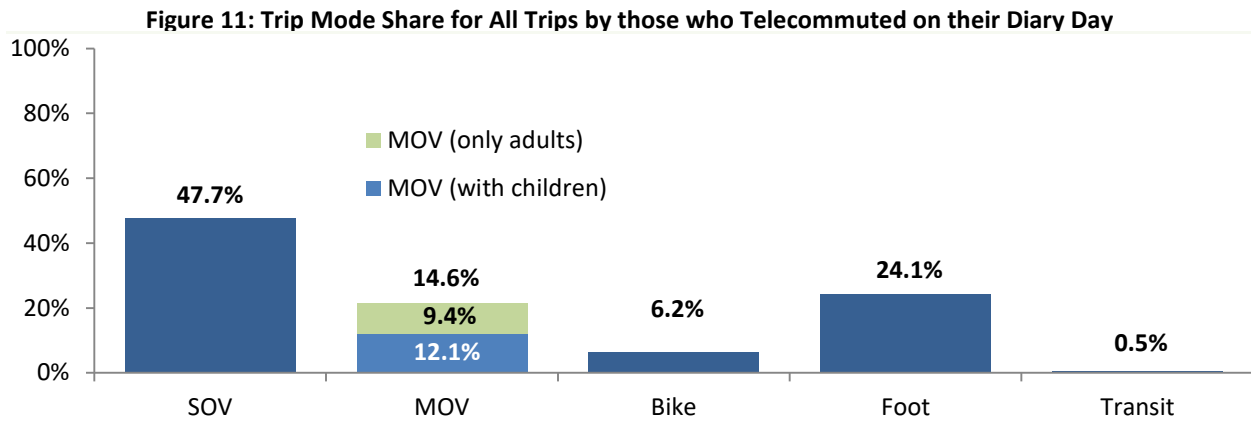
How often, if ever, do you telecommute for work all day instead of traveling into work (i.e., stay at home and use computers, Internet, or phones to complete your work)?



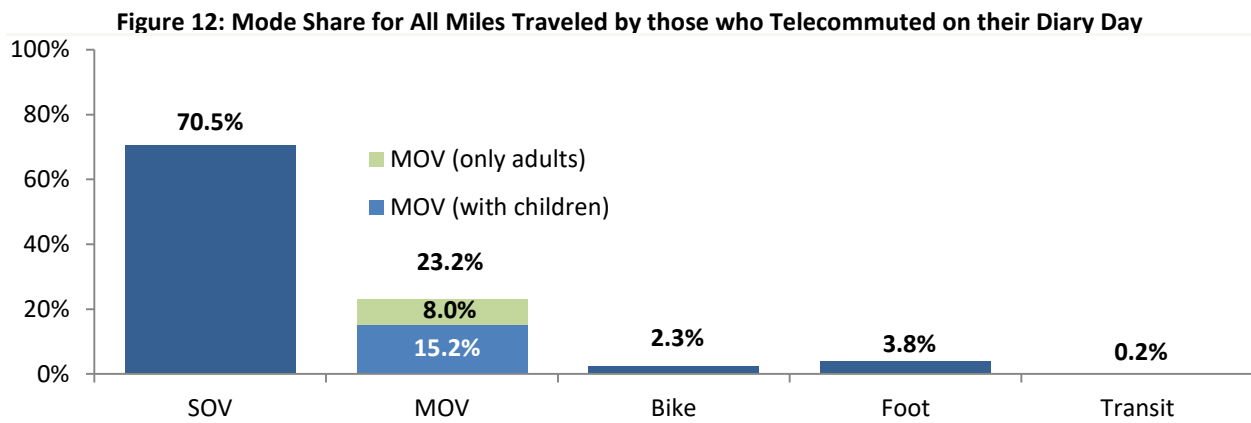
Source: Household Survey

Respondents were also asked if they had telecommuted on the day they completed the Trip Diary. While 59 respondents to the Household Survey said they had telecommuted on their diary day, 18 of these also recorded a trip to work on the diary. It may be that those 18 worked partly from home, but still went into work (even though the description of telecommuting specifically noted that it referred to working from home *instead of* traveling to work). Assuming the other 41 did telecommute from home for the full day (no trips to work), teleworkers accounted for 17% of those who either worked (either at home or at work) on their diary day (N=238).

Of the 41 telecommuters (worked only at home), 8 did not leave the house on their diary day, so had no trips. Of those who did leave, the remaining had more trips and miles driving with children than the general population or commuters.



Source: Trip Diary and Household Survey; Proportion of all trips recorded from all Diary entries. No telecommuters reported using a commercial truck, a bike from a bike share, a school bus, motorcycle, ride-hailing service or other mode.

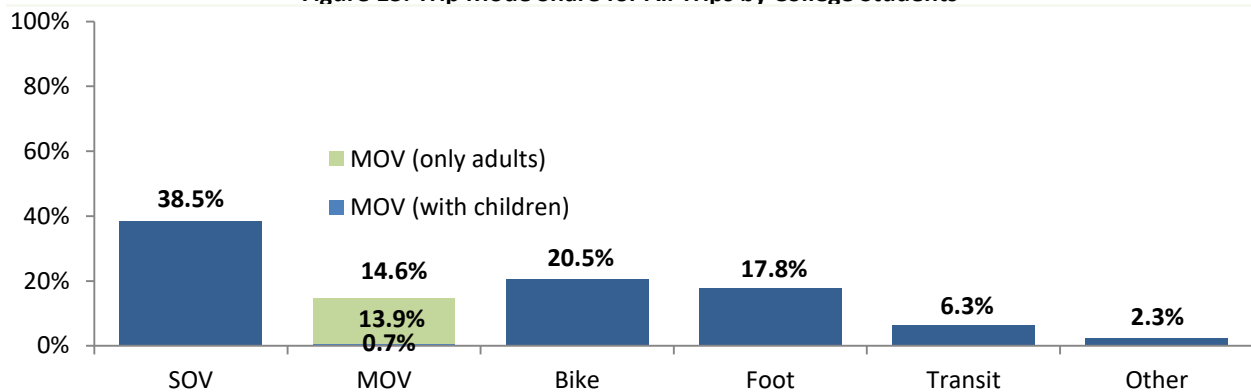


Source: Trip Diary and Household Survey; Proportion of all trips recorded from all Diary entries. No telecommuters reported using a commercial truck, a bike from a bike share, a school bus, motorcycle, ride-hailing service or other mode.

Mode Share for College Students

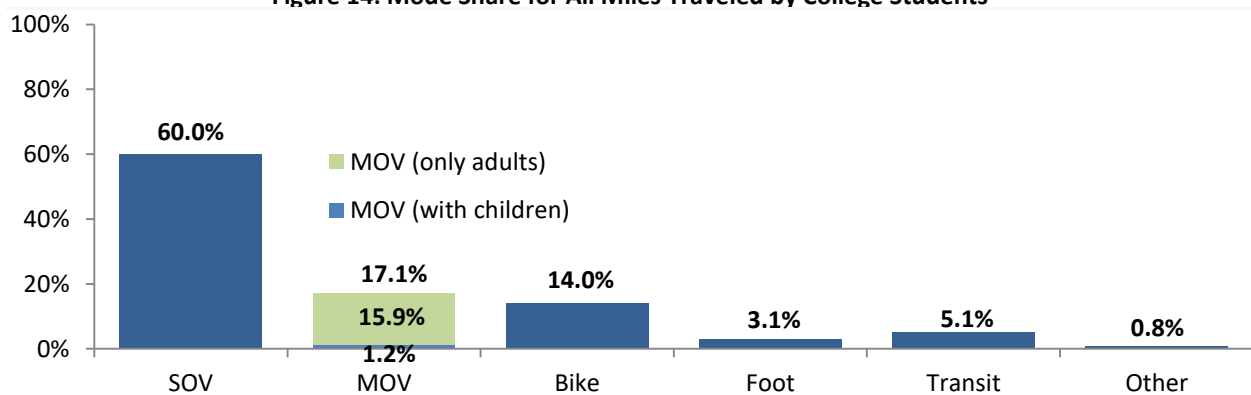
While only 42 of the respondents identified themselves as students at Colorado State University (CSU) or Front Range Community College (only three of these live in a residence hall on the CSU campus), their diary data shows that students were less likely than the general population to travel alone in cars (about 40% of trips and 60% of miles). They recorded more trips by bike and on foot than the general population and covered more miles by these modes as well.

Figure 13: Trip Mode Share for All Trips by College Students



Source: Trip Diary and Household Survey; Proportion of all trips recorded from all Diary entries. No students reported using a commercial truck, a bike from a bike share, a school bus, motorcycle or ride-hailing service.

Figure 14: Mode Share for All Miles Traveled by College Students



Source: Trip Diary and Household Survey; Proportion of all trips recorded from all Diary entries. No students reported using a commercial truck, a bike from a bike share, a school bus, motorcycle or ride-hailing service.

Mode Share by Day Type

Mode share did not vary much by whether travel took place on a weekend or weekday. The only significant difference was in MOVs, there was a greater proportion of MOV trips with adults-only on the weekends but a greater proportion of MOV trips with children on the weekdays.

Table 1: Trip Mode by Weekend or Weekday

	Day Type	
	Weekday	Weekend
SOV	61%	63%
Foot	12%	12%
MOV (only adults)	8%	15%
MOV (with children)	9%	3%
Bike	7%	6%
Transit	2%	0%
Other	1%	1%
Ride hailing	0%	0%
Motorbike, scooter	0%	0%
School bus	0%	0%

Source: Trip Diary

Mode Share by Children in Households

Having children in the household influenced travel choices, with a greater proportion of trips made in a MOV with children by those with children in the household and a smaller proportion of trips made by SOV, MOV with adults only, walking or biking.

Table 2: Trip Mode by Children in Household

	Children (<16) in household	
	None	One or more
SOV	62%	56%
Foot	12%	8%
MOV (only adults)	12%	5%
MOV (with children)	1%	27%
Bike	9%	4%
Transit	2%	1%
Other	1%	0%
Ride hailing	1%	0%
Motorbike, scooter	0%	0%
School bus	0%	0%

Source: Trip Diary.

Mode Share by Region

Within Region 1, the northeast corner of Fort Collins, SOV mode share was the lowest and the walking mode share on the diary day was the highest compared to other regions. The proportion of trips made by “MOV with adults” in region 5 was statistically larger than in other regions and the proportion of trips made by biking was greater in regions 1, 2 and 3 than in regions 4, 5 and 6.

Table 3: Trip Mode by Region

	Fort Collins Region					
	1	2	3	4	5	6
SOV	51%	61%	60%	67%	64%	69%
MOV (only adults)	8%	11%	12%	7%	5%	10%
MOV (with children)	6%	5%	7%	9%	20%	10%
Foot	17%	9%	10%	12%	7%	8%
Bike	13%	11%	7%	2%	3%	1%
Transit	3%	2%	2%	2%	0%	0%
Other	2%	0%	0%	0%	0%	1%
Ride hailing	0%	1%	0%	0%	0%	2%
Motorbike, scooter	0%	0%	0%	0%	1%	0%
School bus	0%	0%	0%	0%	0%	0%

Source: Trip Diary. See Appendix D: Study Methodology for map of regions.

Trip Characteristics

Overall Trip Characteristics

SOV was the most frequently used travel mode (67% of trips) and the mode used for the most miles in a day (24.2 miles per person on average). MOV trips with no children were the longest (8.3 miles per trip on average), but fewer of these trips were made (0.4 trips per person on average, compared to 2.6 trips per person for SOV). MOV trips with children were generally shorter than those with adults (4.0 miles per trip on average compared to 8.3). Overall, the average trip length was 5.4 miles per trip, which was similar to results of the 2015 Boulder study and lower than the 2009 national average of 9.8 miles per trip (NHTS, USDOT 2009).

Going home was the most common trip purpose as people leave home for a variety of purposes, but almost all return home by the end of the diary day. The other common trip purposes were going to work, personal business, shopping and social recreation. Lengths of trip varied by purpose; with the longest trips for personal business and the shortest for getting to school.

Table 4: Trip Characteristics by Mode

Trip Characteristic	All modes	SOV	MOV with children	MOV adult only	Transit	Bike	Foot
Proportion of those who traveled on diary day who used mode	-	67%	12%	16%	4%	11%	20%
Average number of trips per person	4.7	2.6	0.3	0.4	0.1	0.3	0.5
Average number of trips per person, if used mode	5.2	3.9	2.9	2.4	1.9	2.8	2.6
Average miles per person	24.2	16.5	1.4	3.3	0.3	1.0	0.4
Average miles per person, if used mode	28.3	24.6	11.7	19.8	7.7	8.5	1.9
Average miles per trip	5.4	6.3	4.0	8.3	4.1	3.0	0.7
Average trip duration (minutes)	16.4	16.8	13.3	18.8	16.5	17.9	13.8
Average speed (mph)	16.9	19.8	18.5	21.7	14.7	9.0	3.2

Source: Trip Diary. No respondents reported using a commercial truck or a bike from a bike share and the few school bus, ride-hailing and motorcycle trips represented 0.3% or less than of all trips and 0.2% or less of all miles.

Table 5: Trip Characteristics by Purpose

Trip purpose	Proportion of trips	Average miles per trip	Average trip duration (minutes)	Average speed (mph)
All purposes	100%	5.4	16.5	16.9
go home	32%	5.2	17.3	16.3
go to work	12%	5.8	17.0	18.0
go to school	2%	1.9	11.2	11.8
drive passenger	4%	5.1	14.9	19.4
change travel mode	2%	2.0	11.6	8.8
other work/business	7%	7.6	18.4	20.8
personal business	12%	8.6	19.4	20.6
social/recreation	10%	3.9	16.6	13.2
eat a meal	6%	3.4	13.6	15.9
shopping	11%	3.6	12.1	16.4
other	2%	6.3	22.4	13.2

Source: Trip Diary.

In the Household Survey, respondents were asked how all of their household members typically travel to school or work, if they go to school or work. For children, 45% were driven alone or with other children while 22% took a school bus and 23% walked or biked. Eight percent were old enough to drive themselves, alone or with others.

For adults, 62% most commonly drove alone and another 8% drove with others. Biking was next in popularity, with 17% of adult household members using a bike most frequently to get to work or school (in late April/early May). Only 3% took the bus and 4% typically walked.

Table 6: Most Frequently Used Travel Mode to get to School

For all children in your household who go to a K-12 school, please check their most frequently used travel mode to get to school. (If no children live in your household, or none attend K-12 school, please skip this question)	All Children	Child 1	Child 2	Child 3	Child 4
Walk	13%	14%	15%	3%	0%
Bicycle	10%	12%	10%	0%	0%
School bus	22%	25%	22%	11%	0%
Public bus	3%	1%	1%	21%	0%
Driven alone (passenger)	21%	23%	23%	9%	0%
Driven with other children	24%	17%	24%	42%	100%
Drive themselves	7%	8%	5%	14%	0%
Drive themselves + others	1%	1%	0%	0%	0%
Total	100%	100%	100%	100%	100%

Source: Household Survey

Table 7: Most Frequently Used Travel Mode to get to School

For household members who are 18 or older (and those 16-17 who are not in a K-12 school), please check their most frequently used travel mode to work or school.	All adults	You (1)	Adult 2	Adult 3	Adult 4
Telecommute/work from home	4%	4%	5%	0%	0%
Walk	4%	3%	4%	7%	2%
Bicycle	17%	18%	16%	21%	11%
Take bus	3%	3%	4%	4%	8%
Drive alone	62%	66%	60%	53%	37%
Drive with adult from household	6%	3%	7%	14%	41%
Drive with adult NOT from household	1%	1%	1%	0%	0%
Drive with children from household	2%	3%	2%	1%	0%
Total	100%	100%	100%	100%	100%

Source: Household Survey

Commute Trip Characteristics

Most commuters had one trip to work and one back home from work, with a daily average of two commute trips. Those who commuted with other adults had more than two trips on average, consistent with commuters traveling by MOV picking up other adults (as the segments would be counted as two trips in the trip typology).

Overall, the average commute trip distance was 6.3 miles per trip, which was a little longer than in the 2015 Boulder study (5.1 miles) and lower than the 2009 national average of 11.8 miles per commute trip (NHTS, USDOT 2009).

The average distance per commute trip was 6.3 miles and the average commuter traveled 12.2 miles for their commute trips on their diary day. The most common purposes were to go to work (50%) and to go home (35%). Stops along the way were most commonly to drive a passenger (pick up or drop off), change travel mode, or for personal errands.

Table 8: Commute Trip Characteristics by Mode (All Segments of Commute)

Trip Characteristic	All modes	SOV	MOV with children	MOV adults only	Transit	Bike	Foot
Proportion of those who commuted on diary day who used mode	-	77%	8%	3%	5%	15%	5%
Average number of trips per commuter	2.0	1.4	0.1	0.1	0.1	0.2	0.1
Average number of trips per commuter, if used mode	2.0	1.8	1.6	2.7	1.2	1.5	1.7
Average miles per commuter	12.2	9.9	0.5	0.8	0.2	0.6	0.1
Average miles per commuter, if used mode	12.2	12.9	6.5	24.1	4.6	4.2	1.7
Average miles per commute trip	6.3	7.3	4.2	8.9	3.7	2.7	1.0
Average commute trip duration (minutes)	17.7	18.6	13.6	19.4	12.9	15.1	17.3
Average commute speed (mph)	18.3	20.2	18.5	22.9	22.8	9.5	3.6

Source: Trip Diary

Table 9: Commute Trip Characteristics by Purpose (All Segments of Commute)

Trip Purpose	Proportion of trips	Average miles per trip	Average trip duration (minutes)	Average speed (mph)
All	100%	6.3	17.7	18.3
go home	35%	6.6	19.5	17.2
go to work	50%	6.8	18.0	19.2
go to school	1%	5.5	10.0	33.0
drive passenger	6%	6.2	14.4	21.9
change travel mode	3%	1.5	11.2	7.3
other work/business	0.2%	3.3	15.2	12.8
personal business	3%	1.9	8.9	11.9
social/recreation	0.2%	8.4	13.0	39.0
eat a meal	0.2%	1.3	5.2	10.7
shopping	2%	2.0	11.4	18.9
other	0.2%	3.1	12.0	15.0

Source: Trip Diary

Most of the respondents who were employed lived and worked in Fort Collins (78% worked outside the home and 6% at worked at home). Loveland and Greeley were the most common work locations outside of Fort Collins.

Table 10: Work Location

Which location is your primary workplace closest to?	All Employed	Commuted on diary day	Did not commute on diary day
Fort Collins	78%	81%	75%
Loveland	6%	10%	2%
I work from my home	6%	0%	11%
Greeley	3%	3%	4%
Other city	2%	2%	3%
Denver metro area	2%	2%	3%
Windsor	1%	1%	1%
Longmont	1%	1%	1%
Boulder	1%	1%	1%

Source: Household Survey

Automobile Trip Characteristics

Going home was the most common trip purpose reported as almost everyone returned home at least once during their diary day. Driving to take care of personal business (14%), shop (13%) or to go to work were next most common (12%) trip purposes. Lengths of trip varied by purpose; with the longest trips for personal business and the shortest for getting to school. This was similar for SOV trips (Table 12), but MOV trips had more segments with that were to drive a passenger or to eat a meal (Table 13).

Table 11: All Vehicle Trip Characteristics by Purpose

	Proportion of vehicle trips	Average miles per trip	Average trip duration (minutes)	Average speed (mph)	Average number of people	Average number of adults	Average number of children
All	100%	6.3	16.7	19.9	1.5	1.3	1.5
go home	31%	6.3	17.0	19.5	1.4	1.2	1.5
go to work	12%	6.8	17.8	20.9	1.1	1.1	1.2
go to school*	1%	2.5	10.3	16.6	1.6	1.4	1.0
drive passenger	6%	5.1	14.9	19.4	2.0	1.3	1.5
change travel mode*	0%	7.0	16.5	19.6	1.5	1.5	
other work/business	7%	9.2	20.7	24.8	1.2	1.1	1.0
personal business	14%	9.4	20.2	22.4	1.5	1.3	1.4
social/recreation	8%	4.8	13.9	18.6	1.5	1.4	1.4
eat a meal	6%	4.0	14.4	18.6	2.4	1.9	1.9
shopping	13%	3.7	12.1	17.2	1.4	1.3	1.3

Source: Trip Diary; *These purposes had 10 or fewer trips, use caution in interpreting this data.

Table 12: SOV Trip Characteristics by Purpose

	Proportion of SOV trips	Average miles per trip	Average trip duration (minutes)	Average speed (mph)	Average number of people	Average number of adults	Average number of children
All	100%	6.3	16.9	19.8	1.2	1.2	2.1
go home	31%	6.4	17.5	19.0	1.1	1.1	2.3
go to work	14%	6.8	17.7	21.0	1.0	1.0	1.0
go to school*	0.3%	2.8	9.6	20.2	1.2	1.2	
drive passenger	3%	4.3	13.0	18.7	1.3	1.2	2.0
change travel mode*	0.3%	7.9	18.8	20.9	1.4	1.4	
other work/business	8.2%	9.6	21.0	25.6	1.1	1.1	
personal business	14%	8.3	19.4	21.2	1.2	1.2	1.4
social/recreation	7.8%	4.4	13.5	18.4	1.3	1.2	1.6
eat a meal	5.1%	4.4	14.2	21.4	2.4	1.8	2.1
shopping	14%	3.6	11.7	16.6	1.2	1.2	2.7

Source: Trip Diary; *These purposes had 10 or fewer trips, use caution in interpreting this data.

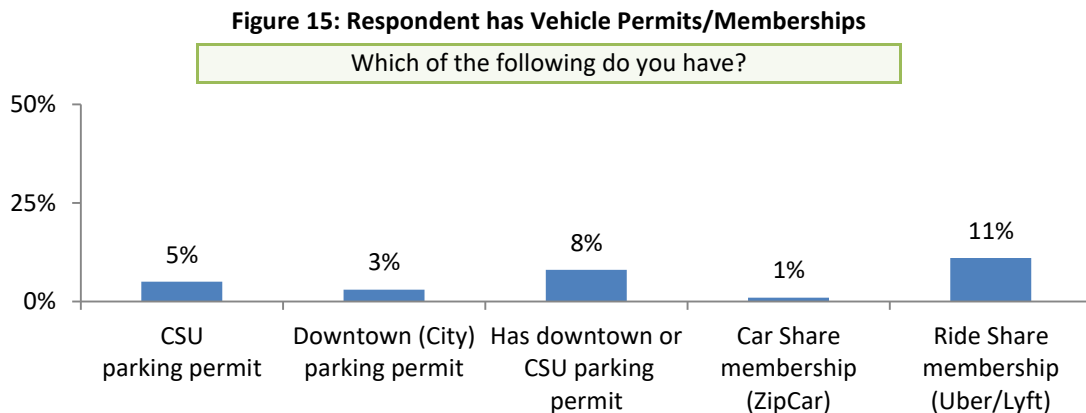
Table 13: MOV Trip Characteristics by Purpose

Trip Purpose	Proportion of MOV trips	Average miles per trip	Average trip duration (minutes)	Average speed (mph)	Average number of people	Average number of adults	Average number of children
All	100%	6.3	16.2	20.2	2.3	1.7	1.4
go home	34%	6.0	15.4	21.3	2.3	1.6	1.5
go to work	3%	6.3	20.4	18.7	2.4	1.9	1.2
go to school*	1%	2.1	11.2	12.3	2.0	1.5	1.0
drive passenger	16%	5.6	16.1	19.8	2.4	1.4	1.4
change travel mode*	0.2%	2.6	10.0	16.0	2.0	2.0	
other work/business*	2.1%	3.9	16.9	16.0	2.0	1.9	1.0
personal business	12%	13.8	23.7	27.6	2.5	1.8	1.4
social/recreation	9.2%	6.0	15.0	19.3	2.3	1.9	1.4
eat a meal	10.4%	3.2	14.8	13.6	2.5	2.0	1.6
shopping	11%	4.4	13.9	19.6	2.2	1.6	1.2

Source: Trip Diary; *These purposes had 10 or fewer trips, use caution in interpreting this data.

Vehicle Availability and Parking Passes

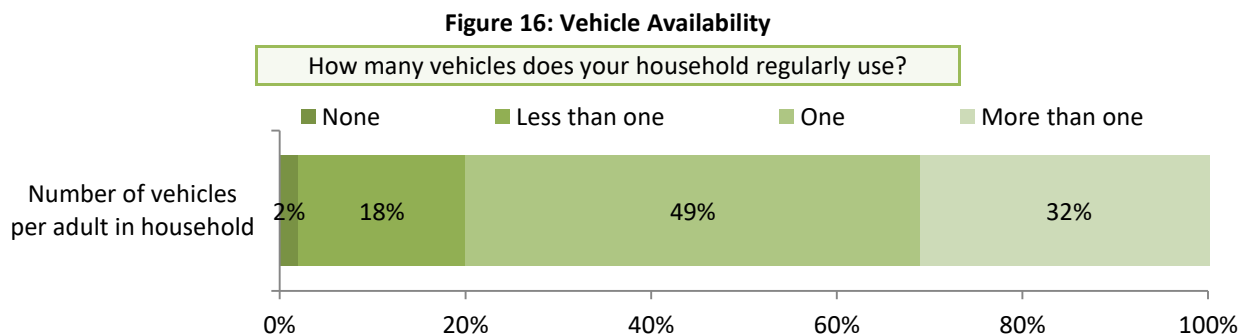
Eight percent of respondents indicated that they had a parking permit at CSU or downtown. Those with a parking pass who commuted to work on their diary day were most likely to drive alone (77% SOV). They commuted an average of 6.3 miles per trip and 12.2 miles for the day, which was similar to SOV commuters overall.



Source: Household Survey

The average number of vehicles per adult in household was 1.2, with about half of households having one vehicle per adult and 32% having more. Only 2% of households had no vehicles. Cars were the most common vehicle type (53%) and vehicles generally used gas (94%) and most were 2009 models or older (60%).

The average number of vehicles per household was 1.9 which was similar to the national average of 1.9 ((NHTS, USDOT 2009) and a little higher than the Boulder average of 1.7.



Source: Household Survey

About 53% of the vehicles owned by surveyed households were a regular car, with an additional 32% being a larger vehicle like an SUV, van or minivan. Thirteen percent of the vehicles were pickup truck, and about 2% were a motorcycle or scooter (Table 14). While the vast majority of these vehicles used regular gas to operate, 2% used diesel gasoline, 4% were hybrids and 1% were electric vehicles (Table 15). Four in 10 vehicles were manufactured in 2010 or later, while 2 in 10 were made between 2005 and 2009, and another 4 in 10 were older than 12 years.

Table 14: Household Vehicle Types

Please provide details for these vehicles: Vehicle Type	All vehicles	Vehicle 1 (your vehicle)	Vehicle 2	Vehicle 3	Vehicle 4
Car	53%	57%	51%	43%	59%
SUV/van/minivan	32%	36%	29%	30%	10%
Pickup truck	13%	8%	18%	20%	16%
Motorcycle/scooter	2%	0%	2%	8%	15%

Source: Household Survey; If you have fewer than 4, only fill out those you have. If you have more than 4, choose the 4 you use most often.

Table 15: Household Vehicle Fuel Sources

Please provide details for these vehicles: Fuel Type	All vehicles	Vehicle 1 (your vehicle)	Vehicle 2	Vehicle 3	Vehicle 4
Gas	94%	94%	93%	96%	95%
Hybrid	4%	5%	3%	3%	0%
Diesel	2%	1%	3%	1%	5%
Electric	1%	1%	1%	0%	0%

Source: Household Survey; If you have fewer than 4, only fill out those you have. If you have more than 4, choose the 4 you use most often.

Table 16: Household Vehicle Year

Please provide details for these vehicles: Year	All vehicles	Vehicle 1 (your vehicle)	Vehicle 2	Vehicle 3	Vehicle 4
2016-2017	9%	11%	8%	9%	0%
2013-2015	19%	20%	22%	11%	8%
2010-2014	12%	13%	11%	12%	0%
2005-2009	21%	22%	19%	16%	25%
2004 or older	39%	34%	41%	52%	67%

Source: Household Survey; If you have fewer than 4, only fill out those you have. If you have more than 4, choose the 4 you use most often.

Transit Use

Overall, 4.2% of respondents used transit on their diary day. Approximately 2% of trips were made by transit and transit trips accounted for 1.4% of miles traveled.

As might be expected, the most common trip purpose of a transit trip (besides “going home” was to “change travel mode” (indicating that a respondent would be walking, biking or driving once they got off the bus). Going to work or to school were the other most common non-home purposes.

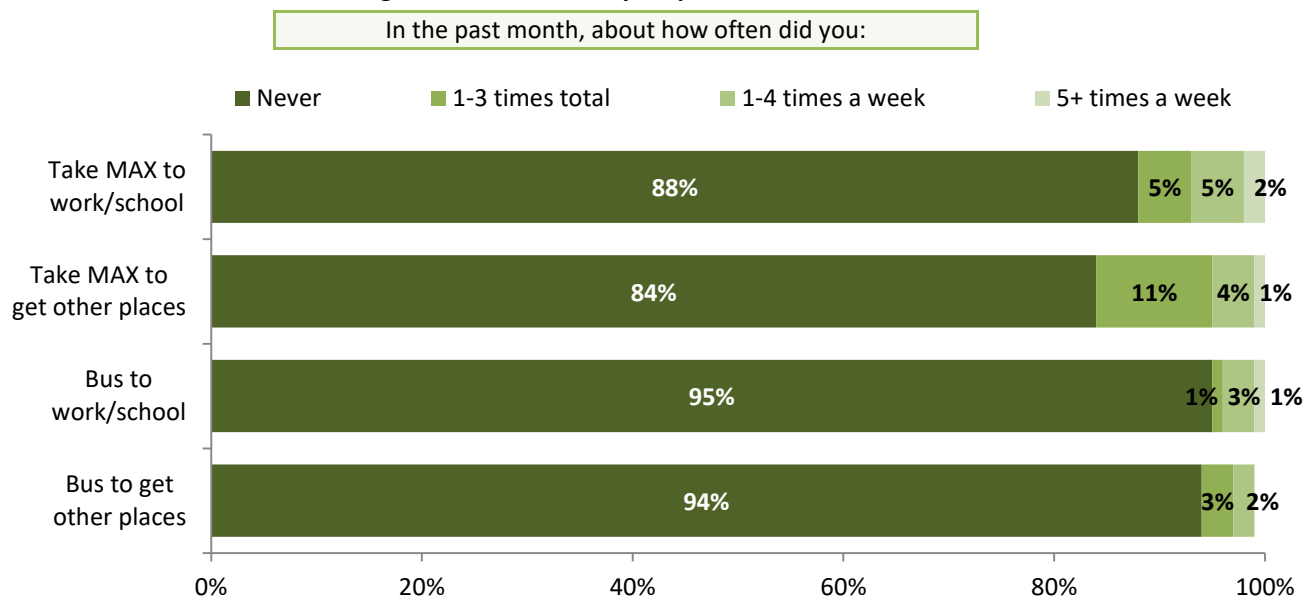
Table 17: Transit Trip Characteristics by Purpose

	Proportion of bus trips	Average miles per trip	Average trip duration (minutes)	Average speed (mph)
All	100%	4.1	16.5	14.7
go home*	20%	2.3	30.7	7.3
go to work*	16%	5.7	21.5	17.7
go to school*	18%	4.0	11.7	22.8
drive passenger*	0%			
change travel mode	24%	2.2	11.1	13.9
other work/business*	0%	62.6	75.0	50.0
personal business*	9%	10.4	20.0	6.0
social/recreation*	7%	1.7	11.1	10.1
eat a meal*	2%	1.1	35.0	6.0
Shopping*	7%	2.0	15.0	8.0

Source: Trip Diary; *These purposes had 10 or fewer trips, use caution in interpreting this data.

Nearly 2 in 10 respondents said they had taken MAX at least once in the past month either to get to work/school or to get other places and 9% had taken a bus Figure 17).

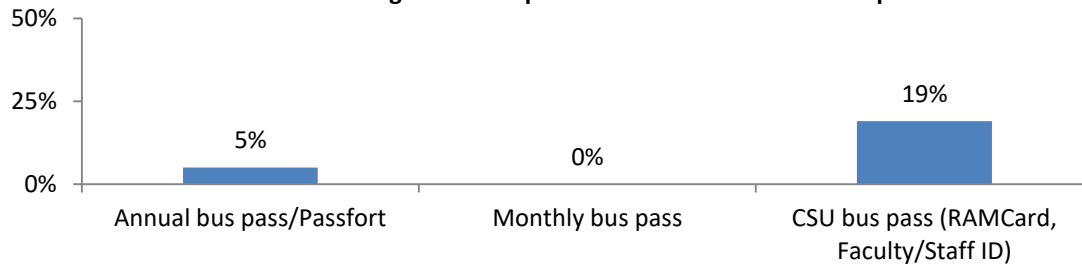
Figure 17: Transit Use by Purpose in Past month



Source: Household Survey

More people had bus passes than had used them on their diary day; 19% reported having a CSU pass and 5% had an annual pass (Figure 18). Transit use was much more common among pass holders than among those without a pass, with 54% of pass holders reporting ever taking the MAX and 27% ever taking a bus, compared to only 8% among non-pass holders who reported taking MAX and 3% taking a bus (Table 18).

Figure 18: Respondent has Bus Pass Ownership



Source: Household Survey

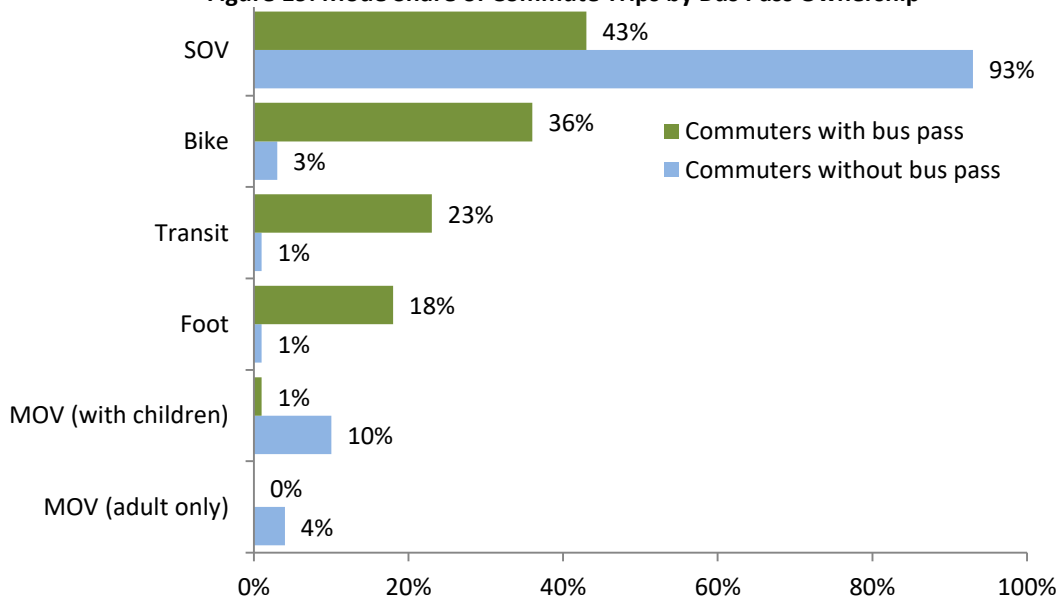
Table 18: General Transit Use by Pass Ownership

In the past month, about how often did you:	Has annual or monthly pass	
	No	Yes
Ever take MAX for any reason	8%	54%
Ever bus for any reason	3%	27%

Source: Household Survey

A much greater proportion of work commute trips made on the diary day were made by transit among those who had a bus pass, 23%, than among those with without passes, passes are using transit more often than those without passes, 1% (Figure 19).

Figure 19: Mode Share of Commute Trips by Bus Pass Ownership

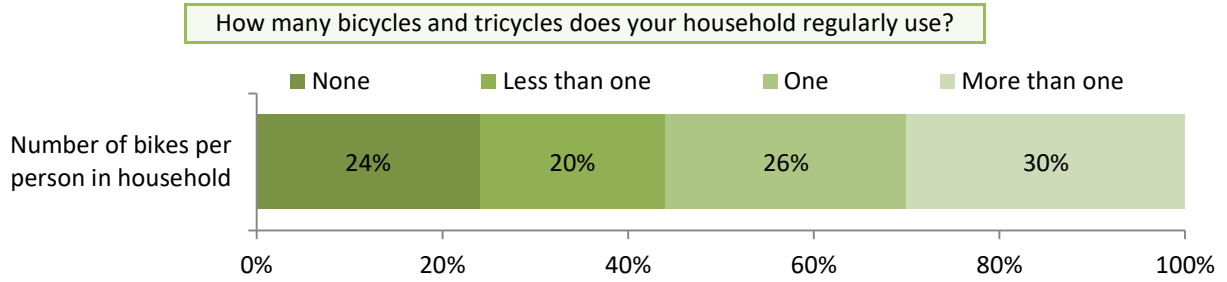


Source: Trip Diary

Biking Characteristics

On average households had one bike per person but this varied widely, 24% of households had no bikes and 30% had more than one bike per person. Those who used a bike on their diary day (11.4% of respondents who traveled), most commonly used their bikes to go to work or for social/recreation reasons.

Figure 20: Bike Availability



Source: Household Survey

Table 19: Bike Trip Characteristics by Purpose

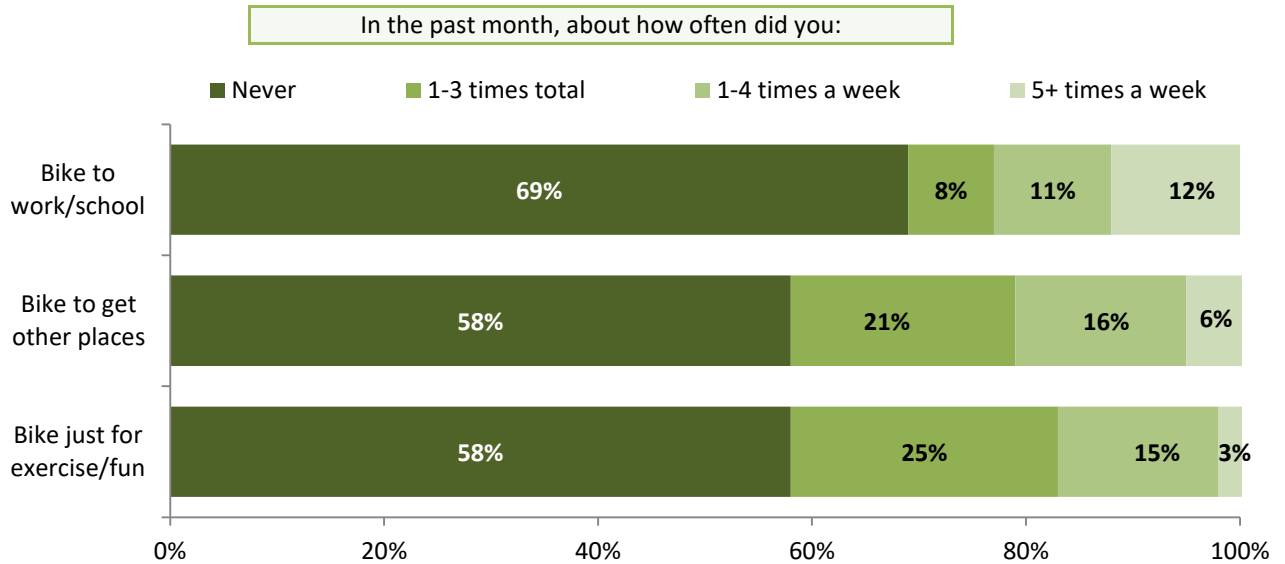
	Proportion of bike trips	Average miles per trip	Average trip duration (minutes)	Average speed (mph)
All	100%	3.0	18.2	9.0
go home	39%	2.6	18.0	8.4
go to work	20%	2.8	14.3	10.4
go to school	5%	1.7	13.0	7.8
drive passenger	0%			
change travel mode*	3%	0.6	10.5	4.1
other work/business	7%	2.0	13.9	10.7
personal business*	5%	1.5	13.9	7.4
social/recreation	13%	7.6	35.0	10.4
eat a meal*	4%	1.6	11.2	9.9
Shopping*	4%	2.3	12.3	7.2

Source: Trip Diary; *These purposes had 10 or fewer trips, use caution in interpreting this data.

Overall, 52% of respondents said they had biked for some reason at least once in the past 30 days. Most commonly they biked for exercise or fun or to go to places other than work. Thirty-one percent of respondents said they had biked to work or school at least once in the past 30 days, but only 4.2% did so on their diary day.

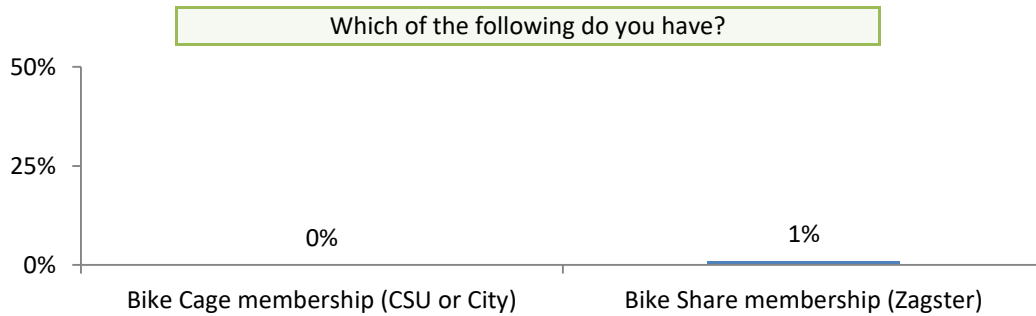
Only one percent of respondents had a Bike Share membership and no one had a Bike Cage membership.

Figure 21: Biking by Purpose in Past month



Source: Household Survey

Figure 22: Respondent has Bike Membership



Source: Household Survey

Pedestrian Characteristics

Social/recreation was the most common purpose for walking (26% of walking trips), but 7% of walking trips were to go to work and 8% were for other work/business purposes.

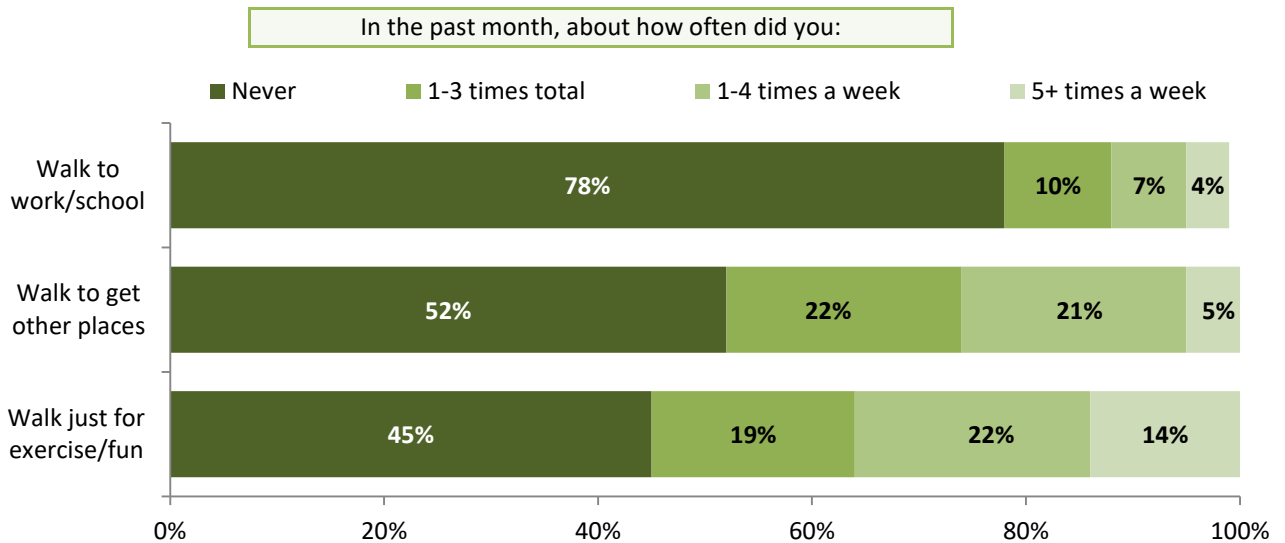
Table 20: Pedestrian Trip Characteristics by Purpose

	Proportion of pedestrian trips	Average miles per trip	Average trip duration (minutes)	Average speed (mph)
All	100%	0.7	13.4	3.3
go home	30%	0.9	15.9	3.2
go to work	7%	0.6	12.4	3.0
go to school	5%	0.7	10.4	5.3
drive passenger	0%			
change travel mode	7%	0.7	11.1	5.1
other work/business	8%	0.3	7.6	2.2
personal business	5%	0.4	10.1	2.9
social/recreation	26%	0.9	16.0	3.1
eat a meal	5%	0.3	9.6	2.6
Shopping*	3%	0.4	10.8	2.5

Source: Trip Diary; *These purposes had 10 or fewer trips, use caution in interpreting this data.

Overall, 68% of respondents said they had walked somewhere at least once in the past 30 days, most commonly for exercise fun.

Figure 23: Walking by Purpose in Past month

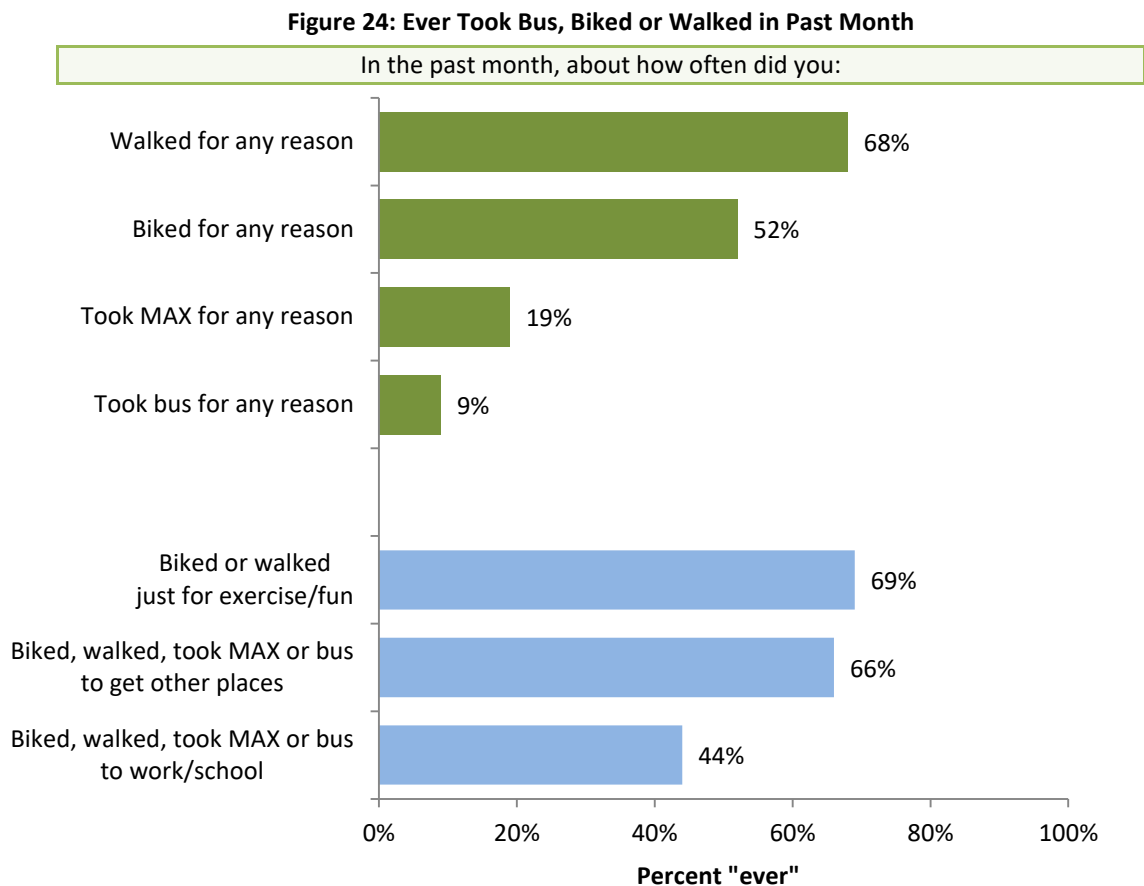


Source: Household Survey

Motivation to Use Alternative Modes

Those completing the household survey were asked if they had walked, biked or used transit in the last 30 days. These results were reported in earlier sections of the report, but are shown all together in Figure 24 below. About two-thirds of respondents reported having walked in the last 30 days, while about half had biked. About 2 in 10 had taken the MAX and about 1 in 10 had taken a bus.

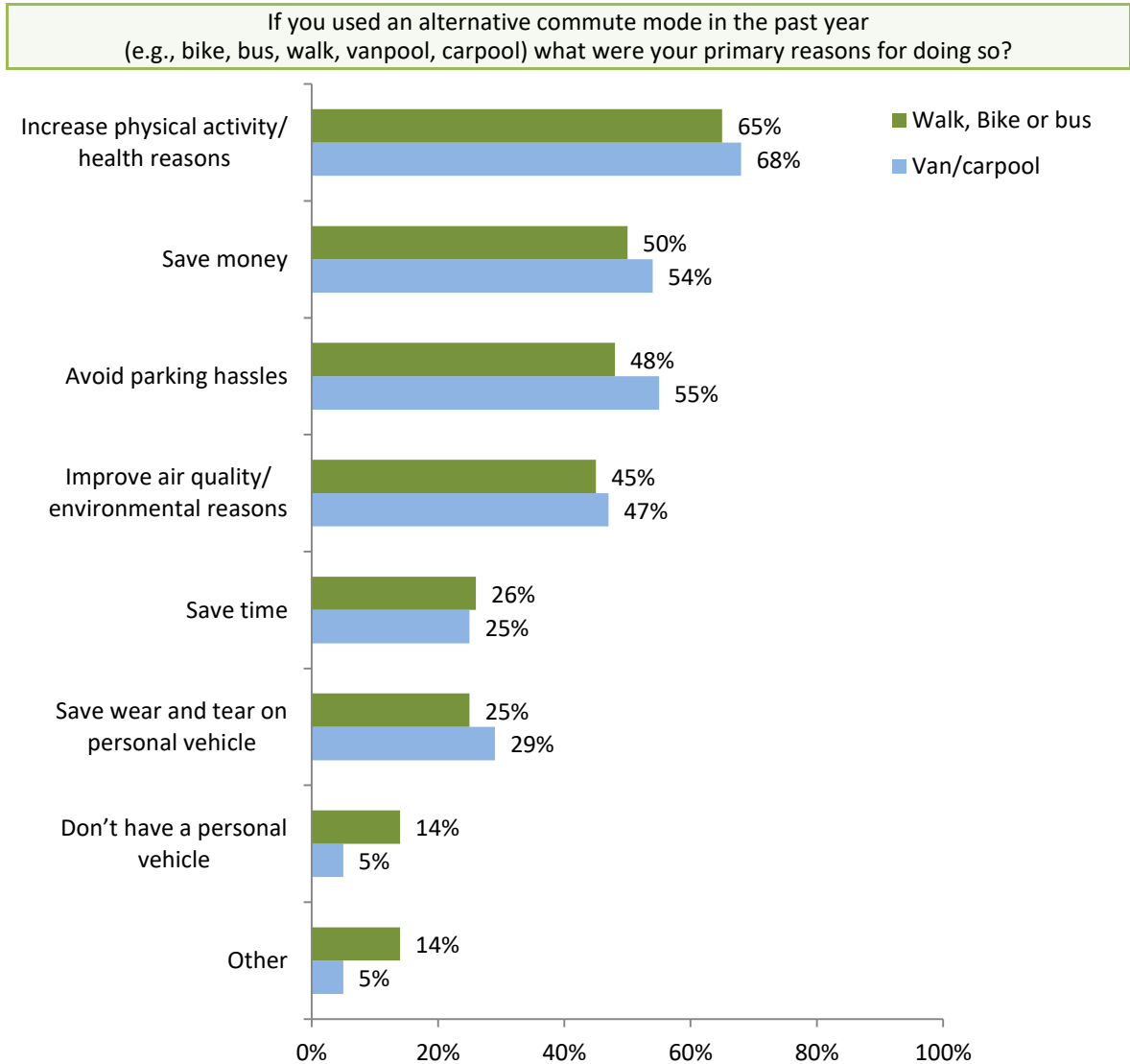
About two-thirds of respondents had biked or walked for fun or exercise in the previous 30 days, but two-thirds also reported having biked, walked or used transit as a mode of transportation to get to a destination in the last 30 days. About 4 in 10 had biked, walked or used transit to get to or from work or school.



Source: Household Survey

Respondents were asked what motivates them to make trips by modes other than driving alone; the top reason was to increase physical activity or for health reasons. About half were interested in saving money or avoiding parking hassles and just under half were thinking of air quality or the environment.

Figure 25: Primary Reason for Use of Alternative Modes



Source: Household Survey

Modal Groups

Appendices B and C provide detailed breakdowns of mode share (both of trips and of miles) by demographic and household characteristics. This section provides a summary of those results through a cluster analysis. This analysis compares respondents by their modal use and groups respondents with similar mode shares for trips. The largest group was those who mostly traveled by SOV and the smallest group was those who were mostly used transit.

Table 21: Modal Use by Modal Groups

Modal Groups	Mostly SOV	Mostly MOV	Mostly transit	Mostly bike	Mostly walk	Did not leave house
Number of respondents	273	99	10	41	54	59
Proportion of respondents	51%	18%	2%	8%	10%	11%
SOV as percent of trips	92%	31%	11%	5%	25%	No trips.
MOV as percent of trips	4%	61%	0%	1%	2%	
Transit as percent of trips	0%	0%	53%	4%	2%	
Biking as percent of trips	0%	4%	0%	89%	4%	
Walking as percent of trips	3%	4%	36%	1%	67%	

Source: Trip Diary

Each group's defining demographic and household characteristics are highlighted on the following page. Statistically significant differences by characteristics are noted in the table with the capital letters. Shading highlights the modal groups with the highest or lowest proportions or respondents with the characteristic. Some items shaded are not statistically significant, but may be indicative of a difference (it is likely that there is a difference but the numbers of respondents in each modal group are too small to provide the statistical power to show significance).

Those who traveled *mostly by SOV* were more likely than others to live in a detached (single-family) home, have older adults in the household and have lived in Fort Collins for 20 years or more.

Those using *mostly MOV* were more likely to have children, live in a detached (single-family) home and have a parking permit.

People in the *mostly transit* group were much more likely to have a bus pass and more likely to be college students, renters, and in the lower income bracket.

People who *mostly biked* were more likely to work in Fort Collins, have less than one car per adult and more than one bike per person in the household, be a college student, renter, have lived in Fort Collins for a shorter time and be in the 18-34 year age bracket.

People who *mostly walked* were more likely to work in Fort Collins but were average in most other characteristics.

Those who *did not leave the house* were more likely to have children at home or older adults in the household and less likely to have a college degree or to be employed.

Table 22 Modal Group Demographic and Household Characteristics

Percent of Group	Mostly SOV	Mostly MOV	Mostly transit	Mostly bike	Mostly walk	Did not leave house
	(A)	(B)	(C)	(D)	(E)	(F)
Has bus pass	11%	30% A	83% A B E F	45% A	35% A	27%
Has parking permit	6%	15% A	0%	5%	7%	6%
Employed	78%	79%	85%	86%	85%	67%
Has hybrid or electric car	7%	11%	0%	5%	6%	2%
Works in Fort Collins	50%	49%	64%	70%	68%	47%
Lives in a detached home	69% C	61% C	8%	50%	54%	56%
Has less than one car per adult (16+)	15%	22%	43%	43% A E F	17%	15%
Has less than bike one per person in household	40% D	51% D	34%	12%	45% D	67% A D
Children (<16) in household	18%	47% A D E	13%	11%	11%	42% A D E
Older Adults (65+) in household	27% D	17%	12%	3%	16%	27%
Has a college student in household	15%	27%	47%	50% A	35% A	34% A
Is a college student	5%	18% A	47% A	39% A B	28% A	26% A
Is male	53%	54%	38%	66%	33%	38%
Rents their home	40%	40%	66%	58%	51%	44%
Race is white only	95% B D	85%	79%	80%	90%	92%
Aged 18 to 34	40%	36%	47%	65% B	51%	44%
35 to 54	28%	43%	40%	22%	25%	35%
55+	32%	21%	12%	13%	25%	22%
Lived in Fort Collins 5 years or less	29%	41%	68%	71% A B E	34%	48%
6-19 years	33%	33%	2%	23%	40%	23%
20 years or more	38% D	25%	30%	6%	26%	29%
Some college or less	21%	23%	0%	13%	20%	43% A D
Bachelor's degree	49%	38%	62%	51%	37%	33%
Grad/Professional degree	30%	40%	38%	36%	43%	24%
Less than \$50,000	30%	41%	55%	40%	43%	31%
\$50,000 to \$99,999	38%	27%	45%	40%	38%	40%
\$100,000 or more	33%	32%	0%	20%	19%	29%

Source: Trip Diary and Household Survey. For each significant pair, an upper case letters denoting significance is shown in the category with the larger column proportion. The letters denotes the column from which the category with the larger column proportion is significantly different. Significance Tests are based on two-sided tests and the significance level is 0.05.

Appendix A: Responses to the Household Survey

The following tables show the complete set of responses for each question on the Household Survey.

Table 23: Question 1. In the past month, about how often did you:

		Never	1-3 times total	1-4 times a week	5+ times a week	
Bike to work/school	Number	350	40	56	61	507
	Percent	69%	8%	11%	12%	100%
Bike to get other places	Number	293	104	81	28	507
	Percent	58%	21%	16%	6%	100%
Bike just for exercise/fun	Number	292	124	77	13	507
	Percent	58%	25%	15%	3%	100%
Walk to work/school	Number	395	52	37	22	507
	Percent	78%	10%	7%	4%	100%
Walk to get other places	Number	264	112	105	26	507
	Percent	52%	22%	21%	5%	100%
Walk just for exercise/fun	Number	229	96	111	71	507
	Percent	45%	19%	22%	14%	100%
Take MAX to work/school	Number	444	27	25	10	507
	Percent	88%	5%	5%	2%	100%
Take MAX to get other places	Number	427	56	18	6	507
	Percent	84%	11%	4%	1%	100%
Bus to work/school	Number	479	6	17	4	507
	Percent	95%	1%	3%	1%	100%
Bus to get other places	Number	477	18	11	1	507
	Percent	94%	3%	2%	0%	100%

Table 24: Question 2. If you used an alternative commute mode in the past year (e.g., bike, bus, walk, vanpool, carpool) what were your primary reasons for doing so? (Check up to 3 for each)

	Walk/bike/bus		Van/carpool	
	Number	Percent	Number	Percent
Save money	82	50%	119	54%
Save time	43	26%	56	25%
Avoid parking hassles	78	48%	123	55%
Improve air quality / environmental reasons	73	45%	104	47%
Increase physical activity / health reasons	106	65%	152	68%
Save wear and tear on personal vehicle	41	25%	65	29%
Don't have a personal vehicle	22	14%	10	5%
Other	23	14%	11	5%
Total	164	100%	222	100%

Table 25: Question 3. Which of the following do you have? (Check all that apply)

	Number	Percent
Annual bus pass/Passfort	27	5%
Monthly bus pass	0	0%
CSU bus pass (RAMCard, Faculty/Staff ID)	101	18%
Bike Cage membership (CSU or City)	0	0%
Bike Share membership (Zagster)	7	1%
Car Share membership (ZipCar)	7	1%
Ride Share membership (Uber/Lyft)	57	10%
CSU parking permit	34	6%
Downtown (City) parking permit	11	2%
Total	573	100%

Table 26: Question 4. Are you employed?

	Number	Percent
No	116	23%
Yes, part-time	83	16%
Yes, full-time	308	61%
Total	507	100%

Table 27: Question 5. Which location is your primary workplace closest to?

	Number	Percent
Fort Collins	301	77%
Boulder	3	1%
Denver metro area	9	2%
Greeley	13	3%
Other city	9	2%
Longmont	4	1%
Loveland	24	6%
Windsor	5	1%
I work from my home	27	7%
Total	390	100%

Table 28: Question 7. How often, if ever, do you telecommute for work all day instead of traveling into work (i.e., stay at home and use computers, Internet, or phones to complete your work)?

	Number	Percent
Every workday (I always work from my home)	22	6%
1-4 times a week	55	14%
1-3 times total	50	13%
Never	265	67%
Total	392	100%

Table 29: Question 8. Did you telecommute on the day you completed the travel diary?

	Number	Percent
Yes	59	15%
No	330	85%
Total	389	100%

Table 30: Question 9. Please check the one choice below that best describes the kind of residence in which you live.

	Number	Percent
Single-family house detached from any other houses	322	61%
Attached home (e.g., duplex, triplex or townhome)	94	18%
Building with apartments or condominiums	94	18%
Mobile home	10	2%
Group quarters (e.g., dormitory, nursing home)	6	1%
Other	5	1%
Total	532	100%

Table 31: Question 10. Do you rent or own your residence?

	Number	Percent
Rent	230	44%
Own	295	56%
Total	525	100%

Table 32: Question 11A. How many vehicles does your household regularly use? (Cars, SUVs, vans, minivans, pickup trucks)

	Number	Percent
None	10	2%
One	185	35%
Two	237	45%
Three or more	99	19%
Total	532	100%

Table 33: Question 11A with Household Size

	Number of vehicles per adult in household		Number of vehicles per person in household	
	Number	Percent	Number	Percent
None	10	2%	10	2%
Less than one	86	18%	164	33%
One	239	49%	206	42%
More than one	155	32%	110	22%
Total	491	100%	491	100%

Table 34: Question 11B. How many vehicles does your household regularly use? (Motorcycles/scooters)

	Number	Percent
None	506	95%
One or more	25	5%
Total	531	100%

Table 35: Question 11C. Please provide details for these vehicles. (Vehicle Type) If you have fewer than 4, only fill out those you have. If you have more than 4, choose the 4 you use most often.

	1 (your vehicle)		2 (other vehicle)		3 (other vehicle)		4 (other vehicle)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Car	288	57%	178	51%	49	43%	17	59%
SUV/van/minivan	181	36%	102	29%	34	30%	3	10%
Pickup truck	40	8%	62	18%	23	20%	5	16%
Motorcycle/scooter	0	0%	8	2%	9	8%	4	15%
Total	509	100%	350	100%	114	100%	28	100%

Table 36: Question 11D. Please provide details for these vehicles. (Fuel Type) If you have fewer than 4, only fill out those you have. If you have more than 4, choose the 4 you use most often.

	1 (your vehicle)		2 (other vehicle)		3 (other vehicle)		4 (other vehicle)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Electric	3	1%	4	1%	0	0%	0	0%
Hybrid	24	5%	10	3%	3	3%	0	0%
Gas	473	94%	322	93%	106	96%	26	95%
Diesel	5	1%	9	3%	2	1%	1	5%
Total	506	100%	346	100%	111	100%	28	100%

Table 37: Question 11E. Please provide details for these vehicles. (Year) If you have fewer than 4, only fill out those you have. If you have more than 4, choose the 4 you use most often.

	1 (your vehicle)		2 (other vehicle)		3 (other vehicle)		4 (other vehicle)	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
2016-2017	54	11%	26	8%	9	9%	0	0%
2013-2015	98	20%	72	22%	11	11%	2	8%
2010-2014	63	13%	35	11%	13	12%	0	0%
2005-2009	110	22%	62	19%	17	16%	7	25%
2004 or older	167	34%	133	41%	54	52%	18	67%
Total	490	100%	326	100%	104	100%	27	100%

Table 38: Question 12A. How many usable bicycles and tricycles does your household have? (Regular bicycles/tricycles)

	Number	Percent
None	117	22%
One	103	19%
Two	164	31%
Three or more	143	27%
Total	527	100%

Table 39: Question 12A with Household Size

	Number of bikes per person in household	
	Number	Percent
None	117	24%
Less than one	97	20%
One	131	26%
More than one	149	30%
Total	494	100%

Table 40: Question 12B. How many usable bicycles and tricycles does your household have? (Electric-assisted bicycles/tricycles)

	Number	Percent
None	512	98%
One or more	8	2%
Total	520	100%

Table 41: Question 13. How many household members are in each of the following age categories? (Please include yourself)

	Number of people in household		Children (<16) in household		Adults (16-64) in household		Older Adults (65+) in household	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
None	0	0%	372	76%	85	17%	382	78%
One	148	30%	37	8%	167	34%	69	14%
Two	167	34%	64	13%	163	33%	39	8%
Three or more	176	36%	18	4%	75	15%	0	0%
Total	490	100%	490	100%	490	100%	490	100%

Table 42: Question 14. For all children in your household who go to a K-12 school, please check their most frequently used travel mode to get to school. (If no children live in your household, or none attend K-12 school, please go to question #15)

	Child 1		Child 2		Child 3		Child 4	
	N	Percent	N	Percent	N	Percent	N	Percent
School bus	22	30%	10	21%	1	5%	0	0%
Driven alone (passenger)	16	22%	11	23%	3	23%	0	0%
Walk	11	15%	8	18%	1	5%	0	0%
Driven with other children	10	14%	10	22%	3	20%	2	100%
Bicycle	8	11%	5	11%	0	0%	0	0%
Drive themselves	5	7%	2	3%	3	19%	0	0%
Public bus	1	1%	1	2%	4	28%	0	0%
Drive themselves + others	1	1%	0	0%	0	0%	0	0%
Total	75	100%	47	100%	14	100%	2	100%

Table 43: Question 15. For household members who are 18 or older (and those 16-17 who are not in a K-12 school), please check their most frequently used travel mode to work or school.

	You (1)		Adult 2		Adult 3		Adult 4	
	N	Percent	N	Percent	N	Percent	N	Percent
Drive alone	275	65%	186	62%	59	54%	6	31%
Bicycle	73	17%	34	11%	14	13%	1	5%
Walk	20	5%	19	6%	13	12%	0	1%
Telecommute/work from home	17	4%	17	6%	0	0%	0	0%
Drive with adult from household	14	3%	18	6%	17	15%	11	55%
Take bus	11	3%	13	4%	6	5%	2	8%
Drive with children from household	11	3%	6	2%	1	1%	0	0%
Drive with adult NOT from household	2	0%	4	1%	0	0%	0	0%
Total	424	100%	297	100%	110	100%	20	100%

Table 44: Question 16. About how much was your TOTAL 2016 income before taxes for your household?

	Number	Percent
Less than \$15,000	60	12%
\$15,000 to \$24,999	55	11%
\$25,000 to \$34,999	38	7%
\$35,000 to \$49,999	21	4%
\$50,000 to \$74,999	96	18%
\$75,000 to \$99,999	85	16%
\$100,000 to \$149,999	83	16%
\$150,000 or more	59	11%
Prefer not to answer	21	4%
Total	519	100%

Table 45: Question 17. How many years have you lived in Fort Collins?

	Number	Percent
1 year or less	85	16%
2-5 years	113	21%
6-10 years	87	16%
11-19 years	79	15%
20 years or more	168	32%
Total	531	100%

Table 46: Question 18. Which category contains your age?

	Number	Percent
18-24	65	12%
25-34	160	30%
35-44	74	14%
45-54	88	16%
55-64	57	11%
65-74	50	9%
75 +	38	7%
Total	532	100%

Table 47: Question 19. Are you, or any household members, students at Colorado State University or Front Range Community College?

	Respondent is a student		Student in household	
	Number	Percent	Number	Percent
No	448	84%	404	76%
Yes	85	16%	129	24%
Total	533	100%	533	100%

Table 48: Question 20. How much education have you completed?

	Number	Percent
0 to 11 years of school	0	0%
High school diploma/GED	23	4%
Some college or associate's degree	98	19%
Bachelor's degree	230	43%
Graduate/professional degree	179	34%
Total	531	100%

Table 49: Question 21. Which category best describes your ethnicity?

	Number	Percent
Hispanic	17	3%
Non-Hispanic	509	97%
Total	526	100%

Table 50: Question 22. Which categories best describes your race? (Choose all that apply)

	Number	Percent
African American/Black	3	1%
Asian or Pacific Islander	22	4%
Other	17	3%
Caucasian/White	484	93%
Native American	9	2%
Total	522	100%

Table 51: Question 23. What is your gender?

	Number	Percent
Female	228	50%
Male	219	49%
Other	4	1%
Total	451	100%

Appendix B: Overall Mode Share by Respondent and Household Characteristics

In this appendix the MOV (multiple-occupancy vehicle) includes adults and/or children as passengers.

To simplify the tables, mode share comparisons for “motorbike/scooter” and “school bus” are only included in tables in this appendix when there are significant differences. As very few people used these modes, the mode shares were very small and significant differences could not be detected due to these low numbers of responses.

Significance Tests: For each significant pair, an upper case letters denoting significance is shown in the category with the larger column proportion. The letters denotes the column from which the category with the larger column proportion is significantly different. Significance Tests are based on two-sided tests and the significance level is 0.05. Categories are not used in comparisons when a column proportion is equal to zero or one.

Table 52: Mode Share of All Trips by Use of Alternative Modes in Past Month

	Bike for any reason in past month		Walk for any reason in past month		Take MAX for any reason in past month		Bus for any reason in past month		Ever telecommute	
	Ever	Never	Ever	Never	Ever	Never	Ever	Never	Ever	Never
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)
SOV	52.3%	68.4% A	56.1%	69.0% A	40.4%	66.0% A	45.6%	61.9% A	62.5%	58.7%
MOV	14.5%	18.5% A	14.9%	20.1% A	11.7%	17.9% A	11.6%	17.1% A	18.0% B	13.7%
Foot	13.0%	11.1%	14.9% B	5.7%	18.3% B	10.2%	23.5% B	10.5%	10.5%	13.4%
Bike	15.9% B	0.0%	10.3% B	3.7%	21.0% B	4.4%	5.6%	8.7%	7.0%	10.0% A
Transit	2.8% B	1.1%	2.8%	0.0% ¹	6.9% B	0.4%	13.1% B	0.4%	1.5%	2.1%
Ride hailing	0.3%	0.5%	0.2%	0.8% A	0.0% ¹	0.5%	0.3%	0.4%	0.1%	0.7%

Table 53: Mode Share of All Miles Traveled by Use of Alternative Modes in Past Month

	Bike for any reason in past month		Walk for any reason in past month		Take MAX for any reason in past month		Bus for any reason in past month		Ever telecommute	
	Ever	Never	Ever	Never	Ever	Never	Ever	Never	Ever	Never
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)
SOV	70.0%	72.9% A	70.6%	72.9% A	57.4%	76.0% A	58.6%	72.8% A	72.6%	76.1% A
MOV	14.0%	25.0% A	16.4%	24.7% A	23.3% B	18.7%	14.1%	20.4% A	21.0% B	12.9%
Bike	9.7% B	0.0%	6.6% B	1.7%	12.0% B	2.3%	3.6%	4.7%	2.0%	7.5% A
Foot	1.9% B	1.4%	2.5% B	0.3%	2.4% B	1.4%	3.8% B	1.4%	1.0%	1.9% A
Transit	2.8% B	0.4%	2.6%	0.0% ¹	4.4% B	0.6%	14.2% B	0.3%	2.1% B	0.9%
Ride hailing	0.2%	0.2%	0.1%	0.3% A	0.0% ¹	0.3%	0.5% B	0.2%	0.1%	0.3% A

Table 54: Mode Share of All Trips by Work Characteristics in Past Month

	Has annual or monthly pass		Has downtown or CSU parking permit		Employed (full or part-time)		City where respondent works, if employed	
	Yes	No	Yes	No	Yes	No	Fort Collins	Other
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)
SOV	38.9%	67.3% A	52.4%	61.2% A	60.0%	59.7%	57.0%	64.3% A
MOV	15.1%	17.6%	22.6% B	16.5%	15.4%	20.8% A	15.4%	18.7% A
Foot	20.6% B	9.3%	12.6%	12.0%	12.4%	11.0%	13.4% B	10.6%
Bike	16.9% B	4.7%	9.6%	7.4%	8.9% B	5.9%	9.9% B	5.1%
Transit	6.8% B	0.2%	1.7%	1.8%	1.9%	2.1%	2.5% B	1.1%
Ride hailing	0.0% ¹	0.4%	0.0% ¹	0.4%	0.5%	0.0% ¹	0.6% B	0.1%

Table 55: Mode Share of All Miles Traveled by Work Characteristics in Past Month

	Has annual or monthly pass		Has downtown or CSU parking permit		Employed (full or part-time)		City where respondent works, if employed	
	Yes	No	Yes	No	Yes	No	Fort Collins	Other
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)
SOV	54.0%	75.0% A	65.2%	72.5% A	74.3% B	56.5%	66.7%	76.3% A
MOV	24.3% B	19.3%	24.5% B	19.6%	16.8%	35.7% A	22.2% B	18.2%
Bike	12.0% B	2.9%	5.8% B	4.1%	4.9% B	3.2%	6.7% B	2.1%
Foot	4.0% B	1.2%	0.9%	1.7% A	1.5%	2.4% A	1.9% B	1.4%
Transit	5.0% B	0.8%	3.3% B	1.2%	1.5%	1.8%	1.9% B	1.0%
Ride hailing	0.0% ¹	0.2%	0.0% ¹	0.2%	0.2%	0.0% ¹	0.3% B	0.1%
Motorbike	0.0% ¹	0.0%	0.0% ¹	0.0%	0.0%	0.2% A	0.0%	0.0%

Table 56: Mode Share of All Trips by Vehicles Available

	Number of vehicles per adult in household		Number of bikes per person in household		Electric or hybrid vehicle in household	
	Less than one per adult (16+)	One or more per adult (16+)	Less than one per person in household	One or more per person in household	Yes	No
	(A)	(B)	(A)	(B)	(A)	(B)
SOV	50.4%	62.5% A	62.9% B	58.4%	66.5%	59.9%
MOV	20.1%	17.1%	21.4% B	14.7%	18.6%	16.8%
Foot	11.3%	10.9%	11.0%	11.3%	6.5%	12.6% A
Bike	12.4% B	6.9%	1.8%	12.2% A	6.9%	7.7%
Transit	4.7% B	1.3%	2.2%	1.8%	0.6%	1.9%
Ride hailing	1.2% B	0.2%	0.6%	0.3%	0.0% ¹	0.4%

Table 57: Proportion of All Miles by Mode by Vehicles Available

	Number of vehicles per adult in household		Number of bikes per person in household		Electric or hybrid vehicle in household	
	Less than one per adult (16+)	One or more per adult (16+)	Less than one per person in household	One or more per person in household	Yes	No
	(A)	(B)	(A)	(B)	(A)	(B)
SOV	63.5%	73.9% A	71.9%	70.9%	68.7%	72.2% A
MOV	28.6% B	17.6%	24.5% B	17.4%	27.1% B	19.3%
Bike	3.8%	4.8% A	0.8%	7.1% A	3.1%	4.4% A
Foot	1.2%	1.5%	1.5%	1.4%	0.7%	1.7% A
Transit	2.5% B	1.2%	1.1%	1.8% A	0.3%	1.5% A
Ride hailing	0.5% B	0.1%	0.3% B	0.1%	0.0% ¹	0.2%

Table 58: Mode Share of All Trips by Respondent Characteristics

	Gender		Respondent age			Race		Education level		
	Female	Male	18 to 34	35 to 54	55+	Non-white	White only	Some college or less	Bachelor's degree	Graduate/ Professional degree
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	(A)	(B)	(C)
SOV	59.0%	61.1%	57.6%	58.2%	67.1% A B	44.7%	62.3% A	67.2% C	62.5% C	53.9%
MOV	15.7%	17.4%	13.2%	21.0% A	16.1%	19.0%	16.8%	15.8%	15.5%	18.4%
Foot	15.5% B	8.5%	13.3%	11.7%	10.6%	16.7% B	11.5%	10.0%	10.2%	15.5% A B
Bike	6.4%	10.1% A	12.4% B C	5.6%	4.6%	13.4% B	7.0%	4.9%	8.2%	9.4% A
Transit	2.6% B	1.2%	2.2%	2.2%	0.9%	5.3% B	1.4%	0.7%	2.1%	2.2%
Ride hailing	0.1%	0.8% A	0.0% ¹	1.0% C	0.1%	0.0% ¹	0.4%	1.1% C	0.2%	0.1%

Table 59: Mode Share of All Miles Traveled by Respondent Characteristics

	Gender		Respondent age			Race		Education level		
	Female	Male	18 to 34	35 to 54	55+	Non-white	White only	Some college or less	Bachelor's degree	Graduate/ Professional degree
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	(A)	(B)	(C)
SOV	71.9% B	69.2%	70.7%	71.4%	74.2% A B	70.2%	72.1%	80.9% B C	71.5% C	67.9%
MOV	19.6%	21.9% A	19.3%	20.7%	19.3%	20.0%	20.1%	15.1%	22.1% A C	19.2% A
Bike	3.2%	5.7% A	7.1% B C	3.4% C	2.1%	4.9%	4.1%	1.9%	3.6% A	6.6% A B
Foot	2.1% B	1.1%	1.4%	1.6%	1.8%	2.0%	1.6%	1.0%	1.2%	2.3% A B
Transit	1.5%	1.6%	1.2%	2.3% A C	0.8%	2.8% B	1.2%	0.3%	1.1% A	2.4% A B
Ride hailing	0.1%	0.3%	0.0% ¹	0.4% C	0.1%	0.0% ¹	0.2%	0.6% B C	0.1%	0.1%

Table 60: Mode Share of All Trips by Household Member Characteristics

	Respondent is a student		Children (<16) in household		Older Adults (65+) in household	
	Yes	No	One or more	None	One or more	None
	(A)	(B)	(A)	(B)	(A)	(B)
SOV	38.5%	64.2% A	54.8%	61.9% A	67.5% B	58.0%
MOV	14.6%	16.9%	31.5% B	12.6%	19.7%	17.2%
Foot	17.8% B	11.0%	8.4%	11.9% A	9.9%	11.3%
Bike	20.5% B	5.8%	4.5%	9.4% A	1.7%	9.7% A
Transit	6.3% B	1.1%	0.8%	2.5% A	0.7%	2.3% A

Table 61: Mode Share of All Miles Traveled by Household Member Characteristics

	Respondent is a student		Children (<16) in household		Older Adults (65+) in household	
	Yes	No	One or more	None	One or more	None
	(A)	(B)	(A)	(B)	(A)	(B)
SOV	60.0%	73.1% A	71.1%	71.2%	64.3%	73.6% A
MOV	17.1%	20.0% A	23.5% B	19.5%	33.5% B	15.9%
Bike	14.0% B	3.5%	2.1%	5.4% A	0.6%	5.9% A
Foot	3.1% B	1.4%	1.2%	1.4%	1.3%	1.4%
Transit	5.1% B	1.1%	2.2% B	1.3%	0.2%	2.0% A

Table 62: Mode Share of All Trips by Household Characteristics

	Years lived in Fort Collins			Housing type		Tenure		Annual household income		
	5 years or less	6-19 years	20 years or more	Detached	Attached	Own	Rent	Less than \$50,000	\$50,000 to \$99,999	\$100,000 or more
	(A)	(B)	(C)	(A)	(B)	(A)	(B)	(A)	(B)	(C)
SOV	51.6%	62.4% A	67.8% A	65.7% B	51.5%	63.1% B	56.3%	53.7%	62.5% A	64.9% A
MOV	16.1%	18.3%	15.2%	16.8%	16.2%	18.0% B	14.9%	17.2%	14.9%	17.5%
Foot	13.4%	11.2%	11.3%	10.0%	15.6% A	10.6%	13.8% A	13.3%	12.2%	10.8%
Bike	14.6% B C	6.7% C	2.2%	6.0%	11.2% A	6.2%	10.6% A	11.3% B C	7.4%	5.3%
Transit	3.1% B	0.5%	2.0% B	0.9%	3.6% A	0.9%	3.2% A	3.5% B C	1.2%	0.9%
Ride hailing	0.1%	0.0% ¹	1.0% A	0.2%	0.7% A	0.6%	0.1%	0.7%	0.3%	0.1%

Table 63: Mode Share of All Miles Traveled by Household Characteristics

	Years lived in Fort Collins			Housing type		Tenure		Annual household income		
	5 years or less	6-19 years	20 years or more	Detached	Attached	Own	Rent	Less than \$50,000	\$50,000 to \$99,999	\$100,000 or more
	(A)	(B)	(C)	(A)	(B)	(A)	(B)	(A)	(B)	(C)
SOV	73.4% B	66.7%	78.1% A B	77.3% B	61.5%	71.4%	72.2%	65.7%	74.0% A	76.7% A B
MOV	15.1%	26.0% A C	15.8%	16.6%	26.3% A	19.8%	20.0%	26.2% B C	15.8%	16.9%
Bike	5.4% C	5.7% C	1.2%	3.0%	6.9% A	5.0% B	3.7%	4.4% C	6.1% A C	2.5%
Foot	1.6%	1.1%	2.1% B	1.5%	1.7%	1.8% B	1.3%	1.4%	2.2% C	1.2%
Transit	2.7% B	0.1%	1.9% B	1.4%	1.6%	1.5%	1.5%	1.9%	1.3%	1.3%
Ride hailing	0.1%	0.0% ¹	0.5% A	0.0%	0.5% A	0.3% B	0.1%	0.4% B C	0.1%	0.1%

Table 64: Mode Share of All Trips by Region of Fort Collins

	Region of Fort Collins					
	1	2	3	4	5	6
	(A)	(B)	(C)	(D)	(E)	(F)
SOV	51.0%	59.2%	60.3% A	67.1% A	63.9%	68.8% A
MOV	13.8%	15.8%	19.8%	15.9%	25.1% A	19.9%
Foot	17.2% B C F	10.0%	10.4%	12.4%	7.3%	8.2%
Bike	13.1% C D E F	12.8% D E F	7.1% D F	2.0%	3.1%	0.9%
Transit	3.0%	1.5%	1.7%	2.1%	0.0% ¹	0.0% ¹

A map of the regions can be found in *Appendix D: Study Methodology*.

Table 65: Mode Share of All Miles Traveled by Region of Fort Collins

	Region of Fort Collins					
	1	2	3	4	5	6
	(A)	(B)	(C)	(D)	(E)	(F)
SOV	69.2% C	71.4% C	63.4%	81.8% A B C E F	67.8%	75.5% A B C E
MOV	16.5% D	21.6% A D	27.1% A B D F	11.9%	25.6% A D	22.4% A D
Bike	6.5% B D F	4.0% D F	7.6% B D F	1.2%	5.1% D F	0.5%
Foot	2.9% B C F	1.5%	1.0%	1.9% C F	1.3%	0.9%
Transit	4.3% B C D	1.3%	0.6%	1.0%	0.0% ¹	0.0% ¹

A map of the regions can be found in *Appendix D: Study Methodology*.

Table 66: Mode Share of All Trips by Household Characteristics

	Day of Week							Day Type	
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	weekend	weekday
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(A)	(B)
SOV	71.2%	65.2%	56.8%	58.1%	67.3% C F	54.6%	56.7%	61.3%	60.7%
MOV	15.8%	7.9%	23.1% B E	22.7% B E	10.6%	20.9% B E	18.1% B	17.4%	16.8%
Foot	6.8%	11.5%	10.5%	11.8%	13.3%	13.5%	15.4%	12.7%	12.1%
Bike	6.2%	9.7%	7.6%	6.9%	6.2%	6.6%	8.7%	7.9%	7.4%
Transit	0.0% ¹	4.1% D E	1.9%	0.6%	0.7%	3.5% D E	0.0% ¹	0.0% ¹	2.1%

Table 67: Mode Share of All Miles Traveled by Day of Travel

	Day of Week							Day Type	
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	weekend	weekday
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(A)	(B)
SOV	76.9% F G	80.9% C D F G	70.6% F G	72.2% F G	80.4% C D F G	56.4%	62.2% F	65.7%	73.6% A
MOV	12.5% B	8.1%	19.9% A B E	22.5% A B E	13.2% B	32.8% A B C D E	34.8% A B C D E	29.5% B	17.8%
Bike	9.2% B D E F G	4.8% D E G	7.4% B D E F G	2.0%	2.7%	4.0% D G	1.5%	3.3%	4.3% A
Foot	1.4%	1.2%	1.3%	1.7%	2.1%	2.7% B	1.4%	1.4%	1.7%
Transit	0.0% ¹	2.2% C E	0.6%	1.7% C	1.0%	3.8% B C D E	0.0% ¹	0.0% ¹	1.7%

Appendix C: Commute Mode Share by Respondent and Household Characteristics

In this appendix the MOV (multiple-occupancy vehicle) includes adults and/or children as passengers.

To simplify the tables, mode share comparisons for “ride hailing,” “motorbike/scooter” and “school bus” are only included in tables in this appendix when there are significant differences. As very few people used these modes, the mode shares were very small and significant differences could not be detected due to these low numbers of responses.

Significance Tests: For each significant pair, an upper case letters denoting significance is shown in the category with the larger column proportion. The letters denotes the column from which the category with the larger column proportion is significantly different. Significance Tests are based on two-sided tests and the significance level is 0.05. Categories are not used in comparisons when a column proportion is equal to zero or one.

Table 68: Mode Share of All Commute Trips by Use of Alternative Modes in Past Month

	Bike for any reason in past month		Walk for any reason in past month		Take MAX for any reason in past month		Bus for any reason in past month		Ever telecommute	
	Ever	Never	Ever	Never	Ever	Never	Ever	Never	Ever	Never
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)
SOV	65.9%	77.8% A	64.5%	82.9% A	32.2%	81.4% A	28.5%	74.0% A	85.4% B	68.5%
Bike	22.9%	0.0% ¹	17.6% B	4.4%	37.1% B	6.4%	18.8%	12.5%	5.1%	14.3% A
MOV	4.0%	12.8% A	6.2%	10.9%	0.8%	9.8% A	0.0% ¹	8.4%	8.6%	7.9%
Foot	3.8%	4.0%	6.1%	0.0% ¹	14.9% B	1.0%	26.7% B	2.4%	0.0% ¹	5.4%
Transit	3.3%	3.9%	5.5%	0.0% ¹	15.0% B	0.5%	26.1% B	2.0%	0.5%	3.0%

Table 69: Mode Share of All Commute Miles Traveled by Use of Alternative Modes in Past Month

	Bike for any reason in past month		Walk for any reason in past month		Take MAX for any reason in past month		Bus for any reason in past month		Ever telecommute	
	Ever	Never	Ever	Never	Ever	Never	Ever	Never	Ever	Never
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)
SOV	76.9%	90.5% A	77.4%	92.3% A	45.8%	88.3% A	37.7%	85.5% A	89.5% B	83.6%
MOV	5.9%	7.3%	7.6%	5.8%	3.0%	7.1% A	0.0% ¹	6.9%	8.4% B	5.9%
Bike	12.9%	0.0% ¹	9.6% B	1.3%	26.3% B	3.6%	14.4% B	5.4%	0.9%	8.0% A
Transit	3.6% B	1.0%	4.1%	0.0% ¹	19.6% B	0.4%	42.4% B	1.3%	0.8%	1.2%
Foot	0.4%	0.7%	1.0%	0.0% ¹	5.3% B	0.1%	5.5% B	0.4%	0.0% ¹	0.8%

Table 70: Mode Share of All Commute Trips by Work Characteristics in Past Month

	Has annual or monthly pass		Has downtown or CSU parking permit		Employed (full or part-time)		City where respondent works, if employed	
	Yes	No	Yes	No	Yes	No	Fort Collins	Other
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)
SOV	42.7%	76.4% A	80.0%	68.7%	72.8%	0.0% ¹	68.6%	72.7%
Bike	24.7% B	8.7%	4.4%	12.6%	12.0%	50.0% A	13.5%	8.0%
MOV	1.8%	12.7% A	4.8%	11.2%	8.1%	0.0% ¹	9.2%	13.7%
Foot	15.4% B	1.1%	6.1%	3.7%	4.0%	0.0% ¹	5.0%	1.5%
Transit	15.5% B	0.2%	4.6%	3.0%	2.4%	50.0% A	2.8%	4.0%

Table 71: Mode Share of All Commute Miles Traveled by Work Characteristics in Past Month

	Has annual or monthly pass		Has downtown or CSU parking permit		Employed (full or part-time)		City where respondent works, if employed	
	Yes	No	Yes	No	Yes	No	Fort Collins	Other
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)
SOV	63.7%	83.5% A	94.0% B	79.9%	85.5%	0.0% ¹	73.2%	87.0% A
MOV	2.2%	11.2% A	3.1%	11.3% A	6.9%	0.0% ¹	13.8% B	8.1%
Bike	13.2% B	4.3%	1.0%	5.7% A	5.6%	9.8%	9.0% B	2.7%
Transit	16.5% B	0.3%	1.6%	1.9%	1.1%	90.2% A	1.7%	2.0%
Foot	4.4% B	0.2%	0.2%	0.7%	0.5%	0.0% ¹	1.2% B	0.3%

Table 72: Mode Share of All Commute Trips by Vehicles Available

	Number of vehicles per adult in household		Number of bikes per person in household		Electric or hybrid vehicle in household	
	Less than one per adult (16+)	One or more per adult (16+)	Less than one per person in household	One or more per person in household	Yes	No
	(A)	(B)	(A)	(B)	(A)	(B)
SOV	45.7%	77.0% A	74.2%	70.5%	65.6%	70.0%
Bike	26.5% B	10.0%	4.9%	16.9% A	23.5%	11.2%
MOV	1.5%	9.5% A	11.4%	6.2%	10.9%	10.6%
Foot	7.7% B	2.0%	2.1%	3.8%	0.0% ¹	4.2%
Transit	14.5% B	1.4%	5.5%	2.4%	0.0% ¹	3.3%

Table 73: Proportion of All Commute Miles by Mode by Vehicles Available

	Number of vehicles per adult in household		Number of bikes per person in household		Electric or hybrid vehicle in household	
	Less than one per adult (16+)	One or more per adult (16+)	Less than one per person in household	One or more per person in household	Yes	No
	(A)	(B)	(A)	(B)	(A)	(B)
SOV	73.6%	85.9% A	89.2% B	79.9%	73.5%	81.9% A
MOV	1.7%	7.8% A	5.8%	7.9% A	7.1%	10.5%
Bike	11.2% B	4.9%	1.2%	9.8% A	19.4% B	4.6%
Transit	10.5% B	0.8%	3.0% B	1.4%	0.0% ¹	1.9%
Foot	0.8%	0.4%	0.1%	0.8% A	0.0% ¹	0.7%

Table 74: Mode Share of All Commute Trips by Respondent Characteristics

	Gender		Respondent age			Race		Education level		
	Female	Male	18 to 34	35 to 54	55+	Non-white	White only	Some college or less	Bachelor's degree	Graduate/Professional degree
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	(A)	(B)	(C)
SOV	70.9%	75.9%	75.8% B	63.6%	75.4%	58.3%	70.4%	68.7%	79.1% C	64.3%
Bike	5.5%	17.4% A	14.3%	10.4%	13.7%	20.8%	11.4%	10.0%	11.5%	15.9%
MOV	13.7% B	4.3%	3.6%	15.0% A	4.6%	0.0% ¹	11.2%	9.0%	5.6%	9.5%
Foot	5.1% B	0.6%	3.3%	4.6%	3.2%	0.0% ¹	4.2%	5.1%	0.6%	6.6% B
Transit	4.6% B	0.3%	2.9%	4.3%	3.2%	20.8% B	2.2%	3.8%	3.2%	3.5%

Table 75: Mode Share of All Commute Miles Traveled by Respondent Characteristics

	Gender		Respondent age			Race		Education level		
	Female	Male	18 to 34	35 to 54	55+	Non-white	White only	Some college or less	Bachelor's degree	Graduate/Professional degree
	(A)	(B)	(A)	(B)	(C)	(A)	(B)	(A)	(B)	(C)
SOV	79.0%	87.9% A	87.6% B	75.6%	93.1% A B	90.7% B	80.4%	84.6%	85.3%	83.9%
MOV	14.4% B	2.2%	3.7%	13.0% A C	2.1%	0.0% ¹	11.7%	8.1% B	3.4%	8.9% B
Bike	1.7%	8.5% A	5.0%	7.7% A C	3.9%	0.9%	5.7% A	4.0%	8.4% A C	4.2%
Transit	3.4% B	0.6%	2.8% C	2.0%	0.8%	8.4% B	1.0%	1.4%	2.9%	1.7%
Foot	1.0% B	0.0%	0.9%	0.3%	0.2%	0.0% ¹	0.7%	0.4%	0.0%	1.0% B

Table 76: Mode Share of All Commute Trips by Household Member Characteristics

	Respondent is a student		Children (<16) in household		Older Adults (65+) in household	
	Yes	No	One or more	None	One or more	None
	(A)	(B)	(A)	(B)	(A)	(B)
SOV	27.9%	75.1% A	69.9%	72.6%	95.3% B	69.7%
Bike	40.6% B	10.6%	3.7%	17.1% A	0.6%	13.8% A
MOV	0.0% ¹	8.4%	22.9% B	1.1%	4.0%	8.5%
Foot	9.7%	3.3%	2.5%	3.2%	0.0% ¹	3.2%
Transit	21.8% B	1.9%	0.9%	4.9%	0.0% ¹	3.9%

Table 77: Mode Share of All Commute Miles Traveled by Household Member Characteristics

	Respondent is a student		Children (<16) in household		Older Adults (65+) in household	
	Yes	No	One or more	None	One or more	None
	(A)	(B)	(A)	(B)	(A)	(B)
SOV	44.9%	86.2% A	83.8%	84.4%	99.0% B	82.4%
MOV	0.0% ¹	6.9%	13.6% B	3.2%	0.5%	7.7% A
Bike	22.1% B	5.1%	1.6%	8.2% A	0.4%	6.5% A
Transit	31.3% B	0.9%	0.9%	2.8% A	0.0% ¹	2.4%
Foot	1.7%	0.5%	0.2%	0.6%	0.0% ¹	0.5%

Table 78: Mode Share of All Commute Trips by Household Characteristics

	Years lived in Fort Collins			Housing type		Tenure		Annual household income		
	5 years or less	6-19 years	20 years or more	Detached	Attached	Own	Rent	Less than \$50,000	\$50,000 to \$99,999	\$100,000 or more
	(A)	(B)	(C)	(A)	(B)	(A)	(B)	(A)	(B)	(C)
SOV	71.1%	70.7%	72.9%	72.8%	68.7%	72.5%	69.7%	64.4%	72.8%	74.7%
Bike	18.1% C	12.5%	7.3%	10.8%	16.5%	13.5%	12.3%	15.6%	13.2%	10.7%
MOV	2.6%	8.7%	12.6% A	9.6%	4.4%	8.1%	7.4%	6.6%	7.0%	9.1%
Foot	2.8%	6.0%	2.1%	3.6%	4.3%	2.9%	5.0%	3.7%	5.0%	2.8%
Transit	5.5%	2.0%	2.8%	3.1%	4.2%	1.7%	5.7% A	7.2%	1.8%	2.6%

Table 79: Mode Share of All Commute Miles Traveled by Household Characteristics

	Years lived in Fort Collins			Housing type		Tenure		Annual household income		
	5 years or less	6-19 years	20 years or more	Detached	Attached	Own	Rent	Less than \$50,000	\$50,000 to \$99,999	\$100,000 or more
	(A)	(B)	(C)	(A)	(B)	(A)	(B)	(A)	(B)	(C)
SOV	89.3% B C	80.8%	84.1%	86.0% B	80.4%	85.4% B	82.2%	75.8%	84.8% A	88.8% A B
MOV	0.7%	9.3% A	10.2% A	6.7%	6.9%	6.4%	7.6%	8.1% C	8.5% C	3.9%
Bike	5.4%	7.8% C	3.4%	4.6%	8.4% A	6.1%	5.3%	7.9% B	4.0%	6.3%
Transit	4.4% B C	0.6%	1.2%	2.0%	2.3%	0.9%	4.3% A	6.4% B C	1.1%	0.9%
Foot	0.2%	1.1% C	0.1%	0.5%	0.6%	0.5%	0.5%	0.4%	1.1% C	0.1%

Table 80: Mode Share of All Commute Trips by Region of Fort Collins

	Region of Fort Collins					
	1	2	3	4	5	6
	(A)	(B)	(C)	(D)	(E)	(F)
SOV	68.4%	65.6%	67.8%	73.4%	61.3%	76.9%
Bike	19.1% D F	16.0% D F	17.0% D F	2.7%	21.7% D F	1.9%
MOV	6.1%	7.6%	4.1%	14.5%	16.9%	18.2%
Foot	3.1%	4.0%	6.5%	7.3%	0.0%1	0.0%1
Transit	2.9%	6.8%	4.7%	2.1%	0.0%1	0.0%1

A map of the regions can be found in *Appendix D: Study Methodology*.

Table 81: Mode Share of All Commute Miles Traveled by Region of Fort Collins

	Region of Fort Collins					
	1	2	3	4	5	6
	(A)	(B)	(C)	(D)	(E)	(F)
SOV	78.1% E F	81.4% E F	89.0% A E F	92.1% A B E F	52.9%	67.7% E
MOV	10.1% C D	5.2%	2.1%	5.4%	15.9% B C D	28.9% A B C D
Bike	9.2% D F	4.2% D	6.5% D F	0.5%	31.2% A B C D F	1.8%
Transit	1.7%	8.7% A C D	2.0%	0.6%	0.0%1	0.0%1
Foot	0.3%	0.5%	0.4%	1.4%	0.0%1	0.0%1

A map of the regions can be found in *Appendix D: Study Methodology*.

Table 82: Mode Share of Commute Trips by Household Characteristics

	Day of Week				
	Monday	Tuesday	Wednesday	Thursday	Friday
	(B)	(C)	(D)	(E)	(F)
SOV	58.0%	74.3%	71.8%	81.8% B F	51.8%
Bike	18.9%	7.4%	10.1%	9.9%	14.0%
MOV	12.9%	5.8%	13.4%	5.3%	31.2% C E
Foot	3.8%	6.8%	4.6%	3.1%	0.0%1
Transit	6.3%	5.4%	0.0%1	0.0%1	3.0%
School bus	0.0%1	0.3%	0.0%1	0.0%1	0.0%1

Table 83: Mode Share of Commute Miles Traveled by Day of Travel

	Day of Week				
	Monday	Tuesday	Wednesday	Thursday	Friday
	(B)	(C)	(D)	(E)	(F)
SOV	65.7%	88.4% B F	88.0% B F	90.8% B F	68.8%
MOV	19.1% C D E	7.1%	9.2% E	4.0%	17.1% C E
Bike	10.0% C D E	1.4%	2.4%	4.9% C	10.2% C D
Transit	4.5% C	1.6%	0.0%1	0.0%1	3.9%
Foot	0.8%	1.1%	0.4%	0.3%	0.0%1

Appendix D: Study Methodology

Developing the Survey and Diary

The City of Fort Collins contracted with NRC to collect travel behavior data from residents of Fort Collins through a method that NRC designed and has implemented in Boulder, CO for the past two decades. This data is collected by recruiting residents to complete a two-page Household Survey that provides background data on the resident and their household and a Trip Diary for one day. The survey and diary were based on the Boulder materials, with significant changes to the Household Survey to reflect Fort Collins staff's policy interests and little change to the Trip Diary. A copy of the Household Survey and Trip Diary can be found in *Appendix D: Study Methodology*.

The Household Survey and Trip Diary were also used as the basis to create an app, the app included the Household Survey questions along with the ability to use the phone's GIS to track all trips taken in a day and then annotate each trip with the purpose and mode replacing the tracking that could be done on the paper diary.

The app was developed and hosted by DVmobile and was available for iOS and Android phones. Links to access the app from the Apple Store and Google Play were included on website hosted by NRC. This website also included general instructions for participating in the study, specific instructions for the app and the option to download and print the paper versions of the study materials for those who did not want to download the app.

Selecting Survey Recipients

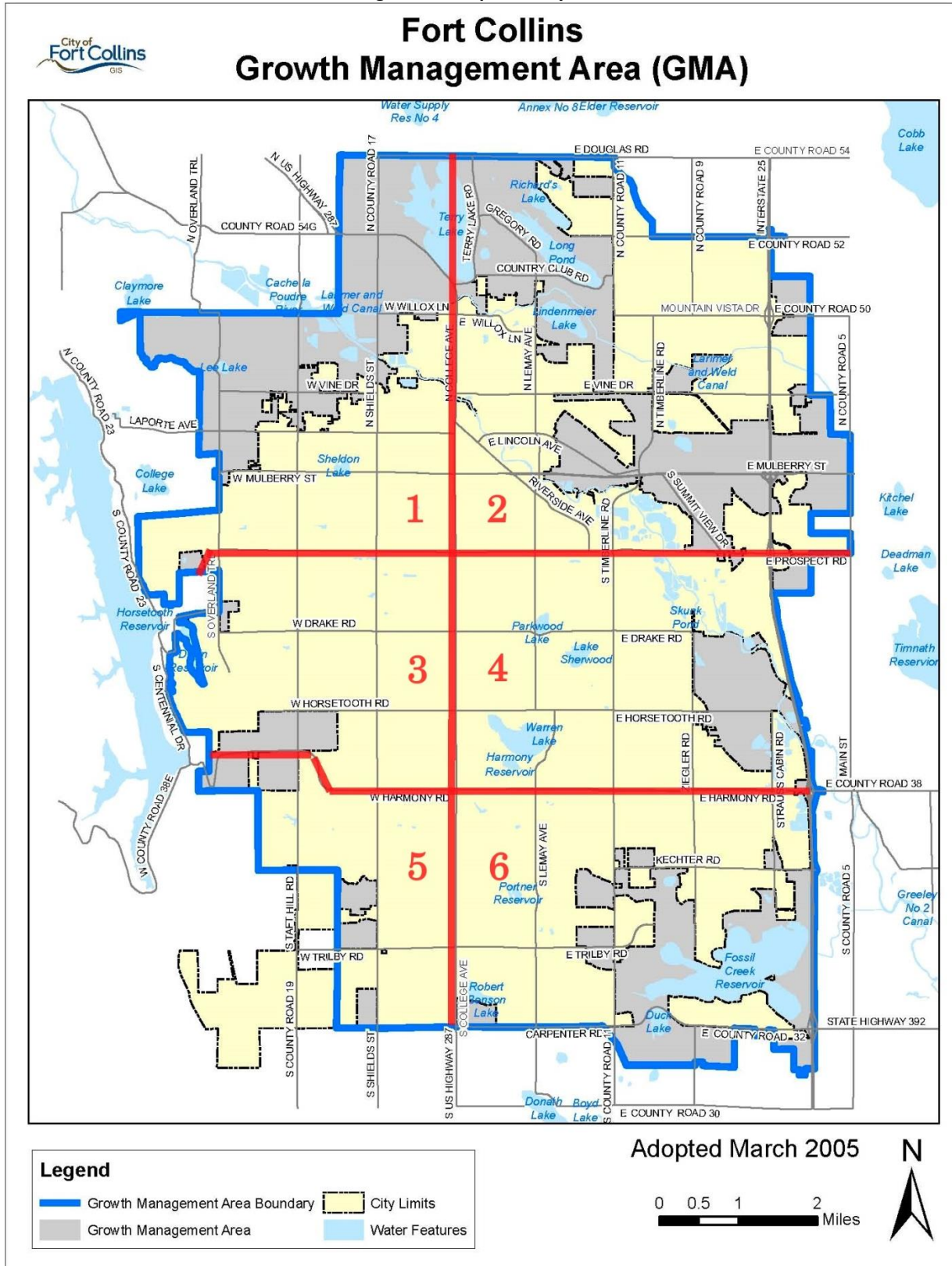
“Sampling” refers to the method by which survey recipients are chosen. The “sample” refers to all those who were given a chance to participate in the survey. Ideally, the chosen survey recipients should be representative of all eligible survey recipients. Randomly selecting survey recipients ensures that this will occur.

For the 2017 study, 7,650 residents were randomly selected from within the Fort Collins Growth Management Area (GMA, see map on following page) and stratified by Fort Collins' six regions (delineated in red on map on following page), with “Region 1” being oversampled with funding from PeopleForBikes to ensure enough responses to be useful for analysis specific to the region.

A list of all addresses based on the United States Postal Service delivery sequence file was purchased and used for this selection. The addresses were geocoded (mapped to a specific latitude and longitude) and compared to the boundaries of the GMA and of the Fort Collins regions. Additionally, five census tracts with higher proportions of Spanish speakers were identified so that respondents in these tracts could be targeted to receive mailings in both English and Spanish. Addresses identified as being outside the GMA were excluded.

Additionally, staff at Colorado State University (Institutional Research, Planning and Effectiveness) provided a random sample of 700 emails of students living in the CSU residence halls. The mailing addresses for these halls use general delivery (and do not specify room numbers) for mailing purposes and as such mailing addresses for these residents cannot be used for selecting individuals for a sample. These student residents were contacted by email rather than mail as described below.

Figure 26: Map of Study Area



The 7,650 address in the mailing sample were also stratified by contact type:

1. 2,550 received one postcard inviting them to access a website to download the app or download and print paper versions of the study materials.
2. 4,593 received an initial postcard inviting them in English to access a website to download the app or download and print paper versions of the study materials. This was followed a week later by a mailed packet of the of the paper materials in English (cover letter, instructions, Household Survey and Trip Diary). The postcard and cover letter also included a note in Spanish indicating that Spanish versions of the materials could be downloaded from the website or requested by phoning the City of Fort Collins (with the appropriate number provided).
3. 507 received an initial postcard inviting them in English to access a website to download the app or download and print paper versions of the study materials. The postcard also included a note in Spanish indicating that Spanish versions of the materials could be downloaded from the website or requested by phoning the City of Fort Collins (with the appropriate number provided). The postcard was followed a week later by a mailed packet of the of the paper materials in both English and Spanish (cover letter, instructions, Household Survey and Trip Diary).

Systematic sampling is a procedure whereby a complete list of all possible addresses is culled, selecting every Nth one until the appropriate number of households is sampled. This procedure was used to select from within the following areas to meet targets set for each sampling area.

Table 84: Sampling Scheme by Region and Contact Type

Region	Population in GMA	Proportion of GMA Population	Sample				Grand Total	
			Postcard + Paper (English + Spanish)	Postcard + Paper (English Only)	Postcard Only			
1*	16,035	22%	154	1,669	910	2,733	36%	
2	11,555	16%	195	468	333	996	13%	
3	15,596	21%	158	739	448	1,345	18%	
4	15,931	22%		913	456	1,369	18%	
5	3,422	5%		196	99	295	4%	
6	10,520	14%		608	304	912	12%	
Total	73,059	100%	507	4,593	2,550	7,650	100%	

*Oversampled with additional funding from PeopleForBikes to ensure enough responses for analysis of the region.

To meet the need to have the mailing arrive on different days within the week (with the instruction to complete the Trip Diary the next day or as soon as possible) addresses were also systematically assigned to a mailing day as follows:

Table 85: Sampling Scheme by Contact Type and Mailing Day

	Friday	Monday	Tuesday	Wednesday	Thursday	Total
Paper Survey	729	729	728	1,458	1,456	5,100
Spanish +English	73	73	72	145	144	507
English only	656	656	656	1,313	1,312	4,593
Postcard Only	364	364	365	728	729	2,550
Total	1,093	1,093	1,093	2,186	2,185	7,650

Postcards and Paper Packets mailed between April 14 and 27, 2017.

Initial emails to the 700 students were also split by day, with 100 sent each day. However, follow-up reminders were sent on different days (and at different times of day) to try to increase the probability of contacting the students at a convenient time.

Response Rates

Table 86: Response Rates by Contact Type

Type of Mailings	Number of Recipients	Returned with Undeliverable Address	Eligible to Participate	Completed Survey and or Diary				Response Rate
				Paper diary	App diary	No diary	Total	
Postcard only -invitation to website	2,550	85	2,465	22	52	6	80	3.2%
Postcard with paper materials mailed the following week	4,593	147	4,446	224	188	29	441	9.9%
Postcard with Spanish and English paper materials mailed the following week	507	12	495	19	20	0	39	7.9%
CSU Dormitories-email invitation to website	700	1	699	0	3	0	3	0.4%
(Unknown)				3	6	1	10	
Total	8,350	243	8,107	268	269	36	573	7.1%

Table 87: Response Rates by Region for Household-Based Mailing

Region	Number of Recipients	Returned with Undeliverable Address	Eligible to Participate	Completed Survey and or Diary	Response Rate
1	2,733	106	2,627	176	6.7%
2	996	43	953	85	8.9%
3	1,345	33	1,312	88	6.7%
4	1,369	31	1,338	118	8.8%
5	295	8	287	24	8.4%
6	912	23	889	69	7.8%
Unknown				13	
Total	7,650	242	7,408	573	7.7%

Invitations were mailed each weekday (1/7 of the address sample each Monday, Tuesday, and Wednesday and 2/7 each Thursday and Friday) with the instruction to complete the diary and survey on the next day or as soon as possible. This was a simplification of the Boulder methodology where each respondent is asked to complete the diary on a specifically assigned day, which was speculated to be a barrier to completion (especially for the app). The goal would be to have the diary completions spread evenly across the week (14% per day). However, response was stronger on weekdays than weekends (see Table 88).

Table 88: Response by Day Diary Completed

Day of Week	Number completed	Of response with a known day	Of all
Sunday	37	7.0%	6.6%
Monday	101	19.1%	18.1%
Tuesday	97	18.4%	17.4%
Wednesday	81	15.3%	14.5%
Thursday	94	17.8%	16.9%
Friday	72	13.6%	12.9%
Saturday	46	8.7%	8.3%
Known total	528	100.0%	
Unknown	29		5.2%
Total	557		100.0%

Confidence Intervals

The 95% confidence interval (or “margin of error”) quantifies the “sampling error” or precision of the estimates made from the survey results. A 95% confidence interval can be calculated for any sample size, and indicates that in 95 of 100 surveys conducted like this one, for a particular item, a result would be found that is within a certain range if everyone in the population of interest was surveyed. The practical difficulties of conducting any resident survey may introduce other sources of error in addition to sampling error. Despite the best efforts to boost participation and ensure potential inclusion of all households, some selected households will decline participation in the survey (referred to as non-response error) and some eligible households may be unintentionally excluded from the listed sources for the sample (referred to as coverage error). Coverage error is very low for this survey, as the USPS delivery sequence file is used to select addresses, which has nearly complete coverage of all households.

For this survey, with 573 responses, the 95% confidence interval is about plus or minus four percentage points.

Cleaning and Coding and Data Entry

Mailed surveys were returned to NRC directly via postage-paid business reply envelopes. Once received, the diaries were prepared for the analysis. Every diary was examined to ensure that it was filled out correctly with accurate trip descriptions. Corrections were made where they could be intuited (for instance, a very common mistake was to count round trips as one trip rather than two, as they have the same start and end, and are often a walk for exercise, these can be split into two trips, when recognized). Routes were also checked using google maps when they were unclear to fill in details and estimate any missing trip mileage. <http://latlong.net/> was used to determine start and end locations for all trips in the verification process. The diary data were transferred to excel worksheets as they were cleaned. Three other variables were coded at this time: 1) the type of trip made (Home ↔ Work, Home ↔ Other or Non-home), 2) if the trip was a “link” in the work commute, and 3) if the trip had both origins or destinations outside Fort Collins.

Weighting and Analysis

The data from the household travel surveys were data entered into electronic datasets using a key and verify methodology. This means that the data were entered twice and the two datasets compared. Where there were discrepancies, the results were compared to the hard copy survey and keyed correctly. These plain-text datasets were then imported into SPSS®, a statistical software package, for analysis.

Using the assigned unique identifier, the household travel survey responses were matched with the Trip Diary information. Two types of datasets were created: a trip-level dataset, where every record in the dataset represented a single trip, and a person-level dataset, where every record in the dataset represented a single person.

Due to the differences in travel behavior by various socio-demographic groups, the participants' responses were statistically weighted. Using the data from the 2010 Census and 2015 ACS, the results were adjusted to give more weight to the travel of those who were under represented in the sample. The Statistical Package for the Social Sciences (SPSS) a software program using mathematical algorithms was used to calculate the appropriate weights. The results of the weighting scheme are presented in the following table which displays the sociodemographic profile of the 2017 study participants using unweighted and weighted data compared to the Census data.

Table 89: Weighting Results

Characteristic	Population Norm	Unweighted Data	Weighted Data
Housing			
Rent home	45%	24%	44%
Own home	55%	76%	56%
Race and Ethnicity			
White	90%	94%	91%
Not white	10%	6%	9%
Sex			
Male	50%	37%	49%
Female	50%	63%	51%
Age			
18-34 years of age	45%	18%	42%
35-54 years of age	31%	33%	30%
55+ years of age	23%	49%	27%
Sex & Age			
Females 18-34	22%	11%	22%
Females 35-54	16%	21%	15%
Females 55+	13%	31%	14%
Males 18-34	24%	5%	23%
Males 35-54	15%	12%	14%
Males 55+	11%	20%	11%
AREA			
1	22%	31%	24%
2	16%	15%	16%
3	21%	16%	20%
4	22%	21%	22%
5	5%	4%	5%
6	14%	12%	13%

* 2010 U.S. Census and 2015 American Community Survey 5-year estimates

The electronic dataset was analyzed using the SPSS. For the most part, frequency distributions and average (mean) ratings are presented in the body of the report. A complete set of frequencies for each Household Survey question is presented in *Appendix A: Responses to the Household Survey*. Chi-square or ANOVA tests of significance were applied to these breakdowns of selected survey questions. A “p-value” of 0.05 or less indicates that there is less than a 5% probability that differences observed between groups are due to chance; or in other words, a greater than 95% probability that the differences observed in the selected categories of the sample represent “real” differences among those populations. Where differences between subgroups are statistically significant, they are noted in the tables.

Further Information

The City of Fort Collins funded this research, for further information about this study please contact Aaron Iverson at the City of Fort Collins (aiverson@fcgov.com).

Appendix E: Survey Materials

A copy of the survey materials appear on the following pages.



c/o National Research Center, Inc.
2955 Valmont Rd., Suite 300
Boulder, CO 80301-1360
303-444-7863

2017 Travel Diary Study HOUSEHOLD TRAVEL SURVEY

Please complete this survey about your household and return it with your Travel Diary in the enclosed postage-paid envelope. Both are essential to this study! The survey should take only a few minutes. Your answers to this survey will be kept in strict confidence and only reported in group form. *Thank you for your time and assistance!*

GENERAL TRAVEL INFORMATION

1. In the past month, about how often did you:

Ride a bicycle...

- | | | |
|--|--|--|
| <u>to work/school</u> | <u>to get other places</u> | <u>just for exercise/fun</u> |
| <input type="radio"/> 5+ times a week | <input type="radio"/> 5+ times a week | <input type="radio"/> 5+ times a week |
| <input type="radio"/> 1-4 times a week | <input type="radio"/> 1-4 times a week | <input type="radio"/> 1-4 times a week |
| <input type="radio"/> 1-3 times total | <input type="radio"/> 1-3 times total | <input type="radio"/> 1-3 times total |
| <input type="radio"/> Never | <input type="radio"/> Never | <input type="radio"/> Never |

Walk...

- | | | |
|--|--|--|
| <u>to work/school</u> | <u>to get other places</u> | <u>just for exercise/fun</u> |
| <input type="radio"/> 5+ times a week | <input type="radio"/> 5+ times a week | <input type="radio"/> 5+ times a week |
| <input type="radio"/> 1-4 times a week | <input type="radio"/> 1-4 times a week | <input type="radio"/> 1-4 times a week |
| <input type="radio"/> 1-3 times total | <input type="radio"/> 1-3 times total | <input type="radio"/> 1-3 times total |
| <input type="radio"/> Never | <input type="radio"/> Never | <input type="radio"/> Never |

Ride MAX...

- | | |
|--|--|
| <u>to work/school</u> | <u>to get other places</u> |
| <input type="radio"/> 5+ times a week | <input type="radio"/> 5+ times a week |
| <input type="radio"/> 1-4 times a week | <input type="radio"/> 1-4 times a week |
| <input type="radio"/> 1-3 times total | <input type="radio"/> 1-3 times total |
| <input type="radio"/> Never | <input type="radio"/> Never |

Ride other buses (not MAX)...

- | | |
|--|--|
| <u>to work/school</u> | <u>to get other places</u> |
| <input type="radio"/> 5+ times a week | <input type="radio"/> 5+ times a week |
| <input type="radio"/> 1-4 times a week | <input type="radio"/> 1-4 times a week |
| <input type="radio"/> 1-3 times total | <input type="radio"/> 1-3 times total |
| <input type="radio"/> Never | <input type="radio"/> Never |

2. If you used an alternative commute mode in the past year (e.g., bike, bus, walk, vanpool, carpool) what were your primary reasons for doing so? (Check up to 3 for each)

- | | Walk/
Bike/Bus | Vanpool/
Carpool |
|---|--------------------------|--------------------------|
| Save money | <input type="checkbox"/> | <input type="checkbox"/> |
| Save time | <input type="checkbox"/> | <input type="checkbox"/> |
| Avoid parking hassles | <input type="checkbox"/> | <input type="checkbox"/> |
| Improve air quality / environmental reasons | <input type="checkbox"/> | <input type="checkbox"/> |
| Increase physical activity / health reasons | <input type="checkbox"/> | <input type="checkbox"/> |
| Save wear and tear on personal vehicle | <input type="checkbox"/> | <input type="checkbox"/> |
| Don't have a personal vehicle | <input type="checkbox"/> | <input type="checkbox"/> |
| Other, specify | <input type="checkbox"/> | <input type="checkbox"/> |

If you would be willing to participate in a focus group or other follow up research related to traveling in Fort Collins, please visit the website fcgov.com/TravelSurvey, or call 970-221-6705 to get more information or sign up.

3. Which of the following do you have?

(Check all that apply)

- Annual bus pass/Passfort
- Monthly bus pass
- CSU bus pass (RAMCard, Faculty/Staff ID)
- Bike Cage membership (CSU or City)
- Bike Share membership (Zagster)
- Car Share membership (ZipCar)
- Ride Share membership (Uber/Lyft)
- CSU parking permit
- Downtown (City) parking permit

4. Are you employed?

- No → Go to question #9
- Yes, part-time
- Yes, full-time

5. Which location is your primary workplace closest to?

- Fort Collins
- Boulder
- Denver metro area
- Greeley
- Other city, specify: _____
- Longmont
- Loveland
- Windsor
- I work from my home

6. Please write in the address, building and/or nearest cross streets of your primary workplace.

Building or address: _____
Nearest cross streets: _____
& _____

7. How often, if ever, do you telecommute for work all day *instead of* traveling into work (i.e., stay at home and use computers, Internet, or phones to complete your work)?

- Every workday (I always work from my home)
- 1-4 times a week
- 1-3 times total
- Never

8. Did you telecommute on the day you completed the travel diary?

- Yes
- No

HOUSEHOLD INFORMATION

9. Please check the one choice below that best describes the kind of residence in which you live.

- Single-family house detached from any other houses
- Attached home (e.g., duplex, triplex or townhome)
- Building with apartments or condominiums
- Mobile home
- Group quarters (e.g., dormitory, nursing home)
- Other: _____

10. Do you rent or own your residence?

- Rent Own

11. How many vehicles does your household regularly use?

Cars, SUVs, vans
minivans, pickup trucks Motorcycles/
scooters

Please provide details for these vehicles.

If you have fewer than 4, only fill out those you have.

If you have more than 4, choose the 4 you use most often.

	Vehicle Type (check one)	Fuel Type (check one)	Year (write in)
1 (your main vehicle)	<input type="radio"/> Car <input type="radio"/> SUV/van/minivan <input type="radio"/> Pickup truck <input type="radio"/> Motorcycle/scooter	<input type="radio"/> Electric <input type="radio"/> Hybrid <input type="radio"/> Gas <input type="radio"/> Diesel	-----
2 (other vehicle)	<input type="radio"/> Car <input type="radio"/> SUV/van/minivan <input type="radio"/> Pickup truck <input type="radio"/> Motorcycle/scooter	<input type="radio"/> Electric <input type="radio"/> Hybrid <input type="radio"/> Gas <input type="radio"/> Diesel	-----
3 (other vehicle)	<input type="radio"/> Car <input type="radio"/> SUV/van/minivan <input type="radio"/> Pickup truck <input type="radio"/> Motorcycle/scooter	<input type="radio"/> Electric <input type="radio"/> Hybrid <input type="radio"/> Gas <input type="radio"/> Diesel	-----
4 (other vehicle)	<input type="radio"/> Car <input type="radio"/> SUV/van/minivan <input type="radio"/> Pickup truck <input type="radio"/> Motorcycle/scooter	<input type="radio"/> Electric <input type="radio"/> Hybrid <input type="radio"/> Gas <input type="radio"/> Diesel	-----

12. How many usable bicycles and tricycles does your household have?

Regular bicycles/tricycles Electric-assisted bicycles/tricycles

13. How many household members are in each of the following age categories? (Please include yourself)

Age category	Number in household
0 to 15 years	_____
16 to 64 years	_____
65 or older	_____

14. For all children in your household who go to a K-12 school, please check their most frequently used travel mode to get to school. (If no children live in your household, or none attend K-12 school, please go to question #15)

Child's most frequent travel mode to school (check one in each column)	Child 1	Child 2	Child 3	Child 4	Child 5
Walk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bicycle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scooter/skateboard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School bus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public bus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Driven alone (passenger)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Driven with other children	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drive themselves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Drive themselves + others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. For household members who are 18 or older (and those 16-17 who are not in a K-12 school), please check their most frequently used travel mode to work or school.

Check one in each column	You (1)	Others			
		2	3	4	
Telecommute/work from home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Walk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Bicycle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Take bus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Drive alone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Drive with adult from household	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Drive with adult NOT from household	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Drive with children from household	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Drive with children NOT from household	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

16. About how much was your TOTAL 2016 income before taxes for your household?

- Less than \$15,000 \$50,000 to \$74,999
 \$15,000 to \$24,999 \$75,000 to \$99,999
 \$25,000 to \$34,999 \$100,000 to \$149,999
 \$35,000 to \$49,999 \$150,000 or more

INDIVIDUAL INFORMATION

17. How many years have you lived in Fort Collins?

18. (write "0" if less than 6 months)

19. Which category contains your age?

- 18-24 35-44 55-64 75 +
 25-34 45-54 65-74

20. Are you, or any household members, students at Colorado State University or Front Range Community College?

You	Others	How many total? (including you)
<input type="radio"/> No	<input type="radio"/> None	
<input type="radio"/> Yes, full-time	<input type="radio"/> Yes, full-time →	_____
<input type="radio"/> Yes, part-time	<input type="radio"/> Yes, part-time →	_____

21. How much education have you completed?

- 0 to 11 years of school
 High school diploma/GED
 Some college or associate's degree
 Bachelor's degree
 Graduate/professional degree

22. Which category best describes your ethnicity?

- Hispanic Non-Hispanic

23. Which categories best describes your race? (Choose all that apply)

- African American/Black Caucasian/White
 Asian or Pacific Islander Native American
 Other _____

24. What is your gender?

- Female Male Other

Thank you very much for taking the time to complete this survey. Please return this with your travel diary in the postage-paid envelope provided

2017 Fort Collins Trip Diary

Please record all of your trip segments, whether you are a passenger, driver, cyclist, or pedestrian.
 The information on the first row is included only as an example. Please refer to the instructions if you are not sure how to record your trips.

<p>Home Address: _____</p> <p>City: <u>Fort Collins</u> State: <u>CO</u> Zip: _____</p> <p>DIARY DATE: _____ / _____ / <u>2017</u> <small>month / date / year</small></p>	<p>STARTING POINT FOR DAY:</p> <p><input type="radio"/> I did not leave the house today <input type="radio"/> Started from home <input checked="" type="radio"/> Started somewhere else</p> <p>↳ Starting Address: _____</p> <p>City: _____ State: _____ Zip: _____</p> <p>or Nearest _____ & _____</p> <p>Cross Streets: _____</p>	<p>If using motor vehicle, list odometer reading:</p> <p>at beginning of day: _____</p> <p>at end of day: _____</p>
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#	Destination	Trip segment type (Check one)	Trip segment distance (miles) and travel time	Trip segment purpose (Circle one)	Trip segment travel mode (Circle one, if you have more than one split them into separate segments)	Number of people in vehicle (inc. yourself)	
						children	adults
example	<u>Boltz Middle School</u> <u>Boltz</u> & <u>Camelot</u>	<input type="radio"/> One-way trip (no stops) <input checked="" type="radio"/> Part of a one-way trip (with stops) record each stop as a separate trip segment <input type="radio"/> Loop trip (no stops)	Segment distance: <u>2</u> miles Start time: <u>6:55</u> am/pm Arrival time: <u>7:05</u> am/pm	1. go home 2. go to work 3. go to school <input checked="" type="radio"/> 4. drive passenger 5. change travel mode 11. other: _____ 6. other work/business 7. personal business 8. social/recreation 9. eat a meal 10. shopping	<input checked="" type="radio"/> 1. car, pickup truck, SUV, minivan or van (driver) 2. car, pickup truck, SUV, minivan or van (passenger) 3. large commercial truck 4. bus (route(s): _____) 5. school bus 6. hail a ride (Uber, Lyft) 11. other: _____ 7. motorbike/scooter 8. walk 9. bicycle (your own) 10. bike share	1	1
1	_____ & _____	<input type="radio"/> One-way trip (no stops) <input type="radio"/> Part of a one-way trip (with stops) record each stop as a separate trip segment <input type="radio"/> Loop trip (no stops)	Segment distance: _____ miles Start time: _____: _____ am/pm Arrival time: _____: _____ am/pm	1. go home 2. go to work 3. go to school 4. drive passenger 5. change travel mode 11. other: _____ 6. other work/business 7. personal business 8. social/recreation 9. eat a meal 10. shopping	1. car, pickup truck, SUV, minivan or van (driver) 2. car, pickup truck, SUV, minivan or van (passenger) 3. large commercial truck 4. bus (route(s): _____) 5. school bus 6. hail a ride (Uber, Lyft) 11. other: _____ 7. motorbike/scooter 8. walk 9. bicycle (your own) 10. bike share		
2	_____ & _____	<input type="radio"/> One-way trip (no stops) <input type="radio"/> Part of a one-way trip (with stops) record each stop as a separate trip segment <input type="radio"/> Loop trip (no stops)	Segment distance: _____ miles Start time: _____: _____ am/pm Arrival time: _____: _____ am/pm	1. go home 2. go to work 3. go to school 4. drive passenger 5. change travel mode 11. other: _____ 6. other work/business 7. personal business 8. social/recreation 9. eat a meal 10. shopping	1. car, pickup truck, SUV, minivan or van (driver) 2. car, pickup truck, SUV, minivan or van (passenger) 3. large commercial truck 4. bus (route(s): _____) 5. school bus 6. hail a ride (Uber, Lyft) 11. other: _____ 7. motorbike/scooter 8. walk 9. bicycle (your own) 10. bike share		
3	_____ & _____	<input type="radio"/> One-way trip (no stops) <input type="radio"/> Part of a one-way trip (with stops) record each stop as a separate trip segment <input type="radio"/> Loop trip (no stops)	Segment distance: _____ miles Start time: _____: _____ am/pm Arrival time: _____: _____ am/pm	1. go home 2. go to work 3. go to school 4. drive passenger 5. change travel mode 11. other: _____ 6. other work/business 7. personal business 8. social/recreation 9. eat a meal 10. shopping	1. car, pickup truck, SUV, minivan or van (driver) 2. car, pickup truck, SUV, minivan or van (passenger) 3. large commercial truck 4. bus (route(s): _____) 5. school bus 6. hail a ride (Uber, Lyft) 11. other: _____ 7. motorbike/scooter 8. walk 9. bicycle (your own) 10. bike share		

#	Destination	Trip segment type (Check one)	Trip segment distance (miles) and travel time	Trip segment purpose (Circle one)	Trip segment travel mode (Circle one, if you have more than one split them into separate segments)	Number of people in vehicle (inc. yourself)	
						children	adults
4	_____ & _____	<input type="radio"/> One-way trip (no stops) <input type="radio"/> Part of a one-way trip (with stops) record each stop as a separate trip segment <input type="radio"/> Loop trip (no stops)	Segment distance: _____ miles Start time: _____:_____ am/pm Arrival time: _____:_____ am/pm	1. go home 2. go to work 3. go to school 4. drive passenger 5. change travel mode 11. other: _____ 6. other work/business 7. personal business 8. social/recreation 9. eat a meal 10. shopping	1. car, pickup truck, SUV, minivan or van (driver) 2. car, pickup truck, SUV, minivan or van (passenger) 3. large commercial truck 4. bus (route(s): _____) 5. school bus 6. hail a ride (Uber, Lyft) 11. other: _____ 7. motorbike/scooter 8. walk 9. bicycle (your own) 10. bike share		
5	_____ & _____	<input type="radio"/> One-way trip (no stops) <input type="radio"/> Part of a one-way trip (with stops) record each stop as a separate trip segment <input type="radio"/> Loop trip (no stops)	Segment distance: _____ miles Start time: _____:_____ am/pm Arrival time: _____:_____ am/pm	1. go home 2. go to work 3. go to school 4. drive passenger 5. change travel mode 11. other: _____ 6. other work/business 7. personal business 8. social/recreation 9. eat a meal 10. shopping	1. car, pickup truck, SUV, minivan or van (driver) 2. car, pickup truck, SUV, minivan or van (passenger) 3. large commercial truck 4. bus (route(s): _____) 5. school bus 6. hail a ride (Uber, Lyft) 11. other: _____ 7. motorbike/scooter 8. walk 9. bicycle (your own) 10. bike share		
6	_____ & _____	<input type="radio"/> One-way trip (no stops) <input type="radio"/> Part of a one-way trip (with stops) record each stop as a separate trip segment <input type="radio"/> Loop trip (no stops)	Segment distance: _____ miles Start time: _____:_____ am/pm Arrival time: _____:_____ am/pm	1. go home 2. go to work 3. go to school 4. drive passenger 5. change travel mode 11. other: _____ 6. other work/business 7. personal business 8. social/recreation 9. eat a meal 10. shopping	1. car, pickup truck, SUV, minivan or van (driver) 2. car, pickup truck, SUV, minivan or van (passenger) 3. large commercial truck 4. bus (route(s): _____) 5. school bus 6. hail a ride (Uber, Lyft) 11. other: _____ 7. motorbike/scooter 8. walk 9. bicycle (your own) 10. bike share		
7	_____ & _____	<input type="radio"/> One-way trip (no stops) <input type="radio"/> Part of a one-way trip (with stops) record each stop as a separate trip segment <input type="radio"/> Loop trip (no stops)	Segment distance: _____ miles Start time: _____:_____ am/pm Arrival time: _____:_____ am/pm	1. go home 2. go to work 3. go to school 4. drive passenger 5. change travel mode 11. other: _____ 6. other work/business 7. personal business 8. social/recreation 9. eat a meal 10. shopping	1. car, pickup truck, SUV, minivan or van (driver) 2. car, pickup truck, SUV, minivan or van (passenger) 3. large commercial truck 4. bus (route(s): _____) 5. school bus 6. hail a ride (Uber, Lyft) 11. other: _____ 7. motorbike/scooter 8. walk 9. bicycle (your own) 10. bike share		
8	_____ & _____	<input type="radio"/> One-way trip (no stops) <input type="radio"/> Part of a one-way trip (with stops) record each stop as a separate trip segment <input type="radio"/> Loop trip (no stops)	Segment distance: _____ miles Start time: _____:_____ am/pm Arrival time: _____:_____ am/pm	1. go home 2. go to work 3. go to school 4. drive passenger 5. change travel mode 11. other: _____ 6. other work/business 7. personal business 8. social/recreation 9. eat a meal 10. shopping	1. car, pickup truck, SUV, minivan or van (driver) 2. car, pickup truck, SUV, minivan or van (passenger) 3. large commercial truck 4. bus (route(s): _____) 5. school bus 6. hail a ride (Uber, Lyft) 11. other: _____ 7. motorbike/scooter 8. walk 9. bicycle (your own) 10. bike share		
9	_____ & _____	<input type="radio"/> One-way trip (no stops) <input type="radio"/> Part of a one-way trip (with stops) record each stop as a separate trip segment <input type="radio"/> Loop trip (no stops)	Segment distance: _____ miles Start time: _____:_____ am/pm Arrival time: _____:_____ am/pm	1. go home 2. go to work 3. go to school 4. drive passenger 5. change travel mode 11. other: _____ 6. other work/business 7. personal business 8. social/recreation 9. eat a meal 10. shopping	1. car, pickup truck, SUV, minivan or van (driver) 2. car, pickup truck, SUV, minivan or van (passenger) 3. large commercial truck 4. bus (route(s): _____) 5. school bus 6. hail a ride (Uber, Lyft) 11. other: _____ 7. motorbike/scooter 8. walk 9. bicycle (your own) 10. bike share		

Thank you very much for taking the time to complete this Trip Diary. **Please return this Trip Diary along with your Household Survey using the postage-paid envelope provided.**
 If you can't find the envelope, you can mail it to NRC, 2955 Valmont Rd., Suite 300, Boulder, CO 80301, or scan and email to traveldiary@n-r-c.com