Ashley Asmus, Metropolitan Transportation Services ashley.asmus@metc.state.mn.us

Travel Behavior Inventory and COVID-19 Panel Survey

Land Use Advisory Committee January 21, 2021





Travel Behavior Inventory Survey





Travel Behavior Inventory

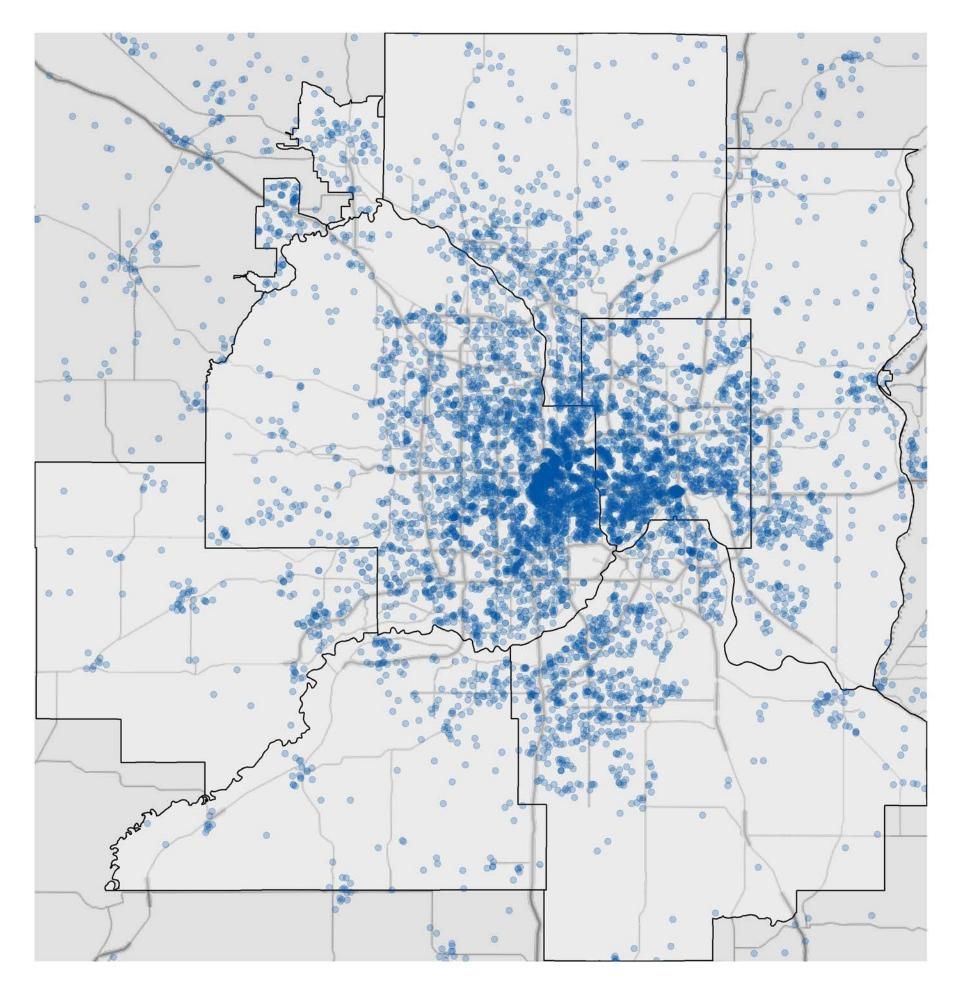
Surveys •Household •Transit •Other



Transportation Policy Plan, Forecast Model



Households surveyed: 7,870

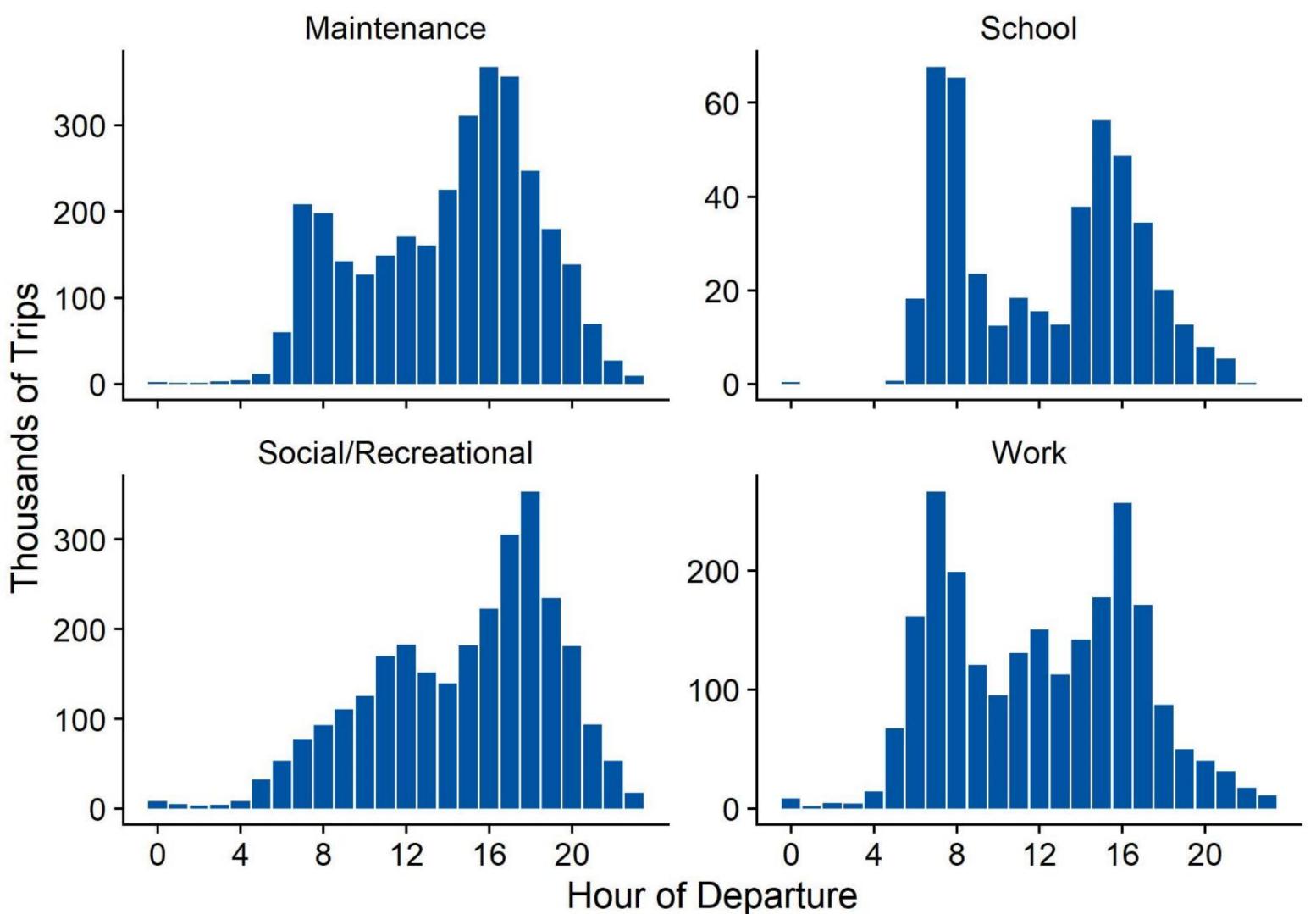


4

- October 2018-October 2019
- 7,870 households surveyed
- 5,366 responded using smartphone app (for one week)
- 2,504 used a one-day diary survey
- 58% Urban, 23% Rural or Rural-Ring
- 23% rent their home, 75% own
- 7% with no vehicle
- Total of 16,222 people (2.1 people per household)



Travel behavior across the day

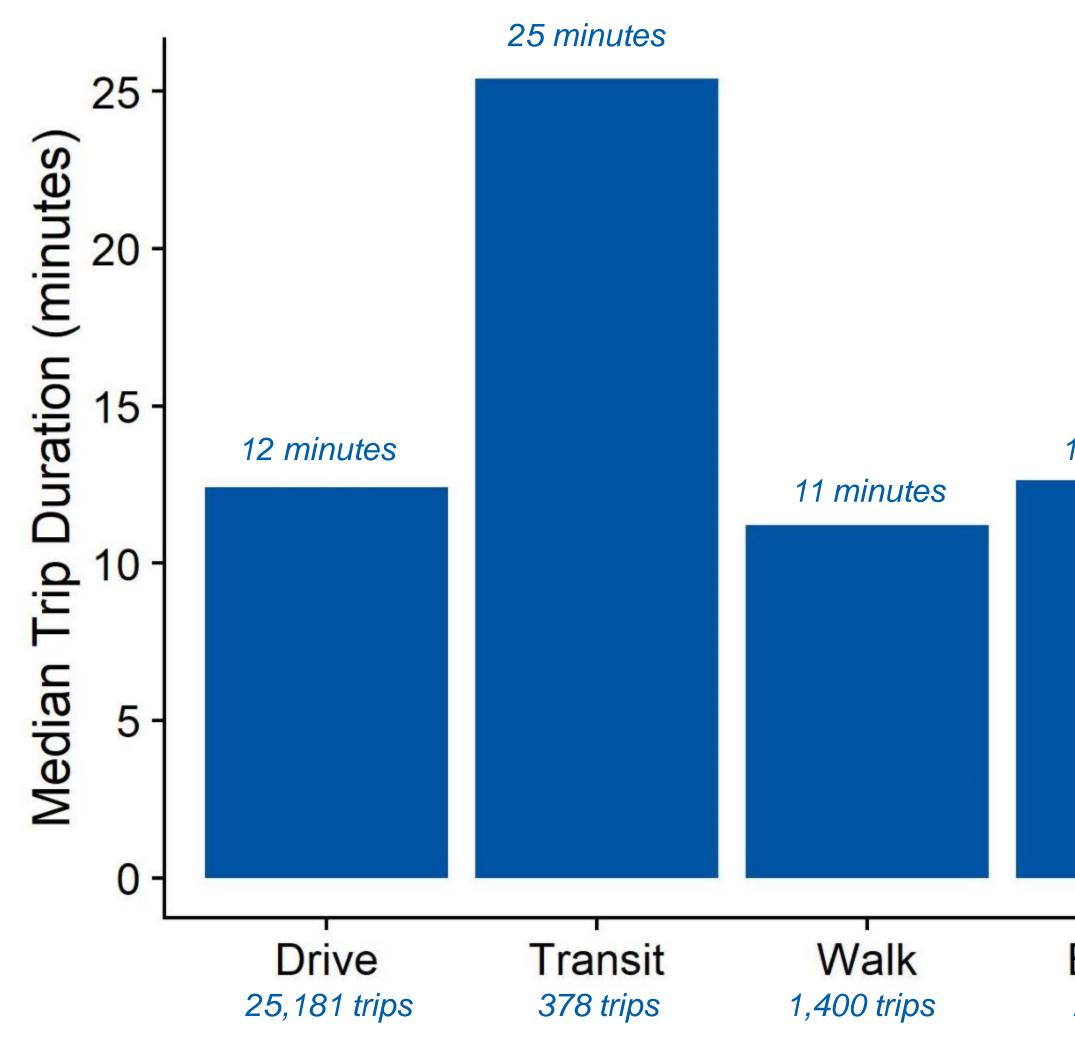


5

- Trip timing depends on the traveler and purpose
- Maintenance travel (e.g., errands, trips to grocery stores) peaks in morning and early evening
- Social travel peaks later than maintenance travel



Getting to the grocery store



6

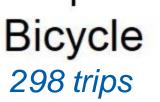
Average number of trips between home and grocery/pharmacy:

- 1.4 per household on a typical weekday
- 0.5 per person on a typical weekday
- 7 per household per week (7-day survey)
- 4 per person per week (7-day survey)

12 minutes

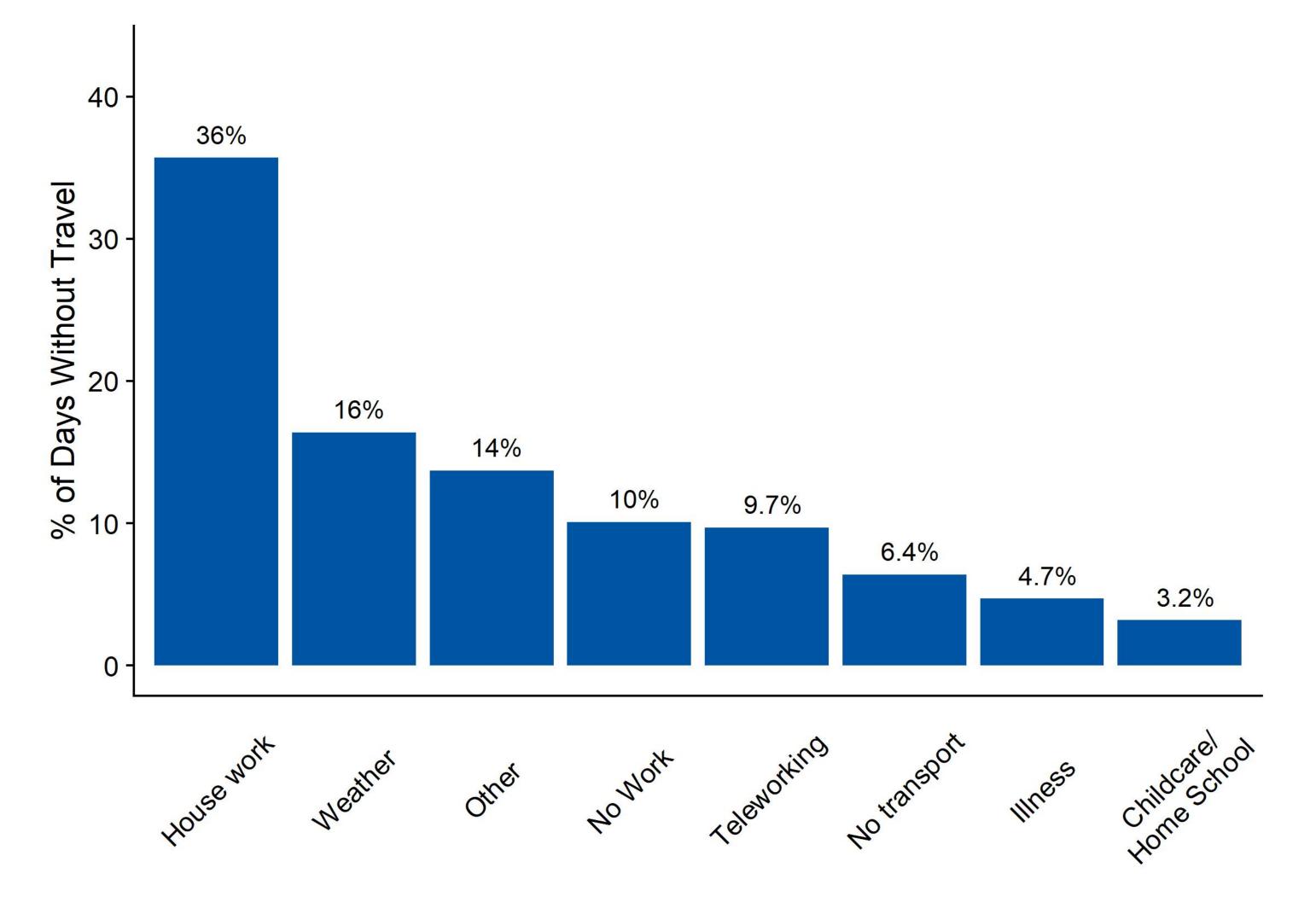


Of those who took transit to the grocery store, **18%** were African-American, compared to **3%** of those who drove, **9%** of those who walked, and **3%** of those who biked.





Trips not taken: days without travel



On a typical weekday in the Metro, **17%** of people do not travel. Why?

- 36% were doing housework (48% female; 45% male)
- 3% were taking care of children (52% female; 37% male)
- 16% because of weather (78% in Jan/Feb 2019)
- 10% were working remotely
- 6% lacked transportation



Travel Trends During COVID-19





COVID-19 Panel Survey

- TBI, provided an email address, and agreed to be re-contacted
- 8,800 adults eligible
- $\sim 37\%$ response rate = 3,244 responses
- 9% non-white
- income, household size)
- Survey was conducted May, August, October



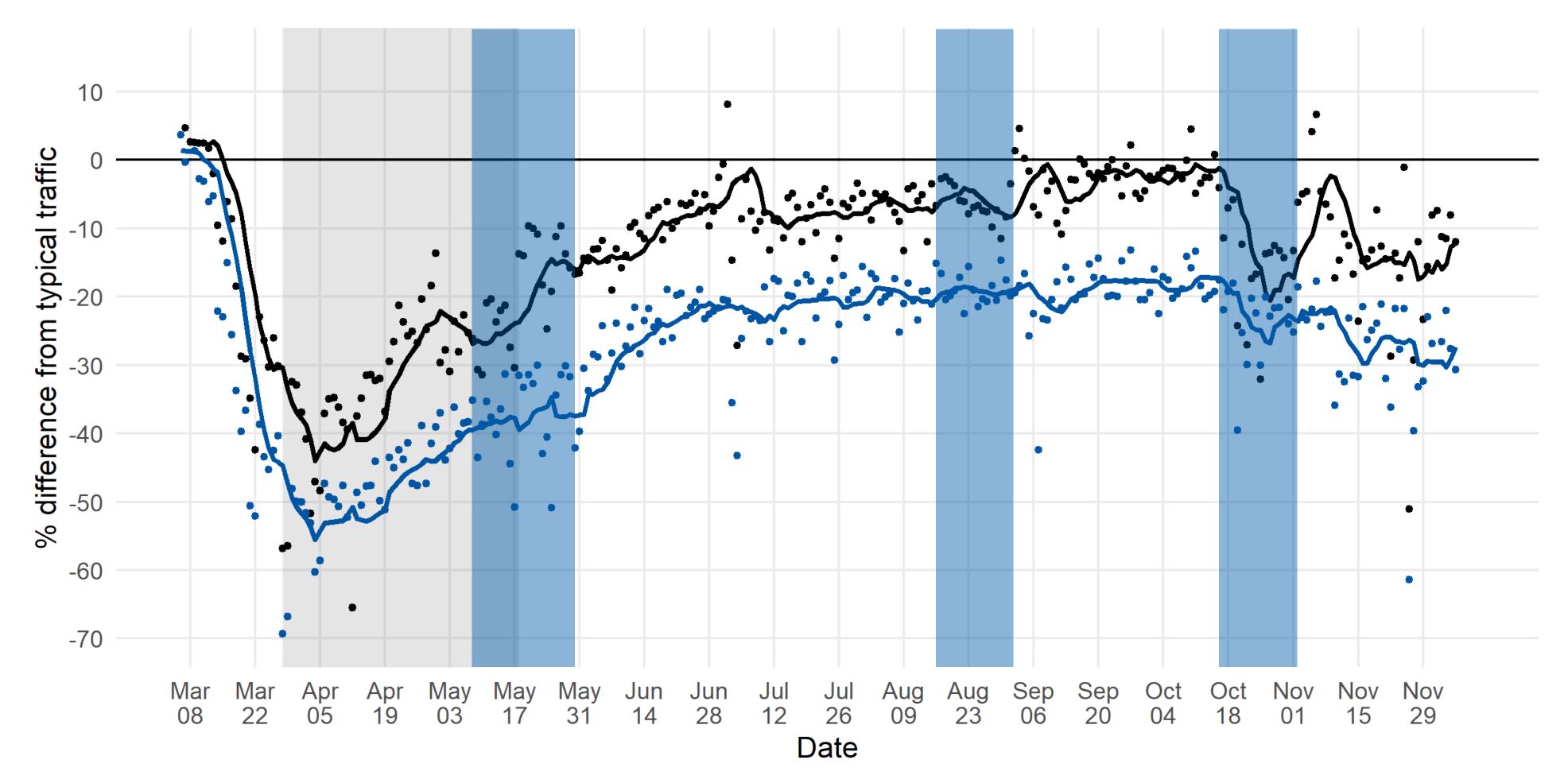
• Pool of eligible participants: all metro-area adults who participated in the 2019

Individual responses weighted to reflect the regional population (race, age,





Survey timing relative to traffic trends



Traffic Sensor Group

- MnDOT Metro Freeways
- (1000+ Stations)

MnDOT Statewide

(105 Stations)





Some of the topics we asked about

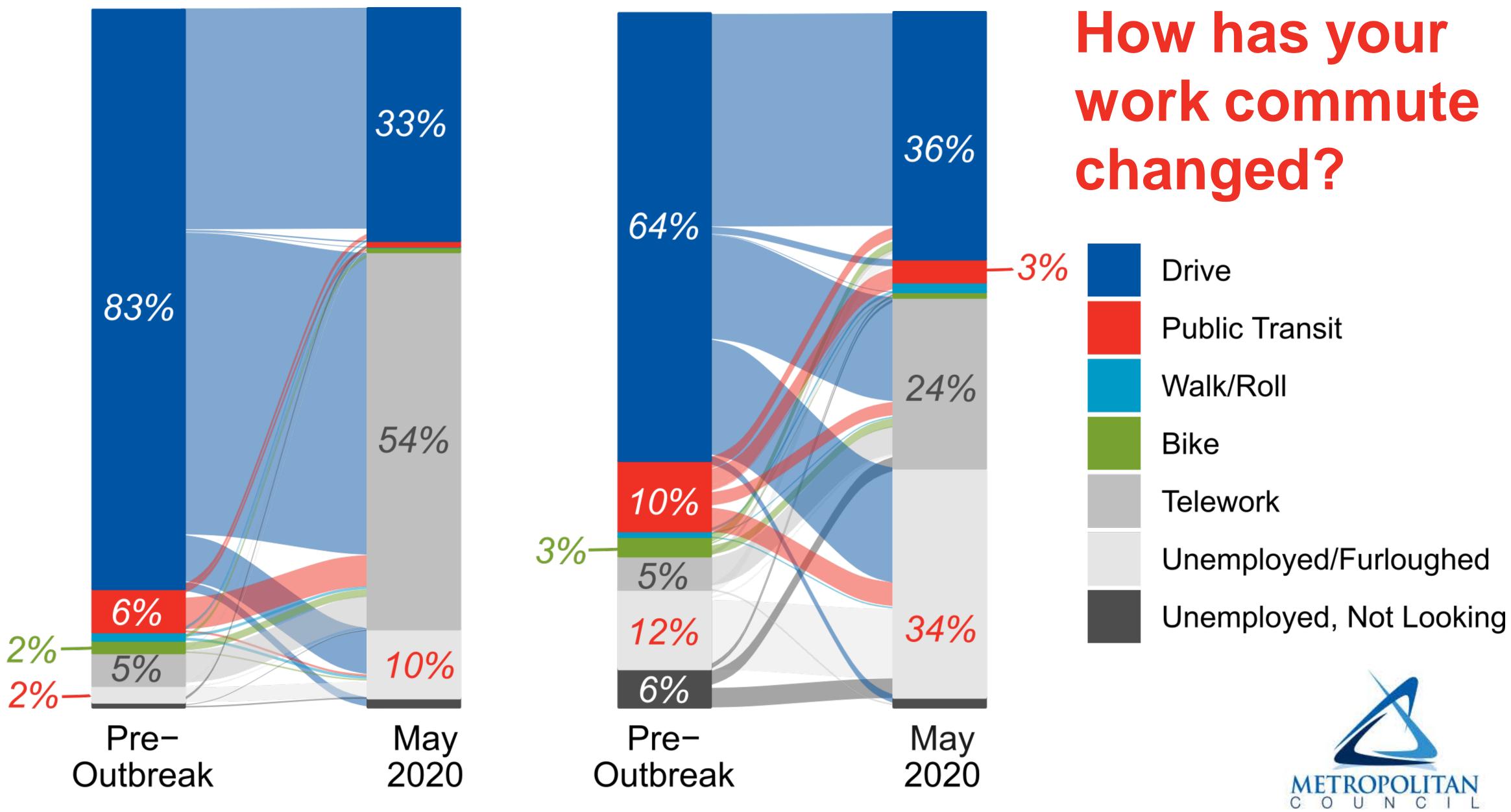
- Work: employment status, telecommuting, transportation to work
- Maintenance: grocery visits, online shopping, delivery services, telehealth Recreation: use of trails and newly widened paths
- Perceptions of COVID-19 health risks
- Attitudes towards new/proposed COVID-19 policies in transit and air travel
- Likelihood of car and bike purchases

. . . (Full list of topics at end of presentation)

All responses can be linked back to 2019 TBI Household Survey



More than \$50K



Under \$50K

How has your commute changed?

Across all incomes, workers who used to ...

unemployed (16%). Only 11% continue to take transit to work.

smaller share unemployed or furloughed (13%).

very few unemployed (2%).

respectively).

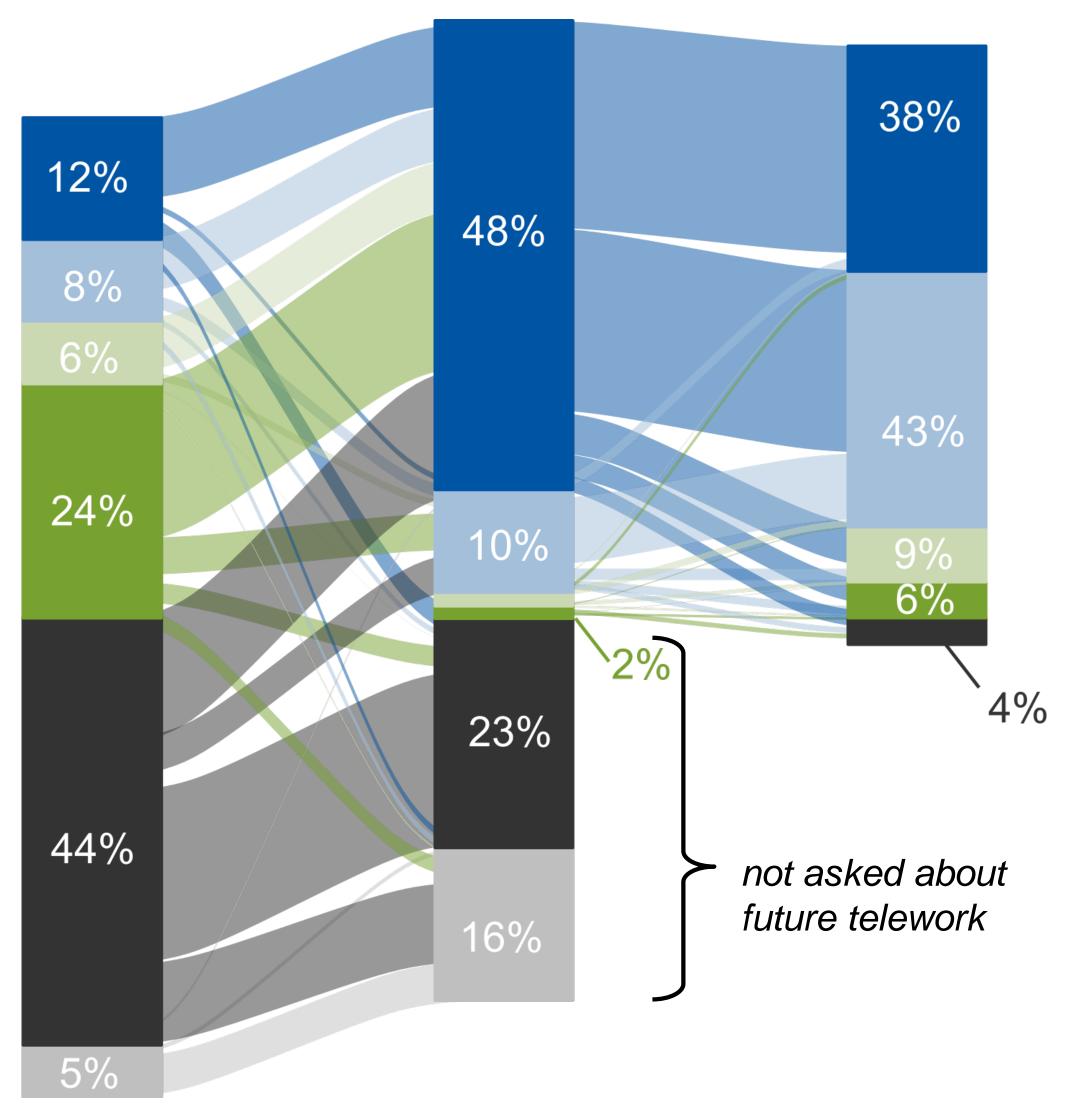
- use public transit are primarily teleworking (58%), driving (12%) or
- drive to work are teleworking (48%), or still driving to work (39%), with a
- telework continue to do so (91%), with some now driving to work (7%) and
- **bike or walk to work** are most likely teleworking (62% and 31%)





Pre-Outbreak





Future/ Preferred

Telework Frequency

- 5+ days a week
- 2−4 days a week
- 1 day a week

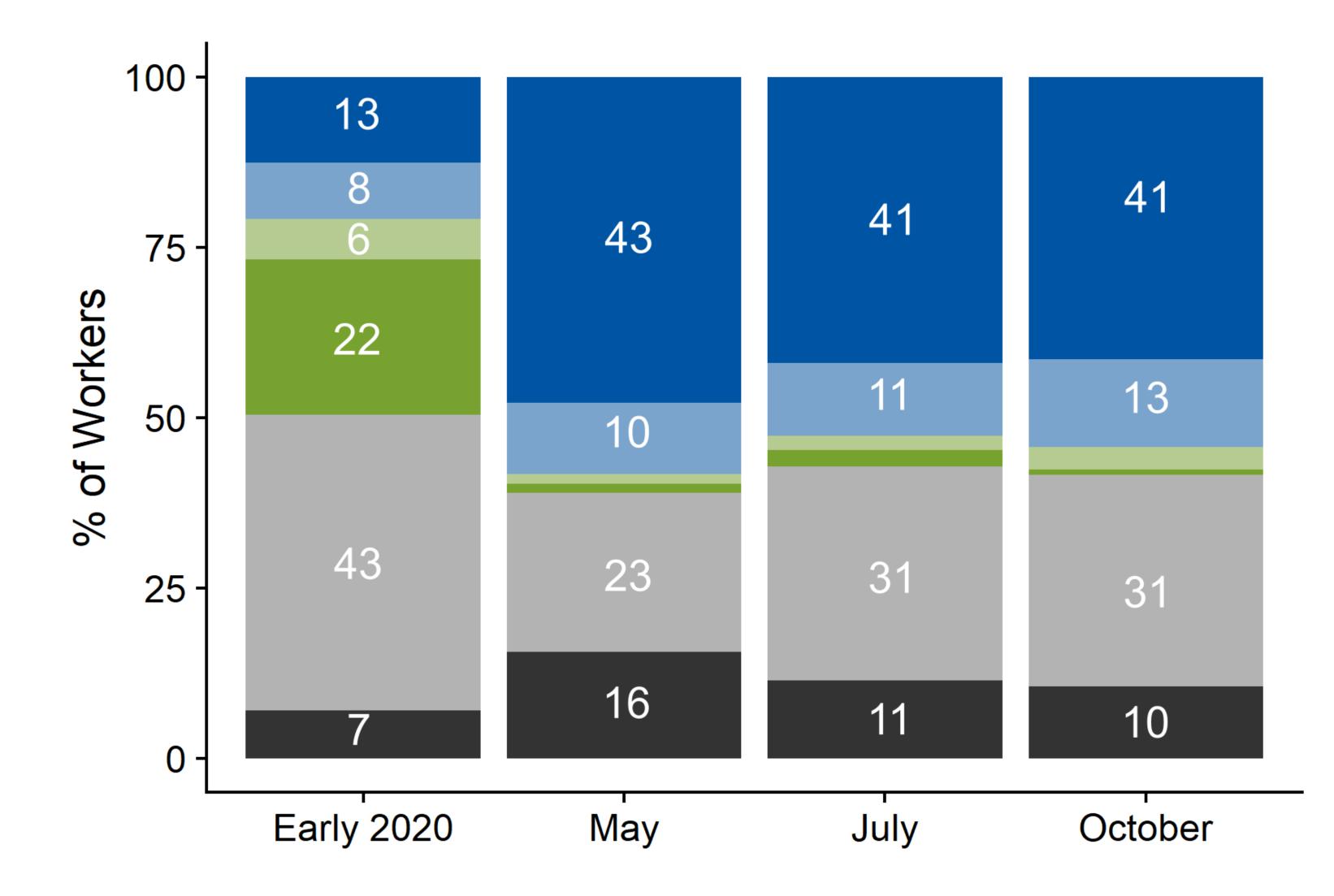
less than weekly

Never

Unemployed/Furloughed



Teleworking rates relatively constant



Telework Frequency





Perceived employer support of telework

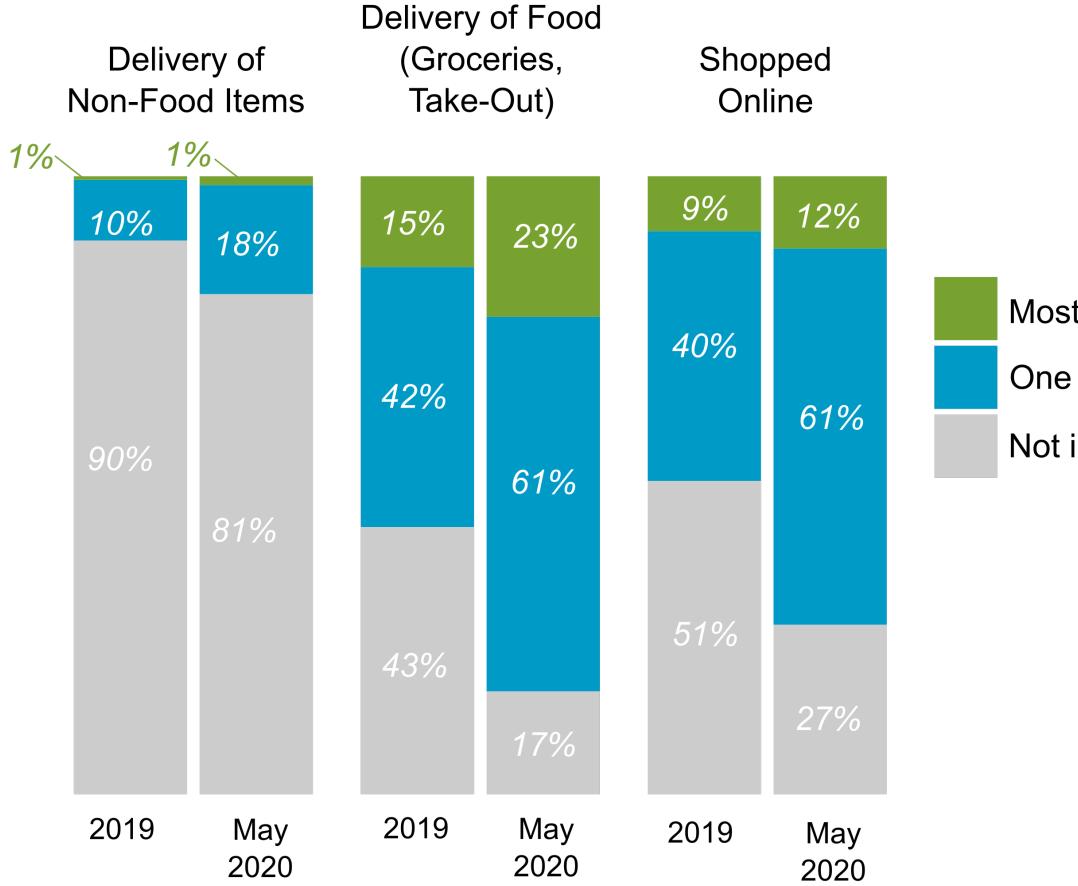
Employees who currently teleworked were asked "How likely do you think your employer would be to allow you to continue to work from home after you can commute to work again?"

- 39% say their employer would be very likely to allow continued telework
- 30% somewhat likely
- 9% neutral
- 11% somewhat unlikely
- 11% very unlikely





Home delivery & Online Shopping



*Comaprison includes only those survey participants who completed a 6- or 7-day 2019 TBI survey (n = 2321).

Most days (3-7 days)

One or two days

Not in last week

Who had groceries delivered in last 7 days?

- 16% of all adults
- 12% of adults in households earning <\$25K
- 32% of adults with disabilities

Only 3% of adults with disabilities used to have food (groceries, take-out) delivered one or two days per week; now, that number is 19%.





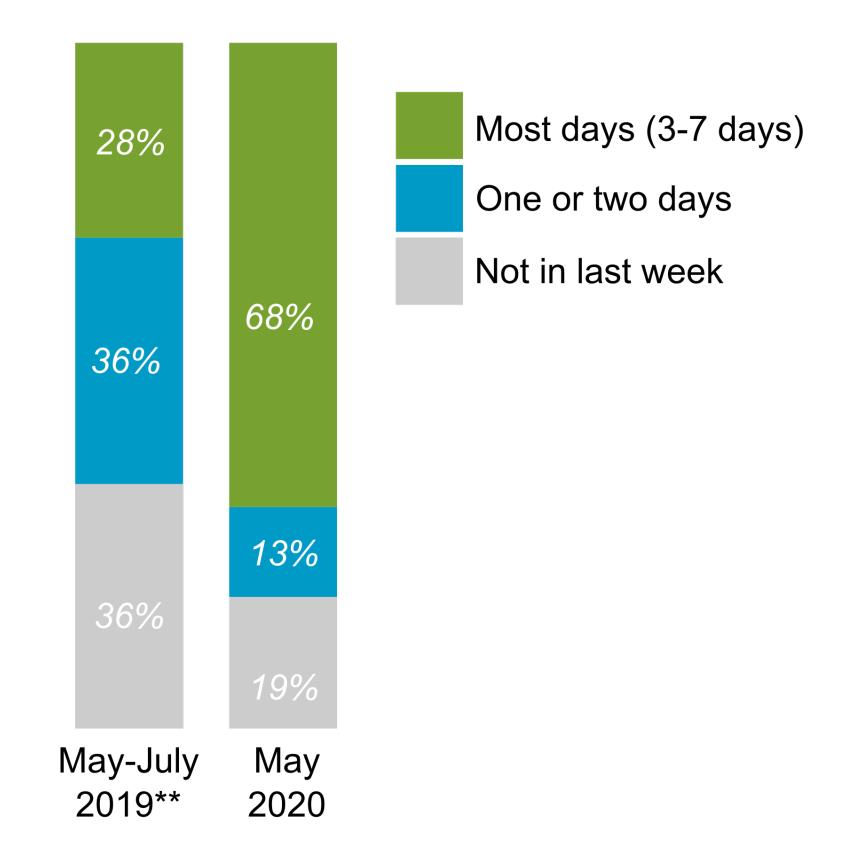
Outdoor recreation

Overall, we observed greatly increased rates of outdoor exercise/recreation.

11% of adults had recently used streets that have temporarily restricted vehicle traffic to expand space for people walking, biking and rolling during the COVID-19 outbreak.

45% of respondents said they had recently used a park or trail for recreation or exercise. Of those who had recently used a park or trail, **40%** said they drove to a park or trail at least once in the past week.

In the past 7 days, on how many days did you go outside to walk, jog, or roll using a mobility device, such as a wheelchair for exercise or recreation?*



*Comparison includes only those survey participants who completed a 6- or 7-day 2019 TBI survey in summer months (n = 597). **Values for summer 2019 may be over-estimates, because they include trips to gyms and other indoor exercise facilities that were closed in May 2020.



OUNC

What questions are important to you?





List of topics covered in survey

- Exercise frequency and location
- Use of streets that have temporarily restricted vehicle traffic for social distancing
- Access to parks and trails: driving to reach parks Barriers to transportation and trails for exercise/recreation Attitudes towards public health policies in air travel
- Bicycle frequency, trip purpose, bike share
- Grocery shopping type: in-store, delivery, pick-up Demographics - change in residence, disability status, income, age, gender, race Grocery shopping frequency
- Online shopping frequency
- All modes used last week
- All trip purposes for last week
- Travel to medical visits (and telehealth)
- Transit replacement modes

Likelihood of purchasing a car, bike, scooter, bike share or transit pass in next six months

- Attitudes towards public health policies on transit
- Size of household
- Employment status before and now
- Teleworking rates and preferences
- Perception of COVID-19 risks
- Job type



