

# Preliminary Results from the Public Transit and COVID-19 Survey



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## **Introduction**

This survey seeks to understand the impact of COVID-19 on frequent transit users in Toronto. We define frequent transit users as those who rode transit in Toronto more than once per week prior to the COVID-19 outbreak. Recruitment took place via Facebook advertisements. Eligibility to participate was limited to adults who meet our definition of frequent transit users. Preliminary results come from a sample of 2,753 surveys, however Torontonians can still fill out a version of the survey [here](#).

Our results fall into five categories around which this report is organized:

1. Learning who stopped taking transit and who did not.
2. Understanding how essential workers who relied on transit have adapted.
3. Uncovering why some Torontonians continue to take transit
4. Understanding what impacts giving up transit has had on the wellbeing of those who stopped riding.
5. Gauging when former riders might return, and what actions transit agencies can take to encourage riders to return when it is safe and appropriate to do so.

## **Who is Still Taking Transit and Who Stopped**

Roughly 69% of respondents stopped riding transit when the province closed non-essential workplaces on March 15<sup>th</sup>, 2020. This statistic reflects the authors' intention of oversampling Torontonians who still ride, as TTC ridership fell by 80% as a result of the COVID shutdown.<sup>1</sup>

We present the percent of people who stopped riding transit by demographic groups in Table 1 below. Survey respondents who stopped riding transit were more likely to be female, not have a physical disability, have incomes over \$80,000, be White or East Asian, and be under the age of 50. Survey respondents who continued to ride transit after March 15<sup>th</sup> were more likely to be male, have a disability, have incomes under \$80,000, be over the age of 50 and identify as Filipino, Latin America, South Asian, Middle Eastern, Southeast Asian, West Asian or Black.

It is important to reiterate that this does not mean certain groups are more or less likely to be riding transit compared to the general population, as this is not a comparison with the general population. This is a comparison among frequent transit users, whom we have defined as people who used transit more than once a week prior to March 15<sup>th</sup>.

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<sup>1</sup> <https://www.cp24.com/news/ridership-and-revenue-on-ttc-go-in-steep-decline-during-covid-19-pandemic-1.4894614>

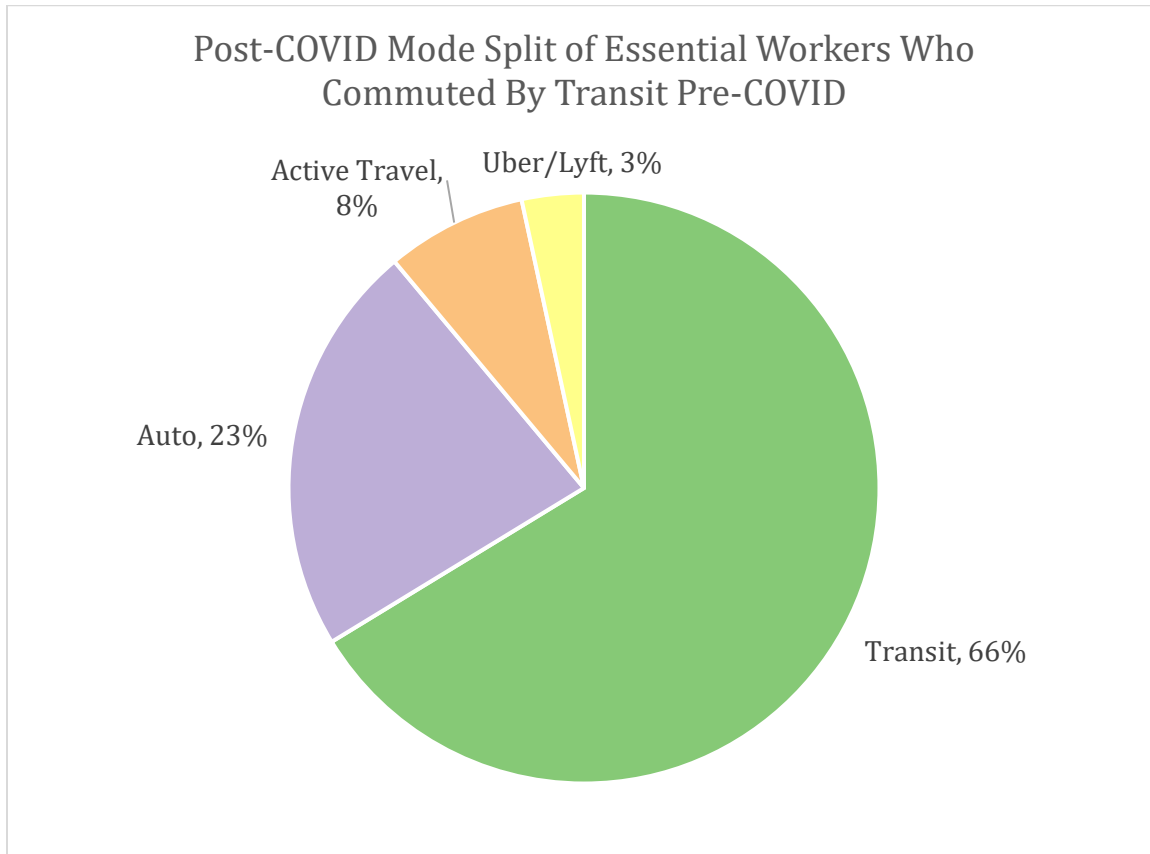
Table 1: Percent Of Respondents Who Stopped Riding Transit

	Percent of Sample	Percent Who Stopped Riding
<b>Total</b>	<b>N/A</b>	<b>69%</b>
<i>Gender</i>		
Male	30%	64%
Female	68%	73%
Non-binary	2%	72%
<i>Physical Disability</i>		
Has a physical disability		60%
Does not have a physical disability		70%
<i>Income</i>		
\$0 - \$40,000	29%	59%
\$40,000 - \$80,000	32%	66%
\$80,000 - \$125,000	23%	76%
\$125,000 +	16%	86%
<i>Housing Costs</i>		
Not Cost Burdened	30%	71%
Cost Burdened	37%	71%
Severely Cost Burdened	33%	64%
<i>Ethnicity</i>		
Canadian Indigenous	2.7%	70%
White	57%	73%
East Asian	7%	73%
South Asian	9%	65%
Middle Eastern and West Asian	3%	67%
Black	5%	56%
Southeast Asian	2%	65%
Filipino	5%	50%
Latin American	6%	61%
<i>Age</i>		
18-29	37%	70%
30-50	46%	73%
50-64	15%	59%
65+	2%	55%

### Essential Workers Who Rely on Transit

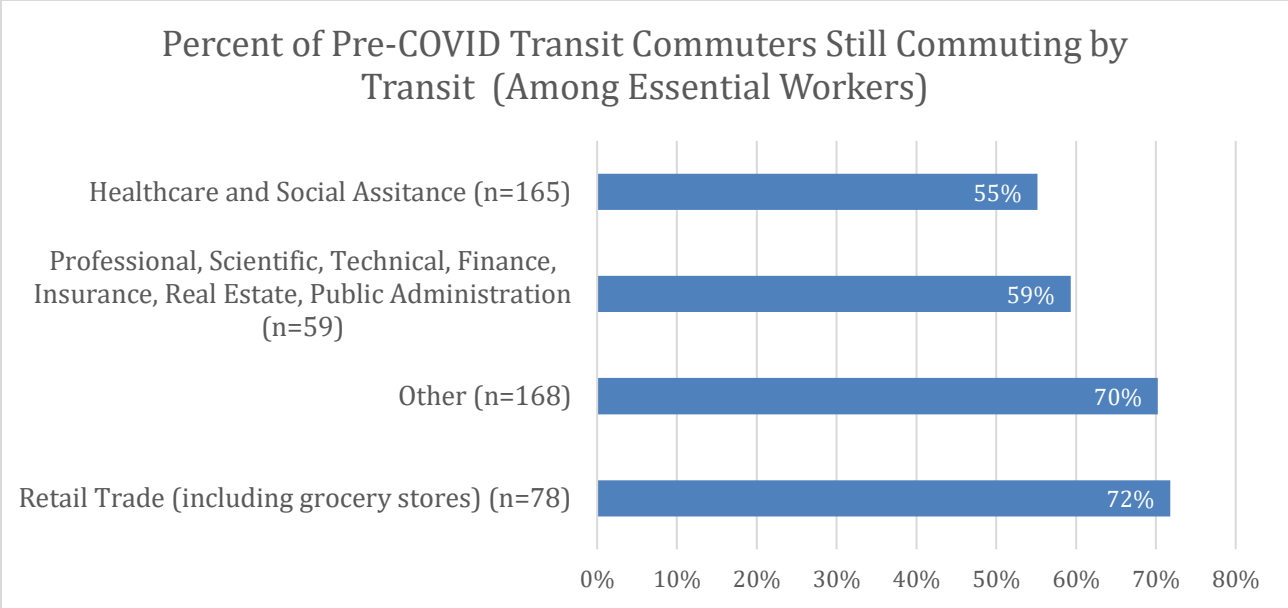
We heard from 460 essential workers who commuted by public transit prior to COVID-19. Two-thirds of these respondents continue to take public transit. A little under a quarter (23%)

switched from transit to driving, and another 8% percent switched from public transit to active modes, including walking, cycling, and using bike share. Just over 3% switched to Uber/Lyft. These results are visualized in Figure 1.



*Figure 1: Shutdown mode split of essential workers who commuted by transit pre-shutdown*

The continued use of transit by essential workers varies substantially by sector. We present this change by sector in Figure 2. Sectors are aggregated to ensure a minimum sample size in each category (40). Continued transit use is highest among retail workers (72%), which includes grocery stores. This group is followed closely by Other (70%), which includes manufacturing, wholesale trade, food preparation and accommodation, agriculture, mining, utilities, maintenance and repair, and construction. In contrast, only 59% of professional, scientific, technical, finance, insurance, real estate, and public administration essential workers who commuted by transit pre-COVID still do. Healthcare and social assistance workers still use transit at the lowest rate of these groups, at 55%. This may reflect greater concern by these critically exposed workers to avoid contracting COVID-19.

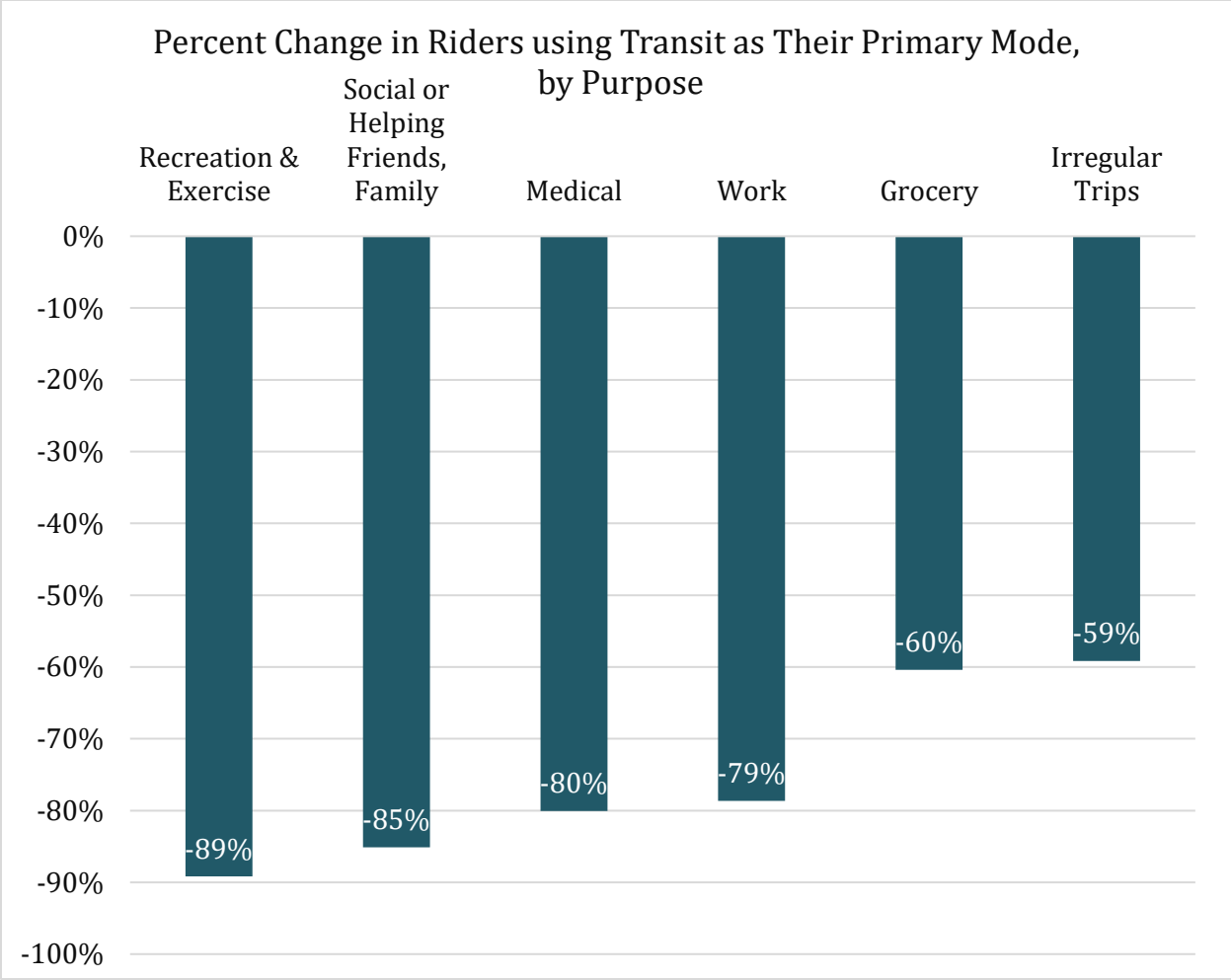


*Figure 2: Among Essential Workers Who Used to Commute By Transit, the Percent that Still Do, By Industry*

**Why Torontonians Still Ride Transit**

We asked respondents to report the means of travel they used most often to do different activities, such as work, groceries, medical trips, and recreation. We asked respondents to report these ‘primary means of travel’ before COVID-19 and during the shutdown. Using these, we calculated the percent drop-off in use of transit as a primary means of travel for each activity. This drop off in usage by purposes is plotted in Figure 3 below.

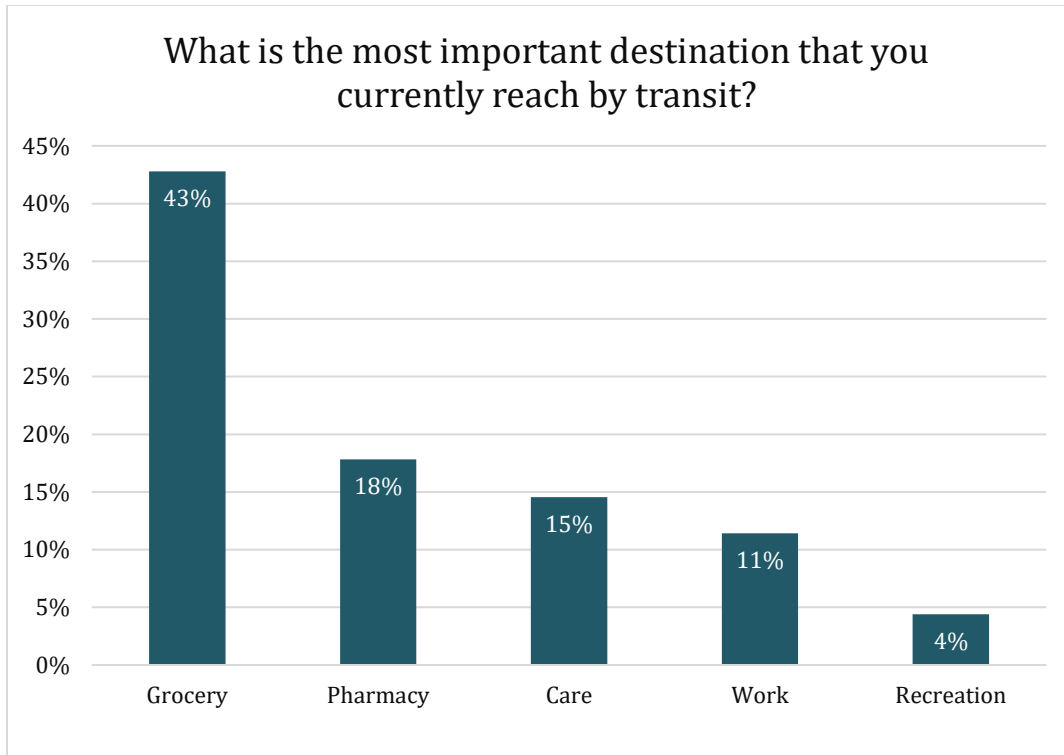
These declines mostly reflect adherence to the province’s recommendations around physical distancing. The greatest reductions in transit use are for trips to recreation or exercise (-89%), and social activities, including supporting or taking care of others (-85%). Work and medical trips follow, with 80% of riders who used transit for these purposes no longer doing so. The smallest declines come from those who primarily used transit for groceries prior to the outbreak (-60%), and those who used transit for any irregular trips they had to make (-59%). The relatively smaller drop off in use of transit for groceries is driven by two interwoven factors. People still using transit for groceries tend to be older and carless.



*Figure 3: Change in use of public transit as a primary mode of travel, among those who used transit more than once a week prior to COVID 19*

To understand what transportation needs motivate transit demand during the shutdown, we asked respondents who to consider the most important trip they are taking by transit during the COVID-19 shutdown and state its purpose. We plot these purposes in Figure 4. In line with previous findings, groceries emerge as an important driver of transit use: 43% of current transit users in Toronto report on groceries as their most important transit trip purpose. Pharmacy trips follow that, at 18%, while another 15% report supporting friends and family as the most important trip they make on transit during the shutdown. Only 11% report work as their most important transit trip.

These results suggest that while essential workers may be the largest source of daily ridership for transit during the shutdown, many other Torontonians are still relying on public transit for less frequent but nonetheless important activities. These include accessing food and medications for both themselves and others.



*Figure 4: Purpose of most important trip currently reached by transit among those who continue to ride transit during COVID-19*

We asked these riders to consider what it would mean for them if they had to give up using public transit. We asked them the extent to which they agreed or disagreed with a series of statements provided in Figure 5, which presents the percentage who agreed or strongly agreed with each statement. A large majority of respondents still riding transit agreed that giving up public transit would be expensive (70%), suggesting that financial constraints play a significant role in their choices to continue to ride. Unsurprisingly, less than a fifth of the same respondents believe that they could continue making the effort to avoid public transit for up to 18 months if they had to. The remaining results are less extreme. Just forty percent believe that giving up transit would mean taking fewer trips for groceries, and just under half believe that giving up transit would make them less independent. A small majority, 55%, believe that giving up public transit would mean putting off or rescheduling medical trips. A subsequent publication will document the types of healthcare these respondents reach by transit during the crisis.



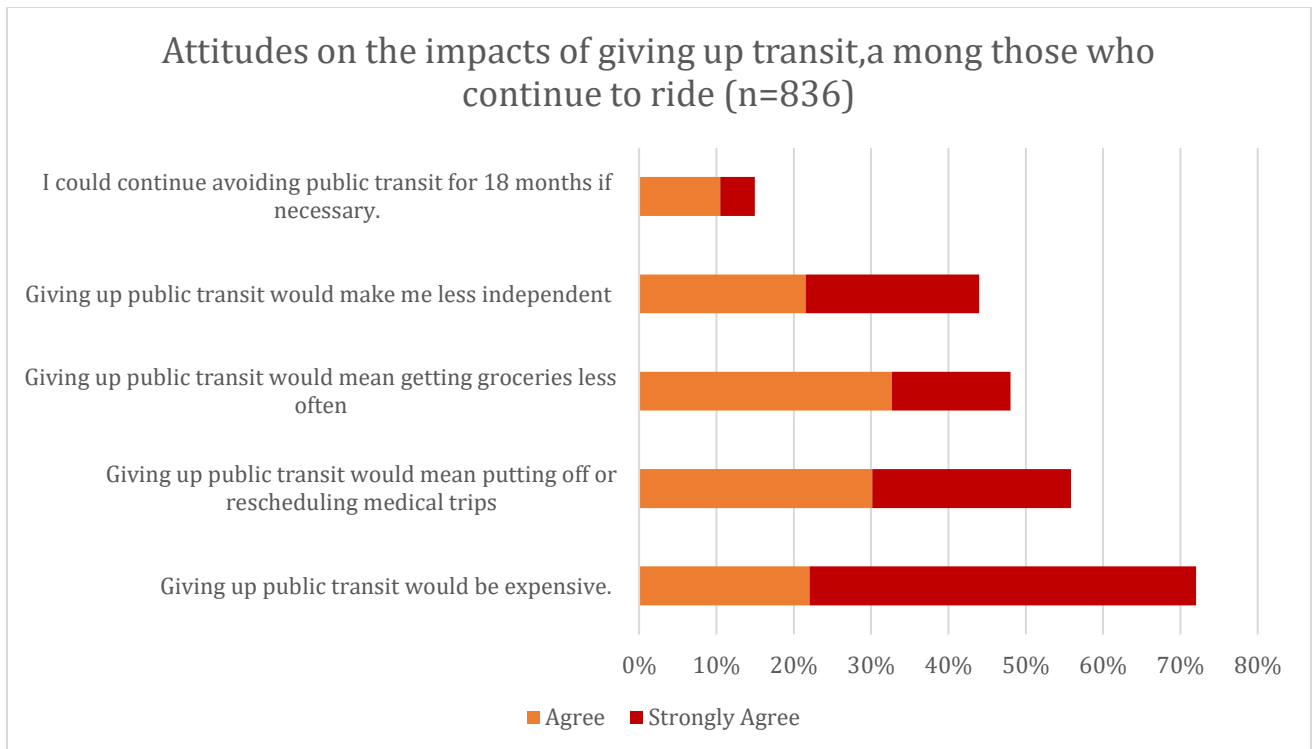


Figure 5: Attitudes on the impacts of having to give up transit among those who continue to ride during COVID-19

Responses to these questions often depends on the availability of services within walking distance. For example, we asked riders to consider the impacts of a loss of transit service in their neighbourhoods on their lives. One rider stated, *“I wouldn’t be able to go anywhere since I don’t drive. I could only walk to the very nearest drug store and the grocery store,”* while another wrote that, *“My transit use is much reduced, but eliminating it entirely would make me a real prisoner in my home and limit access to essential services.”* Others in more walkable neighborhoods said the consequences would be less severe:

*“my neighbourhood is highly walkable with multiple grocery store and pharmacy options. If this prolongs though, medical appointments will become more of a challenge, especially if we’re still trying to effectively physical/social distance.”*

This comment also highlights why the decline of transit use for irregular trips was the smallest in Figure 3 above: many carless residents can get by without transit if they can walk to basic amenities, but they may still rely on transit for less frequent but still essential trips to other parts of the city, such as specialist medical appointments.

For others, even a walkable neighbourhood does not guarantee minimal access to the essentials. One respondent stated, *“I rely on public transit for literally everything. I can walk but cannot carry things very far.”* One retiree wrote that without public transit she *“would be*

*housebound and at the mercy of relatives.” A third respondent highlighted that a loss of his transit service could impact his family, stating “I wouldn't be able to help others, but would be otherwise unaffected. I can walk nearly everywhere.”*

In sum, Torontonians still using public transit rely on it for several essential activities, including work, accessing food and healthcare, and caretaking for family and friends during this time of crisis. This reliance is stronger for those not in walking distance to an adequate range of essential amenities and services, while those in amenity-rich neighbourhoods may still depend on transit for infrequent essential trips. Transit reliance is also stronger for seniors and those with mobility impairments who may not be able to carry groceries from across their neighbourhoods.

### **The Impact of Giving Up Transit**

We asked respondents who stopped riding transit how much harder accessing different activities became as a result of their choice to stop riding. These results are provided in Figure 6, and are disaggregated between former riders who own a vehicle (44%, n=833), and former riders who do not (56%, n=1068).

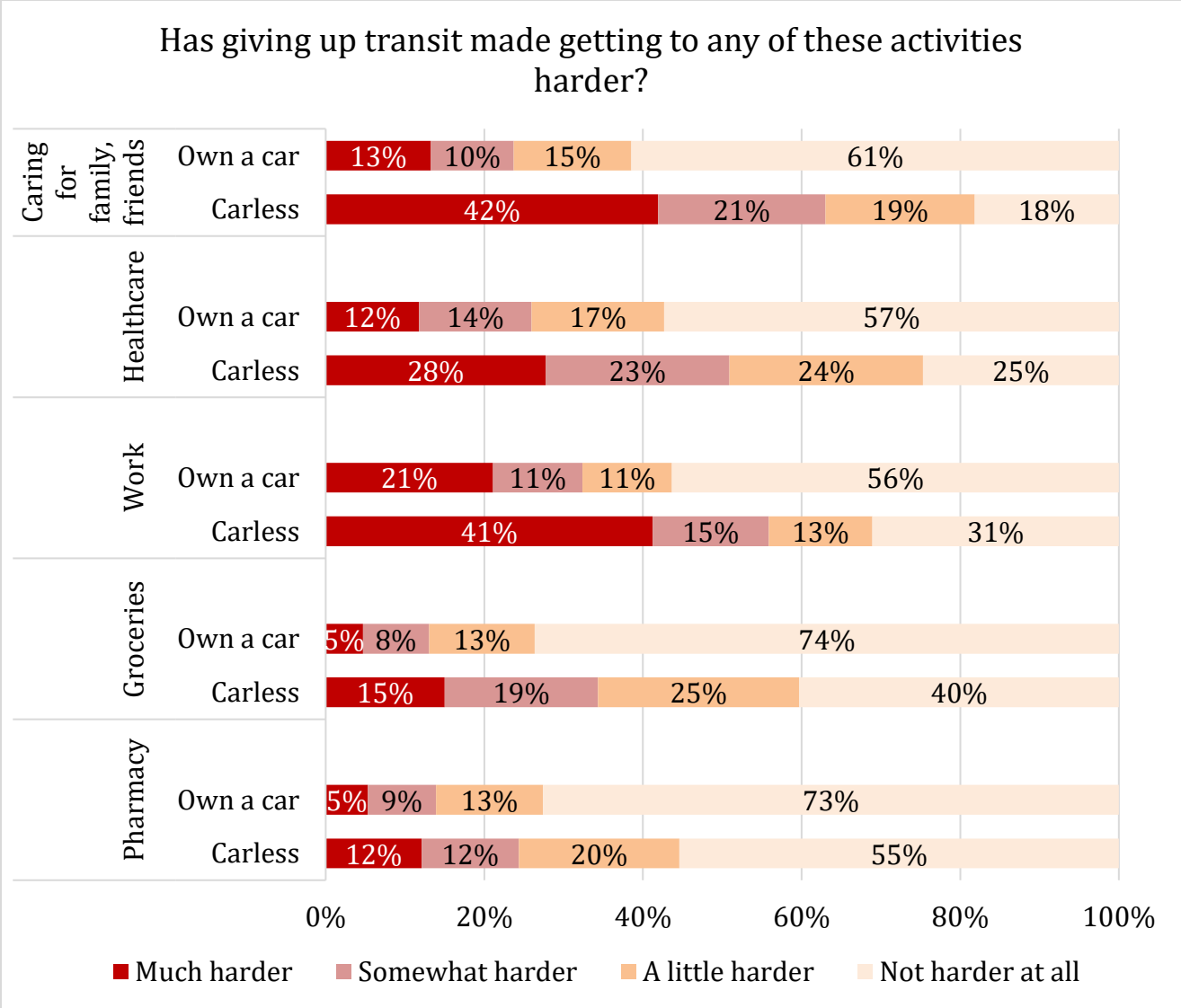


Figure 6: Impact of giving up transit on ability of respondents to reach essential activities

Unsurprisingly, former transit riders who own a vehicle report much less difficulty reaching activities compared to those who do not own a vehicle. The latter group reported that caring for family or friends was the hardest activity to complete without public transit, with 63% stating it is somewhat or much harder. The second hardest activity to reach for this group is work (56%), followed by getting groceries (34%), and going to the pharmacy (24%).

We also asked this group the extent to which they agreed with a series of statements on the impacts of giving up public transit on their lives. These statements, and the percent who agreed or strongly agreed them, are provided in Table 1, and are disaggregated between those who own a car and those who do not.

Most car-owning respondents who gave up transit agreed that they could avoid public transit for 18 months (59%), compared to just under two-fifths (39%) of those without cars. Under a quarter of car owners reported putting off medical trips until they could take public transit again (23%), versus half of those without a car (50%). A similar disparity exists on the question of whether giving up transit has made respondents less independent, with 42% of car owners agreeing versus 63% of carless respondents.

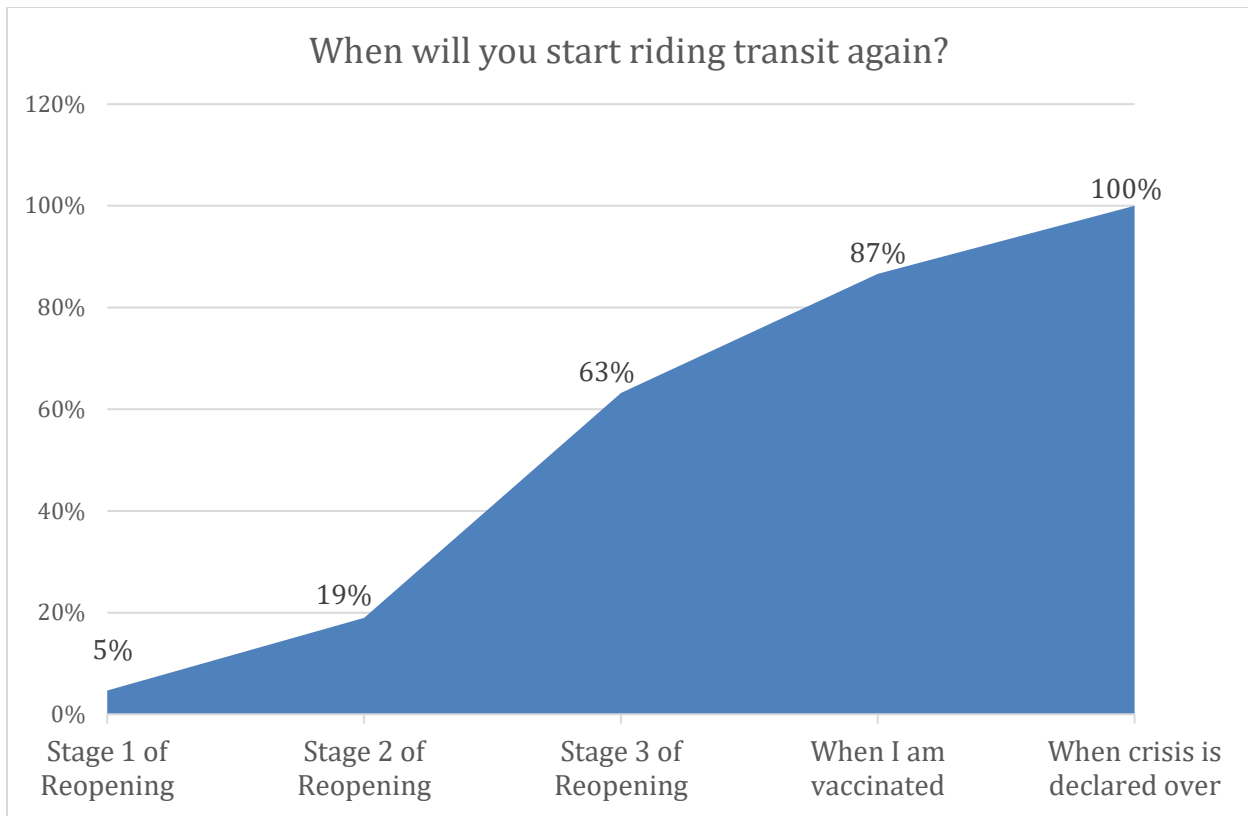
Despite these large differences, these groups report similar sentiment on whether transit agencies can do anything to make them feel comfortable riding transit during the crisis, with 49% of vehicle owners agreeing and 37% of carless former riders agreeing. Both groups also report lower levels of agreement with the statement that giving up public transit has been expensive, at 22% for vehicle owners and 23% for carless respondents.

*Table 2: Attitudes on the impact of giving up public transit, among those who did*

		Strongly Agree	Agree	Total
I could continue avoiding public transit for 18 months if necessary.	With A Car	25%	34%	59%
	Without	12%	26%	39%
There are some medical trips I must put off or reschedule until I can take public transit again.	With A Car	5%	19%	23%
	Without	15%	35%	50%
Giving up public transit has made me less independent.	With Car	17%	26%	42%
	Without	29%	33%	63%
There is little transit agencies can do that would make me feel comfortable riding transit during this crisis.	With A Car	18%	31%	49%
	Without	13%	34%	47%
Giving up public transit has been expensive.	With A Car	8%	13%	22%
	Without	9%	14%	23%

### **When Former Riders Might Return**

We provided former riders with a roadmap of crisis recovery based on the Province of Ontario’s three-stage reopening plan, plus other public health milestones such as the discovery of a vaccine. We asked former riders to consider at which point in this timeline they would start riding transit again. We plot these results in cumulative totals in Figure 7. Cumulative totals mean that each percentage in Figure 7 represents the percent of the sample who say they will be riding by the time that stage occurs, including any who would have re-started riding transit in an earlier stage.



*Figure 7: Percent riding transit again at each stage of a re-opening and recovery timeline*

The greatest increase takes place between Stage 2 and 3, as the greatest share of respondents said they would start riding again during stage 3 of the province’s reopening but before a vaccine is discovered. By stage 3, 63% of former transit riders in our sample say they will start riding again. The second largest jump follows that, as roughly a quarter of respondents say they will not ride transit again until they are vaccinated. These results should be interpreted with caution, as they may reflect respondents’ attitudes towards the severity of the crisis in Ontario at the time they completed the survey, rather than what respondents may actually do.

We note that Figure 7 above excludes the 1% of respondents who said they will never ride again.

Finally, we asked former transit riders if either of two policies would make them more likely to start riding transit: TTC mandating the wearing of masks on vehicles and at stations, and TTC enforcing strict vehicle and train passenger limits. Both options would be very popular with former riders, as indicated in Figure 8.

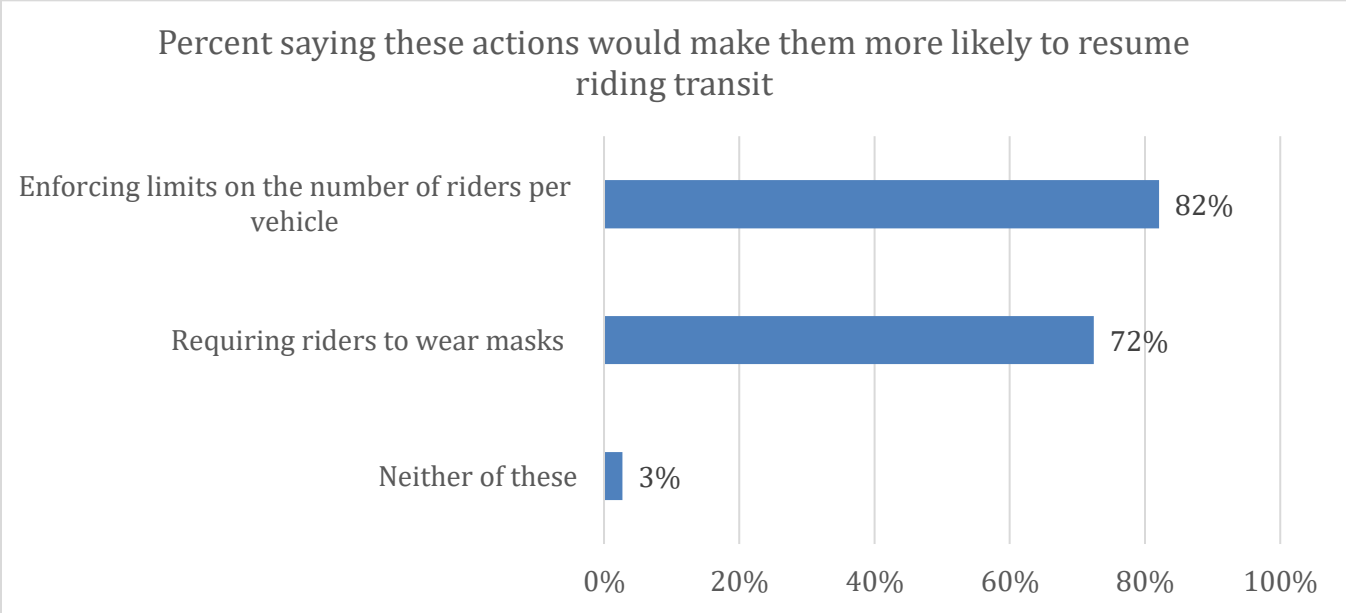


Figure 8: Percent of riders who are more likely to return to transit if certain policies are enacted