URBAN MOBILITY TRENDS FROM COVID-19

February 2022 edition

Transurban

Research

Online survey conducted between 21 January and 9 February 2022

5,022 respondents from across Australia (Melbourne, Sydney, Brisbane), United States of America (Virginia, Maryland) and Canada (Montreal)*

Survey commissioned by Transurban and conducted by Nature

**Approximately 1,000 residents from each Australian city, the United States of America and Canada*

Since July 2020 we have surveyed thousands of people across cities in Australia and North America to track the impact of COVID-19 on mobility.

From how we work to how we shop—COVID-19 has had an obvious impact on the way we live our lives and move around cities. The periodic reduction in case numbers and restrictions on movement have given us some insight into how permanent these changes may be, with definite trends in mobility emerging.

Research for our fourth Industry Report, *Urban Mobility Trends from COVID-19* was conducted in early 2022 in the midst of the Omicron wave, the latest variant to hit Australia and North America. The survey asked people how they expected their everyday life may change as a result of COVID-19. We have compared the latest results to when we first asked some of the same questions earlier in the pandemic.

22%

fewer people in surveyed cities across Australia and 25% fewer in the Greater Washington Area expect to use public transport daily post-pandemic, compared to pre-pandemic

16%

more people in surveyed cities across Australia and 7% more in the Greater Washington Area expect to use private vehicles daily post-pandemic, compared to pre-pandemic

transurban.com/mobility-trends

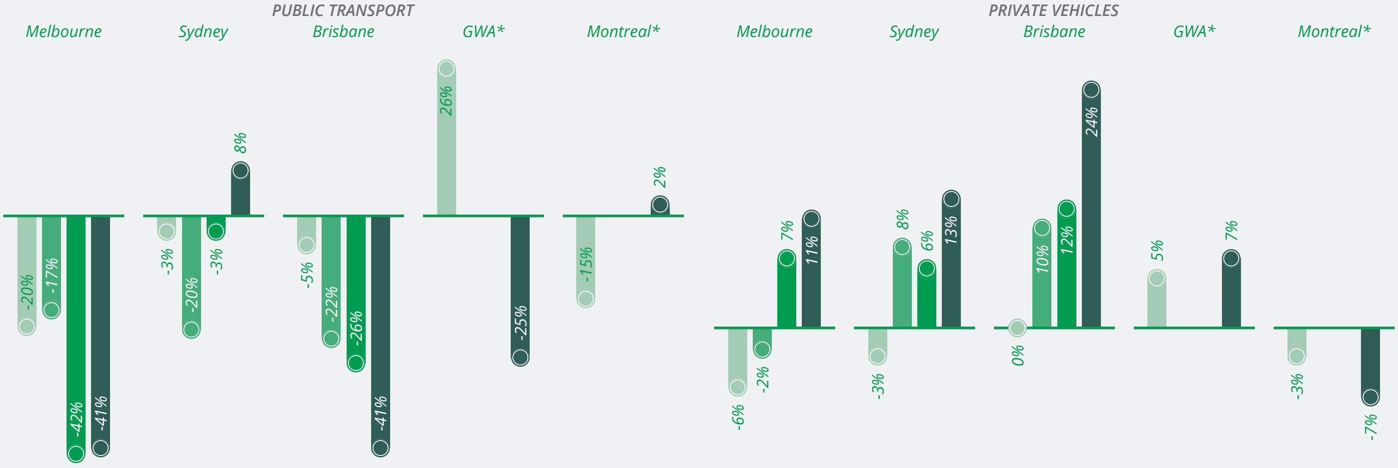
How we'll move

Throughout the pandemic we have observed traffic and congestion levels decline steeply when government-mandated restrictions on movement are introduced. However, these impacts tend to be short-lived, with traffic returning quickly once restrictions are eased. In some cases, traffic and congestion have returned to levels above pre-pandemic once restrictions are removed.

Since our first survey in July 2020, we have consistently found an increasing preference for private vehicle travel over public transport. Our latest research shows on average 16% more people, across Sydney, Melbourne and Brisbane and 7% more people in the Greater Washington Area intend to use private vehicles every day post-pandemic, compared to their pre-pandemic use, Figure 1. When it comes to public transport, 22% fewer people, on average, in surveyed cities across Australia and 25% fewer people in the Greater Washington Area say they intend to use public transport every day. It's possible that the uptake of flexible work practices throughout the pandemic (see page 4), coupled with ongoing concerns regarding personal health and safety in public places are contributing factors. Figure 3 shows 44% of respondents in surveyed cities across Australia and 49% in North America said they felt unsafe using public transport. Another factor may be the impact the Omicron wave had on the availability of the public transport workforce, and in turn, the timetabling of public transport services.

While daily public transport use looks likely to decline, the number of people who intend to use it a few times a week post-pandemic has increased in the Australian cities surveyed and Montreal, Figure 2. In Australia, it appears respondents in Sydney are keen to get out and about with more people likely to use public transport and private vehicles once the risk of COVID-19 has passed, compared to their pre-pandemic use. Furthermore in Sydney more people intend to use bikes every day post-pandemic when compared to Melbourne and Brisbane.

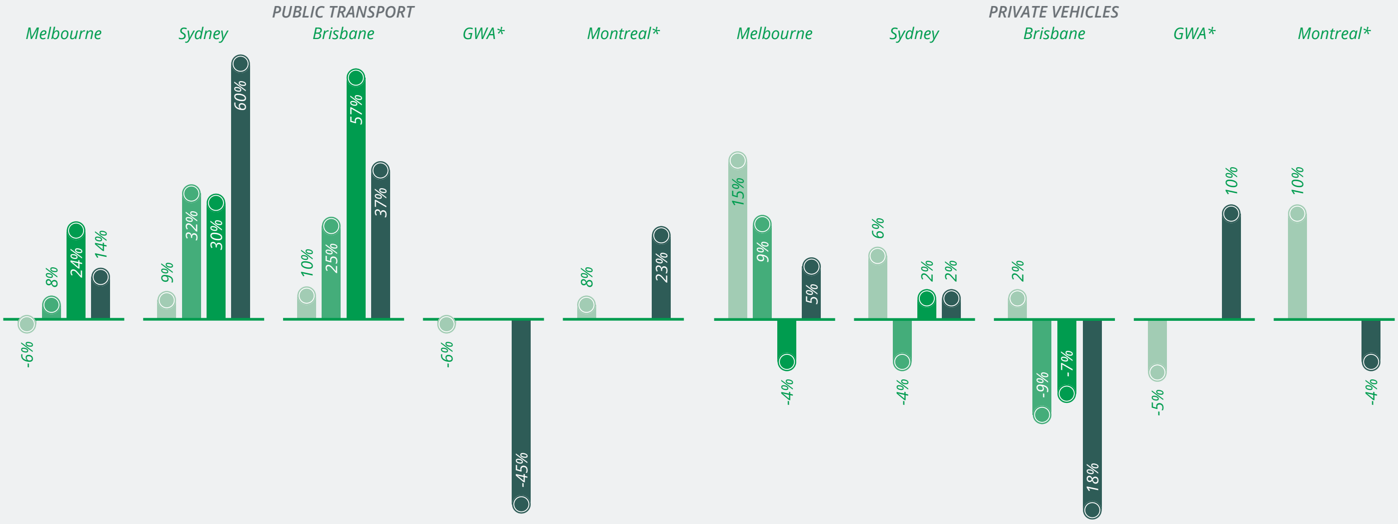
FIGURE 1: HOW TRANSPORT USERS EXPECT THEIR USE WILL CHANGE POST-PANDEMIC—DAILY USERS IN MELBOURNE, SYDNEY, BRISBANE, GREATER WASHINGTON AREA, MONTREAL



Fewer people in Melbourne, Brisbane, and the Greater Washington Area intend to use public transport ever day compared to their pre-pandemic use. On average, daily public transport use for Australians is expected to be 22% below pre-pandemic levels.

More people in all cities except Montreal intend to use private vehicles every day compared to their pre-pandemic use. On average, daily private vehicle use for Australians is expected to be 16% above pre-pandemic levels.

FIGURE 2: HOW TRANSPORT USERS EXPECT THEIR USE WILL CHANGE POST-PANDEMIC—REGULAR USERS (TRAVELLING SEVERAL TIMES A WEEK) IN MELBOURNE, SYDNEY, BRISBANE, GREATER WASHINGTON AREA, MONTREAL



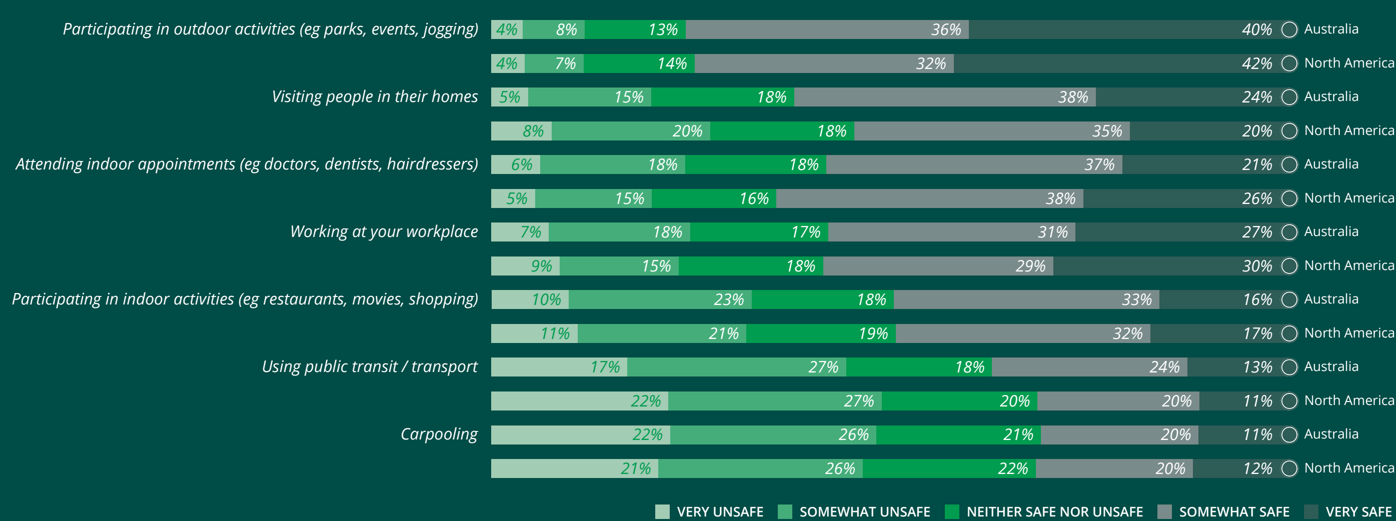
More people in all cities except in the Greater Washington Area expect to use public transport regularly (ie several times a week).

More people in all cities except for Brisbane and Montreal expect to use private vehicles regularly (ie several times a week).

**GWA and Montreal were not included in the January 2021 and July 2021 surveys*

JUL 2020 EXPECTATION | JAN 2021 EXPECTATION | JUL 2021 EXPECTATION | JAN 2022 EXPECTATION

FIGURE 3: HOW SAFE PEOPLE FEEL IN DIFFERENT SPACES GIVEN THE CURRENT COVID-19 TRANSMISSION RATES IN THEIR STATE / PROVINCE—AUSTRALIA, NORTH AMERICA

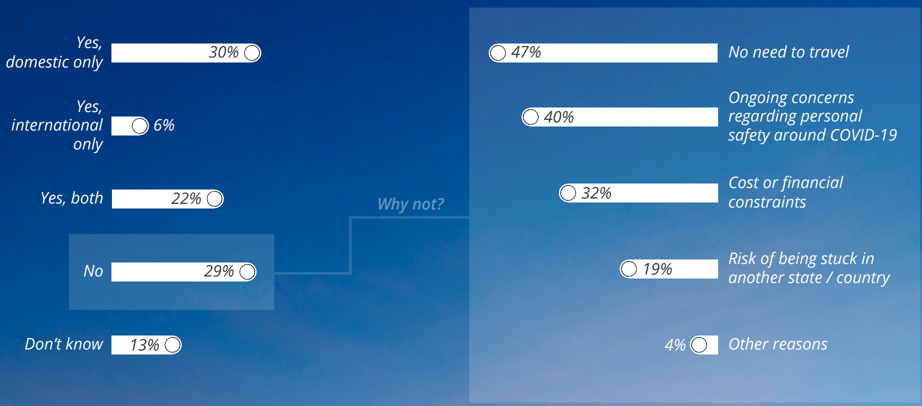


Holiday plans

Despite the Omicron wave disrupting holiday plans in Australia and North America towards the end of December 2021 and into January 2022, 67% of respondents in surveyed cities across Australia still expect to travel domestically and/or internationally in 2022—up seven percentage points compared to January 2021, Figure 4. In North America 58% plan to travel domestically and/or internationally in 2022, Figure 5.

FIGURE 4: PLANS TO TRAVEL IN 2022 COMPARED TO 2021—AUSTRALIA

FIGURE 5: PLANS TO TRAVEL IN 2022—NORTH AMERICA*



North America was not included in January 2021 survey

68%

of men intend to travel domestically and/or internationally, nine percentage points higher than average for women across Australia and North America

69%

of people aged 18–44 intend to travel domestically and/or internationally, six percentage points higher than the average across Australia and North America

How we'll work

In January 2021 we took an in-depth look at how COVID-19 had impacted workplace practices in Australia and people's expectations about whether these changes would remain once the risk of COVID-19 had passed. In this report we have asked many of same questions to see how attitudes in Australia have changed one year on, and surveyed people in North America on the topic for the first time.

Overall, 74% of respondents in Australia and North America said their employer is offering at least one type of flexible work option. In surveyed cities across Australia 75% of people are offered flexible work up 24 percentage points from 51% in January 2021, Figure 6. In North America, 73% of respondents have access to flexible work, Figure 7.

Across all surveyed markets, 87% of respondents expect to do most of their work back in their workplace once the risk of COVID-19 has passed, which is consistent with our findings in July 2020 (86%) and January 2021 (87%). The average number of days respondents expect to work from home once the risk of COVID-19 has passed is 1.7, down from 2.8 when we asked the same question in July 2020.

This increase in availability of flexible work suggests that employers are getting more creative with what they can offer. For example, employers who are unable to accommodate employees working from home, may have found ways to offer employees flexibility in the form of varied start and finish times.

Across surveyed cities in Australia and North America the most commonly available and utilised type of flexible work is working remotely, followed by varied start and finish times and varied leave options.

The availability of flexible work options, or lack thereof, could drive people's current and future employment choices, with 50% of Australian respondents and 47% of North American respondents considering changing employers now or in the future if their flexible working preferences are not catered for, Figure 8.

Around a fifth of all respondents said they would be willing to switch to a job with less seniority, longer commute time and increased workload if the new employer offered flexible working options, Figure 9.

87%

expect to do most of their work back in their workplace

1.7

average number of days per week people expect to work from home once the risk of COVID-19 has passed, down from 2.8 in July 2020

In our February 2021 report we explained how the adoption of flexible work and/or school hours in our Australian markets could help spread peak-hour traffic and prevent congestion returning to pre-COVID-19 levels or worse. Such changes could improve the efficiency of transport networks if implemented on a large scale.

In our most recent survey we asked people in Melbourne, Sydney and Brisbane with school-aged children what would help them avoid commuting in peak hour. Over half said flexible work in the form of varied start and finish times and working from home, followed by one in six who said changing the start and finish times of school and day care, Figure 10.

FIGURE 6: AVAILABILITY AND UPTAKE OF FLEXIBLE WORK—AUSTRALIA

75%

offered flexible work in 2022

51%

offered flexible work in 2021

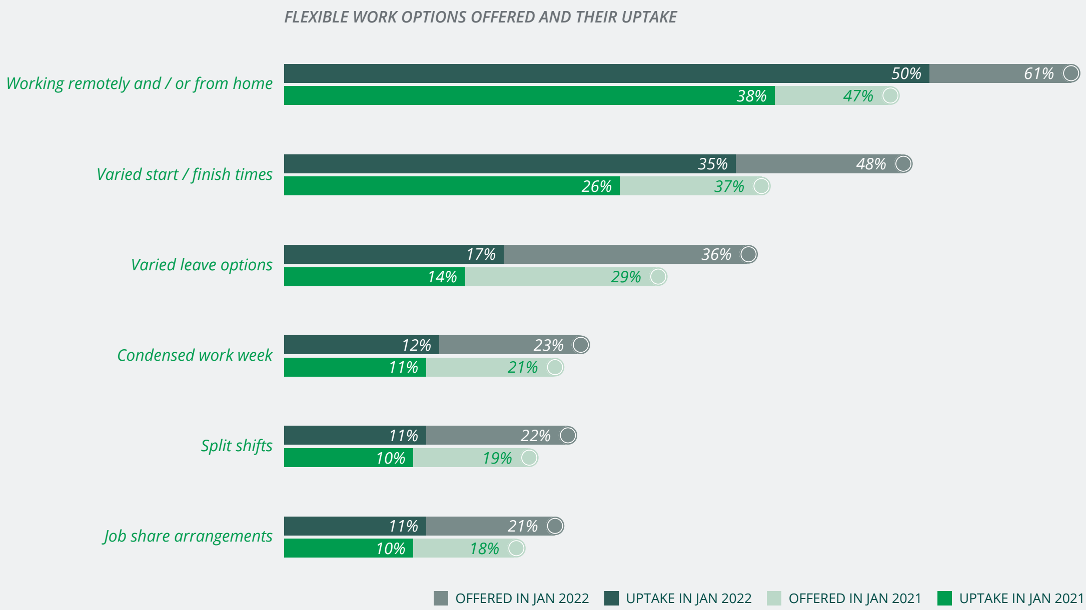
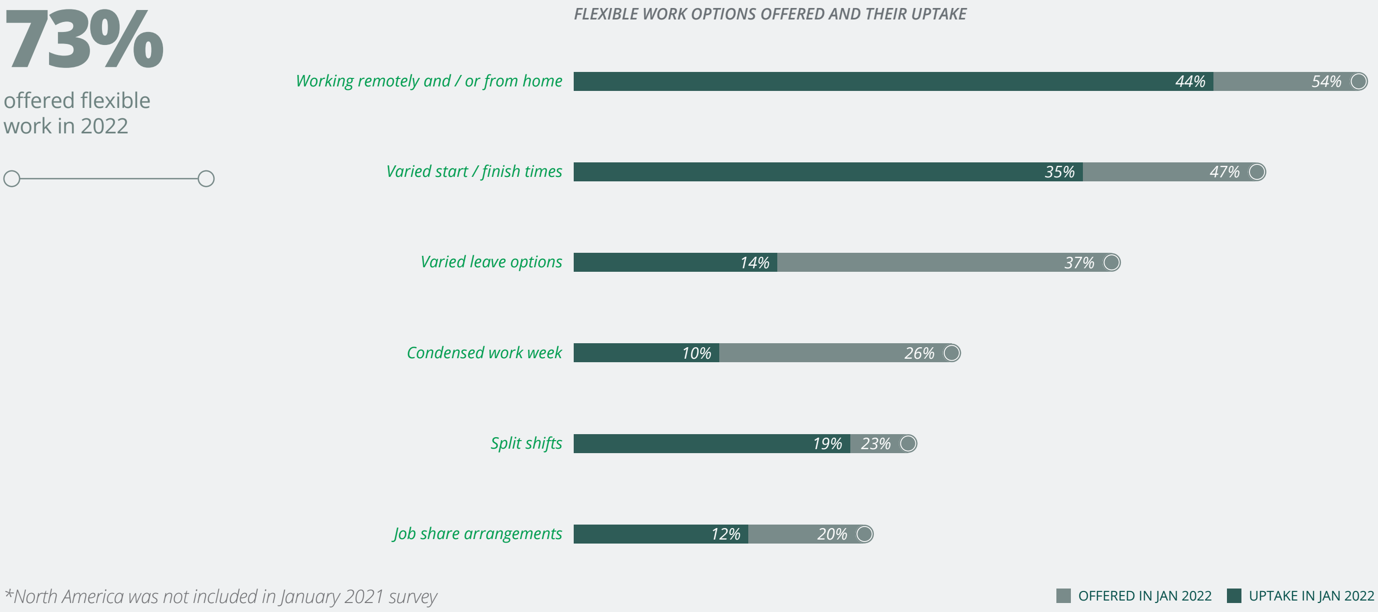


FIGURE 7: AVAILABILITY AND UPTAKE OF FLEXIBLE WORK—NORTH AMERICA*



*North America was not included in January 2021 survey

FIGURE 8: WILLINGNESS TO CHANGE EMPLOYERS IF FLEXIBLE WORKING PREFERENCES WERE NOT CATERED FOR—AUSTRALIA, NORTH AMERICA

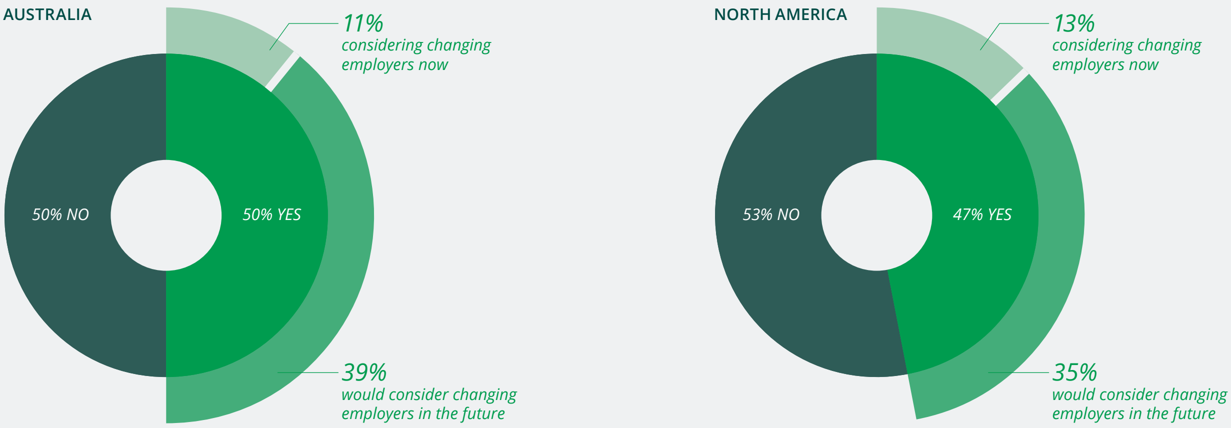


FIGURE 9: WHAT PEOPLE ARE WILLING TO SACRIFICE TO SWITCH TO AN EMPLOYER OFFERING FLEXIBLE WORKING—AUSTRALIA, NORTH AMERICA

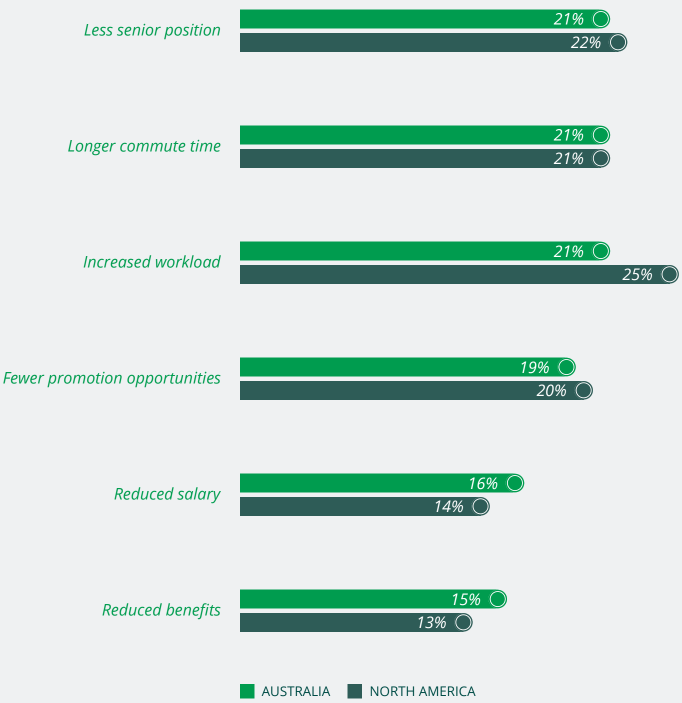
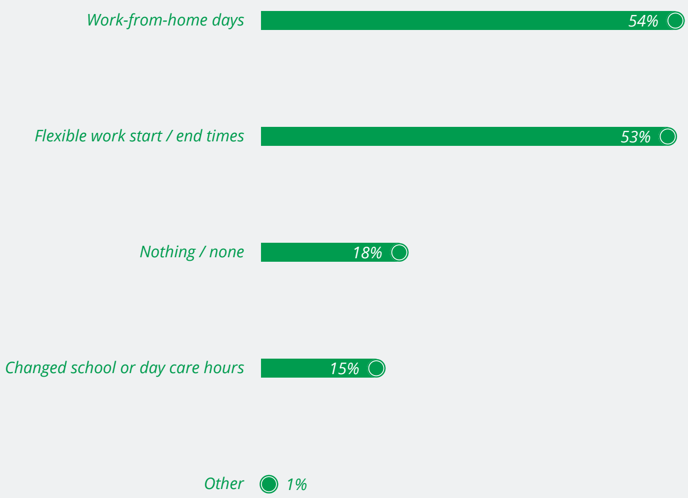


FIGURE 10: WHAT WOULD HELP AVOID COMMUTING IN PEAK HOUR—AUSTRALIA (UNDER 61-YEAR-OLDS WITH CHILDREN LIVING AT HOME)



53%

are shopping more online now than before COVID-19 (38% same, 3% less)

60%

of women are shopping more online, compared to 47% of men

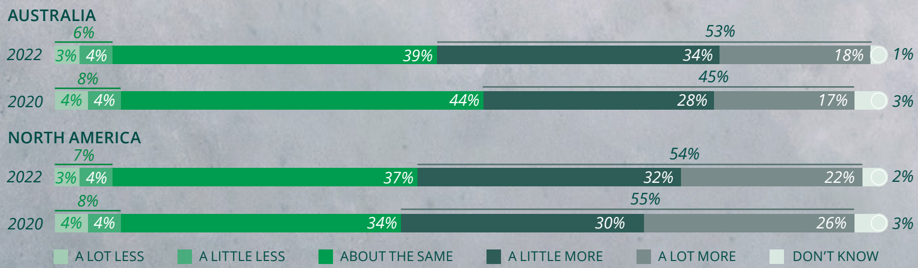
Online shopping

Whether due to necessity or preference, people in Australia and North America have been shopping more online during the pandemic. In Australia, Australia Post reported online shopping had increased by 35.7% in December 2021 compared to December 2019 (pre-pandemic).[1]

In surveyed cities across Australia, 53% of people are doing more online shopping than they did pre-pandemic, and more than they were doing earlier in the pandemic, Figure 11.

In the North American cities surveyed, 54% of people are doing more online shopping now compared to pre-pandemic, which is consistent with our findings in July 2020.

FIGURE 11: ONLINE SHOPPING HABITS COMPARED TO PRE-PANDEMIC
—AUSTRALIA, NORTH AMERICA



1 *Australia Post, Inside Australian Online Shopping, eCommerce update—January 2022*

Decarbonising transport

Towards the end of 2021 the United Nations held its 26th Climate Change Conference or 'Conference of the Parties' (COP26), where all attending countries agreed to the Glasgow Climate Pact aiming to limit warming to 1.5 degrees by the end of the century.

This international consensus, established during two years of intensive focus on the COVID-19 pandemic, highlights the urgency with which all governments, businesses, and individuals must act to reduce their carbon emissions.

When we asked survey participants what issues they thought required immediate focus, a third of respondents in Australia and North America nominated climate change as a priority. In Australia and North America the issue ranks as a higher priority than jobs/economic growth and in Australia it's equal to housing affordability/housing supply, Figure 12.

Unsurprisingly, hospitals/healthcare are nominated as higher priorities in January 2022 compared to July 2021 in Australia. The increase is likely driven by relatively high rates of Omicron infection and hospitalisation when compared to mid-2021.

Traffic congestion—which was rated as concerning by 93% of respondents in our July 2021 survey—was considered a lower priority for action in the January 2022 survey. This could be attributed to the large proportion of the community working from home and avoiding outings during the latest Omicron wave, which has temporarily eased pressure on our transport networks.

Despite high levels of concern for climate change, most respondents aren't particularly conscious of the greenhouse gases emitted from their chosen mode of transport, Figure 13. Furthermore, nearly 70% of respondents in Australia and 63% in North America say greenhouse gas emissions produced by different modes of transport do not factor into their transport choices, or only do so occasionally and when promoted, Figure 14.

This suggests a disconnect between people's general concern for climate change, and their awareness and understanding about how they can act to reduce their own carbon footprint.

When it comes to car travel, the uptake of electric vehicles powered by clean energy will play a key role in decarbonising transport. However, the availability and accessibility of electric vehicles in North America and Australia is still fairly limited.

While 2021 saw strong growth in electric vehicles sales in the United States and Australia, they still account for only a small proportion of new car sales—4.5% and 2%, respectively.[2] In our August 2021 report we explored why adoption of electric vehicles in Australian was so low and found high purchase price and concern around the availability of charging infrastructure were the biggest barriers to electric vehicle ownership.

With 8.9 million customers across Australia and North America, Transurban can play a meaningful role in educating motorists about how they can minimise greenhouse gas emissions from car travel and the practical benefits of switching to an electric vehicle.

For example, by choosing to travel on Transurban roads—where the traffic is more free flowing—over the alternate start/stop route, our Australian customers save 30% on average in fuel and greenhouse gas emissions.

In Australia we have recently completed an eco-driving trial with over 400 customers. The nine-week trial explored ways to encourage more economical driving and resulted in the trial group reducing their fuel consumption by 5.5% and saving 3,606kg of GHG emissions. We have also run electric vehicle giveaway competitions and are exploring customer experience programs to help further educate our customers on the benefits of electric vehicle ownership.

In North America, a culture of carpooling along Transurban's Express Lanes is helping minimise the impact of car travel. Vehicles with three or more occupants can access the quicker tolled lanes for free so customers are incentivised to pick up commuters or 'sluggers' from 'slug lines', in adjacent roadway communities. In Canada we are working with the Government of Quebec to incentivise adoption of electric vehicles by exempting electric vehicles from tolls on the A25 bridge.

2 *International Energy Agency, Electric cars fend off supply challenges to more than double global sales, accessed 8 February 2022*

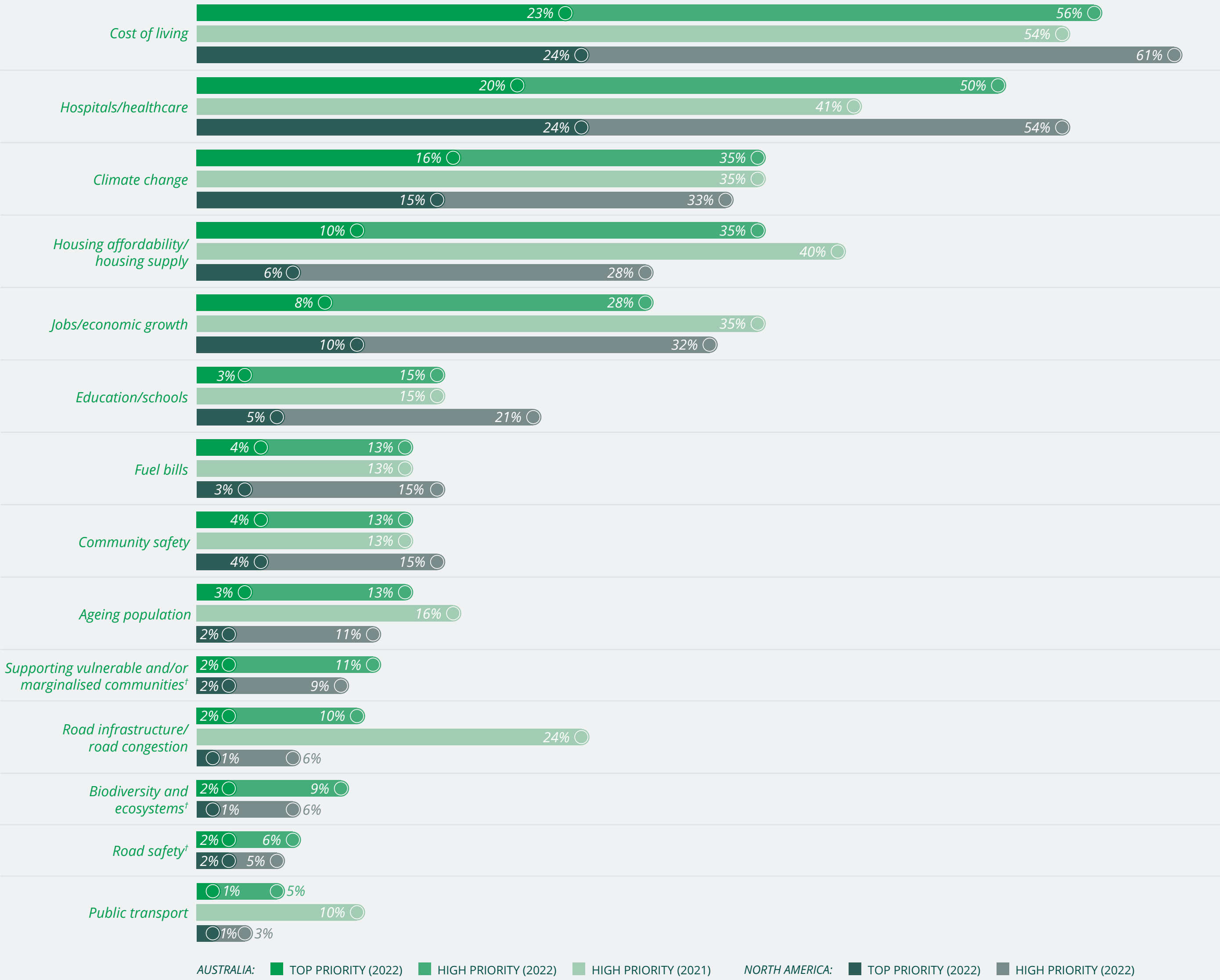
1 in 3

respondents think there should be focus on responding to climate change

69%

of respondents in Australia and 63% in North America said greenhouse gas emissions produced by different modes of transport do not factor into their transport choices, or only do so occasionally and when promoted

FIGURE 12: ISSUES THAT CURRENTLY REQUIRE FOCUS
—AUSTRALIA, NORTH AMERICA*



*North America was not included in January 2021 survey †New issues added to January 2022 survey

FIGURE 13: AWARENESS OF GREENHOUSE GASES EMITTED BY CHOICE OF TRANSPORT
—AUSTRALIA, NORTH AMERICA

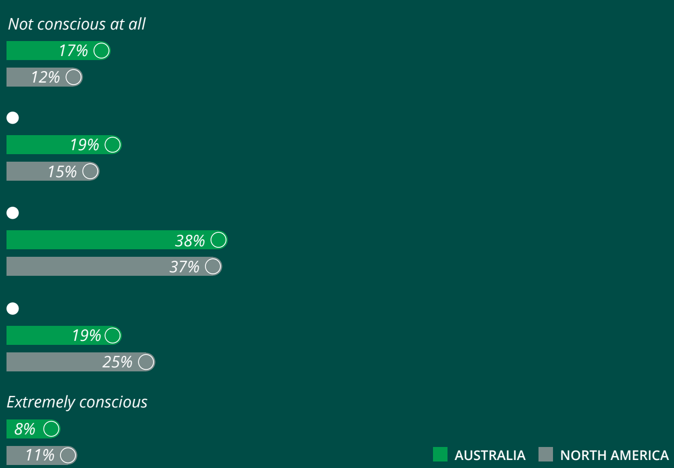


FIGURE 14: DO GREENHOUSE GAS EMISSIONS INFLUENCE TRANSPORT CHOICES?
—AUSTRALIA, NORTH AMERICA