

**UNIVERSITY OF TASMANIA**  
**TRAVEL BEHAVIOUR SURVEY 2023**  
**Update Report**

*September 2023*

prepared by

*Carmen Primo Perez and Corey Peterson*

*Sustainability,  
University of Tasmania*

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## **ACKNOWLEDGEMENTS**

This document summarises findings from the University of Tasmania Travel Behaviour Survey 2023 (TBS 2023). The project team wishes to sincerely thank all students and staff who took the time to participate.

The project is initiated biennially by the University's Sustainability Team led by Corey Peterson, Chief Sustainability Officer. The surveys were carried out under the University of Tasmania Social Sciences Human Research Ethics Permit H0016363.

Data from the TBS 2023 is used to inform university transport and facilities planning and calculate greenhouse gas emissions from staff commuting, which are included in the University's greenhouse gas emissions inventory used to support the University's carbon neutral certification.

The University also wishes to acknowledge the interest in and support of this survey from a range of partners with a focus on transport in its many forms that have reviewed questions in our surveys and participate in data sharing.

## GLOSSARY OF TERMS AND ABBREVIATIONS

Active transport	The combined total of walking/running and cycling
Carpooling	An arrangement, either through formal programs or informal efforts, between two or more people sharing a ride to a common or nearby destination
CBD	Central business district
Confidence level	A measure of the reliability of a result
E-bike	A motorised bicycle with an integrated electric motor used to assist propulsion
EoT	End of trip
ICT	Information and communications technology
IMAS	Institute for Marine and Antarctic Studies
Inter-campus	Movement between two university campuses or facilities
Inter-regional	Movement between regions
Intra-city	Movement within a city/urban area
Main transport mode	The single transport mode used for the furthest distance in the journey (consistent with the Greater Hobart Household Travel Survey 2010)
Margin of error	A measure of the accuracy of the results of a survey
Modal share	Also called mode split or mode share, modal share is the percentage of travelers or trips using a particular type of transport. It is an important indicator used for assessing sustainable transport
MSP	Medical Science Precinct
Multi-modal	Multi-modal journeys involve more than one trip step and mode
PMD	Personal mobility device. PDMs are small, electrically powered devices designed to transport one person over short to medium distances with a maximum speed of 25km/h (e.g., e-scooters, e-skateboards).
SIPS	Sustainability Integration Program for Students
STS	Sustainable Transport Strategy
SOV	Single occupant vehicle
Sustainable modes	The combined total of walking/running, cycling and public transport modes
TBS	Travel Behaviour Survey
UTAS	University of Tasmania
Virtual transport	Participation in meetings/classes/events without physically attending, usually with the assistance of ICT (e.g., videoconference)

# 1. BACKGROUND

The University of Tasmania's (UTAS) current Sustainable Transport Strategy (2022-2032) guides investments and actions that deliver more socially, economically and environmentally sustainable transport outcomes<sup>1</sup>. Responding to the need for appropriate data, the *UTAS Travel Behaviour Survey* (TBS) project was initiated in 2012 with the first survey conducted in 2013 to provide baseline travel behaviour data for the university community and then ongoing data over time (biennially) to inform planning and performance indicators that underpin the University's sustainable transport strategies. The survey was initially designed and developed as part of the Sustainability Integration Program for Students (SIPS)<sup>2</sup>. The SIPS program provides opportunities to partner operational projects with student academic endeavours.

This report outlines key findings from the 2023 TBS. It identifies changes since the 2013 and subsequent surveys that will assist with further planning. It also identifies challenges and opportunities in relation to the university community's collective travel behaviours and practices, and systems and structures that influence these.

The results of the survey provide great insight into UTAS staff and student travel behaviour associated with commuting to/from UTAS campuses and facilities, as well as university business (work and study) across university campuses and facilities in Tasmania and New South Wales. The UTAS TBS has become a valuable comprehensive periodical dataset that informs not only university planning but also other agencies responsible for transport service delivery and infrastructure improvement.

UTAS is a large institution, both in terms of numbers of students<sup>3</sup> and its facilities. It is also one of the largest employers in Tasmania<sup>4</sup>. The University's associated activities generate a range of trips requiring transport infrastructure and services beyond those just focused on the movement of students and staff to and from study or work. It is consequently important to understand more about student and staff movements to manage the impacts of the University's trip generation, improve access to facilities, and address inefficiencies or issues associated with university travel.

The drivers of changing travel patterns and transport infrastructure or service demands are influenced by various factors, including campus location changes, the changing volume, nature and location of the University population, and more recently the global COVID-19 pandemic, that have become important contributors to travel demand and changing travel patterns amongst students and staff, particularly:

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<sup>1</sup> <https://www.utas.edu.au/about/sustainability/facilities-and-operations/transport>

<sup>2</sup> [SIPS](#) is an award-winning program linking operational sustainability outcomes with student education and experience.

<sup>3</sup> Over 34,000 students were enrolled in 2022 with less than half of these attending in on-campus or mixed mode (UTAS Data Analytics course enrolment data).

<sup>4</sup> Over 4,200 employees on average in 2022 including fixed-term, ongoing, and casual staff (UTAS Data Analytics staff data).



- Continuous decrease in the number of students physically attending campuses/facilities due to the decline in the share of 'on-campus' student enrolments and the increase in online learning over time, especially during the global pandemic. In 2013 some 83% of all student enrolments were on-campus in some capacity whereas the figure in 2019 was 56%, and down to 46% in 2023.<sup>5</sup>
- A decrease in 2023 in the number of 'on-campus' international students, particularly in Hobart, due to flow on impacts of COVID-19<sup>6</sup>. Even if in 2023 UTAS is an "on-campus" university and many international students have been able to enter Australia after the COVID-19 pandemic international travel ban, some restrictions were still in place in early 2023. Additionally, some students are finishing studies that they started overseas during the pandemic.
- The dispersal of students and staff across city-based facilities as the University develops beyond its largest campuses. While the largest university campus continues to be the Sandy Bay campus (Hobart), there is an increasing number of students and staff attending facilities throughout the Hobart CBD as the University develops into this zone. The shift to the Hobart CBD in Tasmania's south and to the Inveresk campus in the north (on the fringe of the Launceston CBD) is set to continue as the University consolidates its facilities in these locations.

Compared to previous periods between surveys, there has been relatively little change in transport infrastructure between 2021 and 2023 because of ongoing impacts of the pandemic. That said, there has been some additional bike parking provision, including by the City of Hobart around the University's Hedberg building (4 lockers and eight hoops) as well as installation of more bike parking around the Inveresk campus grounds. Reduced public transport services to Newnham campus (implemented by Metro Tasmania a few years ago) continue. There is still a high frequency Turn Up and Go service, but only one route passes through campus, while all other routes require a significant walk of hundreds of metres to the nearest bus stop from the centre of campus. In addition, major construction projects were underway or started at both West Park in Burnie and Inveresk in Launceston.

Figure 1.1 shows the location of university campuses and major facilities in Tasmania and inner Sydney, New South Wales. The TBS collects data for all these campuses and facilities.

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<sup>5</sup> Between 2013 and 2023, UTAS student enrolments increased overall by 5% (although student population decreased by 16% since 2019, greatly due to COVID-19 impacts) Between 2013 and 2017, most of this increase comprised students enrolled in external (distance or online) capacity, with the overall number of students on-campus across the University remaining fairly constant. Since 2017, there has been a decrease in on-campus students across all campuses, while the level of distance students has not changed greatly.

<sup>6</sup> The number of international students as a share of on-campus students is 32% in 2023, with international students comprising 34% of on-campus Hobart students (UTAS Data Analytics course enrolment data, Semester 1 2023).



Figure 1.1: University of Tasmania main campus/facilities locations in March 2023

## **2. ABOUT THE SURVEY**

### **2.1. Method**

The 2023 UTAS Travel Behaviour Survey was conducted via two online surveys in March 2023, one for UTAS staff and one for students, so that questions could be tailored to these specific communities.

Like previous years, an online survey was deemed the most suitable survey approach given available resources, the need to be able to reach all UTAS staff and student communities, and the need to provide capacity for periodically repeated surveys to allow for longitudinal analysis. Each survey is run at a similar time of year using similar data collection methods to ensure comparability across data sets. The 2023 surveys were open for two-weeks, 6 -19 March 2023. The TBS project has approval from the University of Tasmania Human Research Ethics Committee (reference H0016363).

To recruit participants, bulk emails were sent to students and staff inviting them to participate. A reminder email was sent at the start of the second week of the survey period. UTAS display screens around campuses and relevant Facebook groups also included links to the survey in the lead up to its opening.

The staff survey asked participants to reflect on their travel behaviour for the previous week, including commuting and business travel. Other questions focused on car parking practices, public transport, cycling infrastructure, and information and communications technology use. Additionally, the 2023 survey asked questions in relation to incidents occurred when travelling to, from or between campuses. Survey questions and themes are outlined more fully in the Appendix.

The student survey replicated much of the staff survey; however, inter-campus travel for work was reframed as inter-campus travel for study. Questions about technology use for meetings were not included in the student survey.

Demographic questions were asked of staff and students to provide further participant context to the analysis, such as the primary campus of work/enrolment, age, gender, employment status, and place of residence.

### **2.2. Participation and statistical confidence**

Survey participation details and statistical confidence are outlined in Table 2.1. Overall response was low compared to previous surveys. Student participation was particularly low in 2023, likely because a reduction of incentives for participation (usually \$200 vouchers for sustainable products, but down to \$50 vouchers in 2023). In 2023 there were 1,662 valid responses overall (students and staff combined) with 19% of the total staff population and 7% of on-campus students participating. Participation rates varied slightly between campuses and regions.

Relative to the student and staff populations, sample sizes provide us with high levels of confidence for on-campus students and staff <sup>7</sup>, despite the lower than usual response rate. Due to only marginal difference in statistical confidence between each survey year, we have high confidence in our year-to-year comparisons. Completion rates in 2023 (percentage of respondents who completed all questions) were 82% for staff and 73% for students.

Table 2.1: Participation and statistical confidence of Travel Behaviour Surveys

	Student survey			Staff survey		
	Responses (Sample size)	Confidence level <sup>8</sup>	Margin of error	Responses (Sample size)	Confidence level	Margin of error
<b>2013</b>	3133	95%	+/- 1.6%	838	90%	+/- 2.6%
<b>2015</b>	3528	95%	+/- 1.5%	952	90%	+/- 2.4%
<b>2017</b>	1976	95%	+/- 2.1%	695	90%	+/- 2.9%
<b>2019</b>	2050	95%	+/- 2.0%	1114	90%	+/- 2.5%
<b>2021</b>	2057	95%	+/- 2.0%	1297	90%	+/- 1.9%
<b>2023</b>	843	95%	+/- 3.3%	819	90%	+/- 2.6%

In both student and staff TBS 2023, there is a higher participation of female respondents than males (Table 2.2). This translates to only a small bias, as there is a higher proportion of females in the general student and staff populations. For instance, the University's staff gender profile was 55% women and 45% men in 2023 at the time of the survey with 0.3% of staff self-identified as having other gender identities.<sup>9</sup>

For the student population, some 66% of enrolments identified as women and 34% as men in 2023 <sup>10</sup> although the gender difference narrows if external (online) enrolments are removed (56% women, 44% men) and 0.4% of students self-identified as having other gender identities. Where there is specific gender analysis, such as in calculating male to female cycling ratios, we have standardised the data according to the population gender split to remove bias.

<sup>7</sup> A confidence level of 95% means that there is a probability of at least 95% that the result is reliable. The larger the margin of error around a value, the less accurate the value.

<sup>8</sup> Confidence levels were calculated using the Survey Monkey sample confidence calculator.

<sup>9</sup> UTAS Data Analytics, staff data March 2023

<sup>10</sup> UTAS Data Analytics, course enrolments March 2023

Table 2.2: Survey respondent profile (TBS2021)

	Students	Staff
<b>Location of study/work</b>		
Sandy Bay	49.7%	48.0%
Hobart CBD	19.7%	19.7%
Other South	2.4%	4.2%
<b>All South</b>	<b>71.8%</b>	<b>71.9%</b>
Newnham	17.3%	19.7%
Inveresk	3.1%	2.4%
Other North	2.4%	2.4%
<b>All North</b>	<b>22.8%</b>	<b>24.5%</b>
Cradle Coast campus	7.0%	0.5%
Rural Clinical School	0.3%	0.2%
West Park	0.0%	0.5%
<b>All North West</b>	<b>2.7%</b>	<b>1.4%</b>
Sydney (all campuses)	2.0%	1.3%
Other location (not specified)	0.7%	0.9%
<b>Gender</b>		
Men	29.8%	31.3%
Women	68.6%	64.3%
Not specified/self-described	5.4%	4.4%
<b>Employment status</b>		
Full-time		71.7%
Part-time		19.5%
Casual/short-term contract		7.2%
<b>Student origin</b>		
Tasmanian student	54.91%	
Interstate student	30.67%	
International student	14.42%	

### 2.3. How results are reported

Results are reported for students and staff separately, except for a few key performance indicators where student and staff survey results are aggregated. Results are reported for the University as a whole, at regional scales (i.e., South, North and North West Tasmania, and Sydney), and at the campus scale. Where there are several smaller campuses/facilities in the same vicinity, we have chosen to group them and report aggregate results (such as Hobart CBD).

Table 2.3: Reporting scales

Reporting scales (groups)	Campus and facilities incorporated within reporting scales
<b>South</b> – all campuses and facilities located in and around greater Hobart	Sandy Bay, Medical Sciences Precinct (MSP), Institute of Marine and Antarctic Studies at Salamanca and Taroona, The Hedberg, The Podium, College of the Arts, Domain, Media School at Salamanca, KPMG building, Vodafone building, New Town Laboratories, Mt Pleasant Observatory, all Hobart student accommodation facilities, Cambridge farm
<b>Hobart CBD</b> – all facilities located in the Hobart central business district and waterfront (CBD)	Medical Sciences Precinct (MSP), Institute of Marine and Antarctic Studies (IMAS-Salamanca), The Hedberg, The Podium, College of the Arts, Domain, Media School at Salamanca, KPMG building, Vodafone building, all Hobart CBD student accommodation facilities
<b>North</b> – all campuses and facilities located in and around greater Launceston	Newnham, Inveresk, Launceston Clinical School, Henty House, TIA offices at Prospect, Australian Maritime College at Beauty Point and Bell Bay, all Launceston student accommodation facilities
<b>North West</b> – all campuses and facilities located in and around Burnie	Cradle Coast campus, Rural Clinical School, West Park, all Burnie student accommodation facilities, Forthside and Elliot farms
<b>Sydney, NSW</b> – all campuses and facilities located in inner Sydney	Rozelle

With six biennial data sets now available, comparisons over time for transport mode share are possible. To consider changes over time and note differences in mode share by place, we report on the mode share and how this compares over time:

- For the University as a whole
- By region
- By major campuses or campus groupings

It should be noted that the mode share reporting method changed from 2017 onwards, although data is still comparable to previous years (2013 and 2015). In all surveys since 2017 (inclusive), we have removed the reporting of the proportion of respondents studying or working from home (virtual transport) and have adjusted 2013 and 2015 data accordingly. This means that the proportions reported in this report differ slightly from those reported in the 2013 and 2015 Summary Reports. The adjusted data means that we can compare across years more accurately and report on only those people travelling to a university campus or facility. Work from home/virtual transport is still reported in a separate section.

### 3. FINDINGS

This section presents findings relating to transport mode share, land-based inter-campus travel, and use of public transport, bicycle and parking infrastructure and services.

#### 3.1. Journey to work and study

This section reports on transport modes used for travel to/from university facilities for work or study. We report on both multi-modal journeys and the main mode. Multi-modal journeys involve more than one trip step mode, while main mode is defined as the single mode used for the ‘farthest distance’ in the journey. The latter is used as a key performance indicator for university transport planning.

##### 3.1.1. Multi-modal journeys to university

Around one in four students reported their journeys to the University as multi-modal (these journeys exclude those steps involving walking for 5 minutes or less). The proportion of multi-modal journeys was higher for students travelling to Hobart campuses than Launceston campuses, but similar between Sandy Bay and Hobart CBD (31 and 30% respectively,) and Newnham and Inveresk (25 and 24% respectively).

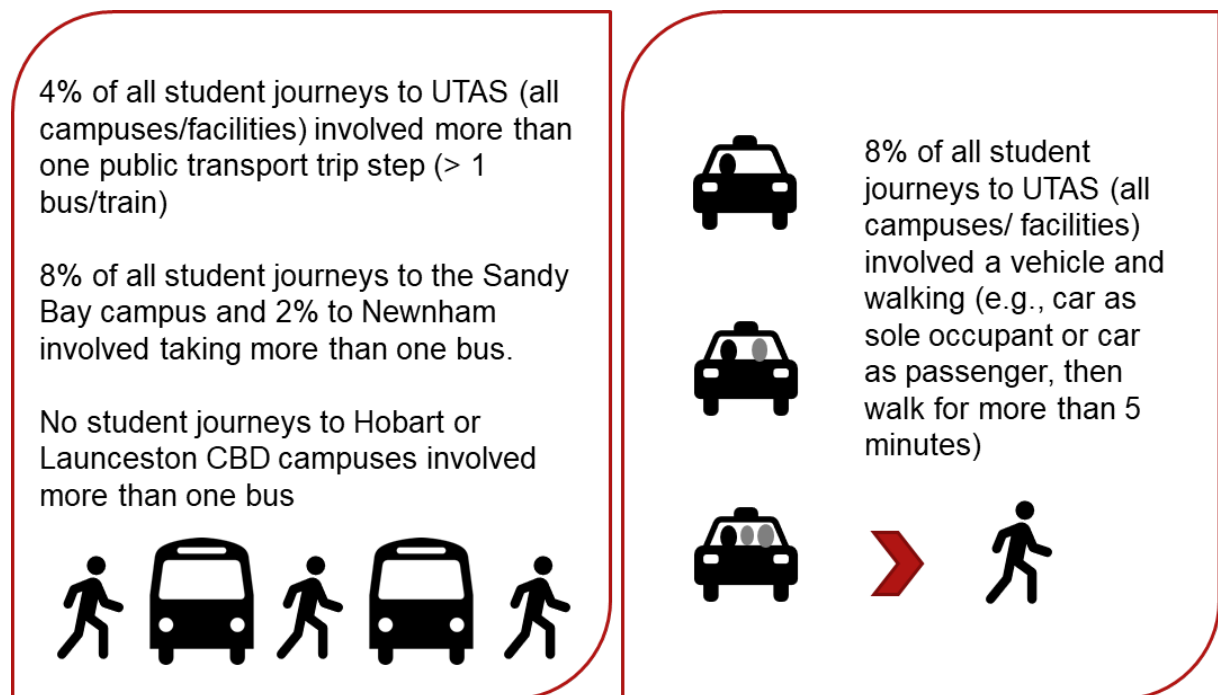


Figure 3.1: Dominant student multi-modal journey types to university, 2023

Some 4% of all student journeys to UTAS involved more than one public transport trip step (i.e., at least two buses, or in Sydney possibly a train and a bus). For students travelling to the Sandy Bay campus, 8% of all journeys involved taking at least two buses (25% of multimodal journeys to that campus). This compares to no students taking more than one bus when travelling to UTAS Hobart CBD facilities. Some 8% of all student

journeys to UTAS involved a vehicle (single or multi-occupant driver or passenger) and walking for more than 5 minutes (Figure 3.1).

Around one in five staff respondents reported their journeys to the University in Tasmania and Sydney as multi-modal. For staff, some 11% of all journeys to university (47% of all multi-modal journeys) involved a mix of sole occupant and multi-occupant vehicle journeys, which is up from the 5% and 26% respectively recorded in 2021. These vehicle trips likely involve riding with family or friends at some point in the journey (frequently referred to as carpooling), also involving dropping off or picking up other household members (i.e., children to day-care or school, partner to workplace or bus stop). The largest staff multi-modal journey type was driving a car with multiple occupants, then driving as sole occupant.

The second largest multi-modal journey type was single occupant vehicle and walk, where staff drove, parked, and walked more than 5 minutes to their workplace (Figure 3.2). For Hobart CBD staff, where parking is more constrained, the vehicle is often parked on the inner-city fringes.

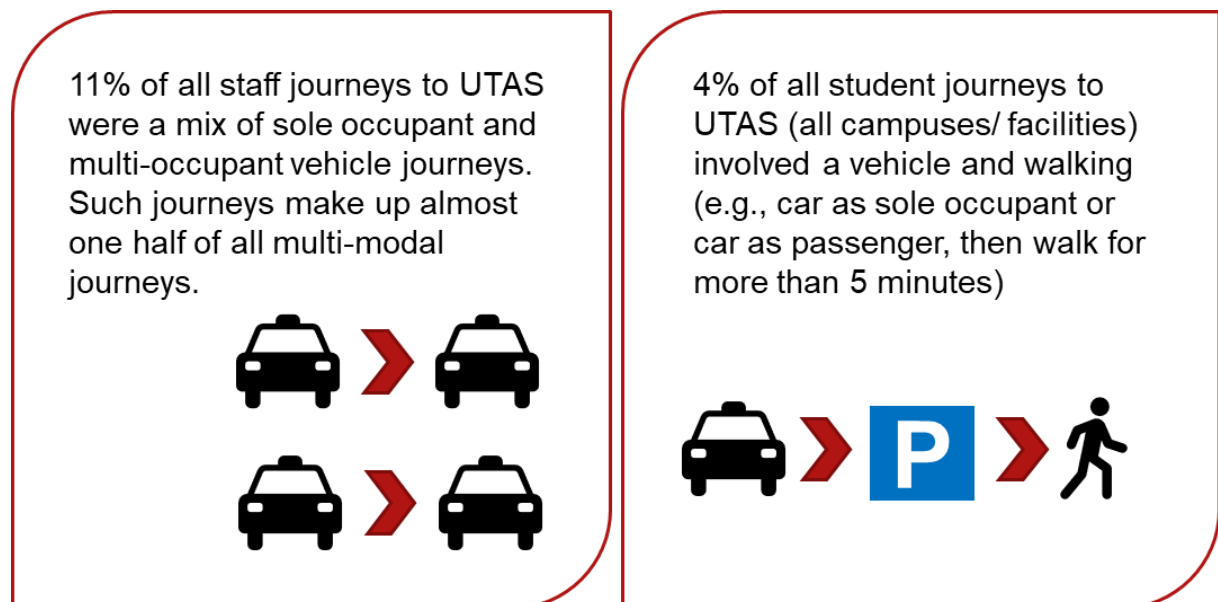


Figure 3.2: Dominant staff multi-modal journey types to university, 2023

### 3.1.2. Student main transport mode to study

Survey results over time show a gradual increase in the use of sustainable modes by students as the main commuting mode between 2013 and 2019, and then a decline in 2021 (back to 2013 level overall), followed by another increase in 2023. Conversely, car-based modes use decreased in 2023 after experiencing a declining from 2013-2019 and a 2021 increase (Figure 3.3).

Public transport use grew consistently over reporting periods until 2021, where a 6 percent points drop in bus/train use occurred (although remained 8 percent points higher than the 2013 reporting period), possibly in relation to the COVID-19 pandemic. The



recent increase in public transport use possibly reflects an increased confidence in this transport mode after the pandemic.

The proportion of students cycling remained relatively static across previous reporting periods but experienced a 1.7 percent points increase from 2019 to 2023. While this is a small change when considering the whole mix of transport options, it represents a 29% increase in the number of people cycling to campus. There has also been a recent increase in walking, which could be related to an increased University accommodation offering.

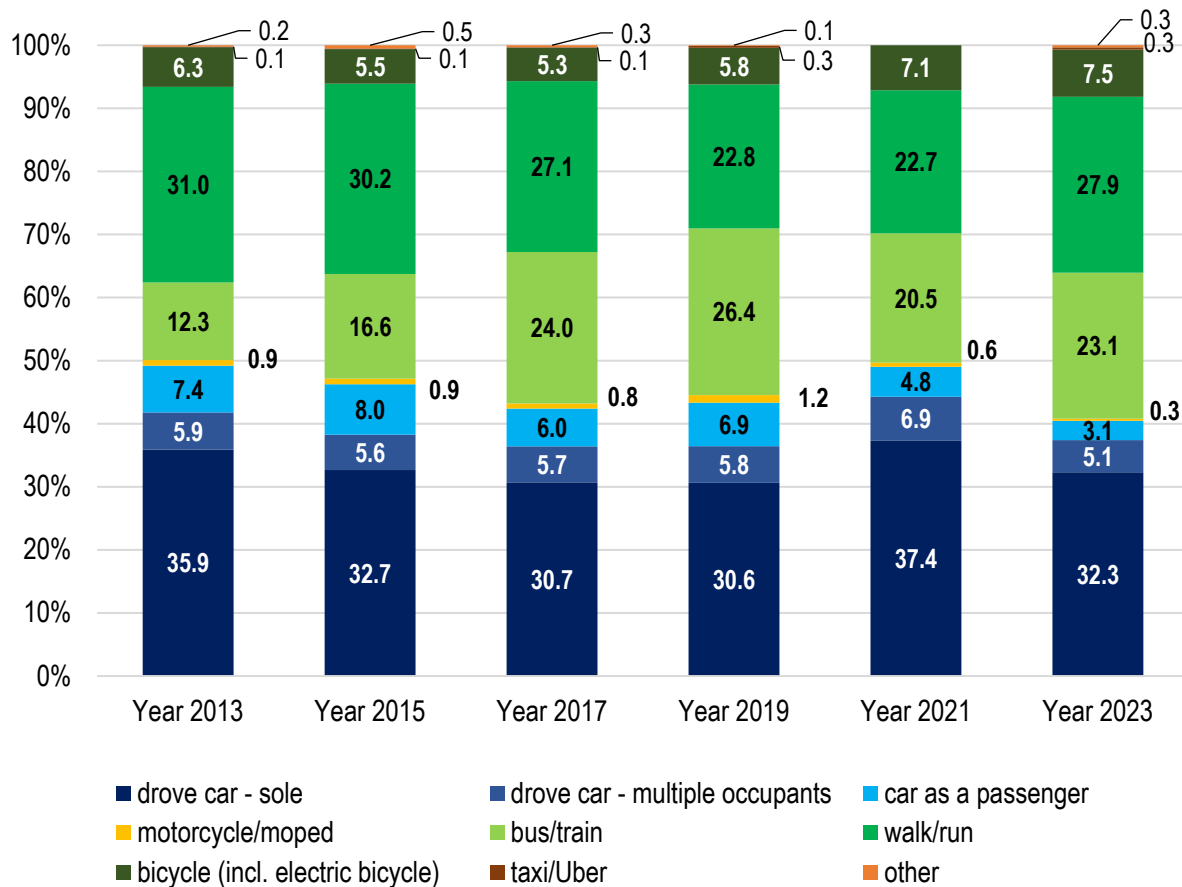


Figure 3.3: Main Mode Share per year – Students – All University of Tasmania. (n=294 in 2023).

Travel mode distribution varies significantly between regions and campuses, with students attending facilities located in, or near to, city centres using more sustainable modes (see Hobart CBD compared to Sandy Bay, for example) (Figure 3.4).

Note: Sample sizes for some campus locations are < 100 partly due to the increase in students studying from home (Hobart CBD n=58, Newnham n=51, Inveresk n=9, Cradle Coast n=8, Sydney n=6). Analysis of data collected from these campuses is taken with caution.

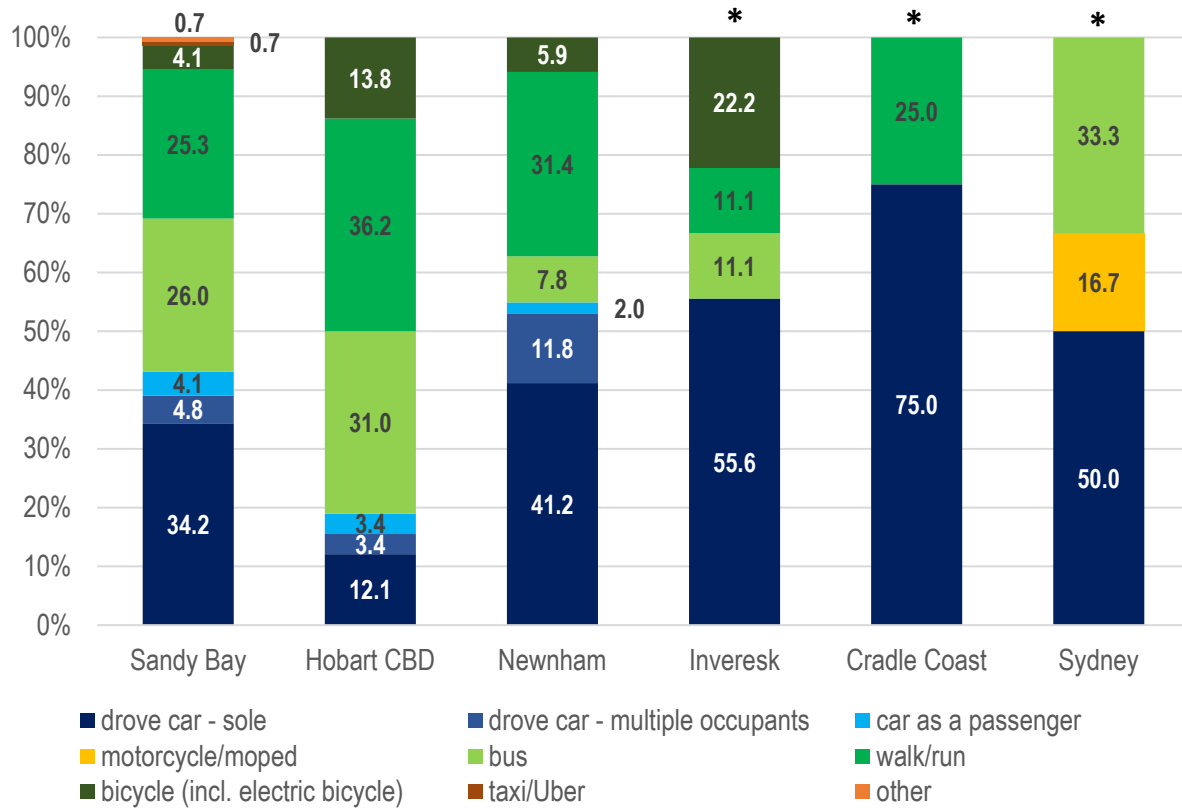


Figure 3.4: Main Mode Share 2023 – Students – by campus and campus groupings. Asterisk (\*) denotes low confidence level. (Sandy Bay n=146; Hobart CBD n=58; Newnham n=51; Inveresk n=9; Cradle Coast n=8; Sydney n=6).

### Southern Tasmanian Campuses

In the south, a shift away from single occupant vehicle use has been observed for students over time, except in the 2021 survey (Figure 3.5). The change in 2021 was driven mostly by the change in behaviour of students attending the Sandy Bay campus (Figure 3.6), while in 2023 fewer students used cars as a main transport mode (Figure 3.7).

Growth in bus use by students since 2013 was curtailed in 2021 compared to previous years (Figure 3.5) but continued in 2023. This was again driven by behaviour observed at the Sandy Bay campus (Figure 3.6) as bus usage did not decrease at Hobart CBD campuses in 2021, but more students attending Hobart CBD campuses used public transport in 2023 (Figure 3.7).

Cycling experienced a boost across all campuses in 2021, which has continued in 2023 (Figure 3.5). Across all reporting periods, cycling has not followed a clear trend. However, cycling rates have remained consistently larger since 2015 in Hobart CBD campuses compared to the Sandy Bay campus (Figure 3.6 and 3.7).

There has been an overall steady decline in the number of students walking to southern campuses (Figure 3.5), mainly led by those traveling to the Sandy Bay campus (Figure 3.6). However, 2023 data shows an increase of students walking, which is more evident in

Hobart CBD locations. However, rates of walking to the Hobart CBD campuses do not appear to have any clear trend (Figure 3.7).

Students attending Hobart CBD facilities continue to display the most sustainable travel behaviours of all UTAS facility locations, particularly active modes. Approximately 80% of Hobart CBD students travelled by a sustainable mode.

Some 58% of students attending southern facilities live within the City of Hobart local government area. The proportion is highest for those attending Hobart CBD facilities (62%) where more than half of these live in the city centre and inner-city suburbs immediately bordering the city centre (West Hobart, Battery Point, South Hobart, North Hobart). The concentration of students in these inner locations provides a high level of accessibility to UTAS Hobart CBD facilities, particularly by active modes.

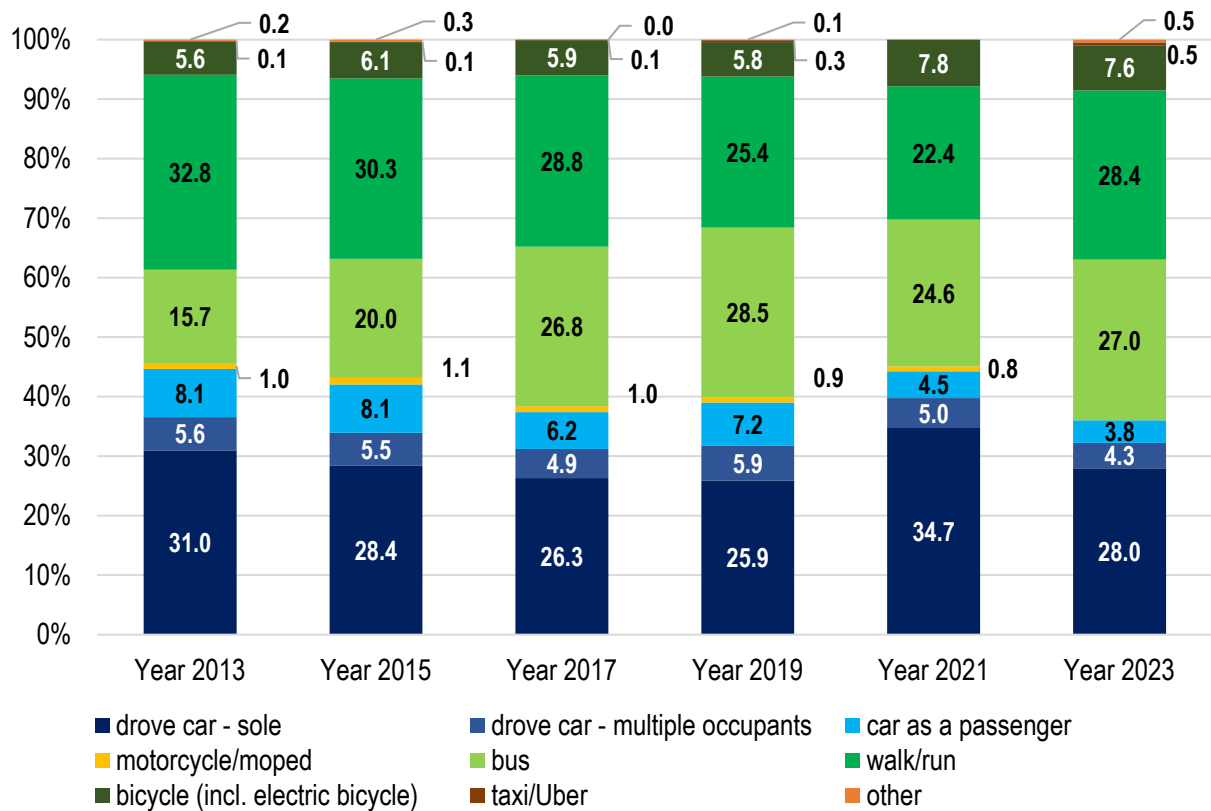


Figure 3.5: Main Mode Share per year – Students – Tasmania South (all Greater Hobart). (n=211 in 2023).

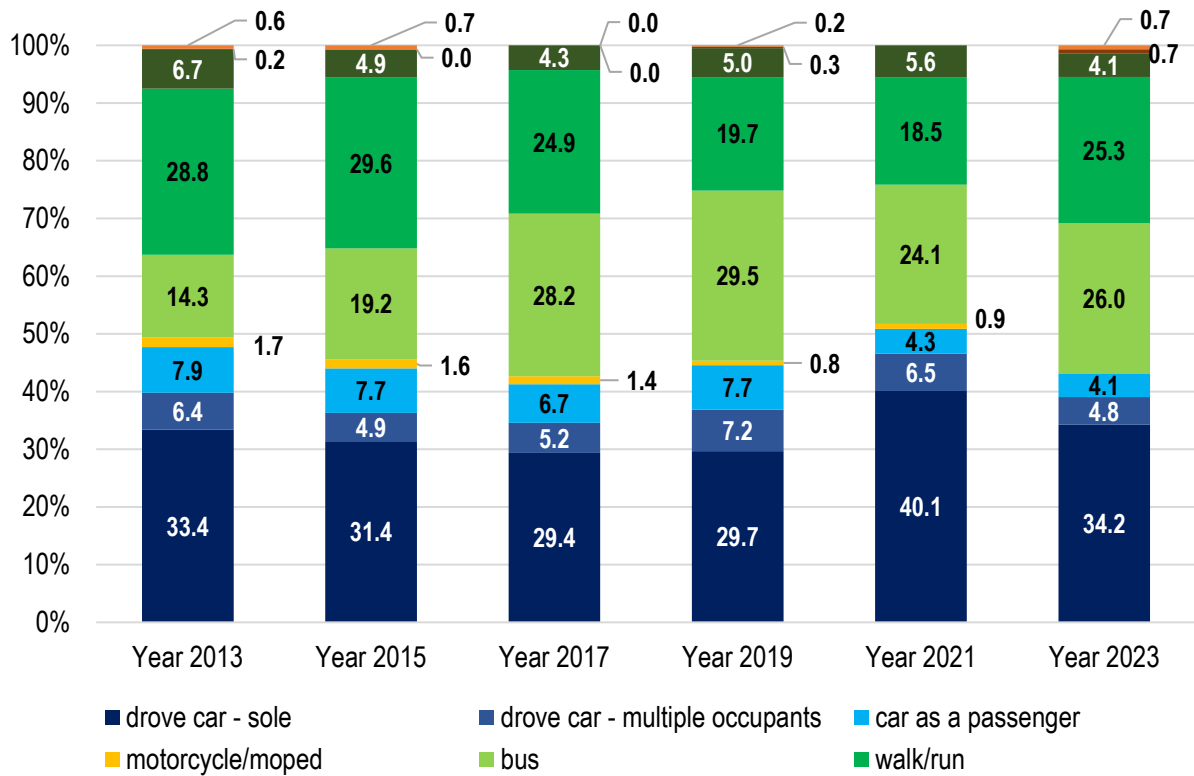


Figure 3.6: Main Mode Share per year – Students attending Sandy Bay campus. (n=146 in 2023).

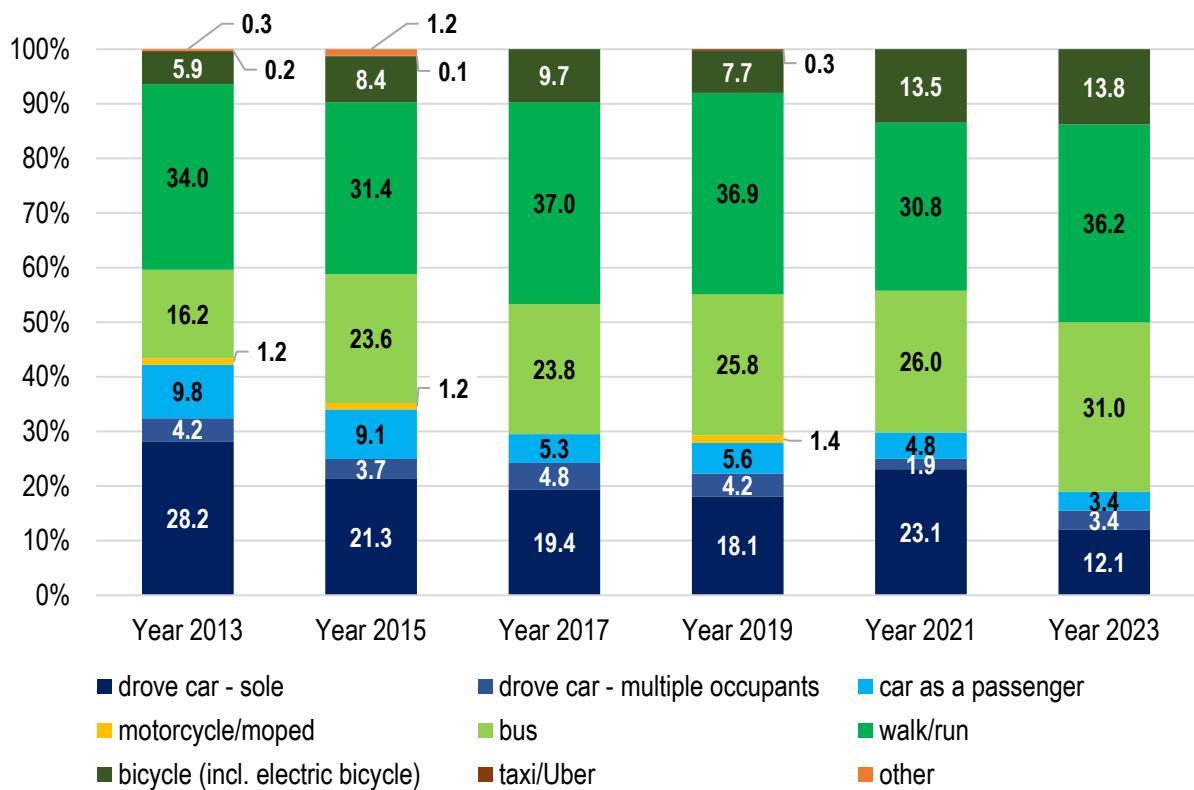


Figure 3.7: Main Mode Share per year – Students attending Hobart CBD facilities. (n=58 in 2023).

**North and North West Tasmanian Campuses**

As shown in Figure 3.8, bus use amongst students attending Launceston campuses tripled between 2013 and 2019 following improvements to bus services – particularly the introduction of the ‘Turn-up-and-Go’ service between Launceston CBD and Launceston UTAS campuses at Inveresk and Newnham. A significant decrease in bus use as the main mode was observed in 2021. This decline might have been partially driven by the COVID-19 pandemic, but also by the change in bus routes, with many of the high frequency Turn-up-and-Go services no longer entering the Newnham campus thus requiring a long walk to Georgetown Road or the Mowbray retail precinct. Bus use has increase again in 2023 but remains below 2017 levels.

Rates of cycling at the Launceston campuses in 2021 also experienced a decrease and an overall downwards trend, with a recovery to baseline level in 2023. Walking as a main mode of transport has not exhibited a general trend over all reporting periods but has increased since 2019, with the 2021 and 2023 surveys reporting a similar share to that observed in 2013. Car use as sole driver has shown an upwards trend over the last three reporting periods, though it is still lower than 2013.

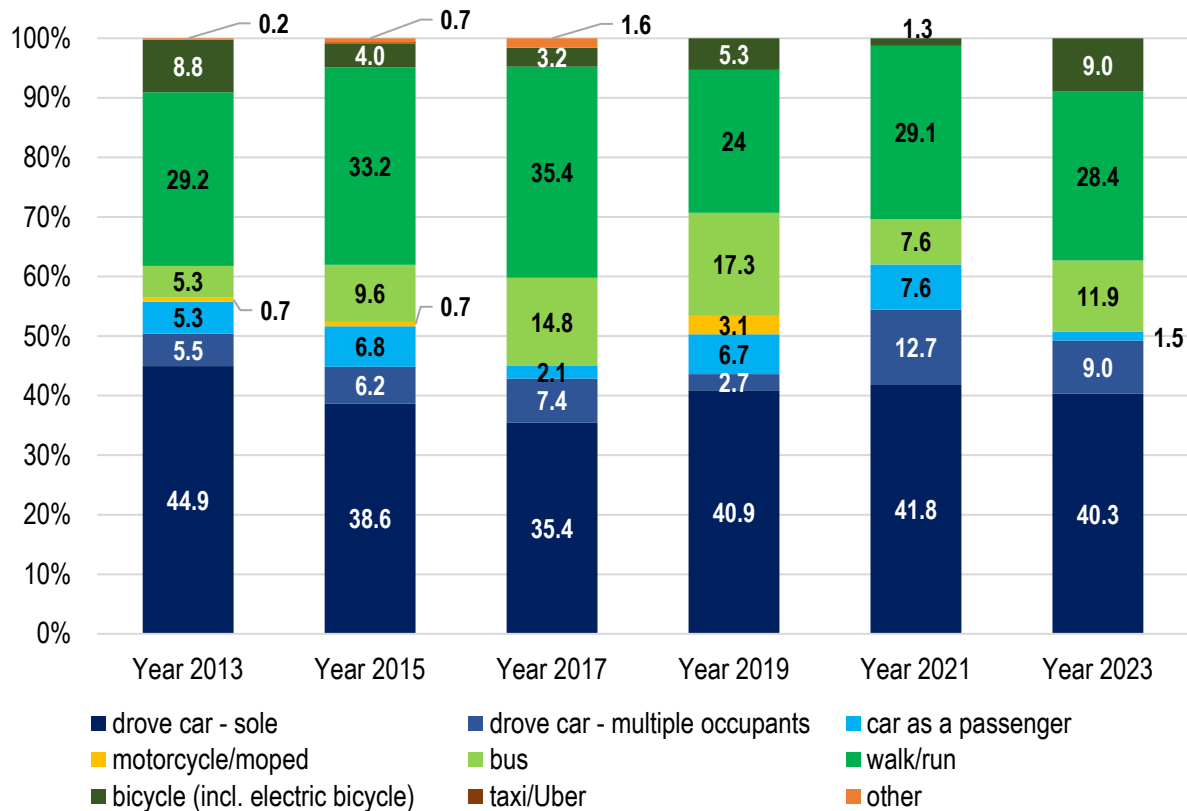


Figure 3.8: Main Mode Share per year – Students – Tasmania North (all Launceston). (n=67 in 2023).

The challenge for Launceston campuses and their future development will be to enhance accessibility for students residing within the Launceston local government area as well as the greater region, especially growth suburbs to the south. Almost 60% of students live within the Launceston postcodes 7250 and 7248, with almost half of these living in

suburbs between the Newnham and Inveresk campuses (Newnham, Mowbray, Invermay). Growing sustainable mode-use and maintaining its viability and attractiveness over time will be essential as UTAS transitions to its new facilities within Launceston. This will mean continued investment in infrastructure, public transport services and well-located student accommodation. Importantly, it will also require a review of parking and other incentives for car use, keeping in mind the needs of students travelling from regional locations.

The student sample size for campus locations in North West Tasmania in 2023 is too small (<10) for analysis and therefore is not represented. In past surveys, results for 2019 showed some promising trends, with a significant shift to bus and walk modes. However, 2021 results showed a reverse trend (Figure 3.9). This might be partly because the 2019 Cradle Coast sample included students living at the West Park accommodation, which is more central to the Burnie city centre, while no students from this facility completed the survey in 2021. In addition, Metro Tasmania made changes to bus routes and timetables that may have had a negative impact on students. Cycling has been historically low for Cradle Coast campuses, however 15% of respondents used a bicycle in 2021 to attend a Cradle Coast facility in 2021.

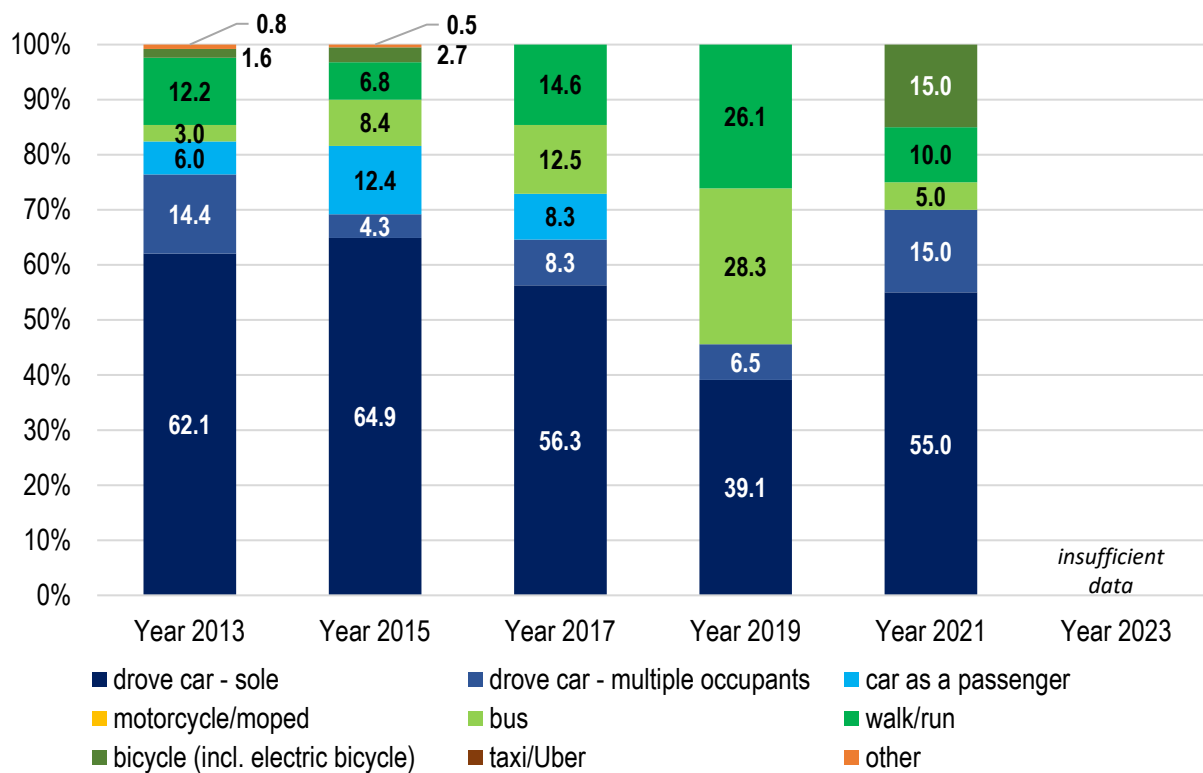


Figure 3.9: Main Mode Share per year – Students – Tasmania Cradle Coast (all Burnie).

Note: Year-to-year comparisons are to be taken with caution for this region as sample sizes for Cradle Coast have been consistently small (<100). Instead, the data provides a crude indication only of the mode share.

### **Sydney Campuses**

Only six respondents attended Sydney facilities (Rozelle) in the 2023 student survey, therefore data comparison to previous years will not be represented graphically in this report. It can be noted that half of the respondents drove a car as a sole occupant, while two respondents used public transport and one travelled by motorcycle.

In previous years (2015 to 2019) public transport use increased notably over time while sole-driver car use steadily decreased. However, no respondents reported using public transport in 2021. This could have been due to the higher number of COVID-19 cases and lockdown periods in Sydney than experienced in Tasmania.

### **International and local students**

With the large number of on-the-ground international student enrolments (despite the decline in relation to the global pandemic), the University has a responsibility to ensure these students are accommodated appropriately and can get to and from their classes efficiently and without significant cost to themselves or the community. International students come from a wide range of countries and bring with them their own experiences and expectations of transport. Many, such as Chinese students, have experienced high quality public transport systems back home or different cultures of bicycle use and find it challenging shifting to a different, largely car-based transport culture.<sup>11</sup>

As an indicator of difference, we compared international and Tasmanian students attending Sandy Bay and Hobart CBD campuses. For international students mostly attending the Sandy Bay campus, 70% were living in either Sandy Bay (postcode 7005) or surrounding suburbs (postcodes 7000, 7004, 7007, 7053). This compares to 48% of Tasmanian students. These locations are largely accessible by walking, cycling, or short bus trips. For international students attending Hobart CBD facilities, 88% lived within Hobart (postcode 7000) or neighbouring suburbs to the south and north (postcodes 7004, 7005, 7008) compared to 68% of Tasmanian students. For international students attending the Sandy Bay Campus, some 35% live in UTAS student accommodation; the percentage increases to 41% for international students attending Hobart CBD facilities. This compares to 9% of Tasmanian students.

Tasmanian students are more likely to travel by car than international students (some 43% of Tasmanian students as sole driver compared to 14% of international students in 2023). This is most likely influenced by a range of factors, including the much more dispersed residential locations of Tasmanian students across (and outside) Greater Hobart and Launceston relative to the more centralised residential locations of international students, and public transport service quality and journey time from outer urban areas.

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<sup>11</sup> Yelan Yang, 2017. *Understanding transport experiences and expectations of Chinese students in Hobart*. Thesis submitted in partial fulfilment of the requirements for Masters of Planning, School of Land & Food (Geography), University of Tasmania.

The Australian culture of car use and the option for some local students to use family vehicles are also likely other contributors.

The percentage of international students using cars as their main mode of transport has decreased since 2021, possibly due to an increase of these students living in university accommodation, and the implementation of a free shuttle connecting Sandy Bay and Hobart CBD facilities, which would in turn explain the increase in public transport use. The behaviour of Tasmanian students has remained rather consistent between 2021 and 2023 (Figure 3.10).

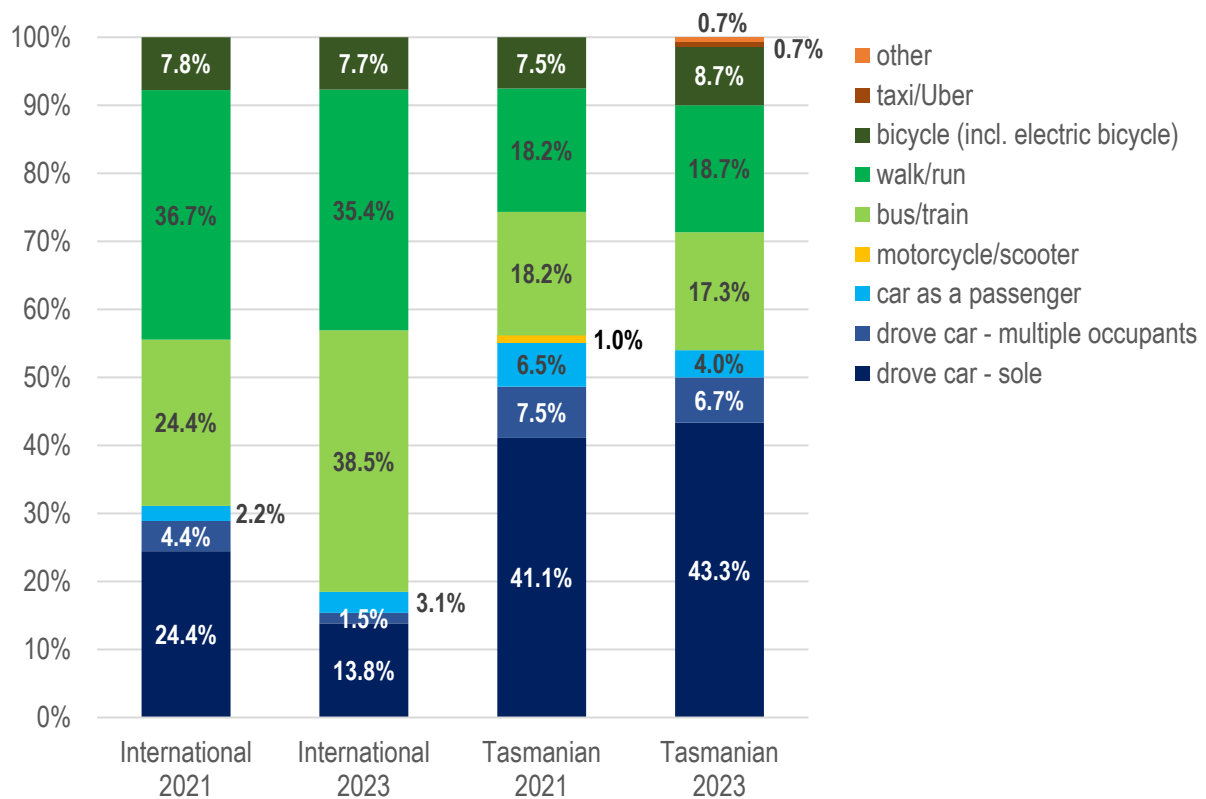


Figure 3.10: Main mode of transport to UTAS – international versus Tasmanian students

### 3.1.3. Staff main mode to work

Main travel mode for staff journeys to the university for work is quite different to that for students, with staff residential origins tending to be more dispersed. For the University overall, there has been very little change over time, although it’s worth noting an increase in staff driving a car with multiple occupants since the previous survey, in detriment of more sustainable transport modes (i.e., walk, bicycle, public transport) (Figure 3.11). Like students, however, mode distribution from region to region and campus to campus varies notably as shown in Figure 3.12. The proportion of staff using active or sustainable transport is considerably lower than that of the students at a whole university level (Figure 3.3 and Figure 3.11).



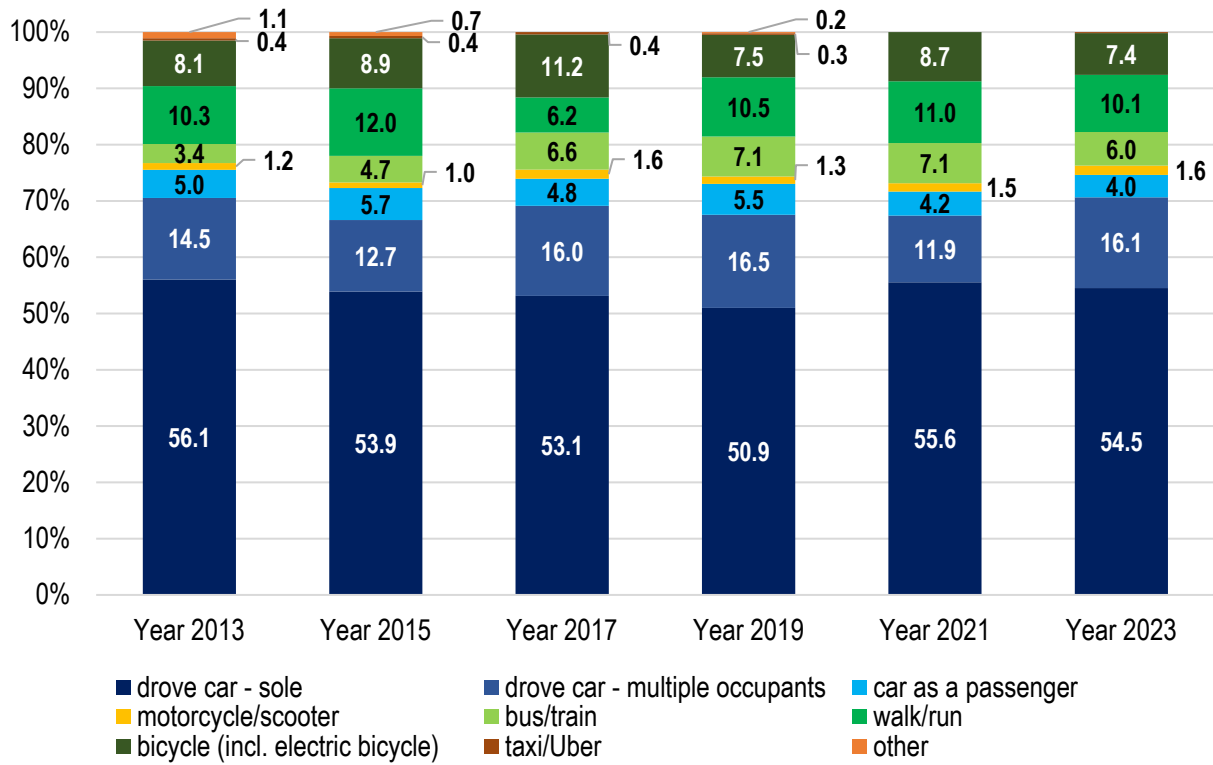


Figure 3.11: Main Mode Share per year – Staff – All University of Tasmania. (n=552 in 2023).

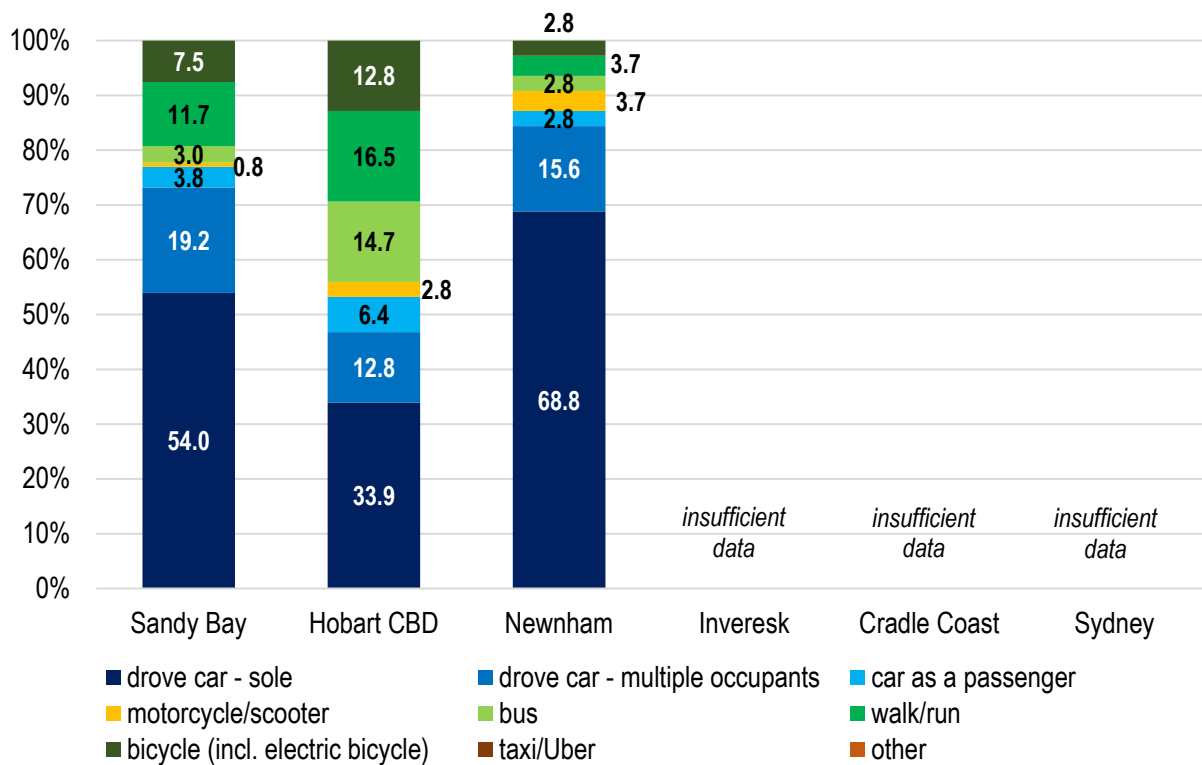


Figure 3.12: Main Mode Share 2021 – Staff – by campus and campus groupings. (Sandy Bay n=265; Hobart CBD n=109; Newnham n=109; Inveresk n=13; Cradle Coast n=8; Sydney n=7).

### South Campuses

Over time, there is not a clear trend in main transport modes for commuting in south campuses (Figure 3.13). Some steady positive changes in bus use were observed between 2013 and 2021 despite COVID-19 impacts, but the trend did not continue in 2023. This pattern is similar for Sandy Bay and Hobart CBD campuses, but CBD campuses exhibit a higher amount of public transport use overall across each period (Figure 3.14 and Figure 3.15). Bicycle use has not changed much since 2019 but is still lower than the share achieved in 2017. Staff located in the Hobart CBD have double the share of sustainable modes use in 2023 compared to those located at Sandy Bay campus (44% and 22% respectively) (Figure 3.14 and Figure 3.15).

Car use in sole occupant vehicles across the South has slightly decreased, while the share of people driving a car with multiple occupants or travelling as a passenger has returned to pre-COVID levels (Figure 3.13). This trend also has been observed in Sandy Bay (Figure 3.14), although in Hobart CBD campuses the share of single occupant vehicle has been maintained since the previous survey (Figure 3.15).

In 2023 a higher proportion of staff live locally for those working at UTAS Hobart CBD facilities than those working at the Sandy Bay campus (44% and 39% respectively), though residential origin patterns do not differ significantly for either workplace locations. Living locally enables walking and cycling mode choice. A good number of staff still live in suburbs that have reduced public transport convenience, being away from transport hubs or high frequency corridors.

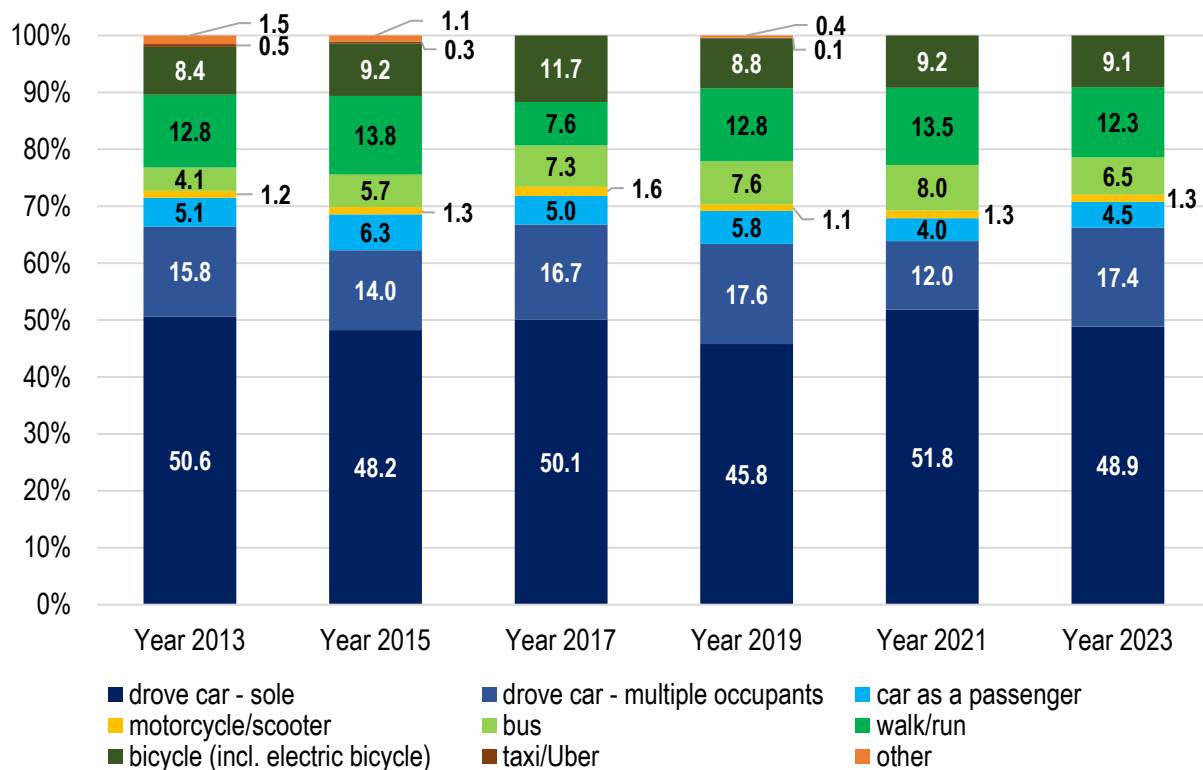


Figure 3.13: Main Mode Share per year – Staff – Tasmania South. (n= 397 in 2023).

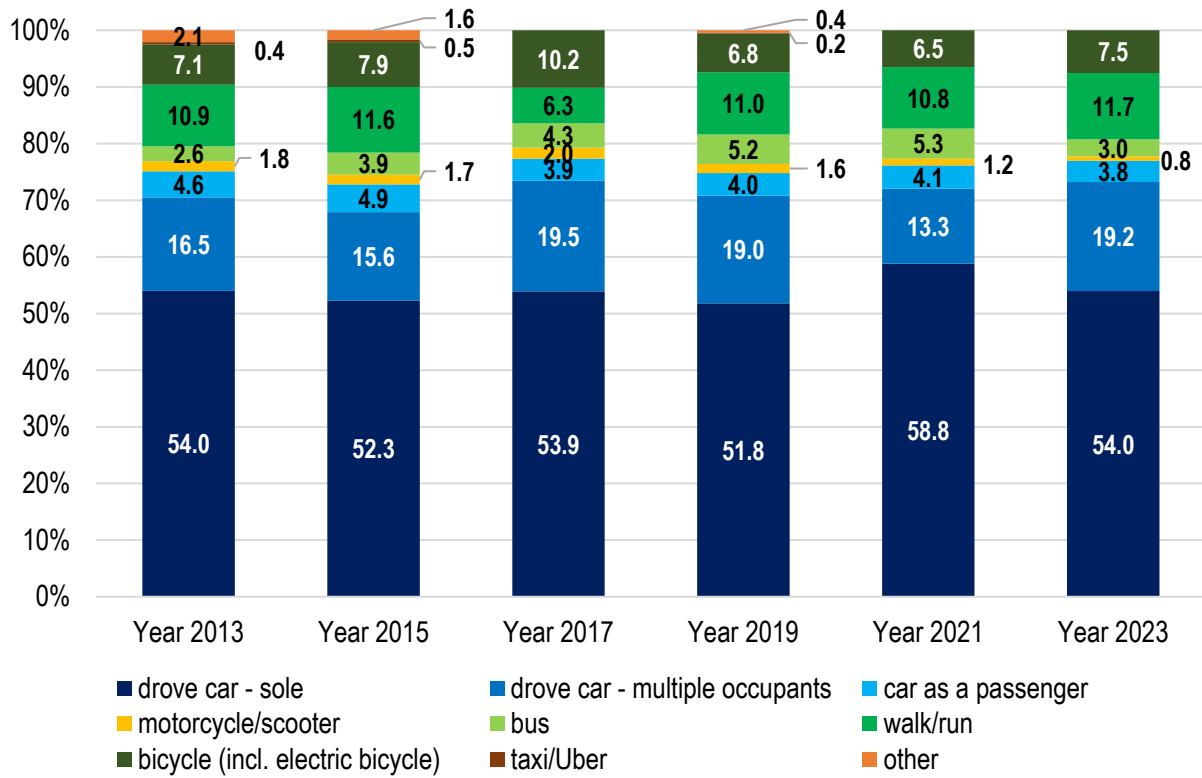


Figure 3.14: Main Mode Share per year – Staff – Sandy Bay Campus (Hobart). (n=265 in 2023).

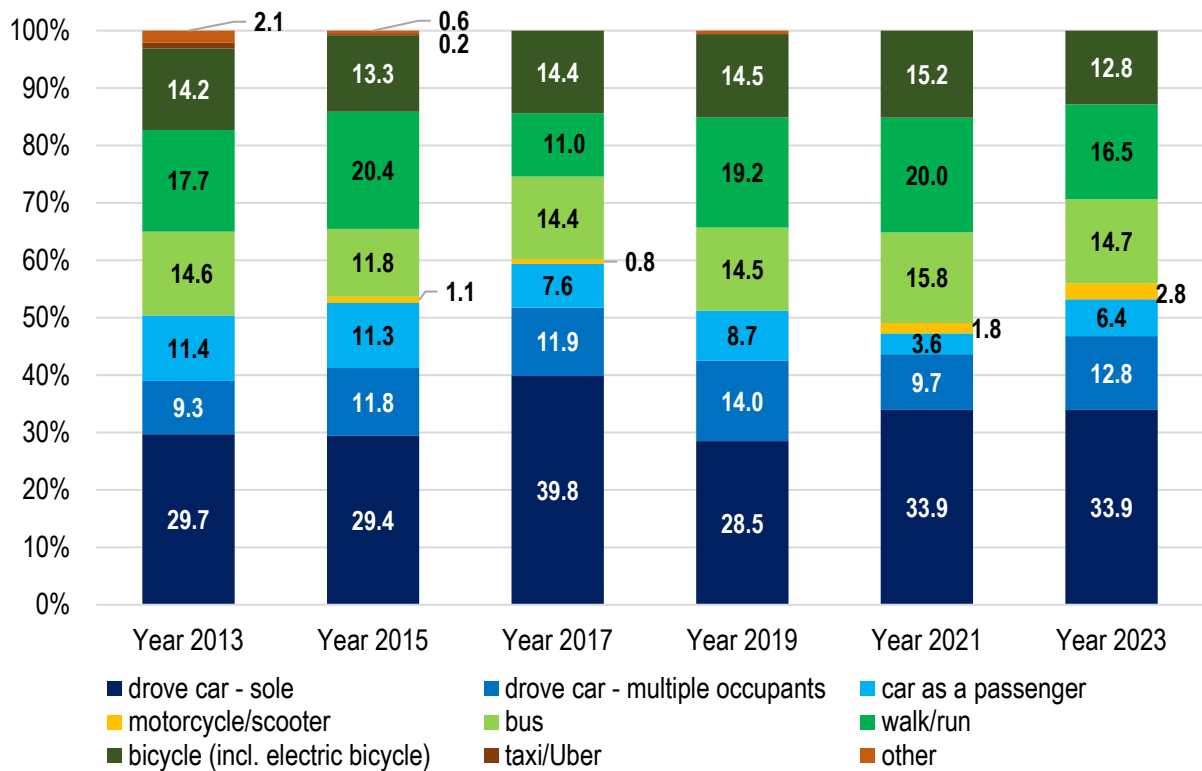


Figure 3.15: Main Mode Share per year – Staff – Hobart CBD. (n=109 in 2023).

Note: CBD facilities have changed over time as they were built/occupied. It should also be noted that there have been increasing percentage of staff and students located in the CBD over the period since 2013. Caution should therefore be taken comparing data trends that have not been normalised.

**North and North West Campuses**

In the North, there has been somewhat of a decline in sustainable transport modes for commuting since the previous survey, most notably in bicycle use (Figure 3.16). Unfortunately, survey responses from Inveresk and other Launceston facilities were too few to allow a reliable comparison with Newnham campus staff.

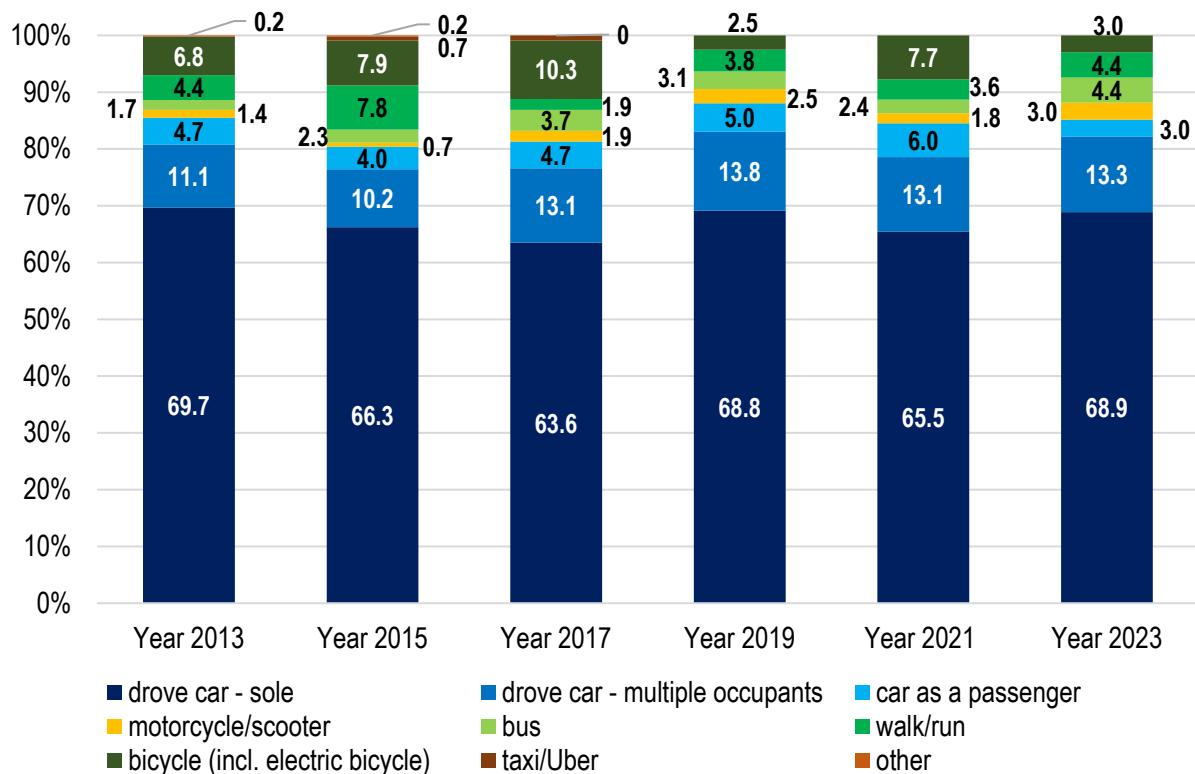


Figure 3.16: Main Mode Share per year – Staff – Tasmania North. (n=135 in 2023).

Among staff, the campuses with the highest single occupant car use are in Tasmania’s north (northern campuses combined). In 2023, some 85% of northern staff arrived at work by car with 69% of those as sole driver (Figure 3.16).

Though Cradle Coast campuses show the highest single occupant car use in 2021 with no respondents reporting any sustainable mode use, sample sizes are very small (n=8) and potentially unrepresentative, therefore they have not been shown here.

### 3.1.4. Working or studying from home or remotely (virtual transport)

Working from home reduces the physical need to travel to work and reduces overall travel demand during peak commute periods.<sup>12</sup> In the 2023 survey, the average staff daily work from home share (Monday to Friday) was 18%, remaining at the same level as in 2021 (Figure 3.17)<sup>13</sup>. This may indicate a stabilisation on the percentage of staff working from home after the COVID pandemic, despite the push for staff to return to their university offices, with the aim to revitalise campuses after the pandemic.

Not included in Figure 3.17 is the percentage of staff who reported working from home on weekends., which was reported to be 8% on average.

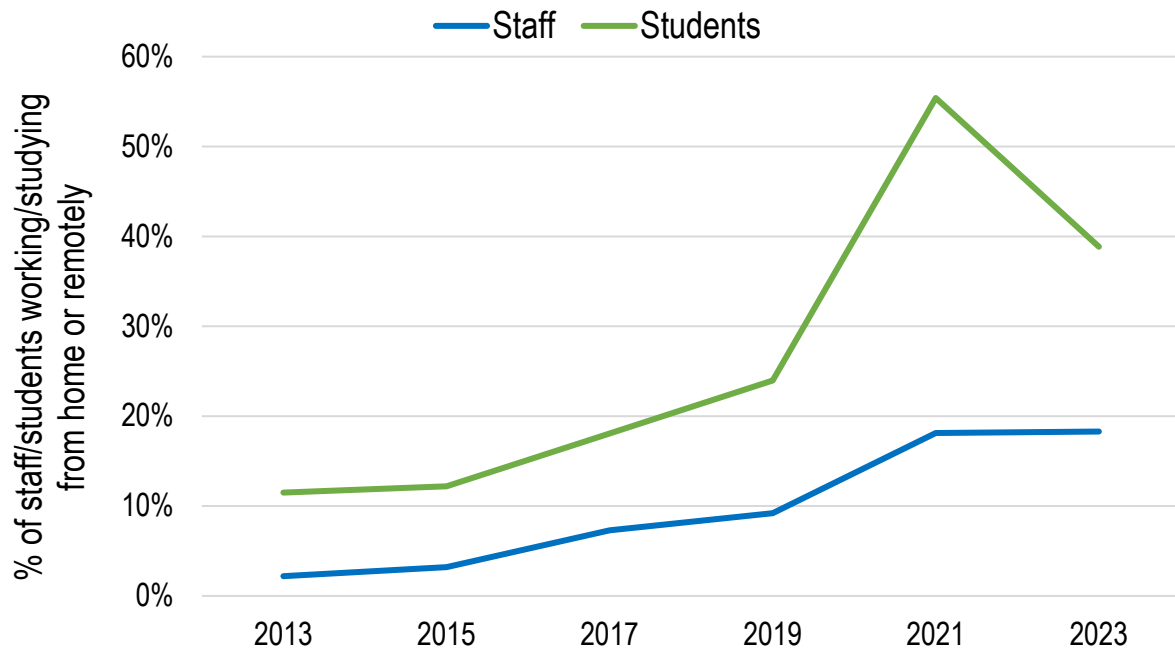


Figure 3.17: Proportion of staff/students working/studying from home (or remotely) – Monday to Friday average. (staff n=152; students n=374).

The percentage of students studying from home (or remotely) has always been higher than staff but it more than doubled in 2021 compared to the previous survey (24% in 2019 and 55% in 2021). The large increase for students in 2021 was likely attributable to the COVID-19 pandemic causing a shift to facilitate more people studying remotely, although a steady increase in students studying from home (and staff working from home) has been observed since 2013. This is not surprising given information and communication technology improvements that facilitate this mode of studying/working. However, the percentage of students studying from home decreased notably in the 2023 survey (as opposed to staff) likely because of campus revitalisation attempts, and potentially the

<sup>12</sup> While tending to reduce travel demand in peak commuter periods, working from home may increase short local trips in the neighbourhood of the worker, which can have a negative and/or positive impact on that place.

<sup>13</sup> Some staff may also be working remotely while on work business.

desire of students to experience campus life as part of their student journey (although more research would need to be done to ascertain motives).

Note: In the 2013 and 2015 TBS, 'worked from home' was offered as a mode choice for the journey to/from work each day of the week and so was reported as a transport mode category. In subsequent surveys, respondents were asked if they: attended a university facility, worked from home/remotely, or did not work, before asking what transport mode they used to get to/from a university facility. The 'worked from home' share is calculated similarly as a share of total workers for each day for all years, despite the question adaptation from 2017.

## 3.2. Inter-campus travel

Both student and staff surveys asked about inter-campus trips, that is trips made between UTAS campuses or facilities rather than other places. Such travel does not include air or sea travel.

### 3.2.1. Student inter-campus travel

The incidence of student inter-campus travel is down by 12% since 2021, with only 10% of respondents reporting they undertook intercampus travel in the 2023 survey. However, the number of inter-campus trips per week per 100 students has increased by 6 trips, indicating that although a lower number of students are travelling between campuses, those who do undertake more trips than in previous years. Some 57% of student inter-campus trips in 2023 were made within the southern region, compared to 36% within northern Tasmania and the Cradle Coast combined. Just over 7% of all inter-campus trips were inter-regional trips, the vast majority of these between Hobart and Launceston.

*Table 3.1: Main mode of transport for most prominent student inter-campus trips (and return)*

	Within Hobart CBD		Hobart CBD – Sandy Bay		Inveresk – Newnham	
	2021	2023	2021	2023	2021	2023
Private car – sole occupant	-		16%	20%	33%	41%
Private car – multi occupants	-		11%	2%	17%	7%
Motorcycle/moped	-		-	-	-	-
Electric scooter	-	10%	-	-	-	-
Bus/shuttle	-		54%	50%	33%	48%
Walk/run	-	90%	25%	16%	10%	-
Bicycle	-		7%	-	-	4%
Taxi/Uber	-		-	-	-	-
Mode not specified	-		-	11%	7%	-

Table 3.1 shows the main mode of transport taken for the most prominent intra-regional trips (27% of student inter-campus trips were between Inveresk and Newnham, 26% between Sandy Bay and Hobart CBD facilities, and 13% within Hobart CBD facilities)

For trips between the Hobart CBD and Sandy Bay campus, a decrease in bus and walk modes was observed despite the accessibility to a free shuttle service since 2022. In Launceston bus use is up for trips between Inveresk and Newnham though active modes are down. Importantly, there has been an increase in car use as sole occupants in both cases. Travel between Hobart CBD facilities was not previously recorded, but it is not surprising that the majority of students walk (or run) to travel between these areas given their physical proximity.

Half of inter-campus inter-regional trips reported by students in 2023 were between Hobart CBD and Newnham, with the remainder being movements between Hobart and Launceston or other north locations more generally. Some 75% of trips were made by bus (coach service) and the remainder did not specify transport mode. Importantly, none of the respondents reported using a car as single occupant for inter-regional trips.

**3.2.2. Staff business travel**

In 2023, some 18% of staff reported travelling for work purposes (land travel only), including inter-campus trips, in the previous week (Figure 3.18). The slight increase compared with the previous survey is likely related to the resumption of activity after the COVID-19 pandemic. However, the percentage of staff business travel remains below pre-pandemic levels, suggesting that some of these trips have now been replaced with virtual travel.

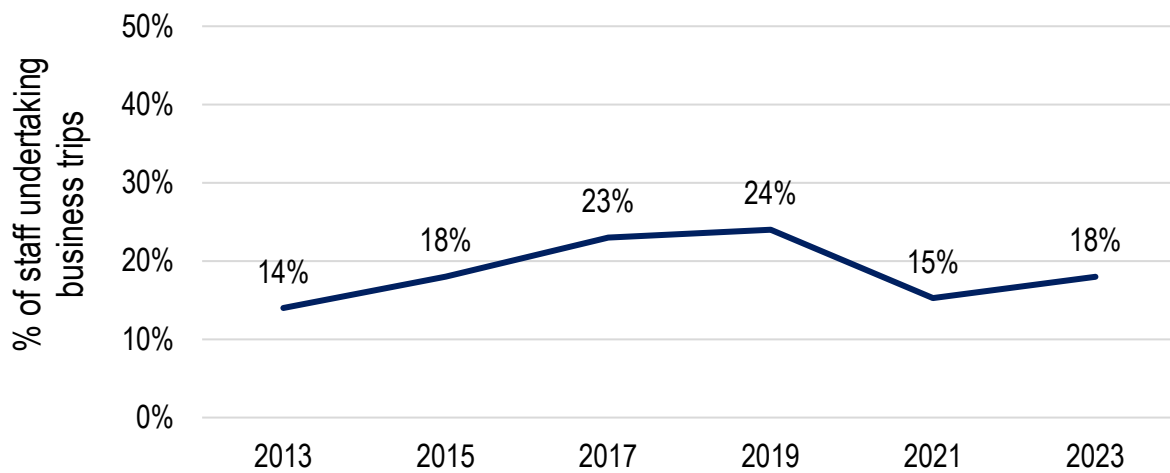


Figure 3.18: Proportion of staff undertaking inter-campus trips in previous week.

Figure 3.19 highlights the change in the proportion of staff using university-provided physical meeting-replacement ICT at least weekly, specifically telephone or PC-based teleconferencing/videoconferencing and university videoconference venues that allow groups of people to meet virtually.

Trends indicate that while ICT use has increased, it is not necessarily replacing the need to travel for all face-to-face meetings, although as indicated above, the percentage of business travel has decreased in relation to pre-pandemic surveys, suggesting that some of these meetings are now conducted online, especially inter-regional trips (e.g., between Hobart and Launceston), which have reduced in number and share.

In 2023, the proportion of staff making frequent phone and video calls increased to 93%, a slight increase from the previous survey, which could indicate that most people for whom meeting with others is an essential part of their job are already using ICT to do so. This was paired with an increase in the use of video conferencing facilities, which is the highest proportion of staff reporting the use of these facilities in all surveys and continues the trend observed prior the COVID-19 pandemic. A focus in the last few years on improving videoconferencing technology available to UTAS staff, as well as the increase in the number of meeting rooms that have this technology available across all campuses, is likely a determining factor in the increased use of these facilities. The end of socially distancing requirements post-pandemic explains the large increase (10 percent points) since the previous survey.

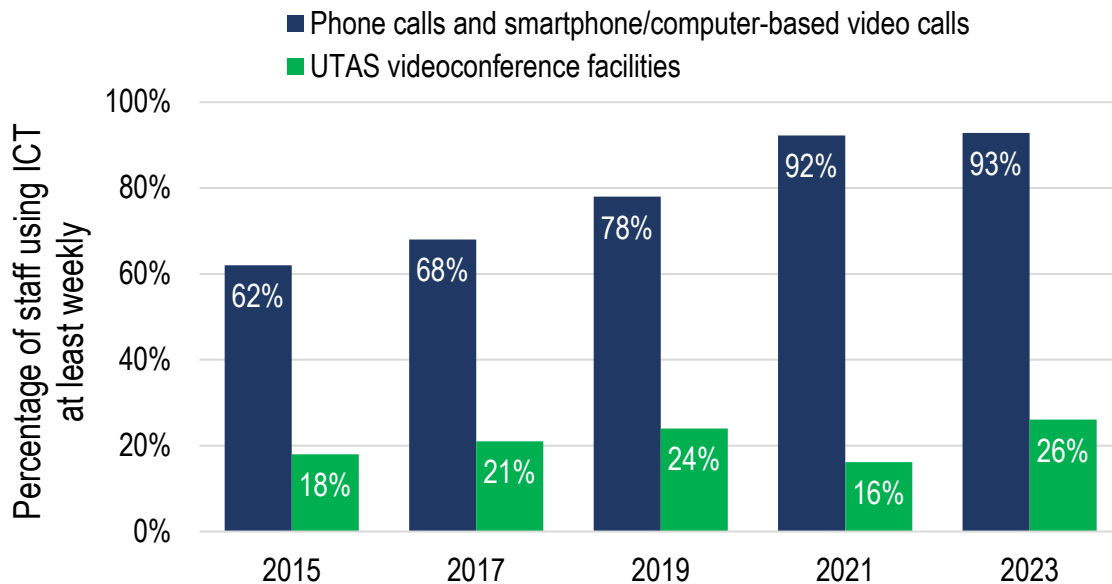


Figure 3.19: Proportion of staff using UTAS teleconferencing or videoconferencing ICT at least weekly

**Type and mode of land-based work trips**

Of all land-based work trips made in Tasmania, 55% were associated with inter-campus travel (between UTAS campuses or facilities), an increase from 42% in 2021.

Around 63% of intercampus trips occurred between in the south, with 35% of trips from Sandy Bay to the Hobart CBD (or vice versa) and 16% between Hobart CBD facilities. Some 23% of all inter-campus trips involved movements in the north, while 12% of inter-campus trips were longer inter-regional movements, with the majority of these being movements between Hobart and Launceston campuses and facilities (Figure 3.20).



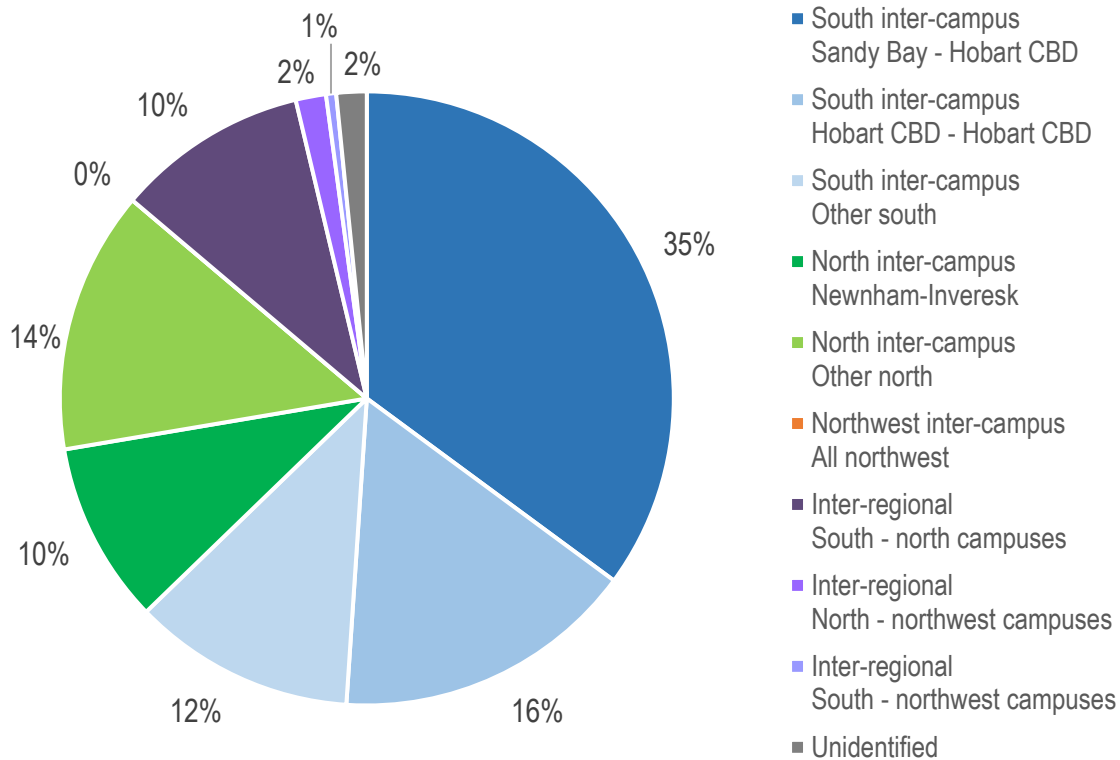


Figure 3.20: Tasmanian land-based inter-campus work trips – by trip type (2023)

Table 3.2 shows the primary mode of transport used for the most common inter-campus trips made. Key features include:

- Within Hobart CBD inter-campus trips
  - The majority of trips for these journeys were made by active transport modes (walk/run), with an important decrease in the use of cars since the previous survey period.
- Sandy Bay - Hobart CBD inter-campus trips (and vice versa)
  - 25% of 2023 trips for this journey type were made using more sustainable modes (bus, walk, cycle), remaining at the same level as in the previous survey. However, active modes (walk or cycle) decreased by almost half, while the use of public transport increased.
  - Overall use of cars remained at the same level, although multiple occupant car trips have slightly increase, and some trips were conducted using eco-fleet cars in 2023.
  - Taxi/Uber use has increased since the previous survey but remains half of the rate observed in 2019.
- Inveresk - Newnham inter-campus trips (and vice versa)
  - Travel by car remains the only transport mode used by staff between these campuses, with no staff reporting using public or active transport, or taxi/Uber.

- Sole occupant in private cars was the preferred transport mode. However, the percentage of staff traveling in multiple occupant cars has increased considerably compared to the previous survey.
- Hobart - Launceston inter-campus inter-regional trips (and vice versa)
  - The use of university fleet vehicles increased in 2023, paired with a decrease in the use of private vehicles, and the percentage of staff sharing trips in the same vehicle more than doubled in 2023 compared to the previous survey.
  - A small percentage of staff used the bus to travel between regions, but cars are still the preferred transport mode by far.

Table 3.2: Percentage of main mode of transport for select Tasmanian inter-campus trips (and return).

	Within Hobart CBD		Hobart CBD – Sandy Bay		Inveresk - Newnham		Hobart - Launceston	
	2021	2023	2021	2023	2021	2023	2021	2023
Private car – sole occupant	12%	-	51%	44%	47%	67%	50%	16%
Private car – multi occupants	-	7%	4%	18%	-	17%	15%	21%
Uni fleet car – sole occupant	6%	-	4%	-	51%	17%	25%	32%
Uni fleet car – multi occupant	-	-	7%	-	2%	-	-	11%
Uni eco-fleet car – sole occupant	-	-	-	3%	-	-	10%	5%
Uni eco-fleet car – multi occupant	-	-	-	-	-	-	-	-
Car-share vehicle	24%		-	-	-	-	-	11%
Motorcycle/ moped	-	-	-	-	-	-	-	-
Electric scooter	-	10%	-	-	-	-	n/a	n/a
Bus/shuttle	-	-	11%	18%	-	-	-	5%
Walk/run	59%	83%	6%	2%	-	-	n/a	n/a
Bicycle	-	-	7%	5%	-	-	n/a	n/a
Taxi/Uber	-	-	7%	11%	-	-	n/a	n/a

Overall, three main observations can be made about the change in staff work trips including inter-campus trips since 2021:

- A decrease in the number and share of land-based work trips that are not associated with inter-campus trips.
- An increase in UTAS fleet vehicles for inter-city trips.
- An increase in multiple occupant car trips at most campuses.

### 3.3. Bus use

As shown in section 3.1, the most striking and consistent increase in mode share for commuting until the COVID-19 pandemic was public transport (bus in Tasmania and public transport more generally in Sydney), particularly among students. Although in the 2021 survey about 24% of staff and 36% of student respondents who were using public transport before the pandemic reported lower or no use of public transport in 2021 because of COVID-19, a slow recovery has been observed in the 2023 survey, at least for students.

The survey also sought feedback on the use of public transport service information and auto-tap ticketing cards. This information helps us understand the level of awareness of, and engagement with, local public transport services.

#### 3.3.1. Greencard and Opal card ownership

The proportion of university staff and students with auto-tap public transport ticketing cards increased between 2013 and 2019 (when many critical initiatives of the first University Sustainable Transport Strategy were implemented) but seems to have plateaued since then with 50% of staff and 58% of students reporting to own public transport cards (Figure 3.21). Card ownership is higher in Sydney and southern Tasmania for both staff and students, likely due to better availability, frequency, and convenience of public transport services in these areas. The percentage of staff and students having regular credit on their cards has remained quite stable over time, with an average of 78% of card owners for both staff and students.

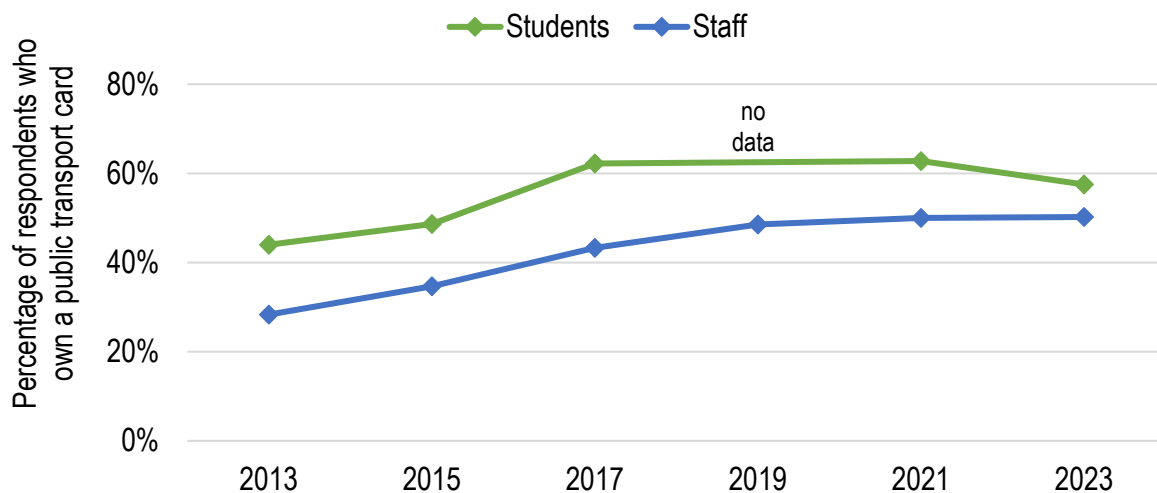


Figure 3.21: Public transport auto-tap card ownership over time

#### 3.3.2. Use of online public transport information and apps

The survey also asked respondents how frequently they accessed public transport websites or apps such as the *Metro Tasmania App* (Tasmania) or *Opal Travel App* (NSW). Such tools include trip planners, timetable information, service updates and fare information. Similar to card ownership, staff and students from southern Tasmania, as

well as Sydney students, are more likely to use these websites/apps and use them more often than in other Tasmanian regions (Figure 3.22). This pattern has not changed over time, although percentages of frequency of use vary slightly between surveys.

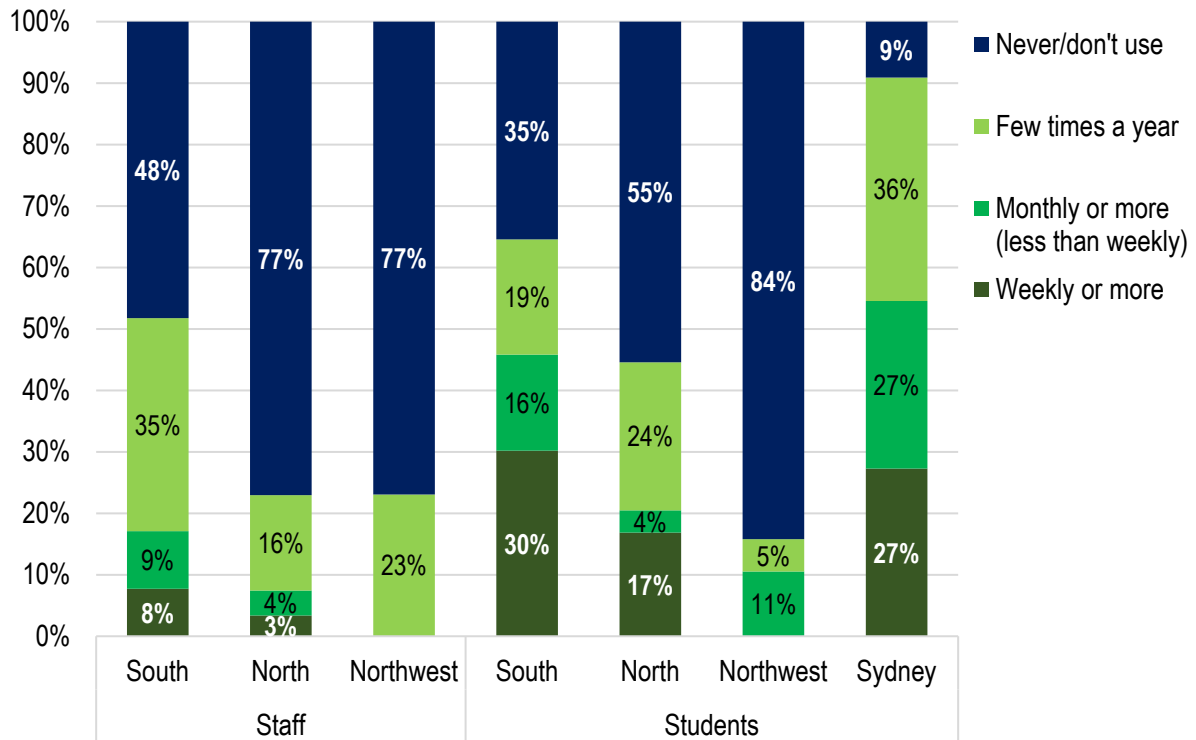


Figure 3.22: Use of a public transport information website or app (including trip planner) – all students and staff 2023

### 3.3.3. Bus use incentives

Respondents were asked about the likelihood of using more public in relation to specific initiatives. Student respondents indicated they would be likely or extremely likely to use public transport more if they only needed to take a bus (49%), the frequency of buses during peak periods increased (49%) or if travel before 8am was free (47%). Staff also valued the need to take only one bus (50%) and free travel before 8am (48%), but their next preferred option would be provision of hire-and-ride e-scooters to get to/from their destination at key bus/ferry/train stops (47%). Interestingly, this was the least preferred incentive for students (50% of respondents). Other least preferred incentives (not at all likely or unlikely) for students included park and ride options and increased cost of parking at UTAS campuses/facilities (46% and 43% respectively) and staff (63% and 58%). Staff respondents also indicated that increased parking costs would not incentivise their use of public transport (47%). Other least preferred incentives for staff included the use of electric or hydrogen buses and a loyalty program (46% and 44% respectively).

The same themes were prominent in the previous Travel Behaviour Survey, when these questions were asked for the first time, although in relation to the potential move of staff and students from Sandy Bay and Newnham campuses to Hobart CBD and Inveresk respectively.

### 3.3.4. Bus service challenges

While we have seen an increase in bus use for students and staff over time, and the introduction of through bus services to the Sandy Bay and Newnham campuses in recent years (501 from Glenorchy and 601 from Howrah in the south, and 110 from Kings Meadows in the north), there remains significant variation in bus service level across the Greater Hobart and Greater Launceston regions. The survey included a question about the use of bus services that did not require a transfer in the city to get to Sandy Bay or Newnham campuses.<sup>14</sup>

Overall, the survey tells us that 70% of student bus users (and 56% of staff) took one bus only (direct trip) at least once in the week prior to the survey. While this may mean that some are mixing modes (such as travelling as a car passenger to access a direct bus route), the share suggests a good level of access overall. However, the previous section on bus incentives suggests that more students and staff would potentially use public transport if more direct routes existed.

During the timing of the survey, inner suburbs and middle suburbs near high frequency corridors from Glenorchy (north) and Shoreline (east) tend to have the best levels of direct service to the Sandy Bay campus. Suburbs further to the north, east and south, and middle suburbs away from high frequency corridors, frequently require transfer in the city and at least two buses to access the Sandy Bay campus. There is a need to focus attention on either bus service improvement in areas where multiple buses might be required or bus route access, potentially through park-and-ride facilitating access to higher frequency corridors and most direct services.

For students attending campuses in the north there are likely to be some similar issues, particularly access to Launceston's Newnham campus from outer growth suburbs. Direct services to the Newnham campus are available from Kings Meadows and intermediate suburbs connecting to Newnham, and from Launceston northern suburbs. Other suburbs require more than one bus and transfer at the Launceston CBD.

### 3.4. Bicycle use

The University has an interest in encouraging cycling. This is a relatively inexpensive and healthy way to get around, particularly when the journey is considered a little too far to walk. Travelling to work or study by bicycle appeals to some more than others, with personal factors (health and enjoyment related) identified as significant motivators for urban cycling. Factors constraining cycling are largely reported in the literature as being environmental concerns related to traffic conditions, motorist aggression and safety, with

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<sup>14</sup> *If you travelled on a Metro Tasmania bus to the Sandy Bay or Newnham campus last week and travelled through the city, did you use a bus service that did not require a bus transfer in the city (e.g., routes 501, 601 for Hobart and 110 for Launceston)?*

women reporting more constraints than men<sup>15</sup>. In Tasmania, hilly topography, and seasonal change (i.e., cold or wet weather, and dark evenings) are frequently referred to as limiting cycling take-up. The wider body of literature around shifting behaviours also points to an array of other social, personal, and external constraints (including the influence of social norms, personal habits, and time constraints, and cycling competency and confidence issues) that are perhaps not commonly considered in the development of strategies to grow cycling<sup>16</sup>.

In this survey, we measure bicycle mode share for the journey to work or study and ask how cyclists are using university bicycle infrastructure and information.

### 3.4.1. Change over time and gender

Change in the share of bicycle as the main mode for the journey to/from work or study is inconsistent across campuses and depends on whether you consider student or staff travel behaviours. Figure 3.23 and Figure 3.24 show that cycling used to be generally a higher mode share for staff than students, however a general decrease of cycling by staff and increase for students in the last few years has resulted in a similar share for both cohorts. Interestingly, in 2023 bicycle mode share has increased for students in northern campuses but has decreased for staff in the same area and Hobart CBD for the same period. The relatively limited change in bicycle mode share over time points to the limits of urban cycling infrastructure and cycling road safety conditions.

An interesting feature of bicycle mode share change revolves around the gender breakdown of cyclists. Table 3.3 depicts the ratios of male to female (and other gender identities) cyclists over the period 2015-2023 for the University's largest campuses and overall<sup>17</sup>. In the 2015 TBS report, we discussed the male gender bias in cycling nationally and how this was also evident across the university community<sup>18</sup>. The 2015 TBS showed that university non-male staff and students cycled less than male staff and students, with the male to female (and other) cycle ratio across the University being 3:1 in 2015<sup>19</sup>. Overall, in 2023 the University has a male to non-male cycling ratio of 3:2, with a decline (more male riders) observed for Sandy Bay, while the proportion of female (and other gender

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<sup>15</sup> For example, see Heesch, K.C., Sahlqvist, S., Garrard, J. 2012. Gender differences in recreational and transport cycling. *International Journal of Behavioral Nutrition and Physical Activity*, 9(106). DOI: 10.1186/1479-5868-9-106.

<sup>16</sup> For example, see Shove, E. 2010. Beyond the ABC: Climate Change Policy and Theories of Social Change. *Environment and Planning A*, 42(6): 1273-1285.

Cupples, J., Ridley, E. 2008. Towards a Heterogeneous Environmental Responsibility: Sustainability and Cycling Fundamentalism. *Area* 40(2): 254-264.

<sup>17</sup> Data has been standardised according to the university population and to adjust for the female gender bias in survey response.

<sup>18</sup> Lyth, A., Archer, A., & Peterson, C. 2015. University of Tasmania Travel Behaviour Survey: Summary of findings, University of Tasmania, Hobart.

<sup>19</sup> In Queensland, Heesch et al. (2012) found that only 24% of transport cyclists are women, while in Sydney only 17% of bicycle commuting trips are made by women (a male to female ratio of nearly 6:1) with the ratio in Melbourne 4:1.

identities) riders increased in Hobart CBD and northern campuses when compared to 2021. It is worth highlighting that for the first time we have recorded more female (and other) than male riders (1:2 male to non-male ration for Hobart CBD campuses).

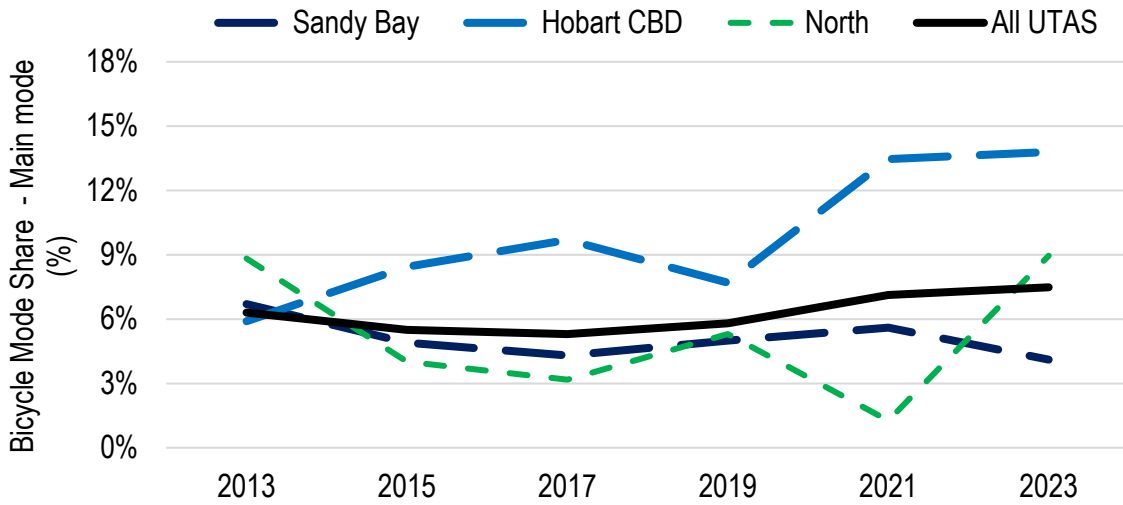


Figure 3.23: Bicycle as main mode – students – change over time.

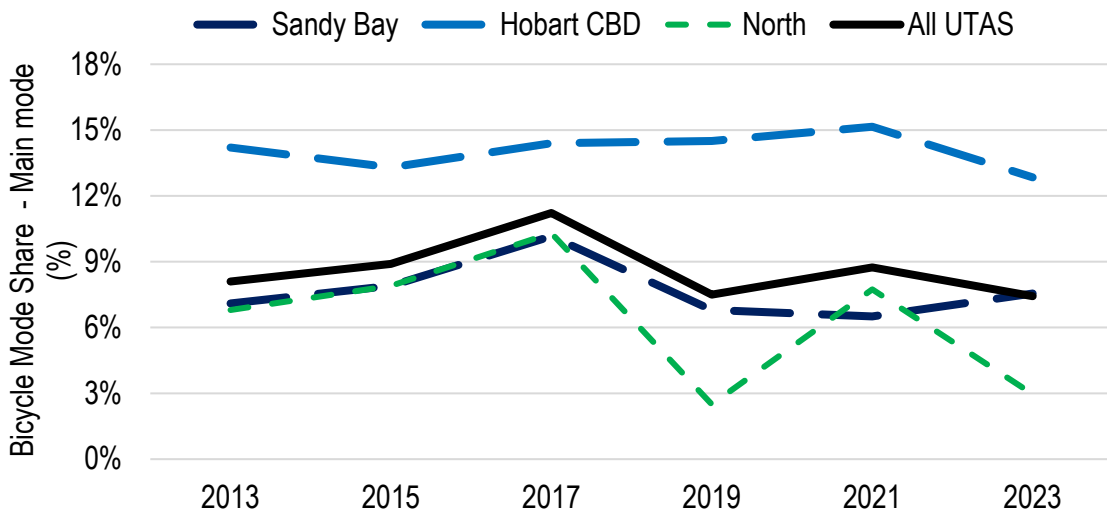


Figure 3.24: Bicycle as main mode – staff – change over time.

Table 3.3: Ratios of male to female (and other gender identities) bicycle riders. Note: male to female (and other) ratios have been rounded

	Male:Female ratio				
	2015	2017	2019	2021	2023
<b>Sandy Bay</b>	2:1	2:1	2:1	3:2	4:1
<b>Hobart CBD</b>	4:1	1:1	1:1	1:1	1:2
<b>Northern campuses</b>	10:1	2:1	1:1	3:2	1:1
<b>All UTAS</b>	3:1	2:1	3:2	3:2	3:2

### 3.4.2. Use of bicycle infrastructure

The TBS asked participants to give feedback on the bicycle infrastructure and information they used if they had ridden a bicycle to the University on any day in the previous week. All new UTAS facilities or major refurbishments since 2011 have included significant provision for cyclists and other active transport users. End-of-trip (EoT) facilities include electric bike (e-bike) charging stations, maintenance stations, water stations, showers, and lockers.

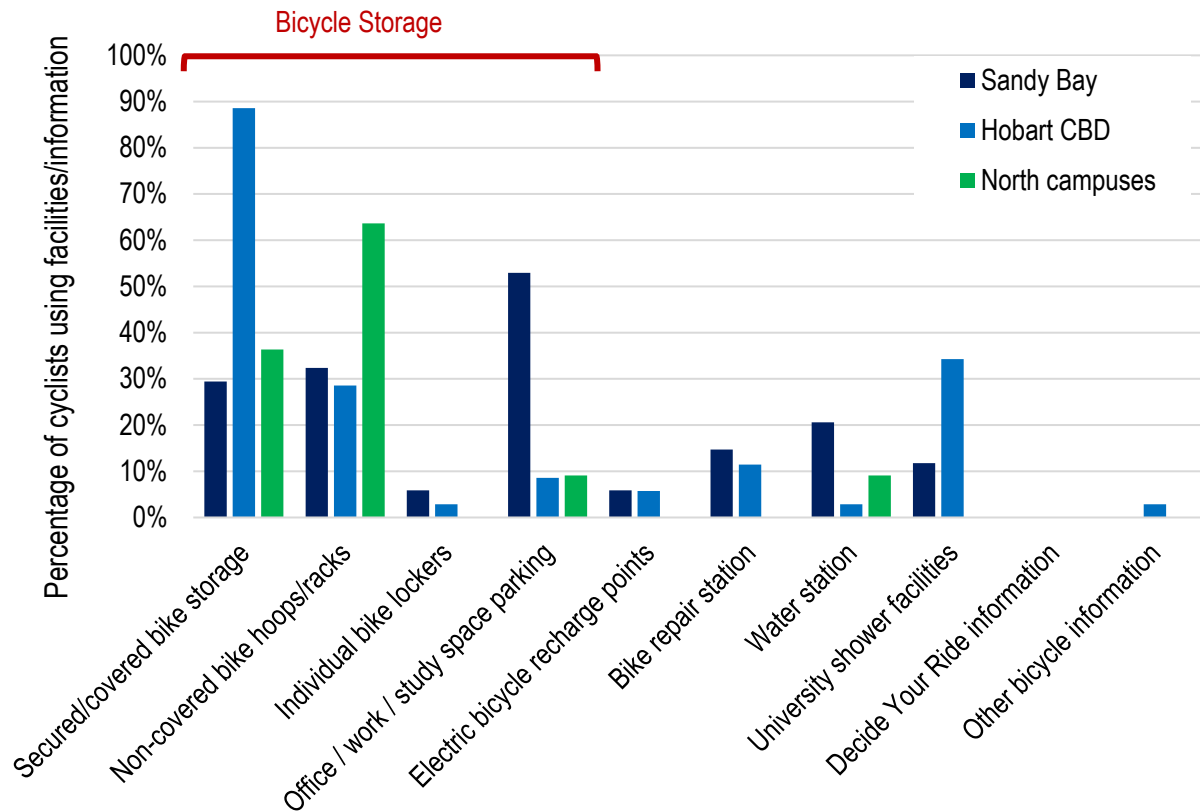


Figure 3.25: University facilities or information used by all bicycle riders (2023)

The facilities and information available to both student and staff bicycle riders range from different types of bicycle storage to bicycle maintenance and information<sup>20</sup>. The most used facilities are secured or covered bicycle storage, especially in the Hobart CBD campus, reflecting the high-quality end-of-trip infrastructure that has been installed at several facilities there. Non-covered bike hoops and racks are also well used across campuses, with north campuses riders using this type of storage more possibly related to provision or location. There was barely any storing of bicycles in workspaces/offices in Hobart CBD or northern campuses, whereas this is still an issue at Sandy Bay. Water stations, shower facilities, and bike repair facilities were moderately used with highest levels of use in locations where such facilities were more prevalent (Figure 3.25). The

<sup>20</sup> The [Decide Your Ride videos](#) are a series of online cycling videos for those interested but unsure about cycling to and between Sandy Bay and Hobart CBD campuses, and Newnham and Inveresk campuses in Launceston.



survey did not seek feedback on opinions surrounding the quality of this infrastructure and information, although other smaller ad hoc user opinion surveys are undertaken from time to time.

### **3.4.3. Electric bicycles**

E-bike use has shown growth since 2015, with the share of e-bike users increasing to 24% of riders in 2023 for staff and students combined (compared to 18% in 2021). E-bike use among staff riders made up 26% of all staff cyclists. All staff and all but one student users of e-bikes were in the south.

E-bike sales have been growing steadily in Australia in the last few years<sup>21</sup>. The University is currently offering (from mid-2021) a salary sacrifice option for e-bikes through the University's e-bike provider and offers e-bikes charging infrastructure at key locations in all main campuses. Further attention thereby points to other stakeholders to help grow this initiative, including the improvement of bicycle route connectivity and safety, and system-wide e-vehicle infrastructure in a State that enjoys the benefit of majority renewable energy supply.

## **3.5. Electric scooters**

Electric scooters are a type of personal mobility device (PDM). This relatively new form of transportation is gaining traction globally and hire-and-ride e-scooters were introduced in both Hobart and Launceston in 2022.

We asked about the use of e-scooters for the first time in this survey, however only a few respondents indicated they had used an e-scooter for commuting (two students and one staff member). It is worth noticing that all respondents used a privately owned e-scooter rather than a commercial hire-and-ride one.

## **3.6. Car use and parking**

### **3.6.1. Car type**

The University has been providing infrastructure for public electric vehicles charging for several years and will continue to do so while concurrently electrifying its vehicle fleet.

In 2021, staff and students who drove to the University in the week prior to the survey were asked to identify the size and power source of the vehicle they used. A similar question was asked in 2017, although the 2017 questionnaire did not separate hybrid from electric only vehicles but grouped both categories under 'super-efficient or light car' (meaning <1.5L cars were also included in this category).

While the percentage of efficient cars remains relatively low for both staff and students, there has been a noticeable increase in the number of electric and hybrid vehicles driven by staff members (6.9% in 2023). However, the percentage of efficient cars remains low for

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<sup>21</sup> [Electric Vehicle Council, 2020](#). State of Electric Vehicles. August 2020

students (Figure 3.26). This could be a consequence of more infrastructure provided for staff, and economic issues for students, especially during and after the COVID-19 pandemic as many students were not able to find work.

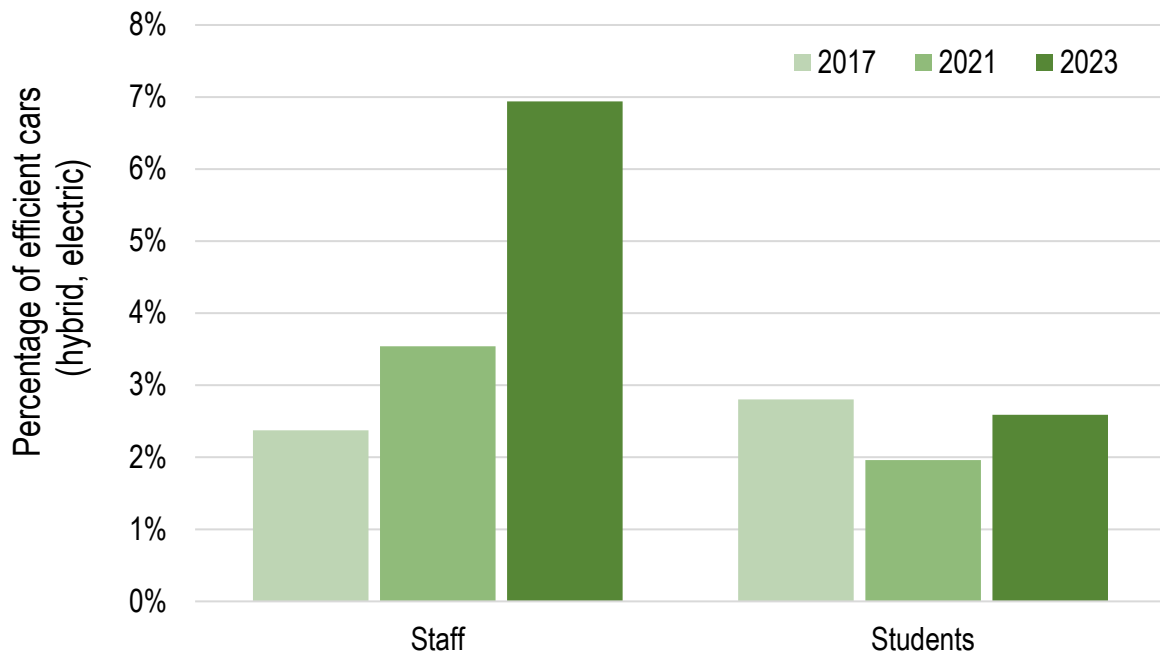


Figure 3.26. Percentage of efficient cars driven to the University in the week prior to the survey.

The potential to grow the electric vehicle market, including e-bike use, is anticipated to be significant in the next few years as electric vehicles become more prominent and economically viable<sup>22</sup>. Further, electric vehicle stakeholders have recommended financial incentives for take-up in the Australian market and measures to encourage the supply of supporting infrastructure (such as charging facilities and dedicated parking).<sup>23</sup>

### 3.6.2. Car ownership and use - International students

Students were asked about whether they owned a car/motorcycle for their sole access or had regular access to a shared car. About 46% of all UTAS international student respondents stated they either owned a car (or motorcycle) for their sole use or had regular access to a shared vehicle. The proportion was slightly higher for those attending Sandy Bay campus primarily and lower for those attending Hobart CBD campuses. The most interesting finding, however, is the use of such vehicles. For those international students based primarily at the Sandy Bay campus with regular access to a car, 50% stated that they drove to the university at least once in the week prior to the survey. This is quite different to international students primarily attending Hobart CBD facilities, where only 43% used it to drive to the university at all in the prior week. In Launceston the

<sup>22</sup> [Electric Vehicle Council, 2020](#). State of Electric Vehicles in Australia. August 2020.

<sup>23</sup> Climate Works Australia, 2016. The path forward to electric vehicles in Australia: Stakeholder recommendations.

share reported is 80%. The difference in car usage between south and north-based international students despite car ownership/access suggests that for many of the south students, their vehicles are used for trips not associated with movements to and from the university, such as weekend activities. The observation also points to the more restrictive parking environment in the south, especially in Hobart CBD facilities, compared to the north campuses, which undoubtedly influences the degree of car usage in Hobart.

These observations point to the value of a car-share membership scheme for students that allows access to a vehicle for trips where alternative modes are unrealistic. Such a scheme would reduce the need for students to seek and purchase parking and reduce the cost of maintaining their own vehicle. A car-sharing scheme is available to UTAS students in Hobart CBD and Sandy Bay since March 2021, and accessibility to a rideshare application exclusive to UTAS students was provided in early 2023.

The relatively low degree of car usage despite vehicle ownership or access in Hobart could also reflect the very high proportion of international students living on, or very close to, campus at Hobart CBD or Sandy Bay.

*Table 3.4: International student car ownership/access and use*

	International students who own /have regular access to a car (%)			International students who drove to the University (%)		
	2019	2021	2023	2019	2021	2023
<b>Sandy Bay</b>	30%	46%	52%	81%	65%	50%
<b>Hobart CBD</b>	32%	43%	36%	25%	48%	43%
<b>Launceston</b>	38%	39%	50%	39%	50%	80%
<b>All UTAS</b>	33%	41%	46%	61%	57%	54%

When comparing with previous surveys, it is worth noticing that there has been an increase of international students who own or have regular access to a car overall (with a slight decrease in Hobart CBD students), while the number of these students who drove to the University in the week before the survey has decreased for south based students and increased for Launceston students.

### 3.6.3. Parking

For those students and staff that drove to university campuses and facilities, we asked what type of parking they used to get a sense of:

- demand for parking at different campuses;
- the potential impact of parking in neighbourhoods surrounding university facilities;
- the take-up of paid and non-paid parking options.

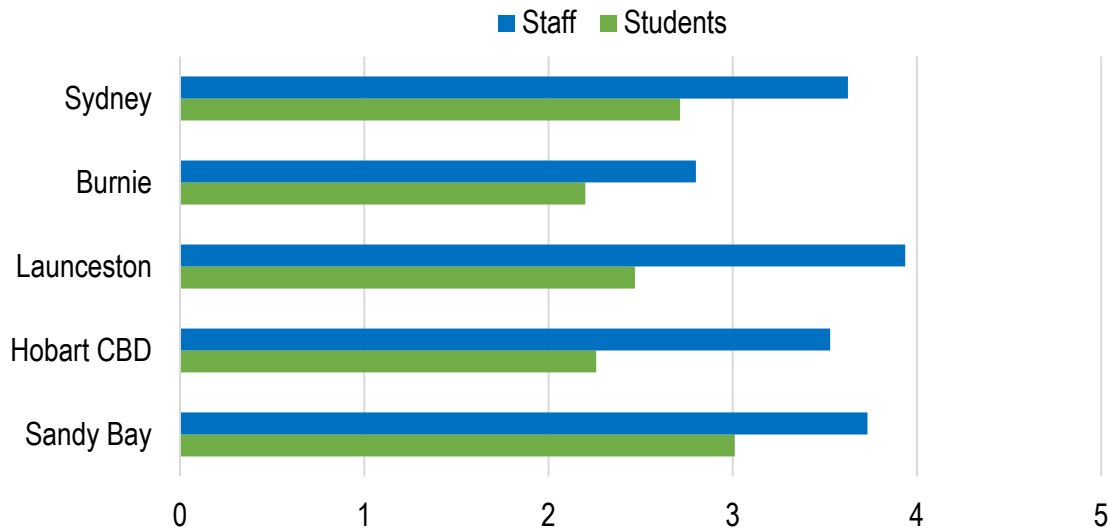


Figure 3.27: Average parking days per weekday by car driver

Figure 3.27 shows the average parking days per weekday (Monday to Friday) by car driver to each campus/location for staff and students. Although there is not great variation for each cohort between locations, it is worth noting that students drive and park on or close to campus fewer days than staff on average. This could reflect many lectures and other educational events being online, which reduces the need for students to come to campus.

The proportion of parking days by parking category are presented in Figure 3.28 and Figure 3.29.

### **Student parking**

For students attending the Sandy Bay campus primarily, some 14% of the vehicles parked were on-campus with purchased permits or vouchers. This proportion is a reduction from 17% in 2021. Some 38% of student vehicles were reported as being parked off-campus at no charge in surrounding streets in 2023 compared to 36% in 2021. Some 40% of student vehicles were parked on-campus at no charge.<sup>24</sup>

For students attending the Hobart CBD primarily, some 39% of students attending Hobart CBD facilities parked off-campus at no charge. This proportion is a small increase from 2021. Such parking is likely to be on streets on the city fringe largely accessible by foot. Some 51% paid for parking in some form, this share being like 2021. Approximately 71% of paid parking was either obtained in a parking station or on-street parking meters, the remainder being obtained on university parking premises.

At Newnham and Inveresk campuses, some 21% of students parked their vehicles on-campus with paid vouchers or permits in 2023, while 64% of students indicated that they used a student permit, with minimal change since 2021.

<sup>24</sup> The Sandy Bay Grace Street carpark and a section of College Road provides car parking free of charge providing the student has a student permit.

In Burnie, most students parked on-campus at no charge, but some 6% paid for a parking permit or off campus parking. At Sydney facilities (Rozelle) most students reported not paying for parking, with the majority of these being on-campus (63%).

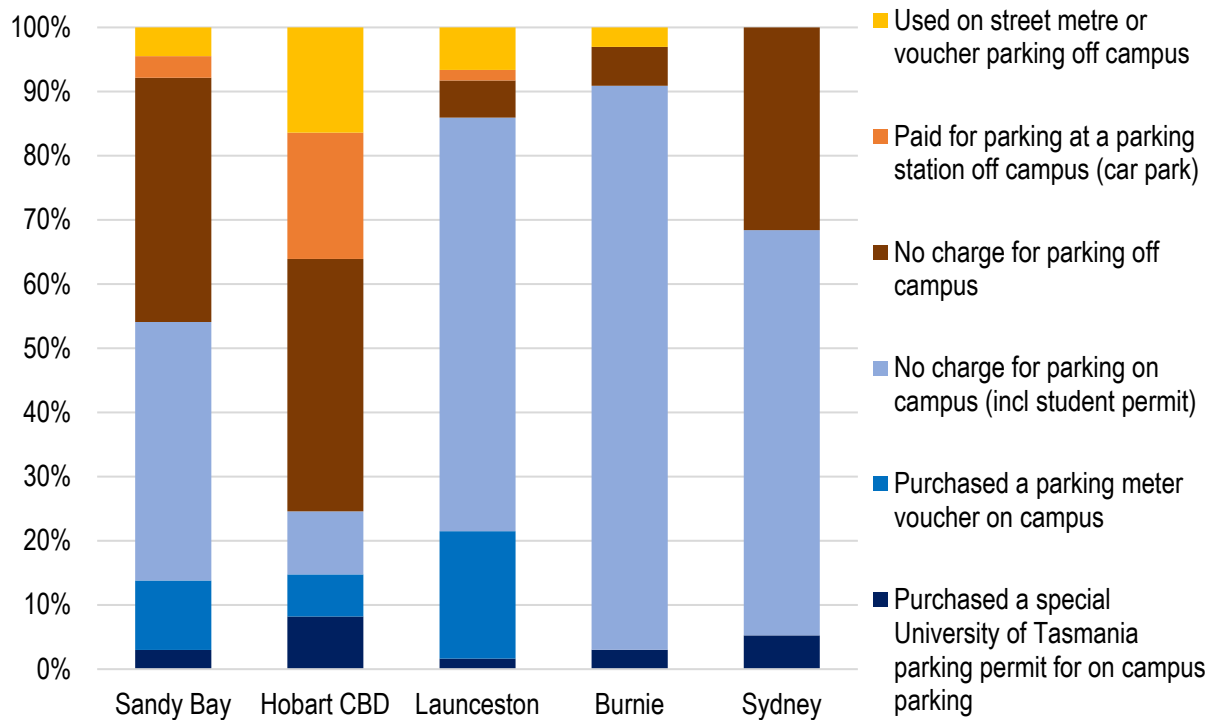


Figure 3.28: Students – % of cars parked by category Mon-Fri

**Staff parking**

Almost half of staff who reported parking Monday-Friday parked to attend the Sandy Bay campus (48% of all staff reported parking). Some 73% of Sandy Bay staff parking involved the use of purchased parking permits or a paid parking voucher on campus. This proportion is slightly up from 2021. As in 2021, some 22% of parking was reported as being off-campus at no charge in 2023.

Staff parking vehicles in the Hobart CBD accounted for 14% of the total university staff parking reported Monday-Friday. Of these, 48% were on-campus (or UTAS dedicated city parking) paid parking permit or voucher parks in 2023 – up from 2021. Another 21% of staff drivers obtained parking in CBD parking stations or on-street meters. Some 21% parked off-campus at no charge in 2023 – similar to 2021.

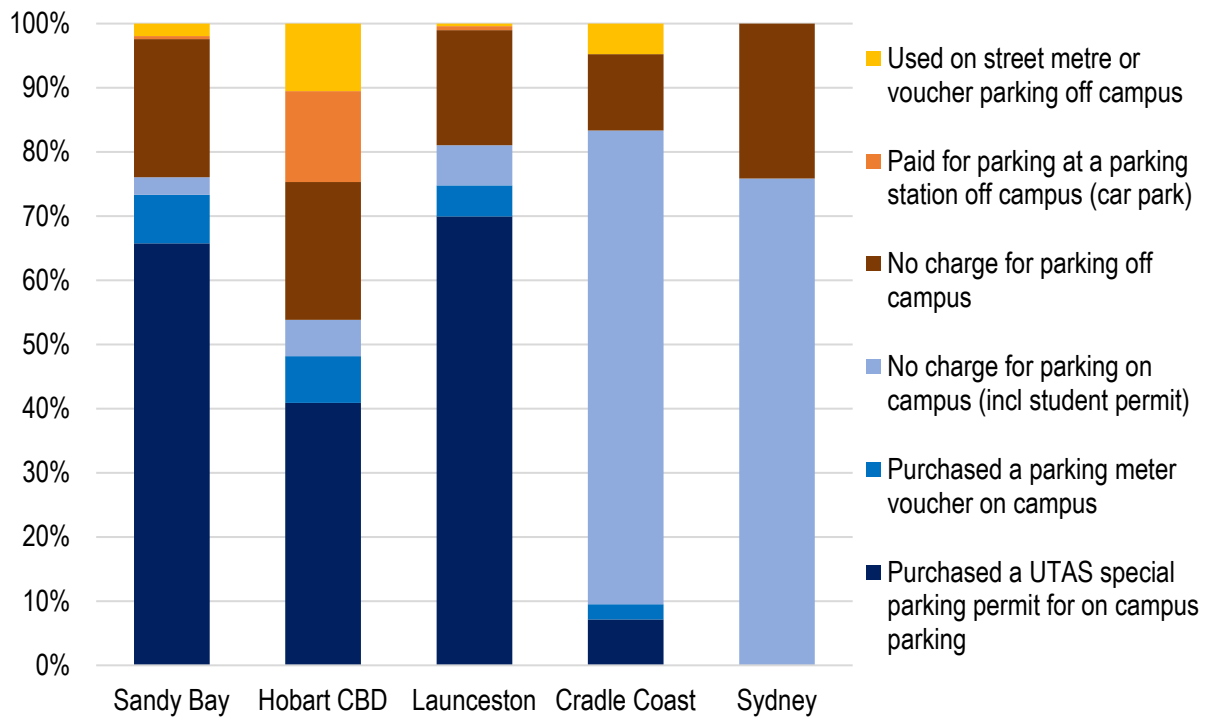


Figure 3.29: Staff – % of cars parked by category Mon-Sun

### 3.7. Incidents while travelling

In the 2023 survey, staff and students were asked if they had any incidents while commuting or travelling for UTAS business/study purposes in the previous 12 months (e.g., trips, falls, collisions, etc.). This question was largely driven by an interest from city councils in contrasting media messages in relation to high number of e-scooter incidents. The question was expanded to cover all transport modes to have a general idea of incident numbers and severity per mode.

Some 6% of students and 5% of staff respondents reported to have had an incident in the year prior to the survey, although these percentages are higher (13% and 6% respectively) when considering only respondents who attended a UTAS campus/facility the previous week.

The majority of incidents reported by students occurred while using public transport or walking/running (33% and 23% of reported incidents respectively), followed by riding a bike (21%). Most accidents reported by staff occurred while travelling by car or riding a bicycle (26% and 31% of reported incidents).

When factoring the percentage of responses per transport mode while commuting to/from UTAS campuses the previous week (as an indication of most common transport mode per respondent), students who travelled by foot and staff drivers were more likely to have an incident while commuting or travelling for UTAS business/study purposes (6% and 11% respectively).

All incidents reported by staff and student were either negligible (short interruption in commute, but no injury) or minor (required basic first aid), except for one in each cohort. A staff member riding an electric bicycle and a student riding a push bicycle reported a more severe incident requiring medical attention.

Staff and students can report hazards and incidents they see or experience on or off campus via the MySAFETY system. When a hazard, near miss or injury has been logged in MySAFETY, the person assigned to review the report receives an email notification and is responsible for the input a Management Plan. A Management Plan outlines any actions already undertaken or still required to be taken, to resolve the Hazard, Near Miss or Injury.

## 4. TRACKING PROGRESS

The following figures show how the University community has progressed in terms of demonstrating more sustainable travel behaviours when commuting. Overall, the story is positive, although for staff there is some variability between campuses and regions.

Figure 4.1 and Figure 4.2 show the change between 2013 and 2023 for students and staff in all regions and larger campuses or campus groupings according to key performance indicators - 'main mode to university' and 'active modes'.

### 4.1. Students

For students, the largest population group, the picture is generally positive with a consistent decline in the proportion of student commuting by car in all campuses except for Inveresk (note that there was not sufficient data for Burnie and Sydney campuses). Most campuses also show an increase in active and/or public transport modes (Figure 4.1).

The most obvious and consistent improvement has been the increase in public transport use in Tasmania (especially in south campuses) within the sustainable mode category, with changes in the walk and bicycle mode more variable depending on the campus or region. In addition to provision of bus stop shelters, improvements to Metro Tasmania bus services to University campuses in both Launceston and Hobart (especially through services which avoid bus changes in the Hobart CBD and service frequency) seem to continue to impact on student bus patronage levels.

The decline in walking as the main mode for students in Sandy Bay has been offset by a marked increase in bus use. Since bus use usually involves walking either end, walking activity associated with this is hidden, as it is with those drivers parking vehicles some distance from a campus (Figure 4.1).

Between 2021 and 2023 the only campus with a decrease in the share of students primarily undertaking active modes to get to university were those attending Inveresk (Figure 4.2). This may reflect the growing proportion of students attending this campus (as a result of a gradual move from Newnham to Inveresk) while living in and around this location is limited.

Note: Sample sizes for most campus locations are < 100 partly due to the increase in students studying from home and the lower number of responses in this year's survey (Hobart CBD n=58, Newnham n=51, Inveresk n=9). Analysis of data collected from these campuses is taken with caution.



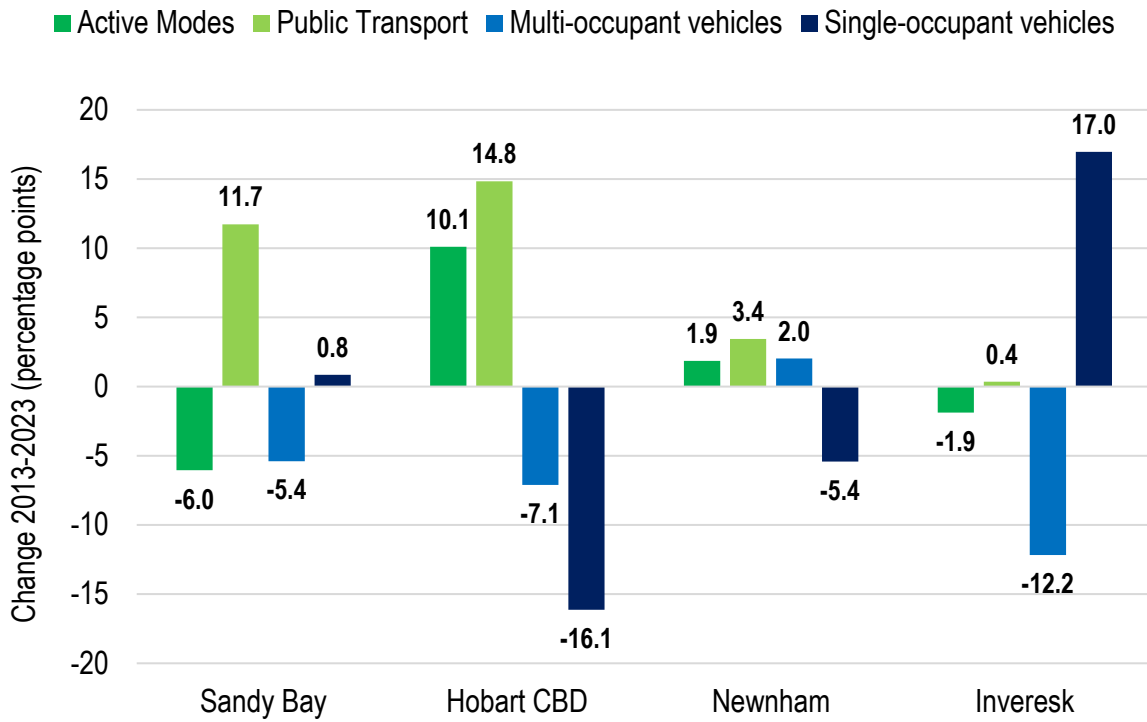


Figure 4.1: Student mode change over time by campus location – main mode to UTAS

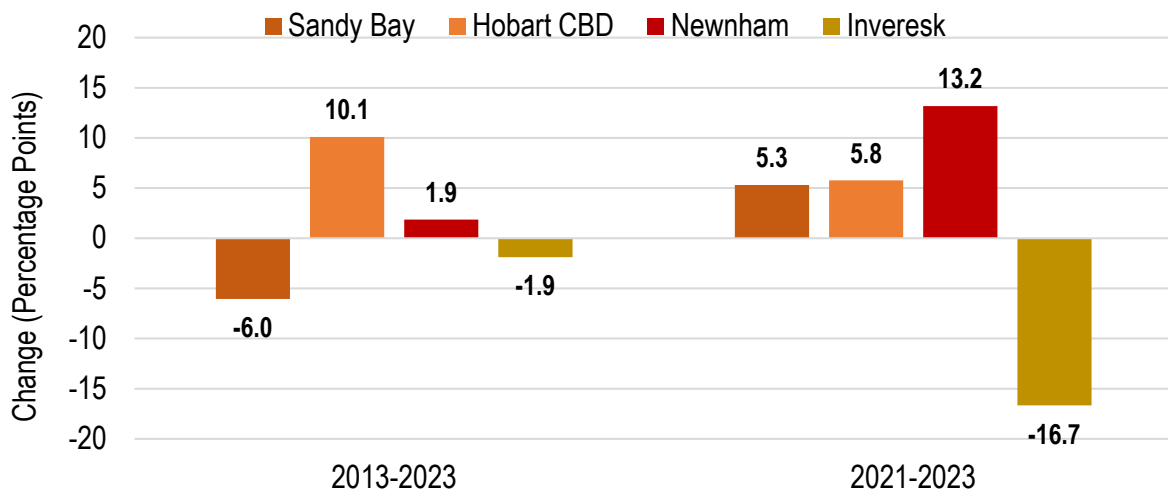


Figure 4.2: Student active mode change by major campus 2013-2023 and 2021-2023

## 4.2. Staff

For staff, there is some variability between campuses and regions. There is evidence of a small shift to informal carpooling in Sandy Bay and Newnham, where staff are arriving as a car passenger or as a driver with multiple occupants. At Sandy Bay, we see also a small increase in active modes and bus use for the period 2013-2023 (Figure 4.3).

For staff attending Sandy Bay campus we see an increase in active modes since 2013 and when compared with the previous survey (Figure 4.4). Hobart CBD and Newnham show a decrease in the use of active transport mode for commuting for both periods.

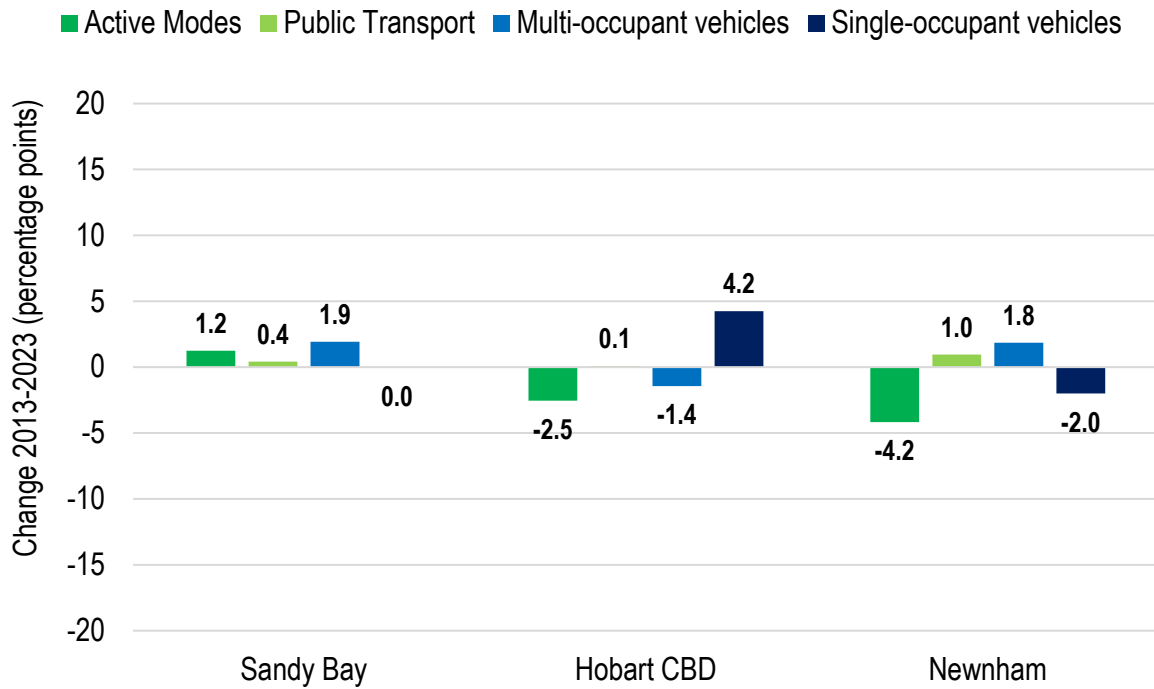


Figure 4.3: Staff mode change over time by campus location – main mode to UTAS

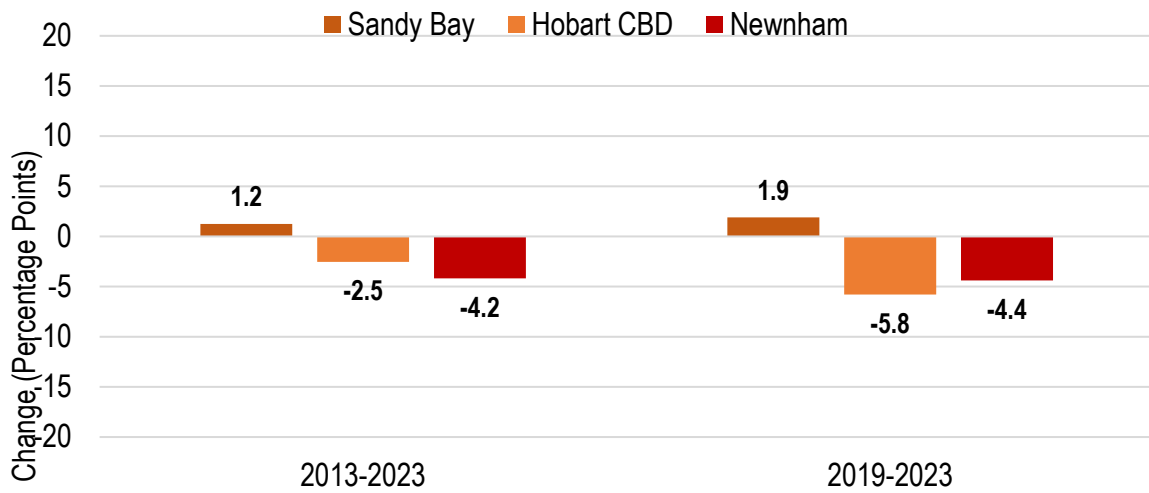


Figure 4.4: Staff active mode change by major campus 2013-2021 and 2017-2021

## 5. SUSTAINABLE TRANSPORT STRATEGY REVIEW

The UTAS [Sustainable Transport Strategy 2022-2032](#) intends to guide investments and actions that deliver more socially, economically and environmentally sustainable transport outcomes and travel behaviours into the future. To achieve this purpose, the Strategy has the following strategic objectives:

1. Providing students and staff with equitable access to the university in a safe and accessible way
2. Encouraging healthy and safe lifestyles and workplaces
3. Minimising the environmental impact of travel activity
4. Minimising social and organisational costs
5. Supporting the places and diverse communities in which UTAS is embedded

All the UTAS sustainable transport strategies have focused on supporting modal shift through improved infrastructure and services within UTAS' control or direct influence through stakeholder partnerships while working to influence community changes, such as safer active transport connections. Notwithstanding ongoing COVID-19 impacts, the TBS results broadly validate these efforts with successful modal shift evident over time. The surveys also enable a fine grain assessment of the impact of specific initiatives and interventions to support such modal shifts. The focus at its most basic has been to increase bus use and active mode choices and reduce the share of students and staff driving as sole occupants.

## APPENDIX: QUESTION TOPICS

	Students	Staff
<b>Commuting (previous week)</b>		
Campus attended for work/study each day	✓	✓
Main transport mode to and from work/study	✓	✓
Time of arrival/departure to/from work/study	✓	✓
Trip steps for each journey (by mode and approximate time)	✓	✓
<b>Car/parking (previous week)</b>		
Driver licence allowing driving in Australia	✓	✓
Car/motorcycle access	✓	✓
Car type (size and power)	✓	✓
Journey combined with other activities	✓	✓
Parking type	✓	✓
<b>Business/study travel (previous week)</b>		
Campus/facility of origin	✓	✓
Trip steps for each journey (by mode and approximate time)	✓	✓
Destination campus/facility	✓	✓
<b>ICT use (previous year)</b>		
Face-to-face vs online activities frequency (e.g., meetings, conferences)		✓
ICT technology use frequency (by type)		✓
<b>Working from home (previous year)</b>		
Working space size and heating/cooling system		✓
Working space individual vs shared use		✓
ICT equipment used		✓
<b>Public transport use</b>		
Public transport card ownership and credit	✓	✓
Public transport website/app use frequency	✓	✓
Likelihood of various incentives encouraging the use public transport		✓
Direct (no transfer) bus service use	✓	✓
<b>Bicycle and scooter use (previous week)</b>		
Use of University bicycle facilities/information	✓	✓
E-scooter ownership		
Alternative transport mode if e-scooter not available		✓
<b>Incidents while travelling (previous year)</b>		
Incidents occurring while commuting or travelling for business/study	✓	✓
Transport mode used at the time of the incident	✓	✓
Severity of the incident	✓	✓

	Students	Staff
<b>Demographic</b>		
Employment status		✓
Enrolment status (full/part-time)	✓	
Study mode (online/on-campus/mixed)	✓	
Gender and age group	✓	✓
Aboriginal/Torres Strait Islander	✓	✓
Place of origin (international/interstate/Tasmania)	✓	
Student accommodation residence	✓	
Residential postcode and suburb (previous week)	✓	✓