

2018 Census Transport Analysis and Implications for Auckland Transport

For decision:

For noting:

Te tūtohunga / Recommendation

That the Auckland Transport Board (board):

- a) notes the 2018 Census transport analysis, which provides an insight into past travel trends, and an understanding of potential implications for Auckland Transport (AT).
- b) endorses the findings and implications in the accompanying report for external publication, entitled: “Analysis of the 2018 Census results – Travel to work and travel to education in Auckland” (Attachment 2).

Te whakarāpopototanga matua / Executive summary

1. We are providing an overview of the 2018 Census results and seeking committee endorsement of the findings and implications noted in the accompanying report. The attached report has been prepared to analyse and interpret data from the 2018 Census. It presents an analysis of the transport patterns, for both Journey to Work (JTW) and Journey to Education (JTE), as well as the implications these may have on transport planning and investment.
2. Travel to work and travel to education are two key components of travel patterns within the Auckland region. The data from the 2018 Census therefore provides an opportunity to examine the current patterns of these movements.
3. Key findings from the Census include a continued high share of car use, although public transport (PT) patronage has increased since the previous 2013 Census. There are also new insights into JTE patterns (a new question for the 2018 Census), which showed substantial variations in travel patterns and mode shares between age groups and areas.
4. There were changes between the 2013 and 2018 Census, including a change in question and confidentiality constraints, which led to a significant loss of data for more detailed analysis, which may result in unreliable information and comparisons to previous years.
5. Attachment 1 provides a more detailed and visual version of this paper, with greater analysis and insight.

Ngā tuhinga ō mua / Previous deliberations

6. The Census transport analysis has not previously been presented to the committee or board.

Te horopaki me te tīaroaro rautaki / Context and strategic alignment

7. Data from the Census provides detailed information about population growth, past trends and patterns across the Auckland region, which can give insight into future behaviour. Reviewing the data can also allow for better alignment with system planning, investment decisions and management, including development of Future Connect and the Regional Land Transport Plan (RLTP).
8. Travel to work and travel to education are two key components of travel patterns within the Auckland region, accounting for much of the movement at peak periods, particularly in the morning peak. In total, information for over a million journeys was recorded for Auckland, 750,000 for JTW and 325,000 for JTE. The data from the 2018 Census, therefore, provides an opportunity to examine a detailed picture of this travel within the region and the current patterns of these movements.
9. Following the results of 2013 Census, a report was prepared by the Ministry of Transport to better understand Auckland's JTW patterns and to compare changes since the 2001 and 2006 Census. The 2018 Census report builds upon this work to observe changes between 2013 and 2018 in travel patterns for both JTW and JTE (a new question for the 2018 Census). Trip patterns were analysed for JTW and JTE at various levels: regional total; local board; and smaller, more selected areas.
10. It is important to note that there are differences in questions and methodology between the 2013 and 2018 Censuses, which may cause data issues when explored at more specific levels, and it is therefore important to recognise the findings as illustrations – not precise evaluations. In addition, due to confidentiality constraints there was a significant loss of data for more detailed analysis, particularly relating to active modes, which may result in unreliable information and comparisons to previous years.
11. We are seeking endorsement of the findings and implications in the accompanying report (Analysis of the 2018 Census results – Travel to work and travel to education in Auckland) for external publication on the AT website.

Ngā matapakinga me ngā tātaritanga / Discussion and analysis

The high-level key findings of the 2018 Census transport analysis

12. While there has been a considerable increase in PT uptake compared to the 2013 Census, there is still a heavy reliance on car use for both JTW and JTE.
13. PT use is typically concentrated in the Isthmus and North Shore area, which is likely due to the success of recent PT interventions.

Commuter trips have four distinct sectors in Auckland with similar trip patterns and trends (i.e. City Centre/Central, Inner Urban, Outer Urban and Rural)

14. The Inner and Outer Urban sectors account for the majority of commuter trips. In 2018, the Outer Urban area holds the majority shares for both total commuter origins and destinations, generating the highest growth in terms of jobs and workers. This area also contributes considerably to the high car mode share, bolstering the continued high regional share of this mode.
15. The general trend is that the Outer Urban and Rural sectors have the longest commutes by origin. There are, however, some exceptions such as the Airport, which has some of the longest commutes, attracting workers from across the region as it is a major (and unique) employment centre.
16. Auckland's City Centre attracts commuters from across the region, but the bulk of this workforce is located in the Isthmus and southern North Shore. Very few trips are made from the south, southeast, or west.
17. Approximately 52% of workers reside in the sector in which they work; there is also a rise in the numbers working from home.

High car mode share in the Outer Urban sector is likely driven by a range of factors

18. The high car mode share observed in the Outer Urban sector could be reflective of:
 - **Employment Industry** – A higher share of one type of mode could be reflective, in part, of the area's industry breakdown. For example, there appears to be a correlation between the proportion of workforce employed in professional services, and PT mode share.
 - **Social Deprivation** – Car mode share appears to be relatively high in areas of high social deprivation, however this is only a weak statistical correlation.
 - **Trip Distance** – Distance from destination could be a driver of high car mode share.

- **Travel Choices** – Problems relating to access to well-connected PT network may also factor in, which links to the issue of distance from destination.

For JTE, there are differences in mode share by age group, with car use being most common, followed by PT and active modes

19. It was found that trip making patterns change, with differing mode shares, as students grow older and can travel independently when progressing through the various stages of education.
20. The highest levels of car use are common for those aged under 13. It decreases for the 13 to 17 group, before slightly increasing again for those over 17 years old.
21. Active mode levels are highest for 13 to 17 years old, who can travel independently, and with relatively smaller catchments than tertiary education institutes (over 17).

Implications for AT

22. High growth in the Outer Urban sector (i.e. 60% of Auckland's new trips are coming from the Outer Urban area and 50% of new trips are going to the Outer Urban area) has helped sustain the overall high car share for the region. This growth will have offset some of the mode shift in the City Centre where we have seen substantial growth in PT due to investment and major service improvements. In addition, cycling trips have increased in the City Centre, which means trips are also responding to investment in cycling.
23. While there is no simple 'solution' to car dependency, it is best to focus on addressing mode shift where it supports commuter trips (i.e. Isthmus and Inner Urban areas). PT and active modes are already high in the City Centre employment hub (including the approaches to the City Centre). The key challenge will be in diverting more trips away from a heavy reliance on private vehicles.
24. While the JTE trends are to be expected, it is important to note the low active mode share across all age groups.

Ngā tūraru matua / Key risks and mitigations

25. Changes to the methodology and data collection approach used for the 2018 Census may affect the data and level of analysis, either positively or negatively. It is therefore recommended that the findings be regarded illustrations of the general position, rather than precise estimates.
26. It is crucial to note that the Census responses were collected in 2018, and there have been significant changes since then, namely the outbreak of COVID-19, which would not be reflected in the collected data.

Ngā ritenga-ā-pūtea me ngā rauemi / Financial and resource impacts

27. There are no financial or resource impacts.

Ngā whaiwhakaaro o te taiao me te panonitanga o te āhuarangi / Environment and climate change considerations

28. There are no direct environment and climate change considerations, but the Census findings underline the ongoing challenge of supporting mode shift, which is a means to reducing transport emissions.

Ngā reo o mana whenua rātou ko ngā mema pooti, ko ngā roopu kei raro i te maru o te Kaunihera, ko ngā hāpori katoa / Voice of mana whenua, elected members, Council Controlled Organisations, customer and community

29. In developing the 2018 Census analysis, a range of partners were engaged with, including the Ministry of Transport, Auckland Council and Waka Kotahi New Zealand Transport Agency.

30. Further engagement is planned, including presenting to the Planning Committee, along with publishing the report on the AT website.

Ngā whaiwhakaaro haumaruru me ngā whaiwhakaaro hauora / Health, safety and wellbeing considerations

31. There are no health, safety and wellbeing issues.

Ā muri ake nei / Next steps



32. Upon receiving committee endorsement, the report will be taken to the Planning Committee for further discussion and endorsement.

33. The report is also to be shared externally, through publication to the AT website.

Te whakapiringa / Attachment

Attachment number	Description
1	2018 Census – Transport Analysis and Implications for AT (Findings Presentation)
2	Analysis of the 2018 Census results – Travel to work and travel to education in Auckland

Te pou whenua tuhinga / Document ownership

Submitted by	Hamish Bunn Group Manager INP, Policy & Sustainability	
Recommended by	Jenny Chetwynd Executive General Manager, Planning and Investment	
Approved for submission	Shane Ellison Chief Executive	