



Micromobility and tourist dispersal in Townsville

Do e-scooters help tourists spread out, visit more sites and spend more?

Research Summary

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Foreword

- This summary outlines the findings of the independent research undertaken by Griffith University.
- The E-Scooters and Tourist Dispersal Survey (Research Ethics Ref No: GU 2020/905) seeks to evaluate the impact of Neuron e-scooters on visitor travel behaviour in Townsville.
- This research was fully funded internally through a grant from the Griffith University Cities Research Institute.
- The research team is extremely grateful to Neuron Mobility for their support and their willingness to share de-identified data.
- The views expressed are solely those of the authors and do not represent the views of any institution. All errors and omissions are the authors' alone.

Background

- Townsville introduced Neuron e-scooters on 25th September 2020.
- Townsville joins Brisbane as the second Queensland city offering public hire e-scooters.
- Currently costs \$1 to unlock then 38c per minute.
- Discounted passes are also available as subscription schemes for more frequent users.



What do we want to know

- **Does e-scooter help visitors to get around and spend at attractions?**
- What are the usage patterns of visitors and non-visitors?
- Where do visitors travel in Neuron service area?
- Do they go to more places, or make new trips due to e-scooters?
- How much do visitors spend on shops/attractions?
- Any positive effects on city image and travel?
 - Wider interests for State and local governments (urban policy, tourism)
 - What is the value of e-scooter hire schemes to cities?
 - Balancing the benefits and disbenefits

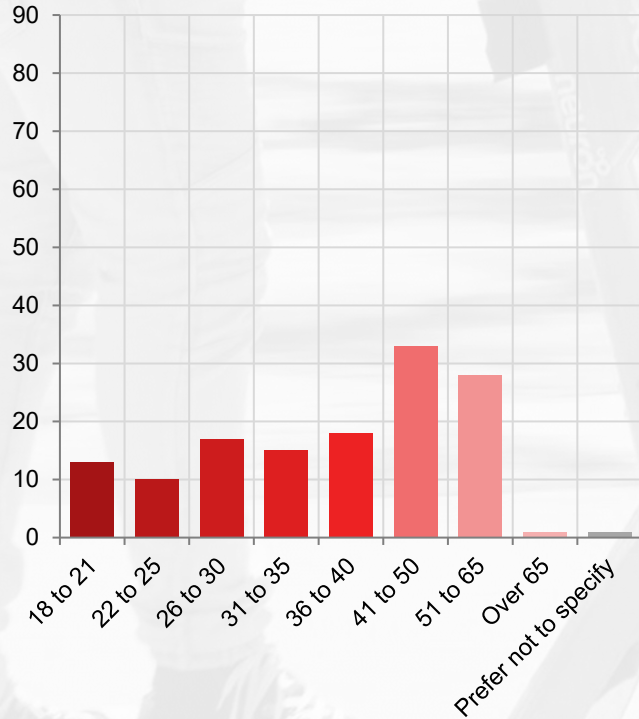
The survey

- Online only survey sent via email to Neuron customers in Townsville.
 - Intercept survey was planned, but not feasible due to COVID uncertainty.
- Target respondents = visitors to Townsville local government area.
- Screening question let us know who are locals.
- Local residents were excluded for the survey, but spatial data can be used to compare travel patterns with visitors.
- Survey period: from 9/12/2020 to 28/2/2021 (Time visited Townsville: 26/9/2020 to 28/2/2021)
- Questions about spending location, categories and amount are adapted from tourist surveys (e.g. [Tourism Research Australia](#)), and are self-reported by the visitors who entered the survey

Survey Batch:	1st (Dec 2020)	2nd (Jan 2021)	3rd (Feb 2021)	Total	%
Total number entered survey	80	107	72	259	100
Visitors entered survey	30	73	45	148	57.14
Locals (Not invited for survey, spatial data available)	37	24	20	81	31.27
Effective sample of visitors (Incomplete samples removed)	<u>29</u>	<u>67</u>	<u>44</u>	<u>140</u>	<u>54.05</u>

Key demographics of visitors surveyed (n=140)

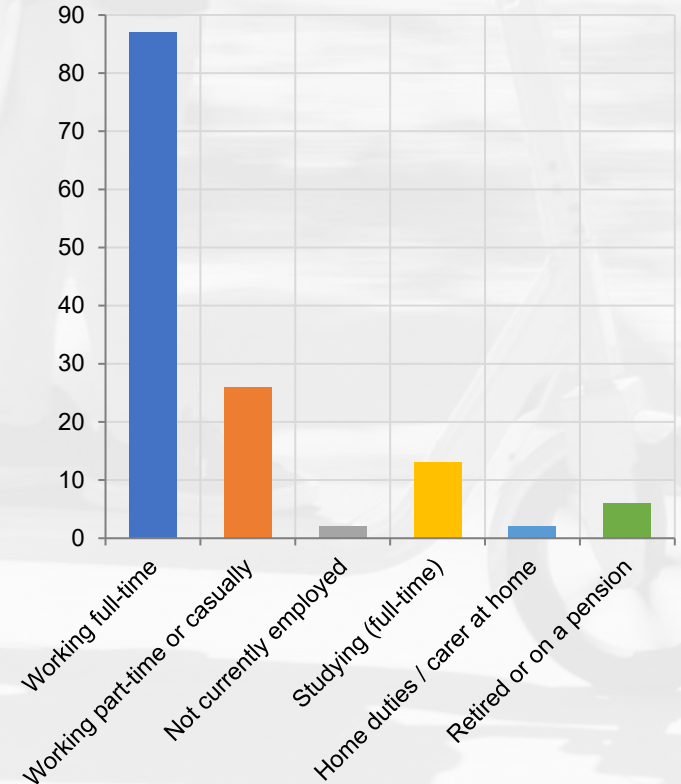
Age



Gender

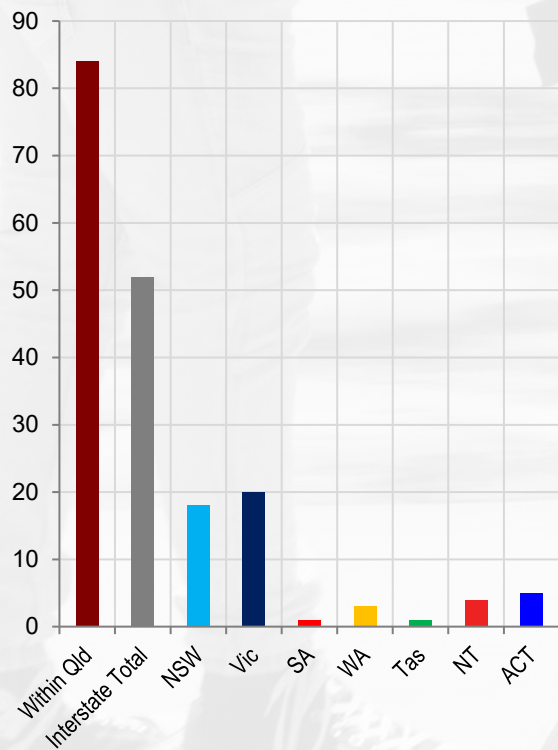


Main activity status

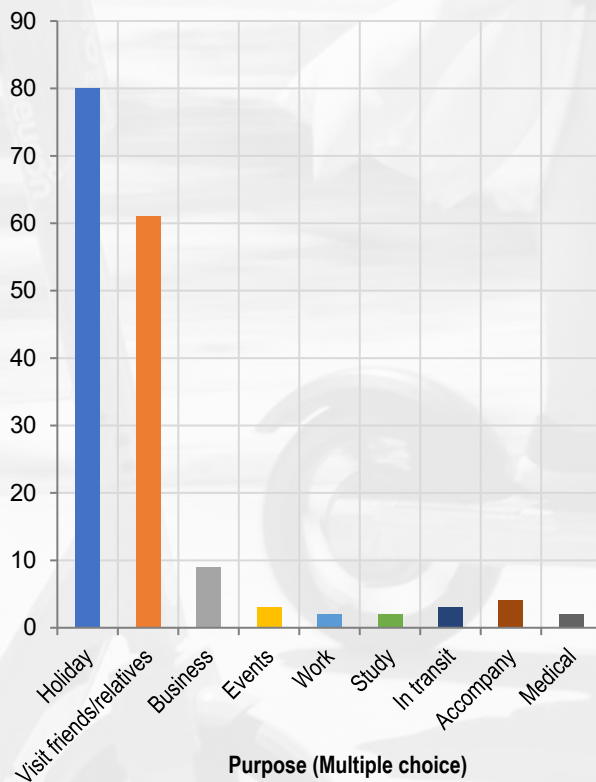


Visitor profile (n=140)

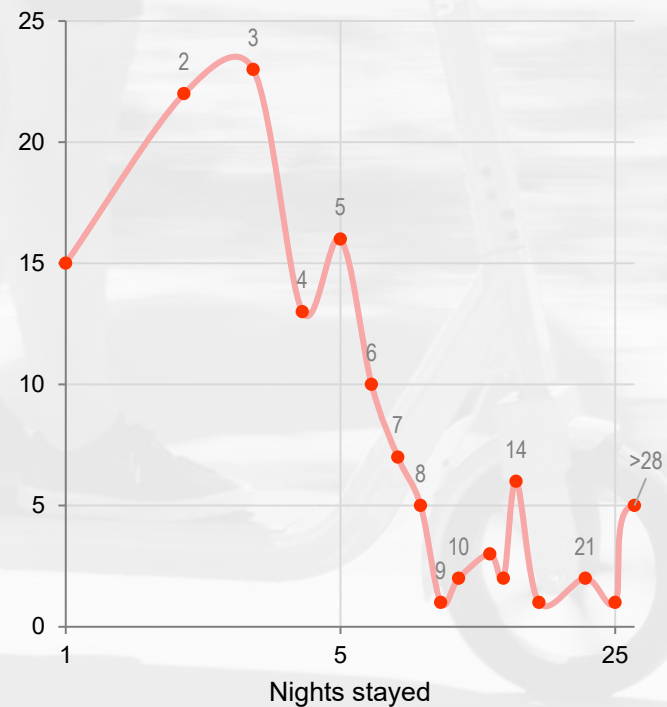
Where from



Purpose of visit



Length of stay



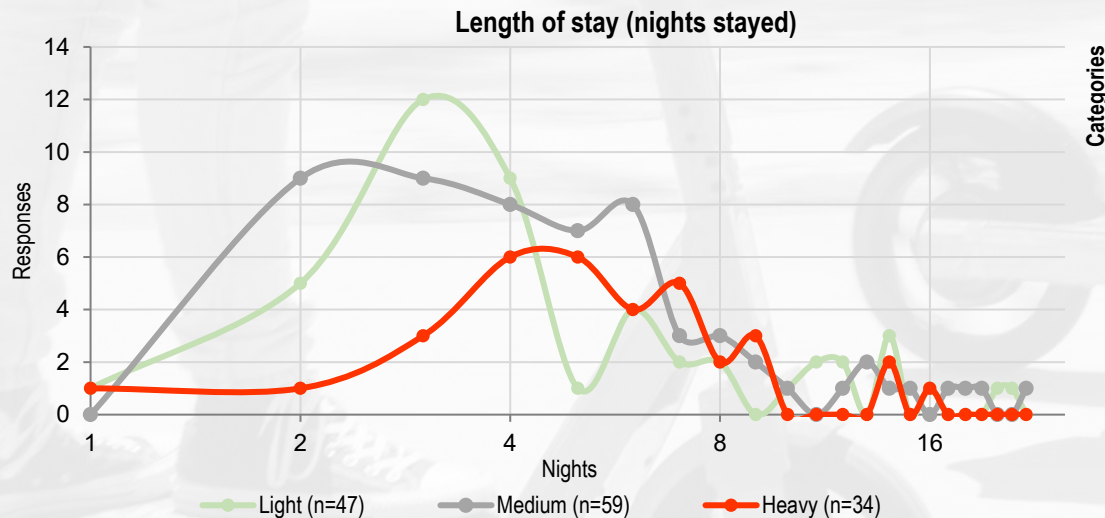
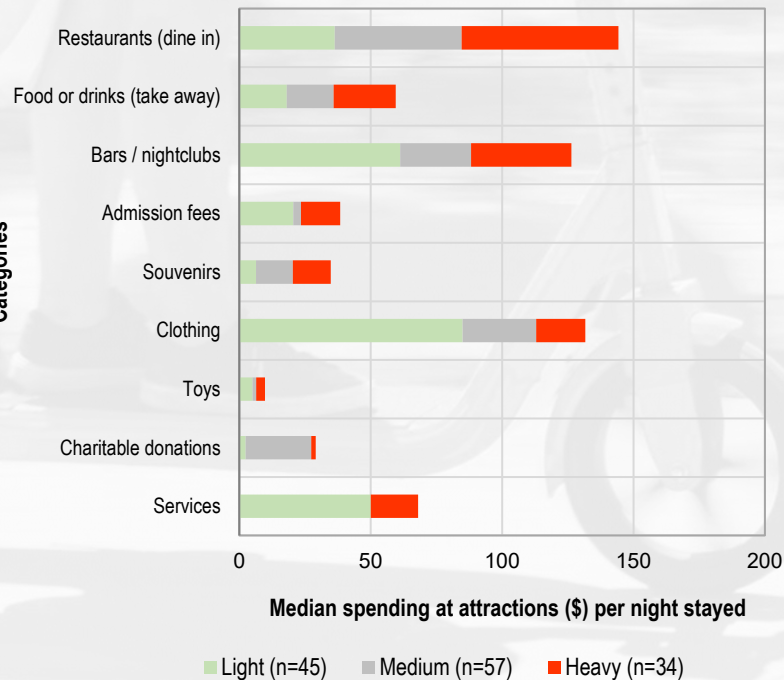
Segment analysis of visitors by usage (n=140)

Group	Light user	Medium user	Heavy user	Total sample
No. of users surveyed	47	59	34	140
Cut off percentile	0 to 33.3%	33.3% to 66.6%	66.6% to 100%	0 to 100%
Mileage range for group	0 to 4.13km	4.3 to 11.49km	11.49 to 95.13km	0 to 95.13km
Median scooter mileage	2.49km	7.54km	26.34km	6.75km
Median cumulative use time	18min	1h 8min	3h 18min	1h 1min
Median number of trips made during survey period	2 trips	3 trips	11 trips	3 trips
Median spending per visitor	\$152.37	\$156.55	\$324.48	\$195.43
Median spending per visitor per night stayed	\$62.64	\$58.74	\$88.07	\$66.81

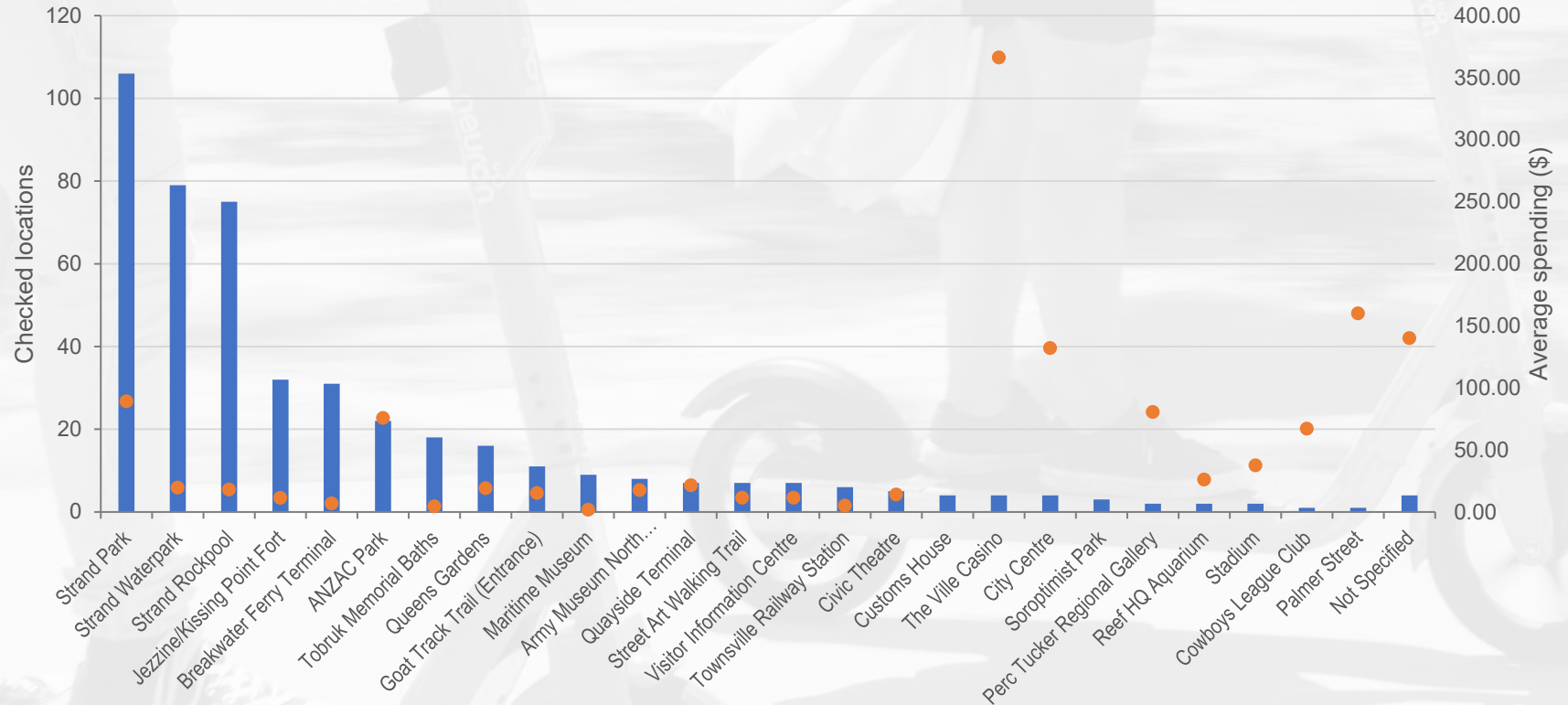
High mileage Neuron users tend to:

- Make more e-scooter trips
- Travel further
- Spend more per day (night stayed)

Spending categories



Visited locations vs Spending at site (n=140)

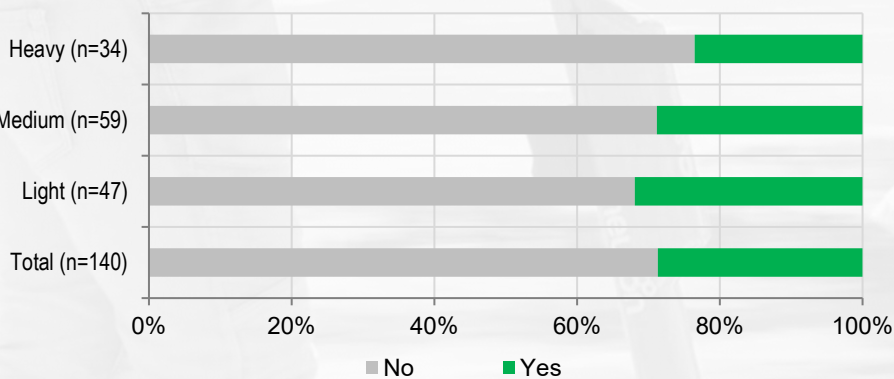


Spending categories vs Location (n=140)

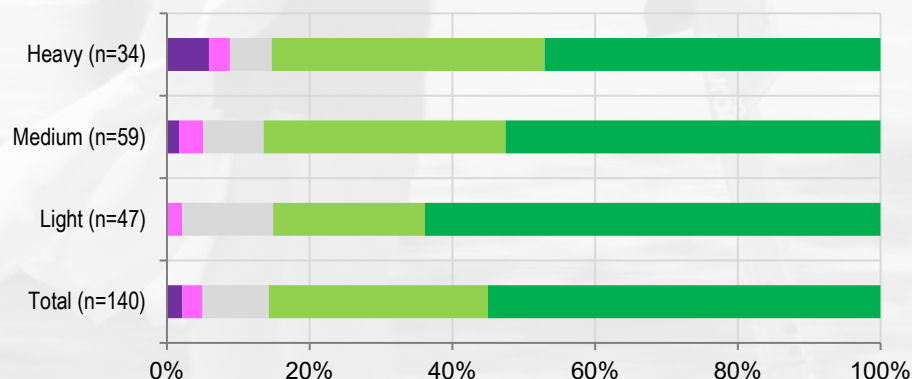
[illegible]

Neuron use and visitor travel (n=140)

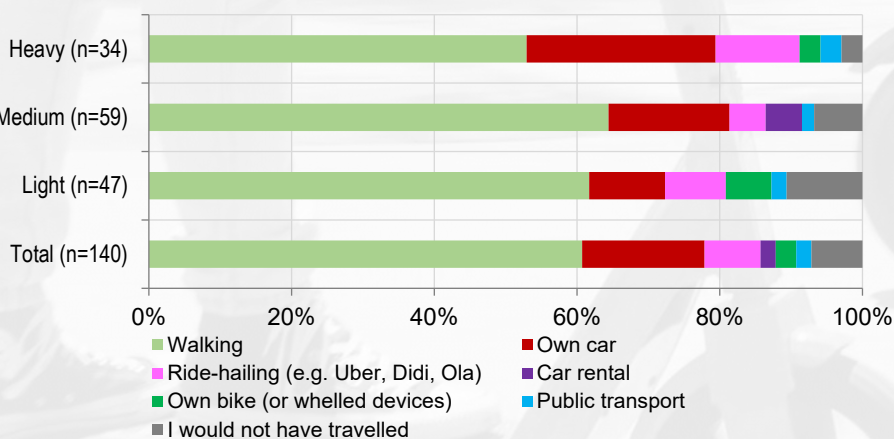
Prior scooter experience



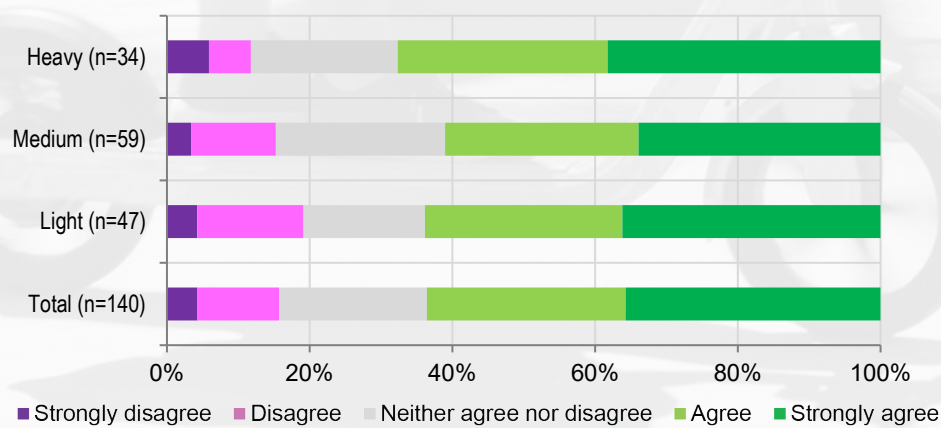
Reason to use - Just to try



How to travel if not using Neuron

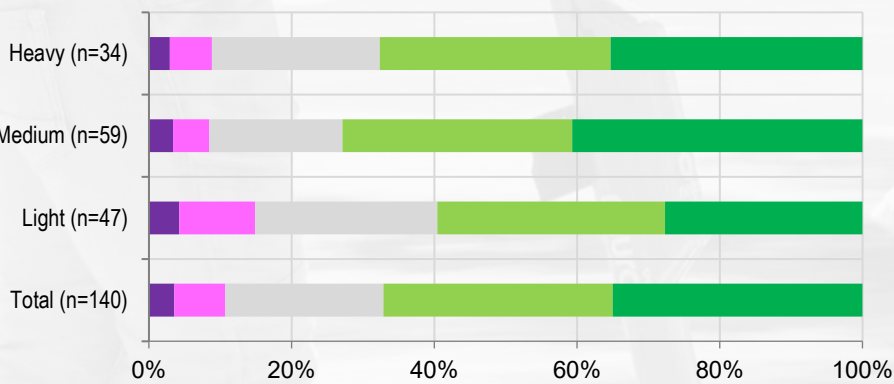


Effects on travel - don't need to use the car

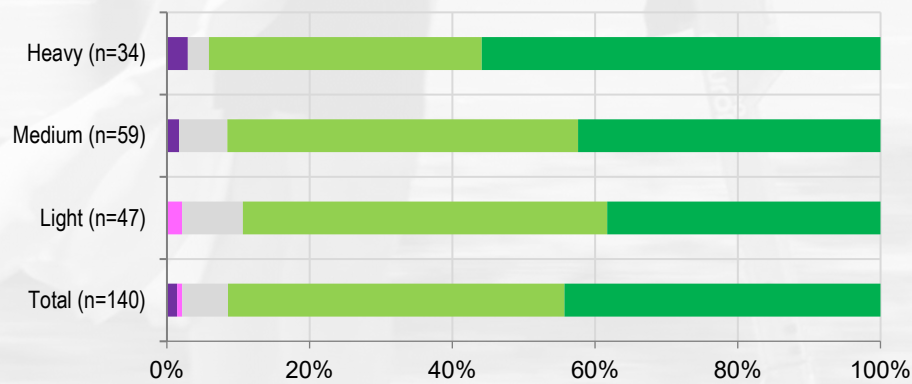


Neuron use and visitor travel (n=140)

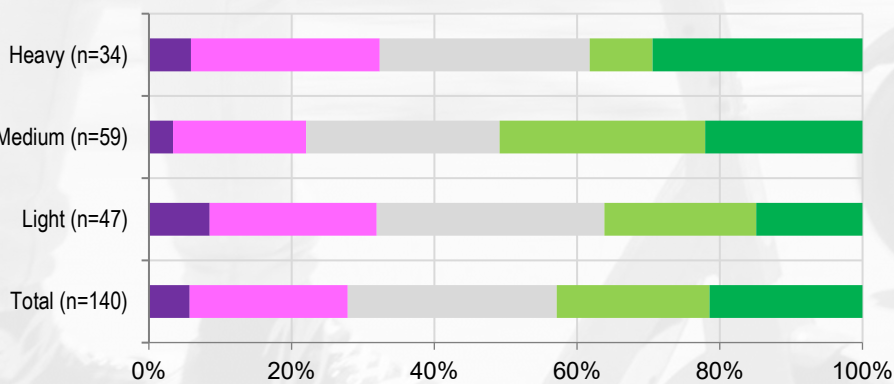
Reason to use - Faster travel



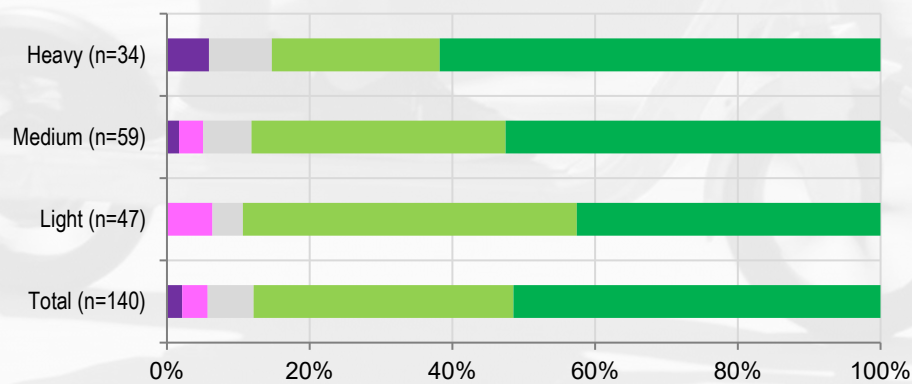
Reason to use - Ease of use



Reason to use - Cheaper than other options



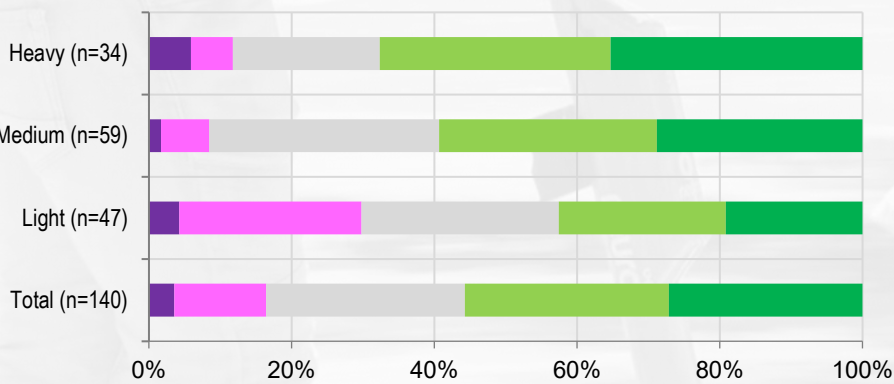
Reason to use - Convenient to use



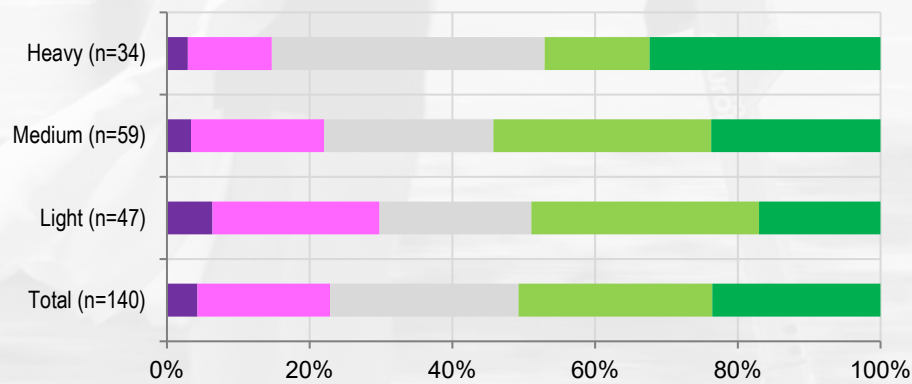
Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

Neuron use and effects on visitor travel (n=140)

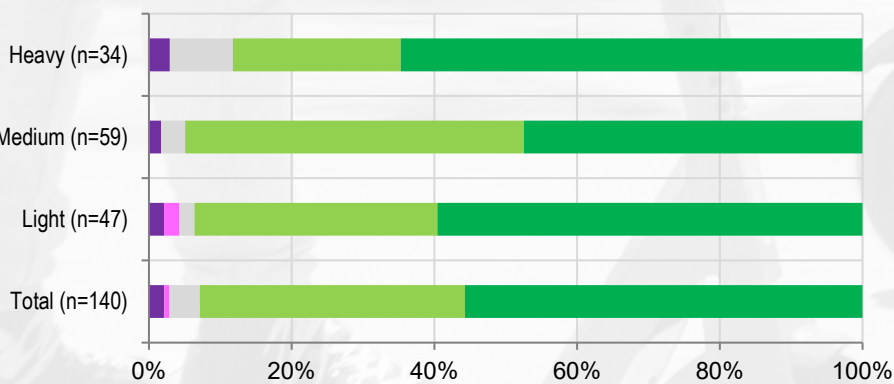
Effects - Travelled more destinations



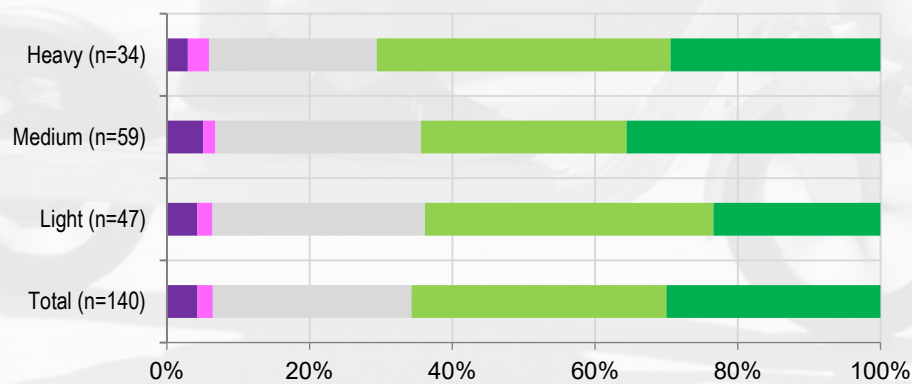
Effects - Travelled farther



Effects - Enjoyed travelling Townsville



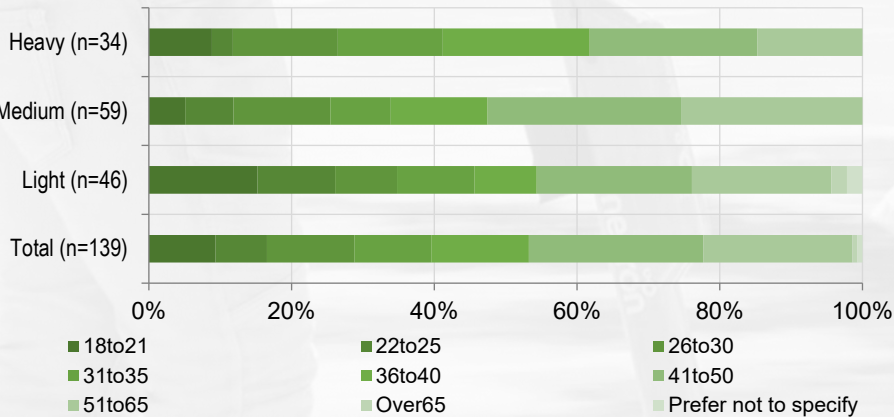
Reason to use - Environmentally friendly



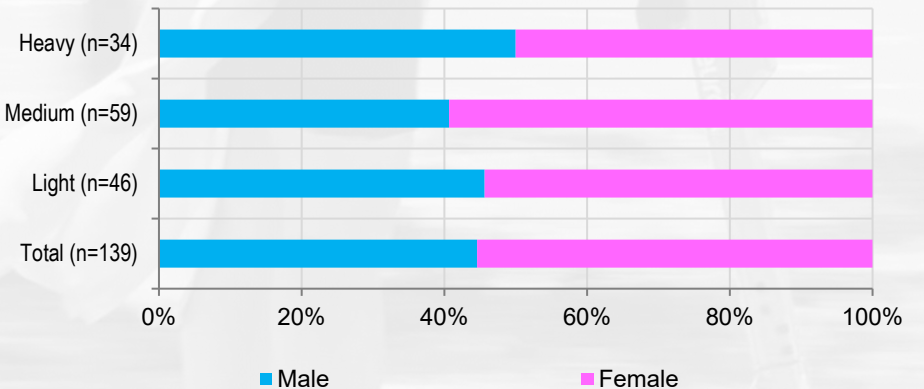
Strongly disagree Disagree Neither agree nor disagree Agree Strongly agree

Respondent (visitors) profile (n=140)

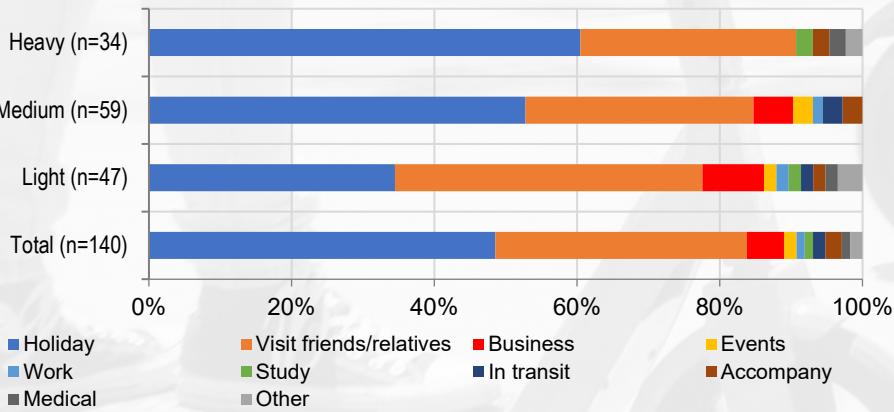
Age



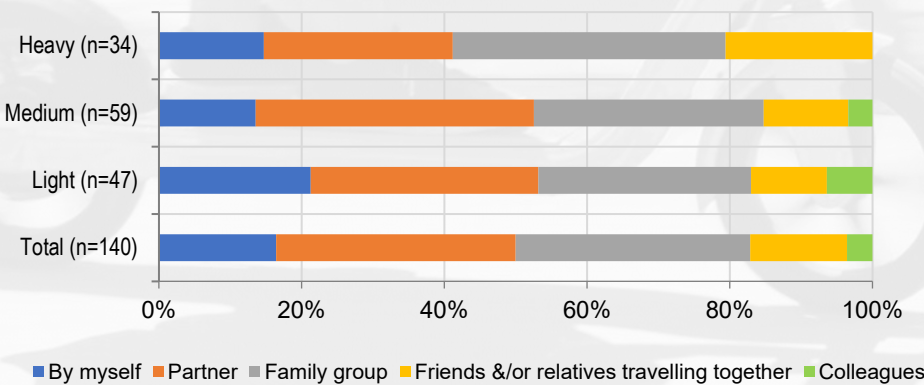
Gender



Purpose of visit

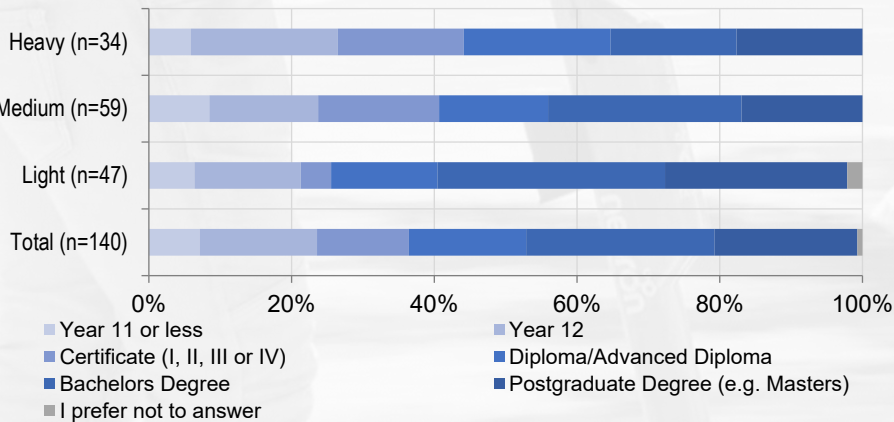


Travelling with

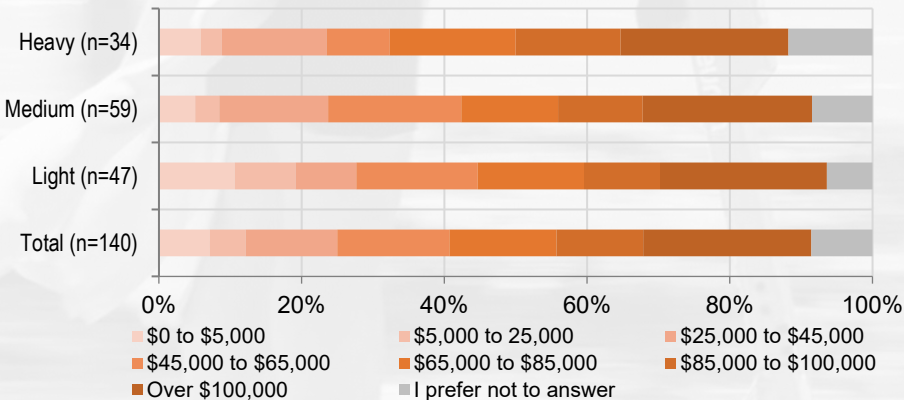


Respondent (visitors) profile (n=140)

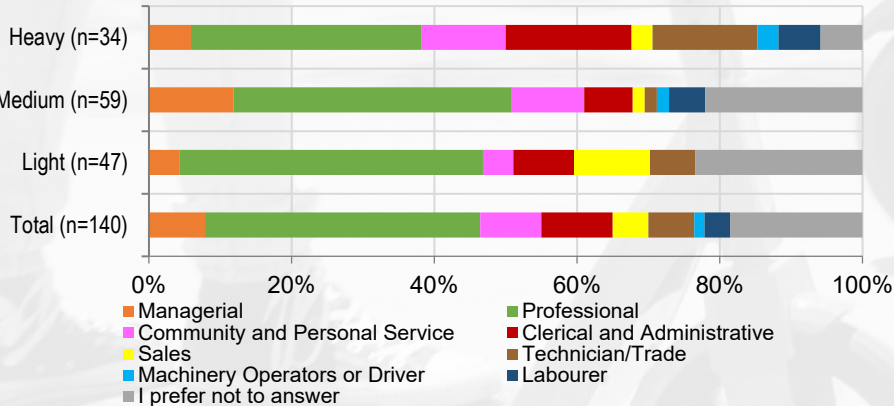
Education attainment



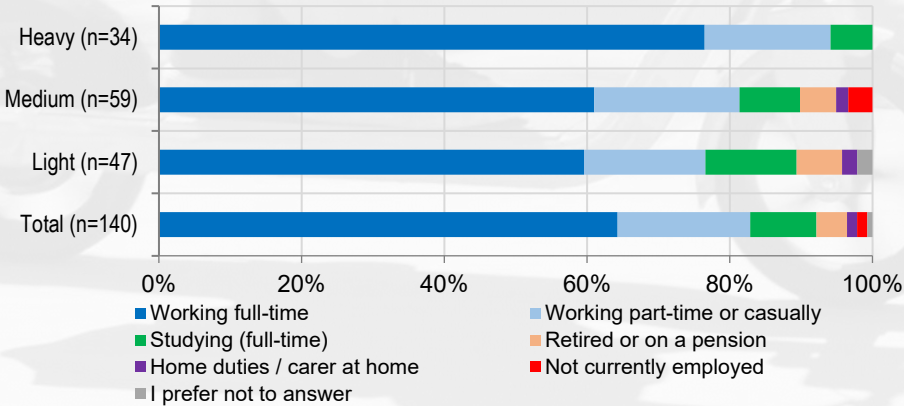
Income



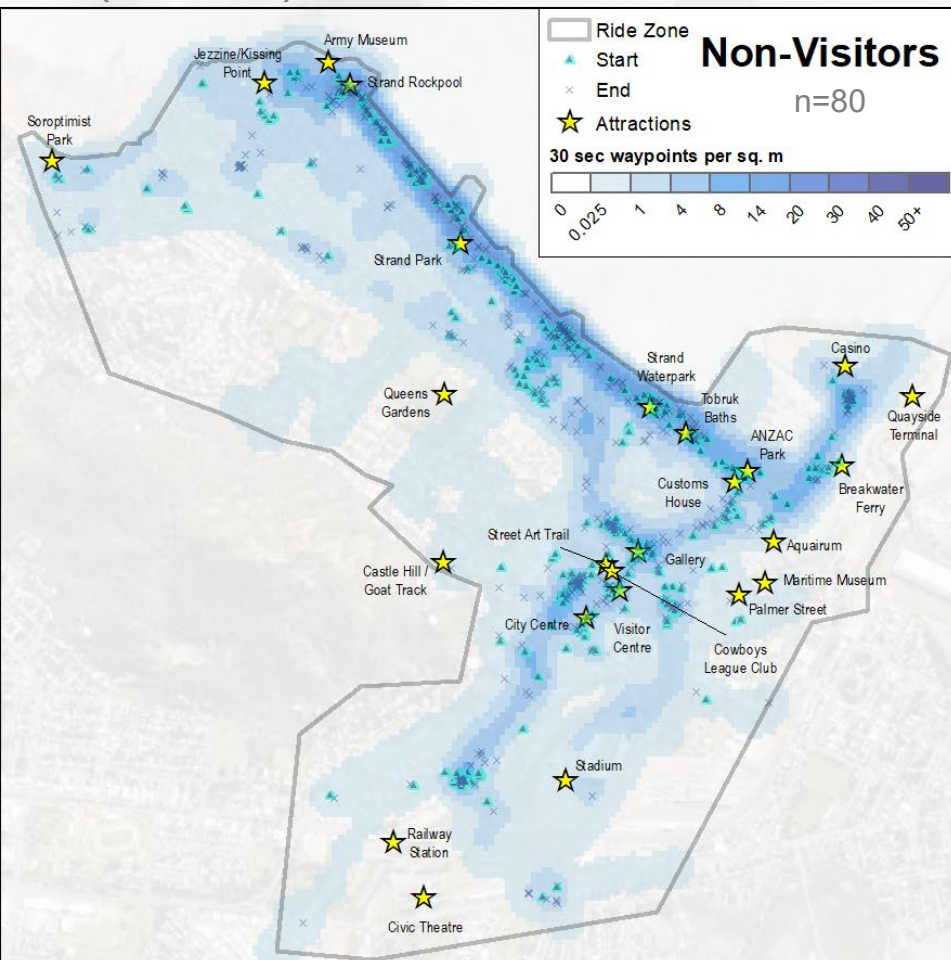
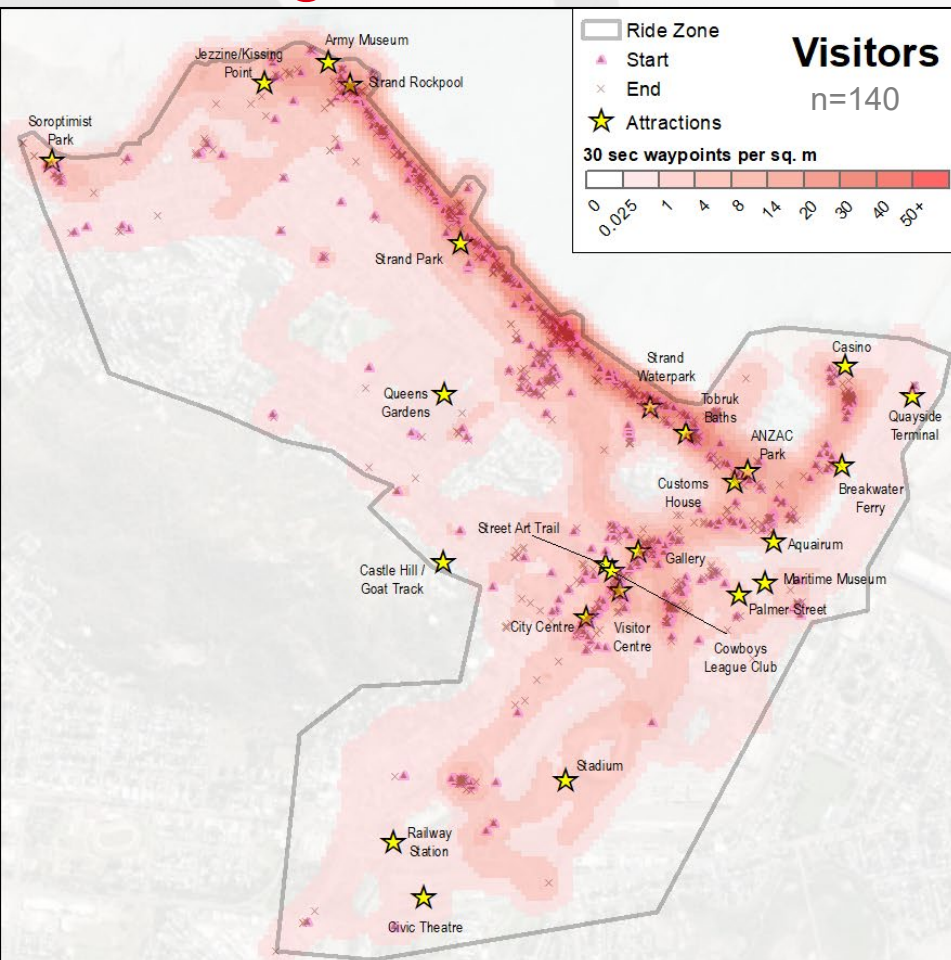
Occupation



Main activity

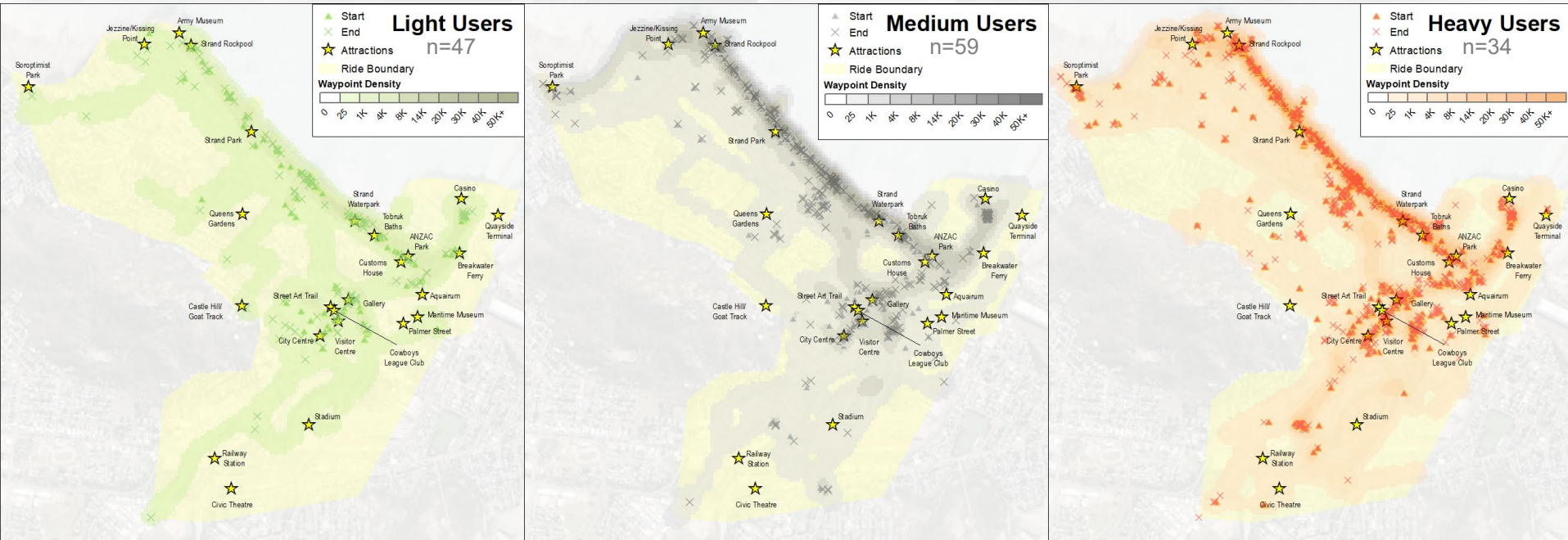


Tracking – Visitors vs Non-Visitors (n=220)



Tracking data – by user type

- More mileage → more spread out → more attractions could have been visited.
- Future detailed spatial analysis to examine how expenditure relates to trajectories or attractions.
- Examine the effects of multi-day pass.



Open-end questions

Using Neuron is part of my fondest memories of visiting Townsville. It was great seeing so many others using them too - it was fun!

A great option for a first time visitor to Townsville to quickly see the sights and get my bearings of local attractions

Cheaper minute rate would be good, stronger headlights

*So much fun and easier
on my poor old legs.
Thank you*

The radius was small only being used around the strand and beach area a mainly, have used the scooter in different countries and have found the usable radius quite a lot larger

Great idea, need to widen the area

We enjoyed being able to travel to areas that we would not normally have seen or were too far to walk in a reasonable amount of time.

We did have a problem with the e-scooters saying we were not in a valid ride area, even though the Neuron team had dropped the scooters at that location. Neuron was great with their support and gave us a partial refund.

My 13 year old son loved the e-scooters. It made the trip to Townsville for him so fun. He said it was the best thing. We went on the e scooters everyday we were in Townsville.

It was amazing to see so many people enjoying scootering along the Strand and the mix of pedestrians and scooters worked well.

Difficult to identify where the drop off stations were. They need signage

Absolutely fantastic experience. Particularly liked the weekly pass which was extremely cost effective. Would highly recommend and will use again



Media enquires or further information

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