

Free public transport  
or  
How else do we reduce transport emissions?

26 Oct 2021 presentation to the

**Tuesday Club**

by

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# Climate emergency declarations



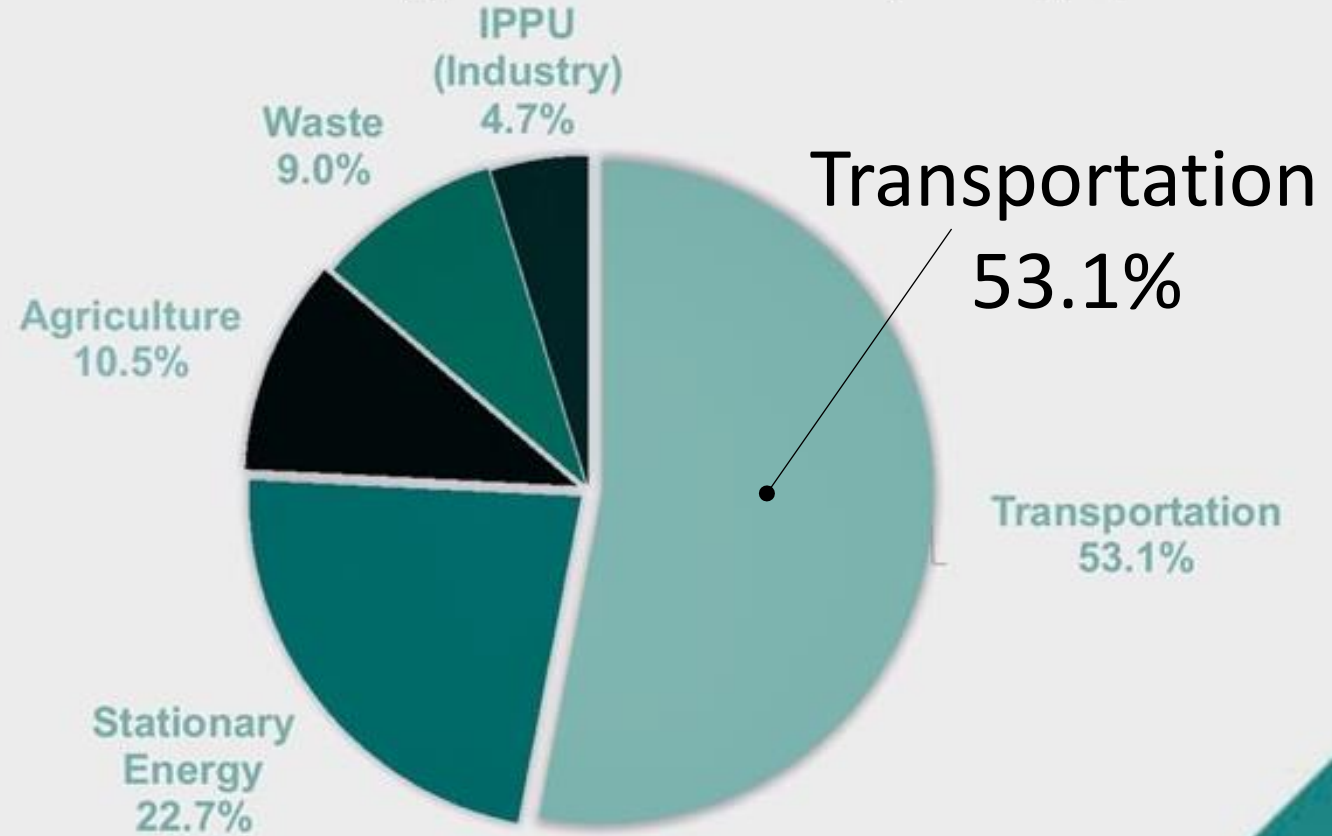
- Canterbury Region  
16 May 2019
- Christchurch City  
23 May 2019
- New Zealand govt  
2 Dec 2020

# Christchurch GHG emissions

- 53% from transportation



## Greenhouse gas emissions (t CO<sub>2</sub>e)





# Free public transport

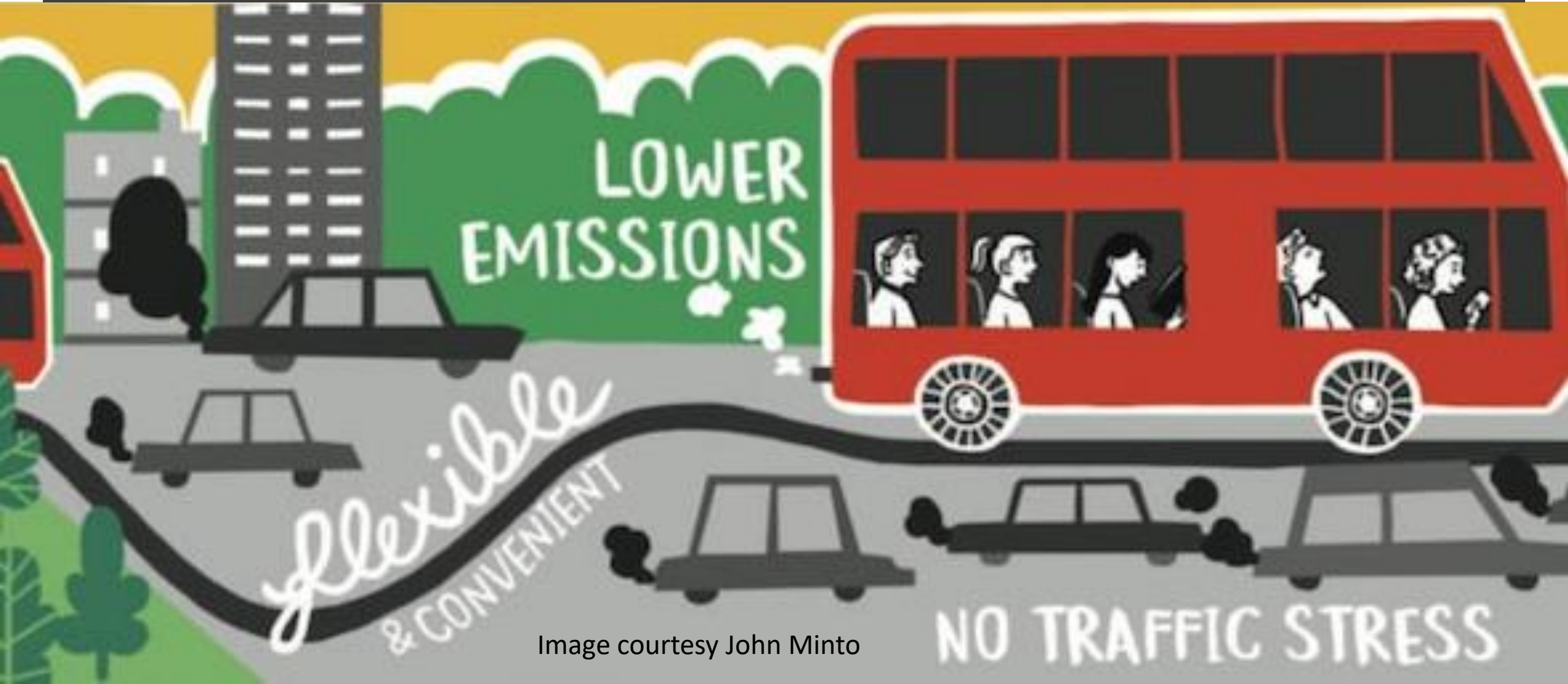
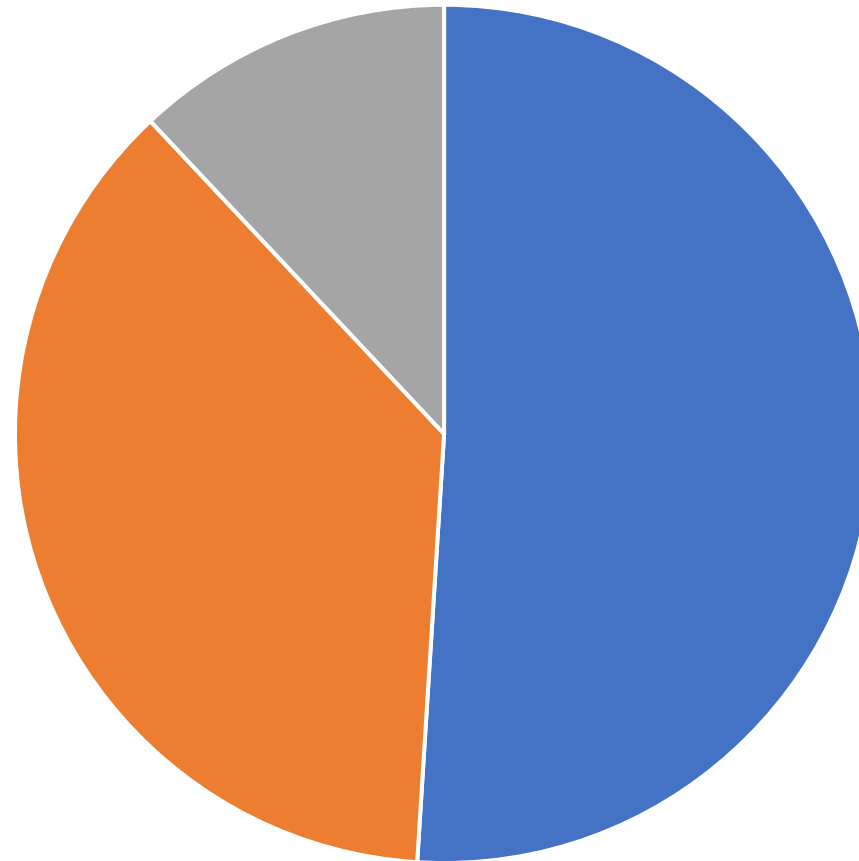


Image courtesy John Minto

# Who is travelling

49%

- travel on a discount, or
- Have their travel paid by central govt



- Fare-paying adults (51%)
- Children (37%)
- Supergold (12%)

# How much does it cost?

## Between

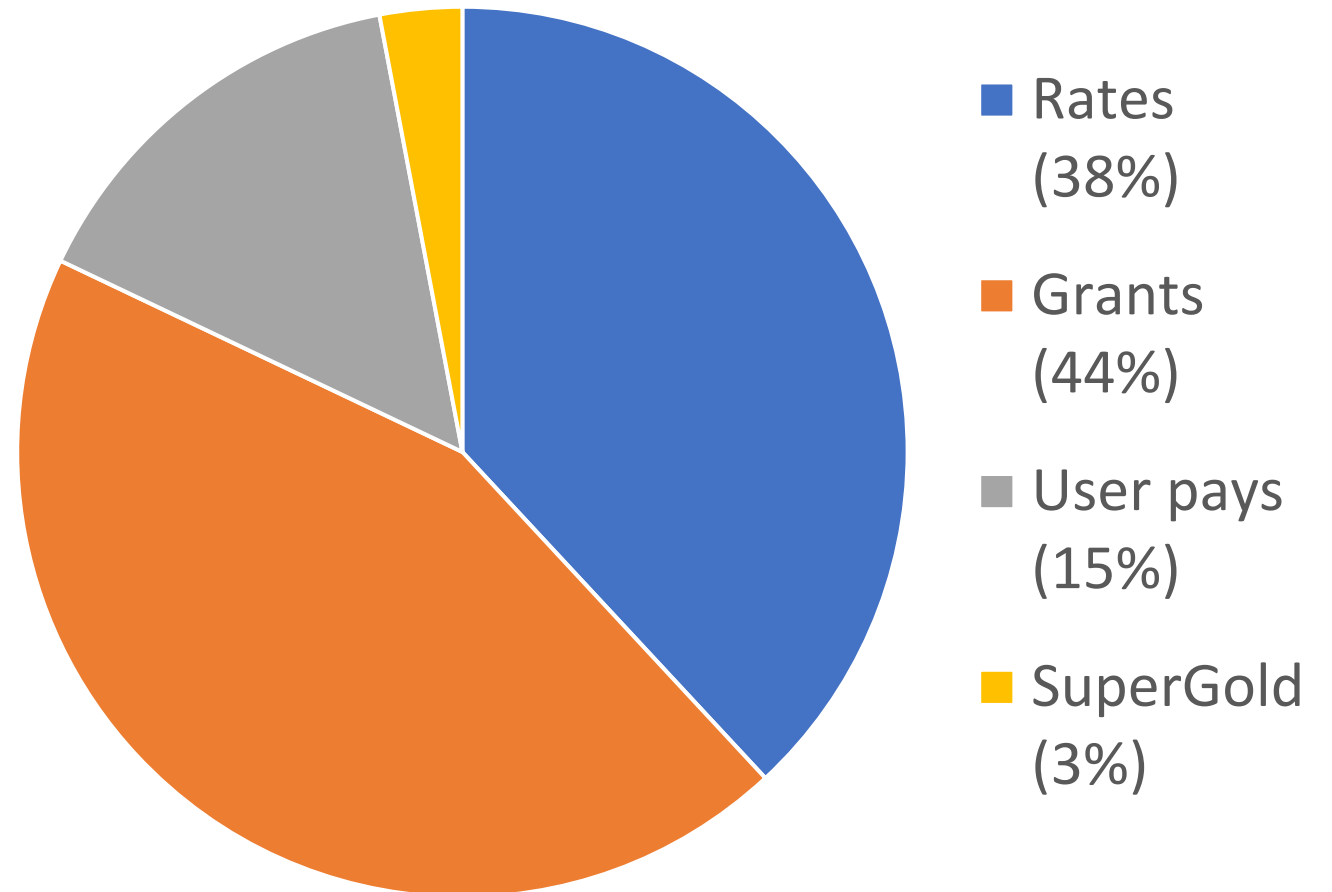
- \$1.50 (child, Zone 1, Metrocard)
- \$6,70 (adult, Zone 3, cash)
  - E.g. harbour ferry or to Chch – Darfield
- Average
  - \$1.87
  - 8.0 km journey



# Source of public transport revenue

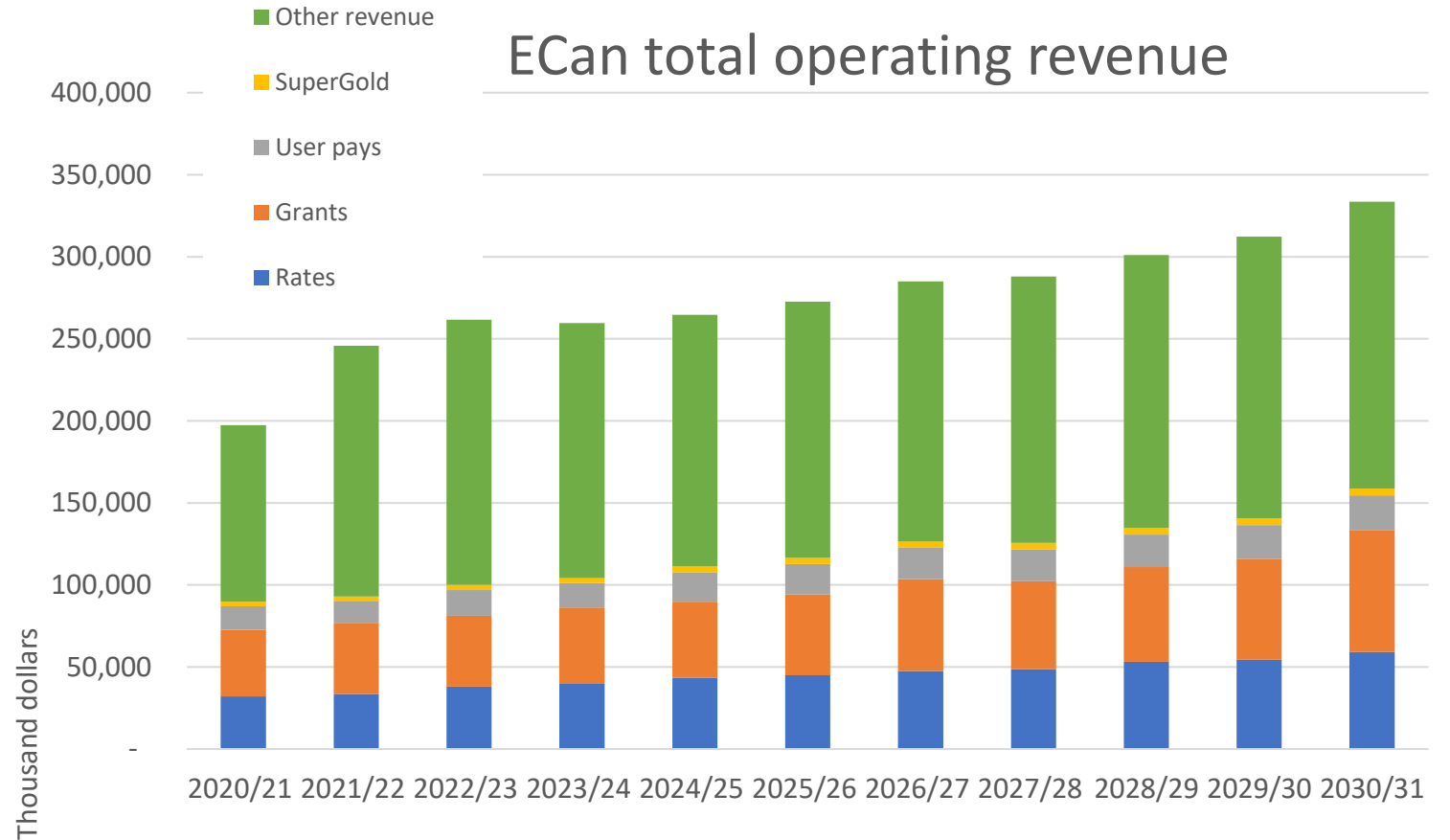
2020–31 public transport funding

- Data from Long Term Plan
- SuperGold Card proportion is my educated guess



# ECan total operating revenue

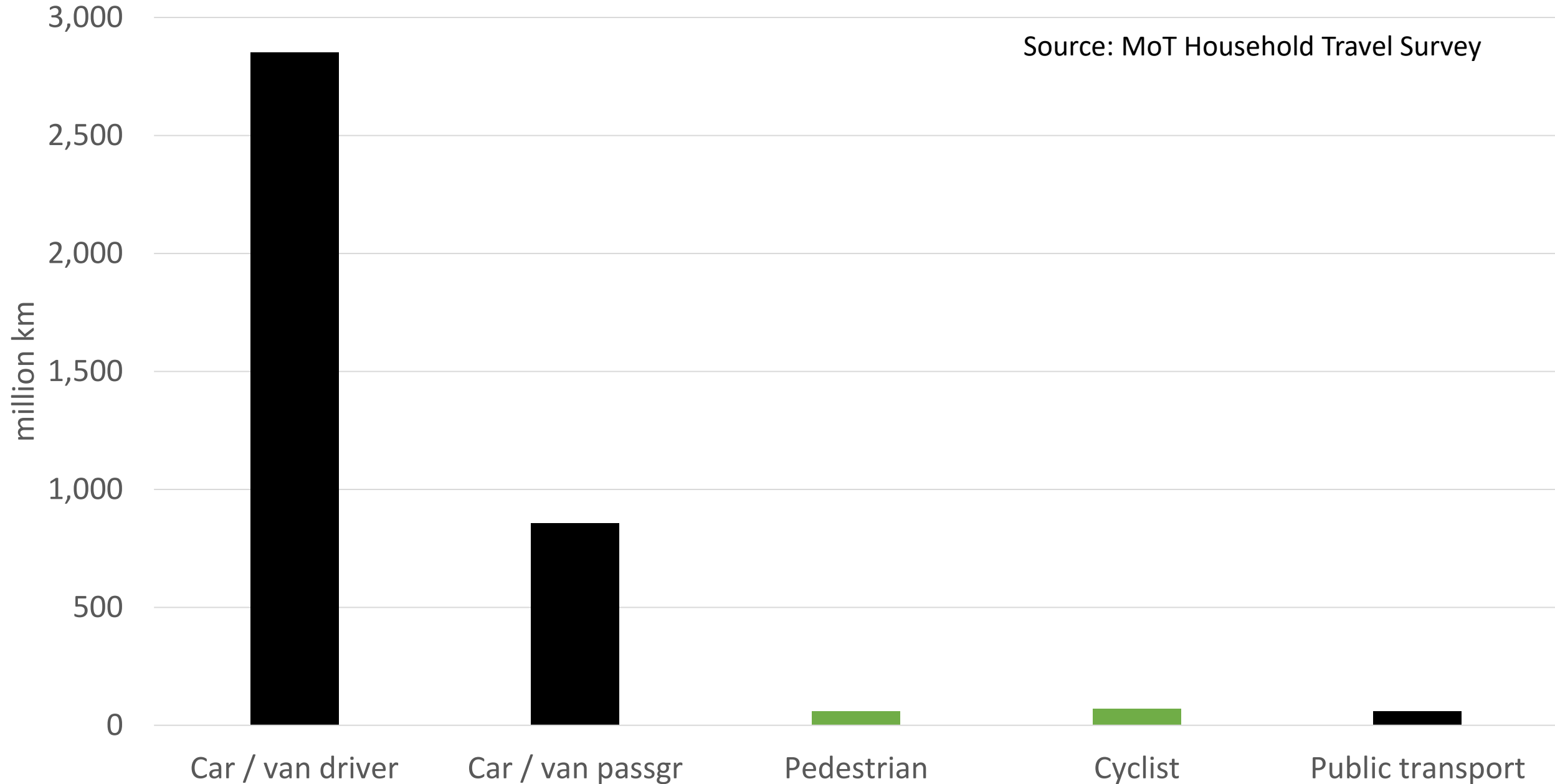
- Public transport makes up 44%
- Farebox is 7% of their revenue
  - \$200m over 10 years





# Distance travelled per year in Christchurch

Source: MoT Household Travel Survey



# Public transport use per capita – 3 centres

Patronage per capita per annum

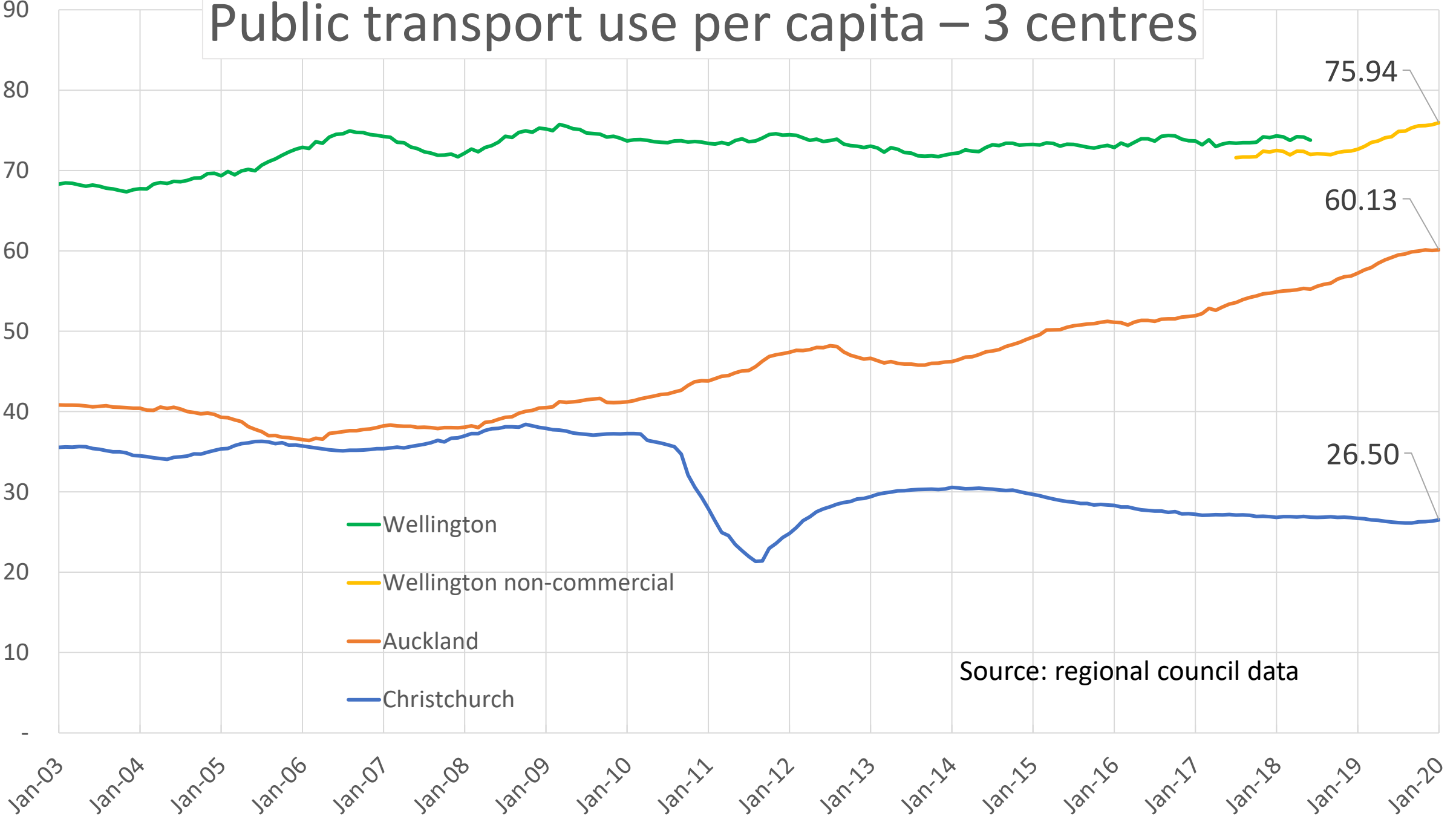
- Wellington
- Wellington non-commercial
- Auckland
- Christchurch

Source: regional council data

75.94

60.13

26.50



# Ecan fare review – research report

July 2021

Impact of fare reduction estimated:

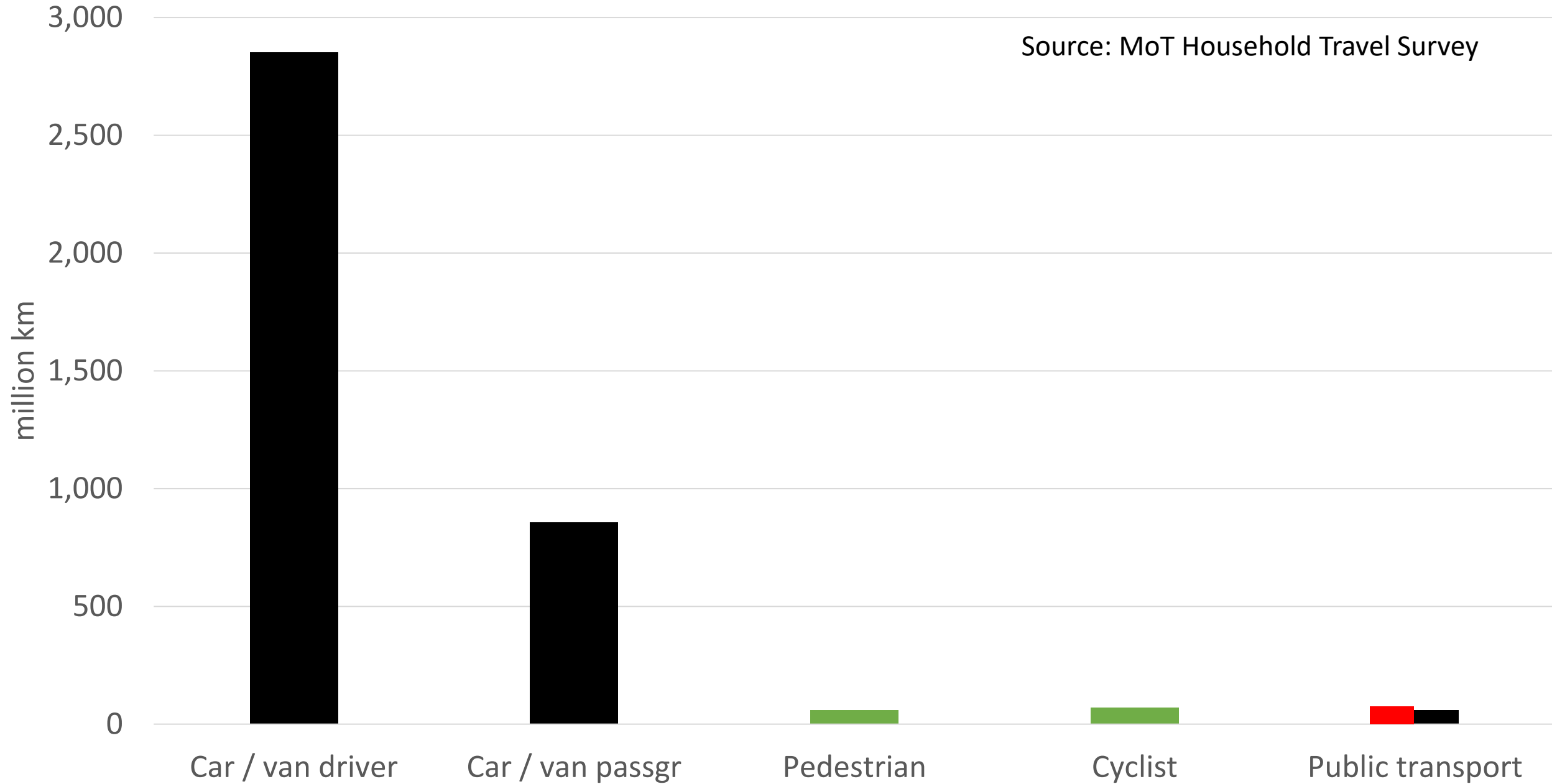
- Base **13.7m** public transport trips
- \$2 flat fare: **15.2m** trips
- \$0: **17.9m** trips

Base year 2028 assumed for analysis



# Distance travelled per year in Christchurch

Source: MoT Household Travel Survey



# Disadvantages of ~~free~~ zero-rated public transport

- If you could spend \$200m to reduce transport emissions, would you spend it on free public transport?
- Fares are a good mechanism to avoid overcrowding during peaks
- This measure won't pull drivers out of cars – it's ineffective
- Experience elsewhere: no further investment in public transport



# How would I make PT more attractive?

## Immediate

- Zone 0
- First Metrocard free
- Cash fare review

## Intermediate (2 years)

- Parking management
- Travel passes

## Longer term

- Bus priority
- Network review
- Governance review
- Double decker buses
- Mass rapid transit / congestion charging

# Zone 0

Reinstating the Shuttle  
just much better than it's ever been

# The Shuttle – history & route

- Start: 1998
- Free
- Every 10 min; fixed route
- Diesel hybrid electric (eco-friendly)
- Cool look
- Stop: 22 Feb 2011 earthquake

<https://tuesdayclub.nz/zone-0/>



# Shall we have it back?

- 3 reports to the PT Joint Committee later...

**Call to reinstate yellow shuttle bus in central Christchurch**

Matthew Salmons ·  
13:33, Jul 14 2016



**Christchurch central city shuttle decision pushed back to wider public transport review**

Michael Hayward ·  
12:26, Oct 18 2017



**CBD shuttle trail would have to be funded by council or by cutting other services**

Michael Hayward ·  
16:22, Oct 16 2017

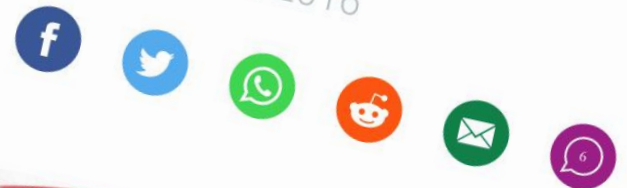


**Christchurch city councillors keen on CBD shuttle if joint committee rejects service**

Michael Hayward ·  
22 2017

**Shuttle service felled by quakes may soon return**

Charlie Mitchell ·  
19:03, Aug 23 2016





# Current status

- Everyone is eager to get the Shuttle revived
- No one is keen to pay for it
  - Diesel bus; fixed loop; 10 to 15 min headway
  - \$0.5m to \$1.5m per year + \$250k one-off

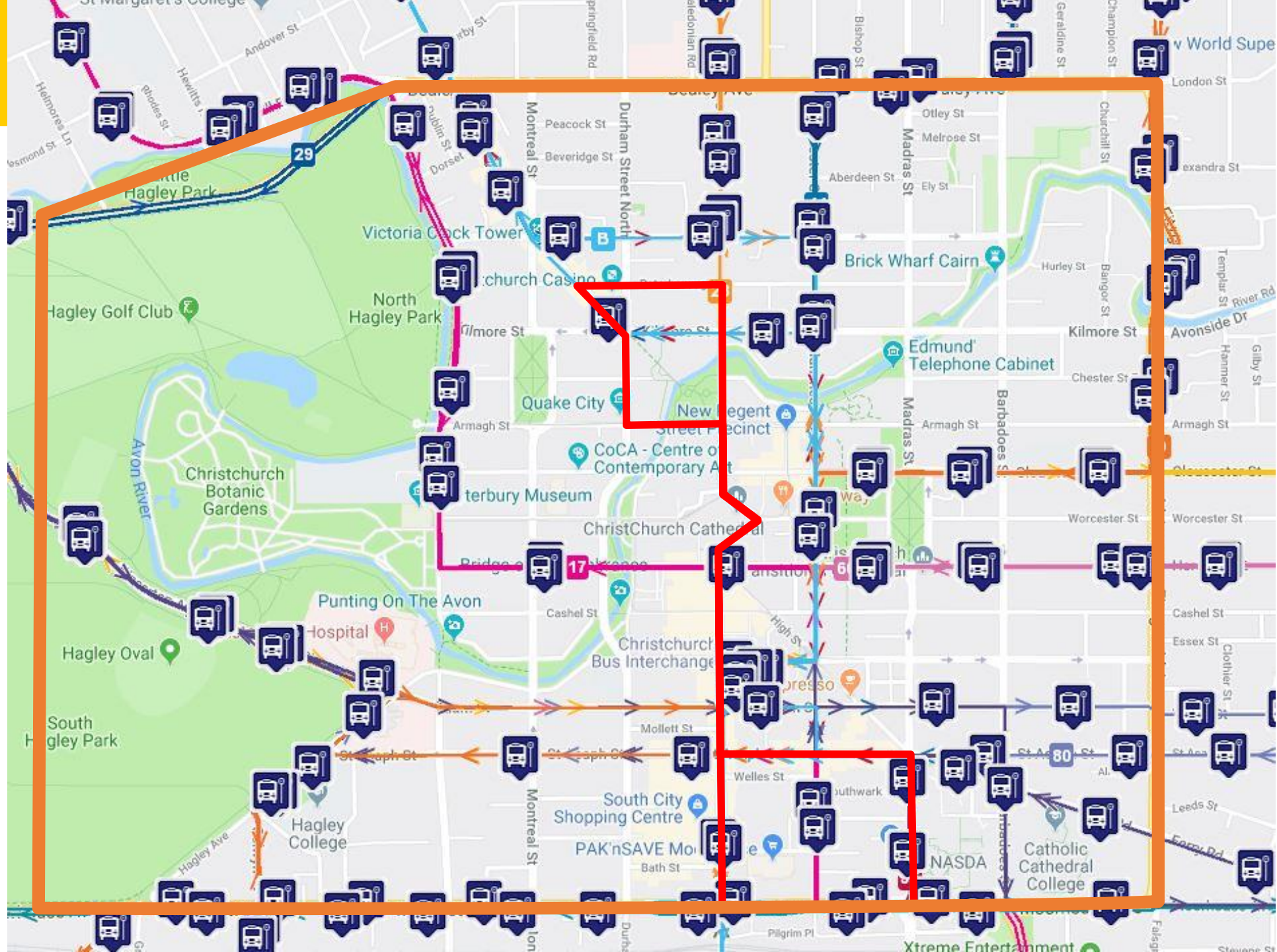


TradeMe advert from July 2019



# Proposal

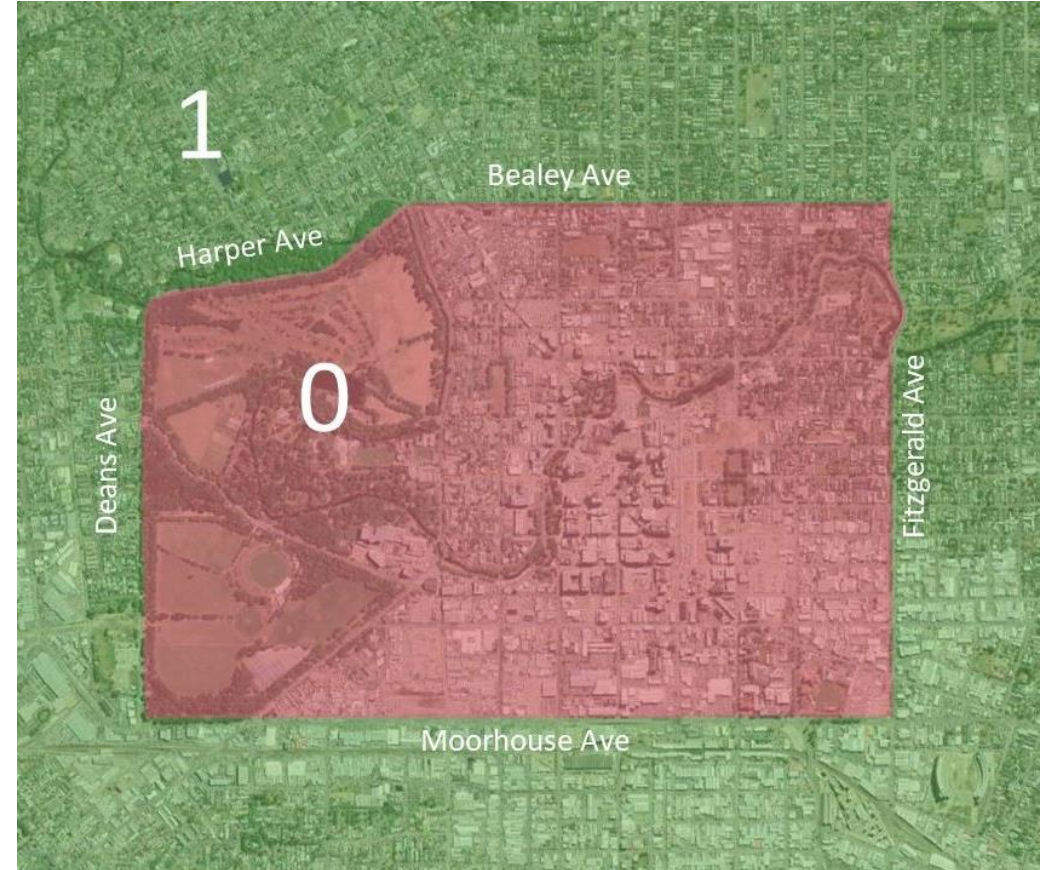
- Zone 0
- All buses free in central city (orange box)
- for Metrocard holders





# Zone 0 benefits

- Much cheaper to run than Shuttle
- Better level of service
  - Better coverage
  - More frequent buses
- Turns people into Metrocard holders
  - Important step for them to use paid public transport
  - Initial Metrocard free (reverse 2011 policy)



# Christchurch zone system

- Existing zone system
  - Pay higher fare if zone boundary crossed
  - Relies on
    - passenger telling the driver, or
    - driver asking passenger
- ECan staff: “4 zones work, 5 zones won’t work”



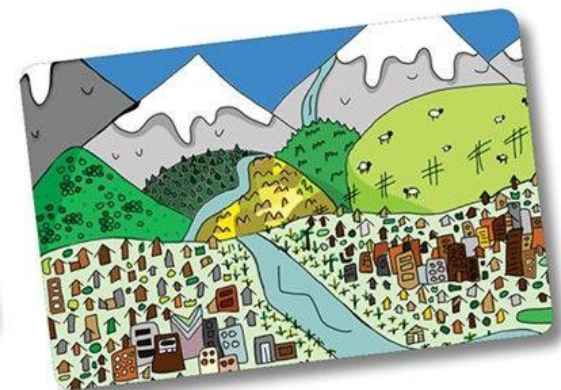


# Christchurch patronage per capita & central city employment



# What is wrong?

- Declining patronage started with a new network model (“hubs & spokes”)
- System is in downward spiral
  - Costs increasing at well-above inflation
  - Falling patronage despite increasing central city employment
- Measures are needed to turn this around
  - Zone 0 designed to turn opportunistic users into customers!





# Zone 0 conclusions

- Marketing tool
  - reverse negative attitudes towards public transport
- Turn opportunistic users into customers!



# Paid parking

How to really change transport behaviour

# Greater Christchurch growth

Every 10 years under business as usual

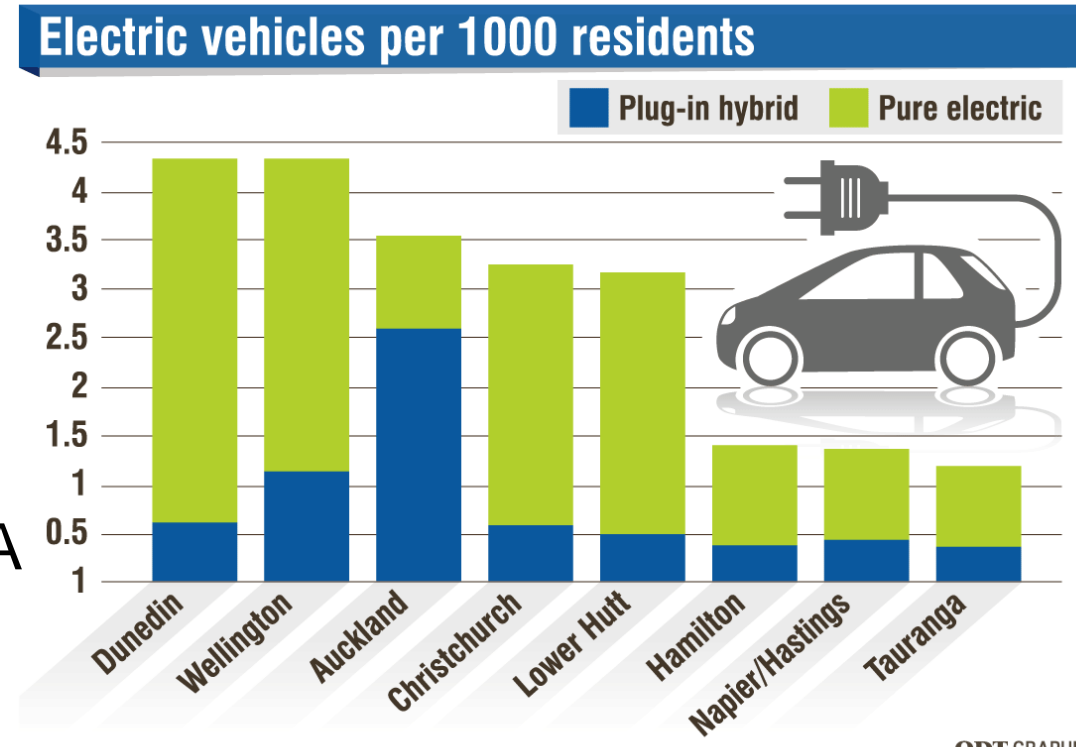
+ 100,000 population

+ 90,000 cars

+ 40,000 houses

# Some more stats

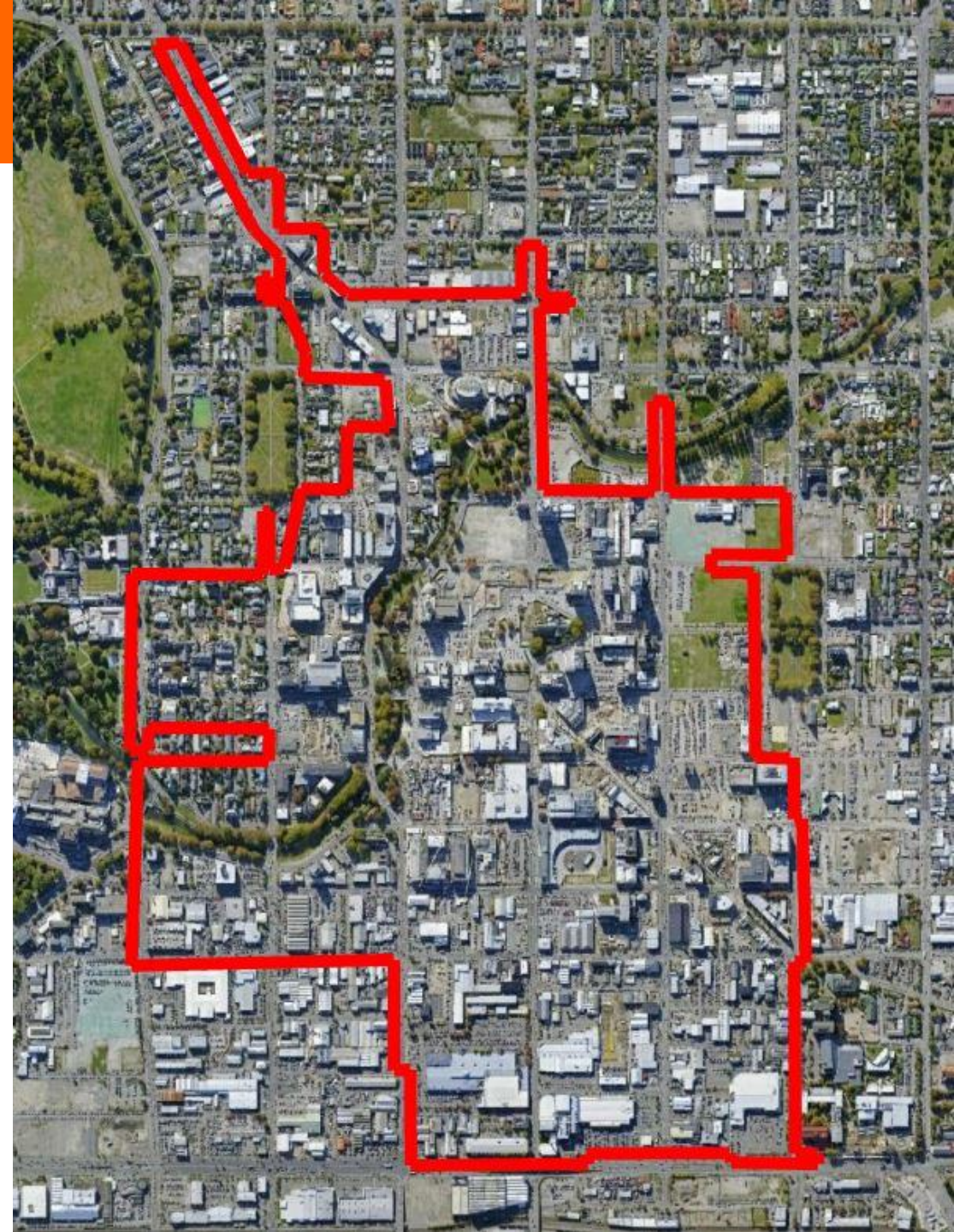
- Electric vehicles make up 0.25% of the Christchurch car fleet
  - 50% of GHGs for cars is manufacture
- Public transport use is declining
  - We have 250 public buses
- Cycling is increasing fast
- Canterbury has high car ownership rate
  - 913 vehicles per 1,000 population
  - Compare 811 veh per 1000 pop in USA





# Paid parking

- Paid commuter parking
  - Central city (outside red fence)
  - Area around Riccarton Mall
  - Area around Northlands Mall
  - Other high-parking generators
- Objectives
  - Raise funds to finance public transport
  - Dampen demand for driving
  - Good for business





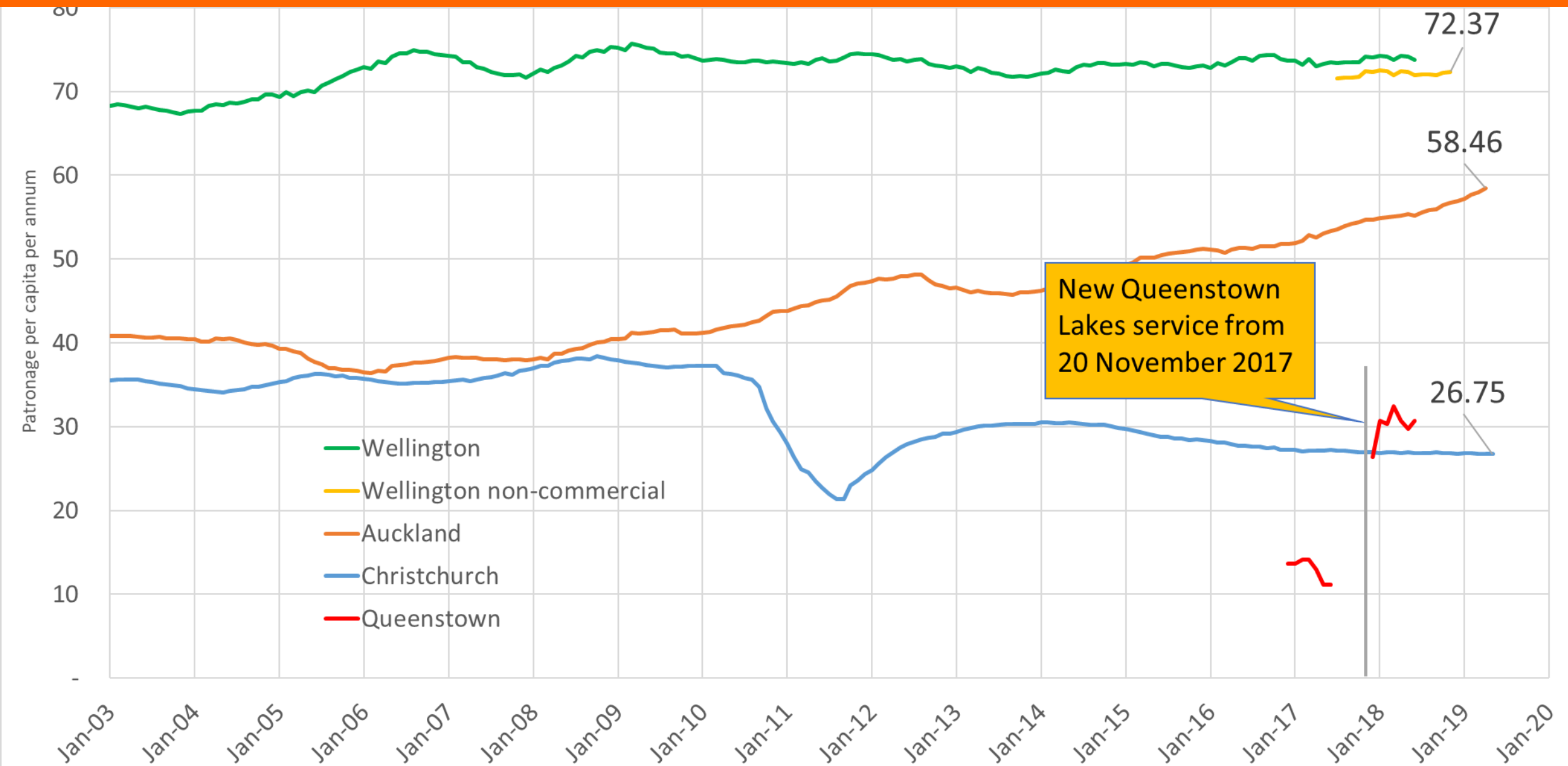
# Paid parking on streets where it's currently free

- But what about the residents?
- But what about the Central City Business Association (CCBA)?
- Interesting relationship between free commuter parking and central city housing





# PT use per capita – 3 centres & Queenstown



# Parking conclusions

- Public transport use in Christchurch is declining
  - CCC, through parking management, has big role to play to fix what is ultimately ECan's responsibility
  - Quickest way to change people's transport behaviour
- We haven't started addressing climate breakdown issues caused by transport
  - Parking management can give us step-change in how we travel

# Overall conclusions

If the objective is to significantly reduce transport emissions

- Zero-rated public transport is not the answer
- Public transport needs an image boost – Zone 0 can provide that
- Paid parking is the fastest way to change transport behaviour
  - And it will fill our buses, too