

Research Presentation

7 June 2018

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# Student Travel Survey 2018





# Research objectives



- > How and when students travel to and from university campuses, monitoring change
- > How easy students think it is to use PT, to walk or cycle to campus, and to park
- > Awareness, uptake and ease of applying for tertiary student discounts on Public Transport
- > Awareness and use of carpooling apps or websites
- > Extent to which students move accommodation for cost or transport related reasons

# Methodology



## An intercept survey (with online option):

- Short interviews (10mins) were conducted face-to-face with students randomly approached at eleven campuses, invitations to online given if no time at intercept.

## Survey dates:

- 12th March 2018 to the 20th April 2018, with shifts scheduled each day of the week from 8am–6pm.

## In total n=2,157 respondents completed the survey including:

- AUT City (214)
- AUT South (158)
- AUT Akoranga (213)
- University of Auckland City (232)
- University of Auckland Newmarket (143)
- University of Auckland Grafton (236)
- Massey Albany (227)
- MIT Mankuau (190)
- MIT Ōtara (208)
- MAINZ (105)
- Unitec Mt Albert (231)

**Note:**  
Unweighted data –  
so totals don't reflect  
total student  
volumes

PTE's not included



1. Travel Mode Use
2. Perceptions of Public Transport
3. Carparking and Carpooling
4. Walking and Cycling
5. SOC users
6. HOP and Tertiary Student Concession
7. Carpooling App

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# Presentation outline



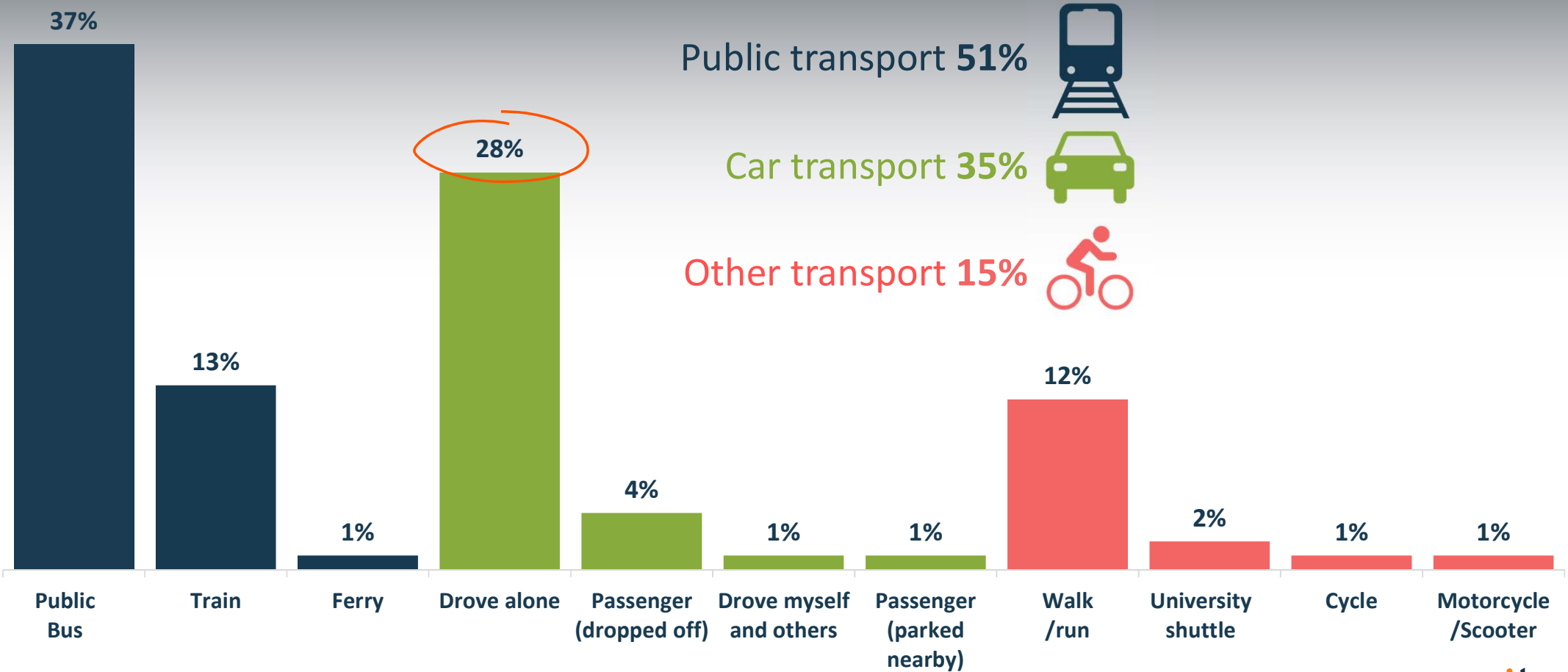


# Travel Modes

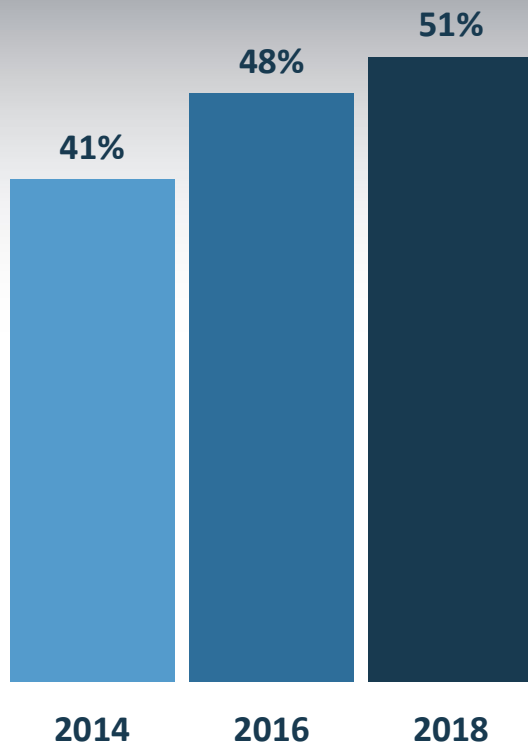


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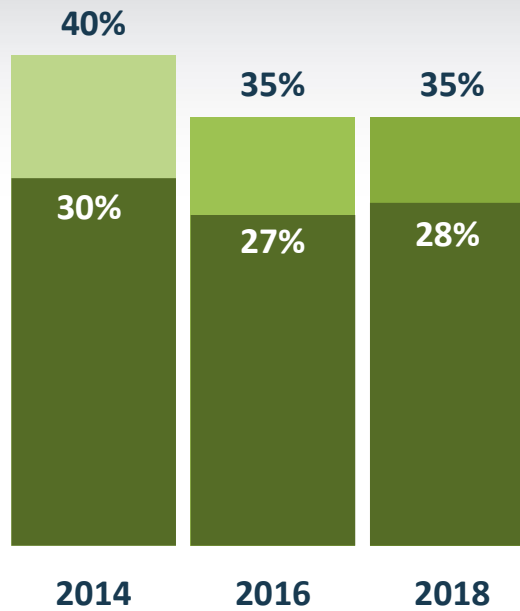
# Total 'main' travel modes used - 2018



# Main mode share – over time

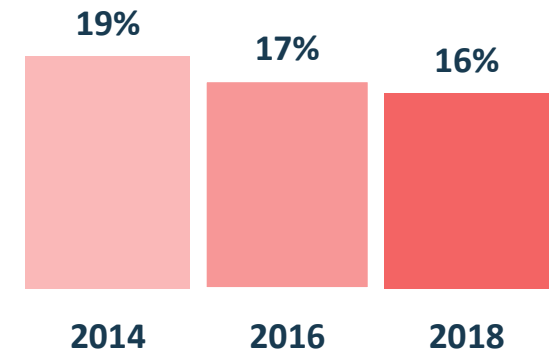
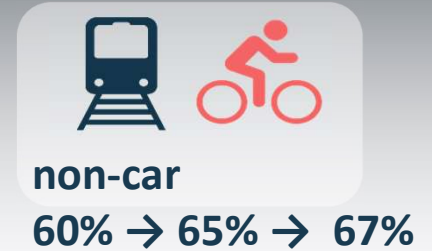


 Total PT



 Total car

 Single occupancy car



 Total other

Note: fewer campuses were surveyed in 2014

# Campus groups



Three campus categories, based on location:



## CBD campuses

University of Auckland – City  
AUT – City  
MAINZ



## CBD fringe campuses

University of Auckland – Grafton  
University of Auckland - Newmarket



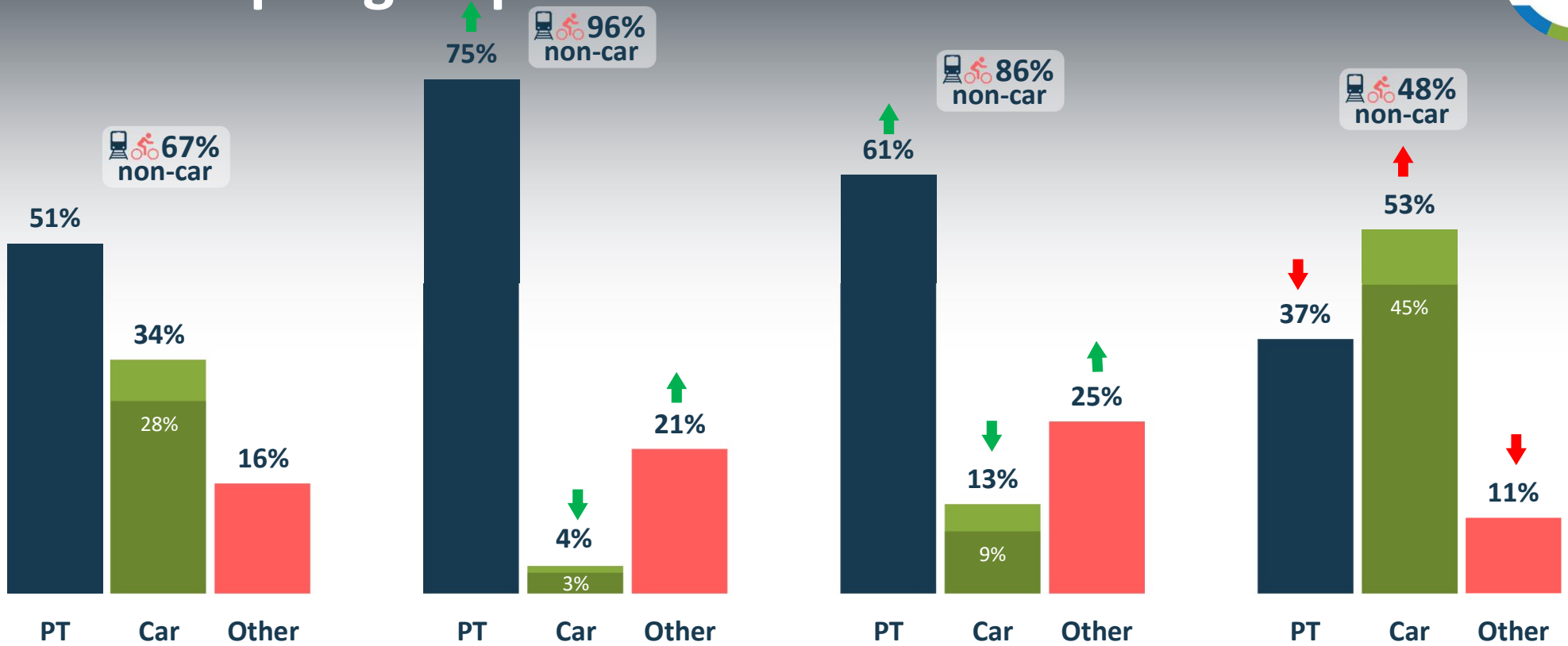
## Non-CBD campuses

AUT - Akoranga  
AUT - South  
Massey - Albany  
Unitec - Mt Albert  
MIT - Manukau  
MIT - Ōtara

Note: fewer campuses were surveyed in 2014



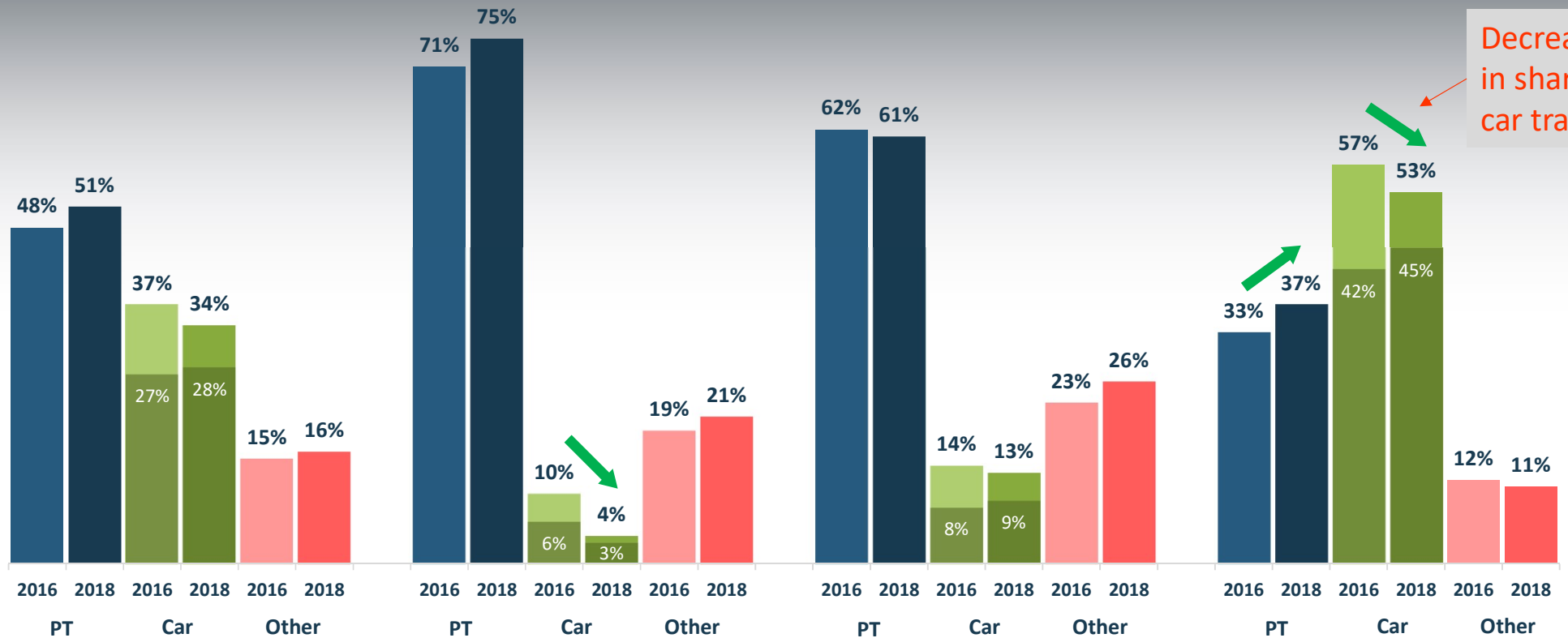
# Mode use varies by campus type, with non-CBD campus group more car orientated



Total  
2018



# Reduction in total car based travel evident across all campus types, SOC up a little in non-CBD

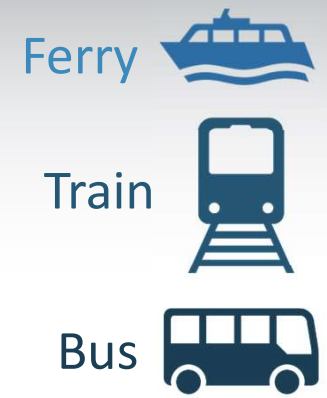
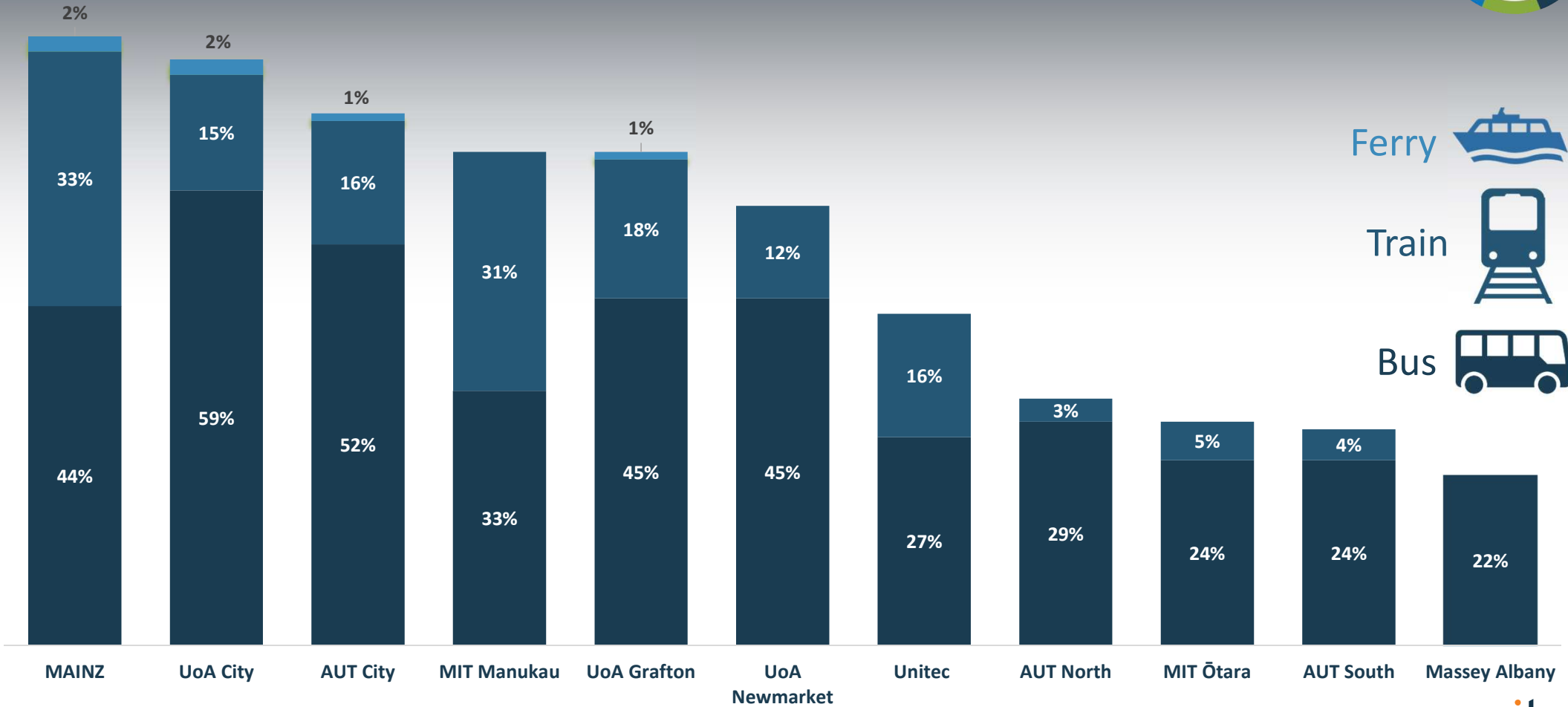


Decrease in shared car travel

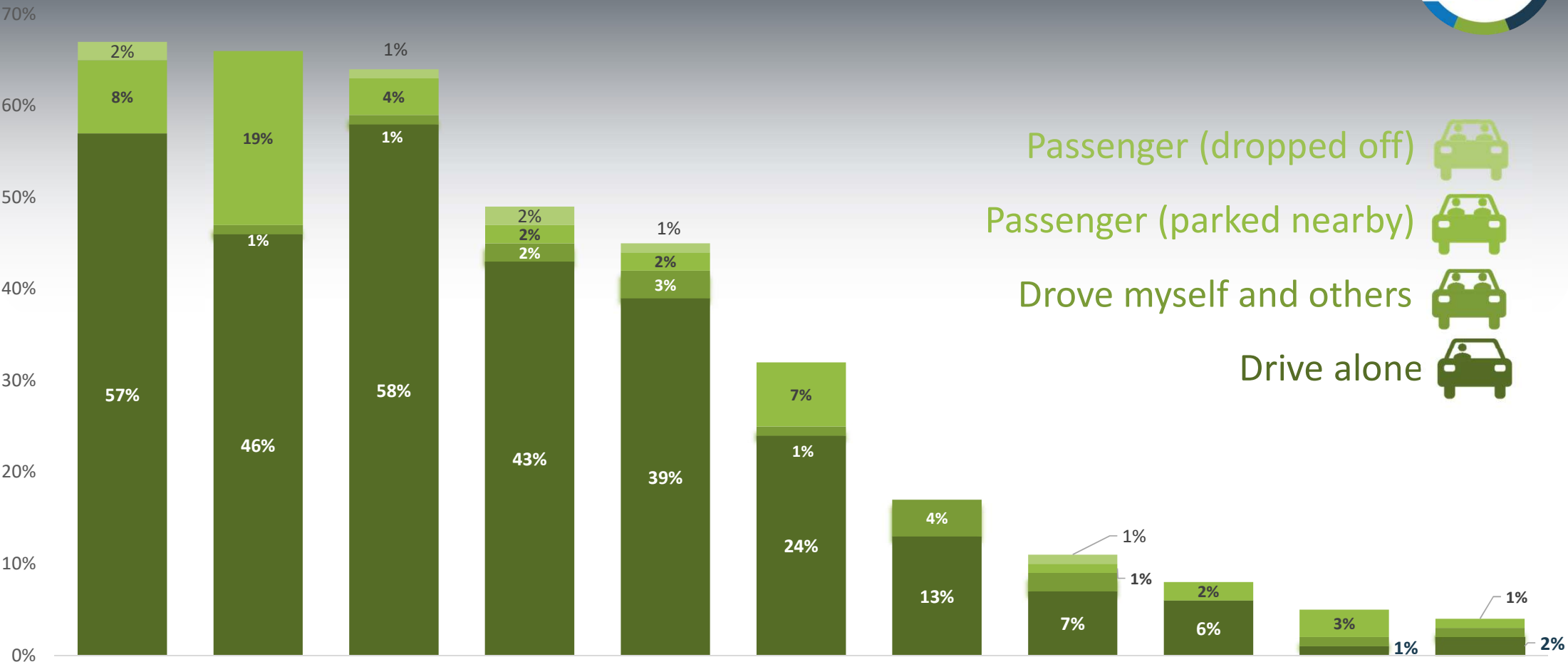
Total 2018



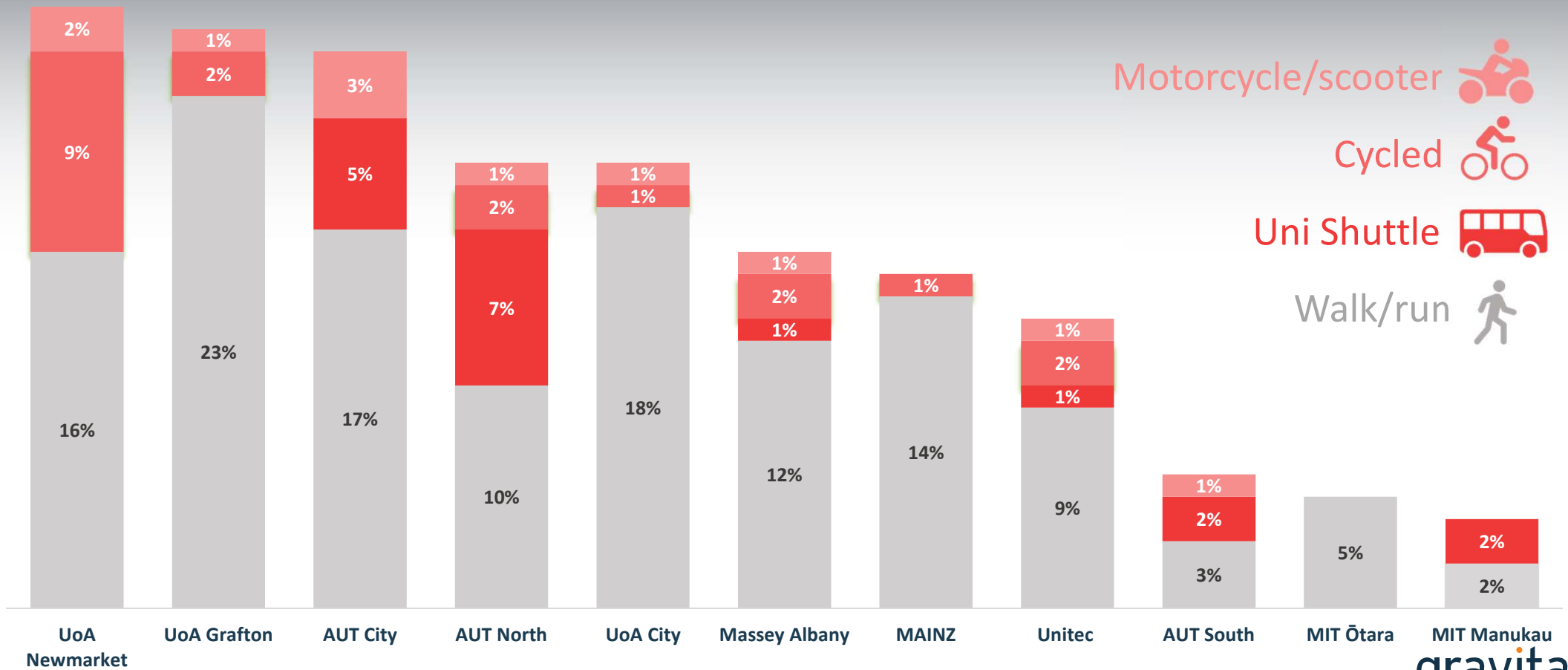
# PT by campus



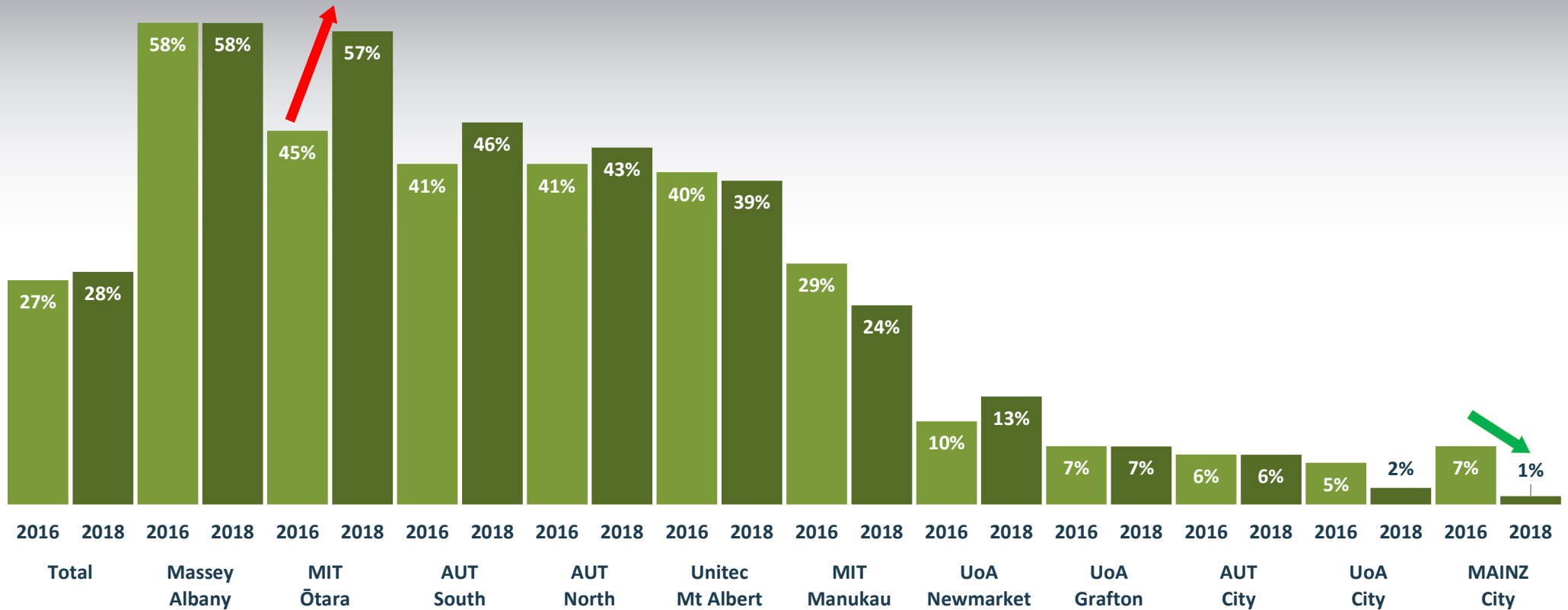
# Car transport by campus



# Other transport by campus



# Single occupancy drivers – by campus



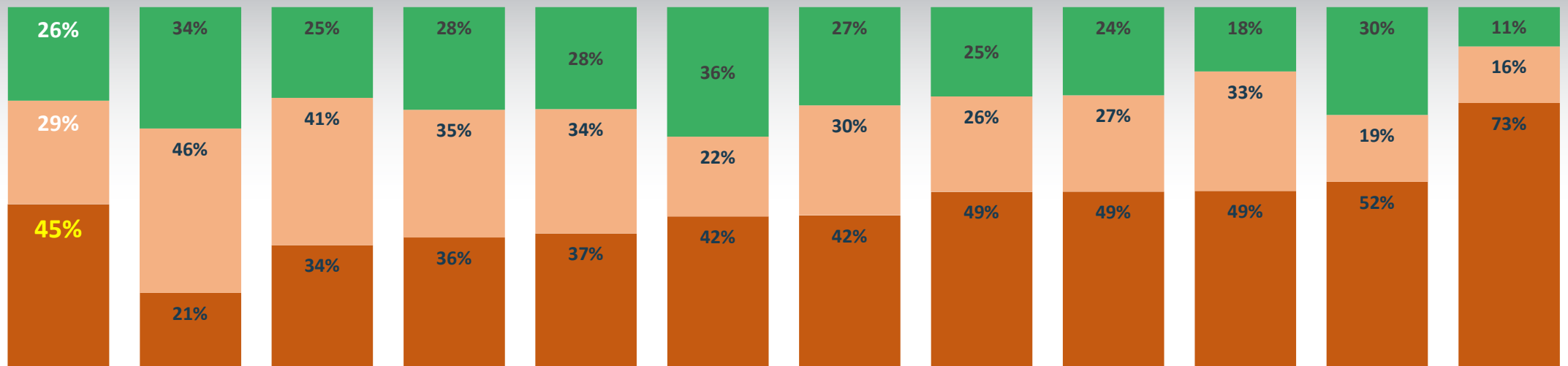


# Travel Time and Peak Travel



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# Time of arrival varies by campus; city campuses more likely to travel outside peak

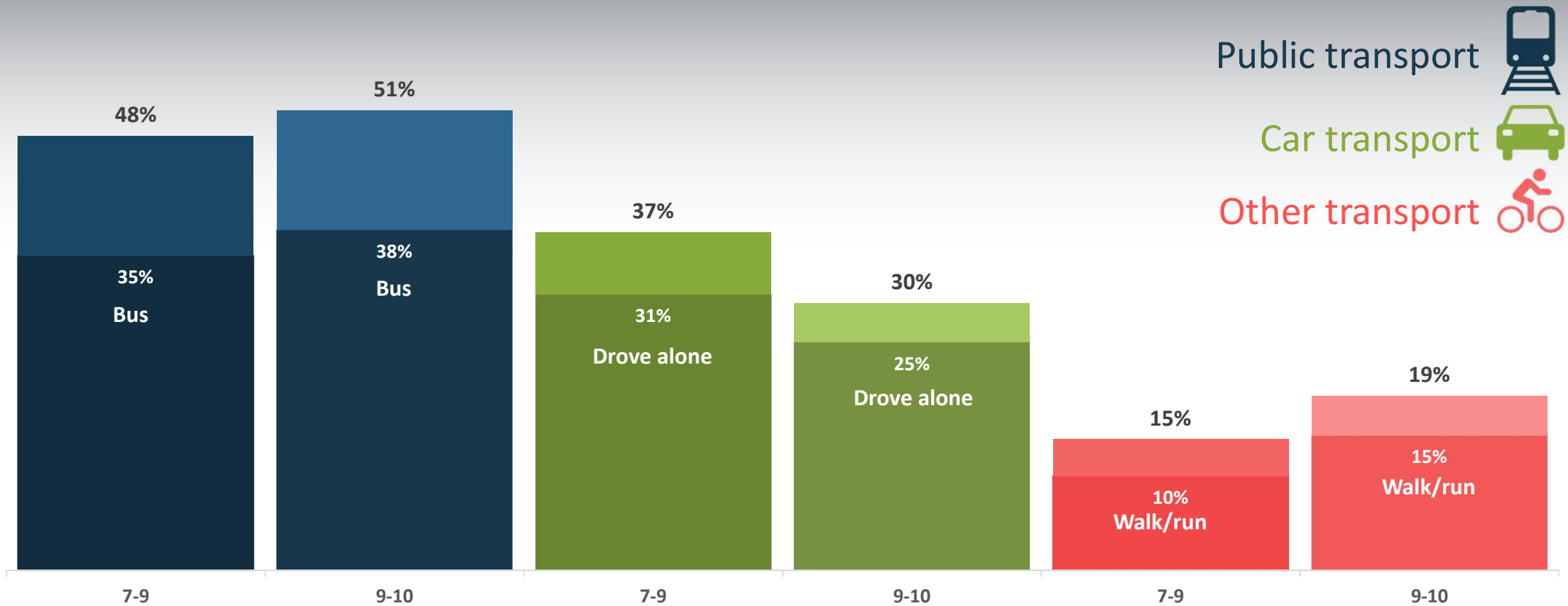


Total 2018    MAINZ City    UoA Newmarket    AUT City    AUT South    Unitec Mt Albert    UoA City    Massey Albany    AUT North    UoA Grafton    MIT Manukau    MIT Ōtara

Peak 7 – 9am    9 – 10am    Other Time



# More car-based travel from 7-9am



Public transport



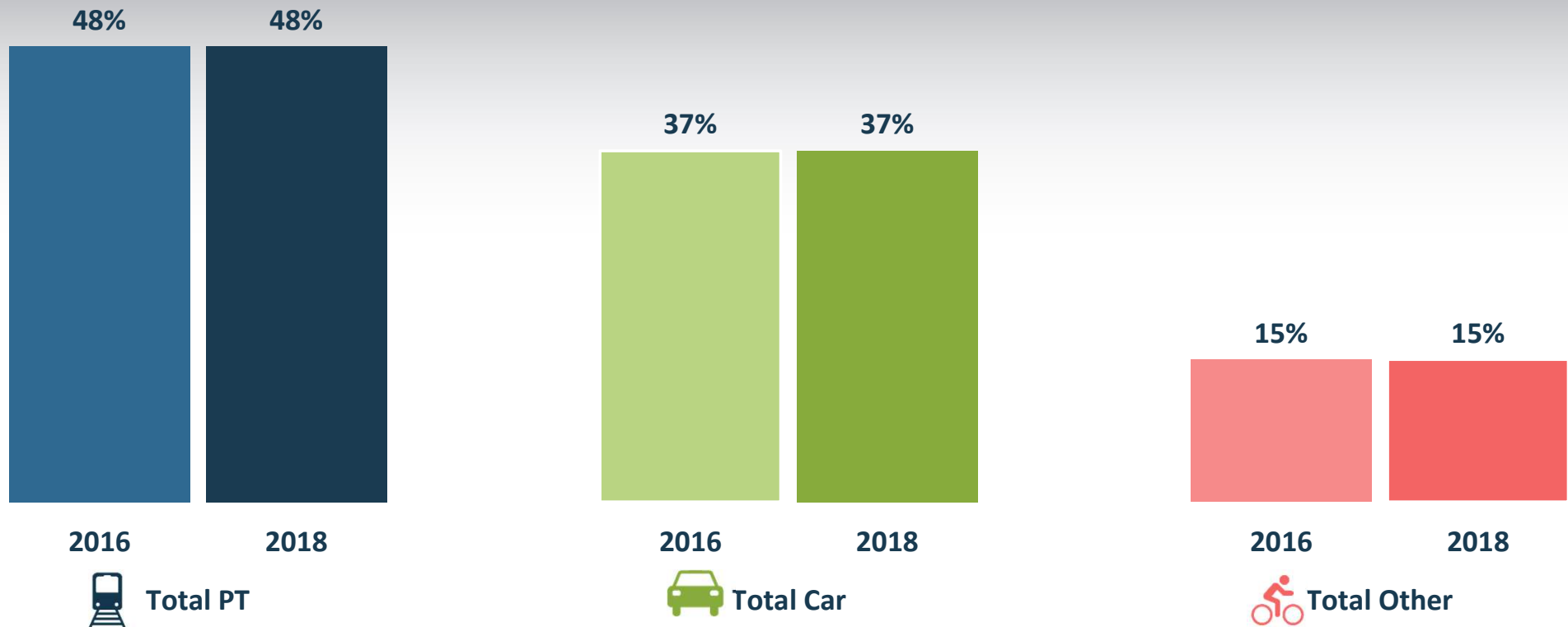
Car transport



Other transport

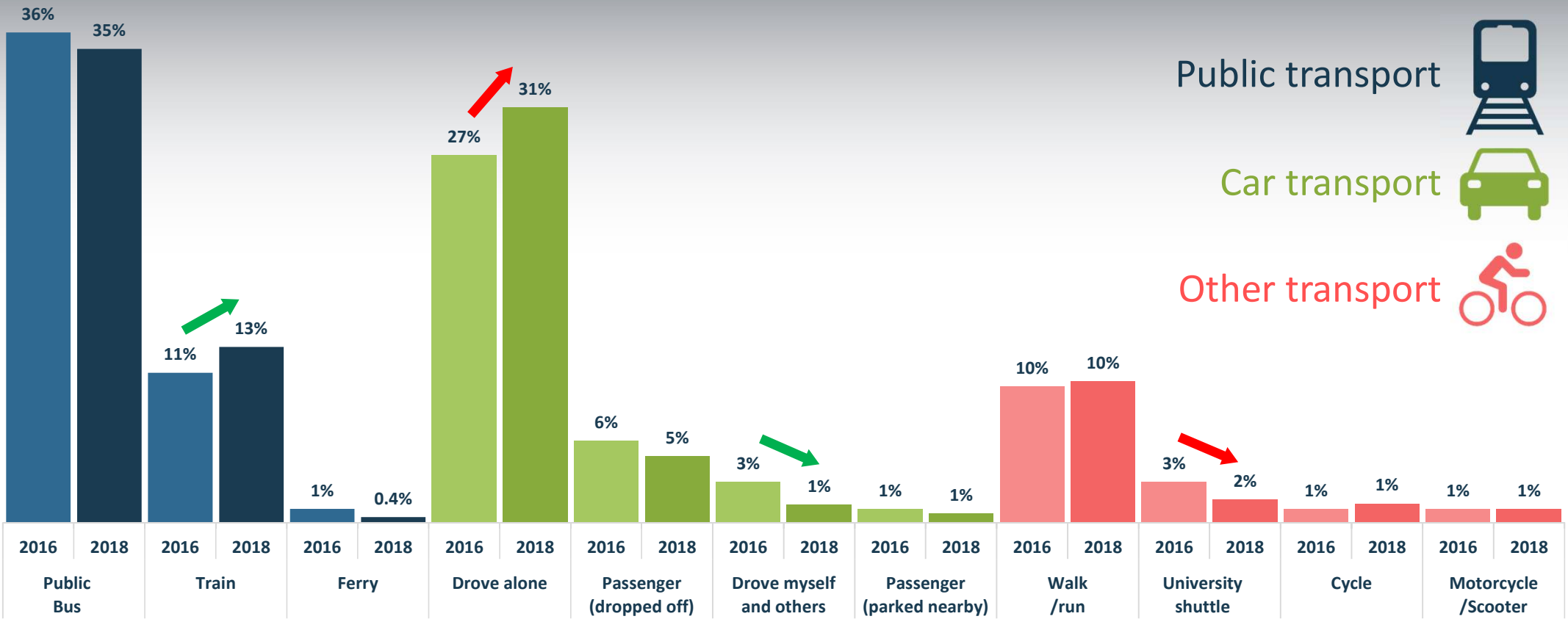


# No change in mode share overall during 7-9am peak since 2016



Peak (7-9am)

# But, single occupancy cars increased in the peak; train use also increased



Public transport



Car transport

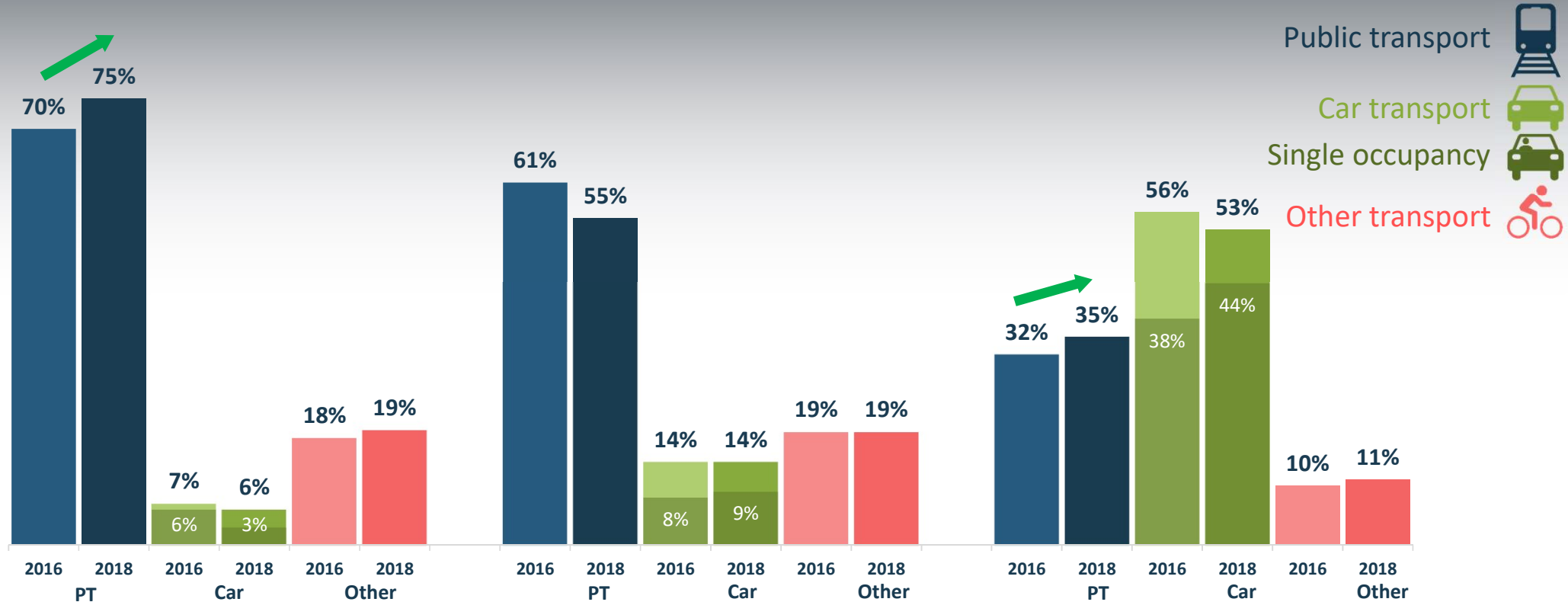


Other transport



Peak (7-9am)

# PT use in peak increased for CBD and non-CBD campus groups



CBD



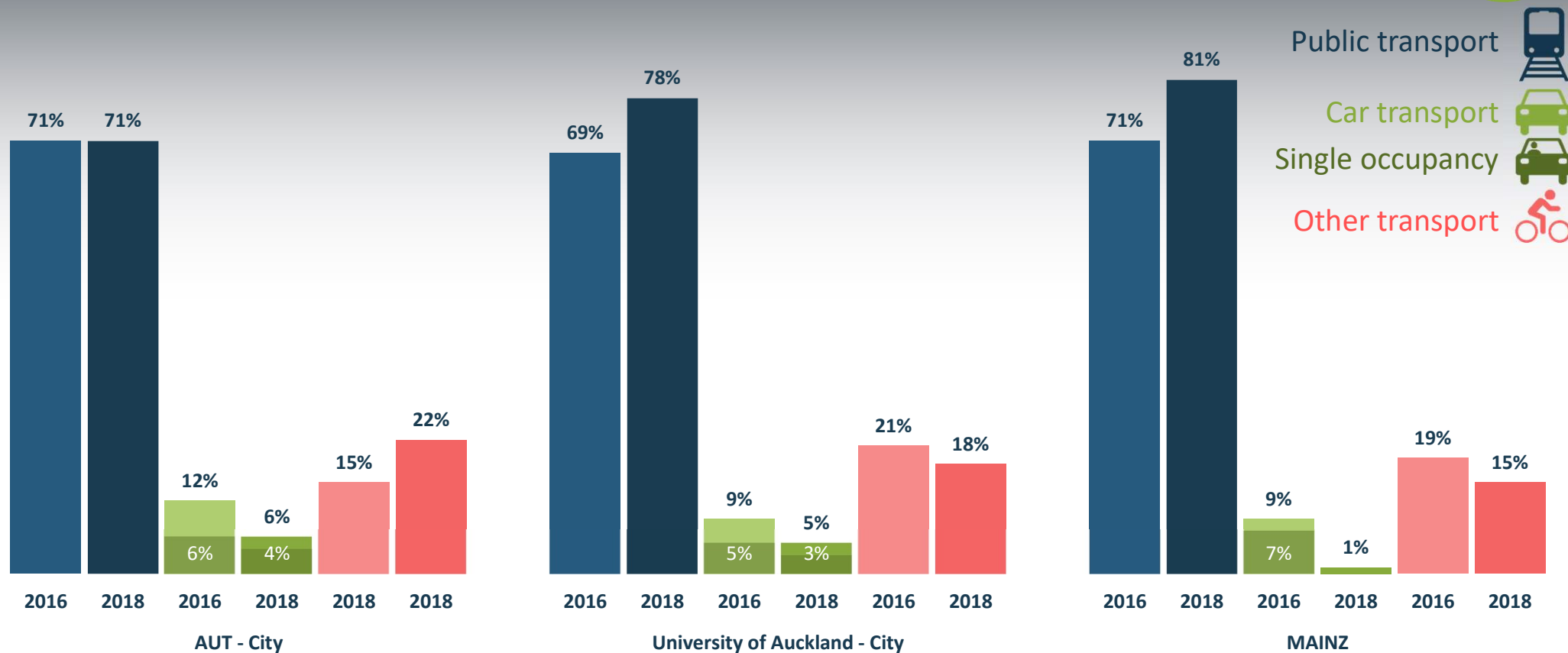
CBD fringe  
Peak (7-9am)



Non-CBD







# CBD campuses

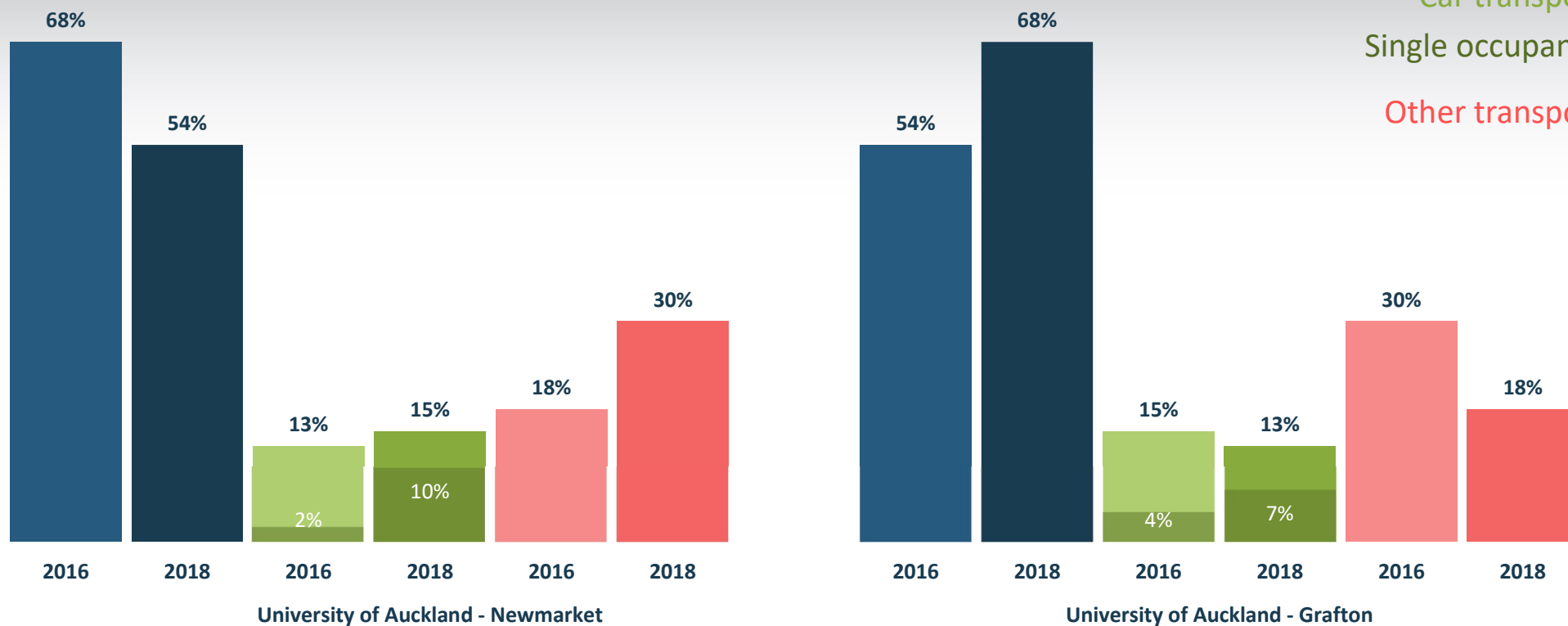


Peak (7-9am)

# CBD fringe campuses



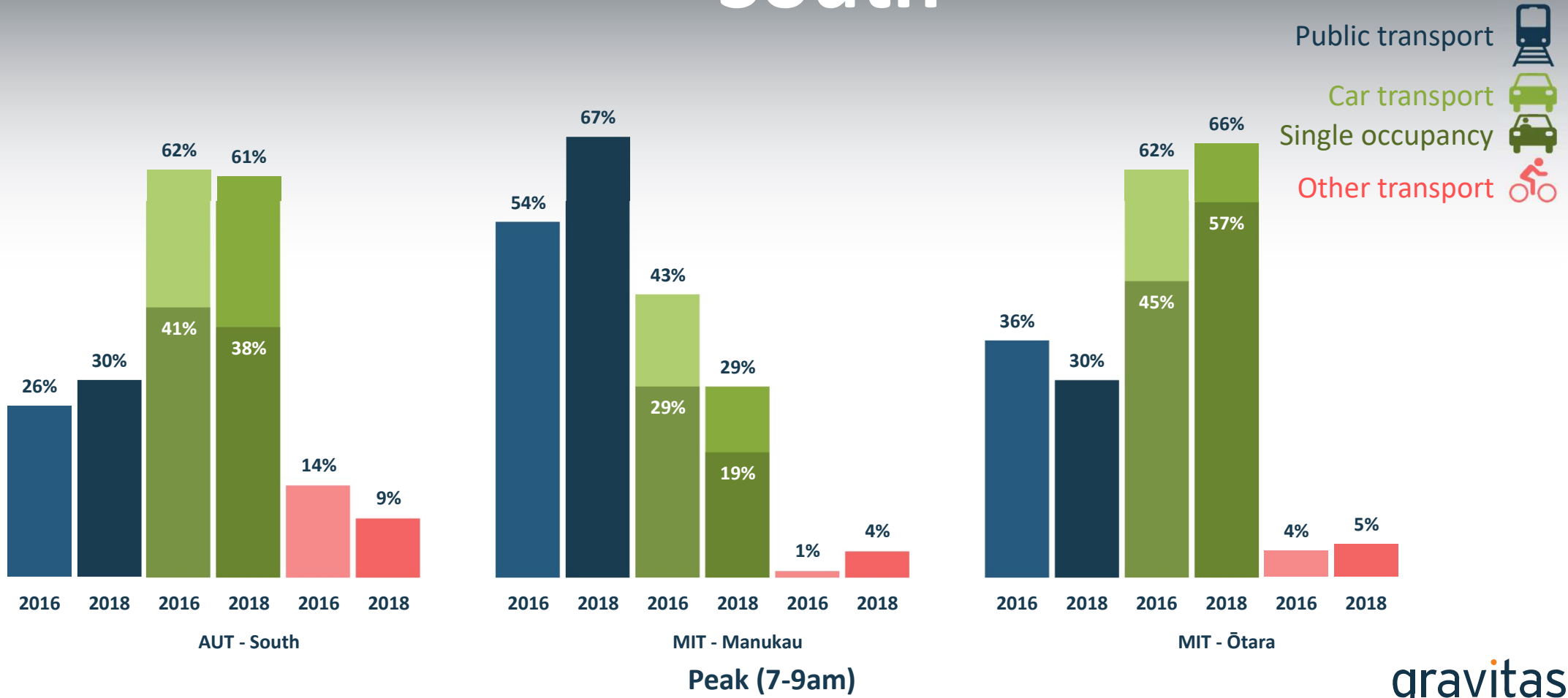
- Public transport 
- Car transport 
- Single occupancy 
- Other transport 



Peak (7-9am)



# Non-CBD campuses South

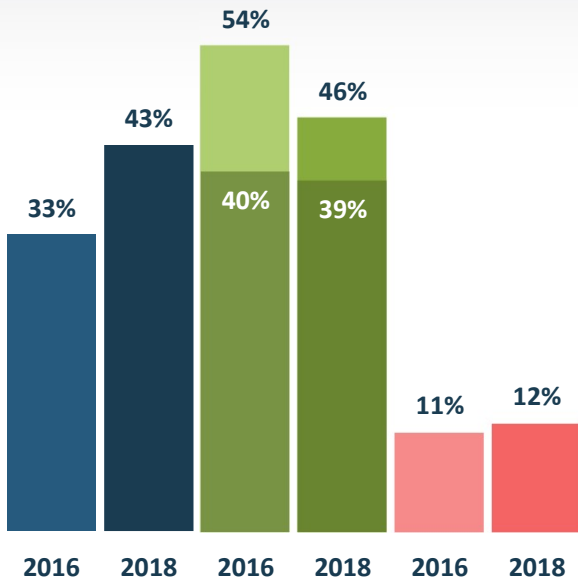




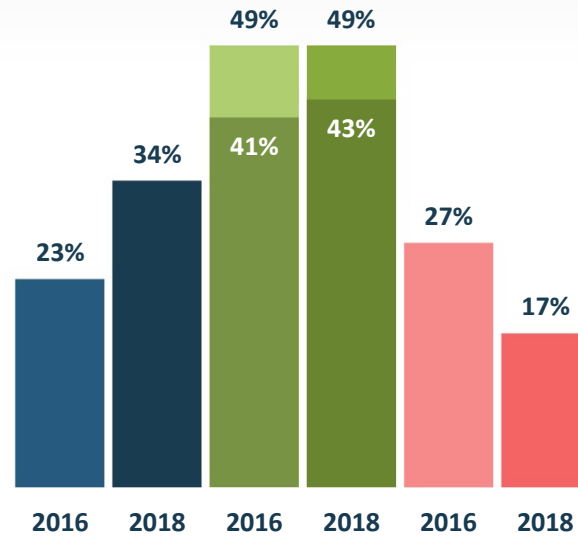
# Non-CBD campuses North



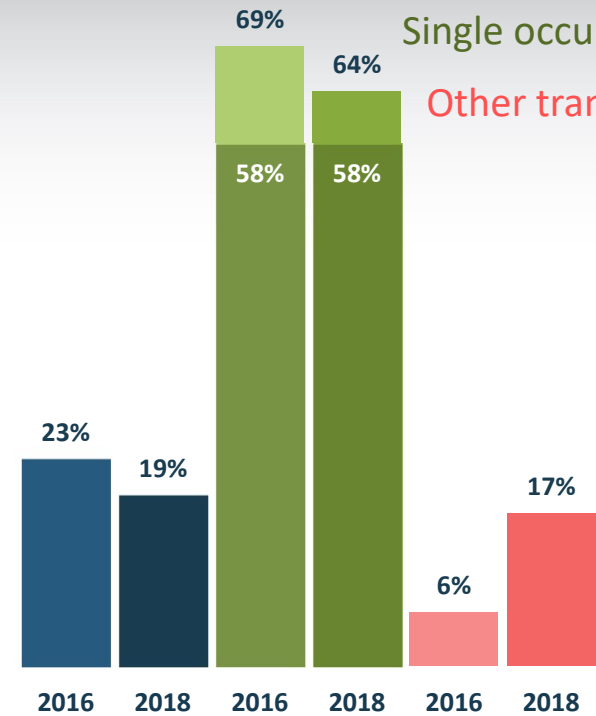
- Public transport
- Car transport
- Single occupancy
- Other transport



Unitec - Mt Albert



AUT - North  
Peak (7-9am)



Massey - Albany





# Public transport use



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# Types of public transport users



## Use PT as main mode

Those who use public buses, trains or ferries as their main mode of transport to campus



## Use PT regularly

Those who normally use public buses, trains or ferries to travel to/from campus



## Use PT occasionally

Those who use public transport sometimes to travel to/from campus or for other trips

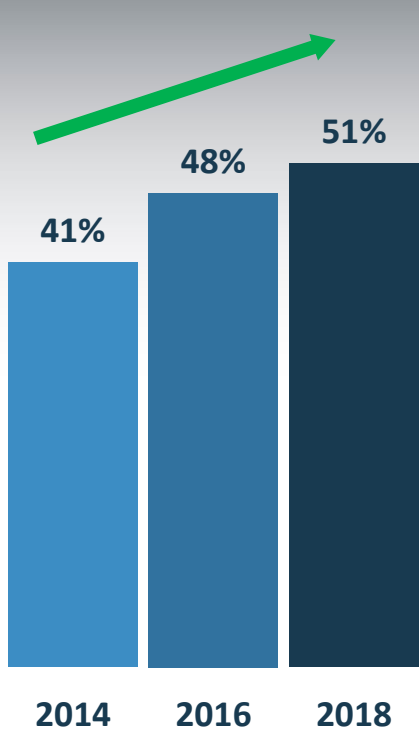


## Non-PT users

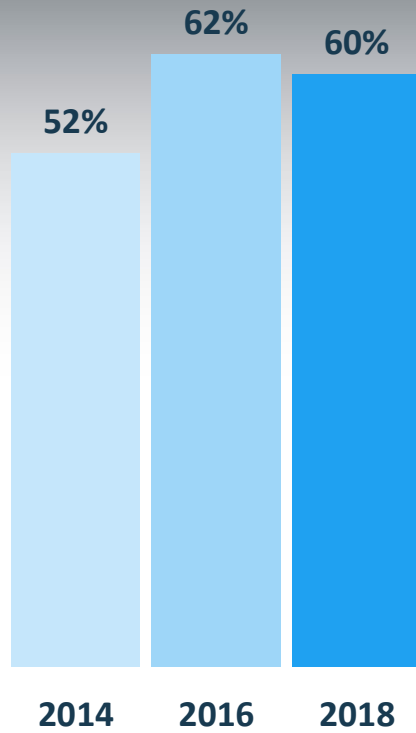
Those who do not use public transport for any travel

Note: fewer campuses were surveyed in 2014

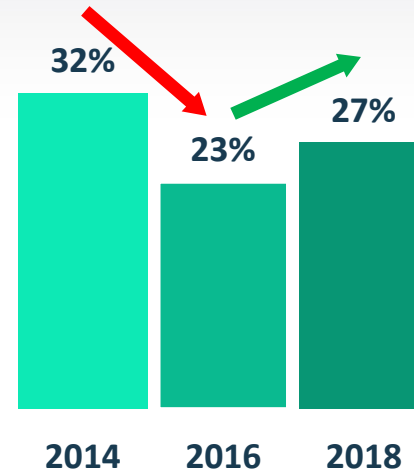
# PT as main mode has increased, movement between regular and occasional use



Use PT as main mode



Regular PT users

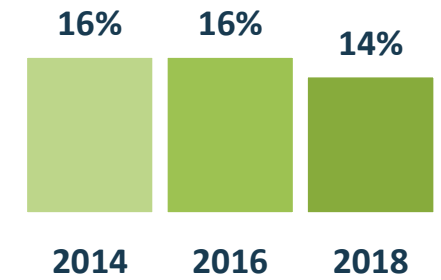


Occasional PT users



Total ever use PT:

84%	84%	86%
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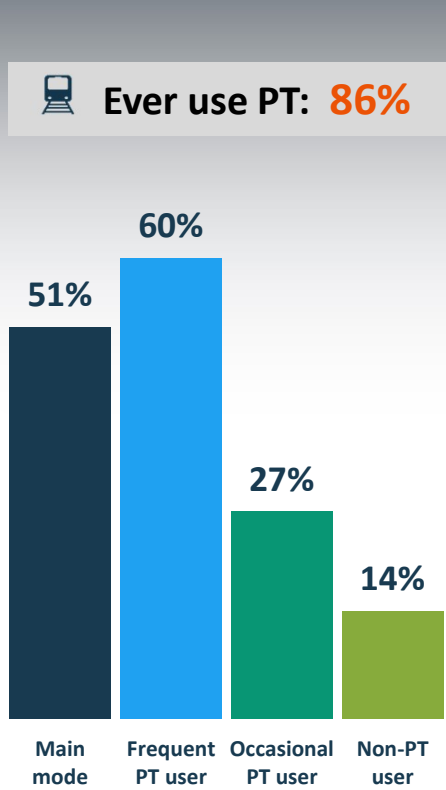
Non-PT users



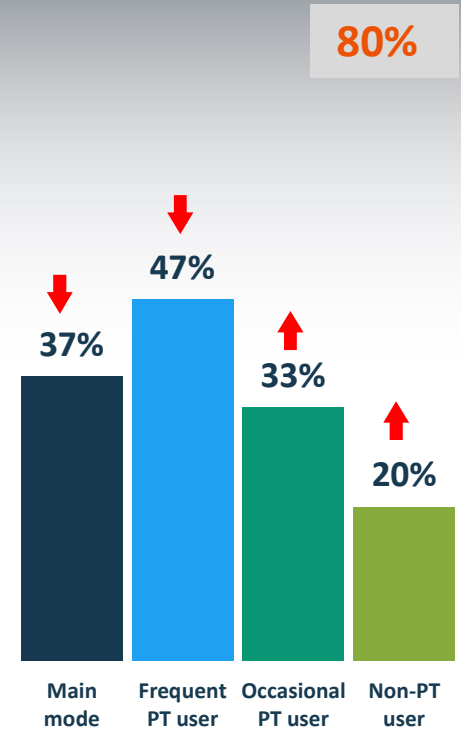
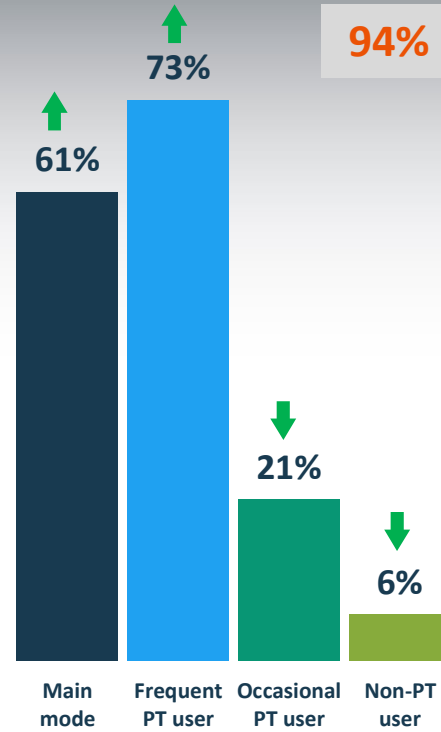
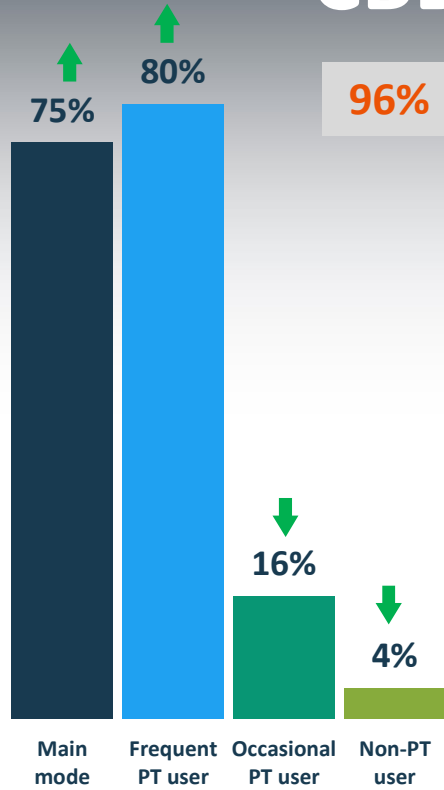
# Frequency of PT use declines with distance from CBD



Ever use PT: **86%**

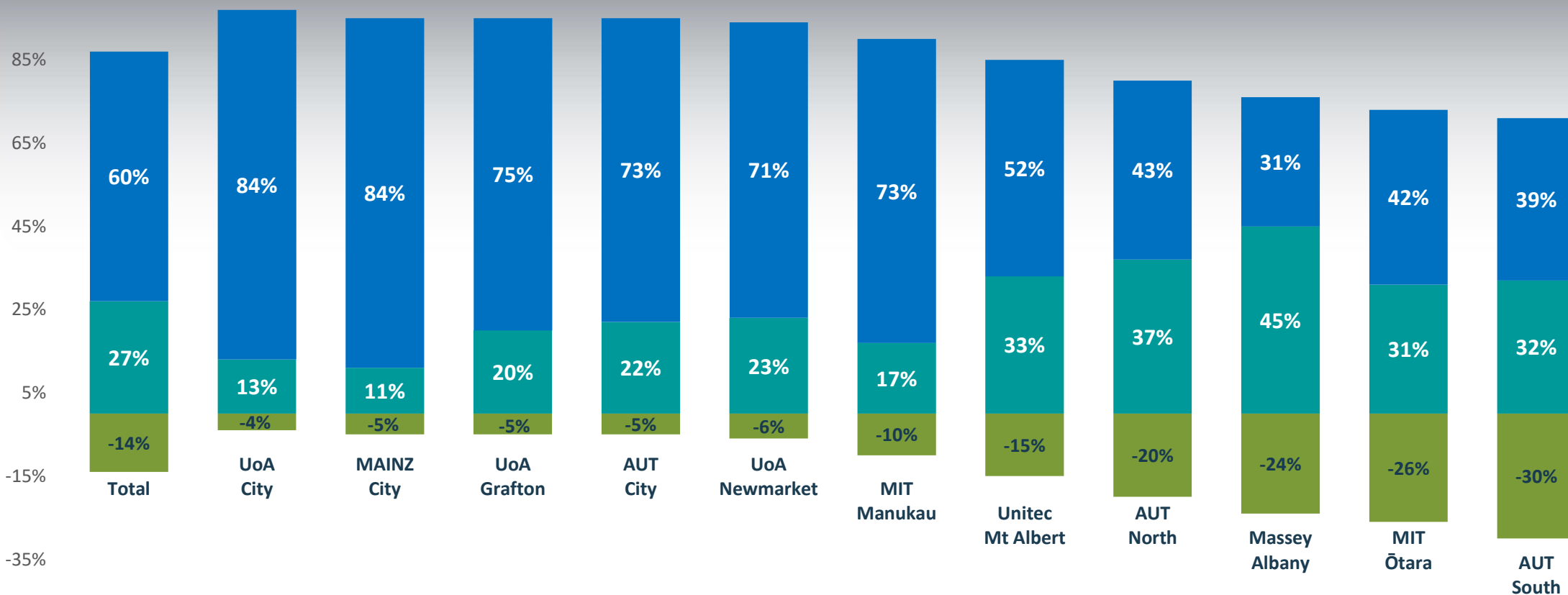


Total  
2018



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# Public transport user types – by campus



Non- PT user
Occasional PT user
Frequent PT user

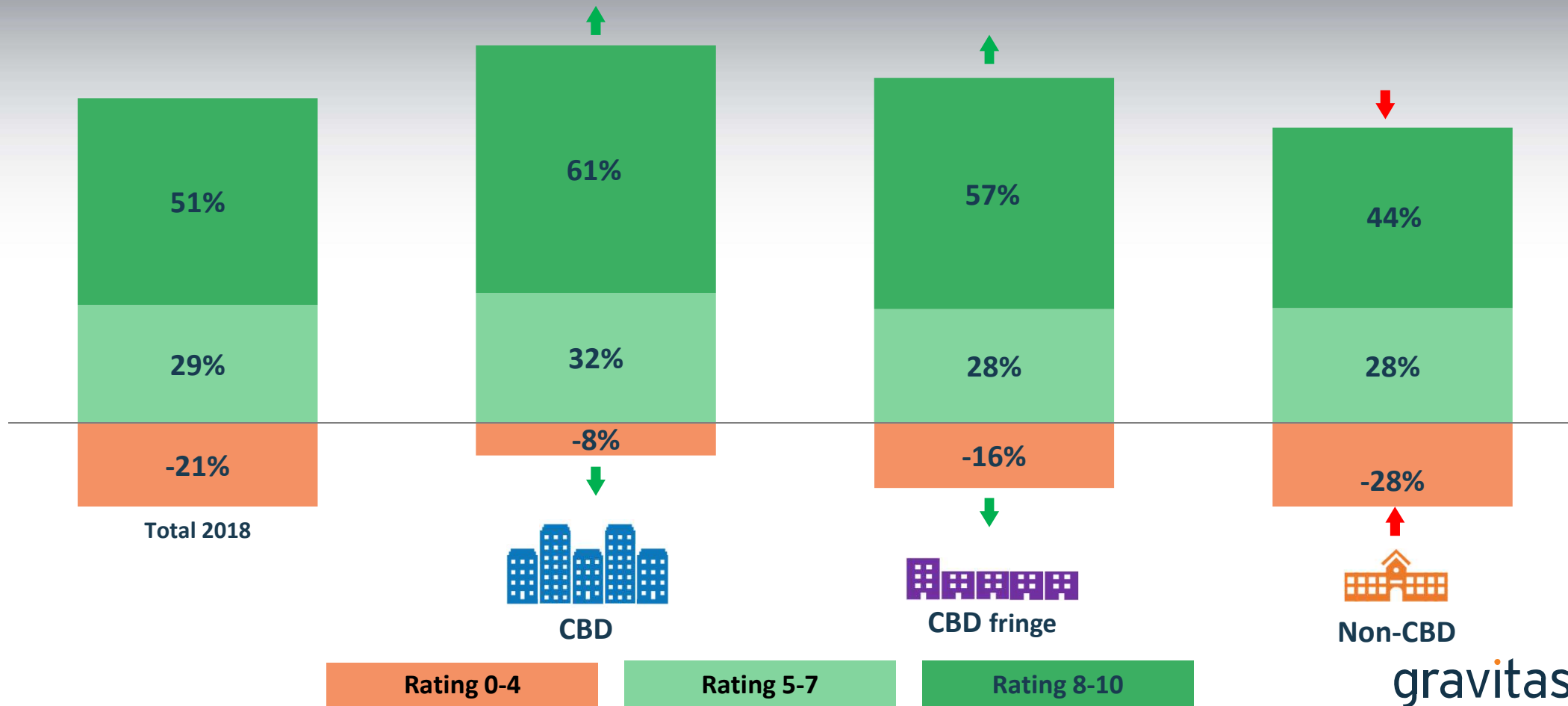


# Perceptions of public transport

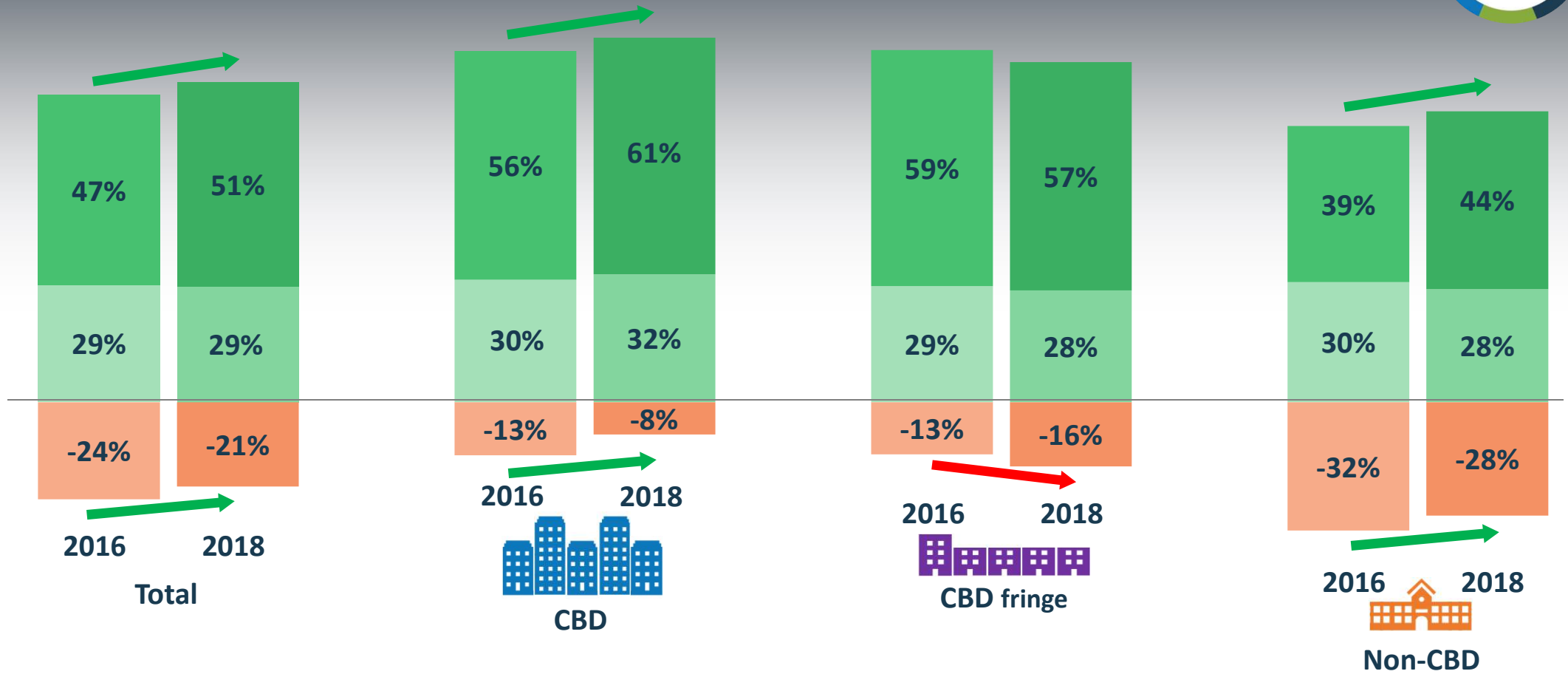


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# Ease of taking PT declines with distance from CBD

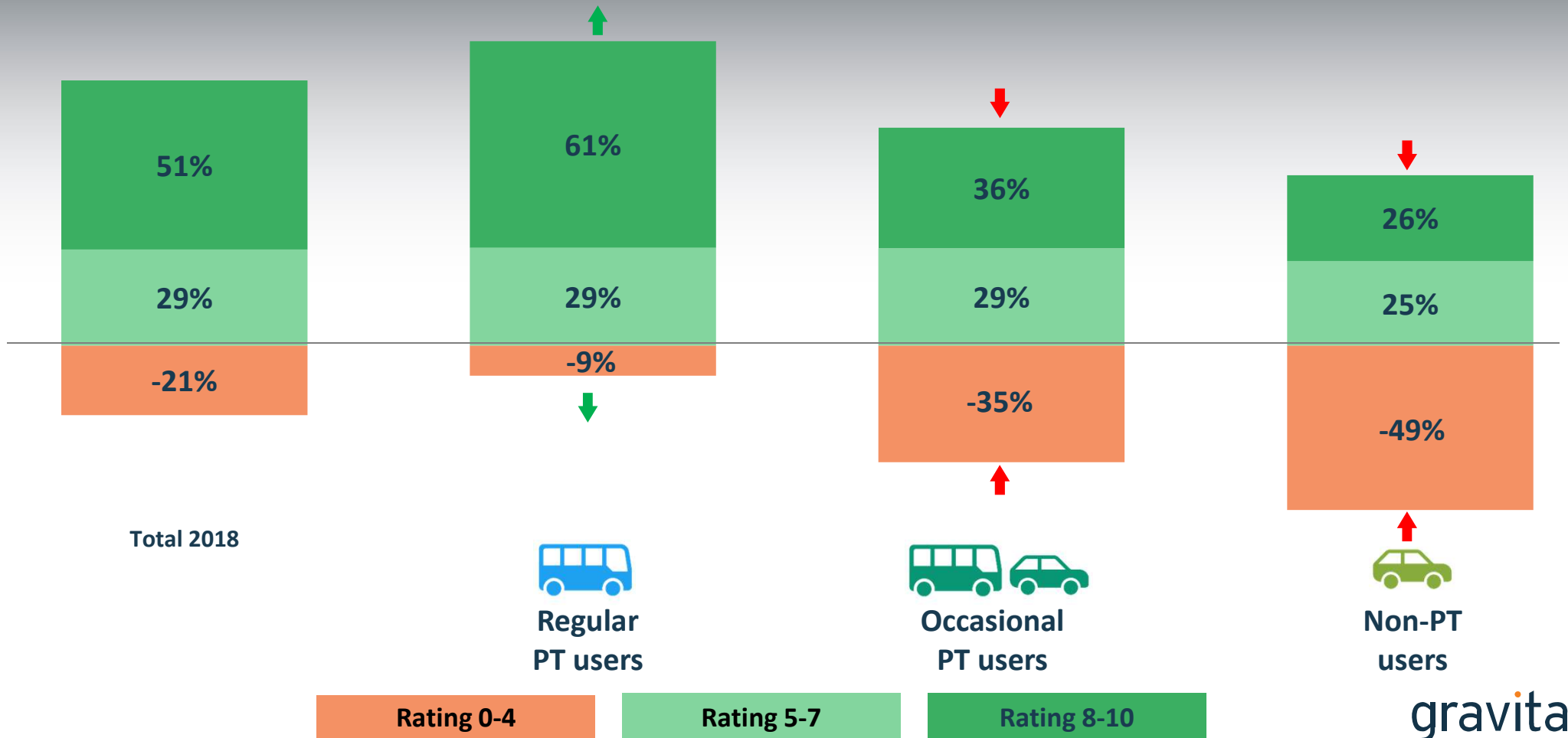


# Ease of taking PT improved since 2016 – except for fringe campuses





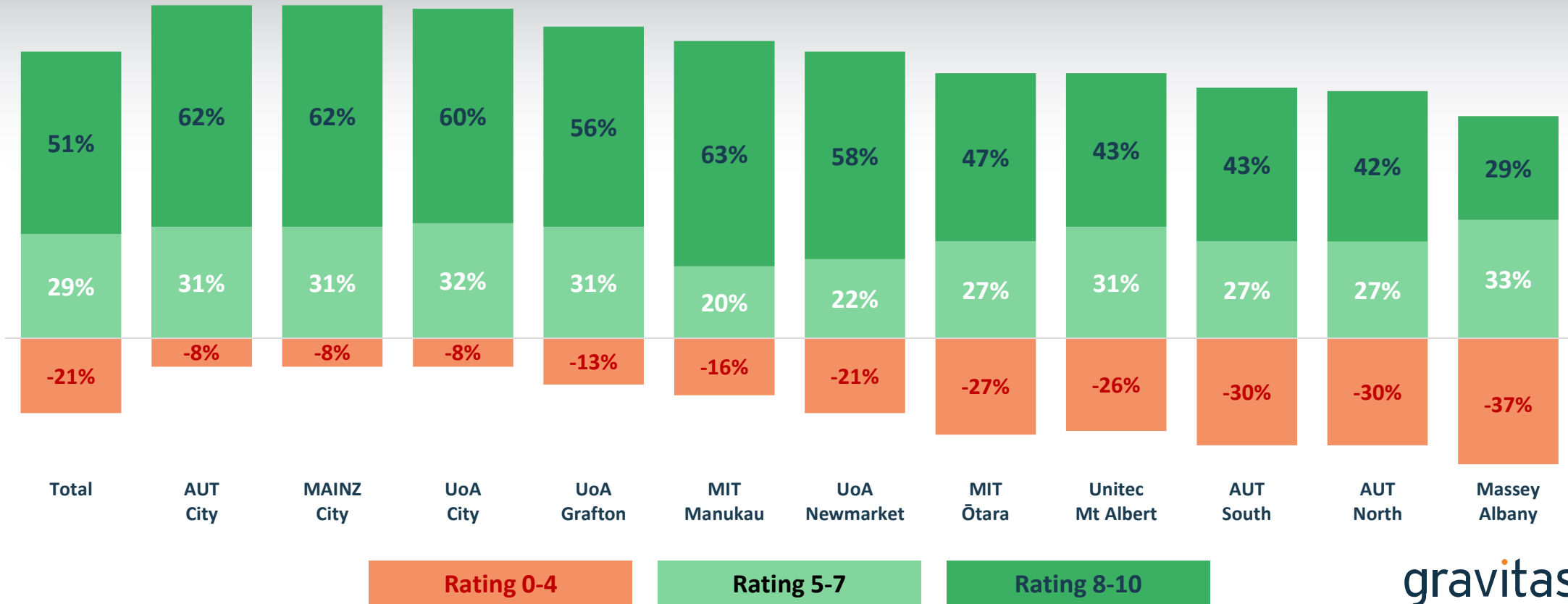
# Half of non-PT users think it would not be difficult to take PT to campus



# Ease of taking PT – By campus



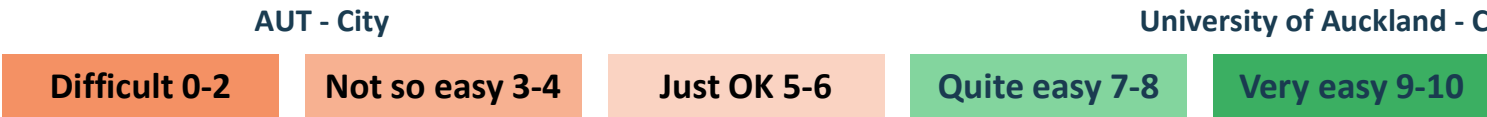
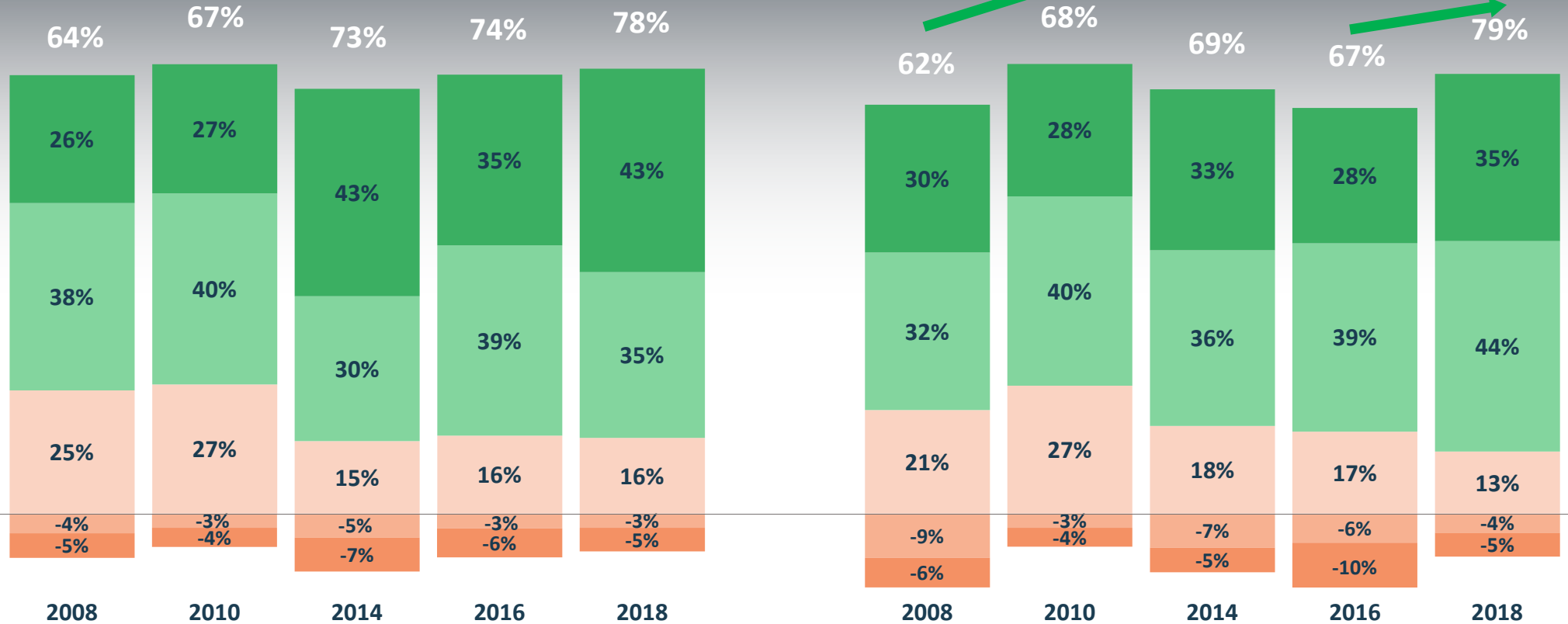
On a scale of zero to ten, where ten means strongly agree and zero means strongly disagree, how much do you agree or disagree with each of these statements:  
**It is easy for me to take public transport to this campus**



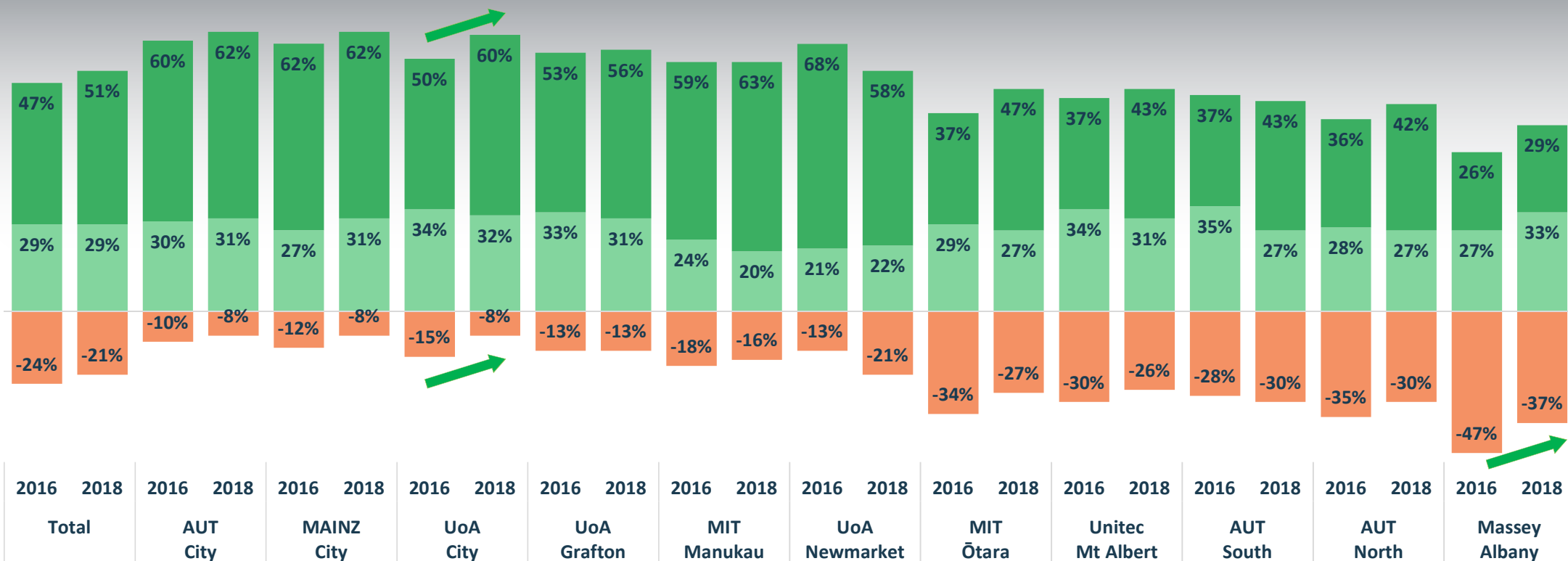
# Ease of taking PT – AUT/UoA City '08-'18



Total  
7-10



# Easier to use PT to UoA City and Massey since 2016

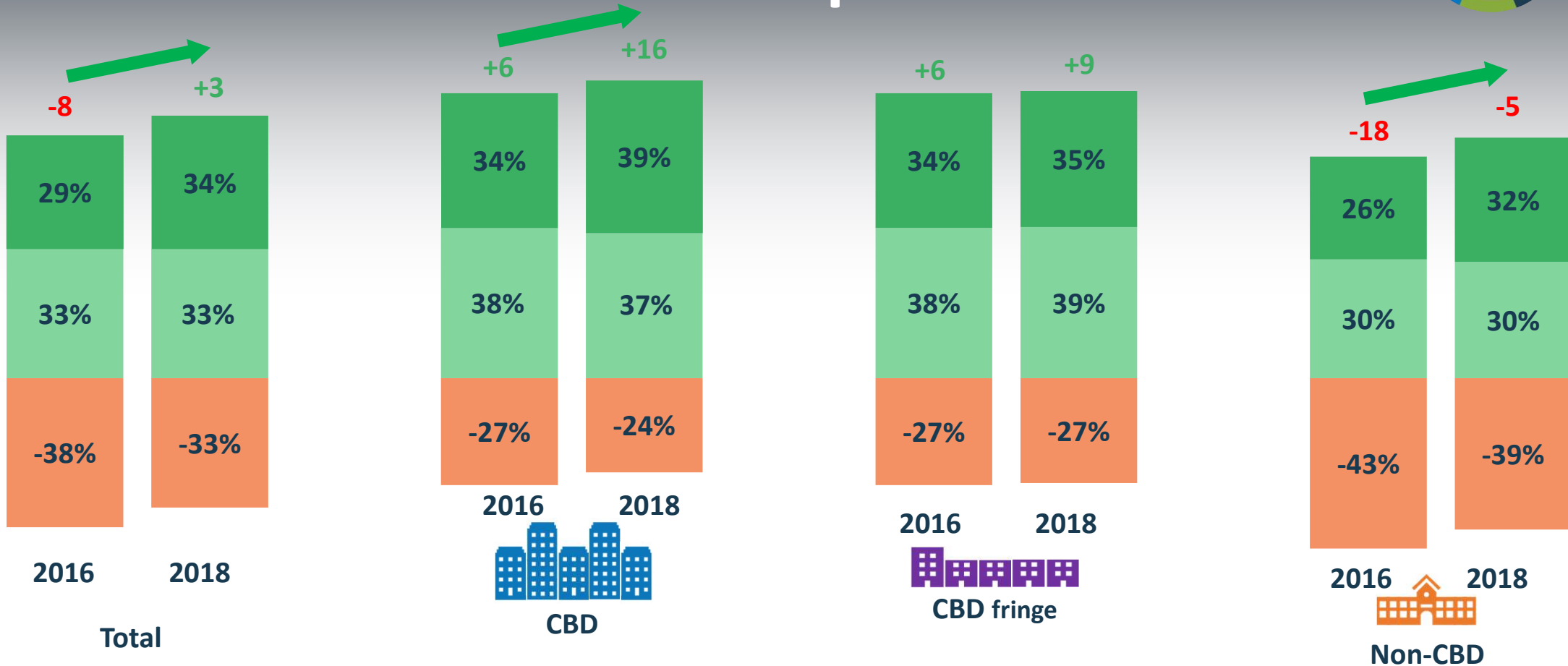


Rating 0-4

Rating 5-7

Rating 8-10

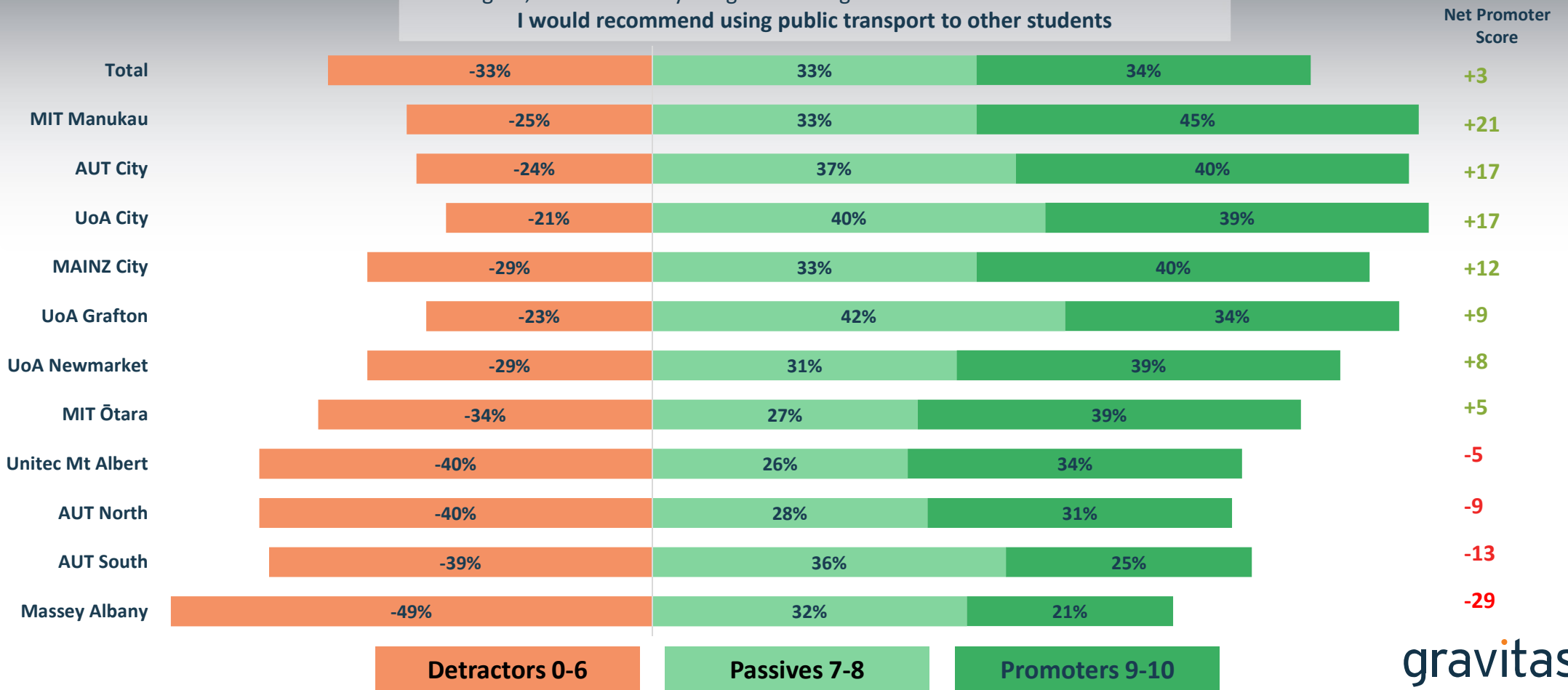
# NPS for PT improved overall and in CBD and Non-CBD campuses



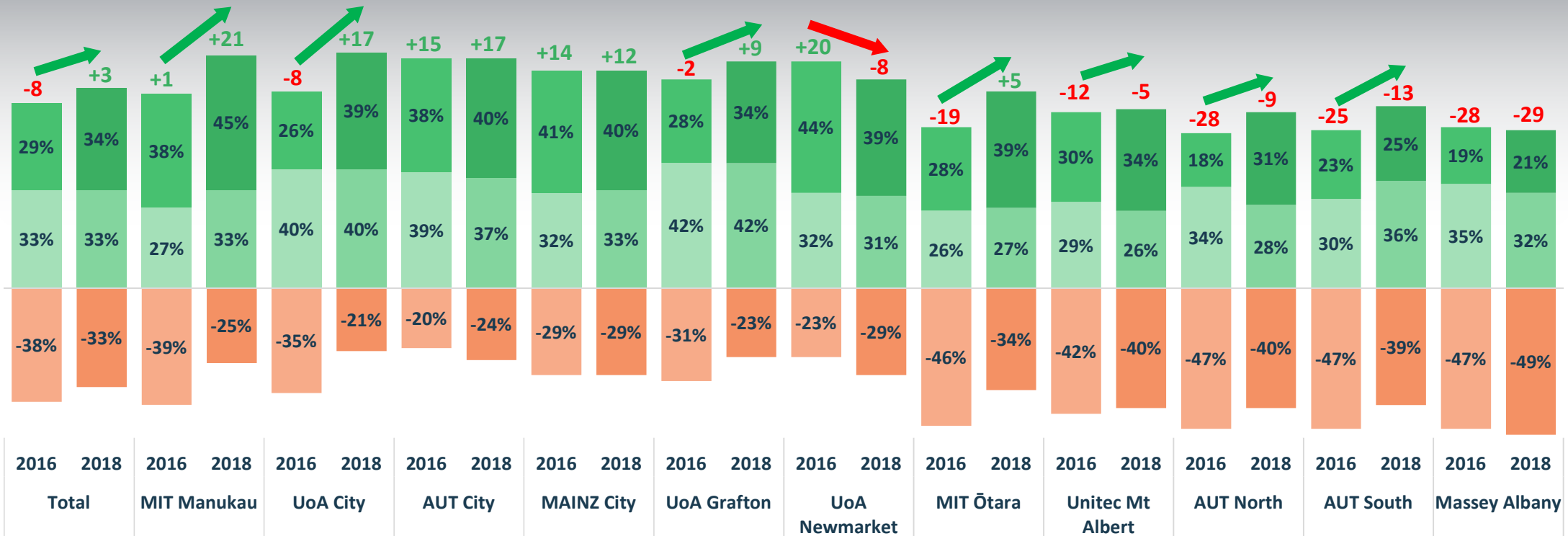
# NPS highest for city campuses and MIT



On a scale of zero to ten, where ten means strongly agree and zero means strongly disagree, how much do you agree or disagree with each of these statements:  
**I would recommend using public transport to other students**



# A number of NPS improvements evident

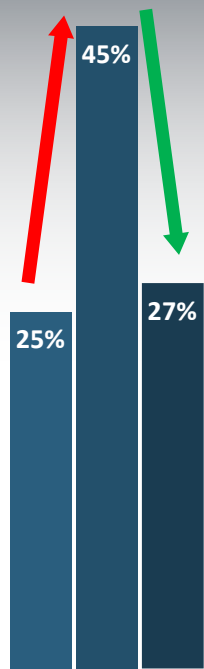


Detractors 0-6

Passives 7-8

Promoters 9-10

# Personal barriers to PT use have declined since 2016



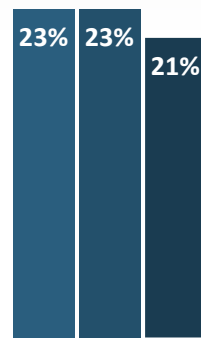
2014 2016 2018

Does not save money/not cheaper



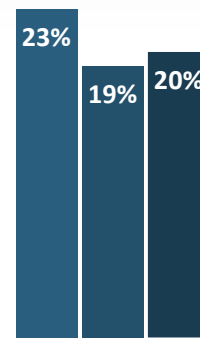
2014 2016 2018

Not frequent enough



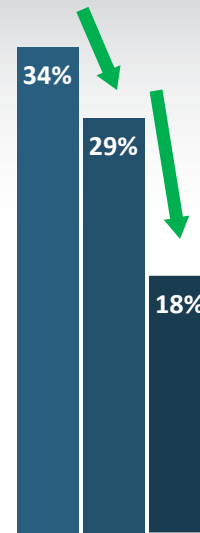
2014 2016 2018

Not direct enough



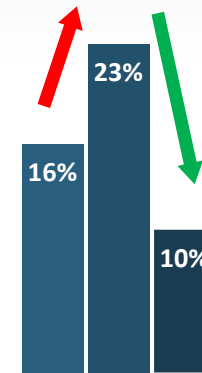
2014 2016 2018

Other options are faster



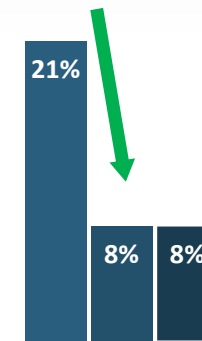
2014 2016 2018

PT Unreliable



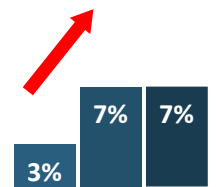
2014 2016 2018

PT overcrowded



2014 2016 2018

PT is not available/unrealistic



2014 2016 2018

Not enough stops/too far from home/campus



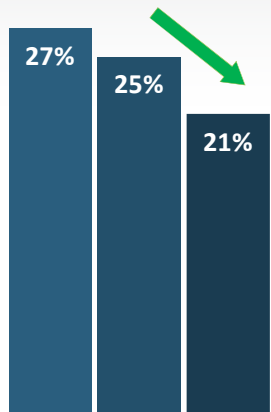
# Differences evident by campus



What would make it easier and more convenient?	Total 2018 (n=2,157)	Campus										
		AUT City (n=214)	AUT South (n=158)	AUT North (n=213)	UoA City (n=232)	UoA N'mkt (n=143)	UoA Grafton (n=236)	Massey Albany (n=227)	MIT M'kau (n=190)	MIT Ōtara (n=208)	MAINZ City (n=105)	Unitec Mt Albert (n=231)
More frequent services	<b>21%</b>	22%	10%	20%	28%	24%	31%	23%	18%	13%	12%	20%
More direct routes (shorter trips)	<b>11%</b>	8%	16%	23%	4%	10%	9%	14%	7%	11%	6%	10%
On time/reliable	<b>9%</b>	7%	6%	4%	12%	13%	11%	12%	7%	5%	8%	9%
Cheaper	<b>8%</b>	7%	10%	7%	9%	4%	12%	5%	4%	6%	12%	10%
Stops closer to home/campus	<b>8%</b>	7%	13%	10%	5%	5%	7%	10%	2%	6%	10%	10%
Increase/improve network in general	<b>5%</b>	3%	1%	7%	7%	4%	5%	4%	7%	5%	7%	7%

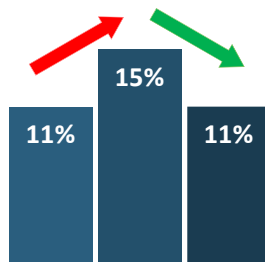


# Improvements suggested for PT also improving (reducing)



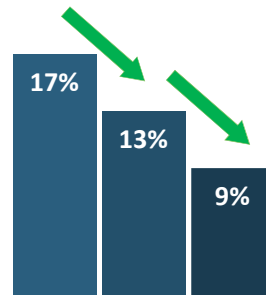
2014 2016 2018

More frequent services



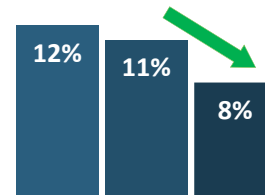
2014 2016 2018

More direct routes (shorter trips)



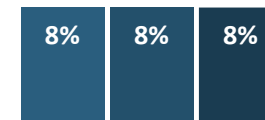
2014 2016 2018

On time/reliable



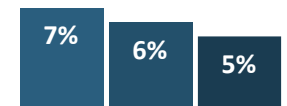
2014 2016 2018

Cheaper



2014 2016 2018

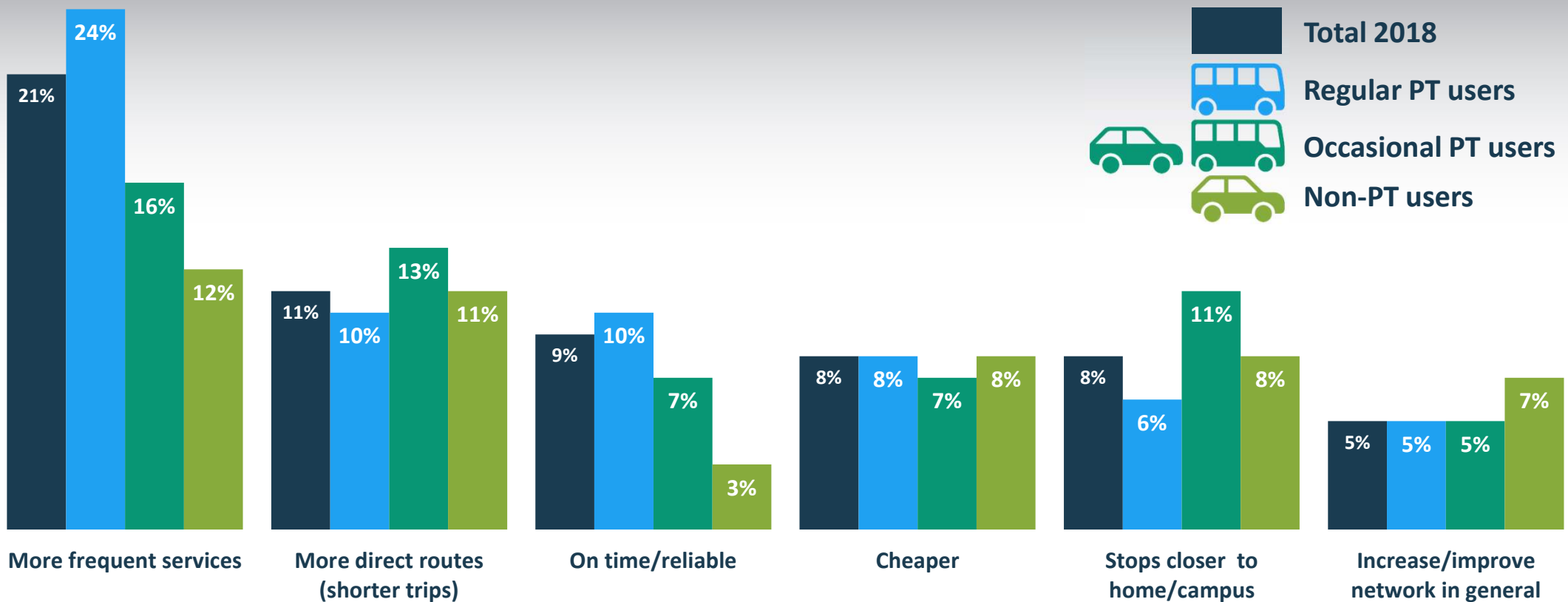
Stops closer to home/campus



2014 2016 2018

Increase/improve network in general

# Improved frequency is main suggestion; occasionals want more direct routes and more convenient stops





# Walking and Cycling



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# Walking, or cycling potential has increased slightly



SOC drivers have significantly less potential to walk/cycle. But around 1 in 5 could.

Do you live close enough to be able to walk or cycle to and from this campus?	All Students 2016	All Students 2018
I could walk	19%	22%↑
I could cycle	13%	16%↑
Could walk or cycle (net)	26%	28%
Neither	74%	72%

Drive Car Alone (SOC) Mainly 2018
10% ↓
13%
18% ↓
82% ↑

# Walking and cycling potential by campus



Close enough to walk or cycle to/from this campus?	All Students 2018	Campus										
		AUT City (n=214)	AUT South (n=158)	AUT North (n=213)	UoA City (n=232)	UoA N'mkt (n=143)	UoA Grft'n (n=236)	Massey Albany (n=227)	MIT M'kau (n=190)	MIT Ōtara (n=208)	MAINZ City (n=105)	Unitec Mt Albert (n=231)
I could walk	22%	22%	19%	14%	23%	38%	27%	24%	16%	15%	18%	21%
I could cycle	16%	6%	17%	12%	16%	35%	19%	15%	13%	9%	13%	20%
Could walk or cycle (net)	28%	22%	27%	21%	29%	55%	34%	28%	22%	19%	23%	31%
No, neither	72%	78%	73%	79%	71%	45%	66%	72%	78%	81%	77%	69%
<b>Current Behaviour:</b>												
Commonly walk	17%	18%	8%	11%	23%	32%	34%	15%	3%	5%	23%	15%
Commonly cycle	3%	1%	-	2%	3%	11%	4%	3%	2%	1%	1%	2%
<b>Conversion:</b>												
Difference could to actual - walk	-5	-4	-11	-3	-	-6	+7	-9	-13	-10	+5	-6
Actual/Could - cycle	19%	17%	0%	17%	19%	31%	21%	20%	15%	11%	8%	10%

# Suggestions for walking/cycling focus on central cycle lanes



What would make it easier and more convenient to <b>walk</b> to/from this Campus?	Total 2016	Total 2018
More protection from weather	1%	5%↑
More pedestrian crossings/over bridge	3%	4%
More pedestrian friendly streets	1%	2%
No hills	2%	2%
Better lighting	5%	2%↓
Shortcut/direct path	2%	2%
<b>Don't know</b>	2%	9%↑
<b>No suggestions</b>	68%	68%

What would make it easier and more convenient to <b>cycle</b> to/from this Campus?	Total 2016	Total 2018
<b>Bigger/better/more cycle lanes</b>	34%	34%
Having a bike	10%	8%
Safer/less traffic	11%	8%
More/better bike parks/racks and security	8%	5%
Less hills	3%	4%
Better route	1%	3%
<b>Would never cycle to this campus</b>	3%	4%
<b>No suggestions</b>	36%	29%

*Low suggestion levels for easing walking suggest constraints may be motivation rather than tangible barriers*

UoA Grafton, Massey  
Albany both 6%

UoA N'mkt 54%, UoA  
Grafton 47%

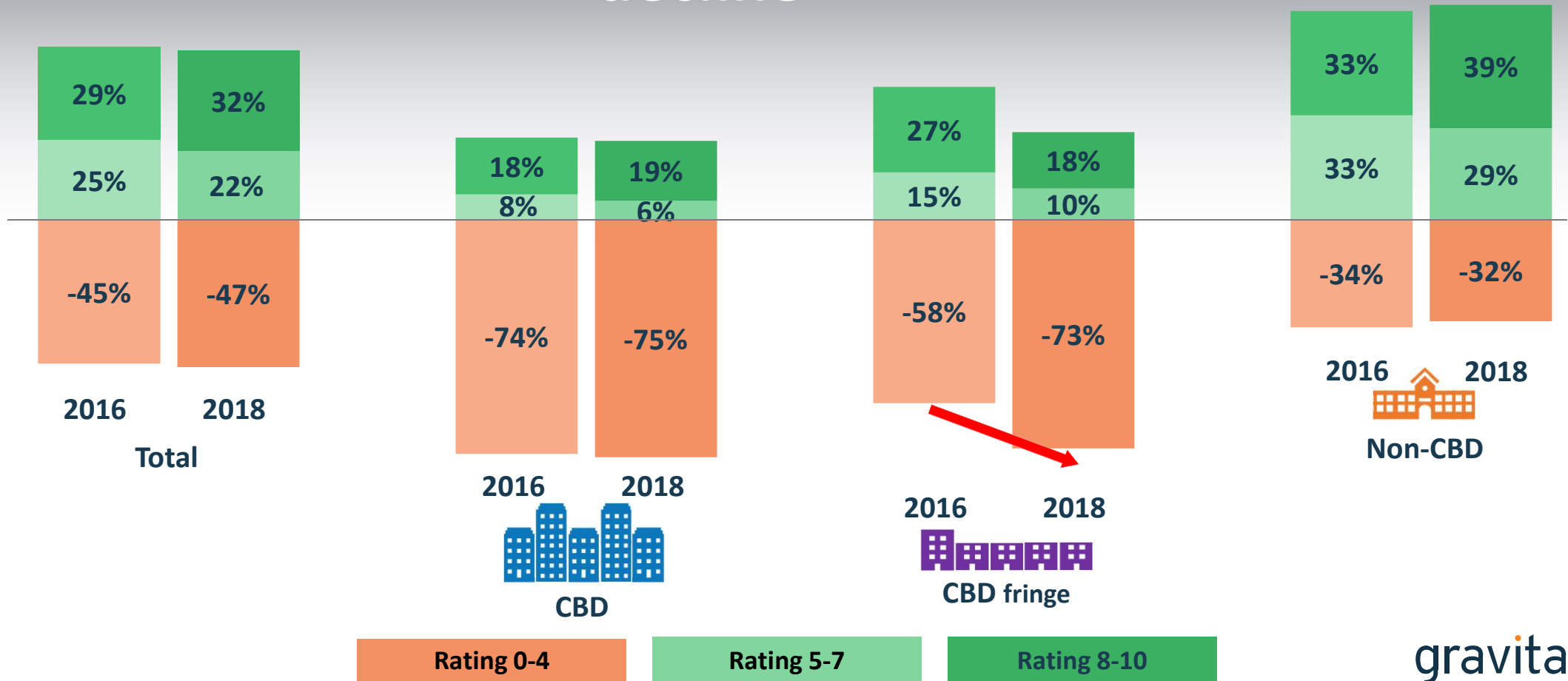


# Perceptions of parking

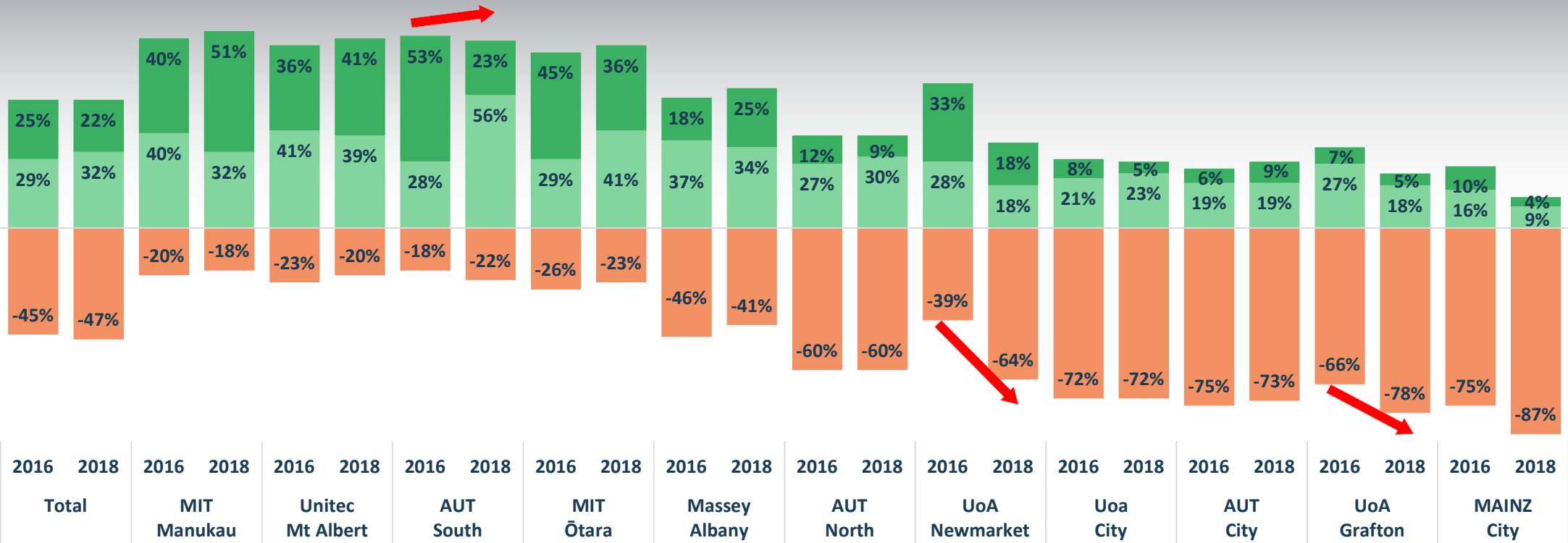




# Parking much easier at non-CBD campuses and not worsening, Grafton/N'Mkt campuses show decline



# Grafton and Newmarket show biggest declines in ease of parking

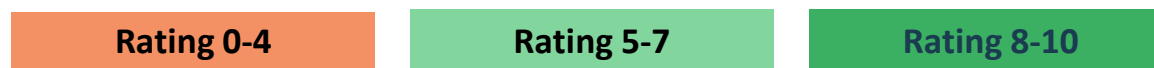
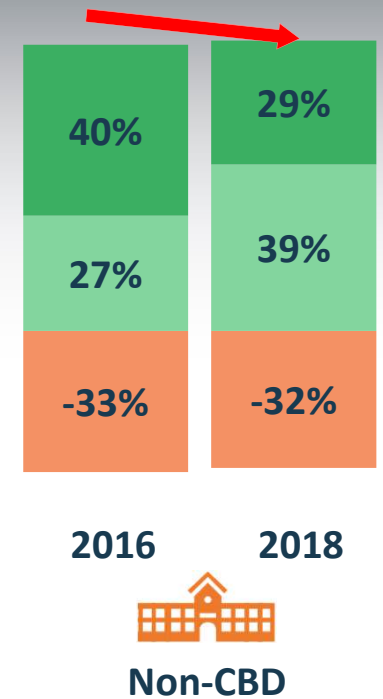
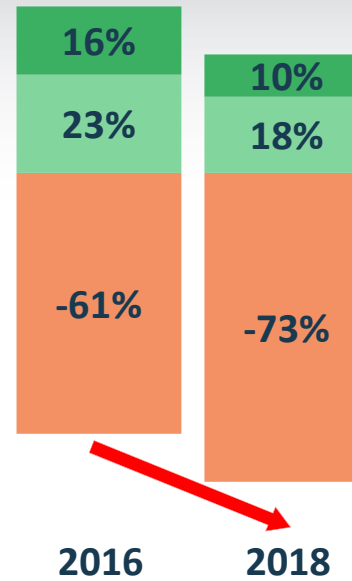
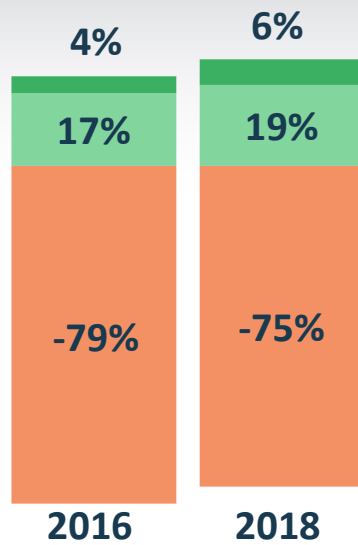
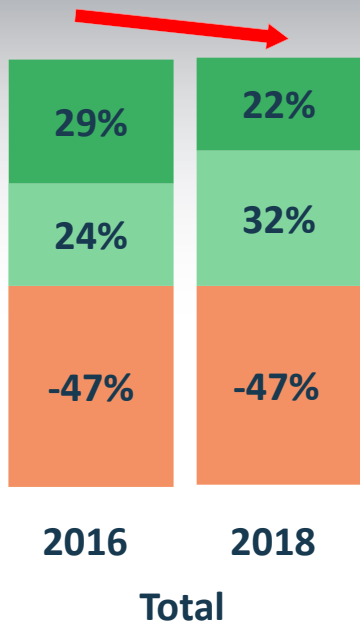


Rating 0-4

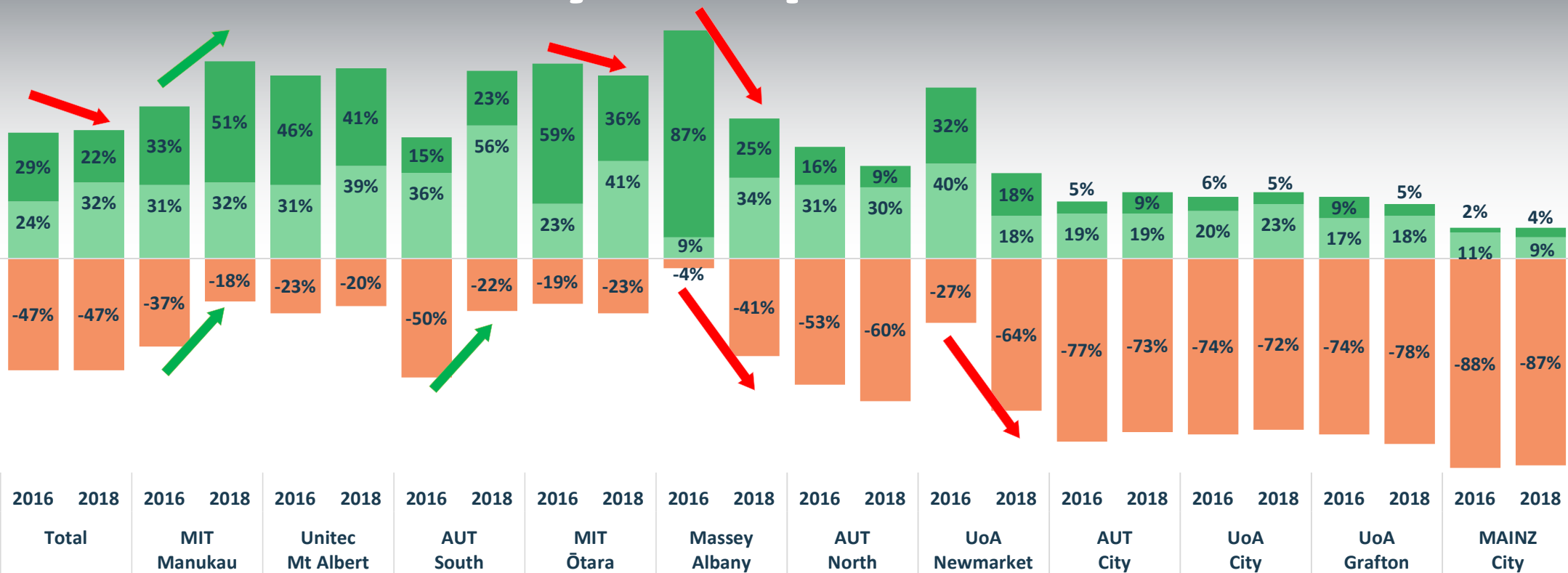
Rating 5-7

Rating 8-10

# Parking charges most reasonable in non-CBD campuses



# Parking charges are reasonable – by campus



Rating 0-4

Rating 5-7

Rating 8-10



# Drive Alone in Car (SOC)

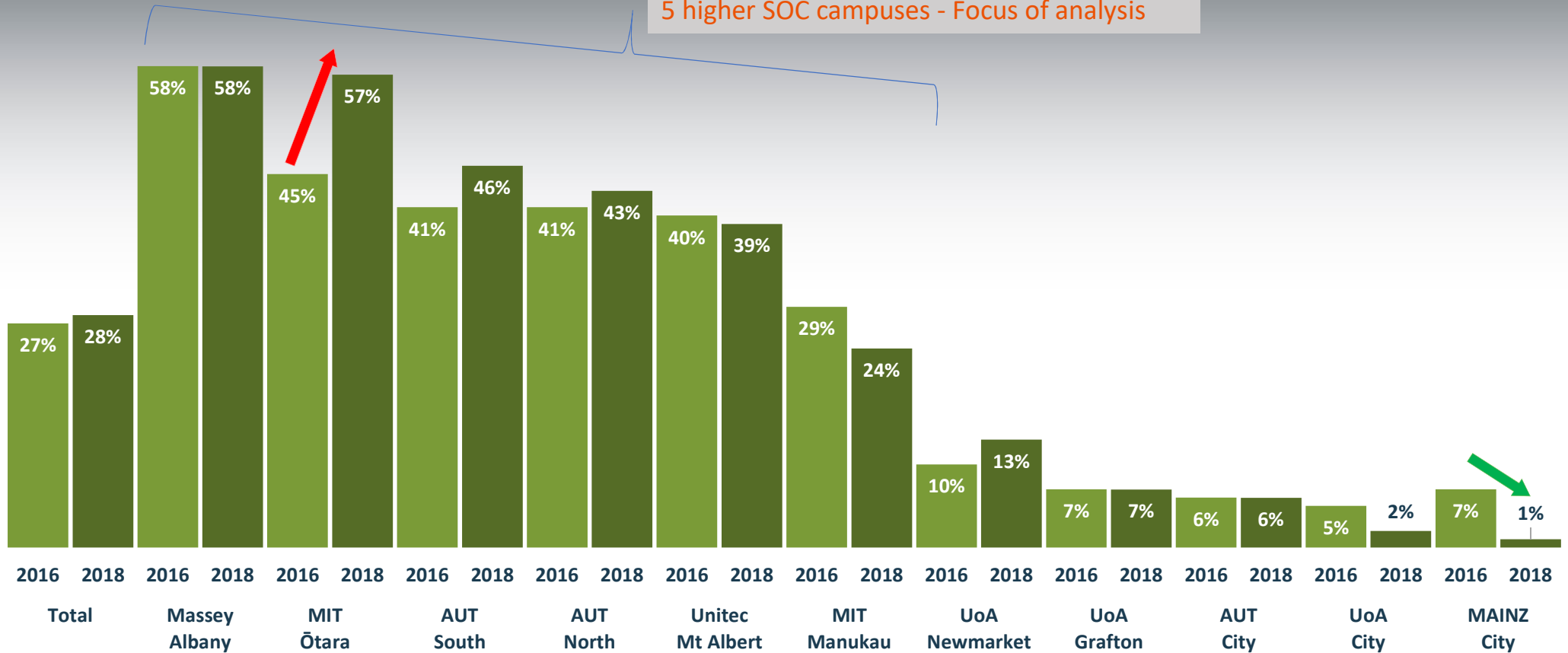


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# Single occupancy drivers – by campus

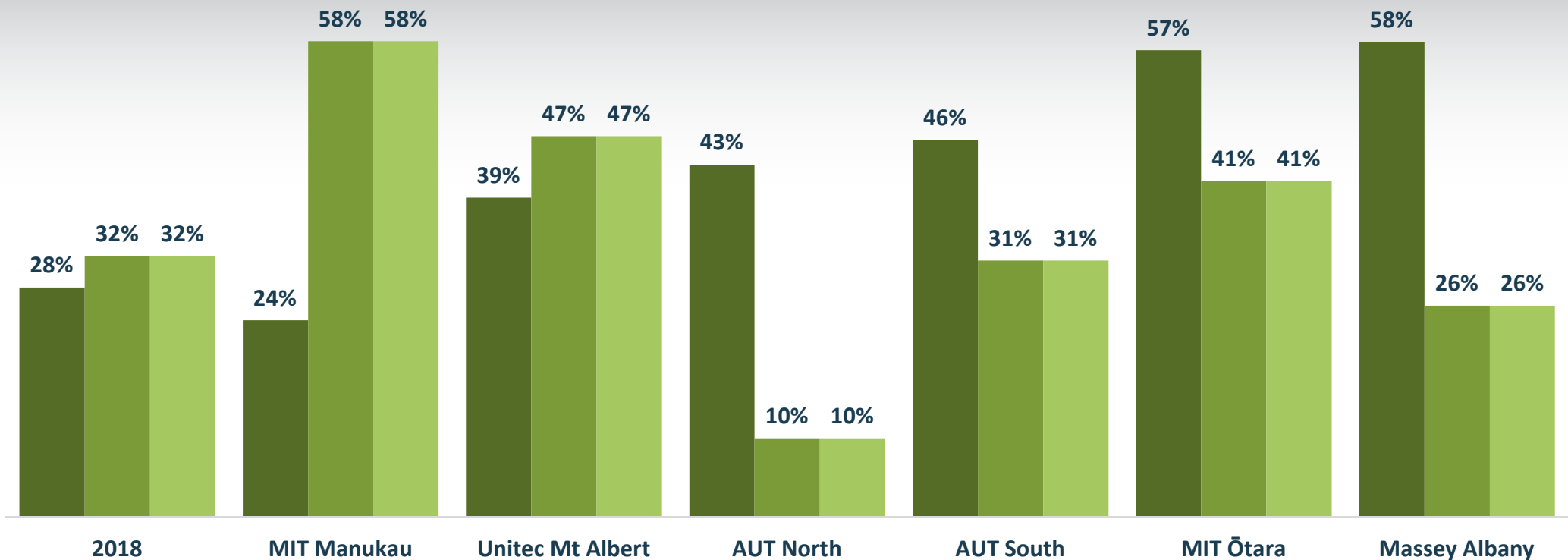


5 higher SOC campuses - Focus of analysis





# Ease/cost of parking doesn't necessarily drive SOC use



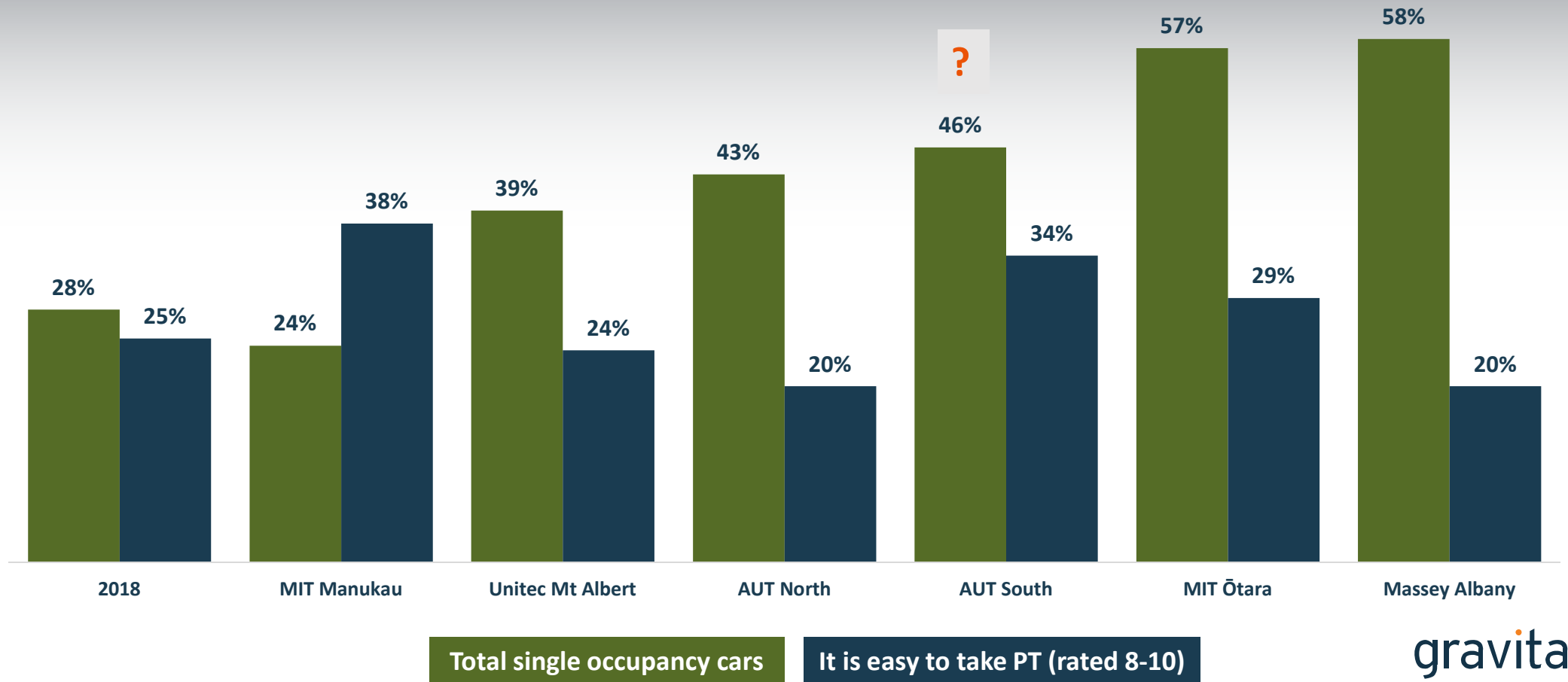
Total single occupancy cars

It is easy to find parking (rated 8-10)

Parking charges are reasonable (rated 8-10)

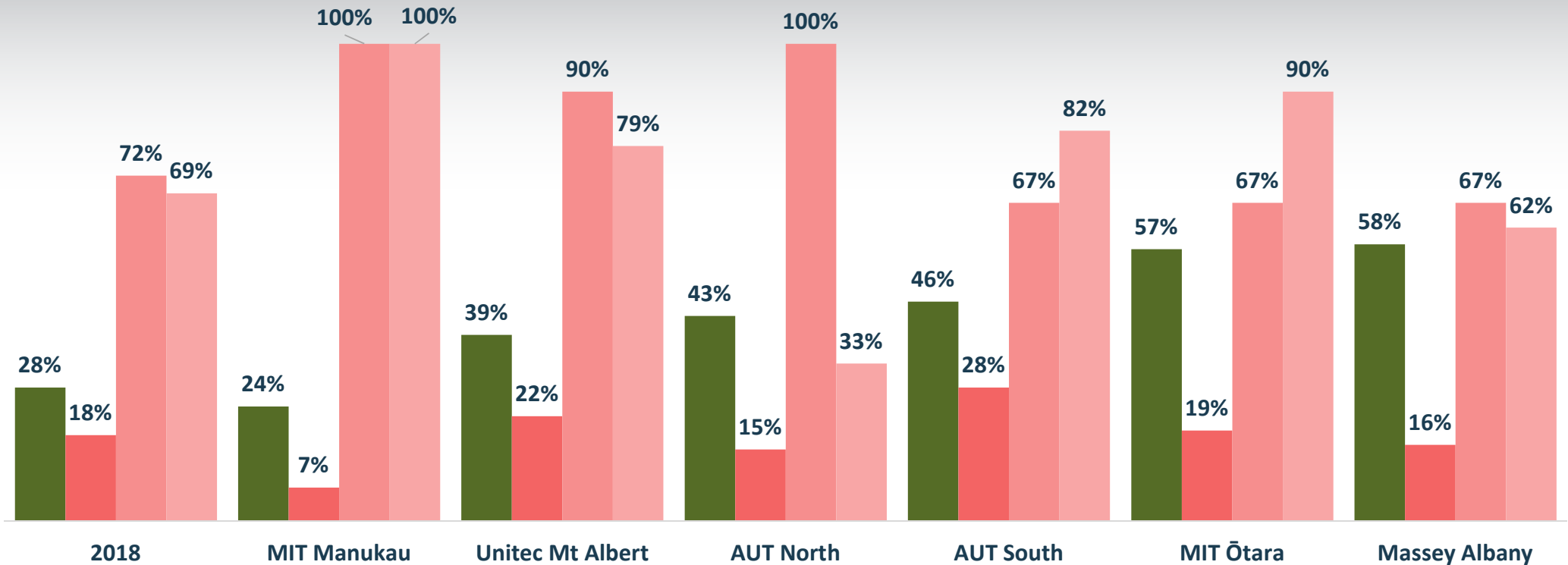
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# SOC level doesn't always match perceived ease of using PT





# Ease of walking/cycling not strongly correlated with SOC use



Total single occupancy cars

Live close enough to walk/cycle

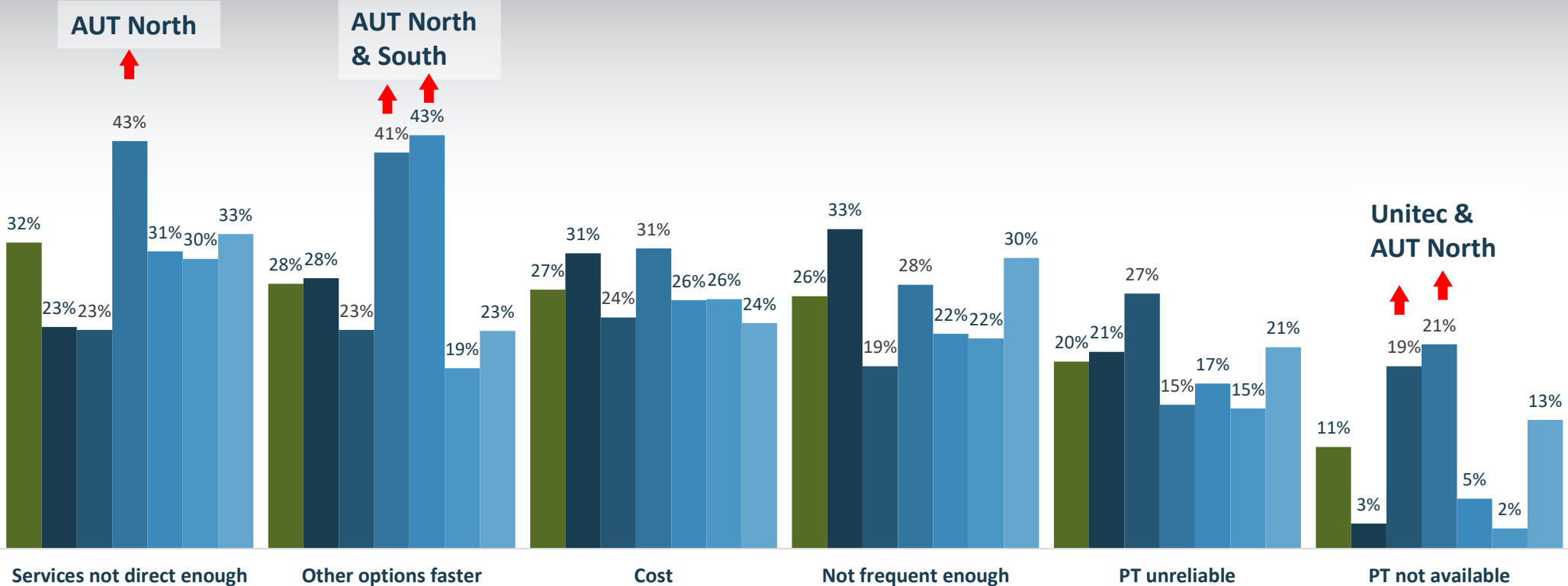
Easy to walk (rated 6-10)

Easy to cycle (rated 6-10)

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# Barriers to PT for single occupancy cars



Total single occupancy cars

MIT Manukau

Unitec

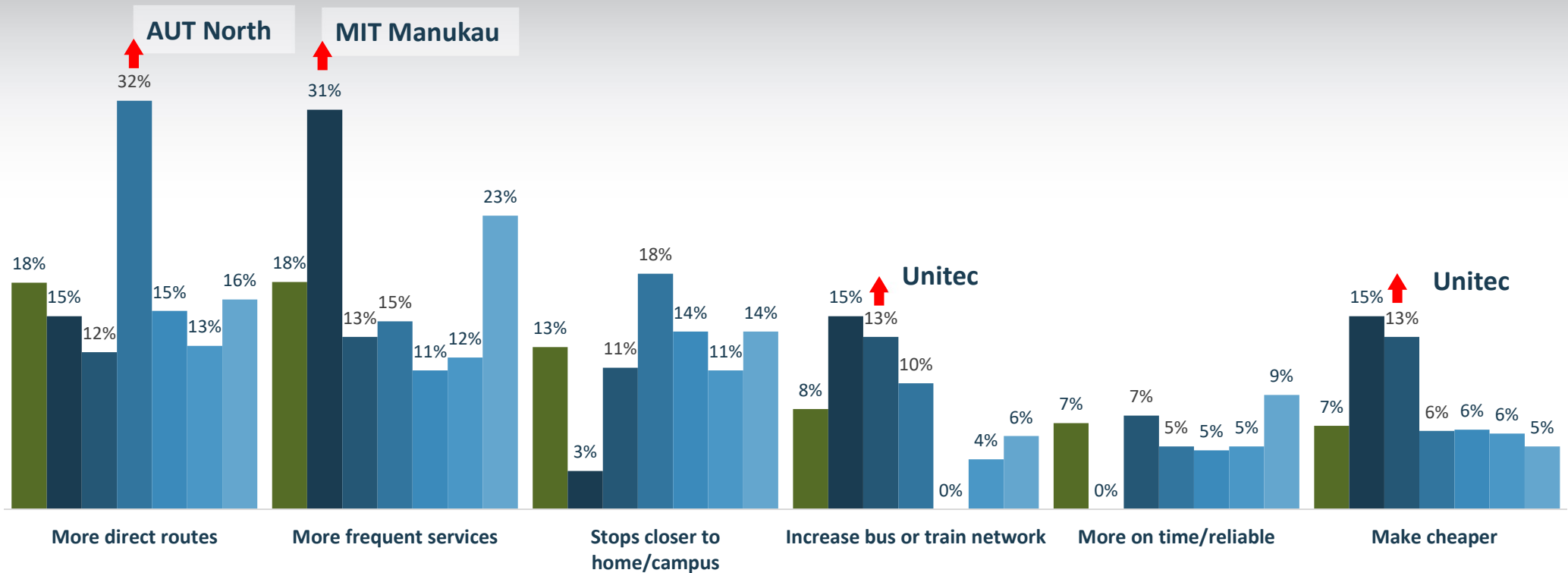
AUT North

AUT South

MIT Ōtara

Massey

# Improvements to PT for single occupancy cars



Total single occupancy cars | MIT Manukau | Unitec | AUT North | AUT South | MIT Ōtara | Massey

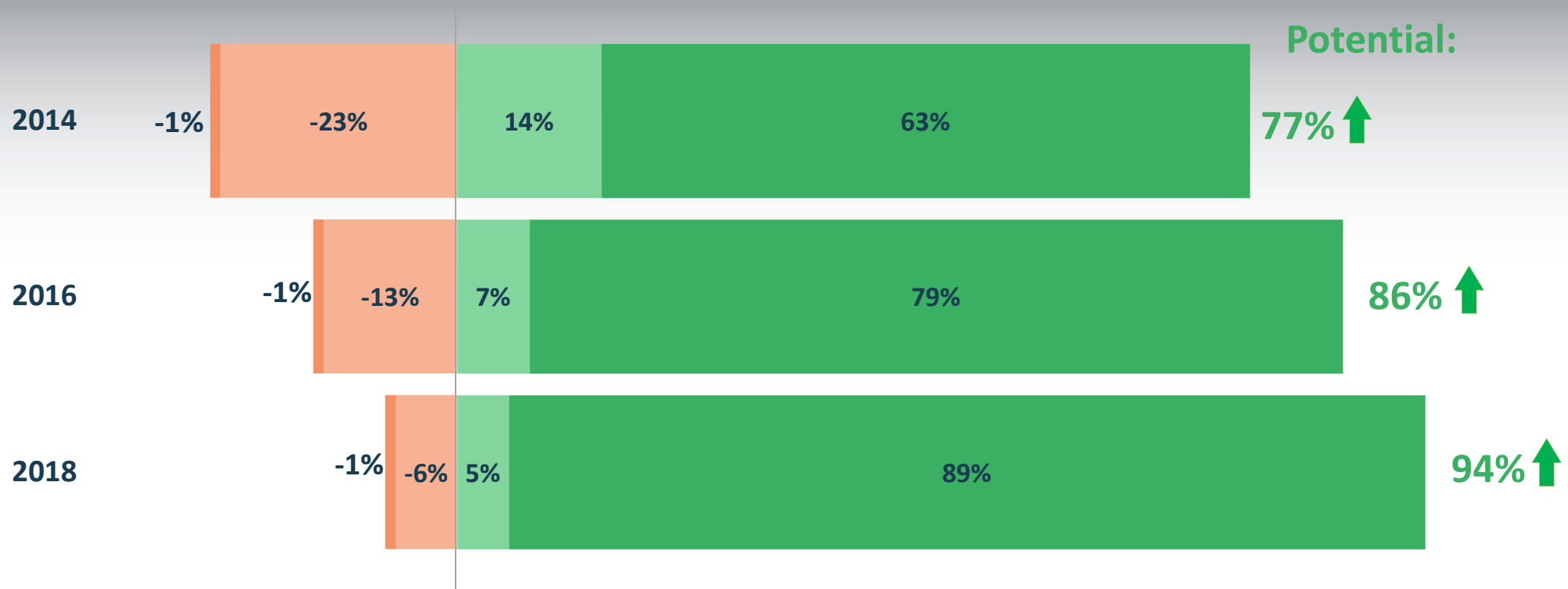


# Tertiary student concession



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# HOP card ownership grown substantially over time



Total potential

Do not know what this card is

No and do not intend to get one

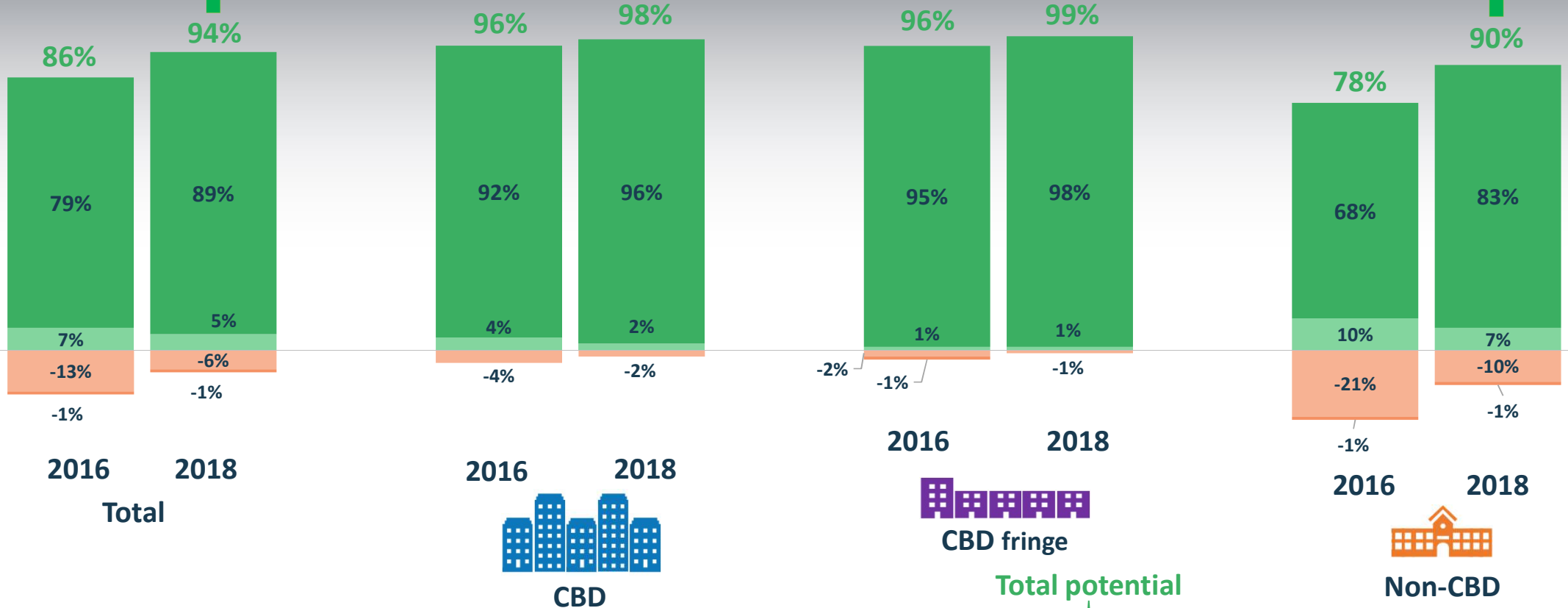
No, but intend to get one

Yes

# Non CBD campuses show strong growth



Potential:

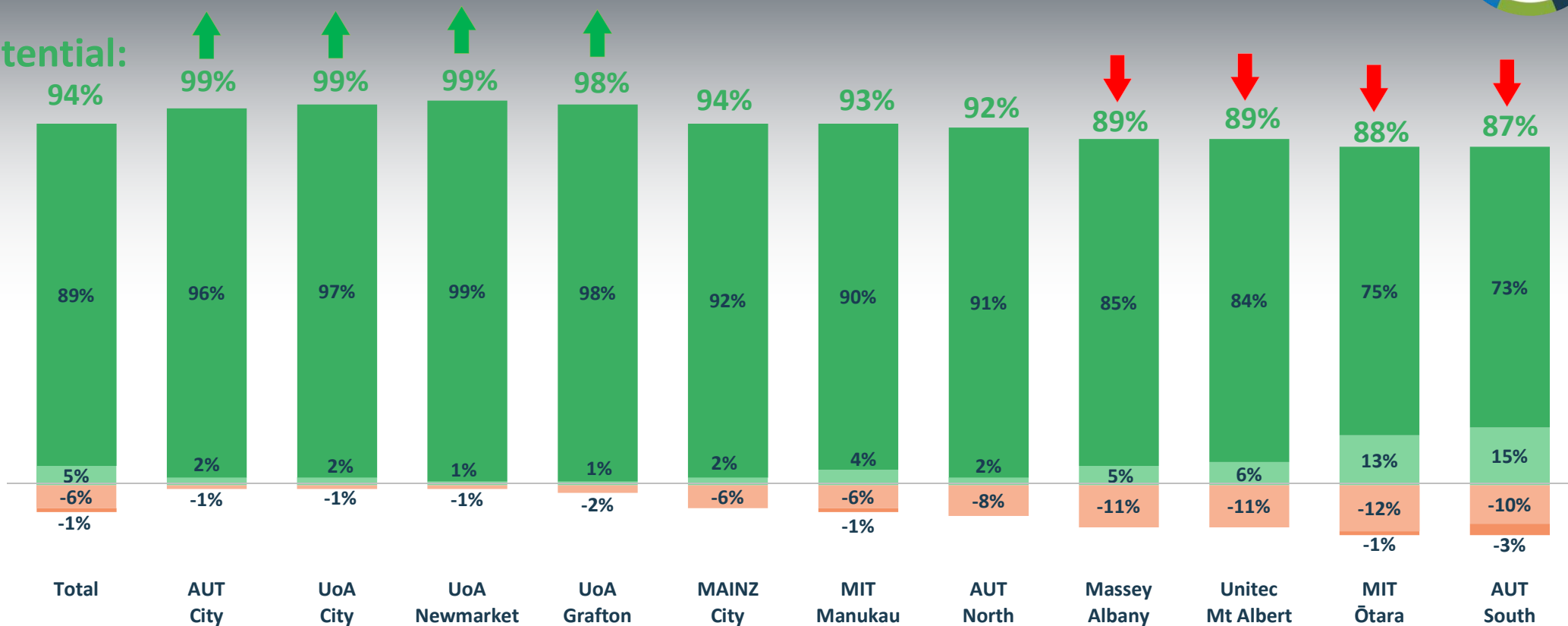


Do not know what this card is    No and do not intend to get one    No, but intend to get one    Yes

# HOP Card ownership – by campus



Potential:



Total potential

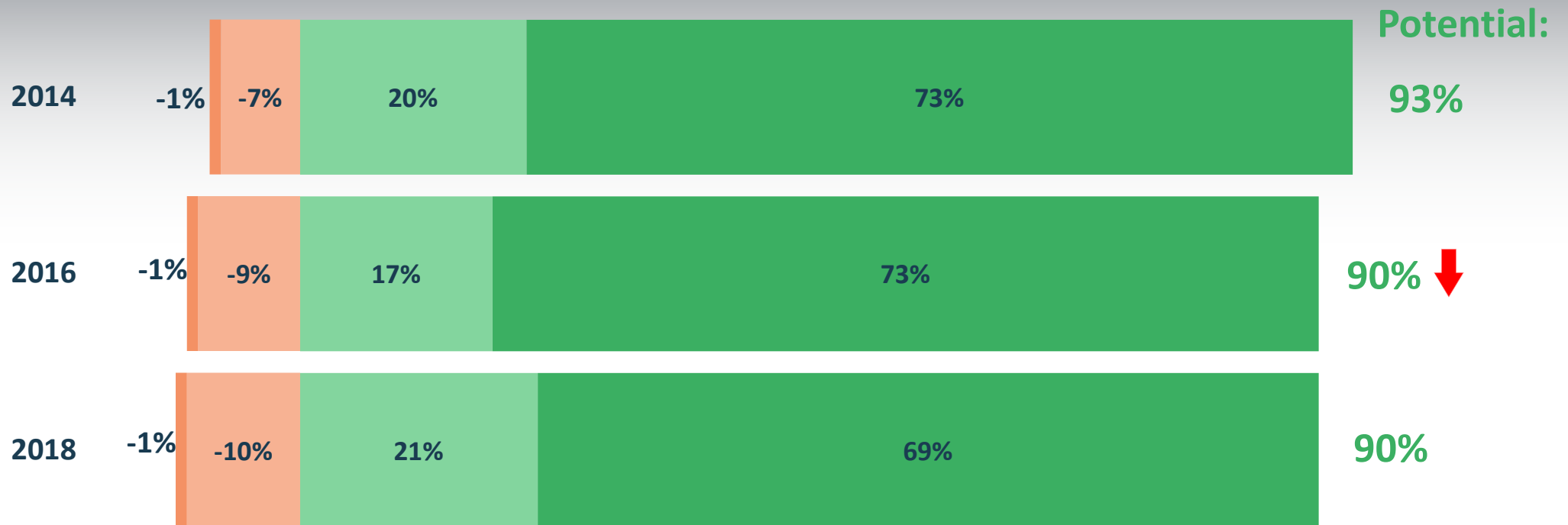
Do not know what this card is

No and do not intend to get one

No, but intend to get one

Yes

# Student concession uptake stalled over time



Do not know what this discount is

No and do not intend to get one

No, but intend to get one

Yes

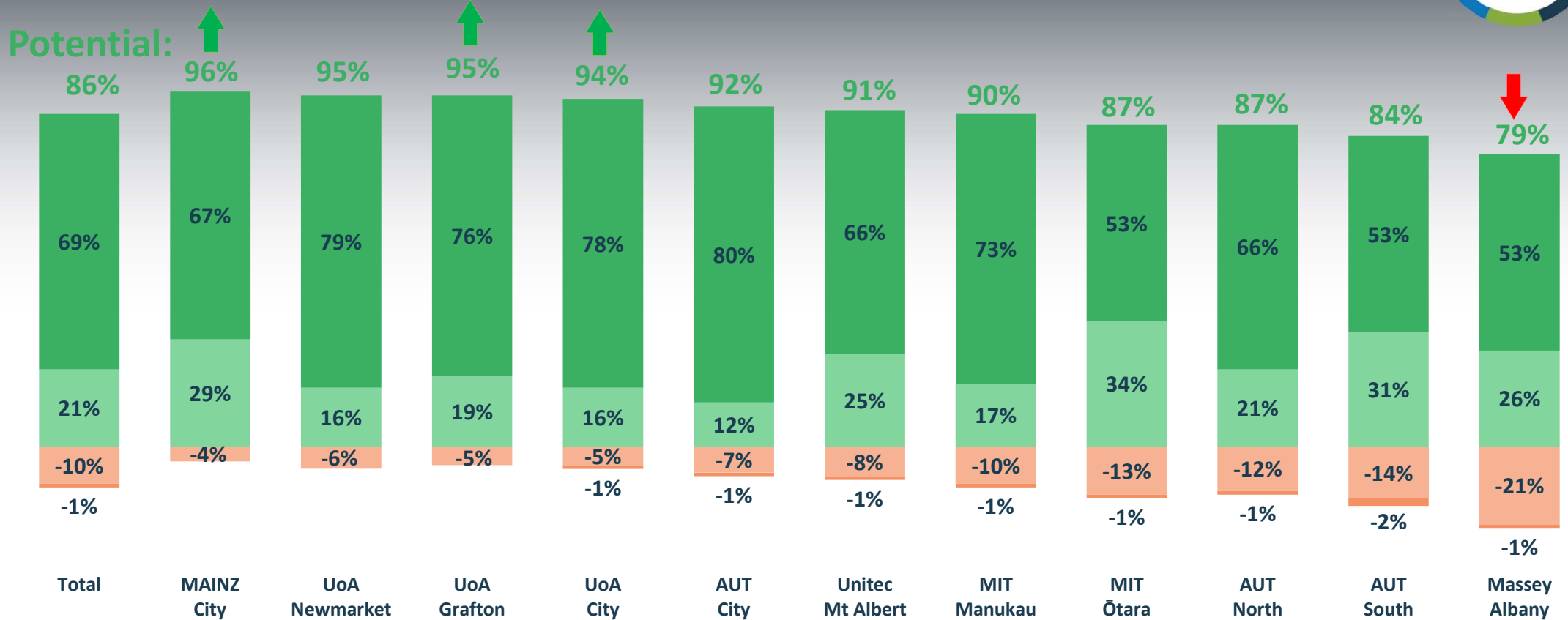
Total potential

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# Student concession – by campus



Total potential

Do not know what this discount is

No and do not intend to get one

No, but intend to get it

Yes

# How could the AT HOP card be made more useful?





# Sources of Travel Information



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# Information seeking moving towards app; word of mouth also strengthening. Google maps strong



Where do you get you transport information from?	Total 2016	Total 2018	Campus										
			AUT City (n=214)	AUT South (n=158)	AUT North (n=213)	UoA City (n=232)	UoA N'mkt (n=143)	UoA Grft'n (n=236)	Massey Albany (n=227)	MIT M'kau (n=190)	MIT Ōtara (n=208)	MAINZ City (n=105)	Unitec Mt Albert (n=231)
AT website	58%	40%↓	38%	30%	49%	44%	44%	34%	46%	31%	27%	43%	52%
AT public transport app	24%	32%↑	30%	18%	32%	38%	43%	45%	30%	28%	21%	31%	30%
Google/Google Maps	30%	29%	35%	34%	23%	19%	52%	31%	27%	20%	27%	31%	29%
Word of mouth (friends/family)	9%	14%↑	9%	22%	12%	11%	11%	13%	12%	15%	21%	19%	13%
AT customer service centres (Eg. train and busway stations)	10%	7%↓	8%	4%	9%	4%	3%	4%	8%	12%	8%	8%	9%
From the university	7%	7%	7%	10%	7%	5%	4%	4%	7%	8%	10%	4%	8%
Advertising about public transport or AT HOP cards	2%	3%↑	2%	8%	4%	4%	1%	3%	3%	2%	5%	2%	5%
Emails from AT	-	2%↑	1%	1%	4%	1%	4%	3%	<1%	1%	1%	-	5%
NA – I don't seek travel information	1%	3%↑	2%	2%	1%	3%	-	2%	3%	2%	3%	4%	4%



# Students Relocating to Save Travel Time/Cost



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# About 15% of students have moved closer; for about 7% improving transport was a factor



	Total 2018	Campus										
		AUT City (n=214)	AUT South (n=158)	AUT North (n=213)	UoA City (n=232)	UoA N'mkt (n=143)	UoA Grft'n (n=236)	Massey Albany (n=227)	MIT M'kau (n=190)	MIT Ōtara (n=208)	MAINZ City (n=105)	Unitec Mt Albert (n=231)
Yes, Relocated (24% in 2016)	27% <b>↑</b>	27%	11%	35%	27%	32%	32%	38%	22%	17%	27%	28%

## Of those who moved:

Moved closer	55%	44%	61%	62%	60%	50%	61%	64%	36%	51%	50%	55%
Moved further away	33%	47%	28%	30%	27%	39%	25%	23%	52%	43%	39%	31%
About the same	11%	9%	11%	8%	13%	11%	15%	13%	12%	6%	11%	14%

## How transport impacted decision to move

Easier to walk to this campus	22%	26%	11%	24%	29%	26%	26%	16%	7%	14%	21%	26%
Better public transport to campus	21%	21%	11%	15%	16%	17%	17%	20%	26%	34%	39%	23%
Easier to cycle to this campus	5%	4%	6%	1%	3%	7%	7%	3%	2%	-	7%	12%
None of these	58%	58%	83%	62%	53%	57%	55%	64%	67%	51%	46%	52%

# Cost drives half of moves; and transport cost reduction 35% of moves



	Total 2018	Campus										
		AUT City (n=214)	AUT South (n=158)	AUT North (n=213)	UoA City (n=232)	UoA N'mkt (n=143)	UoA Grft'n (n=236)	Massey Albany (n=227)	MIT M'kau (n=190)	MIT Ōtara (n=208)	MAINZ City (n=105)	Unitec Mt Albert (n=231)
Relocated due to cost	<b>53%</b>	44%	67%	62%	47%	61%	55%	53%	<b>24%</b>	60%	46%	63%

## Cost related reasons include:

Transport costs		Total 2018	AUT City (n=214)	AUT South (n=158)	AUT North (n=213)	UoA City (n=232)	UoA N'mkt (n=143)	UoA Grft'n (n=236)	Massey Albany (n=227)	MIT M'kau (n=190)	MIT Ōtara (n=208)	MAINZ City (n=105)	Unitec Mt Albert (n=231)
	Cheaper rent (cheaper area/moved with parents/partner etc)	<b>63%</b>	72%	67%	65%	55%	65%	65%	63%	60%	57%	77%	59%
	Cheaper transport costs (fewer stages on PT etc)	<b>36%</b>	24%	58%	30%	24%	43%	43%	33%	20%	43%	39%	46%
	Moved where I can walk/cycle to campus	<b>17%</b>	20%	8%	17%	24%	18%	24%	<b>4%</b>	-	10%	-	<b>29%</b>
Cheaper petrol costs	<b>13%</b>	4%	17%	9%	7%	4%	7%	<b>30%</b>	10%	5%	15%	20%	



# Carpooling Apps/Sites



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# Low awareness and use of carpooling sites/apps



	Total 2018	Campus										
		AUT City (n=214)	AUT South (n=158)	AUT North (n=213)	UoA City (n=232)	UoA N'mkt (n=143)	UoA Grft'n (n=236)	Massey Albany (n=227)	MIT M'kau (n=190)	MIT Ōtara (n=208)	MAINZ City (n=105)	Unitec Mt Albert (n=231)
Yes – Currently use at least one carpooling website/ app	2%	4%	1%	1%	3%	1%	1%	2%	2%	1%	6%	1%
Yes – I'm aware, but don't currently use them	9%	6%	10%	5%	12%	13%	7%	20%	4%	6%	6%	13%
No	89%											
<b><i>Of those aware:</i></b>												
Aware of the Smart Travel website	19% (n=46)											
Not aware of the Smart Travel website	81% (n=193)											

23% of those aware of sites/apps say they would be likely to use Smart Travel in future



## In Summary.....



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# Summary

## Main Mode

- 66% of main mode is non-car, including 51% using some form of PT (esp. bus, 37%).
- Use of PT has increased significantly since 2014 (51% cf 41%), car use has plateaued in 2016/18 (35%).
- Car use is down to 4% (from 10% in 2016) for CBD campuses and steady at 13% in CBD fringe.
- Use of PT (and non car) differs by campus type – non-CBD campuses showing much higher car use (53%).
- There appears to be potential to grow non-car modes at sites outside CBD.



# Summary

## Peak Period Travel

- Student trips arriving in peak (7-9am) vary substantially across campuses, with UoA N'mkt, AUT City and South and Mainz showing lower levels.
- Car use is higher in peak at 37%, consistent with 2016.
- Single occupancy car travel (SOC) has increased in peak period (27% - 31%) since 2016 – mainly at non CBD campus types. Train travel has increased in peak and PT generally is up for CBD and non-CND campuses (collectively).

## Single Occupancy Car Use

- Single occupancy car use has increased in no-CBD campus category – particularly in MIT Ōtara (to 57%). Massey Albany is stable but highest at 58%.
- There does not seem to be any strong pattern of SOC use reflecting ease of parking, parking cost, non ease of using PT or ease of walking/cycling.
- Directness of PT/journey time and cost are main barriers to PT use given by SOC users.

# Summary



## PT Use and Perceptions

- 86% of students are common(60%), or occasional (27%) users of PT and 51% say it is their main mode. These figures are significantly lower for non-CBD campus students, though 80% still use PT to some extent.
- Frequency of PT use is lower for non-CBD campuses as is perceived ease of use, which has increased for both CBD and for non-CBD categories, but decreased for CBD fringe.
- Half of non PT users rate ease of PT travel for them to their campus positively ( 6 to 10). Massey Albany shows strongest increase.
- PT appears more strongly positioned:
  - Personal barriers to PT use have declined since 2016 for relative cost, reliability, crowdedness and being unavailable/ unrealistic.
  - AUT North has particular barrier of indirect routes
  - Suggested improvements have also reduced. With declines in requests for improved frequency, directness and reliability followed by lower cost. These remain the main suggestions.



# Summary

## Walking and Cycling

- Proportion of students who say they could walk and/or cycle to campus has increased since 2016 (38% from 32%). City fringe campus group has highest levels of walking /cycle at 25% main mode.
- Motivation seems to be the greatest barrier to walking – as stated barriers for those able are low. More/better cycle lanes are most common suggestion from those who say they could cycle.

## Parking

- Parking is much easier at non-CBD campuses and shows increasing ease. Grafton and Newmarket show largest declines in ease.

# Summary



## HOP Card Use and Information Sources

- HOP card ownership has increased year on year to 89% of students with a further 5% intending to get a card.
- Concession uptake is stable at 69%, with a further 21% intending.
- Tertiary students are using the AT App more (32%), though the AT website (40%), is most mentioned source. Google maps (29%) and word of mouth (14% - higher in non-CBD campus category) are also significant.

## Carpooling

- Current use of a carpooling app/site is low at 2%, with a further 9% aware of carpooling apps/sites.
- Of those using/aware, 23% say they are likely to use the Smart Travel app in the future, but just 6% say they are very likely to do so.



# Summary

## Relocating

- About 15% of students have moved closer to their campus; for about 7% improving transport was a factor. This is highest for Massey Albany, AUT North and CBD fringe campuses – where relocations with transport as factor were made by around 14% to 16% of students.
- Reducing costs drives half of relocation decisions; and transport cost reduction is a factor in 35% of moves.



Research Presentation

7 June 2018

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# Auckland Transport Student Travel Survey 2018



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