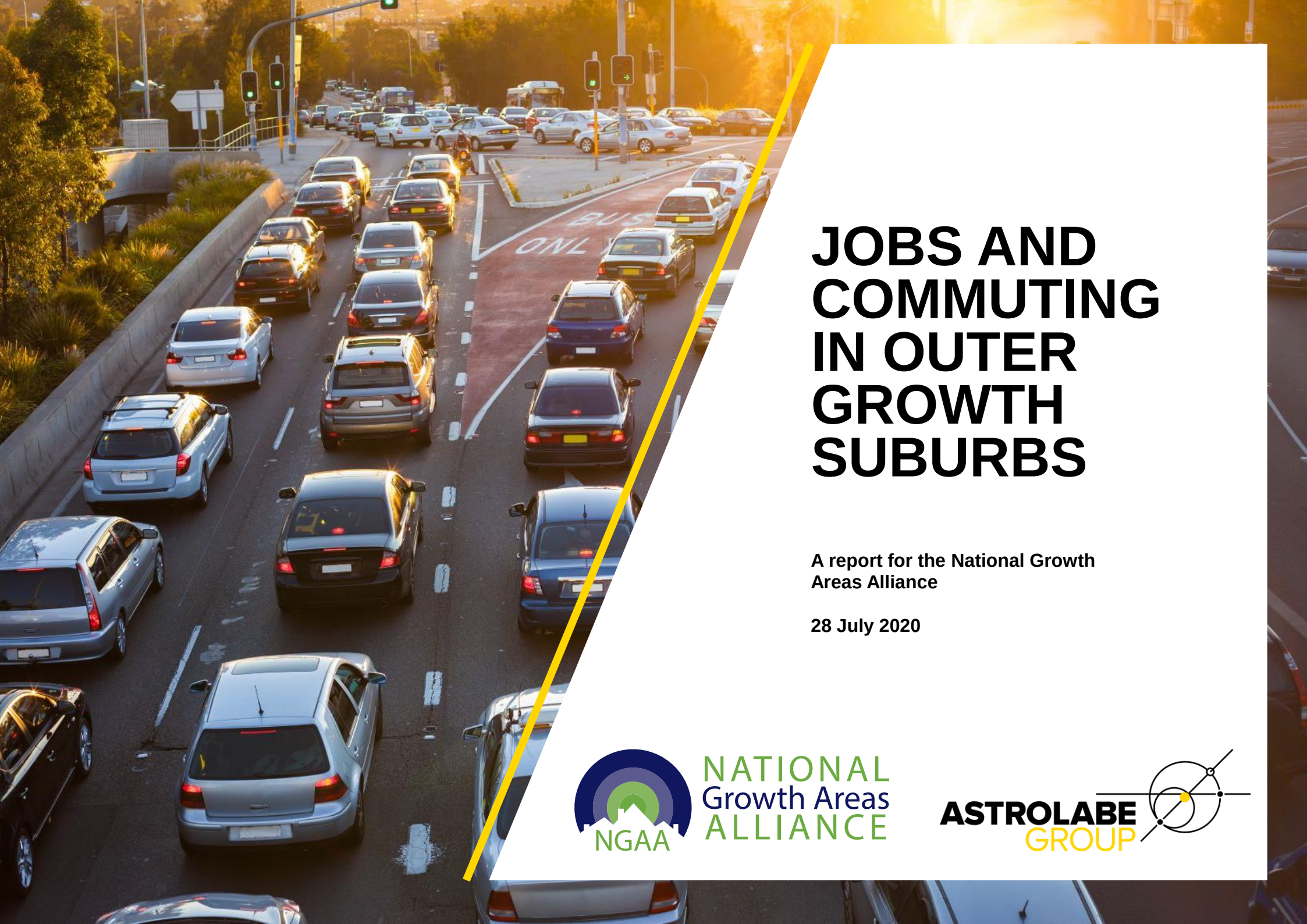

JOBS AND COMMUTING IN OUTER GROWTH SUBURBS

A report for the National Growth Areas Alliance

28 July 2020

NATIONAL Growth Areas ALLIANCE

NGAA

ASTROLABE GROUP


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Contents

For complete breakdown of methodology and references, see end notes.

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Changing the way we work

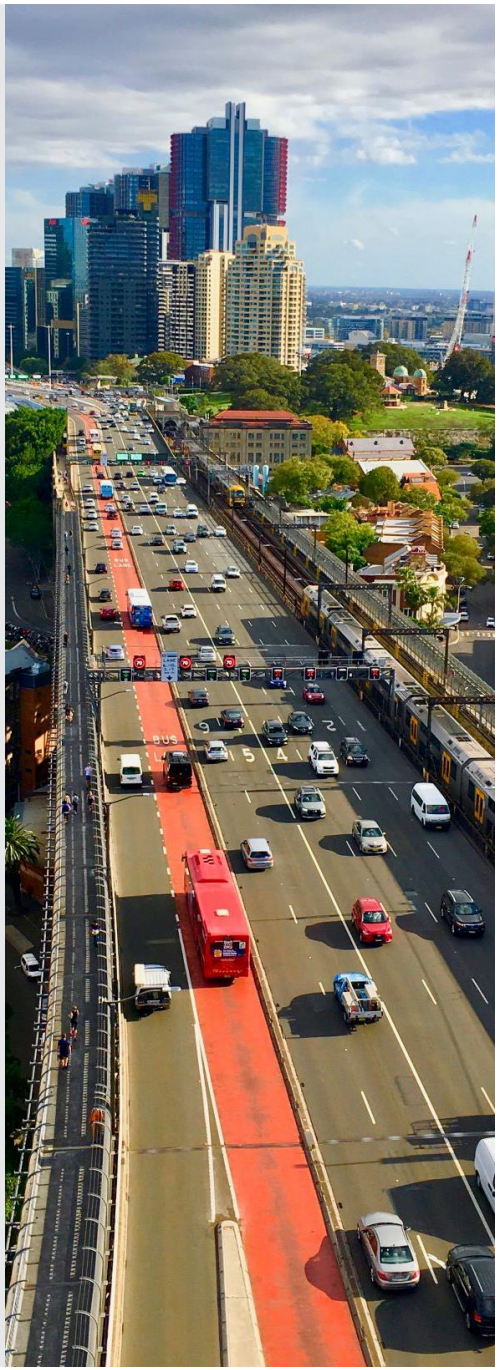
COVID-19 has had a significant impact on the way we work. Three-quarters of businesses have changed the way they operate[1], and thousands of people made a sudden shift to working from home.

Working from home has been enabled not only in industries with largely desk-based jobs, but also in occupations that are typically face-to-face – health professionals providing telehealth consults and educators teaching online. How we do our work is being reimagined.

One of the widespread outcomes of people working from home is more time at home as commuting was reduced. Nowhere has this impact been more notable than among people living in Australia's outer growth suburbs, where employment is characterised by long commutes. There is also the additional benefit of no longer spending money on travel, which again for our outer growth suburbs where commuters largely drive can be considerable when adding vehicle running costs, tolls and parking.

The impact of the commute is of particular interest for the National Growth Areas Alliance (NGAA), who advocate for ensuring outer urban growth areas have the infrastructure and investment needed to reach their potential.

This report looks at what we know about the impact on time and costs for commuting and what a new future, where remote and flexible work is maintained and grown, will provide for people living in outer growth suburbs.



Australia’s Growth Suburbs

Outer growth suburbs are those located on the urban fringe of Australia’s metropolitan areas. They are characterised by significant greenfield (new) development areas, and are experiencing relatively rapid population and urban development growth.

Local Government Areas (LGAs) identified as outer growth areas across Australia are:

NSW	VIC	SA	WA	QLD
Blacktown	Cardinia	Playford	Armadale	Ipswich
Camden	Casey	Mount Barker	Cockburn	Logan
Campbelltown	Hume		Gosnells	Moreton Bay
Liverpool	Melton		Kwinana	Redland
Penrith	Mitchell		Mandurah	
The Hills Shire	Whittlesea		Rockingham	
Wollondilly	Wyndham		Serpentine-Jarrahdale	
			Swan	
			Wanneroo	

Top 5 insights for action

1

Four out of five workers in outer growth suburbs have to travel out of their community for work

2

Men in outer growth suburbs are more likely to do long commutes compared to women

3

Three out of four commuters from outer growth suburbs drive to work

4

The average daily cost just to get to and from work in outer growth suburbs is $36 by car

5

There are an estimated half a million workers in outer growth suburbs who are doing jobs that could be done at home

The commuting impact

Cost and time

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Workers in outer growth suburbs experience significant commutes

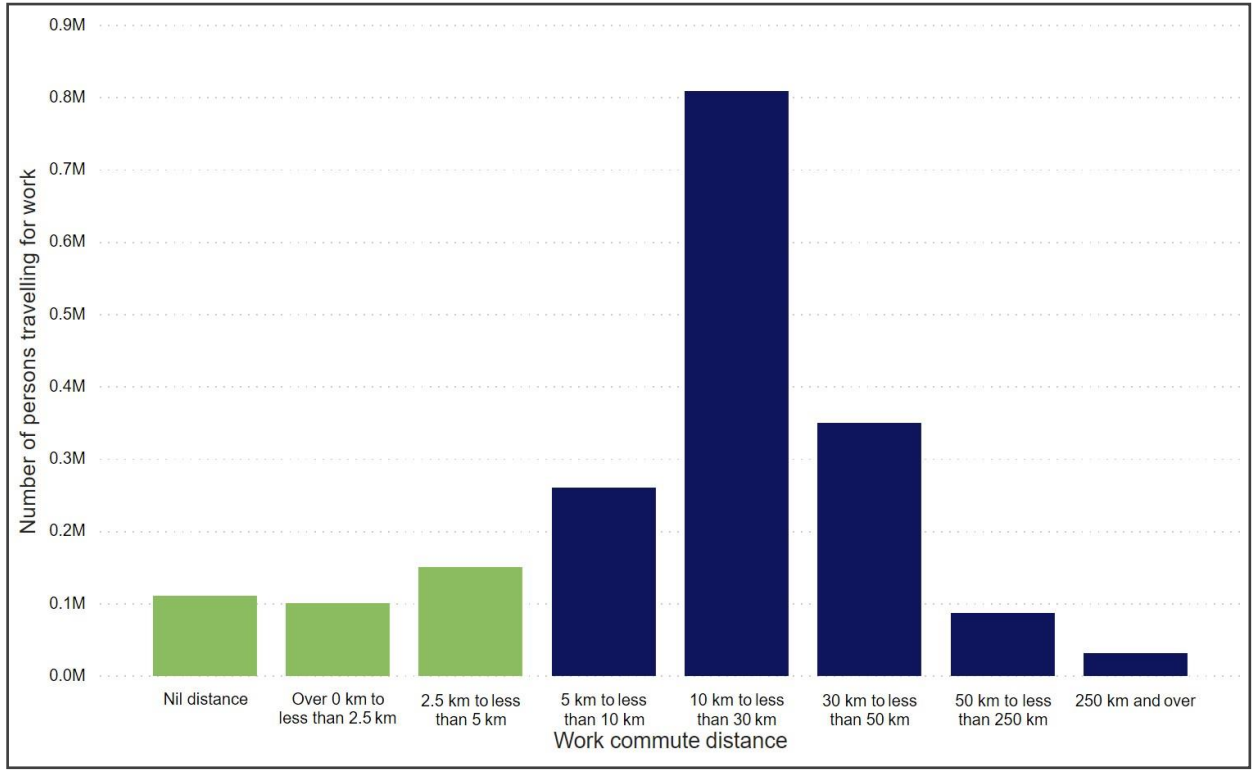
4 out of 5 workers travel more than 5km to get to work

What stands out for people living in outer growth suburbs is that **the most common commute is 10-30 kms** and a **significant proportion travel 30km or more to get to work** – that's just in one direction.

For commuters in outer growth suburbs, even a 5km commute from a growth suburb with poor roads and inadequate public transport connections can take a long time.

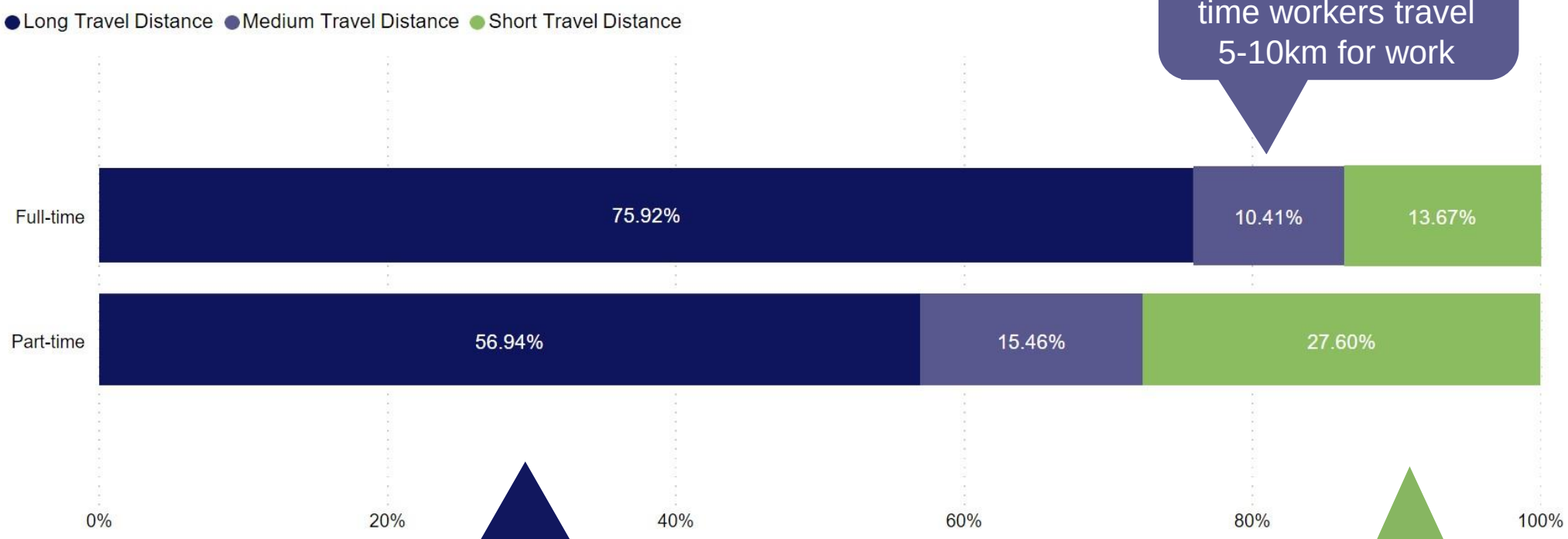
Most workers in outer growth suburbs have to travel between 10 to 30km just to get to work.

While more part-time workers tend to work closer to home compared to full-time workers, most still need to travel long distances.



Source: 2016 Census of Population and Housing

Full-time workers have to travel the most



146,000 full time and 102,000 part time workers travel 5-10km for work

963,000 full time and 343,000 part time workers travel 10km or more to get to work

175,000 full time and 170,000 part time workers live within 5km of work

Source: 2016 Census of Population and Housing

Impacts are different for your age and gender

Men are more likely than women in the outer growth suburbs to travel long distances for work and this is true at all ages. Access to high paying and senior jobs is one reason, where workers are doing longer commutes to get to the city to get to this type of employment. Specialist jobs requiring specific skills are another type of employment that are centralised around cities.[2] Technicians and trade workers also have longer commutes.[3] Each of these examples of employment has traditionally higher proportion of men.

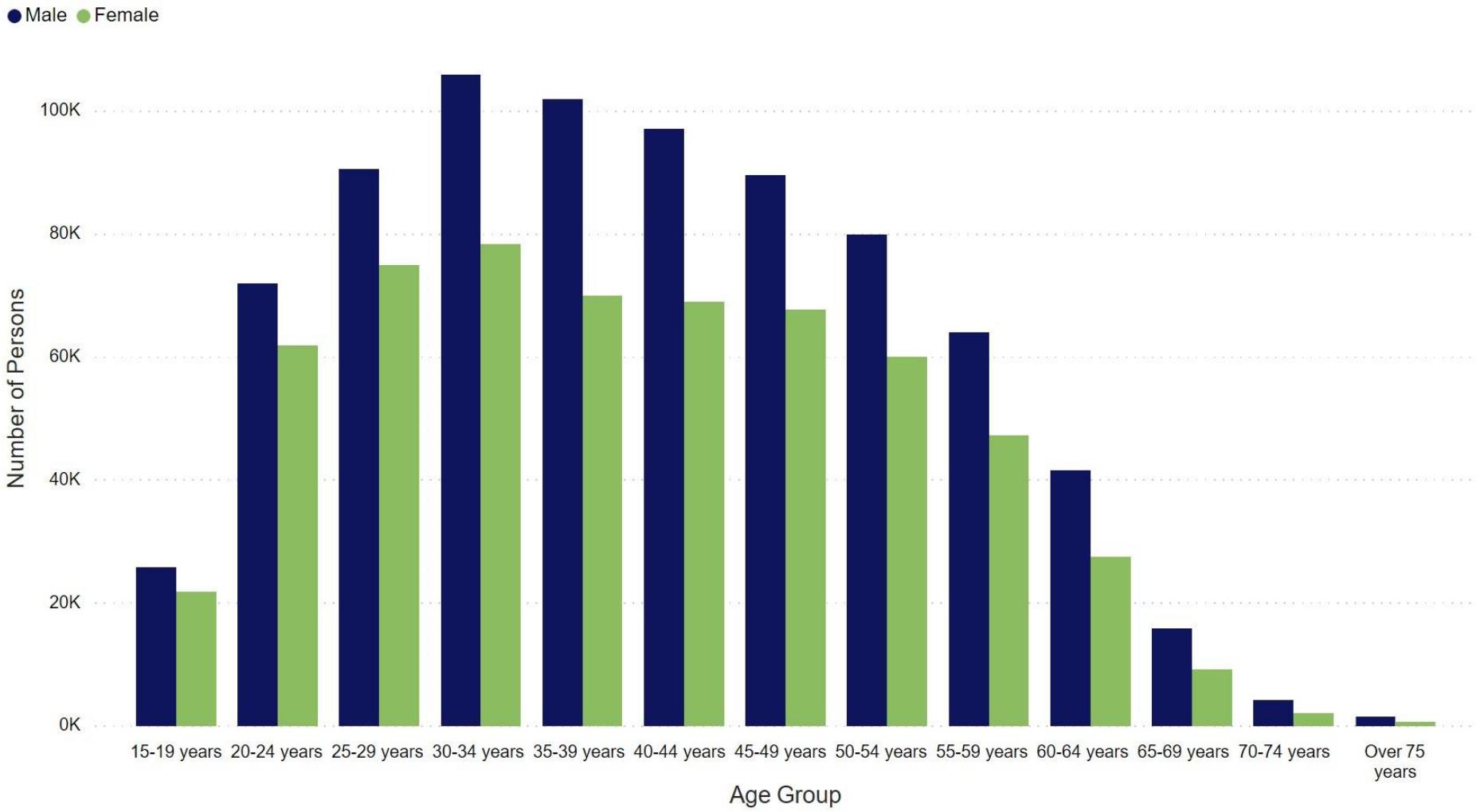
Ripple Effects

Apart from the impact on time and cost for the commuter, travelling for work will impact everyone's lives in different ways:

- **families** when one parent is away for long periods of time it exacerbates the caring burden.[4]
- **relationships** when long commute times mean strain on the family,[5] increased divorce[6] and exacerbation of family violence[7].
- **health and wellbeing** when there is limited time for exercise while commuting.[8]
- **local economy** when people are not able to spend locally because they are physically not there.[9]
- **social participation** when time commuting precludes participation in local club or social activities, including volunteering.[10]
- **gender pay gap** differences are exacerbated because of the gender commute gap.[11]

Impacts are different for your age and gender

Number of persons travelling 10km or more for work



Source: 2016 Census of Population and Housing

The commuting experience is reliant on cars

For the majority of commuters from outer growth suburbs, commuting by car is the only choice because public transport options are limited. The commuting experience is reliant on cars.

To reduce journey to work car dependency in outer growth suburbs, two factors need to be addressed:

Lack of local jobs

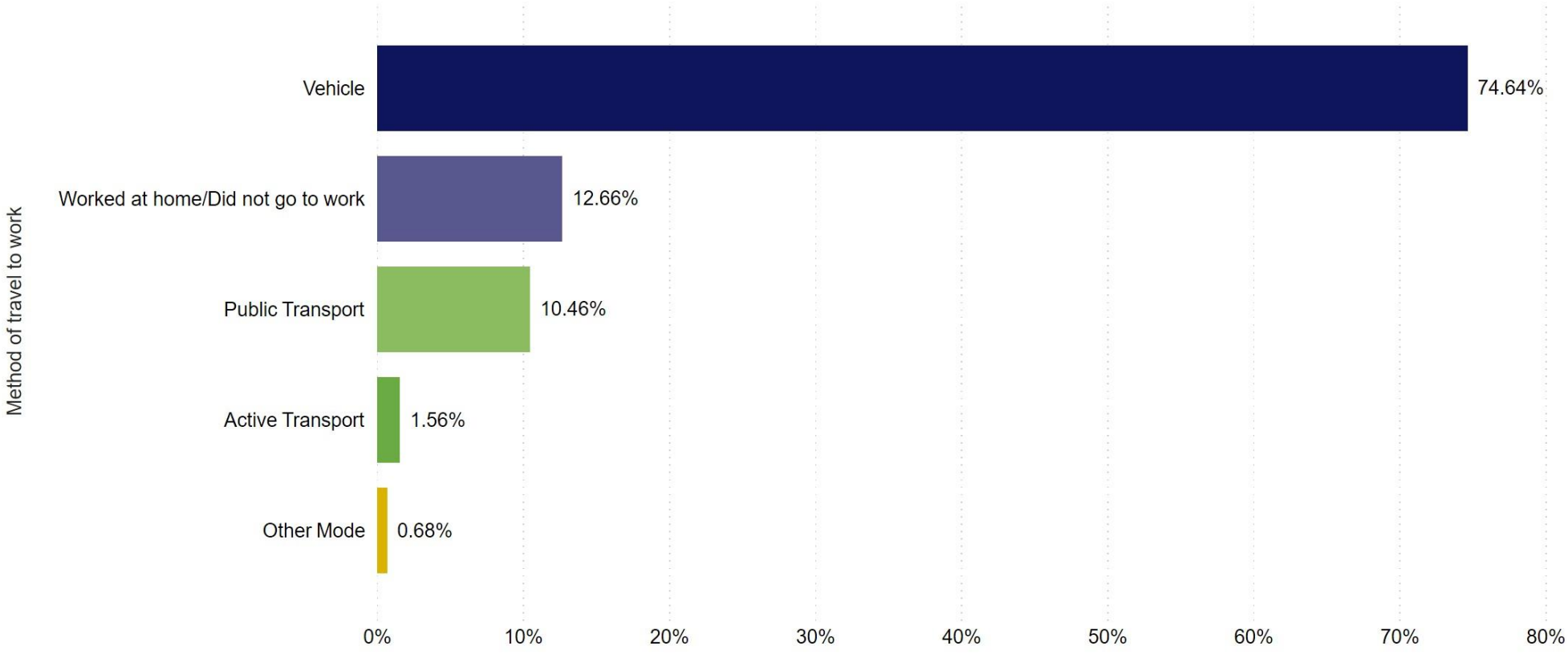
People living in outer growth suburbs require more local employment opportunities that match their skills and qualifications to reduce the need to commute longer distances. A recent report from Western Sydney University identified that over 300,000 people leave Western Sydney every day for work. If left unchecked, the report estimates that there will be a daily outflow of 562,000 commuters by 2036.[12]

Limited convenient public transport options

Commuting times also hide the complexity of outer suburb public transport. While driving can take longer and cost more, commuters choose to drive anyway because using public transport leads to a journey to work that is either overly complex, incompatible with routine, or non-existent. Limited public transport options then contribute to more congestion on our roads, as more people are compelled to drive to work.[13]

The commuting experience is reliant on cars

3 out of 4 people drive to work



Source: 2016 Census of Population and Housing

The financial pressure of driving

Commuting by car to work from outer growth suburbs costs commuters $5.4 billion a year

The average daily commute for workers driving from outer growth suburbs costs*:

$36.28 **Per return trip if only considering running car costs, tolls and parking**	**$58.35** **Per return trip if including running costs PLUS standing costs for a car per km *(insurance, registration etc)***

That's $8,380 a year for full-time workers and $4,170 a year for part time workers just to drive to work. With the average income in these outer growth suburbs being only $49,250 a year, can result in over one-tenth of income spent just on getting to work.

Public transport costs commuters $2,540 a year for full-time workers and $1,270 a year for part-time workers to get the train, bus or tram to work. While public transport is often a much cheaper alternative, with public transport commutes from outer growth suburbs costing just $11.00 per return trip, it's not always a easy or even viable option. For many people in outer growth suburbs, public transport is not available, or viable in terms of time tables, length of commute and may still requires multiple modes such as driving to get to a transport route.

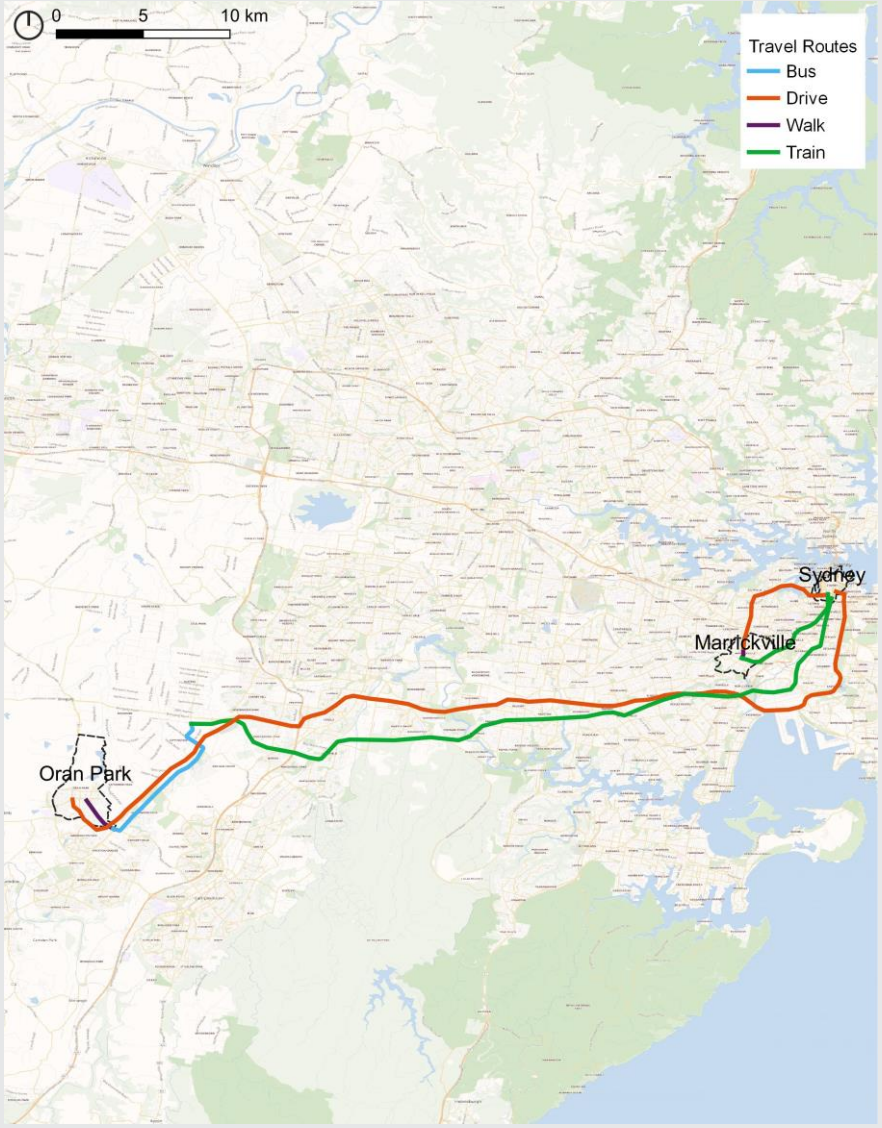
*Cost estimates are based on the numbers of workers employed in outer growth suburbs who travel 10km or more per commute by car, broken down by part time and full time work status. Full time workers were assumed to commute 231 days per year (assuming work is completed onsite and allowing for four weeks or 20 days annual leave) and part time workers 115 days per year (half those of full time workers). Costs are based on 2019 estimates of running costs for medium size cars applied to the average commute distance, toll and parking rates based on public domain rate calculators for each city.

Case Study: Commute in Sydney

Daily costs of time and money for the commute from Oran Park are more than double those commuting from Marrickville. Mapping typical routes for Oran Park commuters highlights the complexity of public transport for those living out west, requiring a bus and two different trains.

	Oran Park	Marrickville
Running costs for car per km	$0.17	$0.17
Driving Distance (return)*	120km	18.8km
Tolls (return)	$23.60	-
Parking (early bird)	$25.00	$25.00
TOTAL DRIVING COST (RETURN)	**$68.60**	**$28.13**
Drive Time (return)*	**2hr 35m**	**32m**
PUBLIC TRANSPORT COST (RETURN)	**$10.00****	**$7.22**
Time on bus/train (return)	**3 hrs**	**44m**

* Drive times are estimated from the midpoint of the 'typical' journey time forecast by Google Maps journey data if arriving in Sydney CBD by 9am and leaving after 5pm. Drive distance is based on the fastest route recommended by Google Map. **Weekly cap of Opal Card is $50. The daily cap, is $16.10 for Opal Card uses so the public transport cost could be higher for persons commuting less than five days per week.

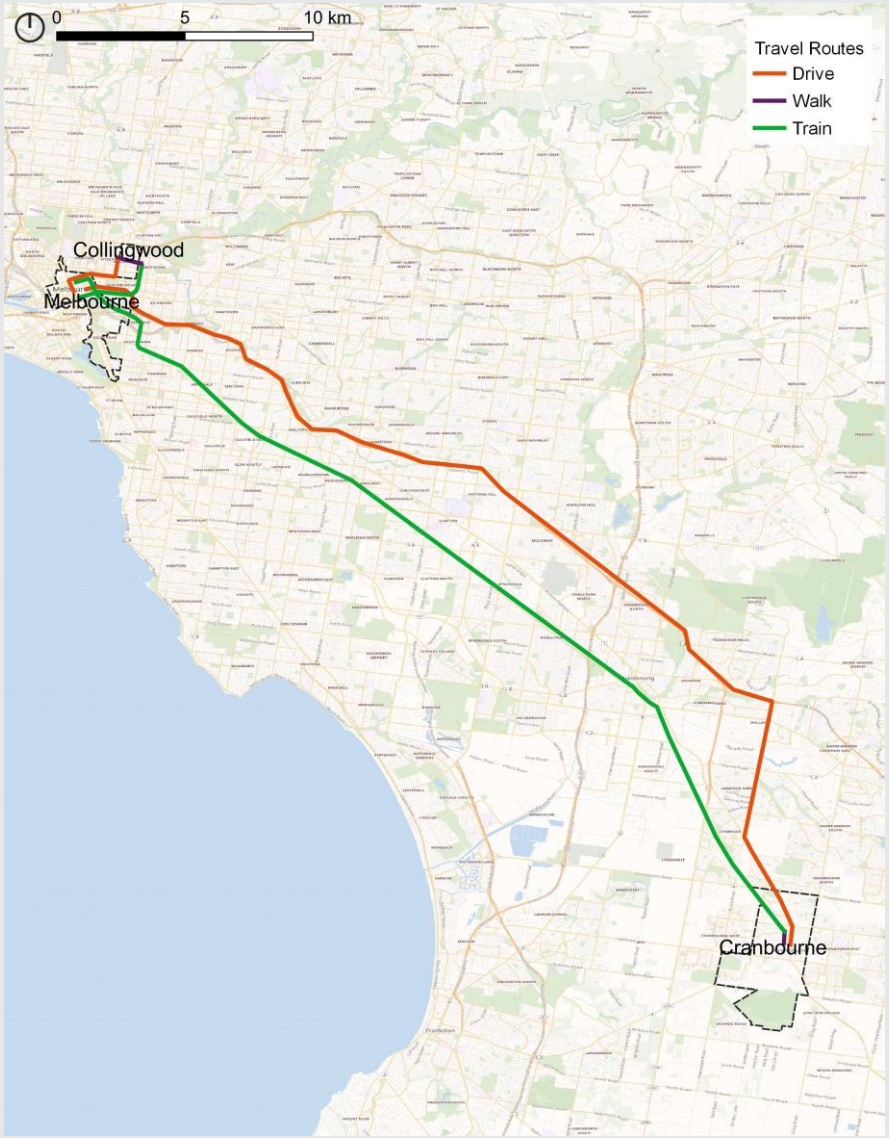


Case Study: Commute in Melbourne

Comparing Cranbourne commuters to the CBD demonstrate driving costs are more than double compared to Collingwood. Public transport costs are the same, highlighting how policy can mitigate some of the costs for those who live on the urban fringe when provided this as a viable option.

	Cranbourne	Yarra
Running costs for car per km	$0.17	$0.17
Driving Distance (return)*	100km	7.2km
Tolls (return)	$17.08	-
Parking (early bird)	$19.00	$19.00
TOTAL DRIVING COST (RETURN)	**$42.72**	**$20.19**
Drive Time (return)*	**1h 55m**	**29m**
PUBLIC TRANSPORT COST (RETURN)	**$9.00****	**$9.00**
Time on bus/train (return)	**1h 8m**	**38m**

* Drive times are estimated from the midpoint of the 'typical' journey time forecast by Google Maps journey data if arriving in Melbourne CBD by 9am and leaving after 5pm. Drive distance is based on the fastest route recommended by Google Map. ** The daily myki cap is $9 full fare.



Local economies are missing out

The annual cost for long-distance commuting paid by workers in the outer growth suburbs is **$7.4 billion**.

The cost saving across households if every current long-distance commuter commuted just one day less would be **$37 million** each year.

All of this travel is not just affecting commuters in their time and money, but also their local economics.

Every person who works away from their local community in the outer growth suburbs, spends money somewhere else.

In just one day, if every commuter bought one cup of coffee in their local community it would see an injection of **$5.4 million** which in turn would equal:

$1.4 billion each year

*Estimated on average of public transport and car costs allowing for full time workers commuting 231 days per and part time workers 115 days per year. For one day's savings we assumed all workers who travelled more than 10km would travel at least 48 days per year, allowing for four weeks annual leave and two weeks sick leave. See also End Note A.

City overviews

The outer growth suburb commute

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Understanding city overviews

Average commuting distance from across named local government areas (LGAs) in the capital city (return)

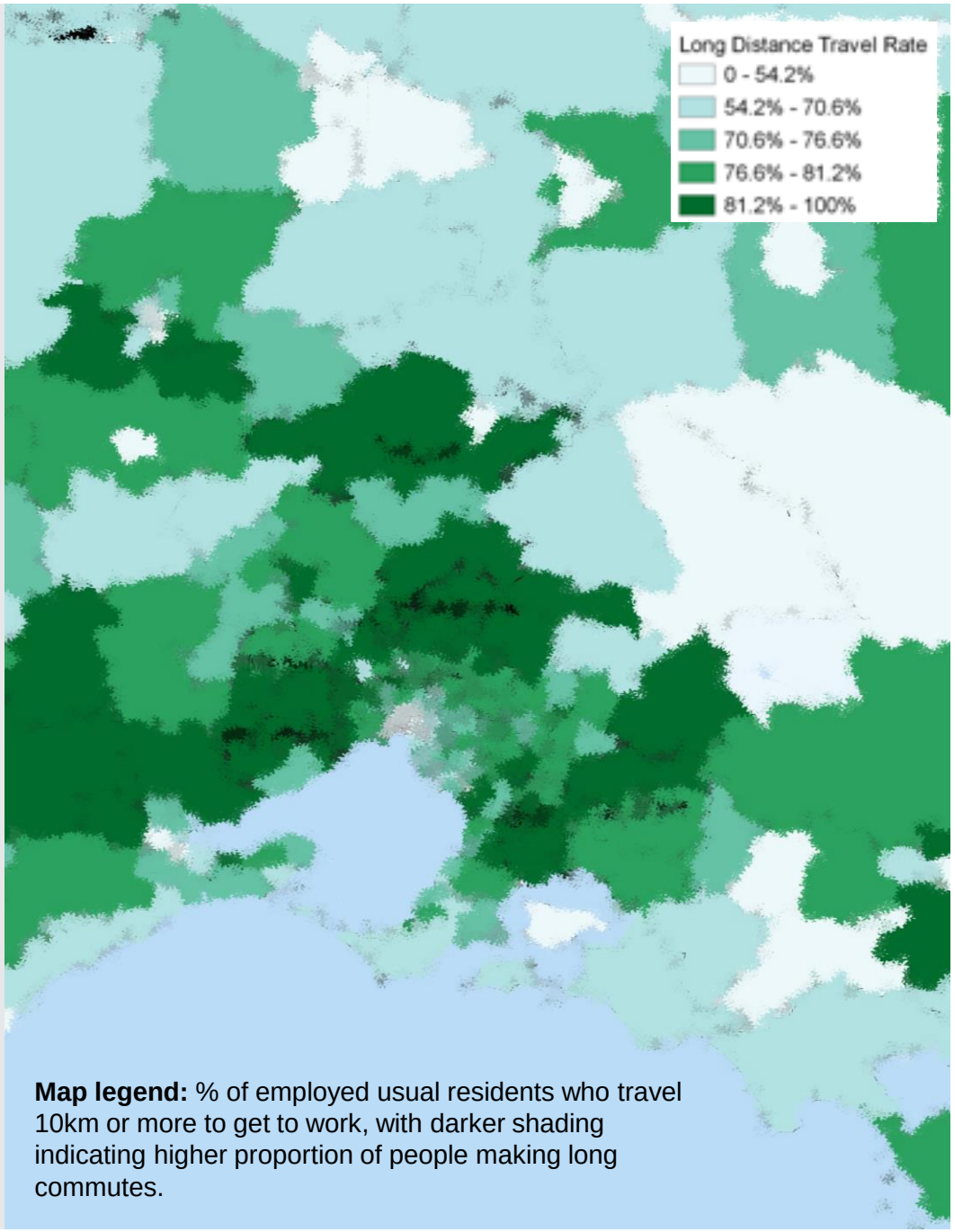
Running costs for car (fuel, tires and servicing), average tolls and parking costs across named LGAs

Average public transport costs across named LGAs based on information from relevant transport provider website.

% of all employed usual residents who travel to work by car

% all usual residents employed full-time who travel 10km or more to get to place of work

% all usual residents employed part-time who travel 10km or more to get to place of work



Map legend: % of employed usual residents who travel 10km or more to get to work, with darker shading indicating higher proportion of people making long commutes.

Source: 2016 Census of Population and Housing. For car and public transport cost calculations see End Note A.

MELBOURNE'S OUTER SUBURBS

45.88 km average commuting distance

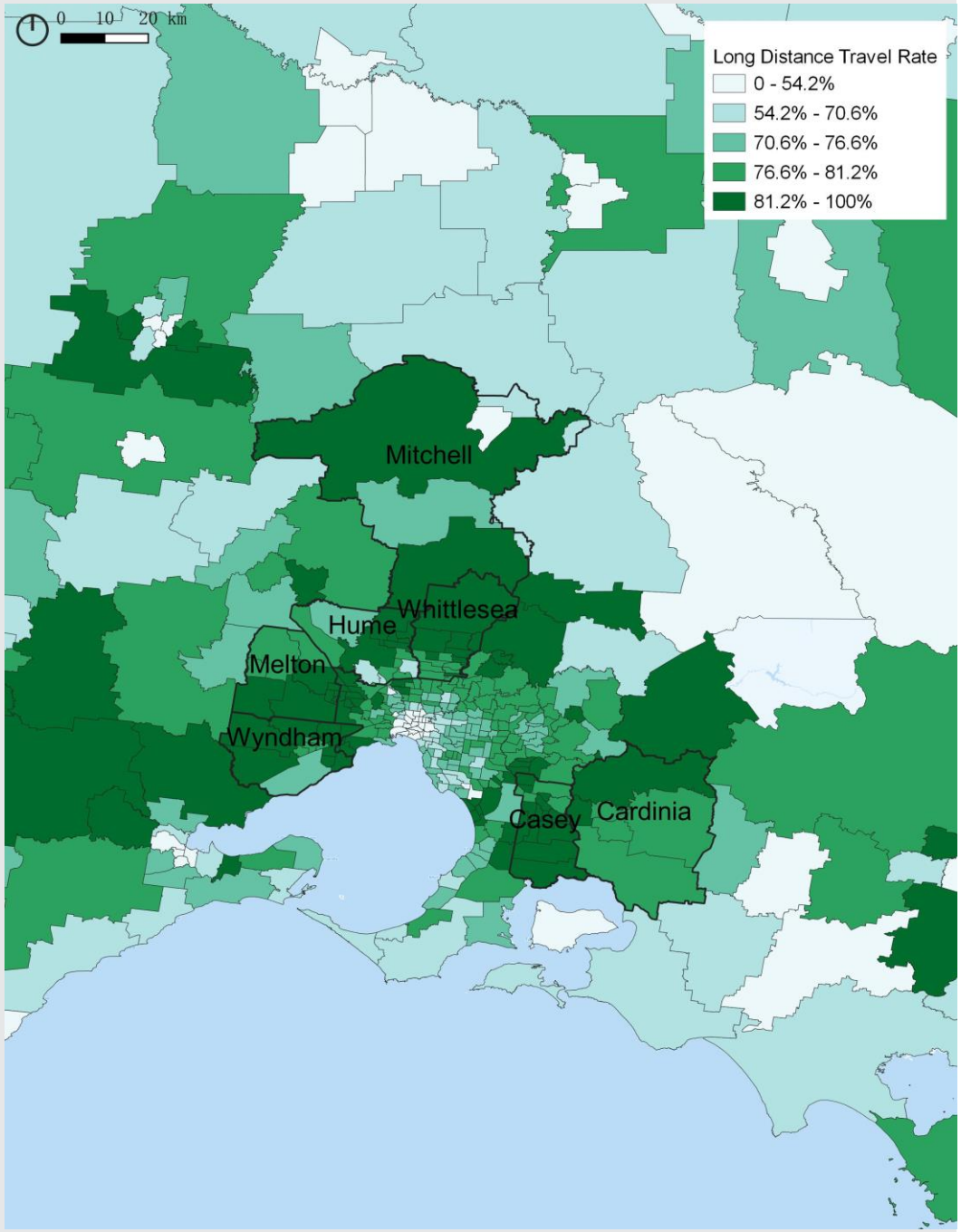
$39.84 average cost of commute by car

$9.00 average cost of commute by public transport

76% commute by car

78% full time workers have long commutes over 10km

59% part time workers have long commutes over 10km



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SYDNEY'S OUTER SUBURBS

44.58 km average commuting distance

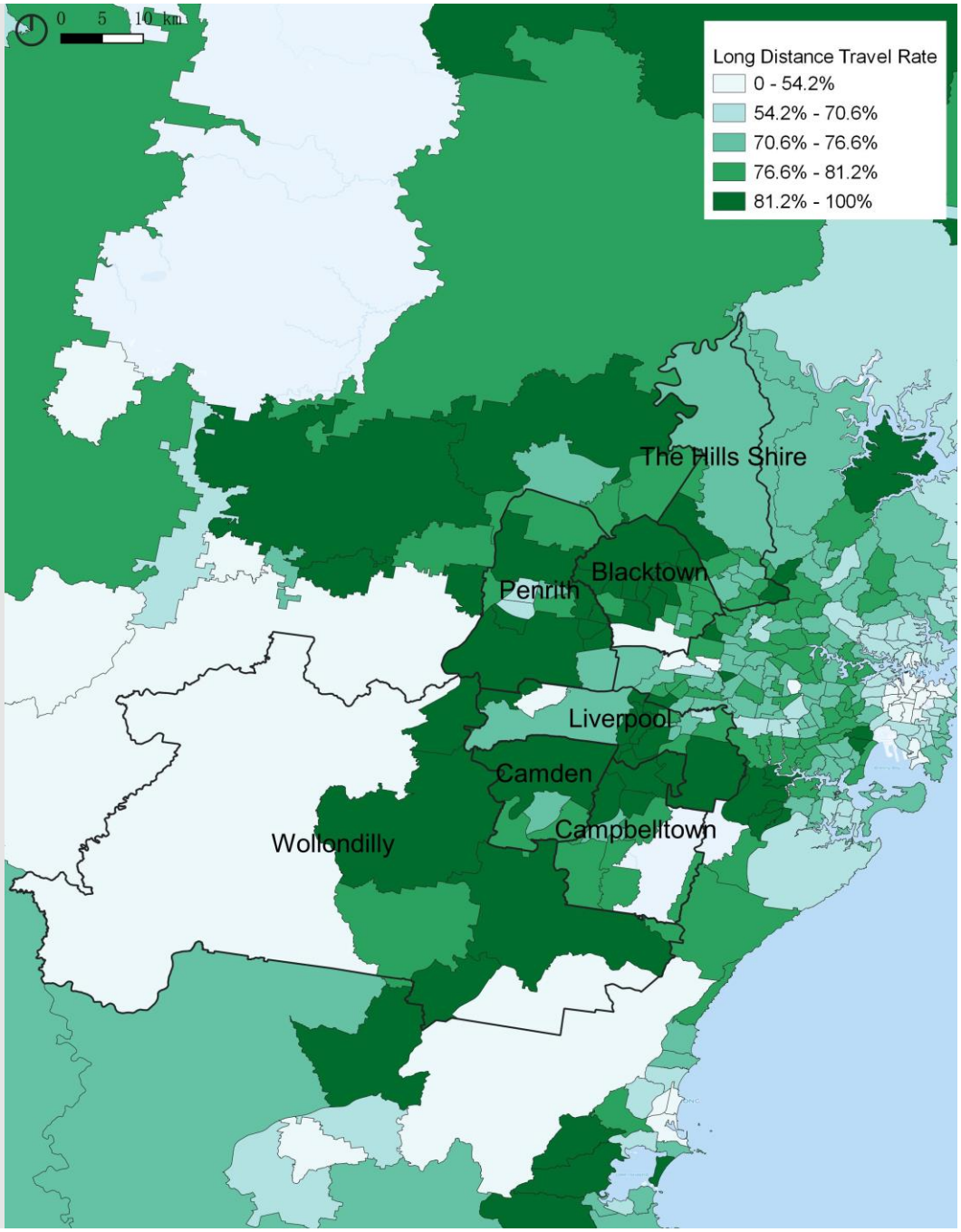
$54.48 average cost of commute by car

$10.00 average cost of commute by public transport

71% commute by car

73% full time workers have long commutes over 10km

53% part time workers have long commutes over 10km



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PERTH'S OUTER SUBURBS

40.72 km average commuting distance

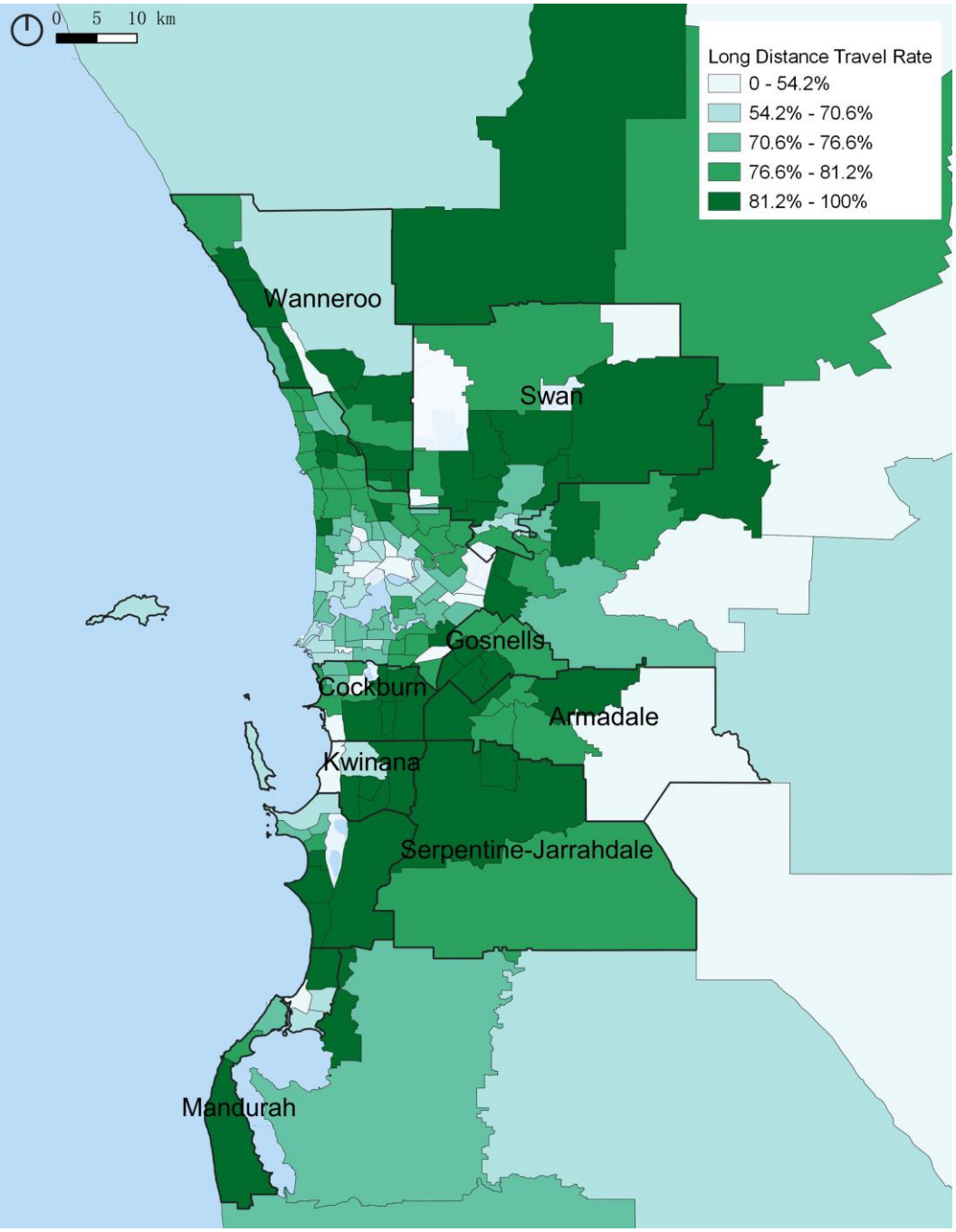
$22.77 average cost of commute by car

$13.43 average cost of commute by public transport

74% commute by car

76% full time workers have long commutes over 10km

55% part time workers have long commutes over 10km



BRISBANE'S OUTER SUBURBS

38.44 km average commuting distance

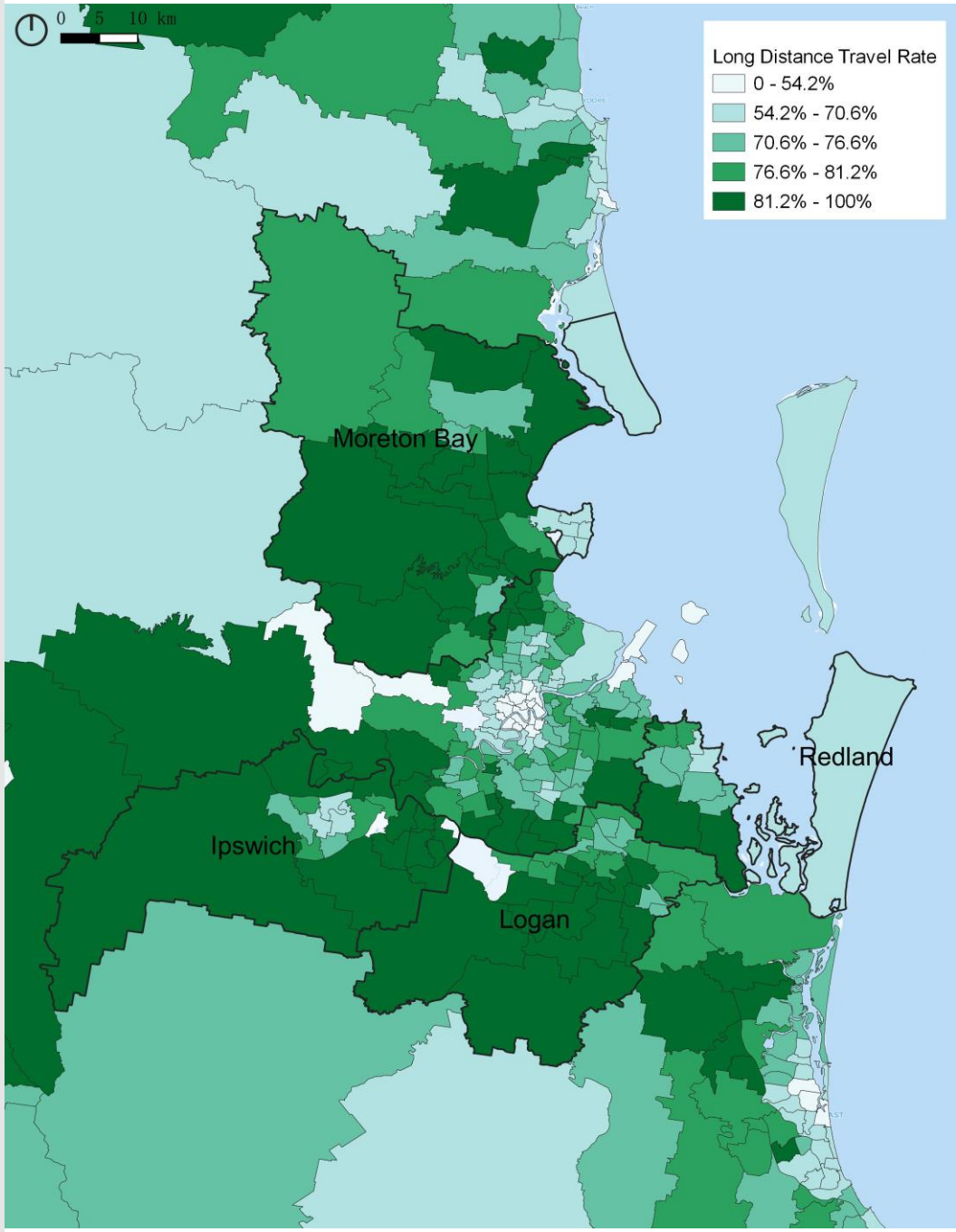
$33.83 average cost of commute by car

$12.54 average cost of commute by public transport

76% commute by car

74% full time workers have long commutes over 10km

55% part time workers have long commutes over 10km



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ADELAIDE'S OUTER SUBURBS

41.30 km average commuting distance

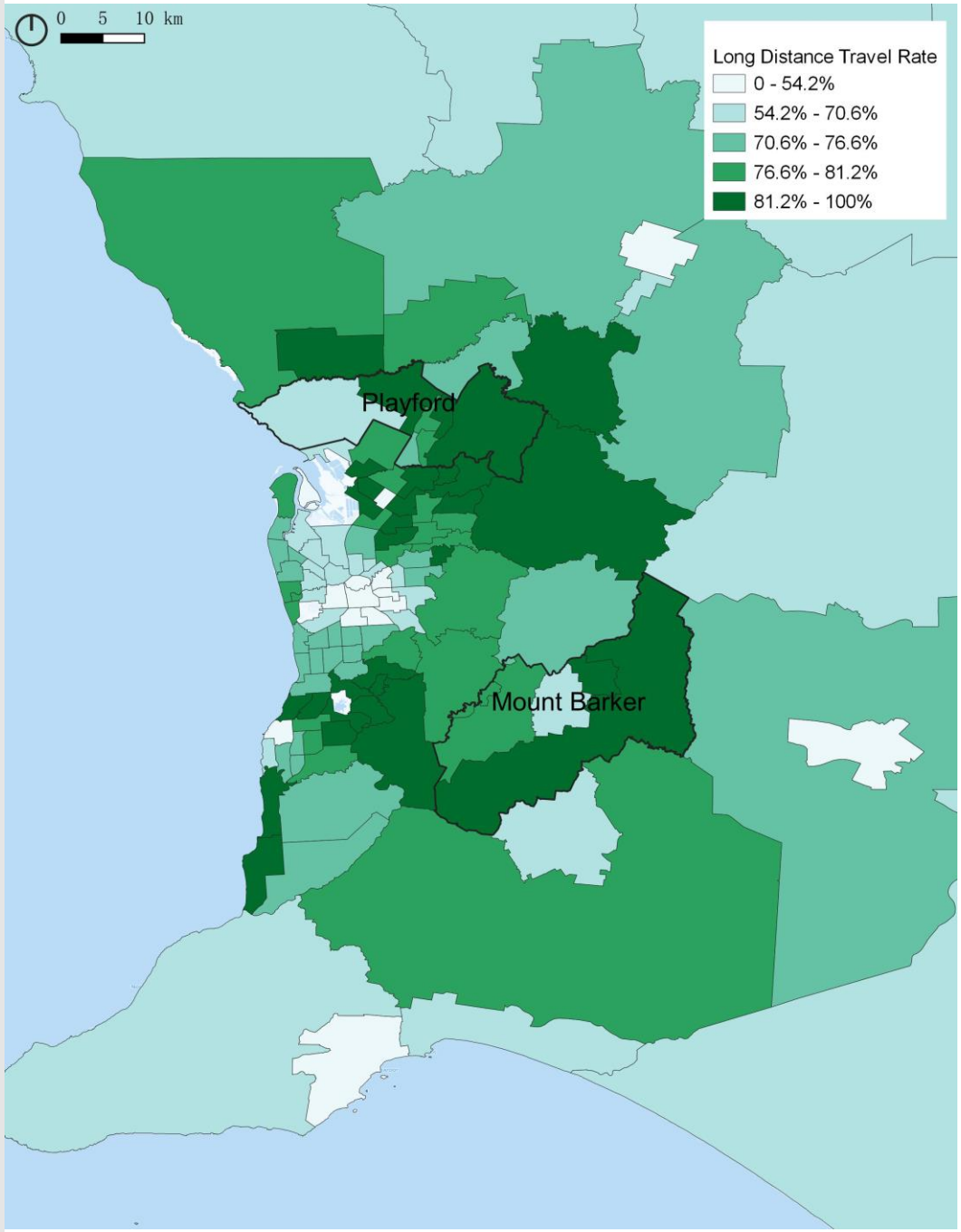
$22.77 average cost of commute by car

$7.54 average cost of commute by public transport

77% commute by car

73% full time workers have long commutes over 10km

58% part time workers have long commutes over 10km



The future commute

New ways of working for the outer growth suburbs

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Planning for a future that works

Reducing the pressure of time and cost for outer growth suburb commuters

1.3 million workers in outer growth suburbs have to travel more than 10km each way just to work. In the professional, scientific and technical industry alone there are 75,000 people who can't access employment close to home if they have to complete their work in a physical workplace.

As the economy rebuilds post-pandemic, people who have been forced to work from home during social isolation say they would like a hybrid model of working from home and face to face in the workplace. Most workers are keen to return to physical offices, but not everyday.[15]

Supporting people to work from home will save hundreds of thousands of dollars back to families and households as money spent just on getting to work can be redirected.

On average, a commuter in an outer growth suburb working from home just one day a week would:

- save $1,740 a year if driving,
- save $528 a year using public transport,
- save at least 92 hours a year in commuting time.

Working one day a week at home and purchasing coffee locally would see $5.4 million retained within Australia's outer growth suburb economies.

Estimated on average of public transport and car costs. See also End Note A.

Opportunities for remote & flexible work

522,000 people across Australia's outer growth suburbs are working in jobs that could be done flexibly and remotely.

The impacts of social isolation during COVID-19 has demonstrated for a great many jobs this is possible and practical if not all the time, then at least some of the time to travel less and work at home. This is true both for whole industries, but also for specific occupations that are across many industries.

Based on occupation data from the Census, it is estimated that half a million people living in outer growth areas could do their jobs from home at least some or all of the time.

Considering the top 10 occupations by employment number in outer growth suburbs, working from home some or all of the time could reduce the number of outer growth suburb workers commuting by 174,697 people. This is regardless of what industry these job functions are employed in.

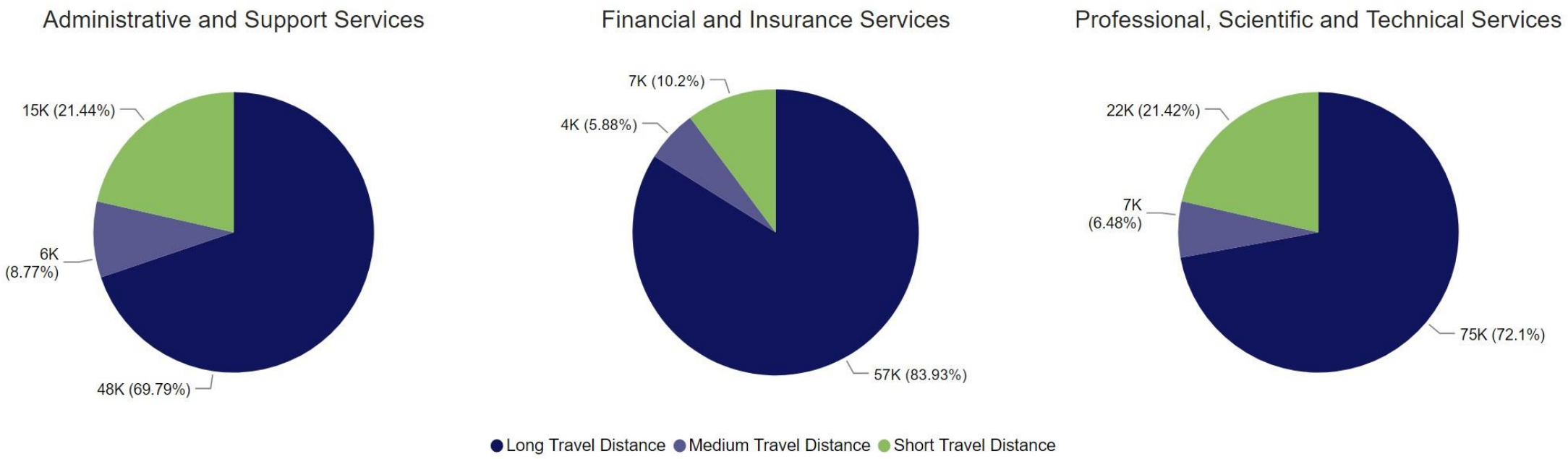
Occupation	Outer growth suburb workers
Accounting Clerks	25,466
Office Managers	22,069
Accountants	21,407
Purchasing and Supply Logistics Clerks	19,048
Contract, Program and Project Administrators	17,103
Advertising, Public Relations and Sales Managers	16,117
Bookkeepers	14,413
Construction Managers	13,885
Information Officers	12,902
Real Estate Sales Agents	12,287
Total	**174,697**

Source: 2016 Census of Population and Housing

Opportunities for remote & flexible work

Changing commuting by industry

Three key industries dominate the jobs that could be done working from home with little change to work habits or expectations – administrative and support services; financial and insurance services; and professional, scientific and technical services.



Source: 2016 Census of Population and Housing

Redefining jobs that can be done at home

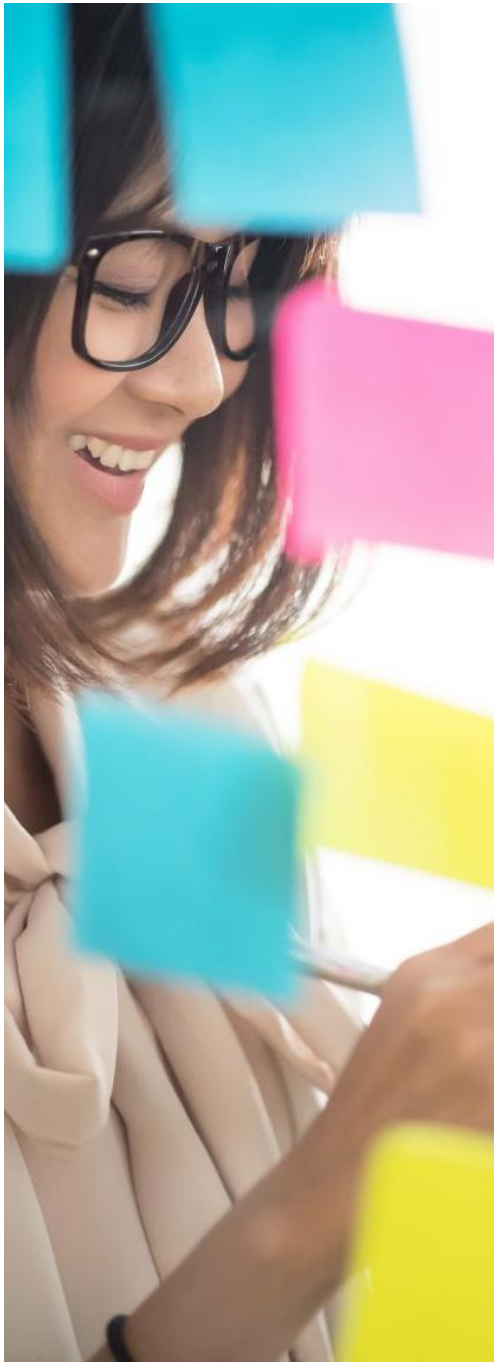
Our experiences of COVID19 related restrictions have demonstrated that a great many jobs can be done remotely very effectively and efficiency with little change to work practices. This experience has provided an opportunity for both management and workers to rethink how work can be done.

Pandemic related lockdowns have also demonstrated that jobs not historically delivered or thought to be able to be delivered from home can actually be completed in a digital setting[16]. Think virtual pilates and telehealth services.

These jobs can be adjusted to suit flexible work arrangements with little to no adjustments to get the same results. There of course remain groups of jobs that are not as readily able to be done remotely. This is not to say that flexible options, such as a hybrid of remote and physical workplace activity can't be explored.

Our use of digital technology during the pandemic should also encourage experimentation in employment in how we carry out and deliver our work.

Other jobs may not be able to be completed permanently at home, or workers may not want work from home all or some of the time, but future workforces will need to have flexible approaches*.



*Data on jobs in Australia are measured using standard codes for occupations and industries. This report has looked at occupations and industries to explore how many people could work from home in outer growth suburbs in Australia. They measure job types in different ways with occupations allowing a more refined understanding of the number of jobs, and the larger industry grouping allowing cross referencing with other variables.

How to create change to the long commute?

1. Understand the drivers, motivations and aspirations of commuters in outer growth suburbs

Employers can benefit from developing a deeper and more empathy driven approach to understanding commuters in our outer growth suburbs. This includes aggregating data such as surveys and interviews to understand what people need to work from home, their decisions regarding where they work, impacts felt across their lives and their aspirations for work practices that work for them. This should be compared to what is different for people in outer growth suburbs compared to workers in inner city suburbs.

2. Develop new ways to understand the jobs done by people in outer growth suburbs

The data used to understand employment and forecast jobs is typically based on the Australia New Zealand Standard Classification of Occupations. The first edition was released in 2006 and revised in 2009. While this is the industry standard it is now ten years old and does not capture new and emerging roles such as 'Data Scientist'. Developing new frameworks to understand new and emerging occupations will support better planning to create places that allow people to work in the jobs of the future.

3. Invest in infrastructure that supports the ability to work from home, and to enable more local employment options.

Employment at home or within outer growth suburbs needs to be supported by infrastructure and amenity. This includes ensuring there is high level broadband connections throughout all outer growth suburbs and establish locally-based work hubs that preclude long commutes. Further exploration of land use and local integrated transport options to promote greater local economic activity generating more locally-based jobs should be a priority.

End notes

Methodology & references

ASTROLABE GROUP

Methodology

What data did we use?

The main data source in this report is the Journey to Work data from the 2016 Census of Population and Housing.

A: How did we work out costs?

Astrolabe Group used data from the RACV[17] on 2019 running costs of a medium size car per kilometre and applied this to average commuting distances for the named LGAs. Estimated tolls were from each state's toll calculator and parking was based on average early bird rates for each capital city. Public transport costs were based on fare information for each metropolitan city's transport website.

B: How did we estimate potential remote based/flexible jobs?

Astrolabe looked at Census occupation and industry data and made an assessment based on job titles or industry groups.

A: Estimating the cost of commuting

Average commuting costs were estimated based on the following information:

- Number of employed persons living in outer growth suburbs who travelled more than 10km to work each day
- Average commuting distance for each LGA sourced from the 2016 Census of Population and Housing.
- Running costs (fuel, tires and servicing) per kilometre and standing costs (insurance, registration, depreciation) per kilometre for a medium sized car were applied to the average commuting distance.[17]
- Tolls were estimated using the relevant toll calculator for Sydney, Melbourne and Brisbane from the source LGA to the CBD. These can vary depending on route but some estimates have placed costs at between $1,000 and $3,000 per year so estimates listed here should be viewed as an average. [18]
- Parking costs were sourced from average cost for earlybird parking that did not require booking in the CBD of each capital city featured. We note that costs can vary in capital cities from $180 to $750 a month.[18]
- Public transport costs were calculated by identifying relevant zone location of outer growth suburbs for travel to the CBD of a city.
- Annual cost estimates assumed full time workers commuted 231 days per year, and part time workers 115 days per year (allowing for four annual leave).

Estimates of total costs applied the average commute cost to the number of employed workers who travelled further than 10km per day, recognising that using averages can overestimate costs for those making short commutes.

For estimates of cost savings if people worked at home one day per year, we used the average of public transport and car travel for every person who travelled 10km or more to get to work. We assumed at least 48 days travel (assuming four weeks annual leave).

B: Occupation by job title

Occupation				
Chief Executives and Managing Directors	Journalists and Other Writers	ICT Business and Systems Analysts	Intelligence and Policy Analysts	Judicial and Other Legal Professionals
General Managers	Accountants	Multimedia Specialists and Web Developers	Land Economists and Valuers	Solicitors
Legislators	Auditors, Company Secretaries and Corporate Treasurers	Software and Applications Programmers	Librarians	Contract, Program and Project Administrators
Advertising, Public Relations and Sales Managers	Financial Brokers	Database and Systems Administrators, and ICT Security Specialists	Management and Organisation Analysts	Office Managers
Corporate Services Managers	Financial Dealers	Computer Network Professionals	Other Information and Organisation Professionals	Personal Assistants
Finance Managers	Financial Investment Advisers and Managers	ICT Support and Test Engineers	Advertising and Marketing Professionals	Secretaries
Human Resource Managers	Human Resource Professionals	Telecommunications Engineering Professionals	ICT Sales Professionals	General Clerks
Policy and Planning Managers	ICT Trainers	Barristers	Public Relations Professionals	Keyboard Operators
Research and Development Managers	Training and Development Professionals	Urban and Regional Planners	Technical Sales Representatives	Call or Contact Centre Workers
ICT Managers	Actuaries, Mathematicians and Statisticians	Human Resource Clerks	Other Miscellaneous Clerical and Administrative Workers	Information Officers
Authors, and Book and Script Editors	Archivists, Curators and Records Managers	Library Assistants	Fashion, Industrial and Jewellery Designers	Receptionists
	Practice Managers	Bank Workers	Graphic and Web Designers, and Illustrators	Accounting Clerks
Architects and Landscape Architects	Economists	Credit and Loans Officers (Aus) / Finance Clerks (NZ)	Interior Designers	Bookkeepers
Surveyors and Spatial Scientists	Payroll Clerks	Insurance, Money Market and Statistical Clerks		

Source: Australian and New Zealand Standard Classification of Occupations, 2013, Version 1.3. https://www.abs.gov.au/ANZSCO

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