CHAPTER 8

COMMUTER CONNECTIVITY

Key points

- Self-containment is described as the proportion of employed residents of a given region that report the same region as their place of work. The average self-containment rate across SEQ at the LGA level was 69.9 per cent in 2016. The Toowoomba and Brisbane LGAs showed the highest self-containment rates of 88.6 per cent and 84.6 per cent, respectively.
- The Logan and Redland LGAs showed the lowest self-containment rates across SEQ in 2016 at 39.9 per cent and 42.9 per cent, respectively. This is likely due to the proximity of the Brisbane LGA, which was identified as the place of work for around half of SEQ's working population.
- Over 70 per cent of Inner Brisbane's workforce commuted to work from outside the ring in 2016 – the largest proportion across the four BCARR rings of SEQ.
- On census day 2016, the largest single flow of commuters between different LGAs was 78,311 commuters, which described employed residents from the Moreton Bay LGA who commuted to the Brisbane LGA for work. This flow represents 41.3 per cent of commuting flows from the Moreton Bay LGA – the largest probability of commuting to another specific LGA of work across SEQ.
- In 2016, there were 1.44 million total commuter flows between SA2s within SEQ. The majority of these flows were ambiguous in direction with 65.7 per cent of all commuting flows occurring within the same BCARR ring, while 26.5 per cent of commuter flows occurred in an inwards direction across rings, and only 7.8 per cent of commuter flows occurred across rings in an outward direction.
- Across SEQ, 9.9 per cent of all workers in 2016 commuted to the Brisbane CBD for work. The largest portion of these workers reside within the Brisbane LGA. While 30.7 per cent of Inner Brisbane residents commuted to the CBD for work, this proportion dropped to 16.9 per cent for Middle Brisbane, 6.9 per cent for Outer Brisbane and just 1.3 per cent for the Rest of SEQ.
- The average commuting distance across SEQ was 17.5km by place of residence. Employed residents in the Inner Brisbane ring had the lowest commuting distance of 8.7km, followed by an average of 13.7km for Middle Brisbane, 20.6km for Outer Brisbane and 24.3km for residents in the Rest of SEQ.
- Employed residents in the Esk and Lockyer Valley – East SA2s had the longest average commuting distances in 2016 at 36.5km and 35.6km respectively.
- The 45-minute job access across SEQ decreased in 2019 to 42.7 per cent compared to 43.1 per cent in 2016, reflecting an increase in congestion and travel times throughout the region. Brisbane and Logan LGAs showed the strongest 45-minute job access, providing employed residents with access to an average of 65 per cent and 61 per cent of all SEQ jobs in 2019, respectively.
- Underwood and Springwood SA2s had the highest job access in 2019, with 72.7 per cent and 71.4 per cent of all SEQ jobs accessible in 45 minutes, respectively. Both SA2s are located in the Logan LGA.
- According to the Household, Income and Labour Dynamics in Australia (or HILDA) survey, the average commuting trip duration for Greater Brisbane increased from 31 minutes in 2010 to 34 minutes in 2019.
- When compared to other major Australian cities, Greater Brisbane's average commuting trip duration of 32.1 minutes (averaged across the entire 2010 to 2019 period) ranked 3rd after Greater Sydney (37.2 minutes) and Greater Melbourne (34.0 minutes).
- Brisbane and Gold Coast experience similar levels of traffic congestion, but the Sunshine Coast has relatively low levels of traffic congestion.

8.1 Introduction

This chapter conducts an evidence-based analysis of commuter behaviour in SEQ, exploring the movements of commuters between places of residence and places of work to provide insights into commuting flows, distances and times. The analysis of connectivity across SEQ provides insight into how workers are currently using the existing road and public transport networks as part of their daily commuting patterns. This chapter is split into seven different sections, which include:

- Self-containment
- Origin-destination commuter flows
- Commuting distance
- Changes in commuting flows
- 30- and 45- minute cities
- Average commuting trip duration
- Congestion metrics.

The first four sections of this chapter utilise the ABS Census of Population and Housing 2016 data to investigate where employed residents live and work. This data highlights the major commuting connections within SEQ, and shows differences in commuting distances for various places of work and residence.

In addition, HoustonKemp job access data is used to analyse job access for all LGAs and SA2s within SEQ. Analysis of commuting trip duration has been conducted using time-series data collected from the Household, Income and Labour Dynamics in Australia (HILDA) annual survey. Finally, this chapter collates traffic congestion data from a range of sources such as TomTom and the Queensland Government to illustrate the evolution of traffic congestion across Brisbane and other major population bases in SEQ.

8.2 Self-containment

This section analyses the self-containment of the SEQ region. Self-containment is described as the number of employed residents whose commuting trips are within their locality of residence. As a measure, the self-containment rate is calculated as the proportion of employed residents within a given region that report the same region as their place of work (PoW).

Self-containment is an important indicator due to its possible implications for sustainability goals. Increasing self-containment within urban areas is often associated with reduced emissions resulting from shorter commuting distances. However, such benefits are only realised when self-containment coincides with reduced vehicle kilometres travelled and/or uptake of sustainable transport modes.

Self-containment of SEQ in 2016: LGAs

Self-containment rates vary across the SEQ region. The average self-containment rate across the 12 LGAs of SEQ is 69.9 per cent, resulting from the majority of employed residents in the region residing in the four most self-contained LGAs (see Table 8.1). The remaining 30.1 per cent of all employed residents across the 12 LGAs either work in another LGA in SEQ, commute to a workplace outside SEQ or have no fixed work address. Toowoomba and Brisbane LGAs demonstrate the highest self-containment rates of 88.6 per cent and 84.6 per cent, respectively. Other LGAs with relatively high self-containment rates are the Gold Coast and Sunshine Coast, both of which show a self-containment rate of roughly 78 per cent.

Logan and Redland LGAs reported particularly low self-containment rates relative to the other LGAs (39.9 per cent and 42.9 per cent, respectively). This is likely a result of their proximity to the Brisbane LGA, which was identified as the PoW for almost half of the working population across the 12 LGAs.

Table 8.1 also shows the proportion of commuters who commute from outside each LGA. For Logan LGA, 40.9 per cent of the total workforce commutes from outside the LGA – the largest proportion across the 12 LGAs. These results for Logan LGA suggest a skill mismatch may exist between local residents and jobs. Ipswich and Brisbane LGAs also possess significant portions of their workforces who commute from outside the LGA (36.3 per cent and 32.4 per cent respectively). The Toowoomba and Sunshine Coast LGAs reported the lowest proportions of workers who commuted from outside the LGA at 9.1 per cent and 9.2 per cent respectively, followed closely by the Gold Coast LGA at 13.8 per cent.

Table 8.1: Self-containment and proportion who commute from outside by LGAs in SEQ in 2016

LGAs	Workers	Employed Residents	Work in home region	Self-containment rate (per cent)	Proportion of LGA's workers who commute from outside LGA (per cent)
Brisbane	714,221	570,454	482,723	84.6	32.4
Gold Coast	235,526	260,550	202,936	77.9	13.8
Ipswich	62,312	84,281	39,695	47.1	36.3
Lockyer Valley	11,201	15,765	8,417	53.4	24.9
Logan	89,097	131,953	52,636	39.9	40.9
Moreton Bay	112,980	189,495	90,401	47.7	20.0
Noosa	20,130	22,009	14,307	65.0	28.9
Redland	40,573	70,165	30,080	42.9	25.9
Scenic Rim	12,362	16,927	9,032	53.4	26.9
Somerset	6,094	9,267	4,355	47.0	28.5
Sunshine Coast	110,848	129,638	100,636	77.6	9.2
Toowoomba	69,350	71,191	63,066	88.6	9.1
12 LGAs total	**1,484,696**	**1,571,693**	**1,098,284**	**69.9**	**26.0**

Note: The 12 LGAs total differs from the total for SEQ, as the rural areas of Toowoomba LGA are excluded from the definition of SEQ. The self-containment rate is the proportion of employed residents of the LGA who also have a place of work in that LGA. The remaining employed residents of the LGA could work in other SEQ LGAs, work outside SEQ, or have no fixed work address.

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

Self-containment of SEQ in 2016: BCARR rings and sub-regions

The self-containment rate across SEQ at the sub-region level is 54.7 per cent (see Table 8.2). Across Greater Brisbane, the Inner Brisbane ring reported the largest self-containment rate of 65.5 per cent. Sub-regions within the Middle Brisbane ring demonstrated significantly lower self-containment rates. The Middle sub-regions' self-containment rates are lower than those reported in any other sub-region across SEQ.

Within the Rest of SEQ, Toowoomba produced the highest self-containment rate of 83.9 per cent, followed by both Gold Coast and Sunshine Coast (77.9 per cent each). Noosa produced a self-containment rate of 65.3 per cent, the only other sub-region with a self-containment rate equal to or greater than Inner Brisbane.

Despite a high self-containment rate, Inner Brisbane's workforce possessed the largest proportion of workers who commute from outside the sub-region of 70.6 per cent. This result is consistent with the low self-containment rates produced by the sub-regions surrounding Inner Brisbane, and indicates that Inner Brisbane is a significant employment destination. Inner Brisbane has a ratio of workers to employed residents of 2.2, suggesting a high commercial focus in the area. The Middle East and Middle North are the only other sub-regions with a ratio of workers to employed residents above 1.0.

There is a general trend across SEQ that the proportion of workers who commute from outside the sub-region decreases with increasing distance from Inner Brisbane. Across the Rest of SEQ, the average proportion of workers who commute from outside their sub-region of employment is 14.2 per cent, which is significantly lower than the Greater Brisbane average of 54.5 per cent.

Table 8.2: Self-containment and proportion who commute from outside by sub-regions in SEQ in 2016

BCARR rings/sub-regions	Workers	Employed Residents	Work in home region	Self-containment rate (per cent)	Proportion of workers who commute from outside sub-region (per cent)
INNER Brisbane*	312,060	140,265	91,869	65.5	70.6
MIDDLE Brisbane – TOTAL*	401,874	429,940	159,153	37.0	60.4
Middle East	39,976	37,966	12,384	32.6	69.0
Middle North	112,511	104,614	41,015	39.2	63.5
Middle South	155,718	167,704	64,814	38.6	58.4
Middle West	93,669	119,656	40,940	34.2	56.3
OUTER Brisbane – TOTAL	305,243	476,144	213,033	44.7	30.2
Ipswich	62,331	84,333	39,727	47.1	36.3
Redland	40,573	70,165	30,080	42.9	25.9
Logan	89,097	131,953	52,636	39.9	40.9
Moreton Bay	113,242	189,693	90,590	47.8	20.0
TOTAL – GREATER BRISBANE	**1,019,177**	**1,046,349**	**464,055**	**44.3**	**54.5**
Rest of SEQ	453,031	512,354	388,763	75.9	14.2
Gold Coast	235,526	260,550	202,936	77.9	13.8
Sunshine Coast	110,157	128,020	99,761	77.9	9.4
Noosa	20,823	23,627	15,418	65.3	26.0
Toowoomba (urban part)	56,862	58,196	48,844	83.9	14.1
Scenic Rim	12,362	16,927	9,032	53.4	26.9
Lockyer Valley	11,203	15,765	8,417	53.4	24.9
Somerset	6,097	9,265	4,355	47.0	28.6
TOTAL – SOUTH EAST QUEENSLAND	**1,472,208**	**1,558,703**	**852,818**	**54.7**	**42.1**

Notes:

* The Inner and Middle Brisbane Rings together comprise the City of Brisbane LGA. See Table 1.3 and Figure 1.2 in Chapter 1 for these classifications.

^ The SEQ total differs from the 12 LGA total in the preceding table, which includes the whole of Toowoomba LGA. This table includes only the urban parts of Toowoomba LGA.

The self-containment rate is the proportion of employed residents of the region who also have a place of work in that region. The remaining employed residents of the region could work in other SEQ regions, work outside SEQ, or have no fixed work address.

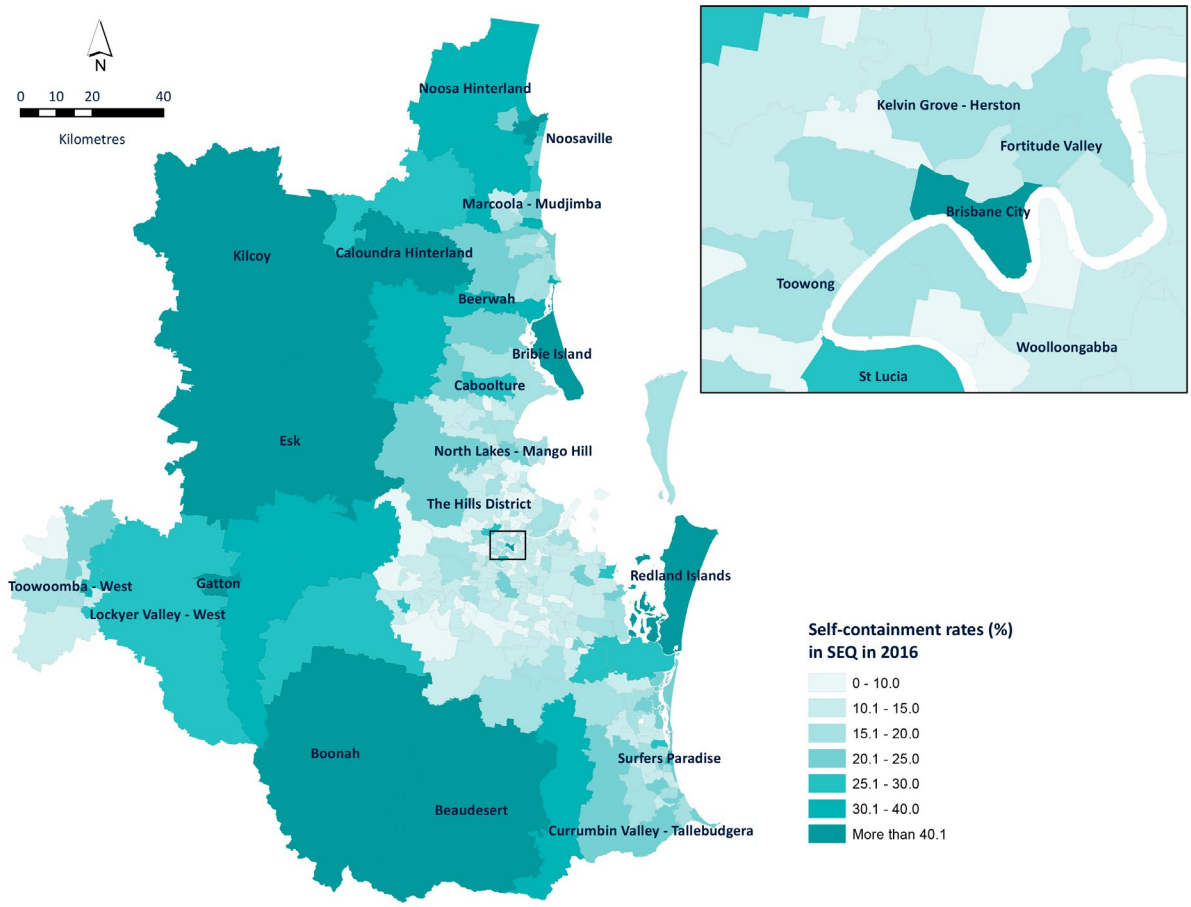
Source: BCARR analysis of ABS Census of Population and Housing, 2016.

Self-containment of SEQ in 2016: SA2s

Self-containment rates at the SA2 level vary significantly across SEQ. Figure 8.1 shows the variation in self-containment rates, and highlights those SA2s with the highest reported self-containment rates. The SA2s with the highest self-containment rates are Kilcoy (60.7 per cent), Beaudesert (59.8 per cent) and Esk (56.7 per cent). Of the ten SA2s with the highest self-containment rates, eight of them are located outside the Greater Brisbane area, with only Brisbane City and Redland Islands SA2s featuring from Greater Brisbane.

Table 8.3 provides further insight into those SA2s with the largest self-containment rates, highlighting their respective regions as well as detailed resident and worker numbers. Somerset and Scenic Rim sub-regions are well-represented among SA2s with the highest self-containment rates. From Somerset, both Kilcoy and Esk SA2s feature in the three SA2s with the highest self-containment. Beaudesert and Boonah SA2s are located in the Scenic Rim sub-region, both of which feature amongst the four highest SA2s for self-containment.

Figure 8.1: Self-containment rates by SA2s of SEQ in 2016



Source: BCARR analysis of ABS Census of Population and Housing, 2016.

Other well-represented sub-regions include Sunshine Coast, Noosa and Lockyer Valley, each of which has multiple SA2s in the largest 20 for self-containment rates. Across the 332 SA2s of SEQ, only 12 SA2s possessed a self-containment rate of 40.0 per cent or above. Despite a large self-containment rate for Toowoomba and Brisbane at the LGA level (as shown in Table 8.1), Brisbane City is the only SA2 from either LGA that features in the highest ten self-containment rates at the SA2 level.

Table 8.3: Top 10 SA2s of SEQ with the highest self-containment rates in 2016

SA2s	BCARR rings/ sub-regions	Workers	Employed Residents	Work in home region	Self-containment rate (per cent)
Kilcoy	Somerset	2,032	2,196	1,333	60.7
Beaudesert	Scenic Rim	5,151	5,360	3,205	59.8
Esk	Somerset	1,306	1,689	957	56.7
Boonah	Scenic Rim	3,477	5,234	2,893	55.3
Gatton	Lockyer Valley	4,423	2,947	1,609	54.6
Caloundra Hinterland	Sunshine Coast	2,624	3,297	1,768	53.6
Redland Islands	Redland	1,571	2,491	1,253	50.3
Brisbane City	Inner Brisbane	122,488	5,391	2,586	48.0
Noosa Heads	Noosa	4,379	1,902	887	46.6
Noosaville	Noosa	7,008	3,479	1,570	45.1

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

The high self-containment rate for Brisbane City SA2 can be attributed to the ratio of workers to employed residents of 22.7. This abundance of jobs ensures sufficient employment opportunities for local residents. Both Noosa Heads and Noosaville SA2s have ratios of workers to employed residents larger than 2.0. This result is consistent with a large proportion of local workers having been 'priced-out' of the residential market, requiring them to commute from elsewhere for work.

In contrast, the ten SA2s with the lowest self-containment rates are all located within Greater Brisbane (see Table 8.4). The Ripley SA2 reported only 133 employed residents who work within the area, producing a self-containment rate of 5.3 per cent. One reason for these SA2s possessing particularly low self-containment rates is their proximity to Brisbane, and as a result, proximity to numerous other major employment hubs/destinations. In addition, Ripley SA2 has been identified as a location for major expansion development into the future. As such, significant employment opportunities may yet to be established for local residents.

Other SA2s with relatively low self-containment rates include Riverhills, Morayfield – East, Durack, Regents Park – Heritage Park and Zillmere, all of which demonstrate a self-containment rate of around 7.0 per cent. In total, 40 SA2s demonstrate a self-containment rate below 10.0 per cent.

Table 8.4: Top 10 SA2s of SEQ with the lowest* self-containment rates in 2016

SA2s	BCARR rings/ sub-regions	Workers	Employed Residents	Work in home region	Self-containment rate (per cent)
Ripley	Ipswich	703	2,532	133	5.3
Riverhills	Middle West	235	2,146	145	6.8
Morayfield – East	Moreton Bay	991	3,613	256	7.1
Durack	Middle West	973	3,038	219	7.2
Regents Park – Heritage Park	Logan	1,167	7,865	587	7.5
Zillmere	Middle North	2,025	4,182	313	7.5
Alderley	Inner Brisbane	1,021	3,490	270	7.7
Bald Hills	Middle North	1,258	3,642	282	7.7
Carina Heights	Middle South	1,228	3,562	284	8.0
Thorneside	Redland	396	1,838	149	8.1

* Those SA2s with zero workers who work in the home region have been excluded.

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

One possible reason for the low self-containment rates in Table 8.4 is the ratio of workers to employed residents. All ten SA2s have a ratio lower than 0.5 – less than one job available for every two employed residents in the SA2. Riverhills and Regents Park – Heritage Park SA2s have less than one job available for every five employed residents living in the locality.

8.3 Origin-destination commuter flows

Summary of origin-destination commuter flows: LGAs

Origin-destination commuter flows show the number of commuters who commute between a given residence area and employment area. Table 8.5 illustrates the total number of commuters for each origin-destination pair based on LGAs. The shaded values in Table 8.5 show the self-contained commuters, those who both reside and work within the same LGA, as discussed previously.

While Table 8.5 is focused on commuting flows within the 12 SEQ LGAs, there are also some sizeable flows occurring to regions in other parts of Australia. According to BITRE (2013a), the most sizeable flows in and out of the region were from the Tweed LGA to a place of work in SEQ (6,300 in 2006), from SEQ to a place of work in the Tweed LGA (3,700) and from SEQ to a place of work in Sydney (2,200). The Tweed LGA has a particularly strong commuting connection with the Gold Coast.

The Brisbane LGA is a significantly larger place of work than a place of residence – 705,335 flows terminate in the LGA compared to only 542,670 flows that originate in the LGA.

Significant commuter flows exist between the Brisbane LGA and those LGAs in the Outer Brisbane ring. The single largest flow of commuters between different LGAs is 78,311 commuters who travel from Moreton Bay LGA to Brisbane LGA for work. Only four individual origin-destination flows between different LGAs are larger than 20,000 commuters. These four flows originate in the Outer Brisbane ring (Moreton Bay, Logan, Ipswich and Redland LGAs) and feature Brisbane LGA as their destination.

The largest origin-destination flow outside of the Brisbane LGA is the flow of 8,984 commuters from the Logan LGA to the Gold Coast LGA.

Table 8.6 highlights the probabilities of employed residents in a given LGA commuting to a place of work in each LGA. Across the 12 LGAs, the majority of significant commuting probabilities involve self-containment flows within an LGA. The four largest commuting probabilities are shown by employed residents commuting within the Toowoomba (88.6 per cent), Brisbane (84.6 per cent), Gold Coast (77.9 per cent) and Sunshine Coast (77.6 per cent) LGAs.

Employed residents in Moreton Bay LGA have the largest probability of commuting to another LGA for work, with 41.3 per cent of residents commuting to the Brisbane LGA for work. The Logan LGA has the largest probability for residents to work outside their LGA with only 39.9 per cent of residents self-contained. Major work destinations for Logan residents include Brisbane LGA (39.7 per cent) and Gold Coast LGA (6.8 per cent).

Outside the Brisbane LGA, the most significant flow between different LGAs occurs between the Noosa and Sunshine Coast LGAs with employed residents in Noosa LGA showing an 18.2 per cent probability of commuting to the Sunshine Coast LGA for work. Other large flows include 17.4 per cent of employed residents in Somerset LGA who commute to the Ipswich LGA for work, and 17.3 per cent of employed residents in Lockyer Valley LGA commuting to the Toowoomba LGA.

Table 8.5: Commuting flows between the 12 LGAs of SEQ in 2016

Place of Residence	Place of Work												
	Brisbane	Gold Coast	Ipswich	Lockyer Valley	Logan	Moreton Bay	Noosa	Redland	Scenic Rim	Somerset	Sunshine Coast	Toowoomba	Total
Brisbane	**482,723**	6,664	11,646	342	17,995	14,684	117	6,143	353	192	1,173	637	542,672
Gold Coast	18,908	**202,936**	1,029	39	8,172	748	29	826	961	19	200	203	234,070
Ipswich	33,355	960	**39,695**	575	2,752	355	13	268	357	405	84	257	79,069
Lockyer Valley	1,271	74	1,358	**8,417**	131	42	3	26	27	379	20	2,724	14,466
Logan	52,338	8,984	3,533	114	**52,636**	681	8	2,396	1,338	22	109	102	122,254
Moreton Bay	78,311	884	617	29	1,083	**90,401**	78	429	33	420	2,657	171	175,085
Noosa	527	42	10	–	27	147	**14,307**	6	8	8	3,996	38	19,115
Redland	28,355	1,494	540	12	3,978	413	7	**30,080**	33	3	54	40	65,012
Scenic Rim	1,737	2,099	1,186	22	1,193	28	–	46	**9,032**	6	15	26	15,393
Somerset	1,247	42	1,608	452	103	452	5	11	13	**4,355**	49	130	8,470
Sunshine Coast	5,635	299	138	30	216	3,913	4,926	82	14	127	**100,636**	176	116,191
Toowoomba	924	165	196	997	69	59	9	18	13	44	58	**63,066**	65,618
Total	705,335	224,642	61,554	11,026	88,350	111,921	19,497	40,325	12,174	5,987	109,055	67,566	**1,457,426**

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

Table 8.6: Probability of employed residents commuting to each LGA of work throughout SEQ in 2016

Place of Residence	Place of Work (per cent of employed residents)													
	Brisbane	Gold Coast	Ipswich	Lockyer Valley	Logan	Moreton Bay	Noosa	Redland	Scenic Rim	Somerset	Sunshine Coast	Toowoomba	Other	Total
Brisbane	**84.6**	1.2	2.0	0.1	3.2	2.6	0.0	1.1	0.1	0.0	0.2	0.1	4.9	100.0
Gold Coast	7.3	**77.9**	0.4	0.0	3.1	0.3	0.0	0.3	0.4	0.0	0.1	0.1	10.2	100.0
Ipswich	39.6	1.1	**47.1**	0.7	3.3	0.4	0.0	0.3	0.4	0.5	0.1	0.3	6.2	100.0
Lockyer Valley	8.1	0.5	8.6	**53.4**	0.8	0.3	0.0	0.2	0.2	2.4	0.1	17.3	8.2	100.0
Logan	39.7	6.8	2.7	0.1	**39.9**	0.5	0.0	1.8	1.0	0.0	0.1	0.1	7.4	100.0
Moreton Bay	41.3	0.5	0.3	0.0	0.6	**47.7**	0.0	0.2	0.0	0.2	1.4	0.1	7.6	100.0
Noosa	2.4	0.2	0.0	0.0	0.1	0.7	**65.0**	0.0	0.0	0.0	18.2	0.2	13.1	100.0
Redland	40.4	2.1	0.8	0.0	5.7	0.6	0.0	**42.9**	0.0	0.0	0.1	0.1	7.3	100.0
Scenic Rim	10.3	12.4	7.0	0.1	7.0	0.2	0.0	0.3	**53.4**	0.0	0.1	0.2	9.1	100.0
Somerset	13.5	0.5	17.4	4.9	1.1	4.9	0.1	0.1	0.1	**47.0**	0.5	1.4	8.6	100.0
Sunshine Coast	4.3	0.2	0.1	0.0	0.2	3.0	3.8	0.1	0.0	0.1	**77.6**	0.1	10.4	100.0
Toowoomba	1.3	0.2	0.3	1.4	0.1	0.1	0.0	0.0	0.0	0.1	0.1	**88.6**	7.8	100.0

Note: Other column includes people with no fixed work address, as well as those with a place of work outside SEQ.

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

Summary of origin-destination commuter flows: BCARR rings and sub-regions

Examining origin-destination commuter flows at the BCARR ring and sub-regions level shows the largest flows occur within the Greater Brisbane region. Table 8.7 shows all commuter flows between each origin-destination pair across SEQ. The largest individual flows are self-contained flows within the Middle Brisbane and Outer Brisbane rings with 219,170 and 230,077 commuters, respectively. In terms of flows between different rings/sub-regions, the largest flow describes employed residents in the Middle Brisbane ring commuting to the Inner Brisbane ring for work, with 137,950 total commuters. The flow of employed residents from the Outer Brisbane ring to the Middle Brisbane ring for work is also significant, with 126,857 commuters.

Large population bases in the Sunshine Coast and Gold Coast also demonstrated significant flows into the Greater Brisbane region. A total of 29,687 employed residents from the Gold Coast region commuted to work destinations across the three rings of Greater Brisbane, whilst 9,903 employed residents commuted to these same areas from the Sunshine Coast region. For origin-destination commuter flows outside the Greater Brisbane region, the largest flows occurred between Noosa and the Sunshine Coast. Employed residents in the Sunshine Coast region were responsible for 4,481 commuter flows into Noosa. Conversely, employed residents in the Noosa region accounted for 4,199 commuter flows into the Sunshine Coast.

Table 8.7 also indicates the total amount of employed residents and workers across the rings and sub-regions. Only the Inner Brisbane ring and Toowoomba were larger destinations than origins in terms of commuter flows. The Inner Brisbane ring was a destination for 308,074 commuters whilst only an origin for 133,807 commuters, demonstrating a worker to employed resident ratio of 2.3.

Table 8.8 describes the probabilities of employed residents in each ring/sub-region commuting to another ring/sub-region in SEQ. Self-containment flows across the various sub-regions of SEQ showed the highest probabilities, particularly those commuter flows within Toowoomba (83.9 per cent), Gold Coast (77.9 per cent) and Sunshine Coast (77.9 per cent).

There are high probabilities for employed residents in Greater Brisbane to commute across its various rings. For example, employed residents in the Middle Brisbane ring have a 32.1 per cent chance to commute to the Inner ring, while employed residents in the Outer Brisbane ring have a 26.6 per cent chance to commute to the Middle Brisbane ring for work.

There is a significant proportion of employed residents in Somerset who commute to Greater Brisbane for work, with a 23.5 per cent probability of commuting to the Outer Brisbane ring in particular. Other significant probabilities include employed residents from Noosa commuting to the Sunshine Coast (17.8 per cent) and employed residents in Lockyer Valley commuting to Toowoomba (16.5 per cent).

Table 8.7: Commuting flows between the BCARR rings and sub-regions of SEQ in 2016

	Place of Work										
Place of Residence	**Inner Brisbane**	**Middle Brisbane**	**Outer Brisbane**	**Gold Coast**	**Sunshine Coast**	**Noosa**	**Toowoomba**	**Scenic Rim**	**Lockyer Valley**	**Somerset**	**Total SEQ**
Inner Brisbane	**91,869**	33,472	6,522	1,318	332	36	117	77	43	23	133,807
Middle Brisbane	137,950	**219,170**	43,977	5,340	841	83	378	275	296	169	408,479
Outer Brisbane	65,505	126,857	**230,077**	12,323	2,897	104	419	1,754	720	849	441,510
Gold Coast	8,299	10,601	10,787	**202,936**	202	29	141	961	39	19	234,013
Sunshine Coast	2,711	2,866	4,326	299	**99,761**	4,481	131	14	30	127	114,750
Noosa	270	310	212	42	4,199	**15,418**	28	8	–	8	20,506
Toowoomba	334	444	286	139	43	8	**48,844**	7	944	26	51,079
Scenic Rim	517	1,221	2,453	2,099	15	–	23	**9,032**	22	6	15,387
Lockyer Valley	330	946	1,558	74	20	3	2,605	27	**8,417**	379	14,356
Somerset	306	946	2,173	42	49	5	99	13	449	**4,355**	8,437
Total SEQ	308,074	396,840	302,371	224,618	108,364	20,172	52,782	12,169	10,976	5,967	**1,442,322**

Notes: These values differ from the values shown in Table 8.5, which includes the whole of the Toowoomba LGA. This table includes only the urban parts of Toowoomba.

Source: BCARR analysis of ABS Census of Population and Housing, 2016

Table 8.8: Probability of employed residents commuting to each BCARR ring and sub-region of SEQ for work in 2016

Place of Residence	Place of Work (per cent of employed residents)											
	Inner Brisbane	Middle Brisbane	Outer Brisbane	Gold Coast	Sunshine Coast	Noosa	Toowoomba	Scenic Rim	Lockyer Valley	Somerset	Other	Total
Inner Brisbane	**65.5**	23.9	4.6	0.9	0.2	0.0	0.1	0.1	0.0	0.0	4.6	100.0
Middle Brisbane	32.1	**51.0**	10.2	1.2	0.2	0.0	0.1	0.1	0.1	0.0	5.0	100.0
Outer Brisbane	13.8	26.6	**48.3**	2.6	0.6	0.0	0.1	0.4	0.2	0.2	7.3	100.0
Gold Coast	3.2	4.1	4.1	**77.9**	0.1	0.0	0.1	0.4	0.0	0.0	10.2	100.0
Sunshine Coast	2.1	2.2	3.4	0.2	**77.9**	3.5	0.1	0.0	0.0	0.1	10.4	100.0
Noosa	1.1	1.3	0.9	0.2	17.8	**65.3**	0.1	0.0	0.0	0.0	13.2	100.0
Toowoomba	0.6	0.8	0.5	0.2	0.1	0.0	**83.9**	0.0	1.6	0.0	12.2	100.0
Scenic Rim	3.1	7.2	14.5	12.4	0.1	0.0	0.1	**53.4**	0.1	0.0	9.1	100.0
Lockyer Valley	2.1	6.0	9.9	0.5	0.1	0.0	16.5	0.2	**53.4**	2.4	8.9	100.0
Somerset	3.3	10.2	23.5	0.5	0.5	0.1	1.1	0.1	4.8	**47.0**	8.9	100.0

Note: Other column includes people with no fixed work address, as well as those with a place of work outside SEQ.

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

Major commuting flows in SEQ: between SA2s

Examination of origin-destination flows at the SA2 level shows that only 6 individual flows involve more than 3,000 commuters. All of these flows are self-contained flows and included Nambour in the Sunshine Coast LGA, Surfers Paradise in the Gold Coast LGA and Noosa Hinterland in the Noosa LGA as the three largest.

Focusing only on the flows between different SA2s, Brisbane City SA2 and Toowoomba – Central SA2 feature as predominant destinations for commuter flows. Figure 8.2 illustrates the major commuter flows into Brisbane City SA2 from surrounding SA2s. The largest individual flow occurs from employed residents in the New Farm SA2 commuting to Brisbane City for work, with 1,966 commuters. Employed residents from Newstead – Bowen Hills (1,803 commuters), Coorparoo (1,772 commuters), The Hills District (1,670 commuters) and Paddington – Milton (1,558 commuters) SA2s also have sizeable commuter flows to the Brisbane City SA2.

Of these flows, only The Hills District SA2 to Brisbane City SA2 involves SA2s from different LGAs – Moreton Bay LGA and Brisbane LGA, respectively. The four other commuter flows mentioned above are self-contained to the Brisbane LGA.

Figure 8.2: Top 5 largest SA2 commuting flows to Brisbane City SA2 within SEQ in 2016

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

Figure 8.3 shows the major origin-destination commuter flows around the Toowoomba – Central SA2. The largest individual flow involves employed residents in the Toowoomba – West SA2 commuting to Toowoomba – Central SA2 for work with 1,509 commuters. Other major commuter flows in the area involves employed residents from Darling Heights (1,465 commuters), Highfields (1,406 commuters), Toowoomba – East (1,385 commuters) and Wilsonton (1,286 commuters) SA2s all commuting to the Toowoomba – Central SA2 for work.

Figure 8.3: Top 5 largest SA2 commuting flows to Toowoomba – Central SA2 within SEQ in 2016

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

Types of commuting flows between SA2s

This section provides information on the types of commuting flows occurring throughout SEQ at the SA2 level. The different types of flows have been presented for all of SEQ, as well as only the Greater Brisbane region. Each individual flow at the SA2 level has been classified as either occurring within a BCARR ring, or across these rings. Flows occurring across different rings have been further identified as either 'inwards' flows (e.g. from a sub-region in the Outer Brisbane ring, to a sub-region in the Middle Brisbane ring), or 'outwards' flows (e.g. from the Inner Brisbane ring to a sub-region in the Middle Brisbane ring). The rings used in this analysis are the BCARR rings previously discussed in this report, which include four separate rings: Inner Brisbane, Middle Brisbane, Outer Brisbane and Rest of SEQ.

Commuting flows that originate and terminate within the boundaries of the same ring have been classified as ambiguous in direction. Each of these flows has been further categorised into one of the following categories:

- Within the same SA2
- Different SA2, same sub-region, same ring
- To a different sub-region in the same ring
  - For those who live in Rest of SEQ
  - For those who live in Outer Brisbane
  - For those who live in Middle Brisbane

Table 8.9 illustrates the different types of flows across SEQ. In 2016, there were 1.44 million total commuter flows between SA2s within SEQ. The vast majority of these flows were ambiguous in direction with 65.7 per cent of all flows occurring within the same BCARR ring. Of these, 18.2 per cent of total flows were self-contained to the same SA2.

An additional 41.0 per cent of all flows were self-contained to the same sub-region but between different SA2s. The largest volume contributors to this category were flows from New Farm and Newstead – Bowen Hills SA2s to the Brisbane City SA2. Commuter flows between different sub-regions within the same BCARR ring contributed to a significantly smaller portion of total flows. Those commuter flows between different sub-regions within the Middle ring formed the largest portion of this category, with 4.2 per cent of total flows. Flows between different sub-regions across the Outer ring and the Rest of SEQ comprised only 1.2 per cent of all flows across the SEQ region.

Commuting flows classified as Inwards flows comprised a significant portion of all commuting flows at 26.5 per cent. The largest volume contribution to this category was the commuting flow from Coorparoo SA2 in the Middle ring to the Brisbane City SA2 in the Inner ring. Those flows classified as Outwards flows comprised only 7.8 per cent of total commuting flows across the region.

Table 8.9: Total commuting flows within SEQ by type of flow in 2016

Types of Commuting Flows	Number of Commuters	Proportion (per cent)
Inwards (across rings)	382,199	26.5
Outwards (across rings)	112,385	7.8
Ambiguous in direction (within a ring)	947,738	65.7
One region to another in Rest of SEQ	17,855	1.2
One sub-region to another in Outer ring	17,052	1.2
One sub-region to another in Middle ring	60,013	4.2
Within same SA2	261,892	18.2
Different SA2, same sub-region, same ring	590,926	41.0
Total	**1,442,322**	**100.0**

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

Table 8.10 examines the total commuting flows within Greater Brisbane only. When compared with Table 8.9, it can be seen that the majority of both Inwards and Outwards type flows are contained within Greater Brisbane. Inwards commuting flows within Greater Brisbane comprise 22.9 per cent of total flows across SEQ, yet account for 34.6 per cent of flows within the Greater Brisbane region.

Table 8.10: Total commuting flows within only Greater Brisbane by type of flow in 2016

Types of Commuting Flows	Number of Commuters	Proportion of Greater Brisbane (per cent)	Proportion of total SEQ (per cent)
Inwards (across rings)	330,312	34.6	22.9
Outwards (across rings)	83,971	8.8	5.8
Ambiguous in direction (within a ring)	541,120	56.6	37.5
One sub-region to another in Outer ring	17,052	1.8	1.2
One sub-region to another in Middle ring	60,013	6.3	4.2
Within same SA2	144,316	15.1	10.0
Different SA2, same sub-region, same ring	319,739	33.5	22.2
Total	**955,403**	**100.0**	**66.2**

Note: Table includes only those who both live and work within Greater Brisbane.

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

Proportion of employed residents who commute to the CBD: LGAs

This section provides information on the proportion of employed residents across SEQ who commute to the Brisbane CBD for work. For this purpose, Brisbane CBD has been defined as the combination of 3 SA2s in the Brisbane LGA. The three SA2s that comprise the CBD are Brisbane City, Fortitude Valley and Spring Hill.[28]

Table 8.11 summarises the proportion of employed residents from each of the 12 LGAs within SEQ who commute to the Brisbane CBD for work. Brisbane CBD is a significant work destination for SEQ, with almost 10 per cent of all employed residents working across the three SA2s of the CBD. Of these residents, the majority reside within the Brisbane LGA at nearly 75 per cent of all Brisbane CBD workers.

Table 8.11: Proportion of employed residents who commute to Brisbane CBD by LGAs in 2016

LGAs	Employed Residents	Work in Brisbane CBD	Proportion who commute to Brisbane CBD (per cent)
Brisbane	570,454	115,654	20.3
Gold Coast	260,550	4,622	1.8
Ipswich	84,281	5,093	6.0
Lockyer Valley	15,765	127	0.8
Logan	131,953	7,489	5.7
Moreton Bay	189,495	15,419	8.1
Noosa	22,009	123	0.6
Redland	70,165	4,899	7.0
Scenic Rim	16,927	261	1.5
Somerset	9,267	148	1.6
Sunshine Coast	129,638	1,400	1.1
Toowoomba	71,191	196	0.3
Total	**1,571,693**	**155,420**	**9.9**

Note: Brisbane CBD is defined as the combination of the Brisbane City, Fortitude Valley and Spring Hill SA2s.
Source: BCARR analysis of ABS Census of Population and Housing, 2016

The Brisbane LGA has the largest proportion of workers across the 12 LGAs of SEQ who commute to the Brisbane CBD for work (20.3 per cent). This is due to the proximity of residents within the LGA to the Brisbane CBD. Significant portions of employed residents from the Moreton Bay, Redland, Ipswich and Logan LGAs commute to the Brisbane CBD for work, ranging from 8.0 per cent for the Moreton Bay LGA to 5.7 per cent for Logan LGA.

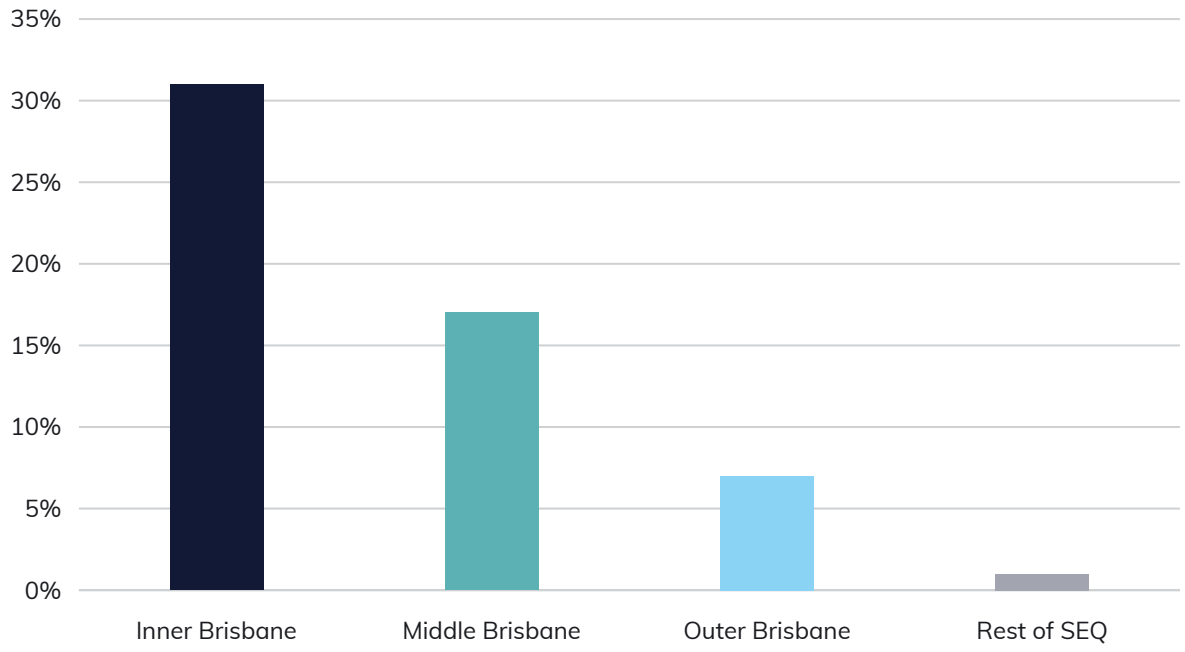
28 BCARR has defined the CBD using a functional approach. The definition starts with the central SA2, and adds adjoining SA2s that have a similar function to the central SA2, as reflected in a CBD-like industry structure and high job density. Using this functional approach, Sydney and Melbourne's CBDs contain 7 SA2s, Brisbane's contains 3, and Perth and Adelaide's CBDs both contain only the central SA2.

Proportion of employed residents who commute to the CBD: BCARR rings and sub-regions

Figure 8.4 illustrates the variation of the proportion of employed residents who commute to the CBD across the BCARR rings. Those employed residents living within the Inner Brisbane ring had the highest proportion who commute to the Brisbane CBD for work at 30.7 per cent of all employed residents. This proportion decreases to an average of 16.9 per cent across the Middle Brisbane ring, and decreases further to an average of 6.9 per cent across the Outer Brisbane ring. The Rest of SEQ ring features the smallest proportion of employed residents who commute to the Brisbane CBD at only 1.3 per cent.

There is a clear inverse relationship between the distance from Brisbane CBD and the proportion of employed residents who commute to the Brisbane CBD for work. This trend is highlighted by the results from the Toowoomba and Noosa sub-regions. As the two sub-regions furthest from the Brisbane CBD, the proportion of workers who commute there for work are only 0.3 and 0.6 per cent, respectively.

Figure 8.4: Proportion of employed residents who commute to Brisbane CBD by BCARR ring in 2016



Note: Brisbane CBD is defined as the combination of the Brisbane City, Fortitude Valley and Spring Hill SA2s.
Source: BCARR analysis of ABS Census of Population and Housing, 2016.

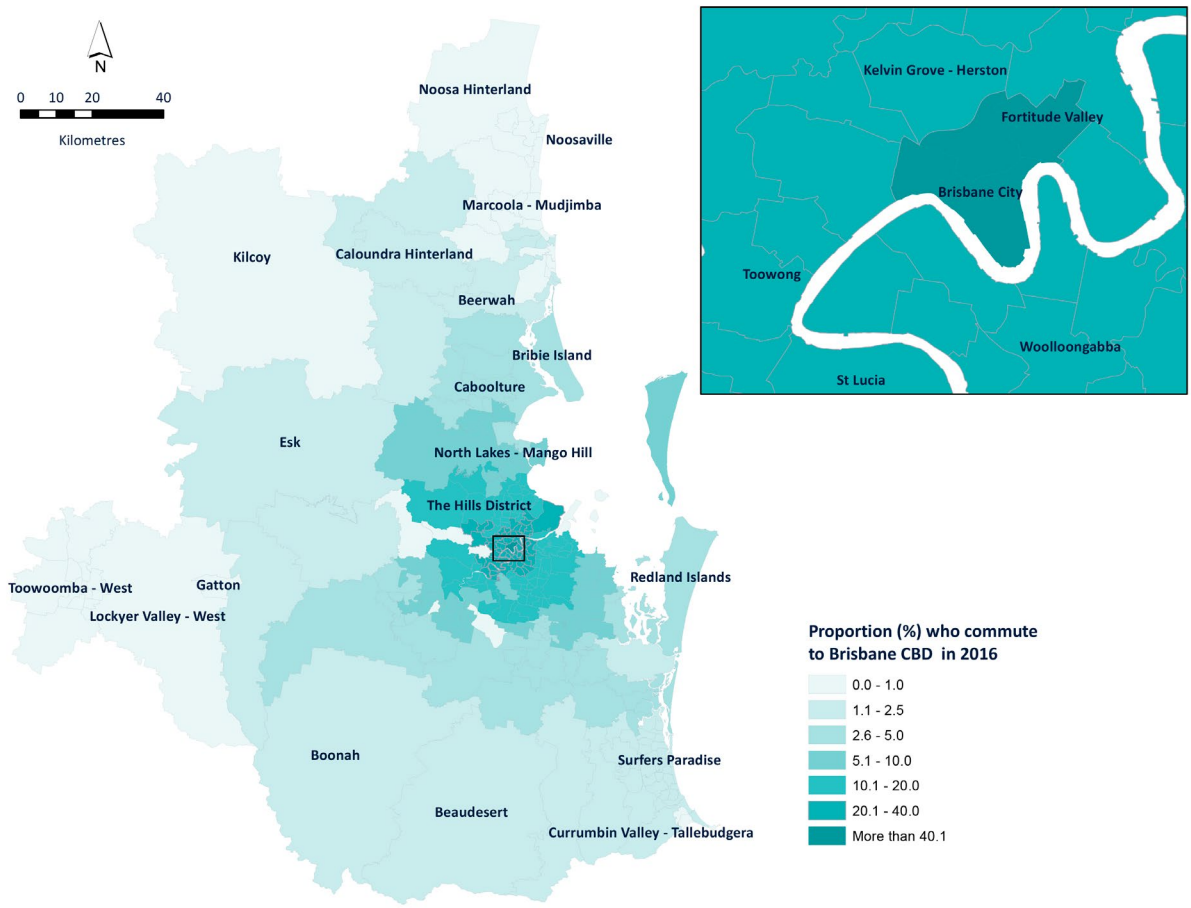
Proportion of employed residents who commute to the CBD: SA2s

Figure 8.5 shows the proportion of employed residents who commute to the Brisbane CBD across SEQ by SA2s. The SA2s with the largest proportions of employed residents commuting to Brisbane CBD for work all lie within the Inner Brisbane ring, with Brisbane City, Spring Hill and Fortitude Valley SA2s featuring proportions larger than 50.0 per cent. These SA2s stand out as they are the three SA2s that comprise the Brisbane CBD.

The New Farm and Newstead – Bowen Hills SA2s also feature large proportions of their employed residents commuting to the Brisbane CBD at 38.0 per cent and 36.3 per cent, respectively. Across sub-regions in the Outer Brisbane ring, The Hills District, Eatons Hill and Underwood SA2s showed significant proportions of their employed residents commuting to the CBD – ranging between 12.0 and 18.0 per cent.

SA2s across the Rest of SEQ ring showed minimal proportions of employed residents commuting to the Brisbane CBD for work. The Coomera and Glass House Mountains SA2s had among the largest proportions across this ring, with 4.0 and 3.1 per cent of all employed residents making the commute to the Brisbane CBD for work, respectively.

Figure 8.5: Proportion of employed residents who commute to Brisbane CBD by SA2s of SEQ in 2016



Note: Brisbane CBD is defined as the combination of the Brisbane City, Fortitude Valley and Spring Hill SA2s.
Source: BCARR analysis of ABS Census of Population and Housing, 2016.

8.4 Commuting distance

Commuting distance was calculated based on the Distance to Work variable from the 2016 ABS Census. This is a range-based variable that presents the number of commuters whose commuting distance falls within a given range.

Those commuters with 'Nil distance' or 'not applicable' have been excluded from the analysis. In addition, commuting distances above 250km have been excluded. The assumption is that 250km encompasses all reasonable daily commuting distances for road users. This approach is consistent with the method previously used to construct commuting distances for Australian cities in BITRE (2015). To convert each distance range to a distance value in order to construct an average, the midpoint for each range was used.

Commuting distance across SEQ in 2016: LGAs

Table 8.12 shows average commuting distances by place of residence and place of work. For example, employed residents of Brisbane LGA travelled an average distance of 12.3km to work, while people whose place of work is in the Brisbane LGA had an average commuting distance of 17.9km.

Across the 12 LGAs of SEQ, the average commuting distance based on place of residence was 17.5km in 2016 (Table 8.12). Of the 12 LGAs, only two LGAs produced an average commuting distance lower than 17.5km – Brisbane LGA (12.3km) and Toowoomba LGA (16.8km). These results show that employed residents in these LGAs are on average, more likely to live closer to major employment destinations. These results are consistent with the high self-containment rates previously presented in this chapter for the Brisbane and Toowoomba LGA, showing that employed residents have a high probability of commuting within the LGA for work.

Conversely, LGAs that displayed significantly larger commuting distances based on place of residence were Somerset, Scenic Rim and Lockyer Valley. These LGAs produced average commuting distance for employed residents of 33.9km, 31.0km and 28.3km respectively.

Table 8.12: Average commuting distances by LGAs of SEQ in 2016

LGAs	Place of Residence (km)	Place of Work (km)
Brisbane	12.3	17.9
Gold Coast	19.3	16.3
Ipswich	20.9	19.5
Lockyer Valley	28.3	23.2
Logan	20.8	18.6
Moreton Bay	21.4	16.8
Noosa	21.9	17.3
Redland	19.3	13.9
Scenic Rim	31.0	23.3
Somerset	33.9	27.7
Sunshine Coast	21.1	17.0
Toowoomba	16.8	16.9
Total 12 LGAs	**17.5**	**17.6**

Note: BCARR's calculation of average commuting distance excludes individuals with zero commuting distance and those with a commuting distance of more than 250km.

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

When looking at average commuting distance in terms of place of work, Redland LGA stands out as having the lowest average commuting distance with 13.9km. Across the 12 LGAs of SEQ, average commuting distance was 17.6km. Average commuting distance for the Brisbane LGA exceeds 17.6km, with workers commuting an average distance of 17.9km. The result is consistent with the larger number of workers than employed residents in Brisbane LGA showing a high propensity for the workforce to commute from outside the LGA.

The Somerset, Scenic Rim and Lockyer Valley LGAs remain outliers for average commuting distance by place of work, with average commuting distances of 27.7km, 23.3km and 23.2km respectively.

Commuting distance across SEQ in 2016: BCARR rings and sub-regions

Commuting distances showed significant variations across the BCARR rings of SEQ, particularly between the place of residence and place of work classifications, as illustrated in Figure 8.6. In terms of place of residence, the average commuting distance across SEQ was 17.4km. The Inner Brisbane ring is a noticeable outlier for place of residence commuting distance with employed residents only commuting 8.7km to work, on average. This is likely due to their proximity to major employment destinations, namely the Brisbane CBD.

Across the four BCARR rings, there is a clear trend of average commuting distance tending to increase for employed residents the greater the distance from Inner Brisbane. The Middle Brisbane ring produced an average commuting distance based on place of residence of 13.7km – lower than the average commuting distance for Outer Brisbane residents of 20.6km. Employed residents in the Rest of SEQ displayed the longest average commuting distance across the four BCARR rings at 24.3km.

Commuting distances based on place of work vary less across the BCARR rings than by place of residence. Across the four rings, Inner Brisbane produced the lowest average commuting distance of 17.0km compared to the Rest of SEQ, which produced the longest average commuting distance of 19.8km. The significantly larger variation in commuting distance based on place of residence suggests that place of residence is a greater factor is dictating individual commuting distance than place of work.

Figure 8.6: Average commuting distance by BCARR rings across SEQ in 2016

Note: BCARR's calculation of average commuting distance excludes individuals with zero commuting distance and those with a commuting distance of more than 250km.

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

Between the two measures of commuting distance, the Inner Brisbane ring showed the largest difference with employed residents commuting 8.3km less than workers on average. In contrast, workers within the Rest of SEQ commuted 4.5km less on average than employed residents in the region.

Commuting distance across SEQ in 2016: SA2s

At the SA2 level, large variation in commuting distance exists for both place of residence and place of work measures. Figure 8.7 shows the differences in average commuting distance by place of residence across SEQ. Particular SA2s in the Inner Brisbane sub-region show lower commuting distances. The Spring Hill, Brisbane City and Fortitude Valley SA2s (those that comprise the Brisbane CBD) stand out with employed residents in these areas commuting 5.6km, 6.3km and 6.4km on average, respectively.

The five longest and five shortest average commuting distances across all SA2s are summarised in Table 8.13. Esk and Lockyer Valley – East SA2s demonstrated the longest average commuting distances for their employed residents of 36.5km and 35.6km respectively. Only 13 SA2s produced an average commuting distance for employed residents in excess of 30km, with these SA2s concentrated amongst the Outer Brisbane and Rest of SEQ rings.

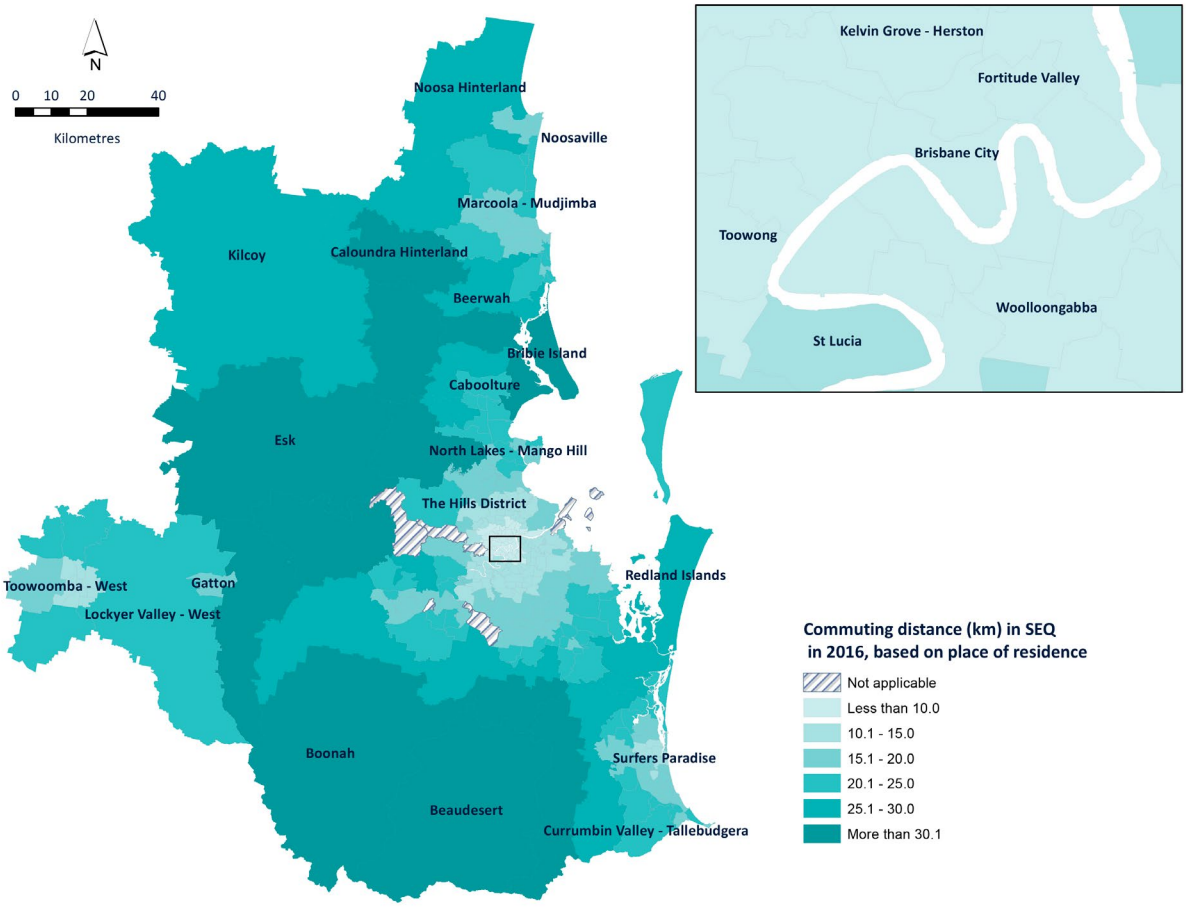
Table 8.13: Top 5 SA2s with longest and shortest average commuting distances for place of residence of SEQ in 2016

SA2 of residence	Sub-region of residence	Commuting Distance (km)
Top 5 SA2s (Longest)		
Esk	Somerset	36.5
Lockyer Valley – East	Lockyer Valley	35.6
Lowood	Somerset	34.9
Woodford – D' Aguilar	Moreton Bay	34.4
Jimboomba	Logan	33.8
Top 5 SA2s (Shortest)		
Spring Hill	Inner Brisbane	5.6
Brisbane City	Inner Brisbane	6.3
Fortitude Valley	Inner Brisbane	6.4
South Brisbane	Inner Brisbane	7.2
Auchenflower	Inner Brisbane	7.4

Note: BCARR's calculation of average commuting distance excludes individuals with zero commuting distance and those with a commuting distance of more than 250km.

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

Figure 8.7: Average commuting distance across SEQ SA2s as place of residence in 2016

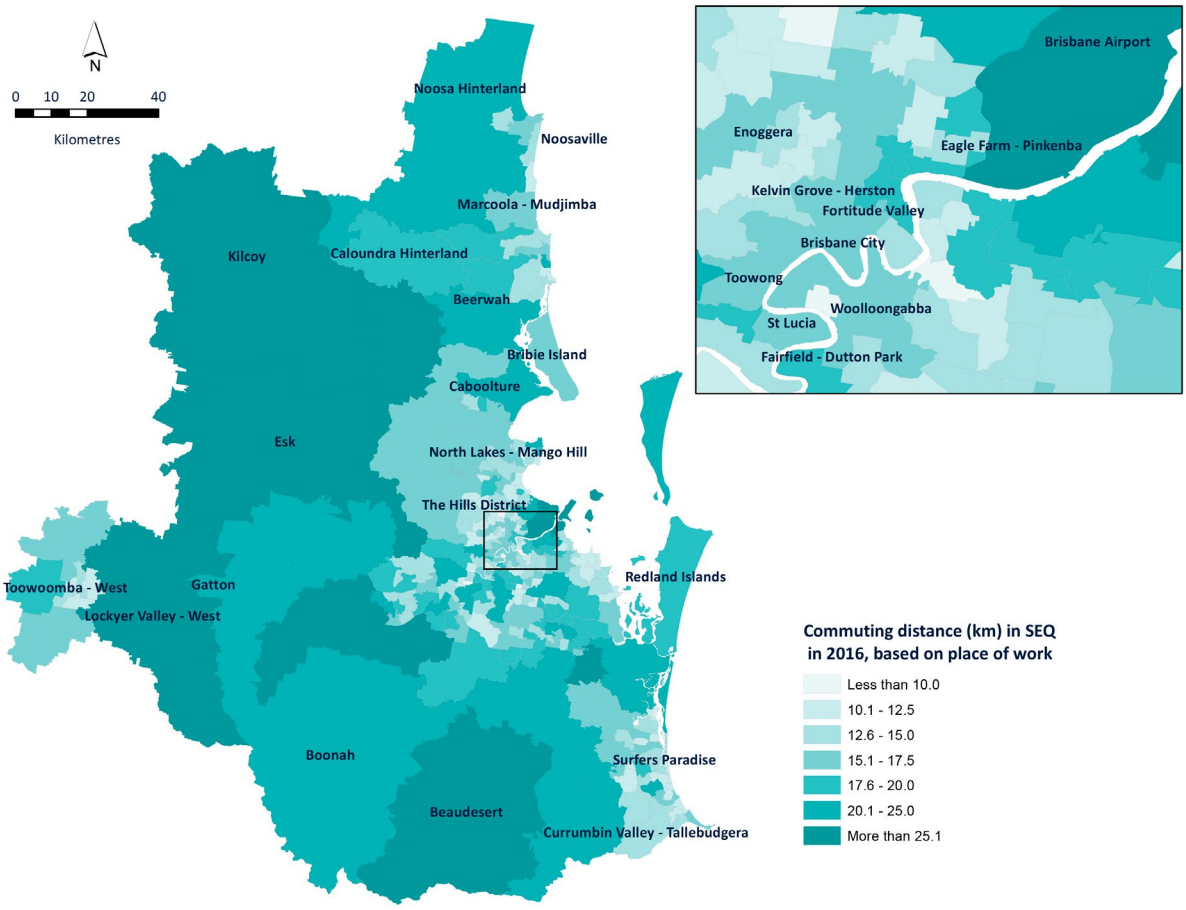


Note: BCARR's calculation of average commuting distance excludes individuals with zero commuting distance and those with a commuting distance of more than 250km.

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

Average commuting distance is less varied for place of work than place of residence at the SA2 level. As illustrated in Figure 8.8, workers in the Norman Park SA2 experienced the shortest average commuting distance of 9.3km, as compared to workers in the Brisbane Port – Lytton SA2 who faced an average commuting distance of 35.0km. The Brisbane Airport SA2 also demonstrated a long average commuting distance (about 29.6 km) for its workers. The long commuting distances for both port and airport workers is due to the specialised nature of the employment precinct.

Figure 8.8: Average commuting distance across SEQ SA2s as place of work in 2016



Note: BCARR's calculation of average commuting distance excludes individuals with zero commuting distance and those with a commuting distance of more than 250km.

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

Table 8.14 summarises the longest and shortest commuting distances for places of work at the SA2 level across SEQ. Unlike the previous table, the longest and shortest SA2 are distributed throughout the various BCARR rings. While Brisbane Port and Brisbane Airport SA2s demonstrated high commuting distances for their workers, other SA2s in the Middle Brisbane ring featured very short commuting distances. Middle Park – Jamboree Heights, Chermside West and Robertson SA2s were among only five SA2s to produce an average commuting distance for their workers below 10.0km.

Table 8.14: Top 5 SA2s with longest and shortest average commuting distances for place of work of SEQ in 2016

SA2 of employment	Sub-region of employment	Commuting Distance (km)
Top 5 SA2s (Longest)		
Brisbane Port – Lytton	Middle East	35.0
Kilcoy	Somerset	31.5
Ripley	Ipswich	30.5
Brisbane Airport	Middle North	29.6
Rosewood	Ipswich	29.3
Top 5 SA2s (Shortest)		
Norman Park	Inner Brisbane	9.3
Highgate Hill	Inner Brisbane	9.5
Middle Park – Jamboree Heights	Middle West	9.6
Chermside West	Middle North	9.8
Robertson	Middle South	9.9

Note: BCARR's calculation of average commuting distance excludes individuals with zero commuting distance and those with a commuting distance of more than 250km.

Source: BCARR analysis of ABS Census of Population and Housing, 2016.

8.5 Changes in commuting flows

The information presented in Chapter 5 showed that the largest absolute increase in employed residents from 2016 to 2021 was for the Gold Coast SA4 (44,700), while Inner Brisbane, Logan-Beaudesert and Ipswich each added between 24,000 and 30,000 new employed residents. The Gold Coast and Inner Brisbane regions tend to have high self-containment, so it is likely there were very substantial increases in commuter flows within those two regions. Significant increases in commuter flows within Logan and Ipswich, and between Gold Coast and Logan are also likely. The rate of growth of employed residents was highest for Inner Brisbane, Logan-Beaudesert and Ipswich SA4s (which were each between 17 and 19 per cent), and so we should expect relatively rapid growth in commuter flows originating in these regions between 2016 and 2021. The 2021 ABS Census of Population and Housing data was released by ABS in October 2022, after the completion of this research project.

BITRE has undertaken some historic research into trends in commuting flows in SEQ and other large Australian cities (BITRE 2013a, b). A common trend that was identified across all four cities between 2001 and 2006 was that inward commuting flows had a below-average rate of growth, so the proportion of all commutes that were inward commutes declined (BITRE 2013b). In Sydney, Melbourne and Brisbane, outward flows grew most rapidly. For SEQ, inward flows declined from 30.2 per cent in 2001 to 28.6 per cent in 2006 (BITRE 2013a), and the 26.5 per cent share for 2016 in Table 8.9 suggests it has fallen further since then.[29]

29 Comparison of data across censuses needs to be treated with caution as changes in methodology can impact on estimates.

8.6 30-minute and 45-minute job access

This section analyses 30-minute and 45-minute job access across SEQ. Box 8.1 provides detail on the construction and interpretation of these measures. Job access within 30 and 45 minutes has been constructed at the LGA and SA2 level in SEQ. This section includes 30- and 45-minute job access analysis for the growth area SA2s, with HoustonKemp producing job access data for 2016, 2019 and 2020 (consolidation and expansion, see Box 8.1 for details). Due to the impacts of the pandemic on average road speed, this analysis will omit the results from 2020, focusing on the data presented for 2016 and 2019 only.

Box 8.1 What is 30-minute and 45-minute job access?

The economic consultancy firm, HoustonKemp, were commissioned by the Department to collect data describing the job access conditions within 30 minutes and 45 minutes for residents in a given SA2 or LGA. These job access indicators describe the average number of jobs within SEQ that a working-age resident can access by car within 30 or 45 minutes during the morning peak. Based on the average number of jobs accessible, a value for the proportion of total jobs accessible is provided for each SA2 and LGA.

Starting at the SA2 level, a population-weighted centre is calculated for each SA2, which is combined with estimated traffic speed data on individual roads during morning peak periods to form a commute area for each SA2 for both 30 minutes and 45 minutes. Based on census data, the number of jobs in each destination zone in SEQ (smallest area for which job counts are available) is calculated. By calculating the proportion of each destination zone that lies within an SA2's commute area, the number of jobs accessible can be estimated.

Taking a population-weighted average number of jobs available across all SA2s within a given LGA, an estimate for the average number of jobs accessible for residents within the LGA is collated. The number of jobs available in SEQ is held constant across years, so changes observed in job access represent changes in the road network and speeds observed over individual roads.

What is connectivity to growth areas?

For the purpose of this analysis, growth areas involve the 23 consolidation SA2s and 25 expansion SA2s previously identified, which have shown particularly high growth in recent years. Connectivity to growth areas has been presented in this chapter as the 30-minute and 45-minute job access indicators for each growth area – providing insight into the ability for current and future employed residents in these areas to access major employment destinations throughout SEQ.

What is the definition of consolidation and expansion SA2s?

Growth area SA2s are defined as those for which the population increased by over 1600 persons between 2016 and 2020. These growth areas SA2s are classified as either consolidation or expansion SA2s. Consolidation SA2s are the SA2s where development is occurring on land inside the existing urban area boundary. Expansion SA2s are the SA2s where development is occurring on land outside the existing urban area boundary.

30 and 45-minute job access: LGAs

30 minute job access

Figure 8.9 illustrates the average proportion of SEQ jobs available within 30 minutes for each of the 12 LGAs across SEQ between 2016 and 2019. On average, across the 12 LGAs, working age residents have access to 25.4 per cent of SEQ jobs in 2016 and 24.5 per cent in 2019.

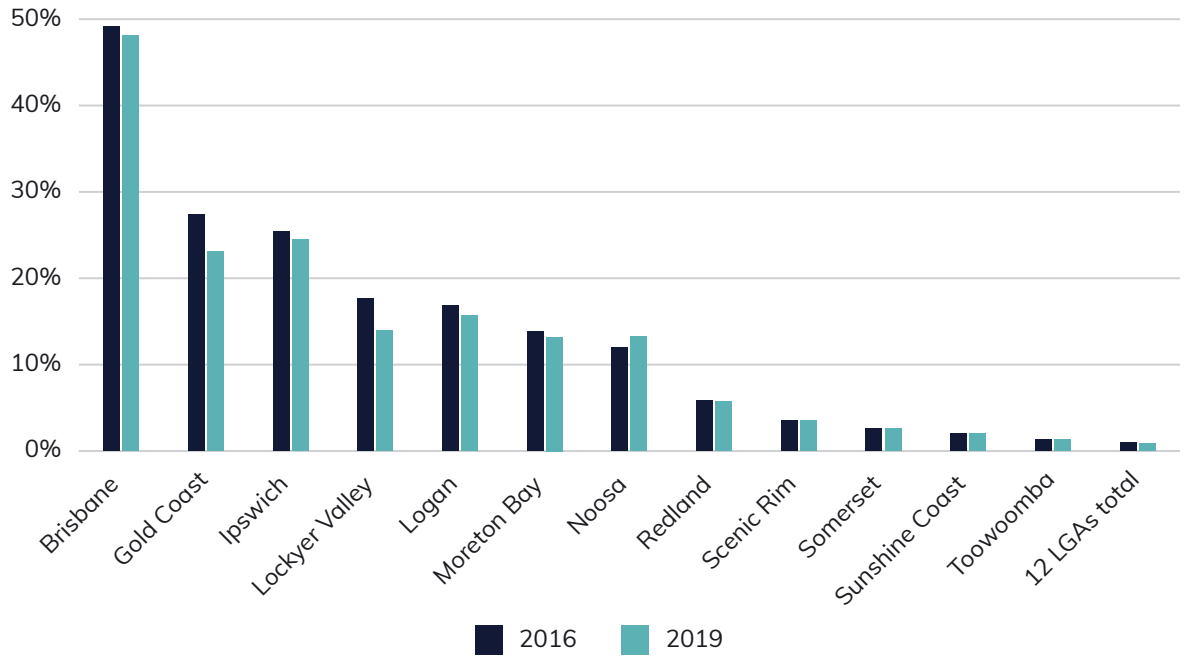
For both 2016 and 2019, Brisbane LGA stands out in particular as the LGA with the highest job access indicators (49.1 per cent in 2016 and 48.1 per cent in 2019). The Logan LGA performs better on the job access indicators than the other LGAs in Greater Brisbane.

Outside Greater Brisbane, the Gold Coast and Sunshine Coast LGAs showed the strongest job access. For the Gold Coast LGA, 13.8 per cent of all jobs were accessible to working-age residents in 2016 and 13.2 per cent in 2019. Somerset and Scenic Rim LGAs showed the lowest access to jobs, with residents having access to roughly 1 per cent of all SEQ jobs within 30 minutes across both 2016 and 2019.

Generally, job access declined between 2016 and 2019 with 11 of the 12 LGAs showing a reduction in the proportion of jobs accessible within 30 minutes. Only the Moreton Bay LGA showed an increase in job access growing from 12 per cent in 2016 to 13 per cent in 2019. As jobs are held constant across the years, this increase represents a positive change in the road network or individual road speeds for residents in the Moreton Bay LGA.

The Logan and Redland LGAs experienced significant declines in job access over the three years. Both Logan and Redland LGAs saw a 4-percentage point decline in the average proportion of jobs accessible between 2016 and 2019, decreasing from 27.4 per cent to 23.1 per cent and 17.7 per cent to 13.9 per cent respectively.

Figure 8.9: 30-minute job access across the 12 LGAs of SEQ from 2016 to 2019



Source: Customised data based on HERE GPS speed probe data and ABS Census of Population and Housing 2016, provided by HoustonKemp.

45 minute job access

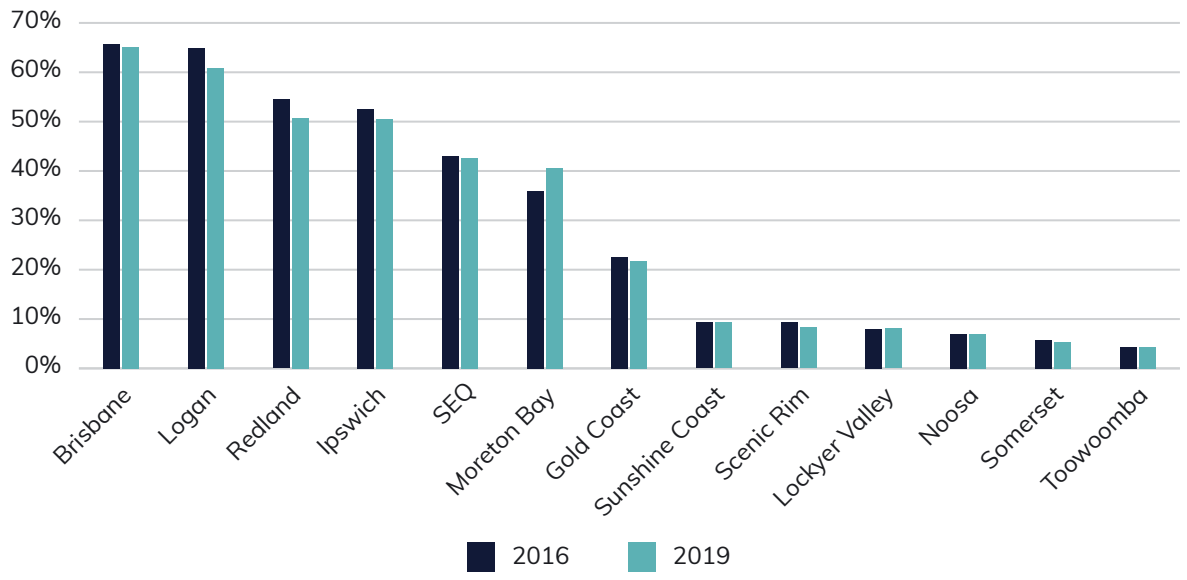
Figure 8.10 shows the proportion of SEQ jobs accessible within 45 minutes for working-age residents across the 12 LGAs between 2016 and 2019. Across the 12 LGAs, working-age residents in SEQ had access to an average of roughly 43.0 per cent of all SEQ jobs within 45 minutes in 2016 and 2019. Brisbane LGA demonstrated the strongest access to jobs across both 2016 and 2019 with residents having access to 65.8 per cent and 65.2 per cent of all SEQ jobs, respectively.

The four LGAs in the Outer Brisbane ring (Logan, Redland, Ipswich and Moreton Bay) also showed relatively strong job access indicators. Working-age residents of the Logan LGA had average proportions of accessible jobs similar to residents in Brisbane LGA at 64.9 per cent in 2016 and 60.9 per cent in 2019. LGAs further away from Brisbane showed notably lower 45-minute access to jobs. The Toowoomba LGA showed the lowest proportions of jobs accessible within 45 minutes with only 4.4 per cent of all SEQ jobs accessible in both 2016 and 2019.

Between 2016 and 2019, only the Moreton Bay and Lockyer Valley LGAs saw notable increases in 45-minute job access. The average proportion of jobs accessible within 45 minutes for Moreton Bay residents increased from 36.0 per cent to 40.6 per cent between 2016 and 2019.

The Logan and Redland LGAs both experienced significant decreases in 45-minute job access between 2016 and 2019, of around 4-percentage points.

Figure 8.10: 45-minute job access across the 12 LGAs of SEQ from 2016 to 2019



Source: Customised data based on HERE GPS speed probe data and ABS Census of Population and Housing 2016, provided by HoustonKemp.

Comparing 30-minute and 45-minute job access, the largest differences in job access are seen amongst the four LGAs of the Outer Brisbane ring (Logan, Redland, Ipswich and Moreton Bay). In 2016, residents in these four LGAs had access to more than twice as many jobs within 45 minutes than they had within 30 minutes. For example, residents in the Logan LGA only had access to 27.4 per cent of all SEQ jobs within 30 minutes in 2016, yet had access to 64.9 per cent within 45 minutes.

Residents within the LGAs across the Rest of SEQ ring saw significantly smaller differences in job accessibility between the 30-minute and 45-minute measures. The Gold Coast LGA exhibited the largest increase in the proportion of SEQ jobs accessible with an additional 8.8 per cent accessible within 45 minutes. The Toowoomba LGA showed the smallest increase in the proportion of SEQ jobs accessible with only an additional 0.9 per cent accessible within 45 minutes. These results show that an additional 15 minutes of commuting time for residents in these LGAs doesn't significantly improve their access to other major employment zones, particularly those centred in Greater Brisbane.

30 and 45-minute job access: SA2s

30 minute job access

At the SA2 level, there is large variability across both 30-minute and 45-minute job access indicators. Table 8.15 highlights the five SA2s with the largest proportion of jobs accessible across SEQ within 30 minutes. Each of these SA2s lie within either the Inner Brisbane or Middle Brisbane ring, showing strong job access for these areas within 30 minutes. The Murarrie SA2 in the Middle East sub-region had access to the largest proportion of all jobs in SEQ within 30 minutes at 56.6 per cent. Eagle Farm – Pinkenba, Annerley and Upper Mount Gravatt SA2s, all located in the Middle Brisbane ring also showed particularly high 30-minute job access. Hendra SA2 was the only SA2 from the Inner Brisbane ring amongst the five highest SA2s for 30-minute job access. Of the 332 SA2s in SEQ, only eight SA2s were able to access more than 55.0 per cent of all SEQ jobs within 30 minutes.

Table 8.15: Top 5 SA2s with the largest 30-minute job access across SEQ in 2019

SA2s	BCARR rings / Sub-regions	Average SEQ jobs accessible in 30 minutes	Proportion of SEQ jobs accessible in 30 minutes (per cent)
Murarrie	Middle East	840,542	56.6
Eagle Farm – Pinkenba	Middle North	830,650	55.9
Annerley	Middle South	821,729	55.3
Hendra	Inner Brisbane	820,806	55.3
Upper Mount Gravatt	Middle South	819,855	55.2

Source: Customised data based on HERE GPS speed probe data and ABS Census of Population and Housing 2016, provided by HoustonKemp.

45 minute job access

Table 8.16 shows the SEQ SA2s with the highest 45-minute job access indicators. SA2s from the Logan and Middle South sub-regions performed noticeably well in 45-minute job access, with all SA2s shown in Table 8.16 located within these two sub-regions. Additionally, 19 of the 20 SA2s with the strongest 45-minute job access indicators were located within the Logan and Middle South sub-regions.

The Underwood and Springwood SA2s showed the highest 45-minute job access across all of SEQ, providing working-age residents with access to an average of 72.7 per cent and 71.4 per cent of all SEQ jobs within a 45-minute commute, respectively. These are two adjoining SA2s in the Logan LGA from which residents within 45 minutes will typically be able to access the CBD, as well as most of the Brisbane suburbs south of the river (including Ipswich) and much of the Gold Coast. Eight Mile Plains, Rochedale – Burbank and Wishart SA2s provided the highest 45-minute job access from the Middle South sub-region with each SA2 providing the average resident with access to more than 1,050,000 jobs.

Table 8.16: Top 5 SA2s with the largest 45-minute job access across SEQ in 2019

SA2s	BCARR rings / Sub-regions	Average SEQ jobs accessible in 45 minutes	Proportion of SEQ jobs accessible in 45 minutes (per cent)
Underwood	Logan	1,079,472	72.7
Springwood	Logan	1,060,085	71.4
Eight Mile Plains	Middle South	1,058,497	71.3
Rochedale – Burbank	Middle South	1,055,173	71.1
Wishart	Middle South	1,053,872	71.0

Source: Customised data based on HERE GPS speed probe data and ABS Census of Population and Housing 2016, provided by HoustonKemp.

30 and 45-minute job access: Consolidation and expansion SA2s

Consolidation and expansion areas are two different types of growth areas that have been identified at the SA2 scale, and are described in more detail in Chapter 4. In this section we consider whether 30- and 45-minute job access differ between the different types of growth areas in SEQ. Table 8.17 compares 30- and 45-minute job access across the three types of SA2. As a whole, the expansion SA2s have markedly lower 30-minute job access than the consolidation and remaining SA2s (at 15.3 per cent, versus 26.7 and 27.5 per cent, respectively). However, when it comes to 45-minute job access, the expansion areas can access 42.5 per cent of all SEQ jobs, which is above the average for consolidation areas (38.9 per cent) and only slightly below the average for the other (non-growth) SA2s (45.3 per cent).

Table 8.17: 30-minute and 45-minute job access in growth areas of SEQ in 2019

Growth area type	Proportion of SEQ jobs accessible in 30 minutes (per cent)	Proportion of SEQ jobs accessible in 45 minutes (per cent)
Consolidation	26.7	38.9
Expansion	15.3	42.5
Other	27.5	45.3
SEQ	24.5	42.7

Note: Consolidation is development occurring on land inside the existing urban area boundary. This was previously known as 'infill development' . Expansion is development occurring on land outside the existing urban area boundary. This was previously known as 'greenfield development' . As defined on page 175 (Figure 32, *Shaping SEQ*), the existing urban area is a statistical boundary used to measure consolidation and expansion development.

Source: Customised data based on HERE GPS speed probe data and ABS Census of Population and Housing 2016, provided by HoustonKemp.

Consolidation areas

There are 23 consolidation SA2s across SEQ. Table 8.18 presents the 30-minute and 45-minute job access for each consolidation area. For 30-minute job access, the consolidation SA2s of Brisbane City, Fortitude Valley, South Brisbane and Coorparoo showed the highest job access by providing residents with access to an average of 54 per cent of all SEQ jobs. Of these SA2s, the first three are located within Inner Brisbane, reflecting the region's strong 30-minute job access. The consolidation SA2s displayed a wide range of 30-minute job access, essentially falling into two groups:

- Consolidation SA2s in Inner and Middle Brisbane had 30-minute job access of 40.0 per cent or more.
- Consolidation SA2s in the Gold Coast, Sunshine Coast and Moreton Bay LGAs had job access of 16.1 per cent or less, with job access being particularly low in consolidation areas within the latter two LGAs.

Table 8.18: 30-minute and 45-minute job access for consolidation SA2s across SEQ in 2019

SA2s	BCARR rings / sub-regions	Proportion of SEQ jobs accessible in 30 minutes (per cent)	Proportion of SEQ jobs accessible in 45 minutes (per cent)
Brisbane City	Inner Brisbane	**54.4**	**68.4**
Fortitude Valley	Inner Brisbane	53.8	67.8
South Brisbane	Inner Brisbane	53.7	66.7
Coorparoo	Middle South	53.7	67.0
Newstead – Bowen Hills	Inner Brisbane	52.0	67.2
Morningside – Seven Hills	Inner Brisbane	51.2	65.9
West End	Inner Brisbane	50.1	66.3
Calamvale – Stretton	Middle South	49.6	68.1
Forest Lake – Doolandella	Middle West	44.7	62.0
Taigum – Fitzgibbon	Middle North	40.5	61.9
Oxenford – Maudsland	Gold Coast	16.1	27.7
Robina	Gold Coast	13.4	17.3
Surfers Paradise	Gold Coast	13.4	17.5
Hope Island	Gold Coast	11.6	22.5
Biggera Waters	Gold Coast	11.5	19.3
Scarborough – Newport – Moreton Island	Moreton Bay	7.2	39.4
Mountain Creek	Sunshine Coast	6.7	10.8
Bli Bli	Sunshine Coast	6.4	8.4
Caboolture	Moreton Bay	6.2	25.1
Peregian Springs	Sunshine Coast	5.7	7.6
Wurtulla – Birtinya	Sunshine Coast	5.6	9.9
Caboolture – South	Moreton Bay	5.3	20.9
Bribie Island	Moreton Bay	**1.8**	**7.1**
Consolidation SA2s – Average		**26.7**	**38.9**

Source: Customised data based on HERE GPS speed probe data and ABS Census of Population and Housing 2016, provided by HoustonKemp.

For 45-minute job access, Brisbane City and Fortitude Valley SA2s continue to display relatively strong job access, providing residents with access to 68.4 per cent and 67.8 per cent of SEQ jobs, respectively. The Calamvale – Stretton SA2 from the Middle South sub-region also provided residents with access to 68.1 per cent of all jobs in SEQ. Again, 45-minute job access tends to be much lower for consolidation SA2s in the Gold Coast, Sunshine Coast and Moreton Bay LGAs. Particularly poor 45-minute job access in Bli Bli, Peregian Springs and Bribie Island SA2s contributed to the low overall job access values for consolidation SA2s.

Expansion areas

Table 8.19 shows the 30-minute and 45-minute job access for the 25 expansion SA2s identified across SEQ. For 30-minute job access, the Rochedale – Burbank and Pallara – Willawong SA2s showed relatively higher job access than other expansion SA2s, providing working-age residents with access to an average of 51.8 per cent and 47.2 per cent of all SEQ jobs respectively. Of the 25 expansion SA2s, 21 SA2s showed 30-minute job access below 20.0 per cent, providing residents with access to less than one in every five jobs across SEQ.

Table 8.19: 30-minute and 45-minute job access for expansion SA2s across SEQ in 2019

SA2s	BCARR rings / sub-regions	Proportion of SEQ jobs accessible in 30 minutes (per cent)	Proportion of SEQ jobs accessible in 45 minutes (per cent)
Rochedale – Burbank	Middle South	**51.8**	**71.1**
Pallara – Willawong	Middle South	47.2	64.5
Murrumba Downs – Griffin	Moreton Bay	31.1	61.8
Bellbird Park – Brookwater	Ipswich	22.4	57.9
Springfield Lakes	Ipswich	18.2	58.4
Boronia Heights – Park Ridge	Logan	17.2	59.0
Pimpama	Gold Coast	17.1	42.7
Dakabin – Kallangur	Moreton Bay	15.3	51.0
Ormeau – Yatala	Gold Coast	14.7	57.9
Redbank Plains	Ipswich	14.4	55.3
North Lakes – Mango Hill	Moreton Bay	14.4	50.3
Chambers Flat – Logan Reserve	Logan	13.6	60.3
Upper Coomera – Willow Vale	Gold Coast	13.4	28.9
Coomera	Gold Coast	13.2	28.4
Cashmere	Moreton Bay	11.6	45.8
Thornlands	Redland	11.4	54.5
Narangba	Moreton Bay	10.7	42.8
Ripley	Ipswich	7.4	41.2
Redland Bay	Redland	7.0	29.4
Greenbank	Logan	6.1	36.3
Caloundra – West	Sunshine Coast	5.8	10.8
Landsborough	Sunshine Coast	5.7	10.5
Jimboomba	Logan	5.6	30.8
Toowoomba – West	Toowoomba	4.1	**4.7**
Noosa Hinterland	Noosa	**2.9**	7.7
Expansion SA2s – Average		**15.3**	**42.5**

Source: Customised data based on HERE GPS speed probe data and ABS Census of Population and Housing 2016, provided by HoustonKemp.

For 45-minute job access, the Rochedale – Burbank SA2 showed the highest proportion of jobs accessible with 71.1 per cent. The Pallara – Willawong, Murrumba Downs-Griffin and Chambers Flat-Logan Reserve SA2s also showed particularly high 45-minute job access providing residents with access to more than 60 per cent of SEQ jobs on average.

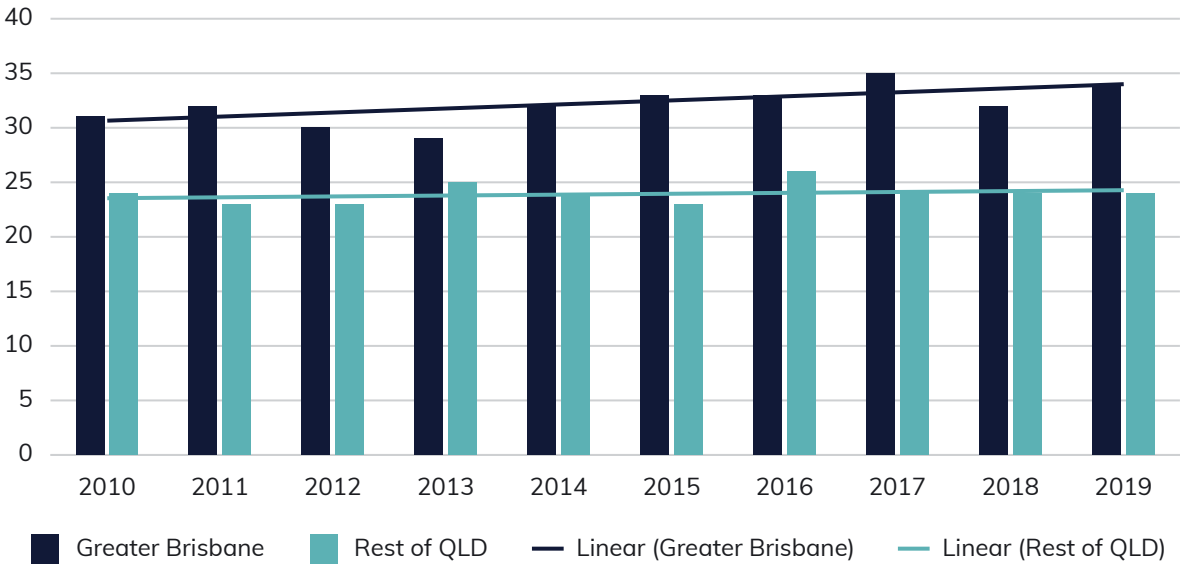
Expansion SA2s showed relatively low 30-minute job access as a whole, averaging an accessible job proportion of 15.3 per cent across all 25 SA2s. This was due to 16 of the 25 expansion SA2s producing 30-minute job access indicators below 15 per cent. However, expansion SA2s performed notably better in 45-minute job access, averaging 42.5 per cent of jobs being accessible across the 25 SA2s. A key reason for the stronger 45-minute job access is the distribution of the expansion SA2s amongst those LGAs in the Outer Brisbane ring (Logan, Ipswich, Redland and Moreton Bay), all of which performed noticeably better in 45-minute job access measures.

8.7 Average commuting trip duration

This section analyses the average commuting trip duration for workers in Greater Brisbane. This section is based on data collected from the HILDA annual survey. For the purpose of this analysis, annual HILDA data has been collected from 2010 to 2019 and is not available at the LGA, BCARR ring or SA2 levels.

Figure 8.11 shows the time series data for average commuting trip duration between 2010 and 2019 for the Greater Brisbane area and the Rest of Queensland. Over the ten years, average commuting times in the Greater Brisbane area have grown slightly, increasing from 31 minutes in 2010 to 34 minutes in 2019. This growth has not been steady and consistent. Throughout the ten years, average commuting times peaked in 2017, reaching an average of 35 minutes for Greater Brisbane residents. The lowest average commuting trip duration was 29 minutes, occurring in 2013. Residents in the Rest of Queensland experienced consistently lower average commuting times between 2010 and 2019 – averaging 8 minutes shorter commuting trips over the ten-year period. Commuting trip duration in the Rest of Queensland remained relatively stable between 2010 and 2019, with commuters reporting average trip durations of 24 minutes in both 2010 and 2019.

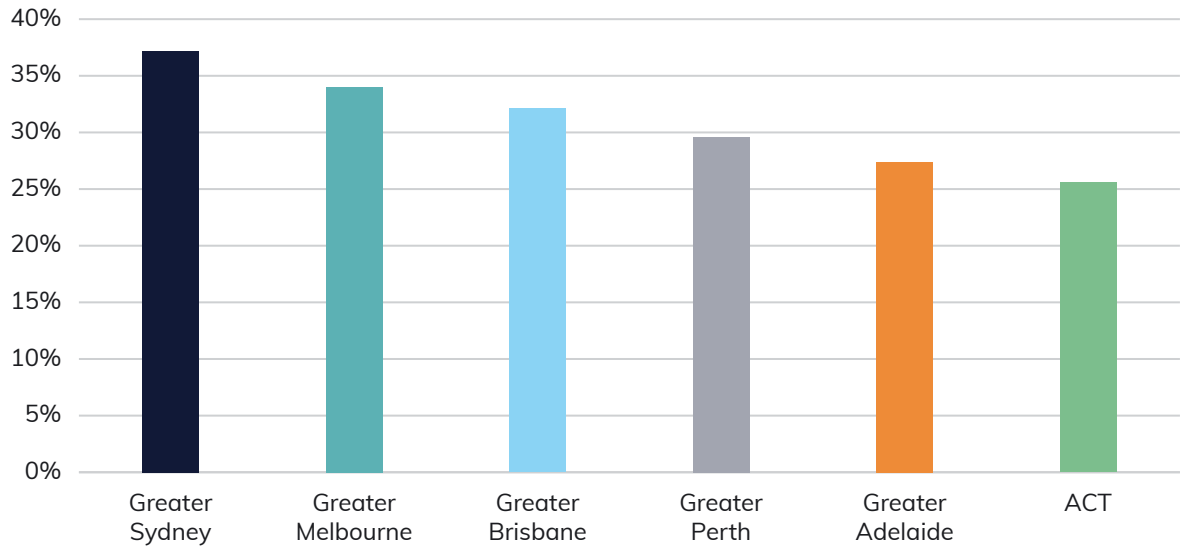
Figure 8.11: Average commuting trip duration in Queensland from 2010 to 2019



Source: BCARR analysis of Household, Income and Labour Dynamics in Australia (HILDA) annual survey, 2010 to 2019.

Figure 8.12 provides greater context for the average commuting trip duration in Greater Brisbane by comparing average trip duration between 2010 and 2019 with five other major Australian cities. Greater Brisbane's average commuting trip duration of 32.1 minutes over the ten-year period ranks third-longest amongst the six areas chosen. Only commuting trips in Greater Sydney and Greater Melbourne were longer than Greater Brisbane with an average of 37.2 and 34.0 minutes respectively.

Figure 8.12: Average commuting trip duration between 2010 and 2019 for six major population areas



Note: The presented figure for each city is an average of the duration estimates for the 10 year period.
Source: BCARR analysis of data from the Household, Income and Labour Dynamics in Australia (HILDA) annual survey, 2010 to 2019.

8.8 Congestion Metrics

This section provides a brief insight into the current congestion levels within SEQ, focusing on the Greater Brisbane area. In addition to Greater Brisbane, other major population centres across SEQ, namely the Gold Coast, the Sunshine Coast and Toowoomba, have been considered where possible. The data sources considered include TomTom (see Box 8.2) and HoustonKemp congestion metrics.

HoustonKemp has collected a range of data exploring congestion levels experienced in large population centres across Australia. Of this data, one of the indicators collected calculates the proportion of the road network in a given city or town that is congested. Figure 8.14 shows the proportion of the road network congested amongst Australia's seven capital cities over 38 weeks in 2019. HoustonKemp also provided data for this indicator during 2020. This data has been omitted from the analysis due to the significant impacts of COVID–19 restrictions on congestion data.

Of the seven capital cities, Greater Melbourne has shown consistently higher levels of congestion across its road network – reaching a maximum of 19.5 per cent of the road network congested. Greater Brisbane ranks fairly well according to this indicator, with only Greater Darwin and Greater Hobart producing consistently lower levels of congestion across their respective road networks.

Through 2019, Greater Brisbane experienced an average congestion of 10.7 per cent of its total road network, comparable to the level of congestion in Greater Perth of 11.4 per cent. However, this result is considerably lower than the average congestion across Greater Melbourne of 18.3 per cent, Greater Sydney of 14.4 per cent, and Greater Adelaide of 14.3 per cent.

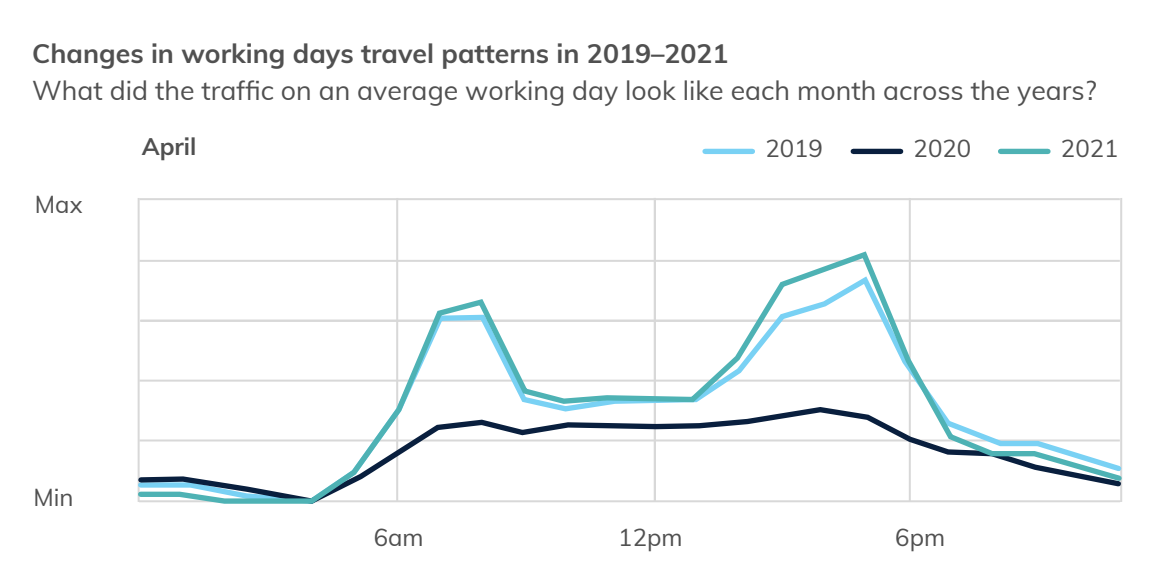
Box 8.2 A snapshot of Brisbane congestion in 2021 – TomTom

TomTom, a large digital navigation company, collects a wide range of data on road incidents, traffic, emissions and congestion. The TomTom traffic Index, produced by the company, provides real-time insight into the movement patterns on both a local and global scale.

According to the TomTom Traffic Index, Brisbane ranks 131 in the world for congestion – with a reported congestion level of 25 per cent in 2021. This result shows that average travel times across the city in 2021 were 25 per cent longer compared to baseline non-congested conditions. The only Australian city to rank higher than Brisbane was Sydney at 97, with a congestion level of 28 per cent in 2021. Gold Coast had similar levels of congestion to Brisbane, with a reported congestion level of 24 per cent in 2021.

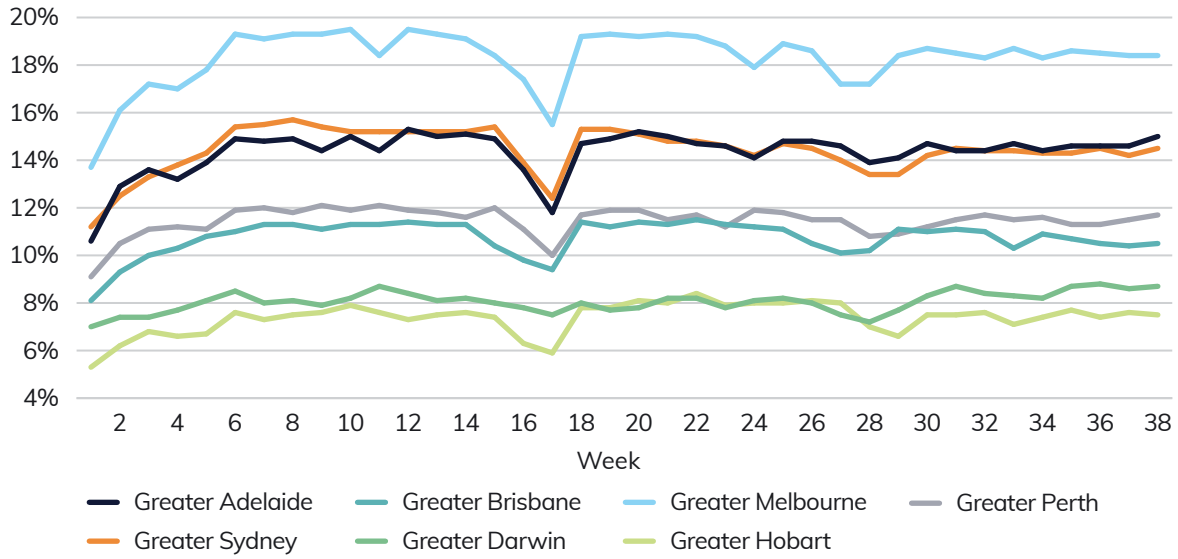
Figure 8.13 shows the average traffic during a working day between 2019 and 2021 in April. In 2021, traffic levels returned to a similar level experienced in 2019. Evening traffic levels for the month of April appear to have grown beyond the 2019 baseline. Over 2021, commuters in Brisbane lost 108 hours by driving during rush hour conditions – an increase on the 107 hours from 2019.

Figure 8.13: Brisbane traffic levels during the month of April through 2019 – 2021



Source: TomTom analysis of traffic levels (2022).

Figure 8.14: Percentage of congested roads amongst Australian capital cities through 2019

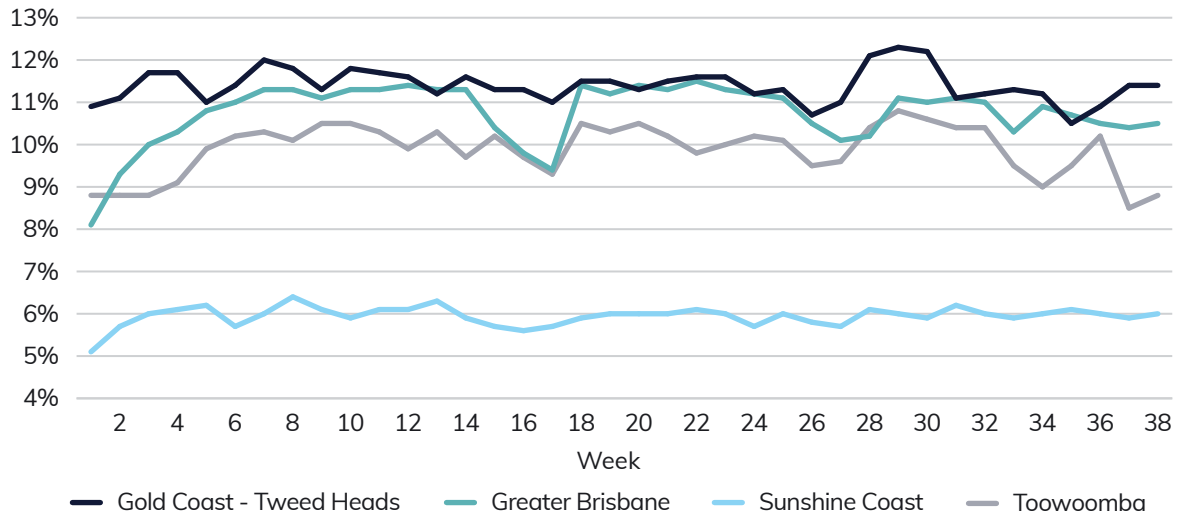


Source: BCARR analysis of congestion metric data provided by HoustonKemp (2020).

Figure 8.15 provides additional insight into the congestion levels experienced in Greater Brisbane in 2019 by comparing it with other major population centres in SEQ. Among the four areas in SEQ for which data was collected, Gold Coast – Tweed Heads showed the highest congestion levels over 2019. Average congestion in Gold Coast – Tweed Heads of 11.4 per cent of its road network exceeds the average of 10.7 per cent in Greater Brisbane.

The road networks throughout Toowoomba and the Sunshine Coast showed lower average congestion levels in 2019. An average congestion of 9.9 per cent experienced in Toowoomba is reasonably comparable to the level of congestion in Greater Brisbane. The Sunshine Coast showed significantly less congestion than the other three population centres throughout 2019, producing an average of 5.9 per cent across the dataset.

Figure 8.15: Percentage of congested roads between major population centres in SEQ through 2019



Source: BCARR analysis of congestion metric data provided by HoustonKemp (2020).

8.9 Conclusion

This chapter analysed the movement of workers and employed residents within the SEQ region. Across the 12 LGAs of SEQ, over 70 per cent of employed residents work within their LGA of residence. Toowoomba and Brisbane LGAs possessed the highest self-containment rates across the region at 88.6 and 84.6 per cent respectively.

In 2016, total commuter flows within SEQ were 1.44 million. Of these commuter flows, the majority remained within their respective BCARR ring at 65.7 per cent of all flows. Particularly important within this category of commuter flows were flows to a different SA2 in the home sub-region, which accounted for 41.0 per cent of all commuter flows in SEQ. Overall, 26.5 per cent of commuter flows operated across rings in an inward direction and 7.8 per cent operated across rings in an outward direction.

Employed residents in the SEQ region have an average commuting distance of 17.5km. As commuting distance increased with distance away from the Inner Brisbane ring, employed residents in Outer Brisbane and the Rest of SEQ experienced significantly longer average commuting distances of 20.6km and 24.3km respectively. In terms of commuting trip duration, employed residents in Greater Brisbane faced an average duration of 31.0 minutes in 2019. This value ranks Greater Brisbane behind only Greater Melbourne and Greater Sydney in terms of total trip duration.

This chapter also provided some initial insight into the congestion levels in Brisbane and across SEQ. According to data provided by TomTom, Brisbane ranks 131 in the world for total congestion reporting a congestion level of 25 per cent in 2021. The available congestion metrics show that congestion in the Gold Coast is similar to that in Brisbane, but the Sunshine Coast has relatively low congestion levels.

Commuting times and congestion levels are commonly considered to be important contributors to the liveability of a city. The next chapter explores the liveability of SEQ in greater depth, focusing on how access to social infrastructure and services varies across the region.