



WHERE ARE THE JOBS?

Part 2: The geography of Western Sydney's jobs deficit

WESTERN SYDNEY UNIVERSITY



The
Centre for
Western
Sydney

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INTRODUCTION

This is the second of three reports which analyse Western Sydney's jobs problem as we head into the middle decades of the 21st century. In this report we check on the effects on jobs availability in Western Sydney arising from high levels of regional economic growth prior to COVID-19. We undertake detailed analysis of how jobs growth has been progressing in different parts of Western Sydney, especially in the context of rising demand for jobs from the region's rapidly growing working-age population, as described in our first report. In particular, we examine the performance of centres targeted for major jobs growth, like Parramatta, Sydney Olympic Park and parts of Baulkham Hills, and assess the extent to which they are evolving as genuine metropolitan jobs centres.

An important part of our report is analysis of the effect of the extraordinary growth of construction sector activity in recent years. We tell the story of the rise of the construction sector, but also of its bust, more so in the wake of COVID-19. Here we have been able to observe a real time experiment framed to show the impact on jobs of a particular type of economic growth. Alongside the construction story we analyse the opportunities available for professionally qualified workers, that growing group identified in our first report who will surely lead the transformation of the Western Sydney region in the decades to come but who struggle

to find appropriate jobs in their home region. We look at this issue in great detail. Finally, we turn our attention to the commuting consequences of the many, varied things that are going on in the Western Sydney economy and its labour force, and we finish the report with some sharp conclusions.

Let's start with a little academic literature. Prosaically, US scholars Susan Hansen and Geraldine Pratt said in 1995 that social and economic geographies are the media through which people find their jobs¹. Hansen and Pratt examine the forces that segment labour markets across a city. Discrimination on the basis of class, gender and ethnicity, they say, restricts access to good jobs for some while opening up opportunities for others. On the supply side, locations with better transport connections and cultural amenity are revealed as hot spots for employment growth, to the advantage of those able to afford housing in nearby neighbourhoods.

Commuting, say Hansen and Pratt, becomes the primary means for crossing the jobs divide. Yet commuting itself is geographically charged. For well-paid professionals with more predictable working hours, a long commute is often managed successfully. Women with child care responsibilities, however, are less likely to have the time for a long commute. Jobs not located on transport corridors,

like those in the construction sector or located in edge-of-urban industrial parks, require access to a personal vehicle and an ability to shoulder its running costs. Immobile job-seekers become resigned to local jobs that are often low-paid, casual and zero-hours contracts, or they undertake piece-work from home.

A conclusion from the work of Hansen and Pratt is that an economic region is made up of multitude labour market experiences and opportunities, and that these are composed as combinations of very personal circumstances – the home is commonly a key site of struggle for women seeking to take-on paid work – and quite powerful structural forces. As a consequence, it is unwise to make grand summary statements about a region's labour market conditions or its resident workforce's capacities and outcomes.

In this report, therefore, we explore the circumstances and forces that are generating very diverse outcomes for Western Sydney's resident workers. This exploration moves deliberately between matters that play out at the wider regional and metropolitan scales and those matters that need attention at finer geographical scales such as at district, neighbourhood, even household levels.

1. Hanson, S. and Pratt G., 1995, *Gender, Work and Space*, London: Routledge, p.1

WESTERN SYDNEY'S JOBS CONCENTRATIONS

Regional economic development theory stresses the importance of a region's economic history and, as a consequence, the resources that accrue from a region's economic make-up. Thus, a region can be seen to have a pathway along which its economy moves, an evolutionary pathway that can be either enabling or restricting². For Western Sydney, then, there is a need to see the region as something other than a whiteboard inviting coloured configurations from governments and their planning authorities as they imagine future realities. Blank slates are best left for the classrooms of infants.

This section of the report looks closely at the spatial concentration and dispersion of jobs in Western Sydney with a view to better understanding the departure points for economic growth in Western Sydney in coming decades. Two things will be obvious. The first is that there are few concentrations of jobs in Western Sydney where thick layers of supply chains, professional services and qualified labour come together to create locational advantages that not only advantage existing businesses but entice others to co-locate³. The second is that the substance of Western Sydney's regional centres is highly variable, ranging from traditional regional centre functions to more specialised roles, and with the latter wanting for

critical mass. The unevenness of Western Sydney's jobs landscape and the paucity of jobs-generating assets create major challenges to Sydney's urban and economic planning authorities.

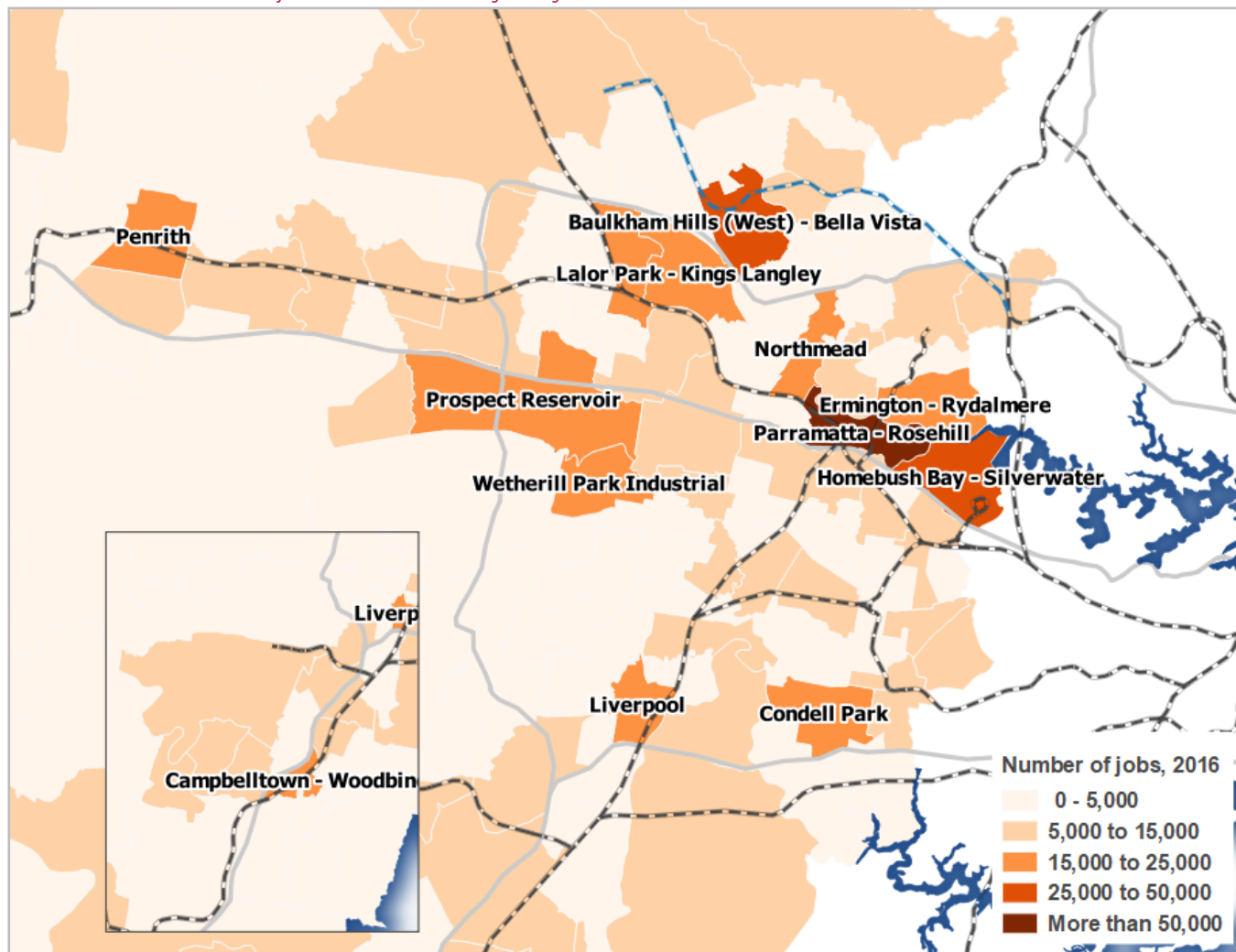
For Western Sydney, then, there is a need to see the region as something other than a whiteboard inviting coloured configurations from governments and their planning authorities as they imagine future realities.

2. See Martin, R. and Sunley, P., 2006, Path dependence and regional economic evolution, *Journal of Economic Geography*, 6, 395–437

3. Scott, A.J. and Storper, M., 2015, The nature of cities: the scope and limits of urban theory. *International Journal of Urban and Regional Research*, 39, 1-15

Figure 1 captures Western Sydney's patchy jobs arrangements. The map shows the level of jobs located in SA2 statistical areas recorded at the 2016 census. The region's major concentration is the Parramatta-Rosehill SA2 with 50,227 jobs. Then only three other concentrations of 20,000 jobs or more can be found: Homebush Bay-Silverwater (which includes Sydney Olympic Park) containing 26,520 jobs, Baulkham Hills West-Bella Vista (which includes Norwest Business Park) with 23,548 jobs and Penrith's city centre with 20,148 jobs. Western Sydney's only other significant jobs clusters at the SA2 level are the Prospect Reservoir-Wetherill Park industrial area with 17,965 jobs, Liverpool's city centre with 19,524 jobs and the Condell Park-Bankstown industrial area with 13,035 jobs.

FIGURE 1
Estimated number of jobs in Western Sydney 2016



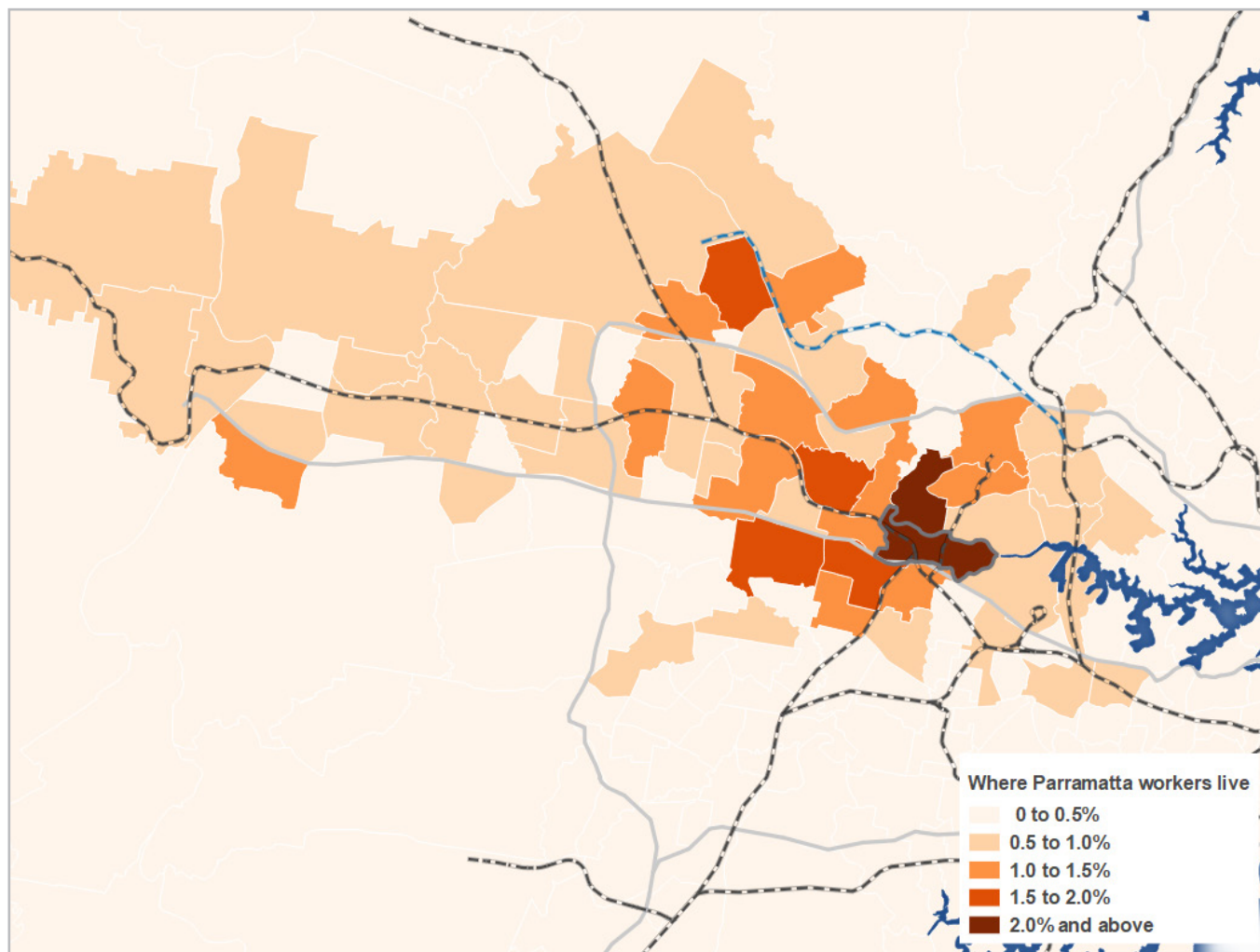
Source: ABS census 2016, place of work

We now analyse the three main jobs concentrations shown in figure 1 to reveal their labour force catchment areas. Figure 2 shows the place of residence for those working in the Parramatta-Rosehill SA2. Three features are readily observed. One is that Parramatta-Rosehill workers overwhelmingly come from suburbs to the west of the SA2. Another is that these workers live along major transport routes, a benefit of Parramatta centre being very well connected by both train and bus services. The third is the alignment of the catchment along east-west and north-west corridors to the exclusion of suburbs to the south and south-west. We offer explanations for this spatial warping below.

The composition of jobs in the Parramatta-Rosehill SA2 gives insight into why Parramatta has emerged as the only Western Sydney regional centre with a large concentration of jobs. Table 1 shows the presence in Parramatta of significant numbers of jobs in both the public and private professional services. Unlike Western Sydney's other longstanding regional centres – Blacktown, Penrith, Bankstown, Liverpool, Campbelltown – jobs in Parramatta are not dominated by the retailing and personal services functions of lower-order urban centres. Clearly, Parramatta offers important public administration and professional services to a wider metropolitan territory and to a wider mix of business and household clients and customers, as is expected for a high-order urban-centre.

FIGURE 2

Place of residence for workers in Parramatta-Rosehill SA2 2016



Source: ABS census 2016, place of work

It is important to note the impact that decisions by government have on jobs availability in the Parramatta city centre. The relocation of Commonwealth Bank staff to a new facility at Alexandria in inner Sydney involved a major deal with the property development arm of the NSW government. The relocation will strip over 3,000 direct jobs from a large office complex on George St. On the other side of the ledger, the NSW government will add thousands of public administration jobs through its decision to relocate the head offices of the departments of environment and education from the Sydney CBD to Parramatta. That the pace of Parramatta's jobs growth is heavily influenced by the actions of the state government demonstrates Western Sydney's major regional centre is a long way short of the critical mass required for endogenous growth where private sector investment would lead jobs growth.

TABLE 1

Top employment categories by industry, Parramatta-Rosehill SA2, 2016

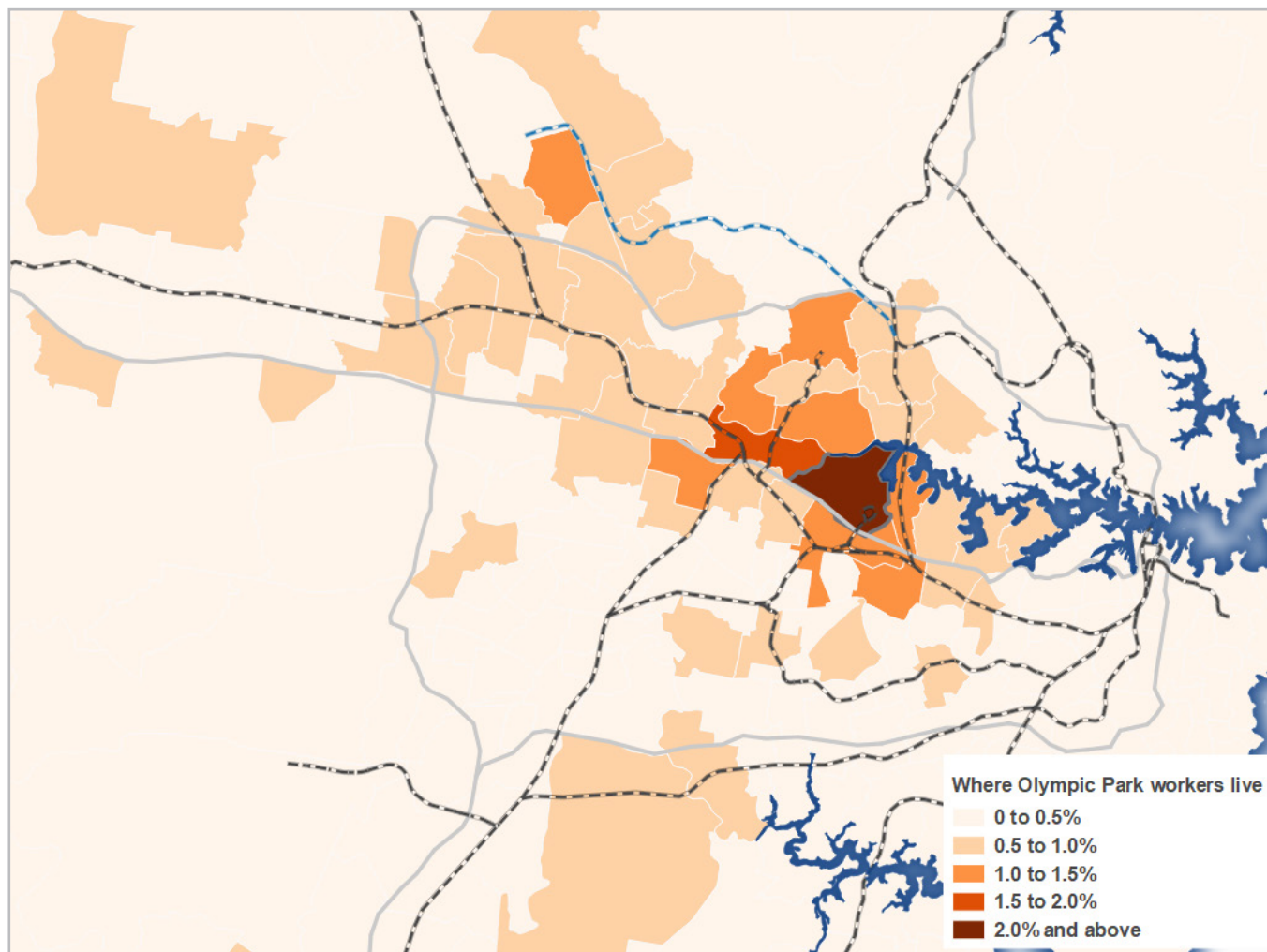
RANK	INDUSTRY SECTOR	NUMBER OF JOBS
1	Public administration	12,687
2	Finance and insurance	8,817
3	Professional, scientific and technical services	3,744
4	Retail	3,631
5	Health care and social assistance	3,237

Source: ABS census 2016, place of work

Our second case study is the Homebush-Silverwater SA2, which includes Sydney Olympic Park. Details are shown in figure 3. With a total of 26,520 jobs at the 2016 census, this SA2 is Western Sydney's second largest concentration of jobs. That said, the concentration comprises two quite separate economic spaces. One comprises the old industrial properties along Silverwater and Parramatta Roads. The other is the new business office precinct at Sydney Olympic Park, the legacy of the 2000 Sydney Olympics, built over decontaminated industrial lands once the site of the Homebush abattoirs, the state brickworks and a number of heavy-chemical manufacturers. This stark industrial divide across this SA2 is shown in the employment breakdown in table 2. Note here that the Commonwealth Bank relocation of Western Sydney operations to the inner city will, like in Parramatta, strip around 1500 jobs from the Commonwealth Bank premises on its Dawn Fraser Avenue site in Sydney Olympic Park, again illustrating how the impact of a singular decision can have an exaggerated impact on a fledgling business conglomeration.

FIGURE 3

Place of residence for workers in Homebush-Silverwater SA2, 2016



Source: ABS census 2016, place of work

In respect to the labour force catchment for the Homebush-Silverwater SA2, it is very localised with resident workers concentrated in nearby suburbs rather than along the T1 rail service as is a feature of the Parramatta-Rosehill SA2 catchment. Poor rail services to both the old industrial areas of the Homebush-Silverwater SA2 and to Sydney Olympic Park explain the truncated configuration for this catchment.

TABLE 2

Top employment categories by industry, Homebush Bay-Silverwater SA2, 2016

RANK	INDUSTRY SECTOR	NUMBER OF JOBS
1	Finance and insurance	3,318
2	Manufacturing	3,296
3	Wholesale trade	2,610
4	Construction	2,478
5	Public administration	1,994

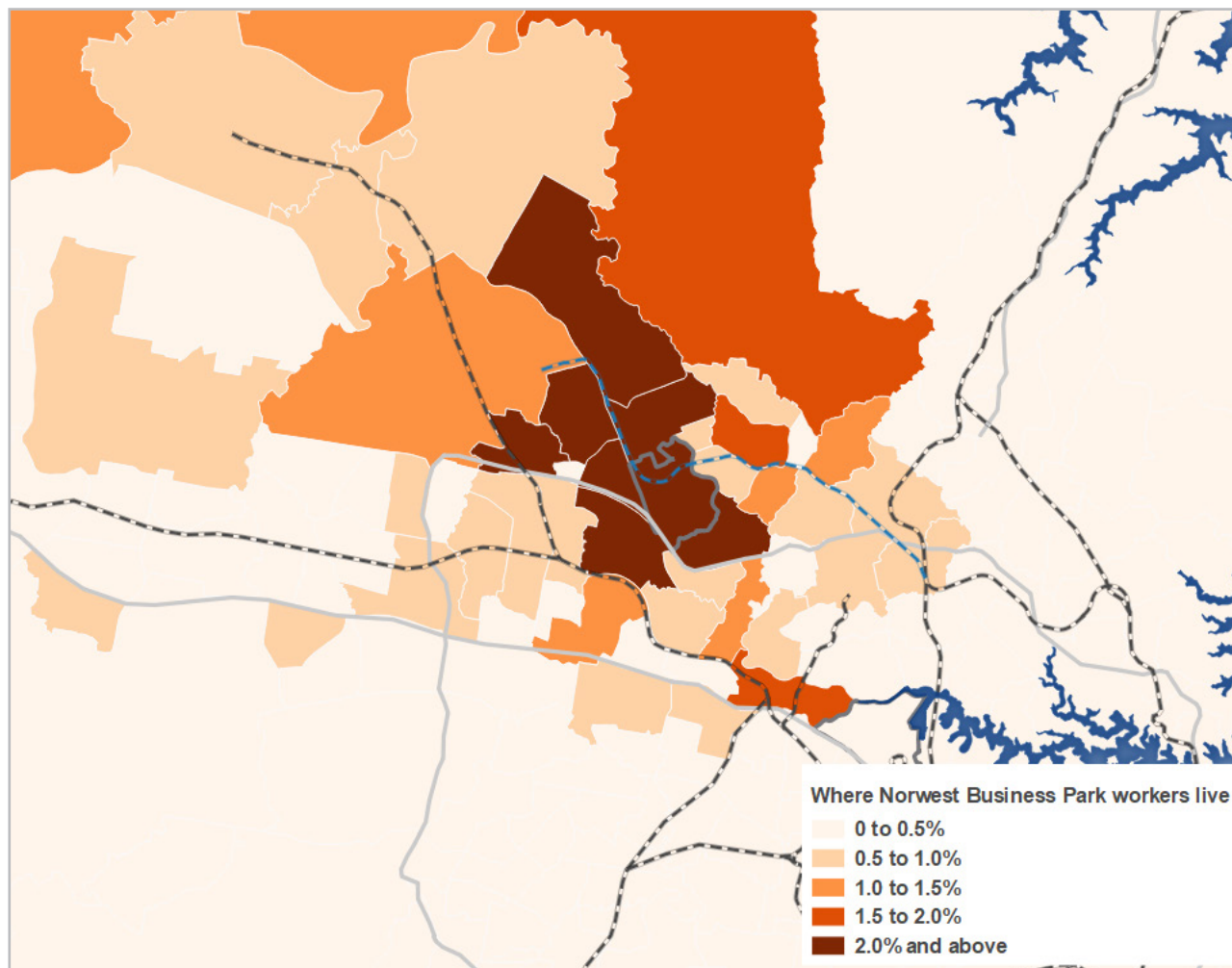
Source: ABS census 2016, place of work

The third case is the Baulkham Hills (West)-Bella Vista SA2 which includes the Norwest Business Park. This is Western Sydney's third largest employment node and its makeup is also distinctive. The SA2 had a total of 23,584 jobs at the 2016 census. The labour force catchment is shown in figure 4. Again, we see a very localised feeder labour force aligned with the M2 Motorway and Windsor Rd arterials. Like the Silverwater-Homebush (Sydney Olympic Park) SA2, car dependency is a feature of access to the Baulkham Hills (West)-Bella Vista SA2. This can be observed in figure 4.

Industry make-up for the Baulkham Hills (West)-Bella Vista SA2 shows a mix of local service centre functions, higher-order professional services and advanced manufacturing. This mix is shown in the labour force data in table 3. Some further observations are important. One is that public administration is not among the leading employment categories for the SA2 reflecting the relatively minor presence of state government employment in the north west. Another is the industry groupings shown contain a mix of businesses, some locally-oriented, others joined to internationally-connected supply chains. In health care and social assistance, for instance, we find local GPs as well as global health services companies. Likewise, in manufacturing, the SA2 hosts basic metal fabrication plants as well as global health equipment suppliers. Such a mixing of differently oriented firms shows desirable diversity. The problem, however, is because of the small number of firms involved there are fewer

FIGURE 4

Place of residence for workers in Baulkham Hills (West)-Bella Vista SA2, 2016



Source: ABS census 2016, place of work

opportunities for mutual growth, cross-over supply chains and district-wide innovation ensembles⁴.

Apart of these larger jobs nodes, Western Sydney's jobs concentrations are rather modest in size, found in the region's traditional centres, Blacktown, Penrith, Liverpool, Bankstown and Campbelltown. These municipal centres are dominated by central place functions involving retailing, accommodation and food services, health and social assistance, public administration and education and training. Each of these centres had around 20,000 jobs at the 2016 census meaning they occupy an important tier in the Western Sydney urban hierarchy but by no measure do they supply the quantity of jobs needed to keep up with jobs demands from their districts' growing labour forces⁵.

TABLE 3

Top employment categories by industry, Baulkham Hills (West)-Bella Vista SA2, 2016

RANK	INDUSTRY SECTOR	NUMBER OF JOBS
1	Retail	4,315
2	Health care and social assistance	3,748
3	Professional, scientific and technical services	2,677
4	Construction	2,303
5	Manufacturing	2,236

Source: ABS census 2016, place of work

4. Martin, R., & Sunley, P., 2003, Deconstructing clusters: Chaotic concept or policy panacea? *Journal of Economic Geography*, 3, 5-35.

5. Conclusions here based on data downloaded from ABS Table Builder, 2016 Census, Employed persons, Place of work

WESTERN SYDNEY'S JOBS DEFICIT

The failure to generate sufficient jobs for its resident workers has been Western Sydney's longstanding economic problem. While the region's economy has grown consistently for at least 25 years, jobs growth across this period has failed to match the growth of the region's workforce. In the period just before the outbreak of COVID-19, however, there was a surge in regional jobs growth. Our analysis in this section examines this surge, asks where the surge originated and assesses the likelihood of high jobs growth returning in the near future.

Figure 5 shows the rate of growth of jobs in Western Sydney compared to the rate of growth in the number of resident workers. The most obvious revelation of the graph is that jobs growth and the growth of resident workers move roughly in tandem. Closer examination, however, shows that the rate of growth of employed residents (averaging 1.5% p.a.) over the first fifteen years of this century was consistently higher than the growth of local jobs (averaging 1.1%). This year-in, year-out deficit was resolvable only by a growing outflow of workers to jobs in other parts of Sydney.

FIGURE 5

The growth of jobs and employed residents in Western Sydney 2001-2018



Between 2016 and 2018, however, there was an extraordinary surge in the growth rates of both jobs and employed residents – but with local jobs growth (averaging 4.7% p.a.) exceeding the growth of employed residents (averaging 3.6% p.a.) by a significant margin.

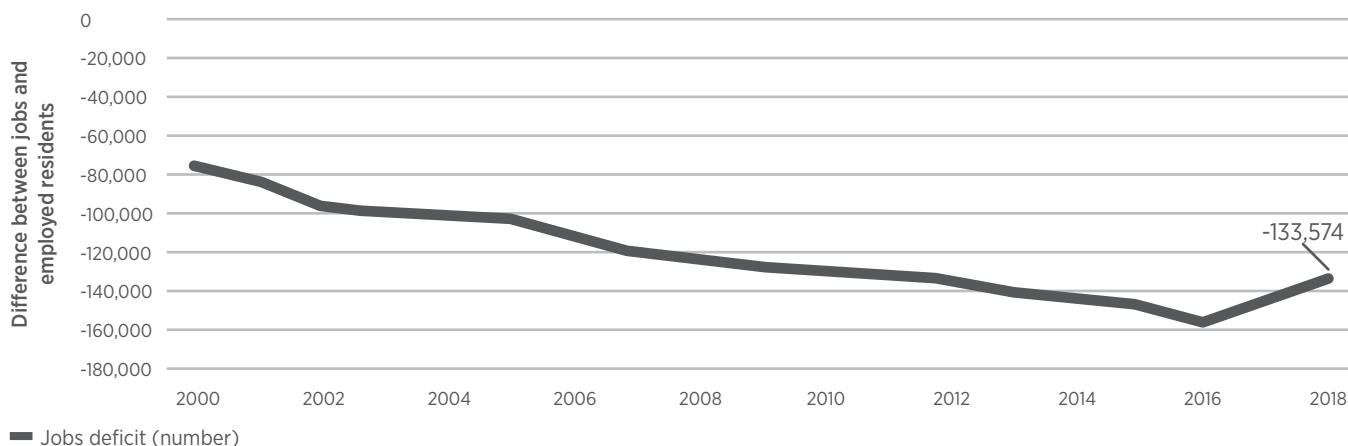
Translating to absolute numbers, we calculate that the gap in Western Sydney between the number of jobs and the number of employed residents grew from almost 80,000 in year 2000 to 155,000 in 2016. However, as shown in figure 6, the 2016-18 jobs surge meant that the jobs gap was reduced to 134,000 by the end of 2018. In ratio terms, shown on the right hand side of figure 6, we see a fall in the jobs ratio from 0.91 jobs per resident worker in year 2000 to 0.85 in 2016, before rising to 0.88 in 2018 as a consequence of the jobs surge.

The cause of the 2016-18 jobs surge is clear. It arose directly from Western Sydney’s construction boom. In the financial year 2012-13, building approvals for projects located in Western Sydney were valued at \$6.0 billion, which represented 38.7% of all approvals across the Sydney metropolitan area. By 2017-18, however, building approvals were valued at \$16.8 billion, which represented 53.5% of the metropolitan total.

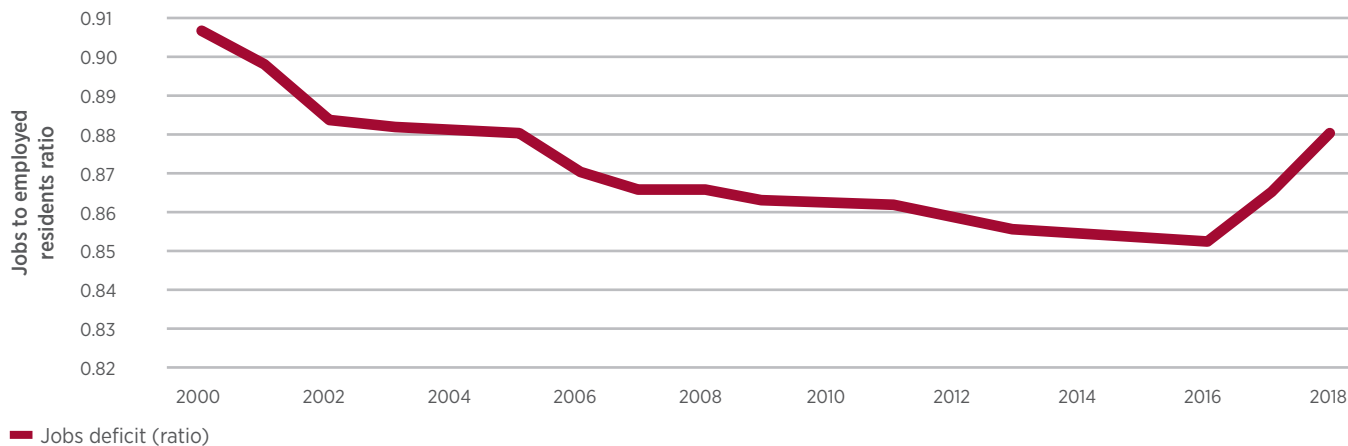
Construction activity in the non-residential sector has also been booming, notably in association with Sydney’s large scale infrastructure projects and investments in the region’s health and education facilities. Many of these are located within Western

FIGURE 6
The Western Sydney jobs deficit 2000-2018

Jobs Deficit, GWS, 2000 to 2018



Jobs Deficit, GWS, 2000 to 2018



Source: National Economics 2018

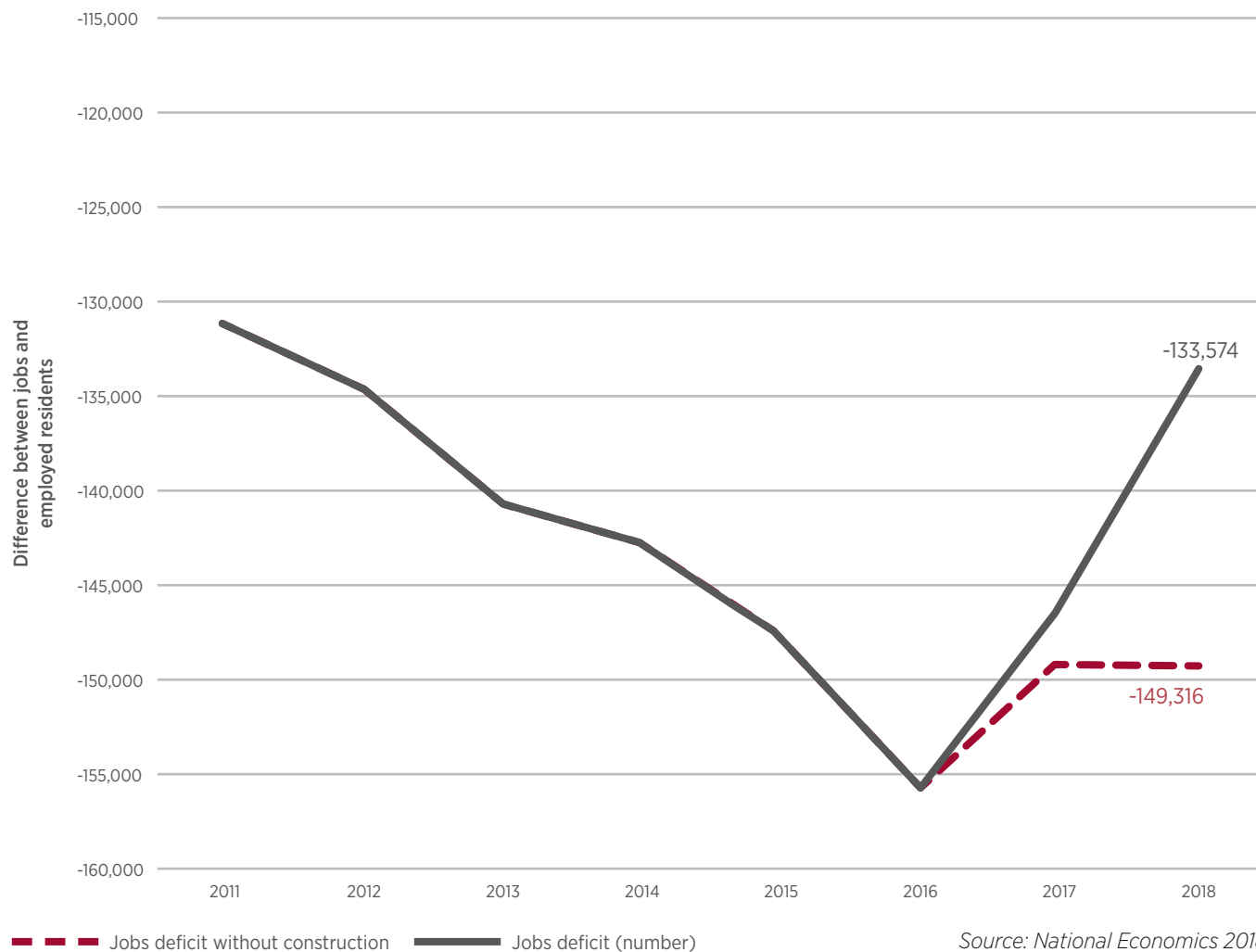
Sydney while others outside the region employ large numbers of Western Sydney workers. Current projects include Western Sydney Airport, Sydney Metro (City and Southwest), Parramatta Light Rail, NorthConnex, significant upgrades at Nepean, Westmead and Liverpool hospitals, the continued NBN rollout, and new Western Sydney University campuses at Bankstown and Parramatta (Hassall St). Recently completed projects contributing to the construction boom include WestConnex, the Western Sydney Stadium and Western Sydney University campuses at Parramatta (1PSQ) and Liverpool.

This raised level of activity in the construction sector generated a significant number of jobs for Western Sydney residents, as is shown in figure 7. Indeed, were it not for growth in construction jobs growth the Western Sydney jobs deficit by 2018 would have been 149,316 rather than the 133,574 jobs deficit actually recorded.

Prior to COVID-19, a range of data indicated a tempering of Western Sydney’s construction boom. Residential building approvals for Western Sydney, for example, had fallen by 16% between financial years 2017-18 and 2018-19⁶ while industry body, Master Builders Australia, had predicted construction activity in Australia for 2023-24 to fall by 2.6% compared with 2018-19⁷. MBA forecasts have subsequently been revised downwards to a significant extent, reflecting widespread anticipation of project delays and cancellations as a result of

FIGURE 7

Impact of construction activity on the jobs deficit in Western Sydney 2000-2018



6. Data sourced from Australian Bureau of Statistics, Building Approvals, Australia, cat. 8731.0

7. Master Builders Association, 2019, industry forecasts building & construction to 2023-24, https://www.masterbuilders.com.au/MediaLibraries/MB/Forecasts/Australia-Forecast_August-2019.pdf

the COVID-19 economic downturn. In these revised forecasts, the number of new dwellings in Australia is anticipated to fall by 43,446 units (or 27.3%) below previous forecasts with ongoing falls from previous estimates in the 20% to 25% range for the ensuing three financial years⁸. It is reasonable to expect new dwelling construction in Western Sydney will follow these national trends. Further downturn in construction activity will not only show in job loss in the construction sector, it will strip Western Sydney of what was the region's primary driver of the 2016-18 jobs boom.

The cheerless conclusion from this analysis is that relying on the construction sector as the region's primary economic driver – embedded, when the sector is in an upturn phase, in a virtuous cycle with population and income growth – exposes the region to the boom-bust cycles that the construction sector historically suffers, especially the severe downturns. An associated concern is that downturns in construction activity have concentrated impacts on workers unlikely to possess the transferrable skills needed to access jobs in other industrial sectors.

Putting aside for now the implications for Western Sydney of a COVID-19 downturn, we turn to an assessment of the impact of the 2016-18 economic boom on Western Sydney's local government areas. Conveniently, the boundaries of Western Sydney's LGAs correspond to the spatial patterns of historical urban development in Western Sydney making them convenient geographical entities for observation of

district level trends. Table 4 shows 12-year trends, 2006 to 2018, for each LGA in terms of jobs deficit ratio; or how many jobs there are in an LGA for each resident worker. The table also indicates with traffic-light coloured arrows, the general trend in jobs availability in each LGA for the 12-year period. LGAs are listed in the table according to their rank in 2018, with Parramatta – recording 1.41 jobs per resident worker – the region's standout jobs generator.

Notwithstanding the 2016-18 jobs boom, the table records patchy progress in respect to jobs provision across Western Sydney's sub-regions. At the top, Parramatta may be the region's leading jobs provider, yet its jobs ratio has been in decline since 2006, evidence that Parramatta's crane-filled centre is generating a faster growth of resident workers than of local jobs. Similarly, Bankstown, with Western Sydney's second best jobs ratio, has slipped from a positive position at 1.05 in 2016 to 0.96 in 2018, meaning the LGA has ceased to be a creator of surplus jobs. Another LGA in Western Sydney's old industrial heartland, Cumberland, has also slumped in jobs generation, falling from a favourable 1.06 jobs ratio in 2006 to 0.84 in 2018. A further observation is the improved performance of the outer Sydney LGAs – Penrith, Campbelltown and Camden, with Wollondilly the exception – where jobs ratios have improved between 2006 and 2018, although not nearly to a level approaching jobs self-sufficiency.

We summarise these trends in jobs availability in figure 8. The figure is divided vertically by a line

showing a jobs ratio (on the y-axis) equal to 1.0. This is the point where the number of jobs located within an LGA is equal to the number of workers resident in that LGA. Then the figure is divided horizontally at the zero point on the x-axis, which is the point where there has been no shift in an LGA's jobs deficit between 2006 and 2018.

An examination of the four quadrants created by these two lines provides four important understandings:

1. There is no LGA in the top right hand quadrant, meaning no LGA in Western Sydney both improved its jobs ratio 2006-2018 and became a net supplier of jobs.
2. Parramatta stops just short of meeting both these criteria, and is isolated as the only LGA in the top left quadrant. Parramatta has a jobs ratio exceeding 1.0 but did not add to its jobs surplus 2006-2018. As such, Parramatta has underachieved as the region's prime business centre.
3. A cluster of improvers is shown in the bottom right quadrant – Penrith, Fairfield, Campbelltown, The Hills and Liverpool – where jobs growth has diminished the extent of jobs deficits. While these LGAs remain net exporters of resident workers they are trending in a positive direction, albeit slowly.

8. Figures are drawn from www.masterbuilders.com.au/Resources/Industry-Forecasts

TABLE 4

Jobs deficit ratios in Western Sydney local government areas 2006-2018

	2006	2011	2016	2018	CHANGE
Parramatta (C)	1.58	1.52	1.38	1.41	↘
Bankstown (former)	1.05	0.98	0.97	0.96	↘
Liverpool (C)	0.83	0.86	0.85	0.94	↗
Fairfield (C)	0.82	0.83	0.84	0.9	↗
The Hills Shire (A)	0.74	0.78	0.83	0.86	↗
Cumberland (A)	1.06	0.95	0.86	0.84	↘
Penrith (C)	0.71	0.73	0.76	0.78	↗
Hawkesbury (C)	0.8	0.8	0.79	0.78	↘
Blacktown (C)	0.77	0.75	0.74	0.77	→
Campbelltown (C) (NSW)	0.62	0.63	0.72	0.77	↗
Camden (A)	0.67	0.7	0.66	0.72	↗
Blue Mountains (C)	0.51	0.51	0.52	0.54	↗
Wollondilly (A)	0.54	0.54	0.5	0.51	↘

Source: Calculated from ABS census, various years, and National Economics 2018

4. As shown in the bottom left quadrant, the jobs deficit for six LGAs – Cumberland, Blacktown, Bankstown, Camden, Wollondilly and Hawkesbury – deteriorated further between 2006 and 2018, meaning a growing number of resident workers is forced to travel beyond the LGA to access paid work.

An important conclusion can be made at this point. The last two decades of growth in Western Sydney have not significantly advanced any regional centre or LGA as a significant supplier of jobs to Western Sydney’s growing workforce. The analysis shows that not even Parramatta can be held up as a Western Sydney success story in terms of jobs generation for the region. Parramatta is only holding its own as a jobs supplier to its local workforce. It does not yet host the level of jobs one would hope for from a genuine metropolitan centre.

Further, it is not possible to name another Western Sydney regional centre or LGA which has become a genuine jobs destination for the region. Each LGA lags in jobs provision in some way or another, meaning the daily exodus of workers from across the region continues. We analyse this movement in the next section.

FIGURE 8
The jobs performance of Western Sydney’s local government areas 2006-2018



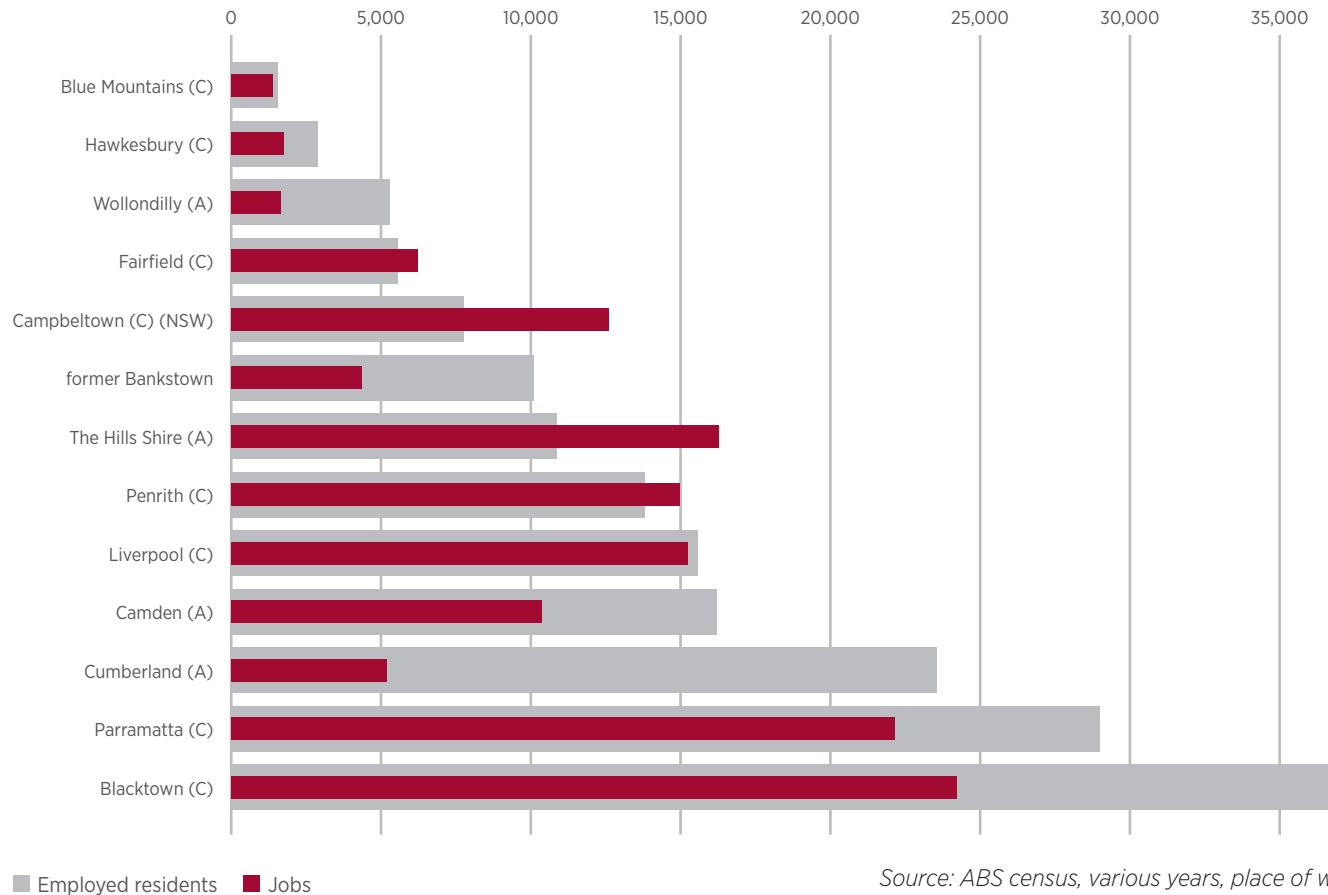
Source: Calculated from ABS census, various years, and National Economics 2018

THE COMMUTING CHALLENGE

We have observed in previous sections that jobs growth in Western Sydney has not been sufficient to absorb the growth of the region's workforce, even after a significant construction-led jobs boom between 2016 and 2018. Figure 9 summarises the position reached by LGAs in the region by 2016. Clearly, there are 6 LGAs where the absolute growth in the number of employed residents has outstripped the growth of local jobs. These LGAs are Wollondilly, the former Bankstown LGA, Camden, Cumberland, Parramatta and Blacktown. Only two LGAs, Campbelltown and The Hills, have seen a net increase in jobs comfortably exceed a net increase in resident workers; while Penrith and Fairfield show marginal improvements.

FIGURE 9

Changes in jobs and employed residents, Western Sydney local government areas 2006-2016

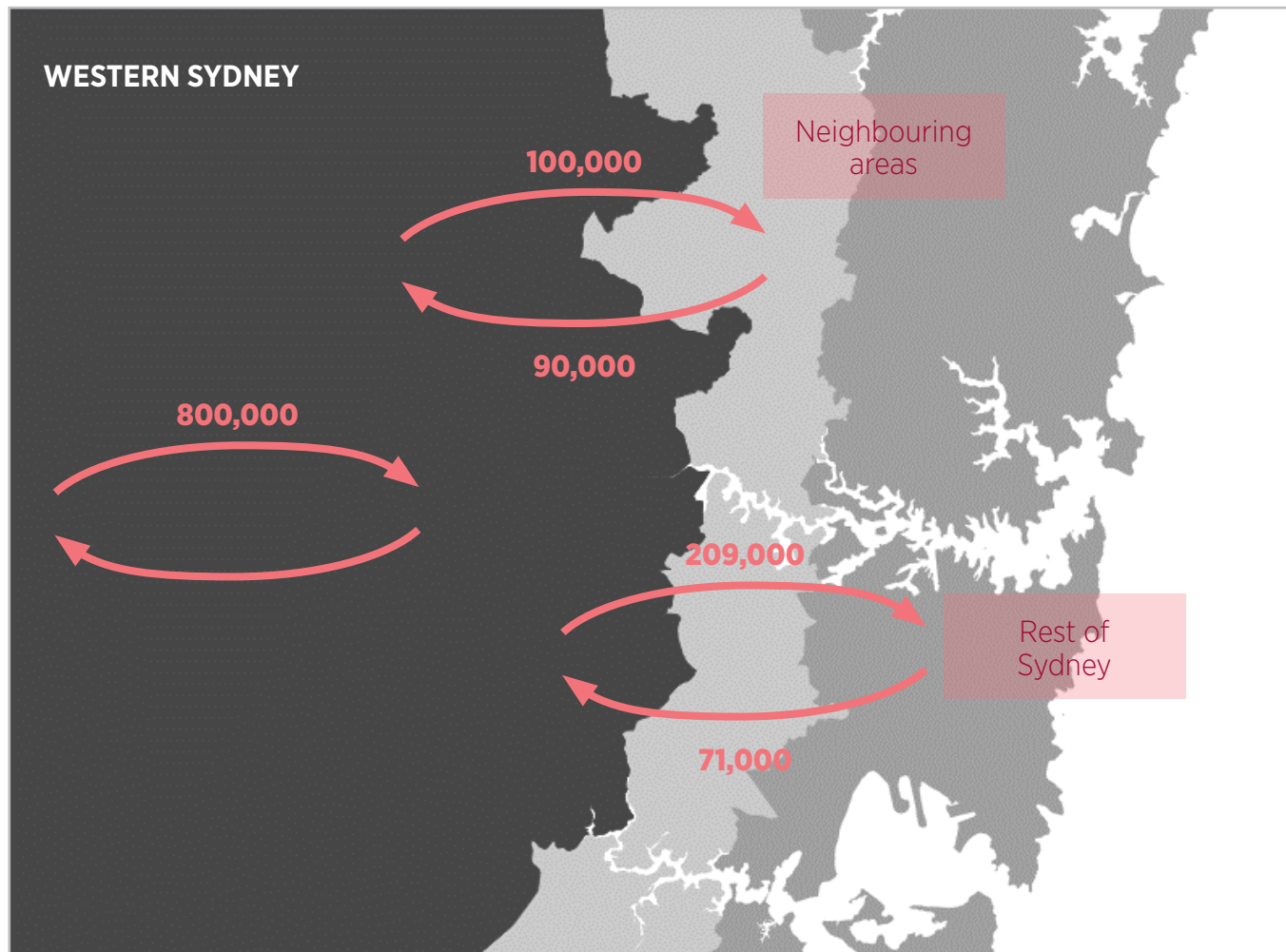


Source: ABS census, various years, place of work

The most obvious effect of ongoing growth of jobs deficits across Western Sydney is an increase in the length and duration of commuting, exacerbated by the need to access jobs beyond the region. Figure 10 shows our estimate of the daily work trips of Western Sydney's resident workers. We find that 309,500 workers – or 29% of the region's resident workers – were leaving Western Sydney daily in 2018 to access jobs. Some of these, just less than a third, travelled to an LGA adjoining the Western Sydney region, to Ryde or Strathfield, for example. The other two-thirds travelled further afield. Of this latter group, 78.5% involved travel to a place of full-time employment, a high proportion given that only 64.4% Western Sydney workers hold full-time jobs. Clearly, there are two forces in play here. A low-paid job with part-time hours will often not justify the time spent on commuting and the transport costs incurred. But, in addition, many full-time job seekers are forced to take employment outside the region because the region cannot satisfy the number and type of jobs demanded.

Notes: ABS SA2 geographies are utilised. Neighbouring areas consist of SA2s directly adjacent or within 5km of Western Sydney. As SA2 geographies vary in size the range of distances can vary. The 4.5% of residents stating no fixed address in the census have been allocated to areas via relevant proportions. Percentages do not total to 100% as some employed residents lived/ worked in regional NSW.

FIGURE 10
Daily work trips for Western Sydney workers 2018



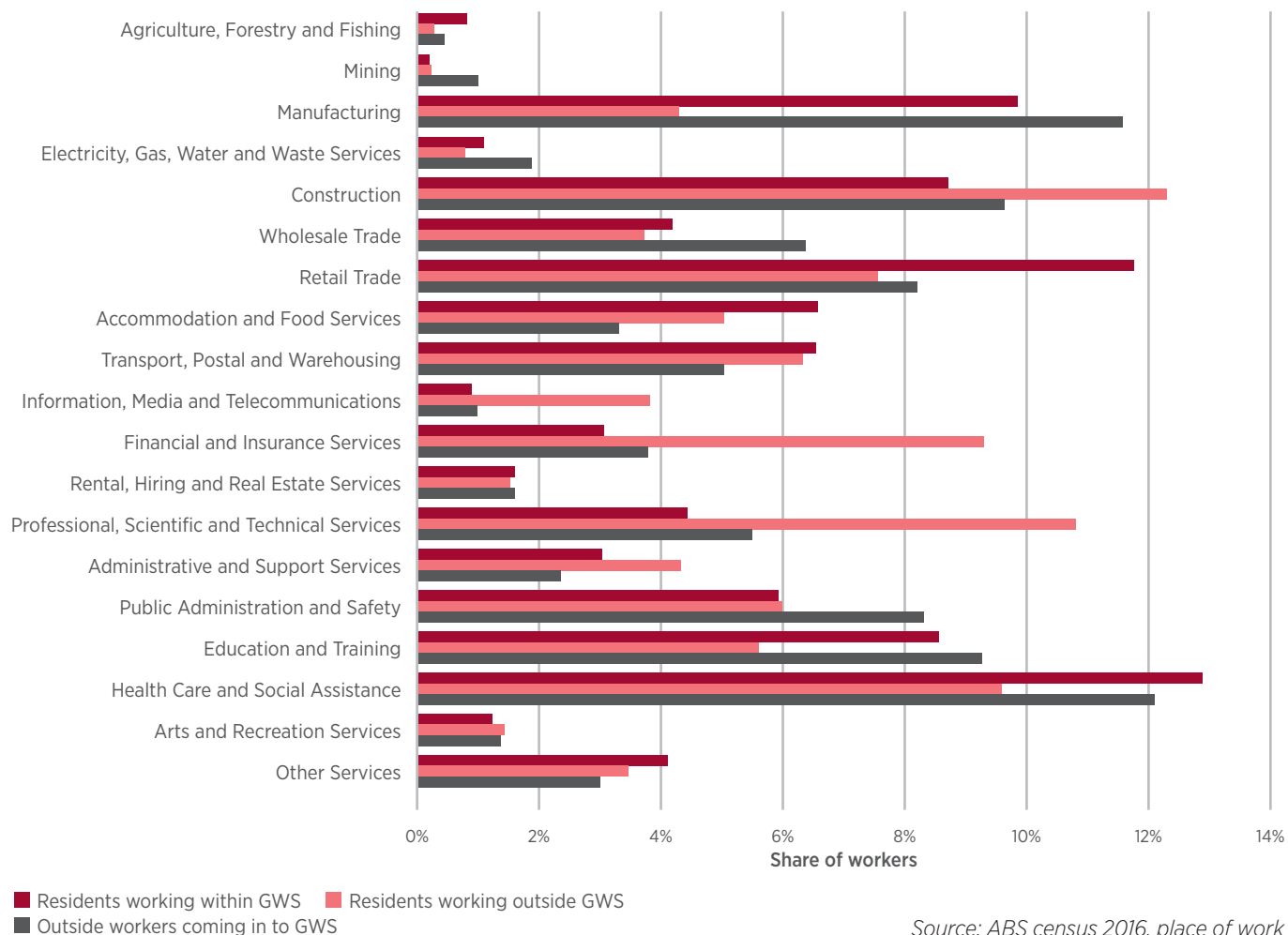
Source: National Economics 2018

Reflecting the variegated nature of Western Sydney's jobs supply problem, our report finds different patterns of out-commuting across a range of industrial sectors. As shown in figure 11, out-commuting is more prevalent in construction – reflecting the shifting locations of work in this sector – and in information, media and telecommunications; finance and insurance; and professional, scientific and technical services. Jobs in these sectors are more likely found in Sydney's CBD and in specialist precincts along Sydney's so-called global economic corridor stretching from Macquarie Park to Sydney Airport. In contrast, Western Sydney is a competitive supplier of jobs in those sectors where the place of work is the location where service delivery occurs. The three major examples are, in order of the number of Western Sydney jobs, health care and social assistance; retailing; and education and training. An important exception is the manufacturing sector where, alongside other location factors, planning regulations constrain where manufacturing activity can occur, right across the metropolitan area. This means that Western Sydney, with its larger supply of industrial land, is the metropolitan area's primary host of manufacturing jobs. As can be seen in figure 11, the manufacturing sector in Western Sydney is an important jobs supplier to workers from both local and non-Western Sydney origins.

FIGURE 11

Journey to work patterns by industry, Western Sydney workers 2016

Industry Analysis by Destination



Source: ABS census 2016, place of work

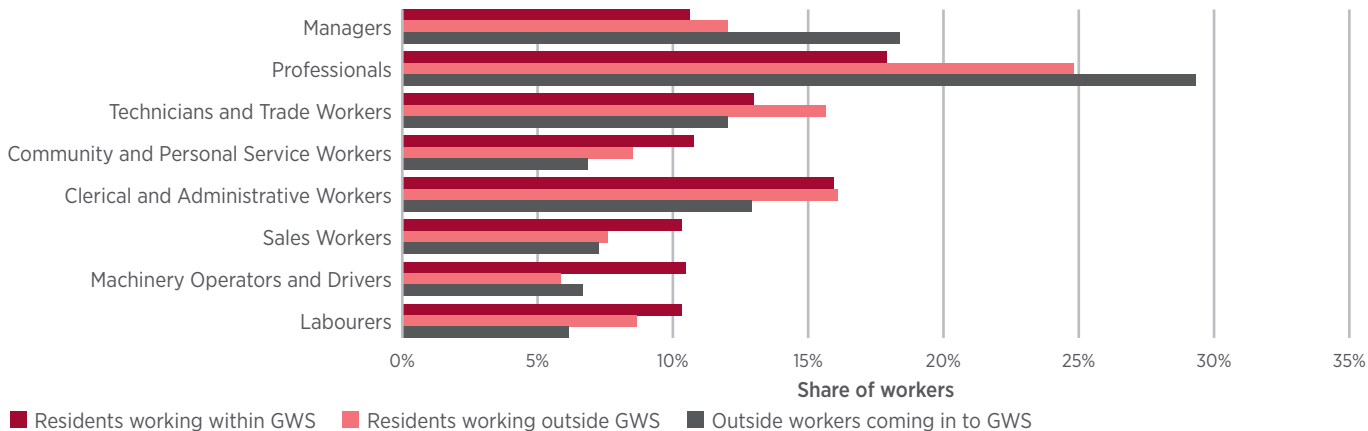
Indeed, as can be seen in figure 12, a quarter of Western Sydney residents leaving for work in 2016 were workers in professional occupations.

The commuting story so far tells us that traditional industrial workers, and lower-skilled services workers are more likely to hold Western Sydney-based jobs. This generalisation also holds for the health care and social assistance and the education and training sectors where, as we have seen, the jobs location pattern tends to overlay the region's population pattern. For other professional workers, however, out-commuting rates are much higher. Indeed, as can be seen in figure 12, a quarter of Western Sydney residents leaving for work in 2016 were workers in professional occupations.

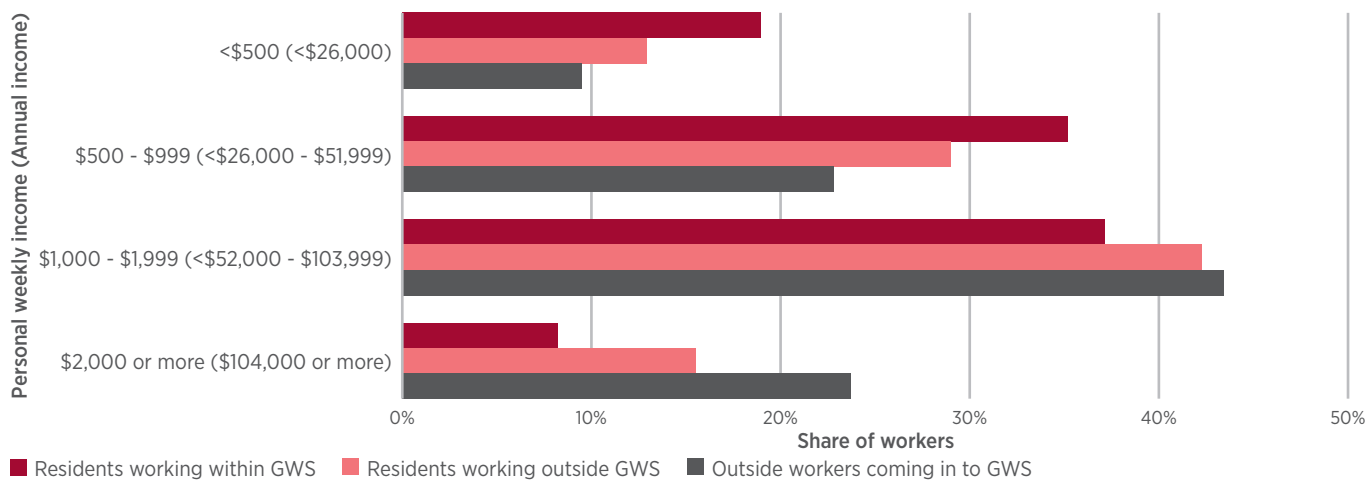
FIGURE 12

Occupation and income of Western Sydney workers 2016

Occupation Analysis by Destination



Income Analysis by Destination



Source: ABS census 2016, place of work

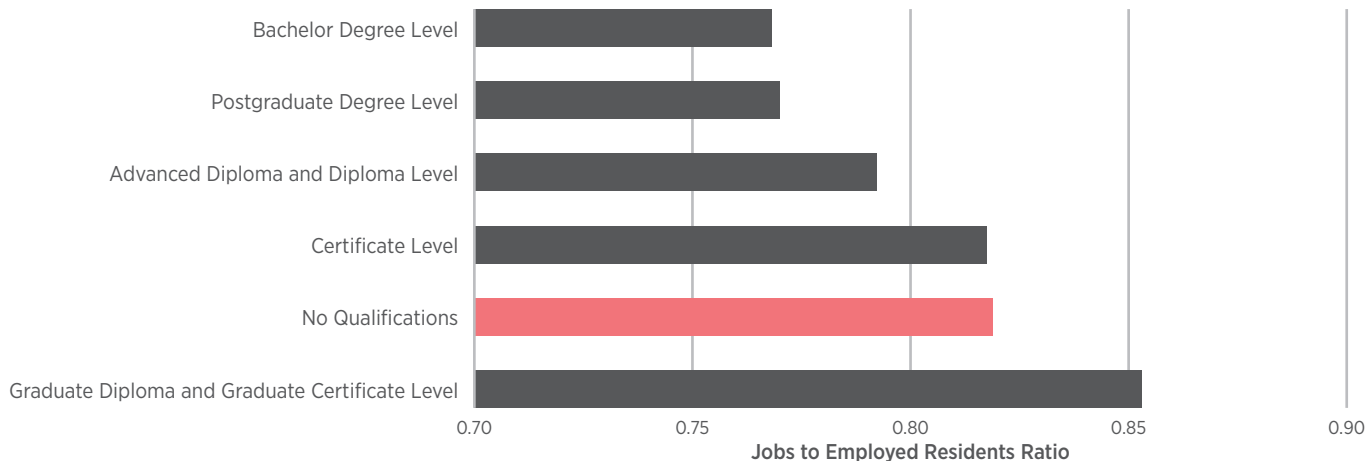
Yet the strong outward flow of professionals is accompanied by a major daily inflow of managers and professionals. Indeed, as shown in figure 12, nearly half (47.7%) of in-commuters were from these two occupation groups. This in-and-out within the managers and professionals category is reflected in the income distributions also shown in figure 12. Workers exiting or entering Western Sydney for work are more likely to be represented in higher income categories while Western Sydney workers with local jobs are more likely to receive lower incomes.

Turning to qualifications levels and the experience of out-commuting, figure 13 (top) shows for 2016 that the highest qualifications categories had the lowest ratio of jobs to employed residents. The deficiency of jobs for more qualified workers is emphasised further in the chart on the bottom of figure 13 with the jobs deficit for the combined bachelor and postgraduate degree categories totalling 54,000 workers. That the second highest jobs deficit is the no qualifications category demonstrates starkly the dual nature of Western Sydney's jobs problem: the disappearance of jobs needing only entry-level skills is stripping Western Sydney jobs from unskilled labour market segments, forcing these workers to pursue job searches outside the region; while the shortage of Western Sydney jobs for the region's higher-skilled workers forces long-distance commuting to those parts of Sydney to the east and the north where concentrations of jobs requiring higher-order skills are available.

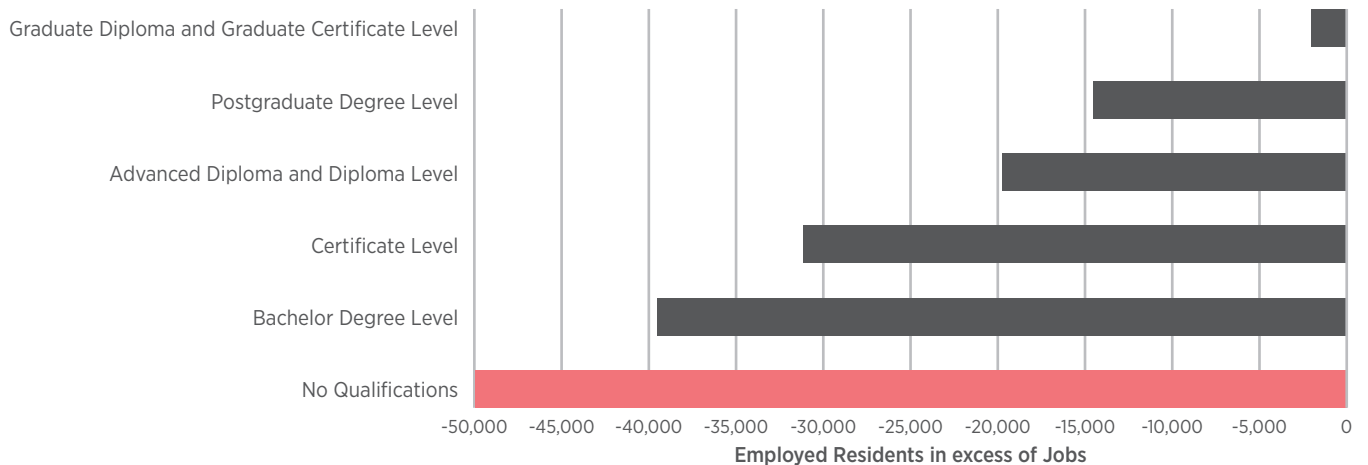
FIGURE 13

The jobs deficit in Western Sydney by qualification 2016

Jobs Deficit Ratio by Qualifications of Employed, GWS, 2016



Jobs Deficit Numbers by Qualifications of Employed, GWS, 2016

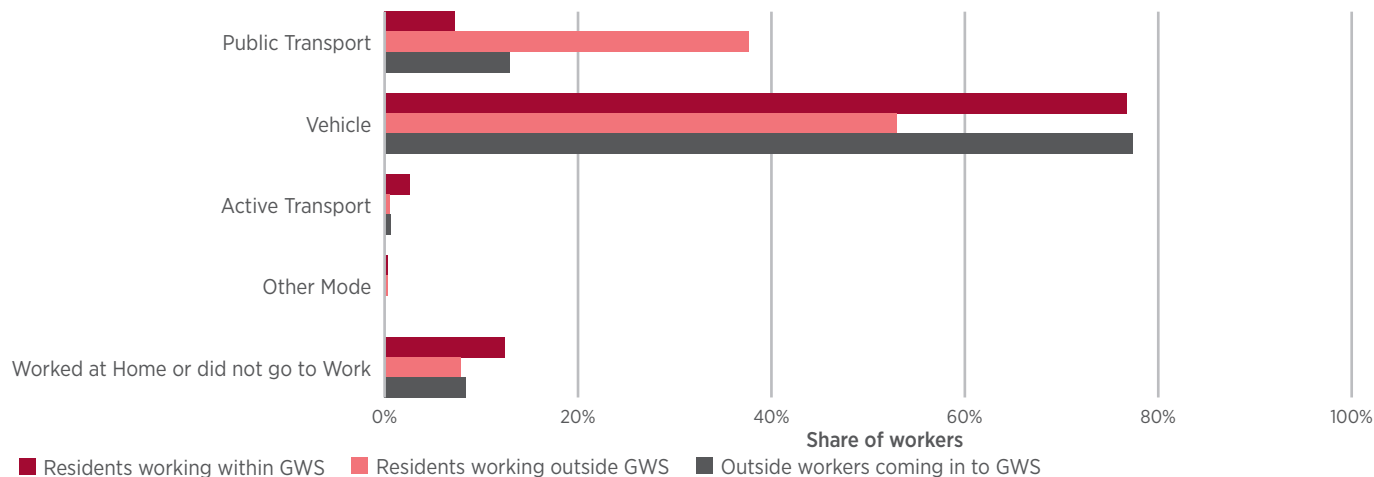


Source: ABS census 2016, place of work

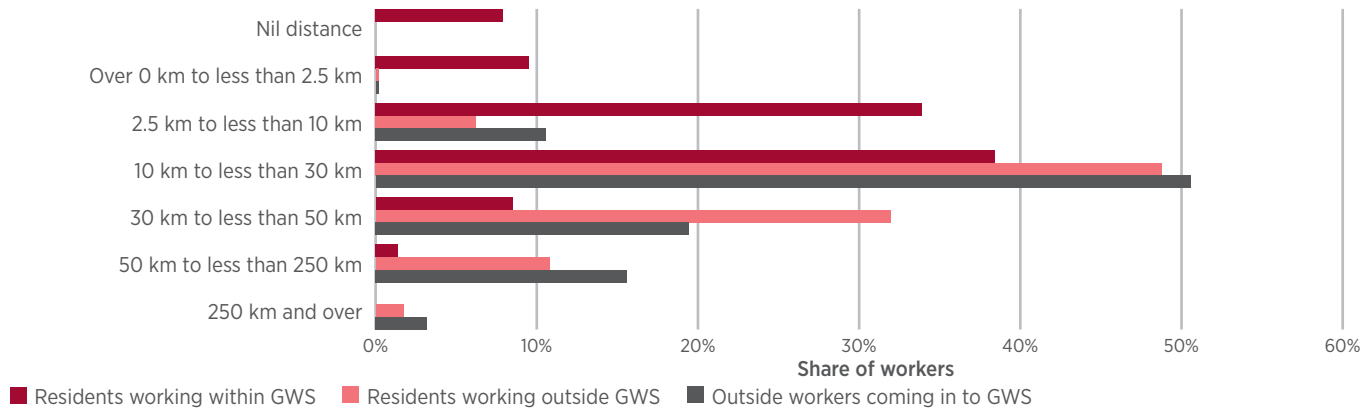
These commuting experiences also have transport mode variations. Here the availability of public transport for commuting purposes has a major influence on commuting mode. As shown in figure 14, those who work in Western Sydney – including Western Sydney resident workers and those who commute into the region – depend heavily on the use of private vehicles for commuting, with 77% of these workers using cars to get to work. In contrast, those residents leaving the region for work are more likely to use public transport. In 2016, almost two of every five out-commuter journeys were by public transport (38%), with 86% of these trips being by train. An examination of commute distances in figure 10 shows that out-commuters generally travel longer distances to work, an obvious finding, with 45% of this group travelling more than 30 kilometres to work, each day.

FIGURE 14
Jobs trips for Western Sydney workers by mode and distance 2016

Transport Mode by Destination



Commute Distance by Destination



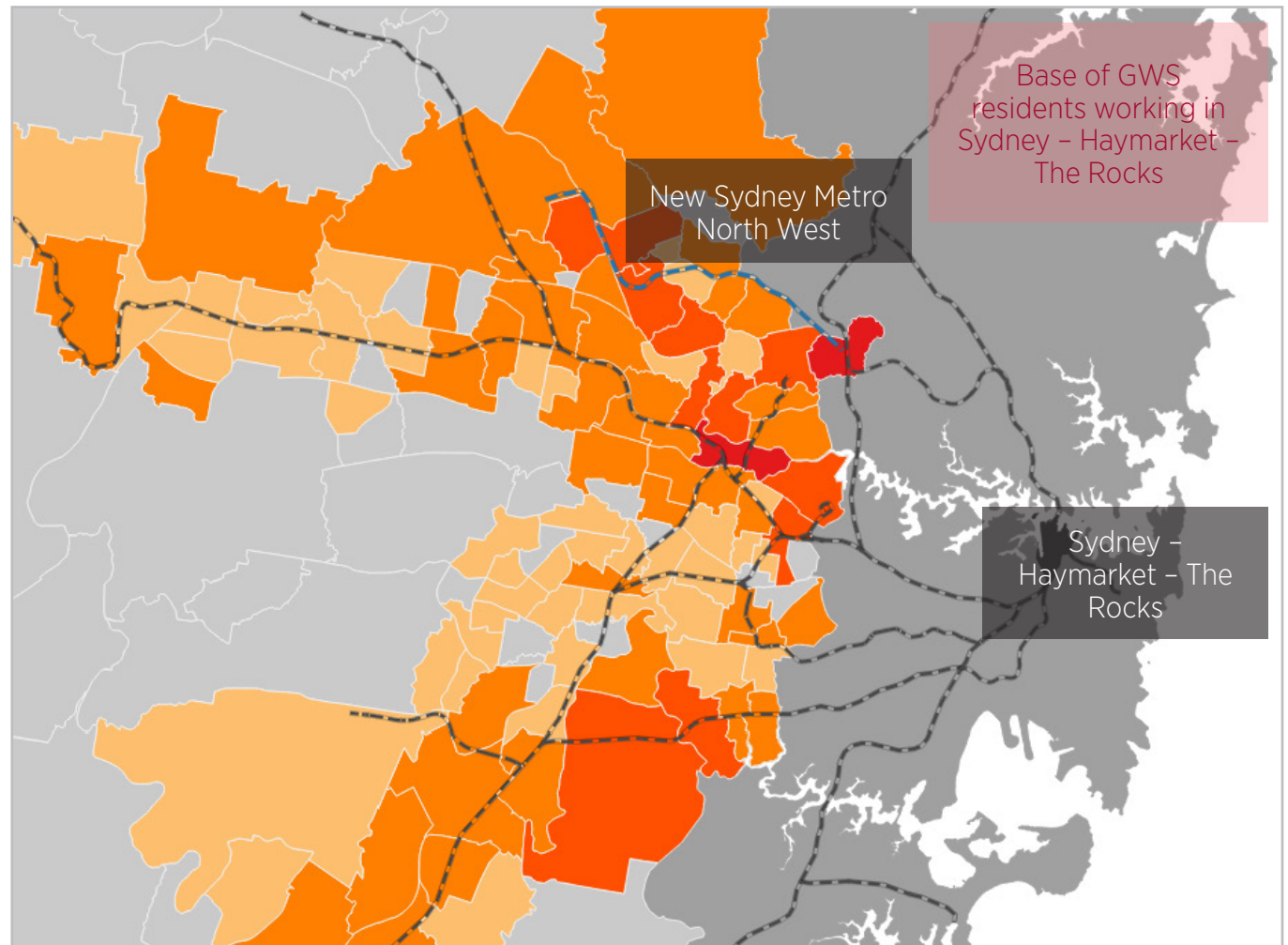
Source: ABS census 2016, place of work

The map reminds us of the critical role played by Sydney's rail network in linking Western Sydney workers to jobs, especially to professional and knowledge jobs not available locally.

Finally, for this section, we point to the importance of jobs located in the Sydney CBD, defined as the Sydney, Haymarket and The Rocks SA2, for Western Sydney's higher skilled workers. Figure 15 shows the residential origins for the 78,000 workers from Western Sydney who commuted to the Sydney CBD in 2016. The importance of the metropolitan train network is clearly evident in this commuting map, with access to the network much more important than actual distance from the CBD. The map reminds us of the critical role played by Sydney's rail network in linking Western Sydney workers to jobs, especially to professional and knowledge jobs not available locally.

FIGURE 15

Western Sydney residents who work in the CBD



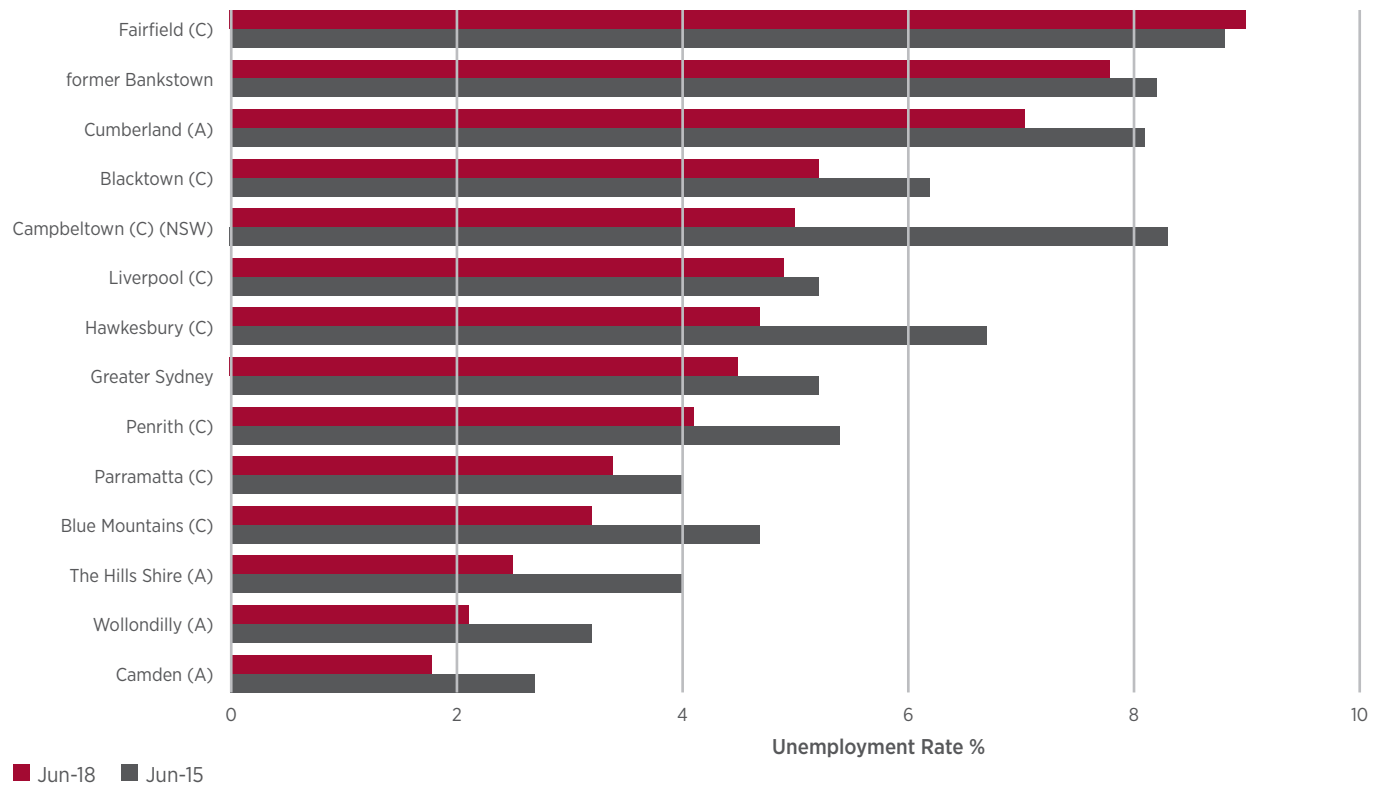
Source: ABS census 2016, place of work

THE PERSISTENT CHALLENGE OF NOT ENOUGH WORK

Insufficient access to paid work has affected Western Sydney's workforce in three ways for at least four decades. First, the region experiences levels of unemployment consistently above the national average, with youth rates a particular concern. Second, labour force participation rates among Western Sydney households, especially for women, are consistently below national rates. Third, there are spatial concentrations of households where high unemployment and poor participation have become chronic through generations of residents.

The 2016-18 jobs boom is a real time experiment for assessing the effects of economic growth, in this case driven primarily by construction activity and population growth. Figure 16 shows the impact of the recent boom on unemployment rates across Western Sydney's local government areas. In general, Western Sydney's LGAs experienced significant falls in unemployment rates in this period, especially outer urban LGAs where construction activity and population growth rates have been elevated. Campbelltown LGA has been the standout example. Yet even after record jobs growth, three Western Sydney LGAs – Fairfield, the former Bankstown City LGA and Cumberland – experienced unemployment

FIGURE 16
Unemployment rates in Western Sydney 2015 and 2018



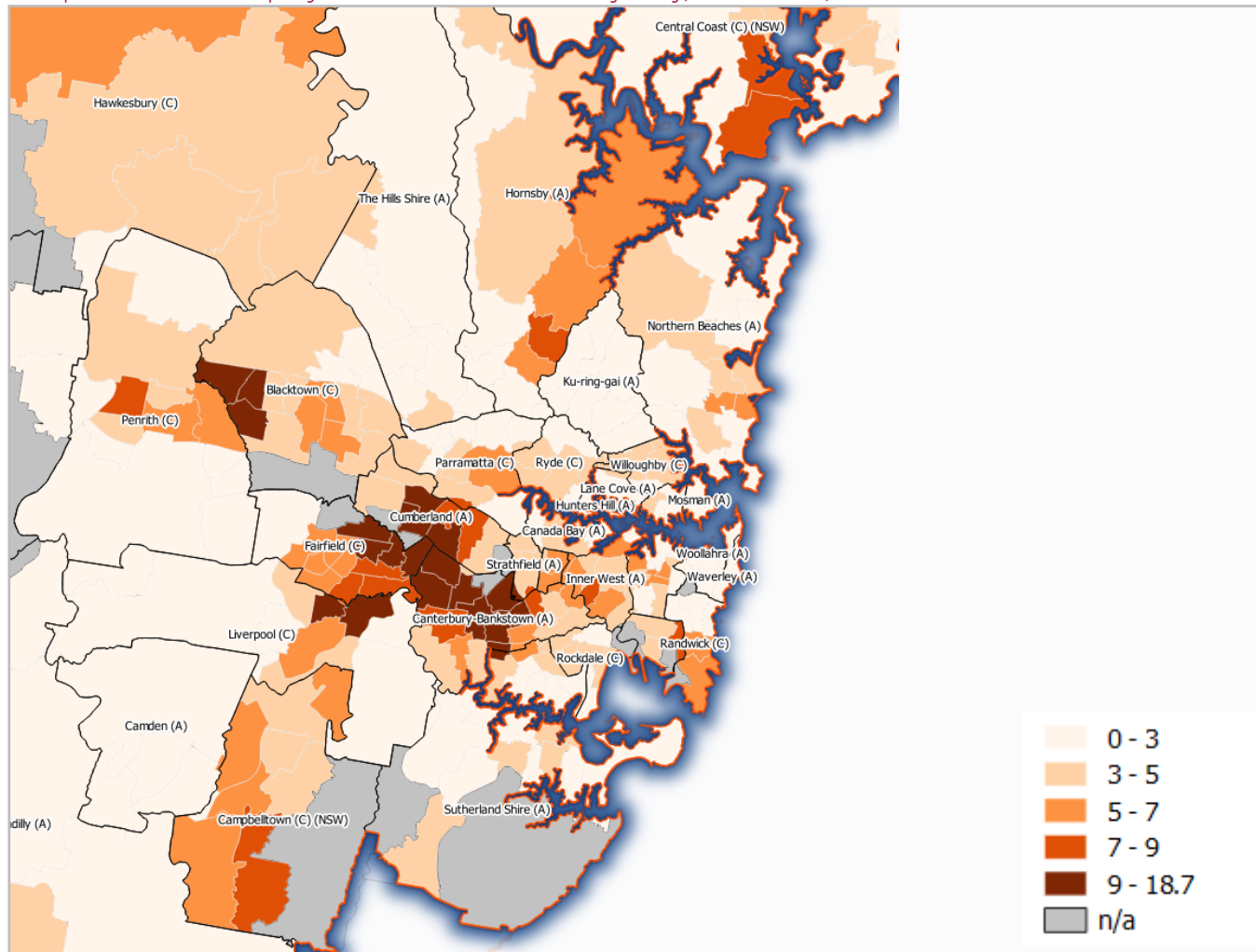
Source: Department of Jobs and Small Business, 2019, Small Area Labour Markets, September quarter 2018

rates of 7% or more, levels well above Australia's social and political expectations. For Fairfield, the unemployment rate actually increased in this period to a level double the average unemployment rate for the Sydney metropolitan area.

At a district or SA2 level, Western Sydney's unemployment clusters become more pronounced. Figure 17 maps the unemployment rates in Western Sydney at SA2 level based on 2018 ABS data. The high rates uncovered in the Western Sydney LGAs discussed above are reproduced and intensified at the SA2 level within these LGAs. Within Fairfield LGA, for example, the Fairfield City SA2 had 18.7% unemployment in 2018, Fairfield-East SA2 had 16.0% and Fairfield-West 12.2%. Within the Blacktown LGA, Bidwell-Hebersham-Emerton had 16.3%, Lethbridge Park-Tregear 12.9% and Mount Druitt-Whalan 11.3%. In Cumberland, Guilford-South Granville had 14.7% and Guilford West-Merrylands West 10.8%. Within Bankstown LGA, Bankstown City SA2 had 12.0%. In Liverpool LGA, Ashcroft-Busby-Miller SA2 had 14.8%. Again, these are the unemployment rates at the SA2 level in June 2018 at the height of Western Sydney's jobs boom. As such they represent the rates of unemployment at the peak of the economic cycle. But the benefits of the boom flowed insufficiently to these SA2s. Clearly, the COVID-19 downturn will push unemployment rates in these SA2s to even more unacceptable levels.

FIGURE 17

The pattern of unemployment across Western Sydney, SA2 levels, 2018

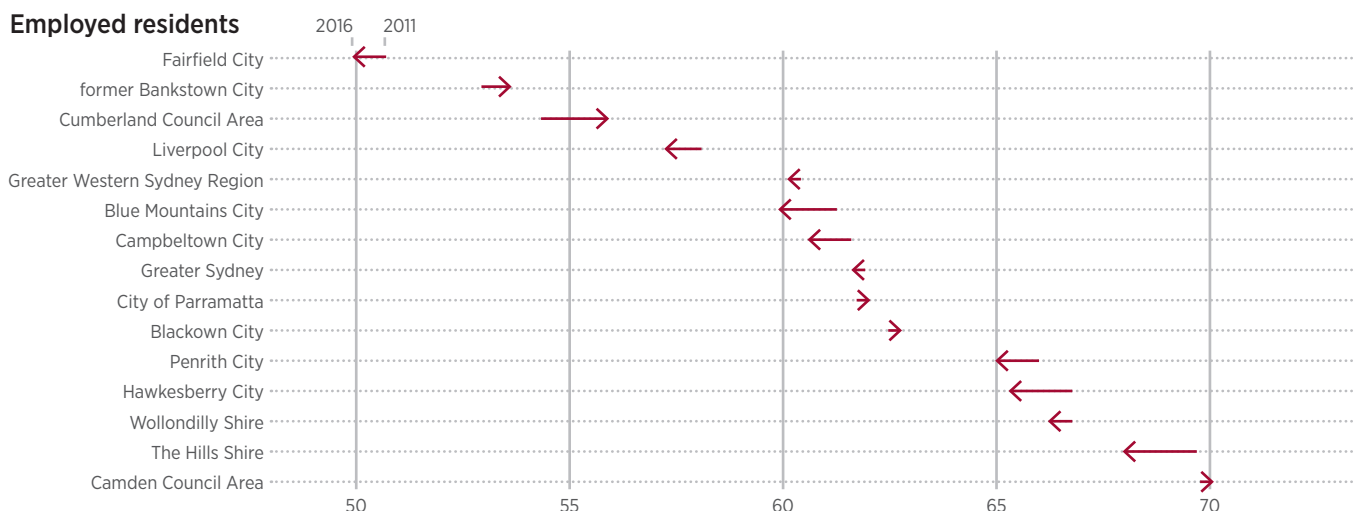


Source: Department of Jobs and Small Business, 2019, Small Area Labour Markets, June quarter 2018

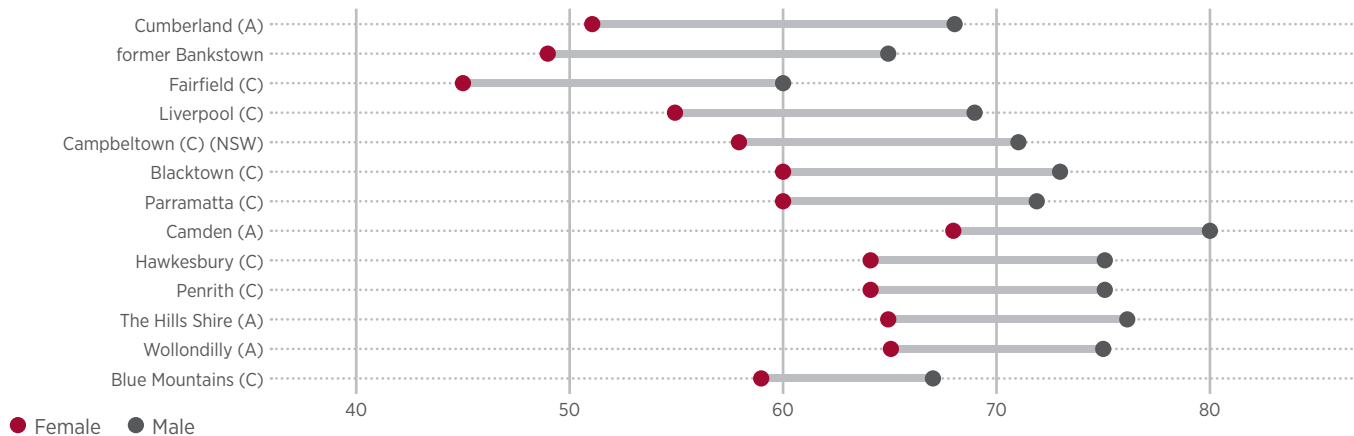
Access to jobs is also measured by the labour force participation rate, which is calculated as the proportion of the working age population that is in the workforce. In general, neighbourhoods with high proportions of well qualified workers living adjacent to large job concentrations tend to have high labour force participation rates. Where access to jobs is diminished, such as in parts of Western Sydney, labour force participation rates are lower. Figure 18 shows the variation in labour force participation rates across Western Sydney LGAs between the 2001 and 2016 census dates. A useful benchmark for observing the table is the Australia-wide participation rate which at the 2016 census was 60.3, which is very close to the rate for all Western Sydney at 59.9.

The graph on the left hand side of figure 18 plots participation rates for each of the 14 LGAs in Western Sydney, with the arrows showing the increase or decrease in the participation rate for each LGA across this intercensal period. A decrease in the participation rate, shown by a left facing arrow, was recorded for 8 of the 14 LGAs in Western Sydney, including for 4 of the top 5 performing LGAs. These are disappointing labour market outcomes. Comparisons with elsewhere in the Sydney metropolitan area are revealing. Western Sydney's worst four LGAs at the 2016 census were Fairfield (49.9%), Canterbury Bankstown (54.7%), Cumberland (55.9%) and Liverpool (57.4%). In LGAs outside Western Sydney, the 2016 census revealed much higher participation rates, for example, Inner

FIGURE 18
Labour force participation rates in Western Sydney by gender 2001-2016



Participation rates by sex, 2016



Source: ABS census 2001 and 2016

West (67.9%), North Sydney (71.1%), Waverly (67.7%) and Sutherland (65.9%).

Hidden in the single rate for each LGA are differences in the rates of male and female participation. For Australia at the 2016 census the male participation rate was 64.8 while the female rate was 8.9 percentage points lower at 55.9. Differences between male and female participation rates for each LGA in Western Sydney are shown on the right hand side of figure 18. For both men and women, the data points show a significantly higher participation rate in outer suburban LGAs, indicative of the higher proportion of young dual-income households attracted to these LGAs to take advantage of house affordability.

The graph also reveals an extremely low rate of female participation in three Western Sydney LGAs, Cumberland at 47.9%, Canterbury-Bankstown 47.7%, and Fairfield with an extraordinarily low rate of 43.2%. These rates compare with the female participation rate in 2016 for Inner West LGA at 65.5% with similar rates for North Sydney 67.6%, Waverley 63.6%, and Sutherland 61.5%. The magnitude of difference in these rates is arresting. The immediate consequence of a lower participation rate is lower household income. Longer term, households with lower labour force participation rates are likely to have lower retirement incomes while children in households where there are fewer adults working tend to have impaired development and employment prospects⁹.

9. McClelland, A., 2000, Effects of unemployment on the family, *The Economic and Labour Relations Review*, 11, 198–212.

CONCLUSION

We opened this report with observations by American geographers Susan Hanson and Geraldine Pratt especially their thesis that labour market outcomes result from complex processes operating at a range of geographical scales, from the household through to the national and global economy. Not surprisingly, across a large, diverse region like Western Sydney we find a multitude of labour market experiences and opportunities. Sure, there is a persistent problem – an insufficiency of jobs – but how workers engage with the labour market varies a lot, as we have shown when we consider variations in gender, occupation, skills and industry sector, and, of course, geographical location.

Our analysis examined in detail the question of whether Western Sydney was generating the large concentrations of jobs needed for its growing workforce. Our findings are not encouraging. Parramatta, long touted as Western Sydney's central business district, is growing as a professional services centre, but its growth is not nearly enough. Likewise, Sydney Olympic Park and Baulkham Hills-Norwest have yet to achieve status as genuine metropolitan business centres despite early promise. Meanwhile Western Sydney's old industrial areas, especially around Bankstown and Blacktown struggle to hold existing employment and have

poor prospects as jobs generators for the future. In fact, jobs ratios for both Bankstown and Blacktown declined between 2006 and 2018 meaning local residents are increasingly forced to look to other districts for employment opportunities.

In respect to Western Sydney's traditional regional centres – the municipal centres of Blacktown, Penrith, Fairfield, Bankstown, Liverpool and Campbelltown – we observe only modest jobs growth, reflecting their ongoing role as middle-order service centres in Sydney's overall urban hierarchy. Aspirations for these centres to develop specialisations with substantially increased jobs densities – such as might be found in health and education precincts – have to date been unrealised. It needs remembering that a net increase in jobs or wealth generation for a region only occurs when extra dollars are received by a region's businesses as a consequence of sales and transactions involving customers and clients *outside* the region. Regional centres with retailers and service providers that serve only local hinterlands may be efficient and valued for their role in the local economy and as community nodes, but they aren't jobs generators unless they have genuine metropolitan-wide economic reach, something which is currently lacking.

Yet this underperformance by Western Sydney's commercial and industrial centres has been countered in recent years by a booming construction sector, and by associated economic stimulus coming from record levels of population growth, especially from immigration. High rates of jobs growth in health, social assistance, education and training have been an importance consequence.

An important part of our analysis concerns trends in the construction sector. We point to a significant jobs surge in Western Sydney arising from heightened activity in this sector. Yet, showing its boom-bust tendency, the construction sector commenced a significant downturn in 2019 with the COVID-19 recession a major constraint on recovery. Slowing population growth for the region is also highly likely, perhaps for a prolonged period as immigration settings are recalibrated as a consequence of COVID-19 and the recession.

The most visible material consequence of the continuation of Western Sydney jobs deficit is the region's daily out-commute problem. We identify two groups which suffer chronically from the lack of local jobs and who therefore need to undertake substantial daily travel to access work. One is the entry-level worker, who once found work in Western Sydney in factories, warehouses and on building

sites, who is forced to take work in often short term spells in a variety of locations for which car travel is essential. The other is the degraded professional or knowledge worker for whom there is little alternative to long distance travel to inner Sydney for access to a suitable job.

Finally, we note that the competition for local jobs across Western Sydney is so intense that significant numbers of households have no paid work for long periods of time. Adult members of these households typically have poor education and training qualifications, patchy job experience and poor mobility. These households are geographically concentrated in particular neighbourhoods especially those with social housing availability. These areas are readily identified by their labour market outcomes: high rates of unemployment, low labour force participation rates, high rates of disengagement. These areas have among the highest levels of socio-economic disadvantage in Australia with evidence of joblessness that has become inter-generational.

A deficiency in this report is the lack of discussion about policy responses to Western Sydney's persistent jobs deficits. Our excuse is that good policy needs to have keen awareness of the nature of the problem and what outcomes are desired as a result of interventions. We see this report as playing an important role in this respect. Our key message is that Western Sydney's jobs problem is not only a large one, it is a complex one. The jobs problem

arises in different ways and is manifest differently according to those involved. We have highlighted the jobs problem among the lowly-skilled and those with the most advanced training and skills to make this point. Both groups suffer from an insufficiency of accessible jobs. But creating better job access for these two groups requires vastly different interventions. Then there is the problem of geographical concentrations of jobless households. Western Sydney's poor neighbourhoods remain one of Australia's most serious social and economic issues. Here we can say that policy formulation is a complex task requiring much analysis and thought, and therefore beyond the scope of this report. But this is an inadequate response given the scale and urgency of Western Sydney's jobs problems. We all need to do more.

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