

WHERE ARE THE JOBS?

Part 1: Western Sydney's short-lived jobs boom

WESTERN SYDNEY UNIVERSITY



The Centre for Western Sydney

ABOUT THE AUTHOR

This report was authored by Professor Phillip O'Neill, Director of the Centre for Western Sydney, Western Sydney University.

The images and data on which the report relies are provided by .id The Population Experts, data partners of the Centre for Western Sydney. Rob Hall and Keenan Jackson, Economic Analysts with .id, led the development of the data and co-created theunderpinning narrative.

FEEDBACK

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INTRODUCTION

Research for this series of reports was conducted throughout 2019. Our focus back then was on trends in the Western Sydney economy which was showing record levels of economic growth and jobs generation. Had it not been for the impacts of COVID-19, the reports would have concentrated on the reasons for this economic success, with reflections on some of the downsides and some qualifications about its durability. Now, COVID-19 places the reports in a new context. A different and, at this point, unknowable economic pathway for the region is being laid, and new research will be required to map and inform a reconfigured journey.

All this said, COVID-19 gives the reports enhanced public importance. The region's economic strengths and weaknesses coming in to the COVID-19 crisis will not have changed, and knowing more about these strengths and weaknesses will be important for charting the post-COVID-19 journey. In this light, the reports set out the findings from the project's questions:

- → What was underpinning Western Sydney's economic boom?
- → How well was the boom driving a transformation of the region towards a prosperous future?

- → How well was the boom creating more sustainable access to jobs for the region's rapidly growing workforce?
- → How effective were the region's institutional plans, specifically those with a focus on jobs?

This report concentrates on what has been happening in the region's labour force. It sets the picture through an analysis of the ways population growth generates particular labour force outcomes. It then positions Western Sydney's labour force growth and change against shifts in the region's economic structure. Of importance here is the region's long term struggle with the decline, in both relative and absolute terms, of Western Sydney manufacturing, and the ways Western Sydney has engineered a successful post-manufacturing transformation.

Two developments have been important in this transformation. One is the region's capture of economic opportunities arising from population growth. A booming construction sector has been the standout component, alongside employment growth in other population-driven sectors including health care and social assistance, education and training, retailing, and accommodation and food services. This report assesses the strengths and weaknesses

of these growth sectors, identifying the vulnerability of the construction sector to historic boom-bust cycles and of the other population-driven sectors to slowing population growth arising from the impacts of COVID-19.

The second development is the surge in the number of highly-qualified Western Sydney workers in professional and knowledge occupations. The issue here, of course, is the deficit in jobs creation within the region for these workers, a matter we pursue in more detail in later reports.

THE COVID-19 DOWNTURN

The Western Sydney economy has been subject to a severe external shock. The immediate impact of COVID-19 has been acute, especially on sectors where consumer spending is discretionary, say for household durables, where human travel is involved, say for tourist services, and where close human contact is involved, say in hotels and restaurants. In all these ways, the Western Sydney economy has tracked the national economy, particularly its urban economy segments. But this tracking involves more than straight duplication. There are distinctive Western Sydney elements in play, as we will see.

As a consequence of COVID-19, the IMF predicts a

sharp downturn in the world economy in 2020 but with good prospects for economic recovery in 2021¹. For Australia, the IMF anticipates a fall in GDP of 6.7% in calendar year 2020 with a 6.1% bounce back in 2021. Recovery in employment levels will, however, lag economic recovery. In respect to Australian labour markets, the IMF predicts a rise to 7.6% average national unemployment in 2020, from 5.2% in 2019, with a further rise to 8.9% in 2021.

While it is difficult to make accurate forecasts of the economic impacts of COVID-19, especially at a regional level, the early 1990s recession in Australia gives some insight as to how unemployment during a recession is experienced in Western Sydney. During that recession, the unemployment rate for the Sydney metropolitan area reached 10% in June 1992, with the rate in Liverpool at 17% and in Fairfield at 23% – among the highest rates in Australia at the time.

There is good reason to be alarmed at the chance of similar unemployment outcomes. Prior to COVID-19 the unemployment rate in Western Sydney was a little over 5%. A 10% unemployment rate in Western Sydney would mean a total of 112,000 unemployed workers. A 20% rate is a quarter of a million workers.

Past experience tells us, then, that while the Western Sydney regional economy tracks national economic trends, it is likely the region's downturn will be more severe for both economic output and employment,

with prolonged unemployment in Western Sydney a major concern. Indeed, based on the Western Sydney experience of the early 1990s recession, some sub-regions in Western Sydney are likely to experience unemployment at double national rates or more, and these are likely to persist long after a national economic upturn.

There is a need, as we indicate above, to monitor economic and labour market impacts of the COVID-19 downturn at sub-regional and sub-sectoral scales so that responses appropriate to the Western Sydney experience can be developed. Importantly, this new research task requires understanding of the economic base affected by COVID-19, an objective we think is pursued in this report and those that accompany it.

ENDURING GROWTH IN THE SYDNEY ECONOMY

Prior to COVID-19, Greater Sydney was in the fourth decade of global economic success. The city's economic strategy has been based on the promotion of professional services with financial services as the lead sector. The strategy – a calculated partnership between the three tiers of government and domestic and international capital – commenced in the 1970s with the welcoming of foreign banks into Sydney. Then followed a raft of national reforms to regulations governing the financial sector which

benefited Sydney more than any other Australian city². Sydney businesses secured a growth pathway based on the provision of advanced services to economic sectors across the nation. Rising levels of higher education completion and selective immigration policies favouring skilled professionals have been accelerants to this growth.

This virtuous cycle – regulatory shift, upskilling of labour, business growth – has generated ongoing and lavish economic benefits to the Greater Sydney economy, even during periods when other developed economies have experienced sluggish growth and recession. Sydney's seemingly unstoppable population growth has been a consequence of its economic success and, in turn, has become a driver.

Figure 1 shows Sydney's impressive growth across the two decades of this century. The global financial crisis (commencing in 2008) merely dampened rather than halted Sydney's economic growth. And since 2016, Sydney's annual regional output has stayed handsomely above its two-decades-long growth trend.

Sydney's recent economic growth has been manifest in many ways. The number of businesses operating in Sydney grew from 471,789 in 2014 to 544,143 in 2018. In financial services, the number of businesses grew by 21% to 54,878 in this period, while the number of professional services firms grew by 14%

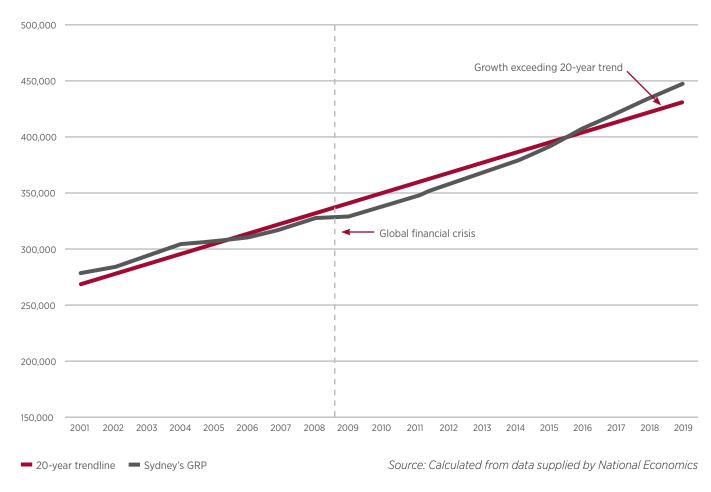
^{1.} IMF, 2020, World Economic Outlook, Washington DC (April)

to 82,773. In the construction sector heightened activity saw completions of new dwellings rise from 31,192 in 2013 to 56,709 in 2016, 57,659 in 2017 and 55,244 in 2018³.

Such growth has been reflected in rising Sydney incomes with total personal income received across all Sydney increasing from \$152 billion in 2013 (using 2018 dollar values) to \$180 billion in 2018. Growth has also been reflected in falling levels of unemployment with Sydney's official unemployment rate falling from a peak of 7.1% at the commencement of 2014 to 5.1% in mid-2018, and the number of Newstart recipients in Sydney falling from 121,825 in 2015 to 103,369 three years later⁴.

An important observation needs to be made at this point. This is that Sydney's growth has translated differently to different parts of the metropolitan area. One example is that the growth of professional services firms, especially those in the financial sector, has favoured the inner city, principally the harbourside CBD. Another is that decline in the manufacturing sector, a consequence of trade liberalisation measures, has impacted Western Sydney disproportionately. A third example, and somewhat in contrast, is that a prolonged construction boom has significantly benefited the Western Sydney economy and key segments of its labour force. We return to this geography of the Sydney growth economy in later sections.

FIGURE 1
Gross regional product, Sydney, base year = 2016-17



^{3.} Data this paragraph are sourced from ABS Cat. 1410.0 Data by Region, 2013-18

SYDNEY'S POPULATION GROWTH

Population growth in Western Sydney is a thick chapter in the story of metropolitan Sydney's population growth, albeit with a distinctive sub-plot. Certainly, Sydney follows national demographic trends in terms of factors affecting rates of natural increase, such as fertility and ageing. In addition, Sydney has an elevated sensitivity to national immigration policies and trends. In turn, Western Sydney is a highly significant receptacle for these growth events.

So the national story is a highly influential one for Western Sydney. In the first half of the twentieth century, Australia's population grew steadily, though modestly, from 3.8 million in 1901 to 7.7 million in 1948. Population growth then accelerated on the back of the post-war baby boom and immigration programs. From the 1950s through to the 2000s the nation's population grew by between 2.0 million and 2.5 million people in each and every decade. But the level of growth has recently risen well above this long term rate with nearly 6 million people added to the national total in the last decade⁵.

A further 21st century development is that Australia's east coast cities increasingly host the nation's population growth. One million people were added to Sydney over the last three decades of the 20th century⁶. However, the next increase of one million,

taking Sydney to five million people, occurred in only half this time. Figure 2 shows Sydney's population surge over the last decade, its growth rate consistently outstripping the rates for both New South Wales and the nation.

As discussed above, Sydney's population growth comes from two main sources. One is natural increase, and this has two components: the excess of births over deaths, and improved life expectancy. The other main source is net overseas migration, which in recent years has been far and away Sydney's population growth driver. In the 2017-18 financial year natural increase contributed 43,584 persons to Sydney's growth while net overseas migration contributed 77,091. Growth was moderated to a small degree by a net outflow of 27,264 persons from Sydney to other parts of NSW and interstate?

Western Sydney has emerged as the urban region where Sydney's population growth is concentrated. Figure 3 shows the population growth rate for Western Sydney exceeding the rate for metropolitan Sydney each year for the last 6 years. A consequence has been that in the period 2012 to 2018 Western Sydney accounted for 52% of all population growth in Sydney. And, like both Greater Sydney and Australia. Western Sydney's growth

comes from the combination of natural increase and net overseas migration (see figure 4). As we see in the next section, Western Sydney's population growth has important implications for the growth and direction of the Western Sydney labour market.

... some sub-regions in Western Sydney are likely to experience unemployment at double national rates or more, and these are likely to persist long after a national economic upturn.

^{5.} Calculations this paragraph are based on ABS data from https://www.abs.gov.au/Population.

^{6.} https://www.sgsep.com.au/news/latest-news/sydney-5-million

^{7.} Calculations this paragraph are based on ABS data from https://www.abs.gov.au/Population

FIGURE 2
Annual population growth rates 2002-2018

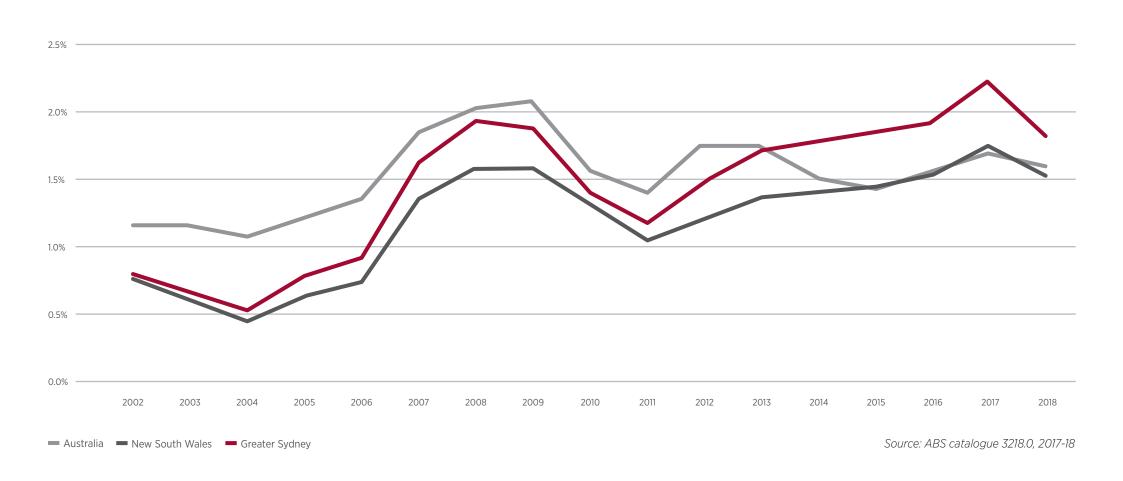


FIGURE 3Population growth rates 2013-2018

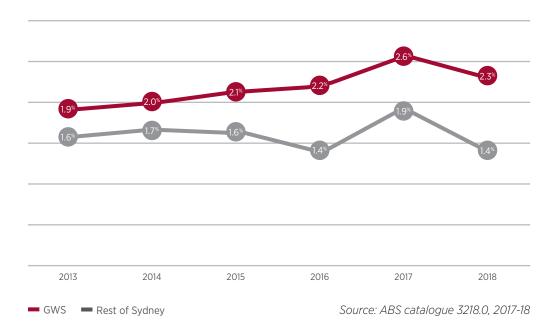
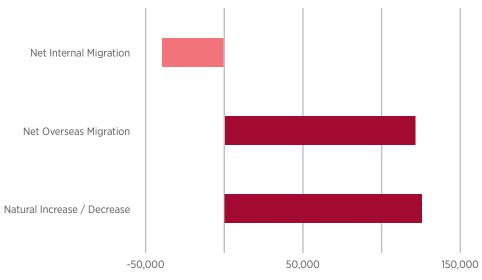


FIGURE 4Contribution to population growth, Western Sydney 2011-2016



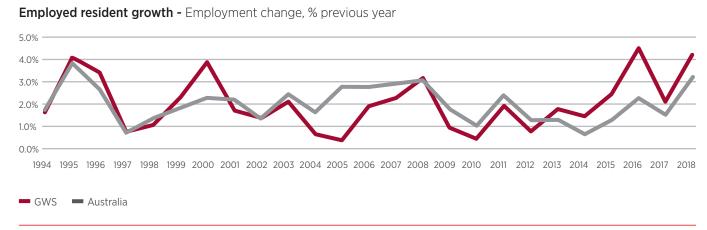
Source: ABS census 2011 and 2016; ABS catalogue 3301.0, 2016; 3302.0, 2017

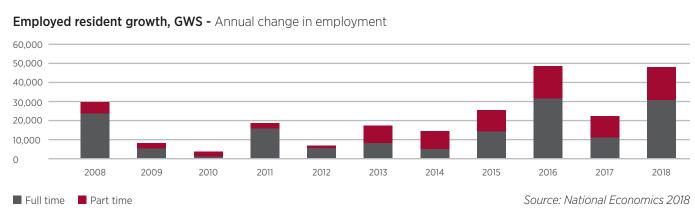
WESTERN SYDNEY'S LABOUR FORCE GROWTH

An important feature of the composition of immigration to Western Sydney has been the high in-flow of young adults. The largest age cohort among immigrants to Western Sydney in the five years prior to the 2016 census was those aged 25 to 29 years, responsible for over 18% of all the region's overseas arrivals. The next largest age cohort was 30 to 34 years, followed by 20 to 24 years, then 35 to 39 years. This preponderance of young adult arrivals has significantly boosted Western Sydney's resident labour force⁸.

Between 2013 and 2018 the number of workers living in Western Sydney grew at an average of 2.9% per year, well above the region's 15-years average of 1.9% per year, the rising significance of part-time workers notwithstanding (see figure 5). Based on census data analysis, we find 66% of the growth in the Western Sydney workforce between 2011 and 2016 – which amounted to 106,000 workers – came from workers who had arrived from overseas sometime in the previous five years⁹.

FIGURE 5Growth of Western Sydney's employed residents 1994-2018





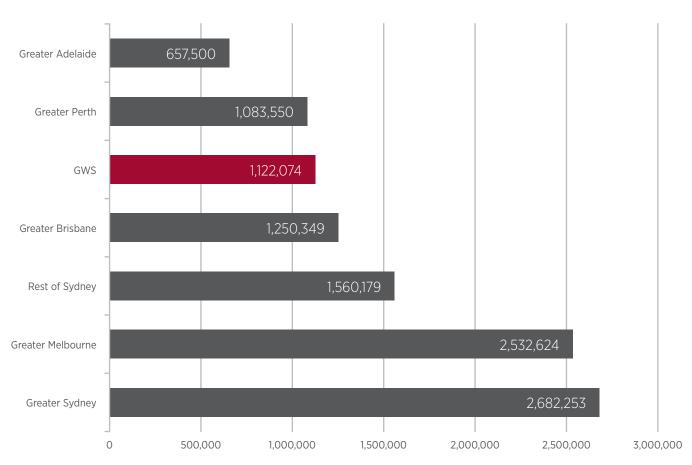
Of course, growth of the Western Sydney resident labour force also comes from domestic sources – contributing over 36,000 new workers between the 2011 and 2016 censuses – which is the combination of local youth entering the labour force and workers moving to the region from elsewhere in Sydney or migrating from other Australian regions.

Looking back a further five years, we find between the 2006 and 2016 censuses the Western Sydney resident workforce grew by 192,151, which is substantial. We cannot over-emphasise how big the Western Sydney labour force has now become as a result of in-migration and natural growth. In 2018 Western Sydney had become the home of around 1.12 million employed residents. This is over double the number of workers in Seattle, USA, the home of Boeing, Microsoft, Amazon and Starbucks¹⁰.

In terms of Australian comparison, as can be observed in figure 6, by 2018 the number of employed residents in Western Sydney had surpassed the number in the resident workforce of the metropolitan region of Adelaide, and of Perth, and was only 10% fewer than the number in metropolitan Brisbane.

So what happens to the size of the Western Sydney workforce from here? Certainly COVID-19 will have an impact on Australia's birth rates and its immigration levels, although the nature and extent

FIGURE 6 Employed residents by metropolitan region 2018



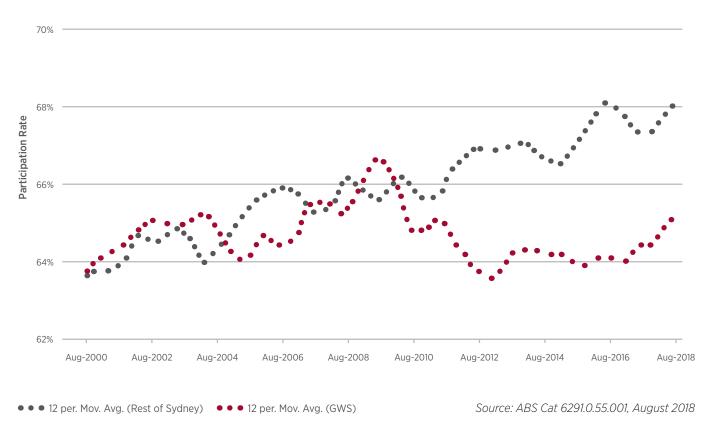
Source: National Economics 2018

of changes is as yet unknowable. An inevitable resumption of population growth, however, will mean Western Sydney's labour force continues to grow, probably at above national rates.

Future labour force growth in the region might also come from improvements to participation rates. Figure 7 shows the considerable gap between the labour force participation rate for Western Sydney compared to the rest of Sydney. As marked as this gap has become over the last decade, the regional average disguises the very low participation rate found in some Western Sydney LGAs, notably Fairfield where the 2016 rate was 49.9%, Canterbury-Bankstown at 54.7% and Cumberland at 55.9%. Low rates in these LGAs are explained by poor qualifications levels among women and resistance to female labour force participation within some cultural groups¹¹. Simply by increasing participation rates in Western Sydney to match Greater Sydney's 2016 average of 61.6% would add 18,837 workers to the labour force in Fairfield, 18,999 to the workforce in Canterbury-Bankstown and 9,782 in Cumberland. Such increases would substantially boost economic activity in these LGAs¹².

The next section of this report turns to the question of jobs provision in Western Sydney. Where are the jobs coming from, and are they emerging at a sufficient rate?

FIGURE 7Participation rates, Western Sydney and rest of Sydney 2000-2018



Note: GWS comprises the following SA4s: 115 Sydney - Baulkham Hills and Hawkesbury; 116 Sydney - Blacktown; 123 Sydney - Outer South West; 124 Sydney - Outer West and Blue Mountains; 125 Sydney - Parramatta; 127 Sydney - South West

^{11.} Female labour force participation rates in these LGAs at the 2016 census were for Fairfield 43.2%, Canterbury-Bankstown 47.7% and Cumberland 47.9%, compared to the female participation rate for Greater Sydney in 2016 which was 56.7%

RECENT TRENDS IN WESTERN SYDNEY JOBS

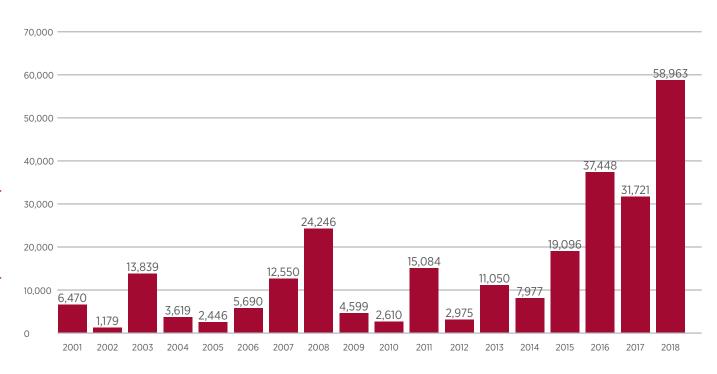
Before COVID-19, population growth in Western Sydney and Sydney more broadly had become a major economic force, generating record levels of jobs growth in the Western Sydney region. Between 2012 and 2018 local jobs in Western Sydney grew by around 24,000 per year, well above a 20-years average of 14,500 per year. In 2018 alone, local jobs in Western Sydney increased by an extraordinary 60,000 jobs. For the first time this century, jobs growth was gaining the upper hand over Western Sydney's jobs deficit problem (the excess of resident workers over local jobs). This jobs growth is shown in figure 8.

In 2018 alone, local jobs in Western Sydney increased by an extraordinary 60,000 jobs.

Where did this success come from? A disaggregation of Western Sydney jobs growth (figure 9) shows the high concentration of growth – around 80% of all local jobs growth -- in economic sectors which are predominantly population-serving.

FIGURE 8

Growth of Western Sydney's local jobs 2001-2018

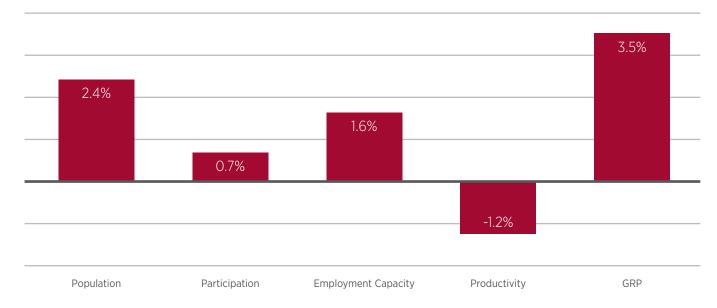


Source: National Economics 2018

These are sectors which experience strong jobs growth when population growth rates are high. High population growth rates in Western Sydney between 2012 and 2018, then, drove jobs growth in the population-serving sectors, namely construction, health care and social assistance, education and training, retailing, and accommodation and food services.

From modelling commissioned for this report. National Economics calculates that population growth contributed 2.4% of the 3.5% uplift in Western Sydney's gross regional product (GRP) between 2016 and 2018 (figure 9). In contrast, the absence of productivity gains in the Western Sydney regional economy, says National Economics, caused a 1.2% drag on regional growth in the same period. Obviously, an emerging urban economy like Western Sydney's would be better positioned - through competitive advantage over other cities for the sale of goods and services and in being able to offer higher levels of worker remuneration – by sustained productivity growth. It is noteworthy that the two main contributors to productivity growth in any economy are the level of capital investment and the level of skills among the workforce¹³, and these forces are certainly evident in the Western Sydney economy. Nevertheless, they are not significant enough to generate the level of economic growth

FIGURE 9Contributions to Western Sydney's economic growth 2016-2018



Source: National Economics 2018

Notes: The following definitions are used: Population is change in population. Participation is change in the ratio of employed residents to population. Employment capacity is change in the ratio of employed residents to number of local jobs. Productivity is change in the ratio of gross regional product (GRP) to number of local jobs.

needed for jobs growth, leaving population growth – and its companion, labour force growth – as Western Sydney's primary jobs driver.

While good jobs growth in recent years has been important in absorbing Western Sydney labour force growth, the dependency on population growth as the driving mechanism raises concern about the longer term capacity of the Western Sydney economy to deliver on jobs and income demands, particularly in the higher-skilled segments of an advanced city economy, such as the region has in its sights. By definition, economic sectors dependent on population growth rely on either redistributed earnings or imported savings, rather than on surpluses generated by the sales of goods and services to businesses and households outside the region. Importantly, revenue streams generated externally expand the total value of a region's economy through multiplier effects.

Traditionally, Western Sydney's manufacturing sector has been the region's major source of externally-generated income. Yet this sector shed a significant proportion of its Western Sydney jobs in the 2012-2018 period. Of course, there are multiple stories of manufacturing change across Western Sydney with jobs growth observable in some manufacturing subsectors and in some Western Sydney sub-regions. Nevertheless, the trend in manufacturing jobs is inexorably downward meaning Western Sydney

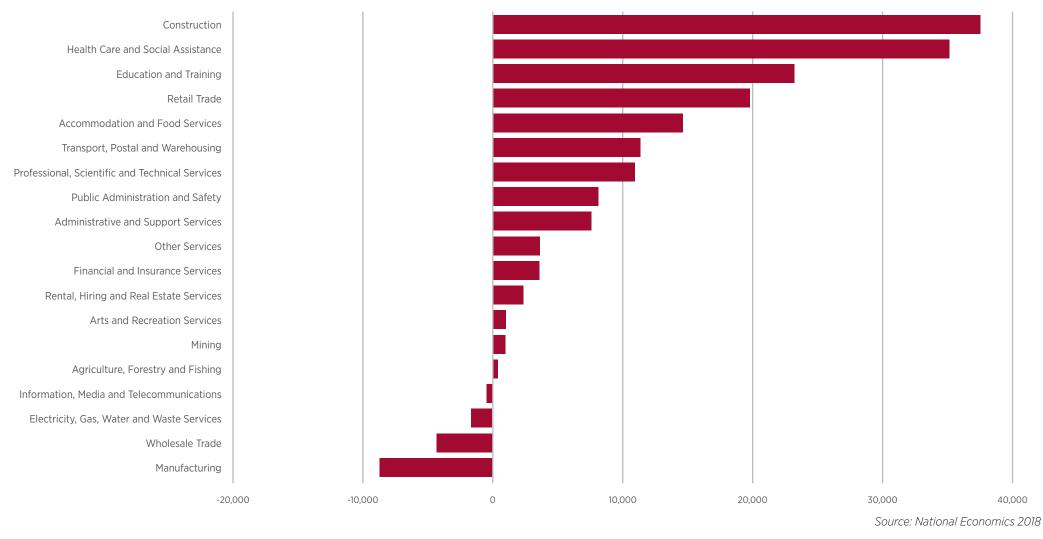
needs to diversify beyond the manufacturing sector for jobs and income growth.

Figure 10, showing jobs growth in Western Sydney between 2012 and 2018 broken down by industry sector, provides further insight into the task ahead for the development of an enduring Western Sydney economy. The graph shows populationserving sectors as the region's top five jobs growth generators: construction, health care and social assistance, education and training, retail trade, and accommodation and food services. These five sectors accounted for around 80% of all Western Sydney jobs growth in the 2012-2018 period. Of significance is that the top jobs generator construction, responsible for over 25,000 net additional jobs in this period - has been a major jobs supplier to many young male workers in Western Sydney's lower-skilled labour market segments. As well, because a lot of construction activity involves greenfields residential development, many of the construction jobs have been in outer suburban locations where jobs availability has otherwise been poor.

Yet, the construction sector is historically a boombust sector. By mid-2019 the construction sector in Western Sydney was experiencing significant downturn in both its residential and non-residential parts. Dwelling completions in NSW fell by 18.6% from 40.185 in 2018 to 32.700 in 2019, the lowest

level of completions since 1953, according to UDIA NSW, a property industry lobby group¹⁴. Moreover, the COVID-19 downturn is now exacerbating the slump in the construction sector in multiple ways: by sapping buyer confidence, falling demand from incoming migrant households, stalling the commissioning of new projects, encouraging conservative land holding practices, generating local infrastructure delays, and causing project finance difficulties for both householders and construction companies. Overcoming these hurdles in order to resume 2018 construction activity levels appears unlikely in the near future.

FIGURE 10Change in Western Sydney's local jobs by industry sector 2012-2018

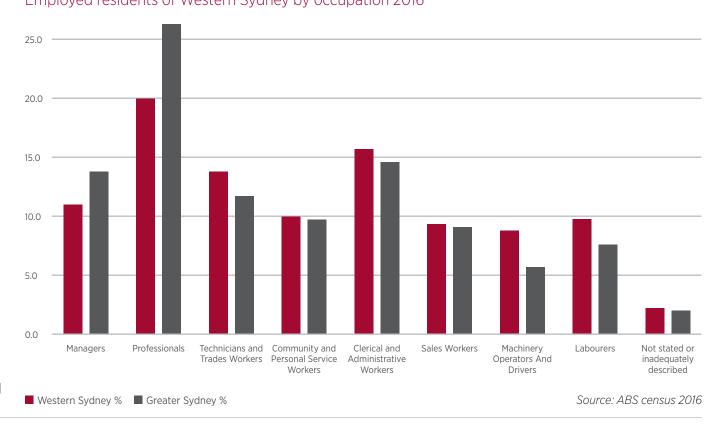


THE CHANGING COMPOSITION OF WESTERN SYDNEY'S WORKFORCE

Historically, compared to Greater Sydney, the Western Sydney workforce has been overly concentrated in blue-collar occupations and low-skilled services sectors. Census data from 2016 shows this is still the case, but only to a degree. In figure 11, where we compare the occupations of Western Sydney's resident workers to those of Greater Sydney, we see managers and professionals are under-represented in Western Sydney, while technicians and trade workers, machinery operators and drivers, and labourers are all over-represented.

Obviously, the occupational distribution of Western Sydney's resident workers reflects the industrial breakdown of the region's workforce, largely a legacy of, first, manufacturing decentralisation from inner Sydney's central industrial area to Western Sydney in the post-war decades, and, second lagging jobs growth in Western Sydney in financial and professional services¹⁵. Figure 12 shows the extent of over-representation in manufacturing employment for Western Sydney workers compared to Greater Sydney, as well as for construction, retail trade and transport. The figure shows, in contrast, an under-representation for Western Sydney in financial

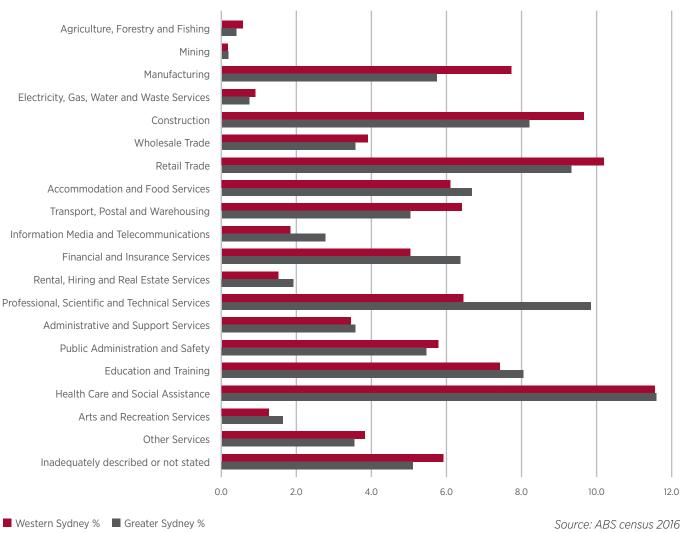
FIGURE 11Employed residents of Western Sydney by occupation 2016



and insurance services, and professional, scientific and technical services.

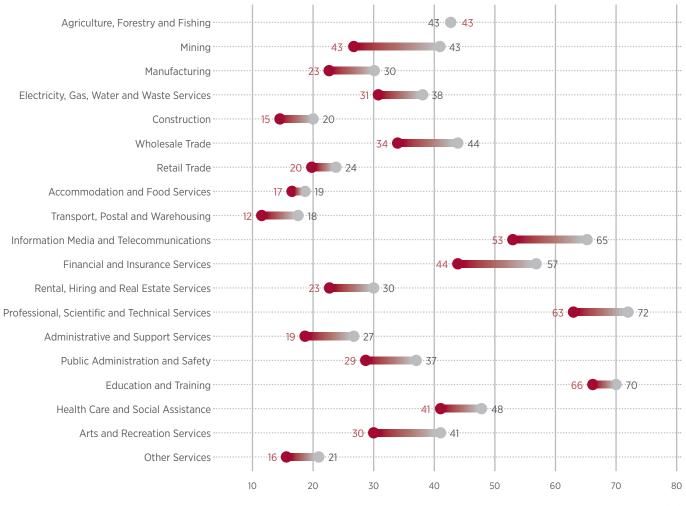
Let's dig a little deeper on this. In novel analysis, we have drawn together data to show the extent to which Western Sydney workers are employed as managers across the range of industry sectors. Our results are shown in figure 13. There we see, compared to Greater Sydney as a whole, that the presence of Western Sydney workers as managers or professionals is lower in every industry sector bar agriculture. In retailing, for example, 20% of Western Sydney workers are employed as managers or professionals compared to 24% for Greater Sydney. In public administration and safety, Western Sydney's presence in these two groups is 29% compared to 37% for Greater Sydney. Of concern is that the poorest rate of placement as managers and professionals for Western Sydney workers is in those industries with the highest concentrations of managers and professionals: information, media and telecommunications: financial and insurance services; and professional, scientific and technical services. Of particular note is employment in the financial and insurance services sector where 44% of Western Sydney workers in this sector in 2016 held jobs as managers and professionals compared to 57% of Greater Sydney workers in this sector.

FIGURE 12Employed residents of Western Sydney by industry sector 2016



At this point, though, we shift to the use of absolute numbers, away from the percentages we have been using in the comparisons above. Certainly, the use of proportions is a robust way of representing the presence or absence of a thing under observation. But sometimes the use of proportions can lead to an under-appreciation of just how big (or small) something actually is, and this is often the case for a highly populated region like Western Sydney. Hence, while we observe a relative deficiency in the percentages of managers within categories of the Western Sydney workforce compared to Greater Sydney, we can also observe from the 2016 census that 109,944 managers actually lived in the region. and for professionals that 202.957 lived in the region. These are deep pools of highly qualified workers. Compared to Greater Sydney - where the number of managers and professionals is significant on a global scale - the concentration of managers and professionals in Western Sydney might appear undersized. But the number of managers and professionals in the region is substantial. In the next section we analyse the extraordinary growth of highly qualified workers living in Western Sydney.

FIGURE 13
Managers and professionals share of jobs held by Western Sydney residents (%) 2016



Source: ABS census 2016

THE RISE OF WESTERN SYDNEY'S PROFESSIONAL AND KNOWLEDGE WORKFORCE

Fifty years ago Western Sydney was a major industrial region¹⁶. In 1971, 34.9% of the labour force in the area that is now the Canterbury-Bankstown local government area worked in manufacturing. In Parramatta LGA manufacturing employed 33.9% of the labour force. The equivalent figure for Fairfield was 38.3% and for Blacktown 35.4%. In these four LGAs in 1971 there were 103.768 manufacturing workers. This is an arresting number. By the 2016 census the number of manufacturing workers in these LGAs had fallen by two-thirds to only 36,380 workers. To put this in the national context, back in 1971 there were 1,215,618 manufacturing workers in Australia, representing 22.8% of the national workforce. By the 2016 census the manufacturing workforce had fallen to 683,688 which was only 6.4% of the national workforce¹⁷.

Western Sydney is one of a handful of Australian regions to have experienced the full force of de-industrialisation over the last fifty years. Western Sydney is one of a handful of Australian regions to have experienced the full force of de-industrialisation over the last fifty years. The manufacturing sector in 2016 in Canterbury-Bankstown employed only 6.1% of its resident workers, in Parramatta it employed only 5.4% of workers, in Fairfield it was 10.6%, and Blacktown 7.6% Yet unlike many manufacturing regions across the developed world – where deindustrialisation has resulted in prolonged structural unemployment – Western Sydney's labour market has absorbed the loss of manufacturing jobs and undertaken a remarkable transformation. The rising level of university qualifications in the region is a powerful

indicator of the upskilling of the region's workforce with, now, an enhanced capacity to adapt to a rapidly changing 21st century economic environment. Table 1 shows, for 1971, the miniscule number of university degree holders in the four case study LGAs cited in the paragraph above. By 2016, however, each LGA was home to a critical mass of workers holding tertiary degrees. The explosion in the number of degree holders is not just an astonishing feat for a once heavily industrialised region but a decisive turn in preparedness for the region's economic future.

In 2016, in aggregate, Western Sydney was home to

TABLE 1Number of persons holding bachelor or higher degrees, usual residents, 1971 and 2016

LOCAL GOVERNMENT AREA	1971	2016
Blacktown	539	57,311
Canterbury-Bankstown	1,880	54,231
Fairfield	364	18,211
Parramatta	1,136	68,626

Source: ABS 2105.0 and data extracted from profile.id.com.au/cws

^{16.} See Robert Fagan and Phillip O'Neill, Work, places and people in Western Sydney: changing suburban labour markets 2001-2014, Centre for Western Sydney https://westernsydney.edu.au/cws/policy

^{17.} Calculations in this paragraph based on ABS 2105.0 and data extracted from profile.id.com.au/cws

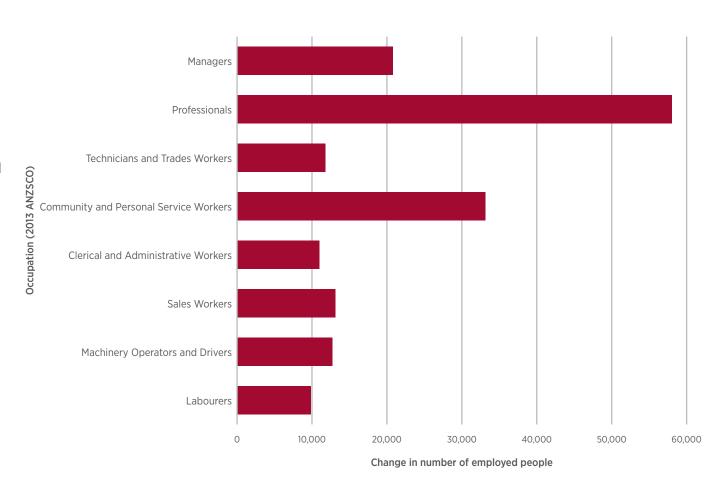
^{18.} ibid

352,913 graduates with bachelor or higher degree qualifications. This represents 20.7% of all persons in the region aged 15 years plus, up from 16.9% in 2011 and 10.7% in 2001. Clearly a prolonged and transformative education and qualifications uplift in Western Sydney is underway¹⁹.

It is true, worldwide, that workers with university degrees have access to better paid and more secure jobs across all industry sectors including in sectors once labelled as blue collar, such as the present-day manufacturing and transport and logistics sectors. In a competitive, 21st century configuration, all industrial sectors employ concentrations of university-trained workers. This trend is captured in census data by the occupation group 'professionals', as we now demonstrate.

As we revealed in the previous section, the 2016 census finds for Western Sydney that 20% of employed residents were professionals, a total of 202,957 workers. Indeed, as shown above by figure 11, the professionals category in 2016 for Western Sydney had become larger than any other occupation: greater than technicians and trade workers (9.9% of resident workers), clerical and administrative workers (15.6%), machinery operators and drivers (6.3%), and labourers (9.5%). For all occupational categories, as shown in figure 14, professionals experienced the largest increase in numerical terms (57,963) between the 2006 and 2016 censuses and the second highest growth rate

FIGURE 14Change in occupation of Western Sydney employed residents 2006-2016



Source: ABS census 2016

19. ibid 21

at 40.0% across these ten years. The highest growth rate was in the occupational category 'community and personal care workers' where decadal growth was an extraordinary 49.3%.

Another way of assessing the transformation of the Western Sydney resident workforce is through the region's take-up of work in what has become known as knowledge-based business services. Here we use the convention of defining knowledge-based business services as these three industry groups:

- → Professional, scientific and technical services
- → Financial and insurance services
- → Information media and telecommunications.

Figure 15 shows the performance of the Western Sydney resident workforce in knowledge-based business services compared to metropolitan regions around Australia. In this comparison it needs noting that the Sydney and Melbourne metro-economies are seen as global leaders in knowledge-based

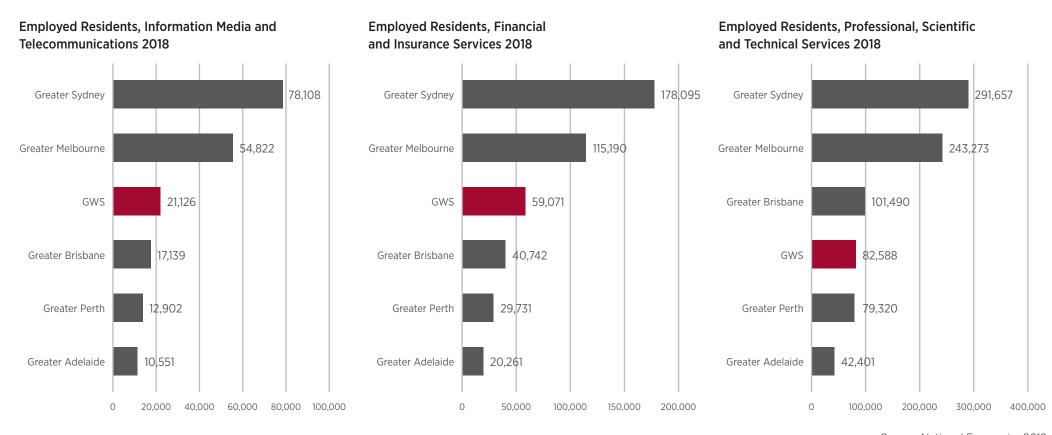
business services, so the comparison is being made with two cities in the top-tier worldwide. In total, for 2018, Western Sydney (with 162,000) had a level of knowledge-based business services workers similar to Brisbane (with 159,000) and significantly higher than Perth or Adelaide. Importantly, knowledge-based business services workers as a proportion of all workers in Western Sydney (14.5%) had by 2018 become significantly higher than the proportion in the wider metropolitan regions of Brisbane (12.7%), Perth (11.3% and Adelaide (11.1%).

A final item of evidence showing the transformation of the Western Sydney workforce is compelling. Figure 16 shows the growth of employed residents in knowledge-based business services between 2013 and 2018 for Australia's metropolitan regions. Strongest growth for this period occurred in Greater Sydney (which includes the growth for Western Sydney) and Greater Melbourne, as you'd expect given the success of these metropolitan regions as providers of advanced services to a growing, prosperous national economy. Importantly the figure

shows that Western Sydney has been central to this growth story. The growth between 2013 and 2018 of employed residents of Western Sydney holding jobs in knowledge-based business services exceeded the growth of knowledge jobs in Brisbane, Adelaide and Perth *combined*. Indeed, figure 16 suggests an emergent divide in Australia's metropolitan economies, with Greater Sydney, including Western Sydney, and Greater Melbourne hurtling ahead as advanced knowledge economies, with the other metropolitan regions lagging.

The growth between 2013 and 2018 of employed residents of Western Sydney holding jobs in knowledge-based business services exceeded the growth of knowledge jobs in Brisbane, Adelaide and Perth combined.

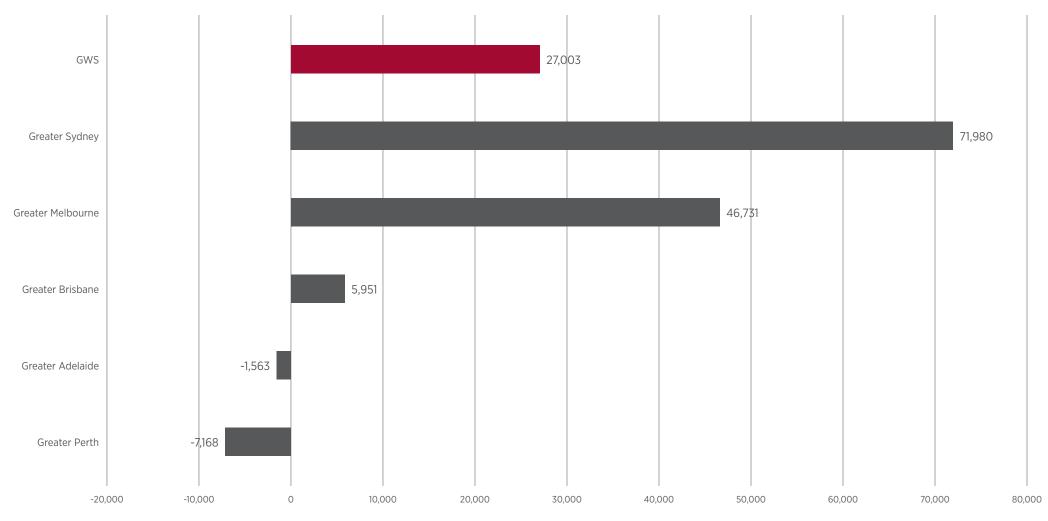
FIGURE 15Employed residents in knowledge-based business services, Australian metropolitan regions 2018



Source: National Economics 2018

Note: Knowledge-based business services comprise the following ABS industry categories: professional, scientific and technical services; financial and insurance services; and information media and telecommunications.

FIGURE 16Employed residents in knowledge-based business services, Australian metropolitan regions 2013-2018



CONCLUSIONS

Greater Sydney is in its fourth decade of an embrace with the advanced services sectors, especially those relating to finance, and is well positioned to enjoy economic success from this specialisation for decades to come. Notwithstanding the impressive statistics presented in the previous section, Western Sydney's attachment to the advanced services economic pathway is fledgling. The region has a legacy of capital investment and labour skills developed for a protected 20th century manufacturing economy. The region has, also, a socio-cultural reputation that sits uncomfortably with the images of new urbanism demanded by a global city's business and property investors and the more elite tier of global city workers²⁰. Yet these things are readily re-engineered, or re-made with the passage of time, such that Western Sydney's economic future is easily imagined as one of rightful. fulsome participation in a prosperous Global Sydney.

Central to this re-take, however, is the reconceptualisation of Global Sydney from a narrow arc of activity – stretching across Sydney's eastern and lower north shore suburbs – into a global city region of 5-million+ residents in a complex, mutually-dependent economic project. In this format there is space for Western Sydney to become a transformative regional economy that is jobs and wealth generating, a spatial value chain that is inclusive of not just high-value professional services but also the components of a day-to-day urban economy.

Our discussion in the sections above showed how population growth has been a force for jobs and economic growth across Greater Sydney in ways that have traversed both global and day-to-day dimensions of the city economy. Indeed, we have seen how population growth for Greater Sydney more broadly and Western Sydney in particular has been a major driver of jobs growth.

Of major importance has been the labour force growth – actual workers – that has come from record levels of population growth. We have observed that Western Sydney's in-migration flow is dominated by those aged 25 to 40 years, people in their prime working years. The cumulative effect of persistent migration and the natural growth that has accompanied it in Western Sydney, is that the region is approaching the size of Greater Brisbane in terms of total number in the workforce and has exceeded the number in the workforce in each of Greater Perth and Greater Adelaide.

An important issue in assessing the significance of Western Sydney's fast growing labour force,

however, is the supply of jobs. On the positive side. we have seen record jobs growth in Western Sydney in the last half-decade. These jobs have come from the population-driven sectors. Construction, associated especially with new dwellings, has been a very important jobs generator. Important too has been jobs growth in health care and social assistance, education and training, retailing, and accommodation and food services. Obviously, such iobs growth is welcome and important to the dayto-day economy. However, the Western Sydney economy has generated little jobs growth in other sectors meaning the population-driven sectors, including construction, have become the region's primary jobs growth source. Yet the construction sector, where a bust follows very boom, has already commenced significant downturn. In addition, Western Sydney's record population growth rates are likely to be reined in as a consequence of the COVID-19 pandemic, meaning likely slowdowns in jobs growth in the population-driven sectors.

As we show in an accompanying report, building on our previous report into the availability of jobs in Western Sydney, *Jobs Slide*²¹, Western Sydney is deficient in jobs growth sectors, especially as jobs are eroded in manufacturing, the region's historic jobs provider. So the sidelining of the construction

sector and the population-driven sectors leaves the region's growing labour force vulnerable to severe and prolonged experiences of unemployment.

That said, our study draws attention to an unrecognised major labour market trend which is exacerbating Western Sydney's jobs gap irrespective of the current downturn. This is the region's remarkable growth of professionals and knowledge workers, a feature of modern Western Sydney which sets it apart from deindustrialising regions worldwide. As a consequence of investment in higher education places for Western Sydney school leavers starting with the Whitlam-Labor federal government initiatives of the 1970s, the region has become a major supplier of workers to the professions and to knowledge-based business services. Indeed, the number of knowledge-based business services workers resident in Western Sydney is now similar to the number resident in Greater Brisbane and of greater number than those resident in Perth or Adelaide. Moreover, growth in

this category of workers in Western Sydney exceeds equivalent growth in Greater Brisbane, Greater Perth and Greater Adelaide combined.

Unfortunately, as we see in an accompanying report, jobs growth in Western Sydney for professionals and knowledge-based business services has been hugely inadequate in addressing the demand for jobs from this growing group. In that report, we point to the enormous cost and personal travel burden that this mismatch produces. In a further report, we analyse the very specific geographic consequences of not just the mismatch of the highly qualified workers, but the poor jobs outcomes experienced by those inadequately qualified for the 21st century economy as entry-level jobs in the Western Sydney economy disappear. An analysis of the major plans in place to tackle Western Sydney's jobs problems is included in these reports. As might be apparent, the inadequacies of these plans are exposed and agenda for better planning are proposed.

Unfortunately, as we see in an accompanying report, jobs growth in Western Sydney for professionals and knowledge-based business services has been hugely inadequate in addressing the demand for jobs from this growing group.

CORRESPONDING AUTHOR

Professor Phillip O'Neill Western Sydney University p.oneill@westernsydney.edu.au