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# Architects in Western Australia – a view from the census

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an ACA resource

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## ARCHITECTS IN WESTERN AUSTRALIA A VIEW FROM CENSUS DATA

Prepared by Gill Matthewson

This report is an extension of the ACA State of the Profession research project, led by John Held and Sue Phillips of ACA – SA and funded through a grant from the Architectural Practice Board of South Australia.

### Census data

This report is based on the analysis of customised data about those who identified themselves as architects (occupation code Architect, ANZSCO 232111) in Western Australia in the 2001, 2006 and 2011 Australian Bureau of Statistics Censuses of Population and Housing.

Census data includes all those who describe their occupation as 'architect', whether or not they are registered or members of professional associations.<sup>1</sup> Because of this, Census figures are more inclusive than other counts of professional participation and, internationally, researchers in architecture consider them to be 'reasonably accurate' data for the architecture workforce.<sup>2</sup>

### Overall findings

The report finds the following:

- Overall, the population of architects in Western Australia has increased between each Census, but the percentage of architects in the state's population is less than the percentage in Australia as a whole.
- Western Australia has increased its share of the total architect population over the ten years.
- The age profile of architects has changed over the ten years for the country with an increased percentage of older and younger architects.
- Western Australia has a slightly lower proportion of women architects than the rest of the country.
- In 2011, fewer architects seemed to be working long hours than in the past, although Western Australian architects work longer than those in the rest of the country.
- Architects are increasingly employees rather than employers.
- Architects in Western Australia earn more than the national averages.

### Detailed findings

#### Number of architects

As expected, the population of architects fluctuates across the three Censuses, as shown in Table 1:

*Table 1: Number of architects*

Year	Western Australia	All Australia	WA % of Aus
2001	934	11,442	8.3%
2006	1,139	13,285	8.6%
2011	1,363	14,973	9.1%
2001 to 2011 growth	<b>46%</b>	<b>33%</b>	

Both the state and the country show increases in the numbers of architects for the ten-year period; however, in Western Australia that growth was considerably higher. In Australia as a whole, architect numbers grew by a third from 2001 to 2011, but the state’s numbers increased by 46%. For the country, growth was stronger in the first five-year period and weaker over the next Census period. Western Australia, however, was more evenly spread, with a 22% growth in architect numbers over the first Census period and 20% over the next period. Consequently, Western Australia has increased its share of the nation’s architects, rising from 8.3% in 2001 to 9.1% by 2011.

Perhaps a more important figure is how those straight numbers of architects relate to the overall population, which has, of course, also increased between Censuses. Dividing the number of architects into the total population gives the number of architects per 100,000 people, shown in Figure 1:

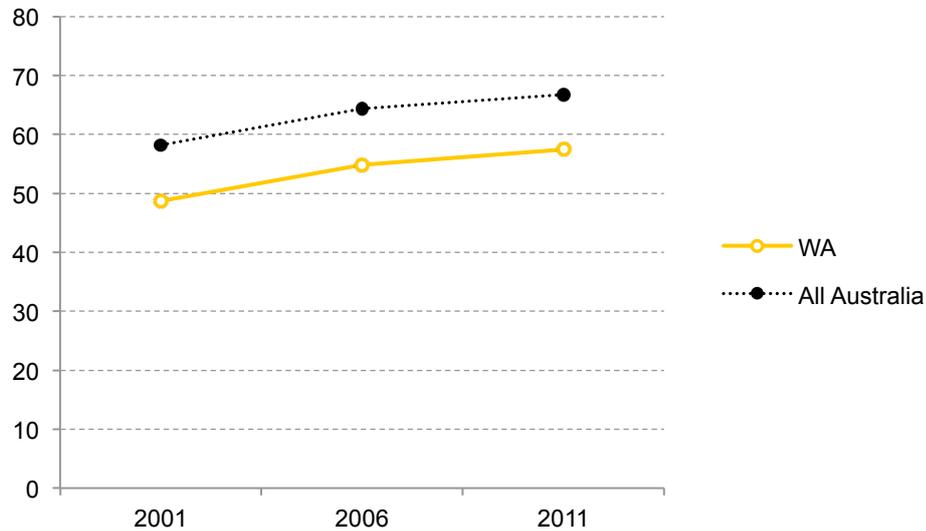


Figure 1: Number of architects for every 100,000 people<sup>3</sup>

By this measure, there was more subdued growth than that shown in Table 1, but with Australia still supporting 15% more architects per capita in 2011 than it did in 2001. Western Australia parallels the national growth. Figure 1 also shows that, taken overall, the state has fewer architects per head of population compared to all of Australia.

**The age profile of architects**

Figure 2 shows the distribution of architects by age across the three Censuses.

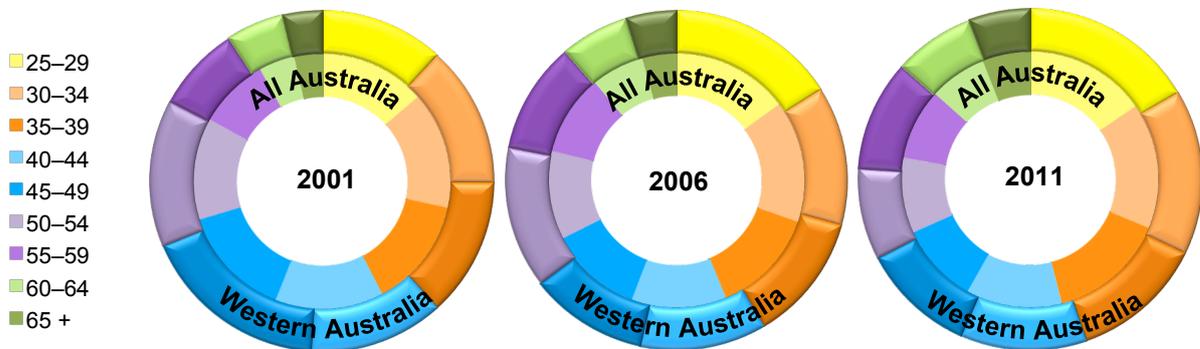


Figure 2: Architects by age group

The first point to note is that the proportion of architects under the age of 40 increased over the ten-year period in both Western Australia and all Australia (depicted in yellow and oranges in Figure 2). This was particularly so in Western Australia where the proportion initially lagged behind all Australia. The growth of this age group is not surprising given that the number of architecture graduates in the country increased by 40% from 2000 to 2010.<sup>4</sup>

However, the second point to note is that the proportion of architects over the age of 60 (in greens) also increased, for the state and the country. In 2001 architects of this age were 8% of the Australian and 10% of the Western Australia architect populations; by 2011 they comprised 13% in both the state and the

country. This means that the proportion of architects in the middle band between 40 and 60 (in blues and purples) decreased. In 2001 this age group constituted around half the architect population; by 2011 this proportion had dropped to around 40% for the country (43% for the state). The actual number of architects in this age group has not necessarily dropped but they make up a smaller proportion of the architecture workforce.

What happens, then, to architects in the Census as they age? Architects who were 25–29 in the 2001 Census would appear in the 2011 Census in the 35–39 age group (and in the 30–34 age group in 2006). Figure 3 shows the number of architects aligned by age groups (the solid red line indicates their age in 2011, the green and blue lines the numbers for that cohort in 2006 and 2001 respectively).

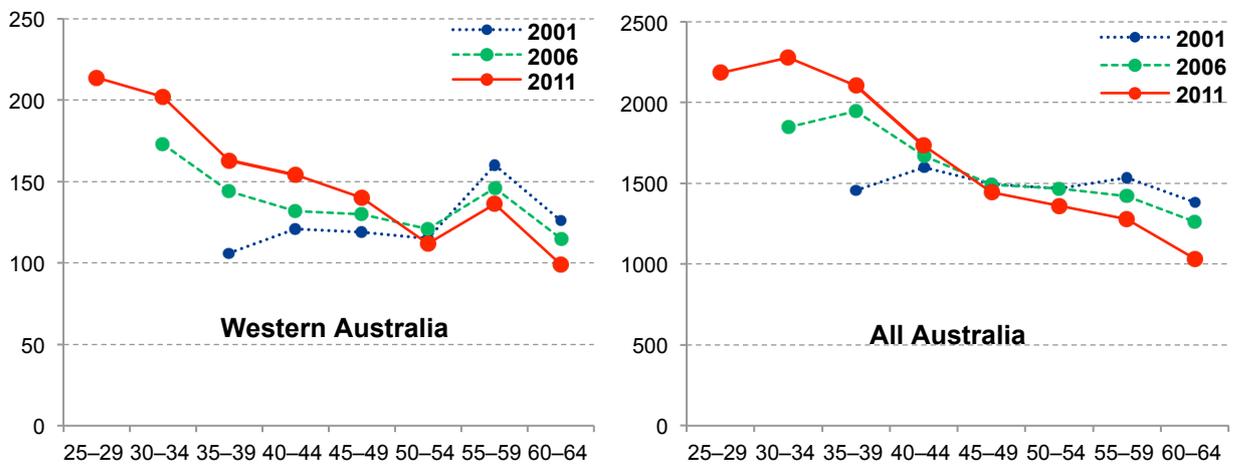


Figure 3: Loss and gain of architects from Census to Census

The All Australia graph shows a strong pattern: before architects reach their 40s, numbers increase, presumably due to mature graduates entering the workforce as well as international arrivals. However, at some time in their 40s a number of architects stop labelling themselves as such in the Census. Western Australia figures jump around more than those for the whole country (in part due to smaller numbers overall in the state) but nonetheless show the same overall pattern. In 2001, 106 people in Western Australia aged 25–29 called themselves architects; in 2006, when these people were 30–35, there were 144 of them; and in 2011 when aged 35–39 the figure grew to 163. Conversely, by 2011 nearly one-quarter of those architects who were 50–54 years old in 2001 in Australia have disappeared. The drop was very similar for those in this age group in Western Australia, and across the country this represents a significant numerical loss of experienced architects. However, the state shows a strong spike in numbers for the preceding age group (those who were 55–59 in 2011). This bump in numbers compared to the age groups either side of them is likely to be due to economic conditions at the time this cohort entered the workforce.

Gender is a factor in the number of architects by age group. Table 2 details the increasing numbers of women in the architecture workforce over the ten-year period. Of note, Western Australia lags slightly behind national figures for the percentage of women. Western Australia’s Schools of Architecture graduated a slightly higher proportion of women graduates than the national average (the Western Australian average for the ten years 2000–2009 was 42.5%, and for the country 41.2%<sup>5</sup>).

Table 2: Number of architects by gender

Year	Western Australia				All Australia			
	Male	Female	Total	% Female	Male	Female	Total	% Female
2001	776	158	934	17%	8,987	2,296	11,442	20%
2006	880	259	1,139	23%	10,199	3,086	13,285	23%
2011	1,008	355	1,363	26%	10,828	4,144	14,973	28%

Figure 4 shows the breakdown of the data by age group and gender. (Figures for all Australia have been scaled down to match the Western Australia figures; the scaling point is the number of men aged 25–29).

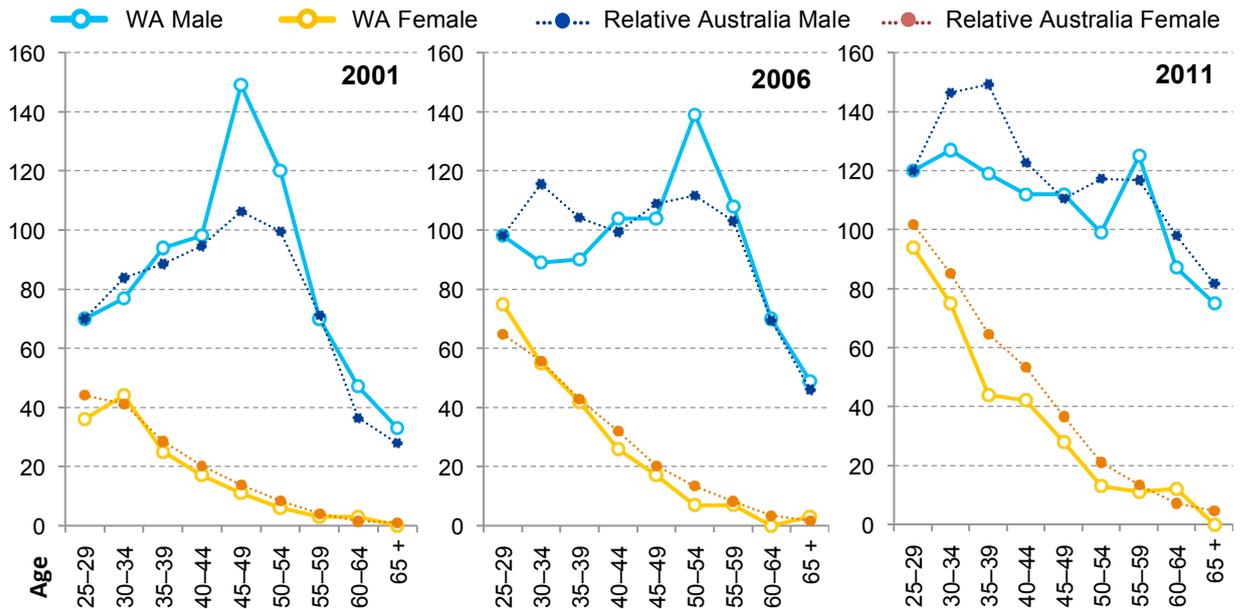


Figure 4: Number of architects by age group and gender, Western Australia and relative to all Australia

Figure 4 reveals some notable patterns. First, in all cases women are concentrated in the younger age groups and the men more evenly spread; women have an almost straight line 'downhill' from a high point in the youngest category of 25–29, but are also lifting their numbers across the age groups. Second, Western Australia shows variable patterns of alignment with the national relative numbers. The state has lower relative numbers of male and female architects (particularly in 2011). The dramatic spike in numbers visible in Figure 3 for the cohort who were 45–49 in 2001 (55–59 in 2011) is confined to male architects. Third, despite the drop-out rate of architects after age 45 shown in Figure 3, the actual number of older architects has grown over the ten-year period (with the 55 and over group nearly doubling in Western Australia from 2001–2011), contributing to their increased piece of the pie (see Figure 2).

### Hours of work

Long hours are generally considered endemic in architecture, but this is a pattern that appears to have changed over time. Figure 5 shows the proportion of architects working particular hours. The red bands indicate a work week in excess of 40 hours and the blue and green bands are for those working part-time (less than 35 hours a week); the orange/yellow bands are for standard working hours of 35–40 hours a week.

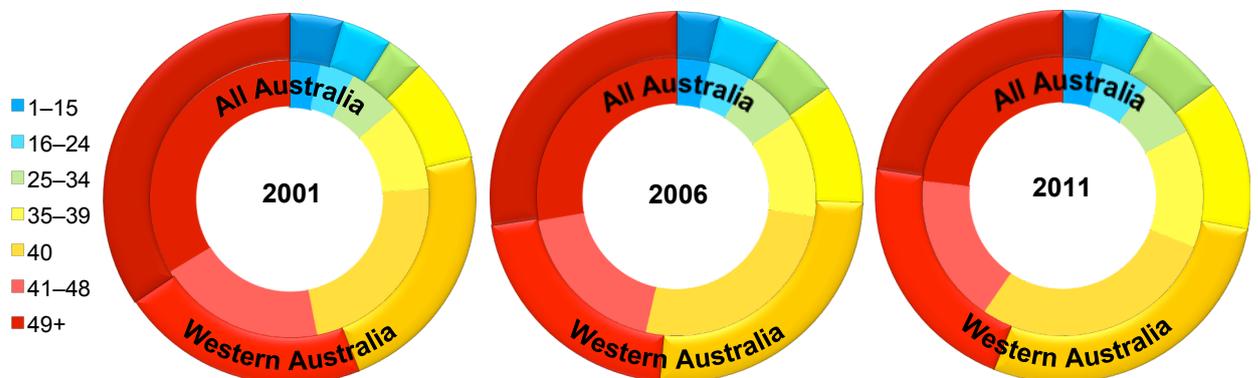


Figure 5: Hours per week worked

Western Australian architects worked longer hours and fewer of them work part-time than for the country as a whole. Nonetheless, there is a strong trend visible across the Censuses. In 2001, more than half of all architects worked in excess of 40 hours a week, with more than a third of all architects working in excess of 48 hours a week (such hours are defined as 'long' in employment literature). However, by 2011, this proportion had dropped: around 40% reported working more than 40 hours a week, and the group that worked more than 48 hours a week had dropped to under a quarter. For Western Australia the main variation with the rest of the country occurred in the proportion working 41–48 hours a week where there was a 4 percentage point difference with more Western Australian architects working these hours. In

addition, the proportion of part-time workers increased, with 14% working part-time in 2001 and 17% in 2011 in all Australia, and 12% and 15% respectively for the state.

The changing demographic of architects is likely to be contributing to this shift. Figure 6 shows the difference between men and women for hours worked for all Australia.<sup>6</sup>

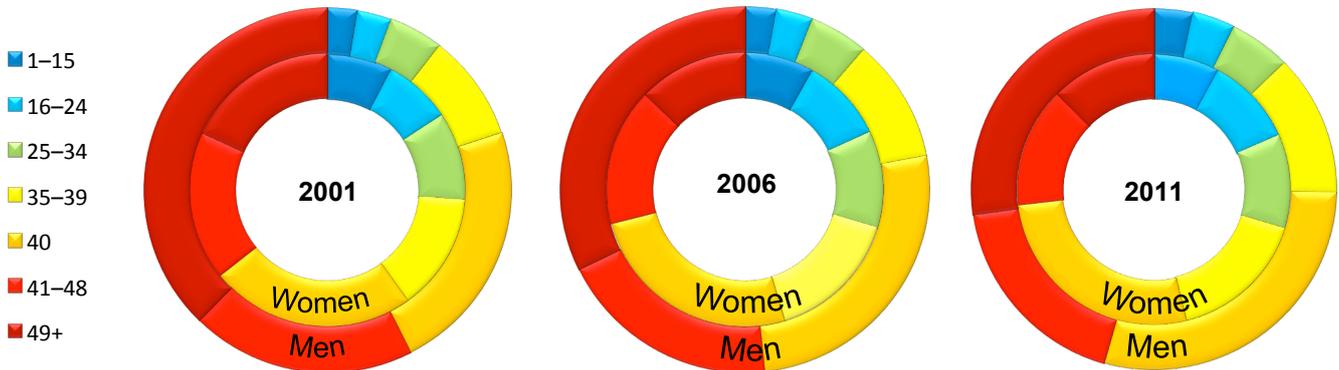


Figure 6: Hours per week worked, by gender, all Australia

The dramatic difference between men and women in terms of hours worked is a result of the wider societal pattern whereby mothers are much more likely to reduce their hours to accommodate children. Nonetheless, the drop-off in the proportion of those working in excess of 40 hours a week noted in Figure 5 is still visible in Figure 6 for both men and women. This is a significant shift for men to working standard rather than long hours, given that the proportion of men working part-time increased only slightly over the ten-year period (11% of men worked part-time in 2001 and 13% in 2011).

### Employment situation

The Census asks for information on whether someone is an employee, employer or an independent operator (such as sole practitioner or contractor). In the 2001 and 2006 Censuses, the latter were termed 'own account worker'. In the 2011 Census, two new terms were used: 'Owner managers of unincorporated enterprises' and 'Owner managers of incorporated enterprises'. This distinction has affected some of the information presented in Table 3 and graphically in Figure 7.

Table 3: Architects by employment situation

	Western Australia			All Australia		
	2001	2006	2011	2001	2006	2011
Employee	496	657	865	6,451	7,781	9,323
Own account worker	245	168	200	2,768	1,638	2,102
Employer	199	294	287	2,070	3,701	3,394

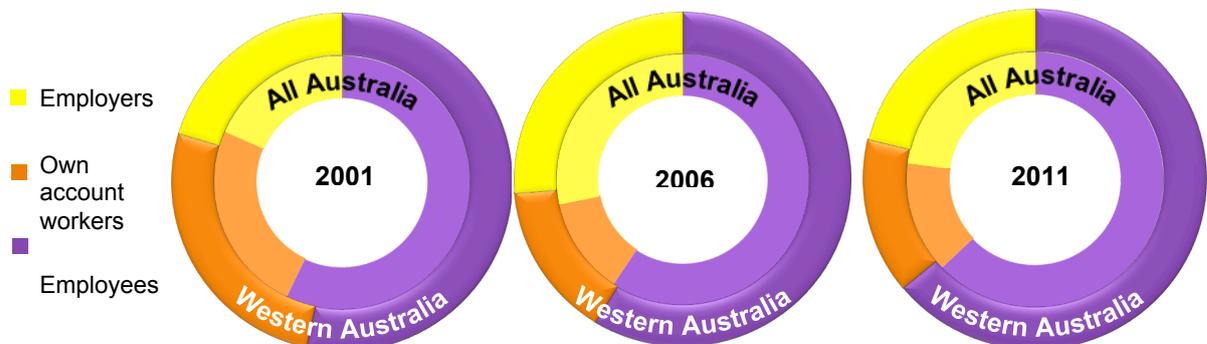


Figure 7: Architects by employment situation

Over the ten-year period, the proportion of those who were employees has steadily increased from 57% to 63% of the architect population in Australia. To an extent this would be expected given the increasing proportion of younger people in the workforce seen in Figure 2. Western Australia was behind the national average in 2001 but slightly exceeded it in 2011. By 2011 architects who were employees constituted nearly two-thirds of the Western Australia architects (64%).

The figures for employers and ‘own account workers’ fluctuate with a high for the former and a low for the latter in 2006 in both Western Australia and the whole country. This, however, may be due to the change in description between the 2006 and 2011 Censuses. In 2006, a sole practitioner or partnership who employed just one person might have described themselves as employers, but in 2011 they would be categorised by the legal basis of their business, which (as a small business) is more likely to be an ‘unincorporated enterprise’. In that case, although the 2001 and 2006 Censuses can be compared, a 2006 and 2011 comparison needs to be treated with caution. Between 2001 and 2006 there is a marked drop in the number of own account workers and a large increase in employers. This was possibly a response to the ‘boom’ period for architecture in the middle of the 2000s with practices of all sizes employing staff. The changes between 2006 and 2011 suggest a drop in the proportion of employers. It is possible that this lacklustre growth – compared to the growth overall in numbers seen in Table 1 and Figure 1 – can be attributed to the downturn after the 2008 Global Financial Crisis, which may have made small practices less viable and resulted in practices consolidating. However, the differing ways of categorising between these two Censuses mean that this is a tentative connection.

### Income

Income information was sought for all full-time architecture workers; the Census gathers this in terms of income per week. Figure 9 gives the information for 2006 and 2011 (2001 is omitted because the income ranges differ from the later two Censuses).

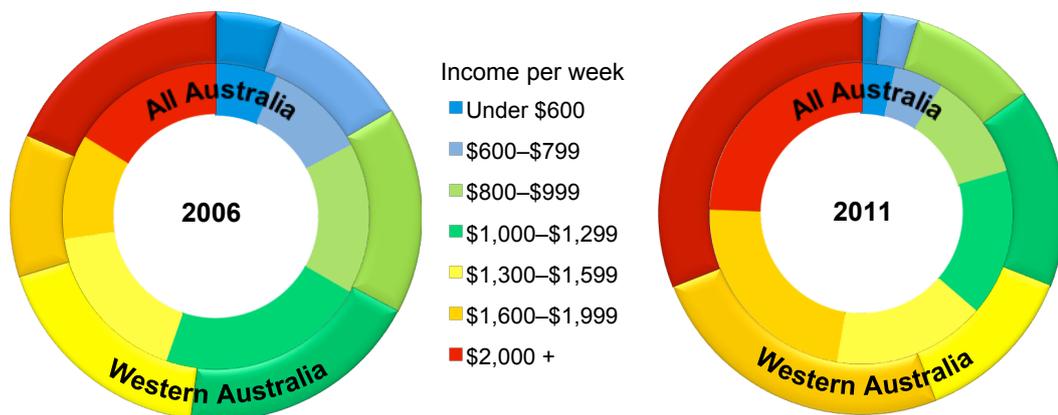


Figure 9: Architects by income

Figure 9 demonstrates that architects in Western Australia on average earn more than the national averages. By 2011, nearly half (47.3%) of Census-identified architects in Australia were earning more than \$1,600 a week (orange plus red segments), whereas in Western Australia that proportion was well over 50% at 56%. In addition, 20.5% were earning less than \$1,000 a week in Australia as a whole (blues and light green), but just 15% were doing so in Western Australia.

Income, of course, varies with age. Figure 10 shows the breakdown by age for 2011.<sup>7</sup>

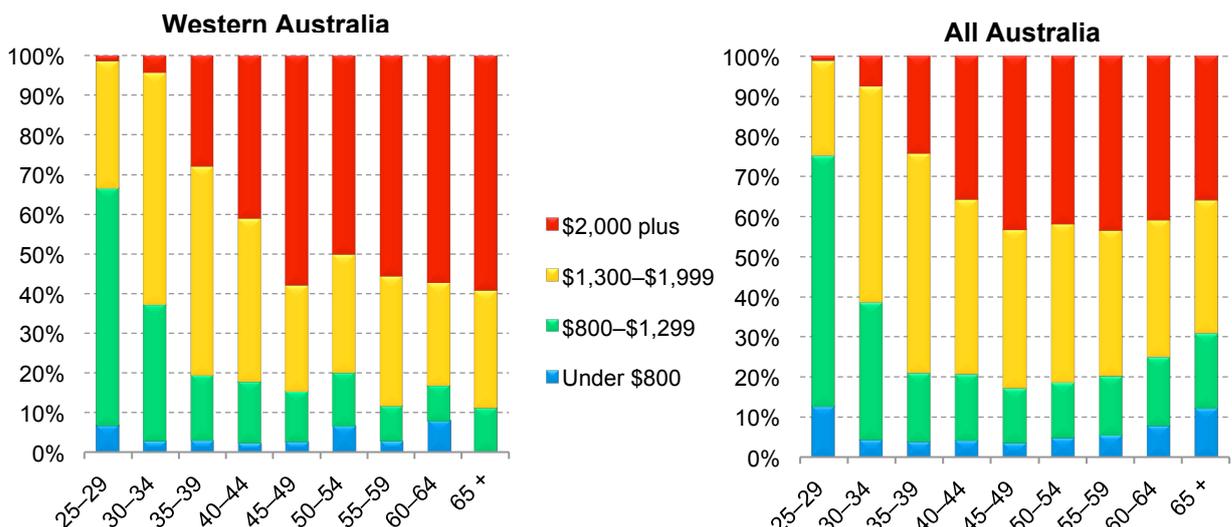


Figure 10: Proportion of age group in earnings brackets by age, 2011

Australia-wide, income increases with age, peaking in the 45–59 age bands. In Western Australia, the overall pattern mirrors that of all Australia. However, the pattern of Western Australia architects earning more than all Australian architects visible in Figure 9 shows up again with a greater percentage in most age groups earning more. It is possible that the relative scarcity of architects in the state, observable in Figure 1, has meant that higher rates of pay are maintained.

## Summary

This report has explored what might be read from data about architects from three Censuses for Western Australia compared to the rest of Australia. Data such as this helps articulate and indicate broad patterns.

The first of these patterns is that architects are increasing their presence in the community in relative numbers, but less so in Western Australia. Curiously, as a group, architects are getting both older and younger – nation-wide and in Western Australia – with mid-career/middle-aged architects not keeping pace proportionally with the other age groups. The increasing numbers of graduates can perhaps explain the growth in the number of younger architects. The reasons for the increasing proportion of older architects are less clear, especially as the data also records the departure of older architects. However, since the 1970s there have been increasing numbers of architects overall. In Western Australia in particular there is a notable spike in the numbers of male architects who were 55–59 in 2011. The demographics of the profession in the state will change significantly as this spike approaches retirement.

Architects are increasingly employees and employers rather than independent workers, particularly in Western Australia. This may reflect the increasing complexity of buildings and the need for teams to work on them, although the data is a little too variable because the method for categorising employers and independent workers in the Census has recently changed. Of interest, fewer architects seem to be working long hours than in the past, although this is less so in Western Australia. While this might suggest those in the profession are moving towards a better work–life balance, the still weak representation of women in the profession might indicate otherwise. The slowing down of the pace of work in the wake of the 2008 financial crisis may be another possible explanation for this drop in hours worked.

The Census data indicates that architecture is very dependent on the economy. Western Australia is a less populous state than New South Wales and Victoria and consequently has a smaller number of architects (9% of the total). However, even on a per capita basis, its number of architects in 2011 was markedly less than Australia as a whole. This relative scarcity of architects has possibly maintained higher income levels for architects in Western Australia.

Overall, Western Australia's architects constitute a profession that appears to be healthy and maintaining good income levels, although the vulnerability of the profession to the economy means that this situation may not extend into the future.

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<sup>1</sup> Indeed, each Census includes a very small number of 15–19 year olds who identify themselves as architects – at that age they are unlikely to meet any acceptable notion of an architect. However, this number of people is very small.

<sup>2</sup> Robert Gutman, *Architectural Practice: A Critical View* (Princeton, NJ: Princeton Architectural Press, 1988), 23; Annmarie Adams and Peta Tancred, *Designing Women: Gender and the Architectural Profession* (Toronto: University of Toronto Press, 2000), 3.

<sup>3</sup> Population data from ABS, 'Estimated Residents Population, State and Territories', *Australian Bureau of Statistics*, 2013, <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3101.0Jun%202014?OpenDocument>

<sup>4</sup> There were 704 graduates in 2000 and 975 in 2010. Numbers from *Architecture Schools of Australasia* (Barton, ACT: Australian Institute of Architects National Office), 2001 and 2012 editions.

<sup>5</sup> Figures calculated by author from *Architecture Schools of Australasia*, 2000–2011 editions.

<sup>6</sup> State data not shown because there are relatively small numbers of women in each state, which would tend to distort the proportions.

<sup>7</sup> Income brackets have been amalgamated because small numbers in a category can cause distortions.