Architects in New South Wales – a view from the census

Prepared by Gill Matthewson
ARCHITECTS IN NEW SOUTH WALES
A VIEW FROM CENSUS DATA

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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 New South Wales 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. 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.

Overall findings

The report finds the following:

- Overall, the population of architects in New South Wales has increased between each Census, but not at a rate that matches the average for all of Australia. Consequently, the state’s proportion of all architects in Australia has declined since 2001 when it dominated with 40% of all architects resident in the state.
- While other states show increasing proportions of younger architects, New South Wales does not.
- New South Wales has a consistently higher proportion of women architects than the national average.
- In 2011, fewer architects seemed to be working long hours than in the past – state and country-wide.
- Architects are increasingly employees rather than employers.
- Architects in New South Wales are spread across the income bands in patterns very similar to the whole country.

Detailed findings

Number of architects

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

<table>
<thead>
<tr>
<th>Year</th>
<th>New South Wales</th>
<th>All Australia</th>
<th>NSW % of Aus</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>4,474</td>
<td>11,442</td>
<td>40%</td>
</tr>
<tr>
<td>2006</td>
<td>4,988</td>
<td>13,285</td>
<td>38%</td>
</tr>
<tr>
<td>2011</td>
<td>5,185</td>
<td>14,973</td>
<td>35%</td>
</tr>
<tr>
<td>2001 to 2011 growth</td>
<td>16%</td>
<td>33%</td>
<td></td>
</tr>
</tbody>
</table>
While the country showed a steady increase in the number of architects for the ten-year period of 33%, in New South Wales that growth was less than half the national figure (16%). Consequently, the state’s proportion of Australia’s whole architect population declined from 40% to 35% over the period. For both the state and the country, growth was stronger in the first five-year period than the next Census period. This pattern possibly reflects the drop-off in work for the construction industry because of the 2008 Global Financial Crisis. Even so, the slowing of growth was particularly marked in New South Wales where the increase in the number of architects from 2006 to 2011 was just 4%, whereas for the whole country it was 13%. This may indicate that the state’s architecture profession was more vulnerable than that in some other states.

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](image)

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. For New South Wales that figure was just 5% (with a decline from 2006 to 2011), reinforcing the suggestion from Table 1 that the state’s ability to support architects grew less strongly than that for the whole country. However, Figure 1 also shows that, taken overall, New South Wales continues to have more architects per head of population compared to all of Australia (with the 2011 figures showing a closing of that gap).

This would suggest that, as a larger state, New South Wales continues to support a higher proportion of architects within the population.

The age profile of architects

Figure 2 shows the distribution of architects in New South Wales by age across the three Censuses.

![Figure 2: Architects by age group](image)

The first point to note is that the proportion of architects under the age of 40 increased over the ten-year period in Australia as a whole (depicted in yellow and oranges in Figure 2). This is not surprising, given that the number of architecture graduates increased by 40% from 2000 to 2010. However, in New South
Wales the growth in graduates increased only 18% over the same period. Consequently, the proportion of younger architects actually declined in the state. As a populous state, for New South Wales to buck the national trend is significant.

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 architect population and the state; by 2011 they comprised 13%. This means that the proportion of architects in the middle band between ages 40 and 60 (in blues and purples) decreased, more markedly for all Australia but also for New South Wales. In 2001 this age group constituted half the population; by 2011 this proportion had dropped to around 40% (44% for the state). The actual numbers of architects in this age group has not necessarily dropped but, proportionally, less of them make up 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 2006–40 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](image)

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. The pattern varies slightly for New South Wales with that decline occurring earlier. In 2001 in New South Wales, 560 people aged 25–29 called themselves architects; in 2006 when these people were 30–35 there were 752 (an increase), but in 2011 when they were aged 35–39 the figure dropped to 705. While not a large numerical drop, this early decline marks New South Wales as, again, different to the rest of the country. It is perhaps an indicator that the economic conditions following 2008 were felt more severely in the state. In addition, by 2011 nearly a third of those who were 50–54 years old in 2001 (and 60–65 in 2011) in New South Wales have disappeared. Taken across the country, the picture is similar but slightly less dramatic; nonetheless, it represents a significant numerical loss of experienced architects.

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. New South Wales is 2 percentage points ahead of all Australia Census to Census. Of note, New South Wales’s Schools of Architecture graduated a higher proportion of women graduates than the national average (the New South Wales average for the ten years 2000–2009 was 44%, and for the country 41%).

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>% Female</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>% Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>3,476</td>
<td>998</td>
<td>4,474</td>
<td>22%</td>
<td>8,987</td>
<td>2,296</td>
<td>11,442</td>
<td>20%</td>
</tr>
<tr>
<td>2006</td>
<td>3,754</td>
<td>1,234</td>
<td>4,988</td>
<td>25%</td>
<td>10,199</td>
<td>3,086</td>
<td>13,285</td>
<td>23%</td>
</tr>
<tr>
<td>2011</td>
<td>3,631</td>
<td>1,554</td>
<td>5,185</td>
<td>30%</td>
<td>10,828</td>
<td>4,144</td>
<td>14,973</td>
<td>28%</td>
</tr>
</tbody>
</table>

Figure 4 shows the breakdown of the data by age group and gender. (Figures for all Australia have been scaled down to match the New South Wales figures; the scaling point is the number of men age 25–29).
In addition, part-time working among architects has grown over the ten-year period (nearly doubling in NSW), contributing to their increased piece of the pie (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 number of hours architects reported working in each Census. The red bands indicate a work week in excess of 40 hours a week and the blue and green bands are for those working part-time (less than 35 hours a week); the yellow/orange bands are for standard working hours of 35–40 hours a week.

There is little difference between New South Wales and architects in all Australia for hours worked per week, although a greater proportion in the state are working part-time. However, there is a strong trend visible across the Censuses. In 2001, over half of all architects worked more than 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 over 40 hours a week, and the group that worked over 48 hours a week had dropped to under a quarter. In addition, part-time workers increased, with 14% working part-time in 2001 and 17% in 2011 nationwide and 15% and 19% respectively in New South Wales.
The changing gender 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.\(^7\)

![Figure 6: Hours per week worked, by gender, all Australia](image)

The dramatic difference between men and women in terms of hours worked is a result of the wider societal expectation 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 or 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>
<thead>
<tr>
<th>Table 3: Architects by employment situation</th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
</tr>
<tr>
<td>Employee</td>
</tr>
<tr>
<td>Own account worker</td>
</tr>
<tr>
<td>Employer</td>
</tr>
</tbody>
</table>

![Figure 7: Architects by employment situation](image)

Over the ten-year period the proportion of those who were employees has steadily increased from 57% to 63% of the architecture population in Australia. To an extent this would be expected given the increasing proportion of younger people in the workforce, as seen in Figure 2. However, New South Wales was a couple of percentage points above the national average in 2001 but below it in 2011 and so shows a smaller increase.

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 New South Wales 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 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 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 demonstrates clearly that in 2006 architects in New South Wales on average earned more than those in Australia taken as a whole. However, by 2011 the state was closely aligned with the country for income spread. By 2011, nearly half (47%) of Census-identified architects in Australia and New South Wales were earning more than $1,600 a week (orange plus red segments). Income, of course, varies with age. Figure 10 shows the breakdown by age for 2011.

Australia-wide, income increases with age, peaking in the 45–59 age bands. In New South Wales, however, a smaller proportion of architects were in the top earning bracket in these age groupings, and the 60–64 age group had a higher proportion of NSW architects earning in the top band.
Summary

This report has explored what might be read from data about architects from three Censuses for New South Wales 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, even in New South Wales where there was a more subdued growth in numbers from 2006 to 2011. This more subdued growth has resulted in the state being less dominant than it once was. In 2006, 40% of all architects in Australia were resident in the state; by 2011 that proportion had dropped to 35%. The state also bucks a nationwide trend of the architecture population getting proportionally both older and younger.

Architects are increasingly employees and employers rather than independent workers. 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. 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. This was less so for New South Wales, which has a high proportion of women architects. 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 strongly indicates that architecture is very dependent on the economy. New South Wales is the most populous state in the nation and has a consequent high number of architects. Even so the drop-off in work due to the 2008 Global Financial Crisis can be traced in the unusual patterns of architects by age and the slower growth of architects from 2006 to 2011.

Overall, New South Wales’s architects constitute a growing profession, but one vulnerable to fluctuations in the economy.

1 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.
4 The Australian Capital Territory, New South Wales and Victoria all have a higher than average number of architects per head of population.
5 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.
7 State data not shown because there are relatively small numbers of women in each state, which would tend to distort the proportions.
8 Income brackets have been amalgamated because small numbers in a category can cause distortions.