

## How moving a box changed the religious landscape of Australia



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In this data visualisation we use the 2011-2016 Australian Census Longitudinal Dataset (ACLD) to examine how answers to the question on religious affiliation changed between 2011 and 2016. A question on religious affiliation has been included in every census since the first national census of 1911. It is the only question in the census which is optional, as outlined in the Census and Statistics Act 1905, and it is also the question that has arguably attracted the most controversy over the years.

Up until 1991 the question on religion was in the form of an open text question. In 1991 the format changed to pre-defined check boxes listing several main religions including Catholic, Anglican (Church of England) and Uniting Church. The check boxes were followed by a space for an open-text answer where people could write any 'Other' religion that was not included in the pre-defined list. Finally at the bottom was a check box for 'No religion'. Although the content and order of the pre-defined list of religions changed between 1991 and 2011, in all years up to and including 2011 'No Religion' was always on the bottom after 'Other'.

In a public consultation on the content of the 2016 Census, nearly half of the 915 submissions related to the question on religious affiliation (ABS 2013). Following a review, the format of the question changed and for the first time in 2016 'No Religion' was placed at the very top of the list of pre-defined religions.

Although the percentage of Australians identifying as not having a religion has been increasingly steadily since the first census in 1911, between 2011 and 2016 the percentage stating 'No Religion' increased dramatically from 22.3% to 30.1%. This 35% increase is significantly higher than the 20% increase between 2006 and 2011 and the 19% increase between 2001 and 2006.

To observe the change in behaviour following the re-formatted question in the 2016 Census we used the ACLD, which is a representative 5% sample (1.2 million records) from the 2011 Census linked to the corresponding records from the 2016 Census. We used the ABS TableBuilder to cross-tabulate people's responses to the religion question from 2011 and 2016. This table was re-formatted in Stata

to create an individual record of each combination of possible religions in 2011 and 2016. The data was then inputted to an open source data visualisation framework at RAWGraphs<sup>1</sup>. The resulting SVG code was then further edited to create the desired image.

The visualisation is shown in Figure 1. On the left of the diagram is the distribution of religious affiliation in the 2011 Census, in order of magnitude, and on the right are the answers given in 2016. In 2011, Catholic was the dominant religious affiliation answered by 26% of the ACLD sample. In 2016 'No Religion' had become the prominent religious belief with Catholics in second place.

Census respondents who answered 'No Religion' in 2016 had previously identified with a wide variety of other religions. Not surprisingly, the majority of those stating 'No Religion' in 2016 had also stated 'No Religion' in 2011. However among those who did state a religion in 2011, the percentage who switched to 'No Religion' varied considerably. For example only 11% of those who previously stated they were Catholic chose 'No Religion' in 2016. In contrast a fairly large proportion (21%) of Anglicans changed to 'No Religion'. Of those who did not state a religion in 2011, just under half (46%) chose 'No Religion' in 2016. For some religions such as Eastern Orthodox, Islam and Hinduism only a small proportion switched to 'No Religion'.

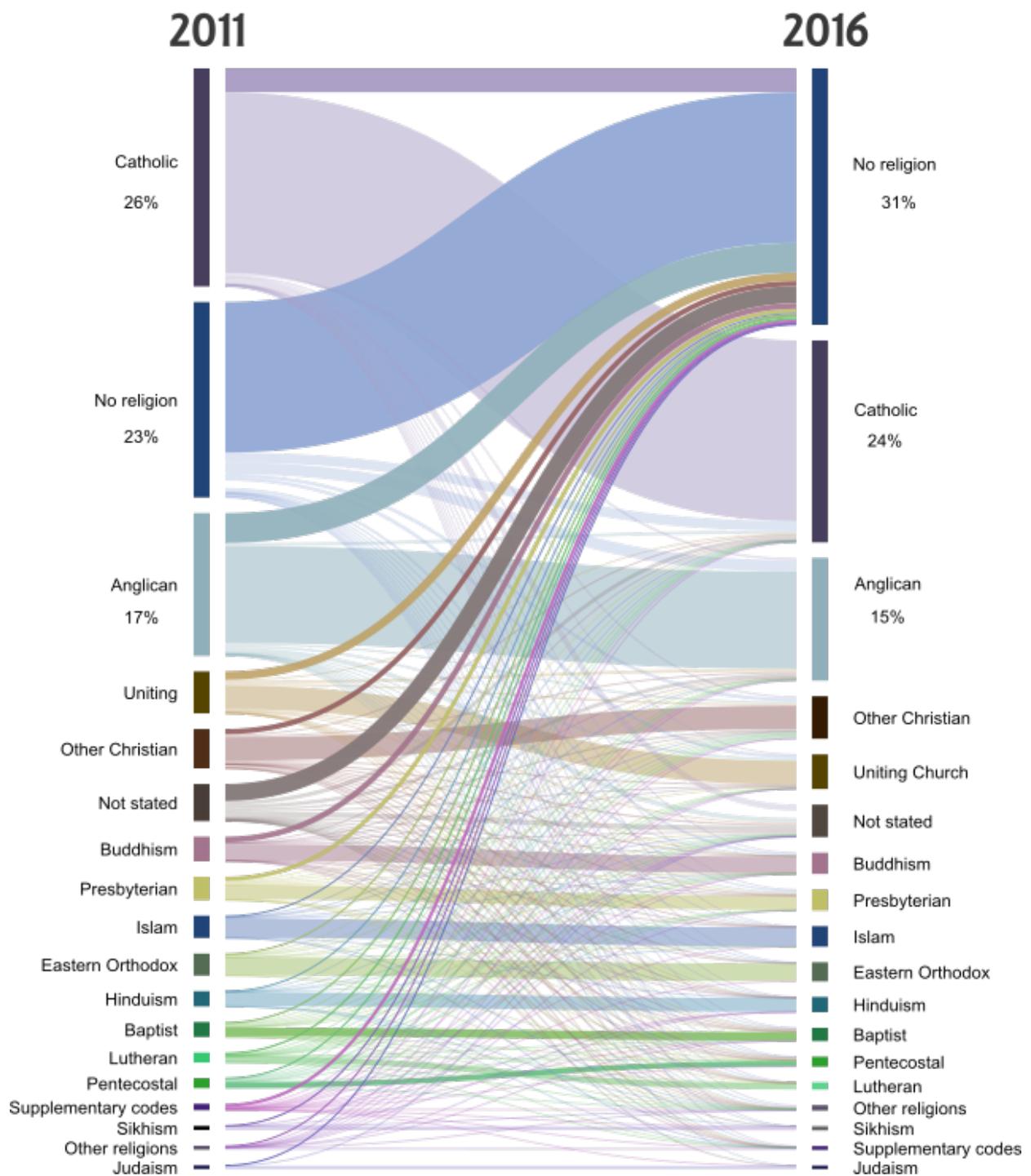
For questions involving unordered categorical responses, such as the religion question in the census, the order in which the options are presented has been shown in previous research to be important. The primacy effect suggests that people may choose the first acceptable answer presented to them, particularly if the list of response categories is long (Tourangeau et al. 2000). Evidently the change in question format, and moving the box titled 'No Religion' to the top of the list of pre-defined options had a significant impact on the way in which the 2016 question on religious affiliation was answered.

## References

- ABS (2013) Census of Population and Housing: Consultation on Content and Procedures, 2016. Catalogue No. 2007.0. Canberra: ABS.
- Tourangeau R, Rips L J, and Rasinski K (2000) *The Psychology of Survey Response*. Cambridge: Cambridge University Press.

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<sup>1</sup> <http://app.rawgraphs.io>



**Figure 1:** Answers to the question on religion in the 2011 and 2016 censuses

Source: Australian Bureau of Statistics, 2011-2016 Australian Census Longitudinal Dataset