NZDep2013 Index of Deprivation

Frequently Asked Questions

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Frequently asked questions

A particular meshblock does not have a value for NZDep2013. Why?

Either the meshblock contained no usual residents in 2013 or the value for the meshblock has been withheld for technical reasons as explained in *NZDep2013 Index of Deprivation* (Atkinson et al., 2014).

The following 112 meshblocks have had their deprivation values withheld:

0053404, 0061802, 0133411, 0133412, 0133428, 0171911, 0172807, 0173120, 0176414, 0178511, 0178607, 0180870, 0180871, 0180873, 0180875, 0290800, 0304300, 0364601, 0393702, 0394000, 0466104, 0468802, 0496102, 0589205, 0625400, 0681209, 0681210, 0681319, 0687001, 0711743, 0759514, 0767812, 0769040, 0812304, 0825105, 0896002, 0952121, 1053600, 1161903, 1179608, 1183203, 1183204, 1183205, 1192226, 1192229, 1192233, 1193215, 1204924, 1204925, 1254505, 1288100, 1288900, 1289102, 1371300, 1371400, 1402503, 1419100, 1556312, 1707100, 1744901, 1814302, 1867008, 1883804, 1943701, 1944702, 1944703, 1944705, 1997104, 1999732, 1999733, 1999734, 1999735, 1999736, 1999737, 1999740, 2003505, 2004104, 2004106, 2004108, 2004110, 2036303, 2052300, 2052900, 2053000, 2053105, 2053106, 2056617, 2056618, 2056619, 2126000, 2127500, 2159801, 2171005, 2171300, 2178801, 2304505, 2343701, 2346702, 2359718, 2365504, 2365710, 2448604, 2454200, 2485709, 2654600, 2654802, 2784801, 2965805, 2965807, 2965808, 2978200, 3138802.

How are very small meshblocks handled in NZDep2013?

Meshblocks with populations of less than 100 people have been joined with neighbouring meshblocks to make small-areas with at least 100 people (where possible) before creating the index. In the file *NZDep2013.txt* (or *NZDep2013.xls)* the small-area scale value has been assigned to each component meshblock. Note that if any meshblock, or joined meshblocks, forming a small-area have more than one proportion (out of nine) based on fewer than 20 people the NZDep2013 value is considered unreliable and has been withheld. These are the 112 meshblocks listed above, which comprised 82 small-areas (out of a total of 23,751 NZDep2013 small-areas).

How are empty meshblocks handled in NZDep2013?

Meshblocks are areas where people live, but not necessarily all the time (such as holiday homes). Meshblocks may also have unoccupied houses which would have been occupied in the past, and may be occupied in the future. Empty meshblocks were agglomerated with connected non-empty meshblocks for the purposes of creating our small areas—for which the index is calculated—on the assumption that future occupation will, to some extent, mirror the localised small neighbourhoods. The alternative was to remove such meshblocks from the index. This could give rise to a geo-coded address in the future for which no NZDep value at all was available. In this situation the observation would be 'missing' in any analysis, whereas, in the procedure adopted, the observation would be available with the best estimate of a deprivation score. When mapping NZDep in colour by meshblocks, therefore, it may be advisable to leave any empty meshblocks uncoloured. There are a further 2,418 meshblocks, described mostly as Inland Water, Inlet and Oceanic, which also contained no usual resident population in 2013. These meshblocks were not part of Statistics New Zealand's internal primary sampling unit file used in the creation of the NZDep small areas (see Atkinson et al., 2014, page 18). As they are not part of NZDep, these empty meshblocks are not included in the text and excel files.

The distribution of NZDep_score_2013 does not have mean = 1000 and standard deviation = 100. Why?

The first principal component was created from a file of 23,751 small areas with populations (as far as possible) of 100 persons or more. Typically, each small area is one or two meshblocks. In the file of 23,751 small areas the mean is 1000 and the standard deviation is 100. For usage we have provided the file for all meshblocks, giving each component meshblock of any small area the small area NZDep_score_2013 value.

The distribution of NZDep2013 does not have exactly 10 percent in each of its 10 categories. Why?

NZDep2013 was created from our small areas, not from meshblocks. See comments about NZDep_score_2013 in the paragraph above.

Can I compare NZDep scores between different censuses?

Comparisons of areas as small as a single meshblock, across time, may not be meaningful. Comparisons of areas at a higher aggregation, such as Territorial Authorities, or Area Units, should be reasonable, although we advise caution in interpreting small changes over time as being practically meaningful.

Comparing relationships between deprivation and another variable, over time, is reasonable.

See the discussion in Appendix five of the report *NZDep2013 Index of Deprivation* (Atkinson et al., 2014).

The meshblocks on Great Barrier / Matakana / Chatham / Stewart Island(s) are apparently treated differently. Why?

These islands do not form part of the Primary Sampling Units used by Statistics New Zealand for survey purposes. There is therefore no way to automatically establish any subset of connected meshblocks on any of these islands for NZDep purposes unless *all* of them have usually-resident populations of 100 or more. Therefore small areas were created for these islands manually using Statistics New Zealand's Geographic Boundary Viewer.

What happens if people choose not to own one or more of a house, a car or a phone?

We are restricted to information available from the census forms, which do not include information about *choice* for these items. However, the NZDep index includes information from six deprivation variables which are unlikely to be relevant to people who make such choices, such as some people living in inner-city apartments, so the index-value for a small area is unlikely to be substantively affected by the lack of choice information for the other three index variables.

Where can I find a tool for geocoding addresses?

Geocoding is required if a researcher needs to attach an NZDep code to a survey response or an administration dataset.

Statistics New Zealand (SNZ) has a free tool for doing classification coding, including geocoding streets to meshblock. The program will code most of the addresses and then the user can go through the program manually for the ones it couldn't resolve straight away. Google Maps or SNZ's interactive Geographic Boundary Viewer may be helpful if there is doubt as to which possibility is the correct one.

SNZ's Classification Coding System Tool can be found at http://www.stats.govt.nz/surveys_and_methods/methods/classifications-and-standards/classification-related-stats-standards/download-the-classification-coding-system.aspx. The tool can be used directly at http://www.stats.govt.nz/tools_and_services/ClassificationCodeFinder.aspx . E-mail coding@stats.govt.nz if there are any difficulties getting the software to work.

The SNZ Geographic Boundary Viewer can be found at: http://www.stats.govt.nz/StatsMaps/Home/Advanced/geographic-boundary-viewer.aspx .

Is NZDep available by postcodes?

No.

Postcodes are not a Statistic New Zealand (SNZ) geographical unit. There were 1062 postcodes in 2006, a little over half the number of SNZ's populated Area Units (N = 1867 in 2013). Each Area Unit is made up of groups of SNZ's smallest geographical unit, the meshblock (N = 44,211 in 2013). We developed NZDep to be a small-area measure of deprivation, based on just one meshblock or a few neighbouring small ones (in terms of population). Roughly, only 30 percent of our small-areas (in 2013) have more than 200 people usually resident, whereas nearly 90 percent of the postcodes had more than 200 residents in 2006. An NZDep value based on an Area Unit – a decile of the distribution of Area Unit population-weighted average NZDep scores – is available. However, an Area Unit NZDep decile score may mask considerable unevenness in the preferred NZDep small-area values. This masking would be exacerbated for larger areas, such as a postcode area or an SNZ Territorial Authority (N = 73 prior to the formation of the Auckland Super City, but 67 since then). This is illustrated in Figure 2 in the research report for NZDep2013 (Atkinson et al., 2014).

Reference

Atkinson, J., Salmond, C. and Crampton, C. (2014), *NZDep2013 Index of Deprivation* [available on the website of the University of Otago, Wellington (http://www.otago.ac.nz/wellington), and on the website of the Ministry of Health (http://www.health.govt.nz)]