THE UNIVERSITY OF
AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND

Excel
DRH Intermediate Tutorial

Calculations and Formulas | Basic Functions

July 2023

DRH

Content

Exercise: Finding age proportion from census data

We will look at:

1. Navigating NZ dot stats to access 2018 census

2. Extracting data from Open Data sources

3. Calculating proportion of children 0-14 years old and elderly above 65 years in relation to general population

4. Briefly discuss graph making and further application of data

NZ Dot Stats

https://nzdotstat.stats.govt.nz

1. Use 2018 Census, **Population and Migration** > Age and sex night population count (**2nd option**)
2. Customise
   a. Year: Select 2018 only [1/3]
   b. Age group: Expand options select [14/148]
      i. Deselect Total people
      ii. 0-4, 5-9, 10-14
      iii. 15-29 select each bracket
      iv. 30-64 select each bracket
      v. 65 years and over
   c. Area: Expand Total – New Zealand by **Territorial Authority** [563/2386]
      i. Expand Auckland (but don't select Auckland)
      ii. Select and highlight Okakura Peninsula
      iii. Select level within node (select items)
3. View data
   a. Total should have 4 pages
4. Export
   a. Export to XLS file

Excel − Manipulations

1. Open in Excel (might have error code just ignore) and click yes
   a. File > save as > excel workbook
2. Replace missing and confidential data
   a. Ctrl + F, click replace tool
      i. (..) no space, replace with Null
   b. Should have replaced 162 units
3. Create new column titled Total
   a. Use auto sum on the first row and click enter
   b. Click and hold the bottom right of the cell and drag + sign down to the last cell at the bottom (this will copy the sum equation to all the rows below)

Excel − Calculations

1. Add new column name: Proportion of People 65 years and over
   a. Equation =number of 65 years and over/total number
   b. Drag corner of cell to the bottom
   c. Format the data into percentage if you wish: Highlight the numbers then Home > Number > Percentage
2. Do the same for Children (age 14 and below)
   a. Make a new column for children 14 and below
   b. Equation = SUM(Cell 1, cell 2, cell 3) or go to Formulas: Insert Function
   c. Then make another column for proportion of children
   d. Equation = number of 14 years and under/total number
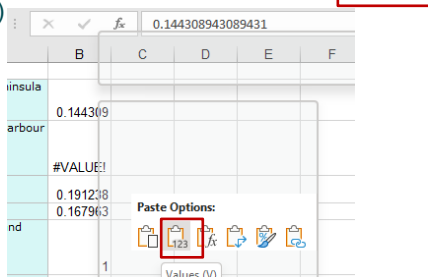   e. Drag the corner of cell to the bottom to copy the equation

Excel − Finalising

1. At the bottom left of your screen, make a new sheet and copy over the areas and proportions

    a. Select everything under area > copy and paste into new sheet

    b. Go back to the original sheet select from the first percentage of proportion of 65 and over and highlight down to the last percentage

    c. Copy the proportions into the new sheet and **make sure** to ***paste as values***
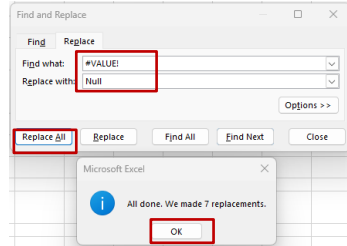
    d. Do the same for proportion of children

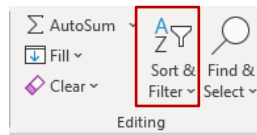# Excel – Finalising

1. Ctrl + F to open Find and Replace

    a. Replace #VALUE! with Null or 0

    b. Replace #DIV/0! with Null or 0

2. Ctrl + A twice to select all the data on your sheet

    a. Home > Editing > Sort & Filter > Custom Sort

    b. Sort by > Area > A to Z
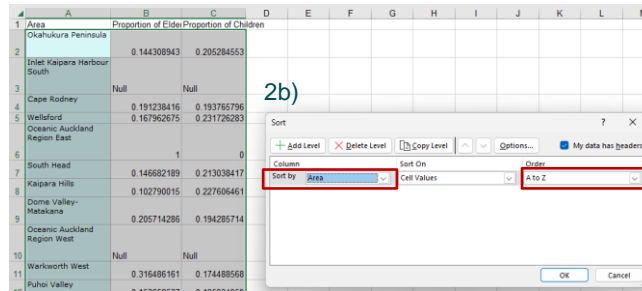
3. Ctrl + A again to change the data to percentage
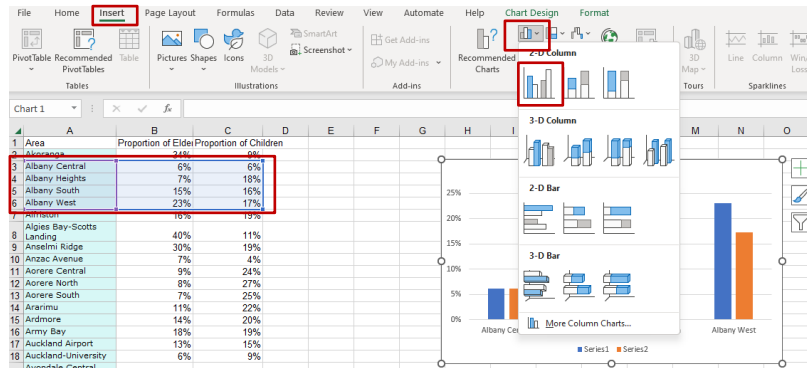
1)

2a)

2b)

Your finalised sheet should look like the above

Excel − Graph making

1. Graph making

   a. Highlight a selected data set (for the tutorial use: Albany Central, Albany Heights, Albany South, Albany West)

   b. Insert > Graph > 2D column

   c. Add Axis Titles, Data label

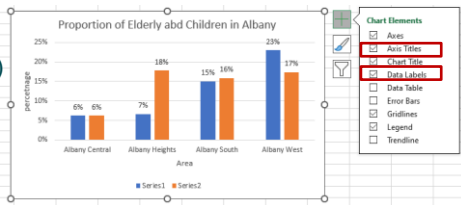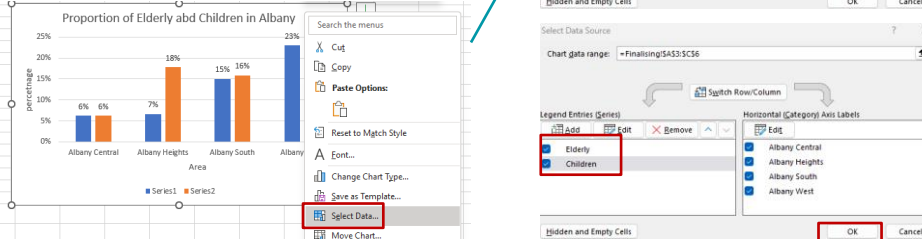   d. Right click on graph> Select Data > Rename Series 1 to Elderly > Rename Series 2 to Children > OK
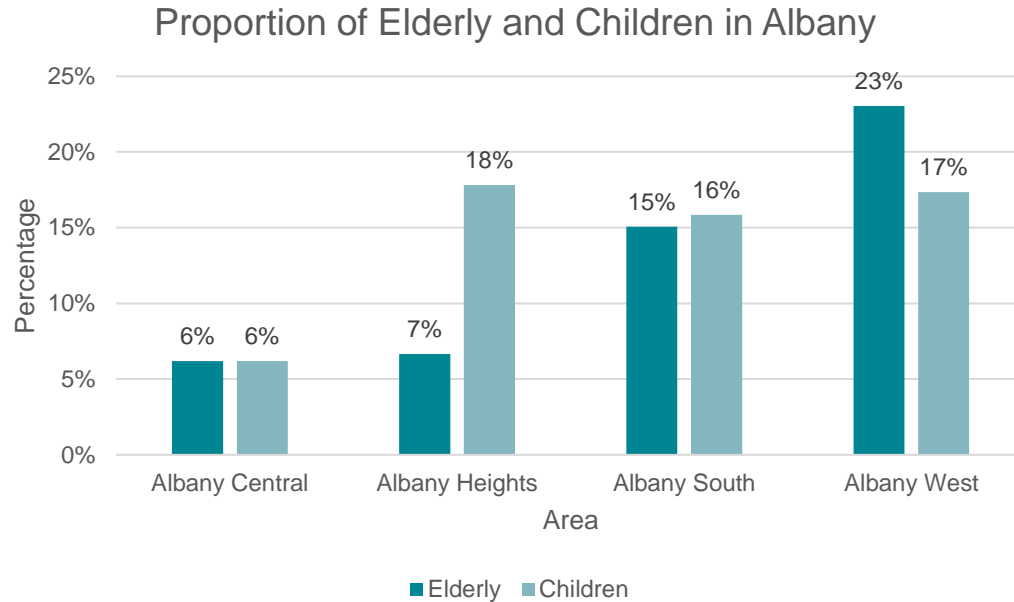
Excel – Final Product

Helpdesk

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Mon-Fri: 9:30am-4:30pm

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