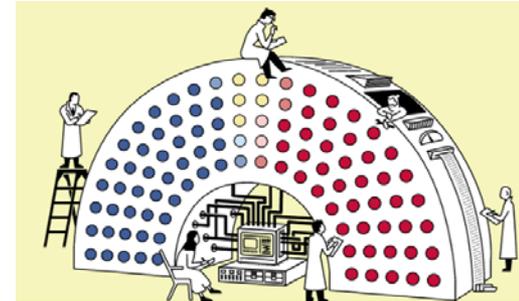


Reflections on a new data journalism paper at AUT University

Allan Lee, Jeanz conference 2015

Data journalism

- Full paper by March 2016
- Preparing the course/student entry
- Course content
- Text book and blog
- Assessment
- Student work
- Student feedback
- Changes for next year



Data journalism

Preparing the course



Harkanwal Singh,
New Zealand Herald
data editor



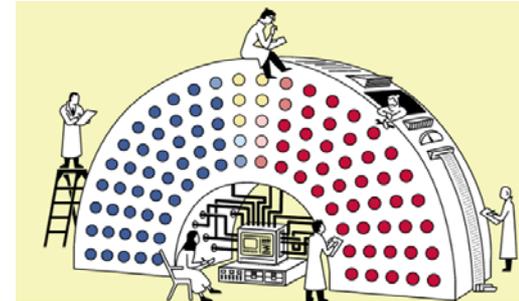
Jeff Kelly Lowenstein,
a Fulbright Scholar
from Columbia College,
Chicago



The screenshot shows the NICAR website homepage. The top navigation bar includes links for ABOUT IRE, EVENTS & TRAINING, NICAR & DATA LIBRARY, RESOURCE CENTER, JOB CENTER, AWARDS, PUBLICATIONS, STORE, JOIN, and DONATE. The main content area features the NICAR logo and a search bar. Below the logo, there are three columns of content: 'Search our databases' with a list of database links, 'Hire us for data jobs' with a map of the United States, and 'Browse our tool library' with a video player. A sidebar on the left contains the IRE logo, a search bar, and a list of links including ABOUT, DATABASE LIBRARY, Practice Datasets, Terms And Conditions, Stanford Review Of Tools, and ANALYSIS JOBS. At the bottom, there is a yellow banner for a recruitment drive: 'SPEND A YEAR DOING JOURNALISM THAT MATTERS. APPLY BY FEB. 1, 2016. MARQUETTE UNIVERSITY'.

Data journalism

The students



14 students – BCS journalism majors, plus two minors

Entry to the paper required sitting a maths test

Data journalism

Course content

Weekly 3-hour class structure:

Part A (45 mins)

Discuss reading/Blog entries/Quiz

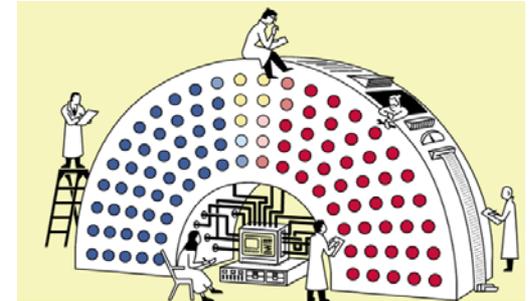
Student presentations – critiques of data journalism projects
(marked by their colleagues)

Part B (45 mins)

Lecture session/guest speaker

Part C (60 mins)

Workshop time – software training, working through textbook,
exercises



Course content

Lecture sessions:

Best of data journalism worldwide

Intro to data journalism tools and processes

Statistics essentials for the data journalist (Robin Hankin)

Exploring data.govt.nz/where to find data (Joanne Alexander)

Data visualisation/Statschat (Thomas Lumley)

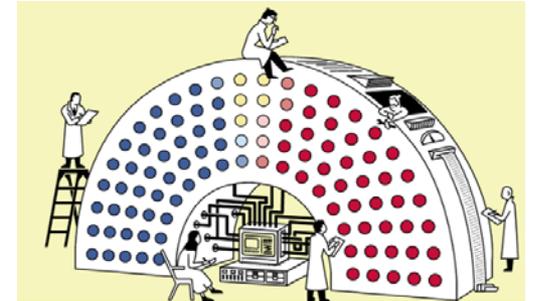
Data journalist/intro to programming (Harkanwal Singh)

Sources of data

Data analysis/handling survey data

Social media as data source (Verica Rupar)

Open government and FOI (Greg Treadwell)



Course content

Workshop sessions:

Finding data – online databases

Excel spreadsheets + Google Sheets

Testing data integrity/identifying dirt

Cleaning data with Open Refine

Analysing data

Filtering and summarising data

Generating summary statistics (sums, averages, percentages, ratios, running rates)

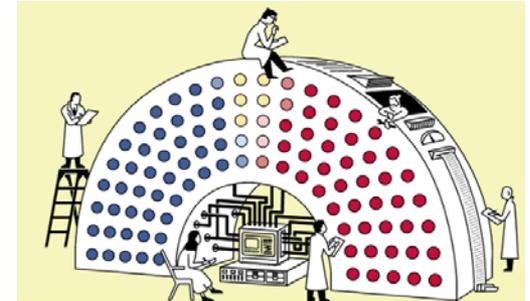
Pivot tables in Excel

PDF converters – Cometdocs and Zamzar

Charting in Excel and with web tools (bar graphs, line charts, pie charts, data maps, scatterplots)

Google Fusion Tables/ .kml files + heat maps

Visualising with Datawrapper



Data journalism

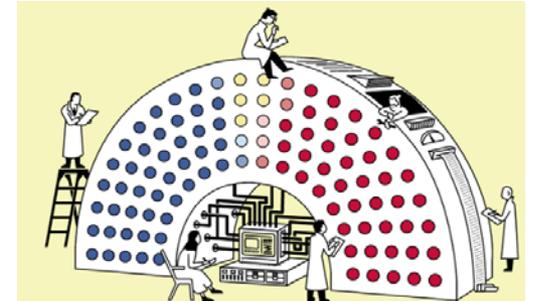
Course content

Not covered

Programming/writing code in

Python/Ruby/Javascript

More advanced statistical methods (eg correlation, regression analysis, probability testing)



Data journalism

Course text



David Herzog,
Missouri School
of Journalism

Student Resources

1. [Data Defined](#) >
2. [Clues for Uncovering Data](#) >
3. [Online Databases](#) >
4. [Identifying and Requesting Offline Data](#) >
5. [Data Dirt is Everywhere](#) >
6. [Data Integrity Checks](#) >
7. [Getting your Data in Shape](#) >
8. [Number Summaries and Comparisons](#) >
9. [Calculating Summary Statistics and Number Comparisons](#) >
10. [Spreadsheets as Database Managers](#) >
11. [Visualizing Your Data](#) >
12. [Charting Choices](#) >
13. [Charting in Excel](#) >
14. [Charting with Web Tools](#) >
15. [Taking Analysis to the Next Level](#) >



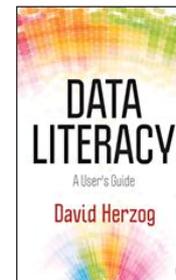
Data Literacy: A User's Guide

This site is intended to enhance your use of Data Literacy by David Herzog. Please note that all the materials on this site are especially geared toward maximizing your understanding of the material.

We are swimming in a world of data, and this handy guide will keep you afloat while you learn to make sense of it all. In *Data Literacy: A User's Guide*, David Herzog, a journalist with a decade of experience using data analysis to transform information into captivating storytelling, introduces students and professionals to the fundamentals of data literacy, a key skill in today's world. Assuming the reader has no advanced knowledge of data analysis or statistics, this book shows how to create insight from publicly-available data through exercises using simple Excel functions. Extensively illustrated, step-by-step instructions within a concise, yet comprehensive, reference will help readers identify, obtain, evaluate, clean, analyze and visualize data. A concluding chapter introduces more sophisticated data analysis methods and tools including database managers such as Microsoft Access and MySQL and standalone statistical programs such as SPSS, SAS and R.

Acknowledgments

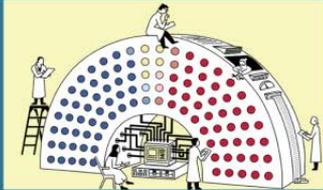
We gratefully acknowledge David Herzog for writing an excellent text and creating the materials on this site.



Author: [David Herzog](#)
Pub Date: February 2015

[Buy the book](#)

Course blog



autdatajournalism

About

Erin McKenzie- Reading three

September 22, 2015

[erinbmckenzie19](#)

[Leave a comment](#)

[Edit](#)

I enjoyed this reading. As a journalism student people are confused by why I am learning how to use excel, how to collect data and analyse it. This reading justifies why I am, it's more skills in my journalism tool belt. I agree when Hansen said the term "data journalist" will later be replaced by "journalist" because I am learning to be a journalists, just with a skill set thats better than ever.

Journalism was around long before the technological advancement of television and the internet and he practice naturally took on those new technologies. Why shouldn't it take on technology to analyse, crunch and sort data. I like Broussard's comment that it "supercharges the journalist". The internet did the same as google made sources available at the tips of journalists fingertips. These new tools are doing the same.

The article begins by saying that "the ability to separate fact from opinion" is a ket attribute of a journalist. This is why I love data, it is fact. Data is therefor a great tool for journalists to base their stories on it. However, as previous readings have discussed, even data can be "spun" or misinterpreted. This means that journalists have to be careful with data, just like all "facts" they come across.

<https://autdatajournalism.wordpress.com>

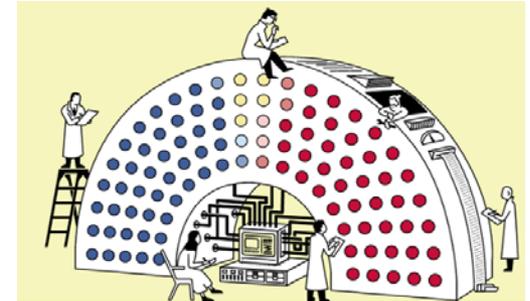
Data journalism

Assessment

1. Group presentation (20%): a critique of a significant data journalism project/story (mostly in pairs)

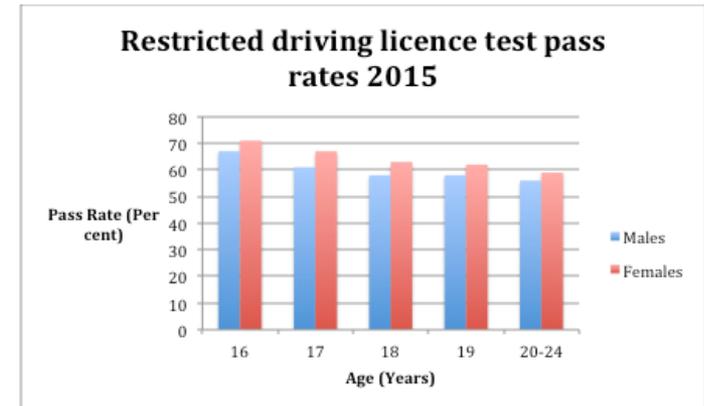
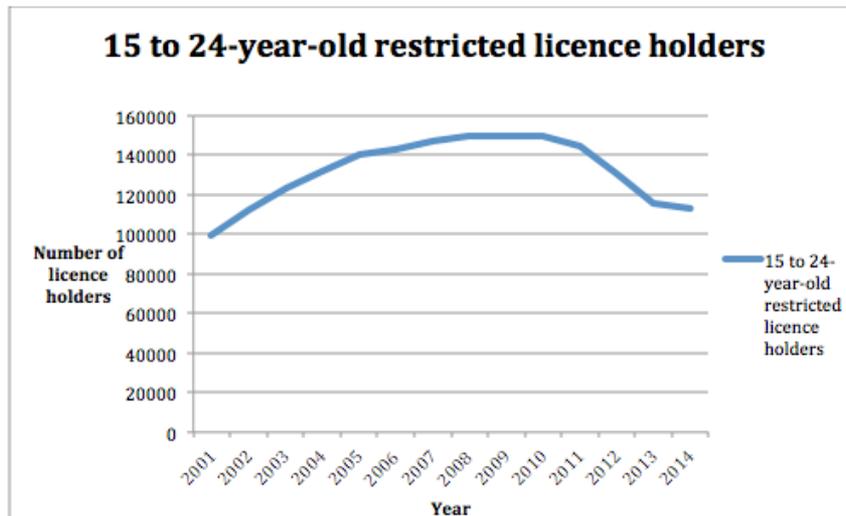
2. Data story proposal (30%): story outline, identify databases, identify 4 sources including central characters, plan for data analysis and visualisation

3. Data story (50%): 1500 word story, minimum of 3 graphics/infographics/tables, 4 sources including central characters,
+ a 500 word reflection,
+ a 300 word data analysis report
+ spreadsheets and transcripts.



Examples of student work

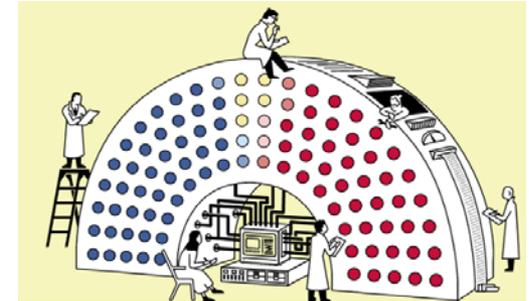
Fewer young drivers on our roads



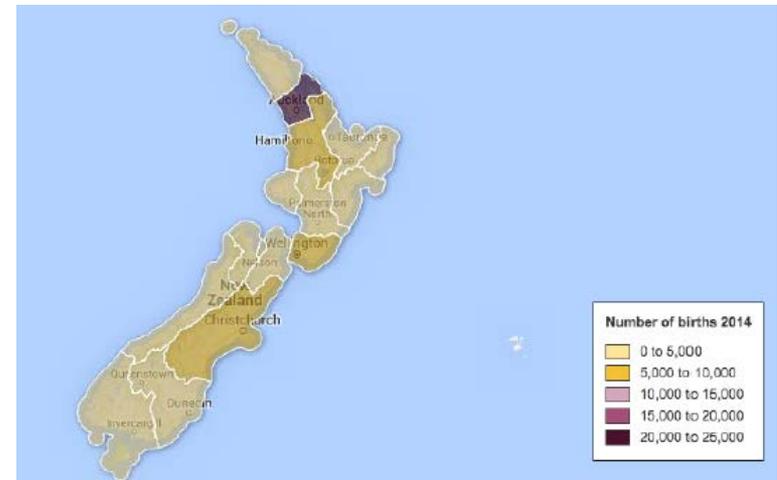
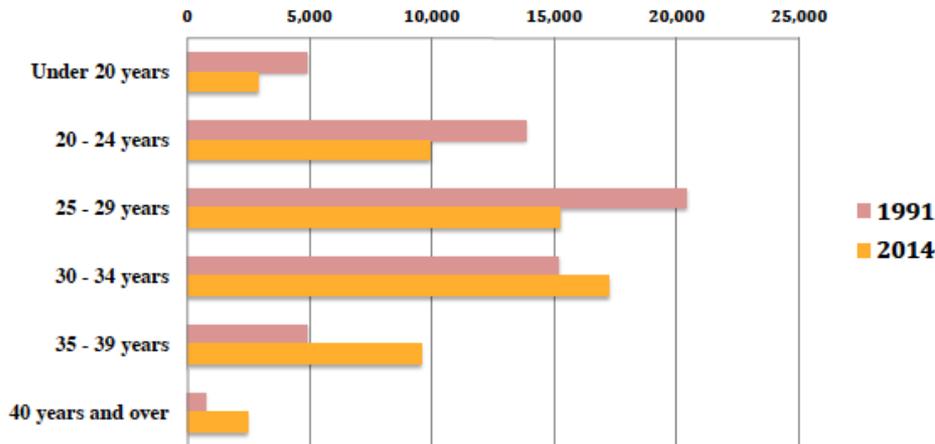
Data journalism

Examples of student work

Women having kids later in life



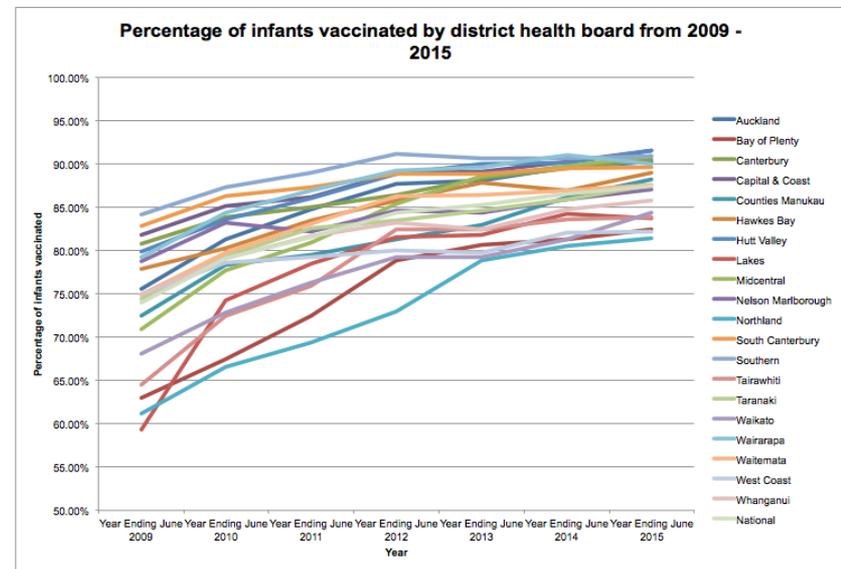
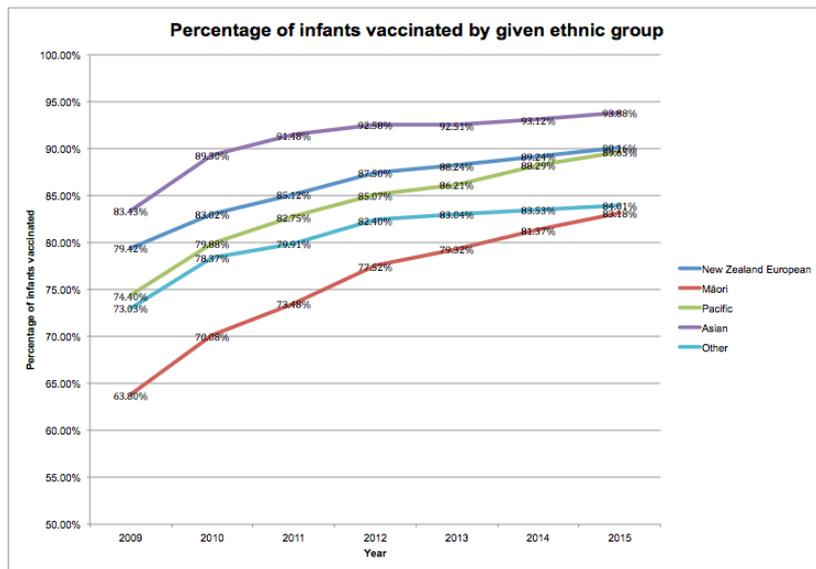
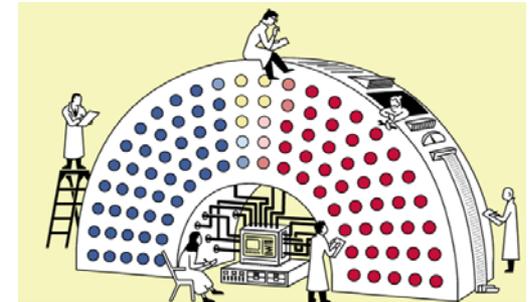
Total number of births per age group 1991 and 2014



Data journalism

Examples of student work

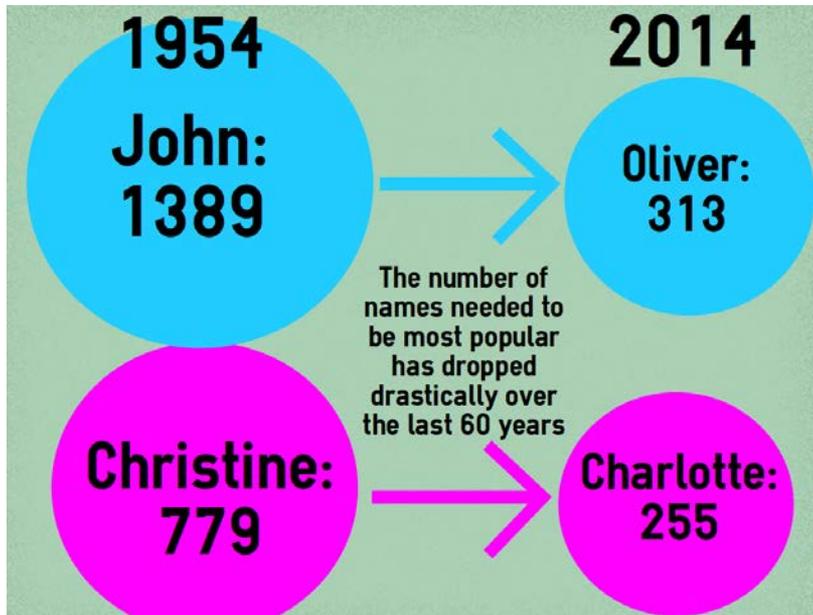
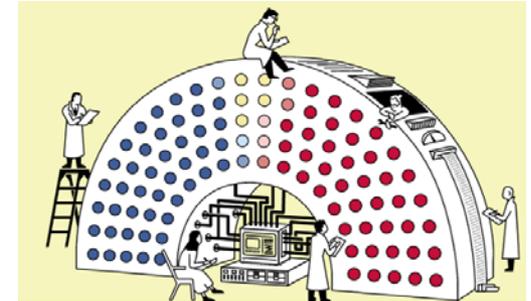
Vaccination rates on the increase



Data journalism

Examples of student work

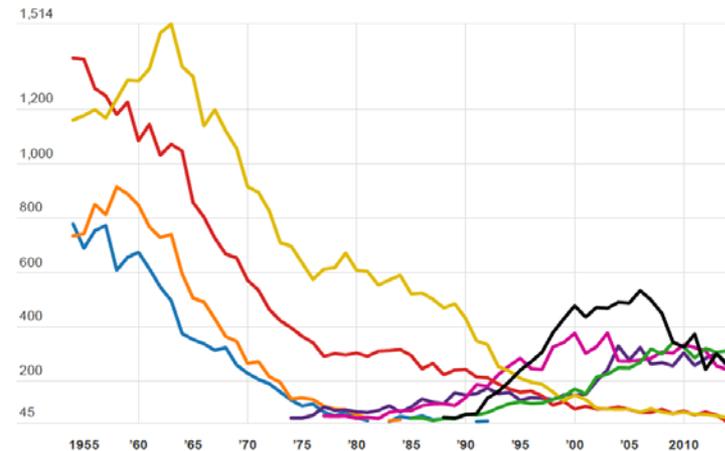
Baby names reflect greater diversity



Comparing Top 100 Most Popular Baby Names in New Zealand between 1954 and 2014

This graph maps the popularity of the four most popular boys and girls names in New Zealand in 1954 and 2014 between those 60 years. The graph only highlights the time the names spent in the Top 100, and as such does not map their popularity once they have left.

Oliver Jack Charlotte Olivia David John Christine Susan



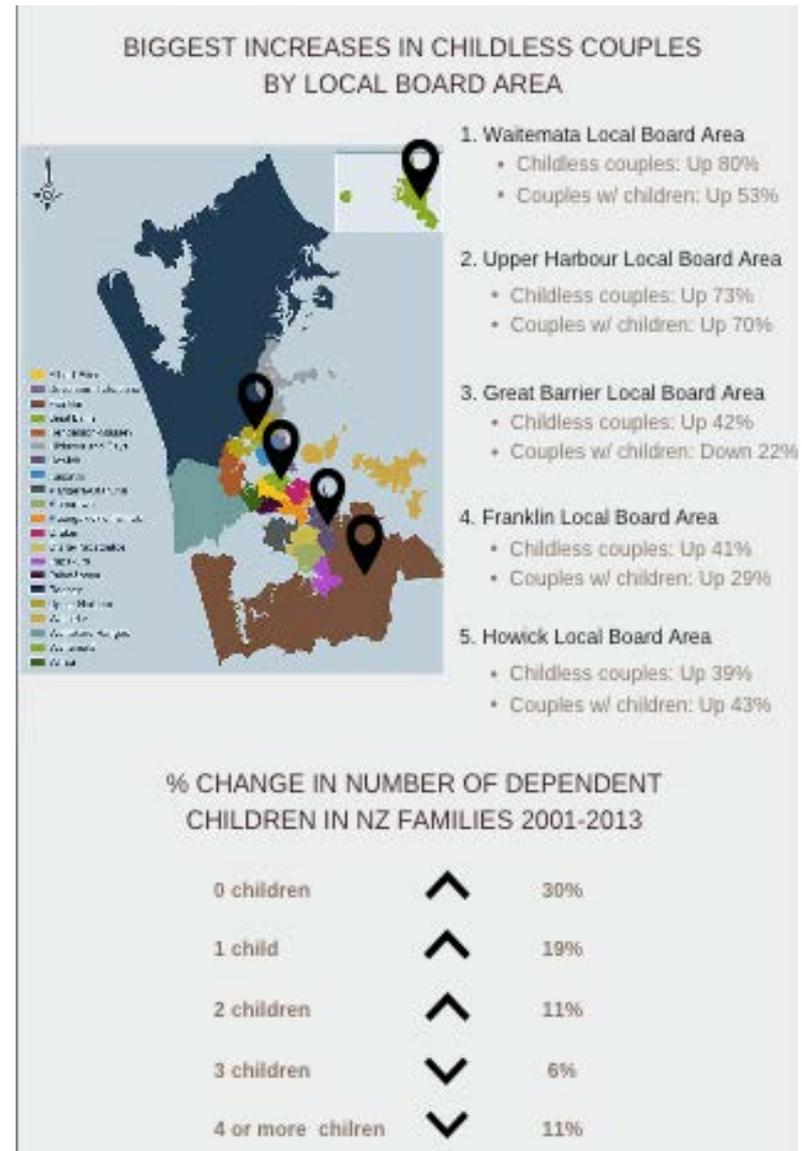
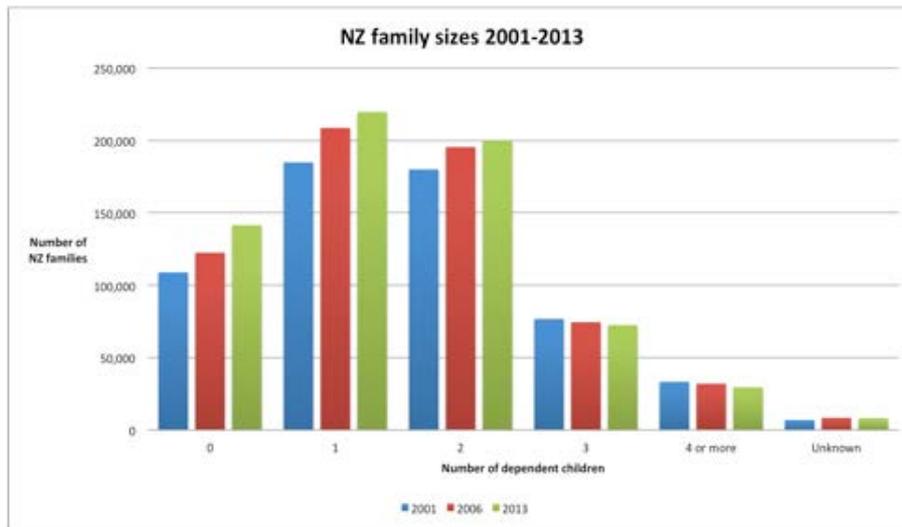
source: [New Zealand Department of Internal Affairs](#) [Get the data](#)

Created with [Datawrz](#)

Data journalism

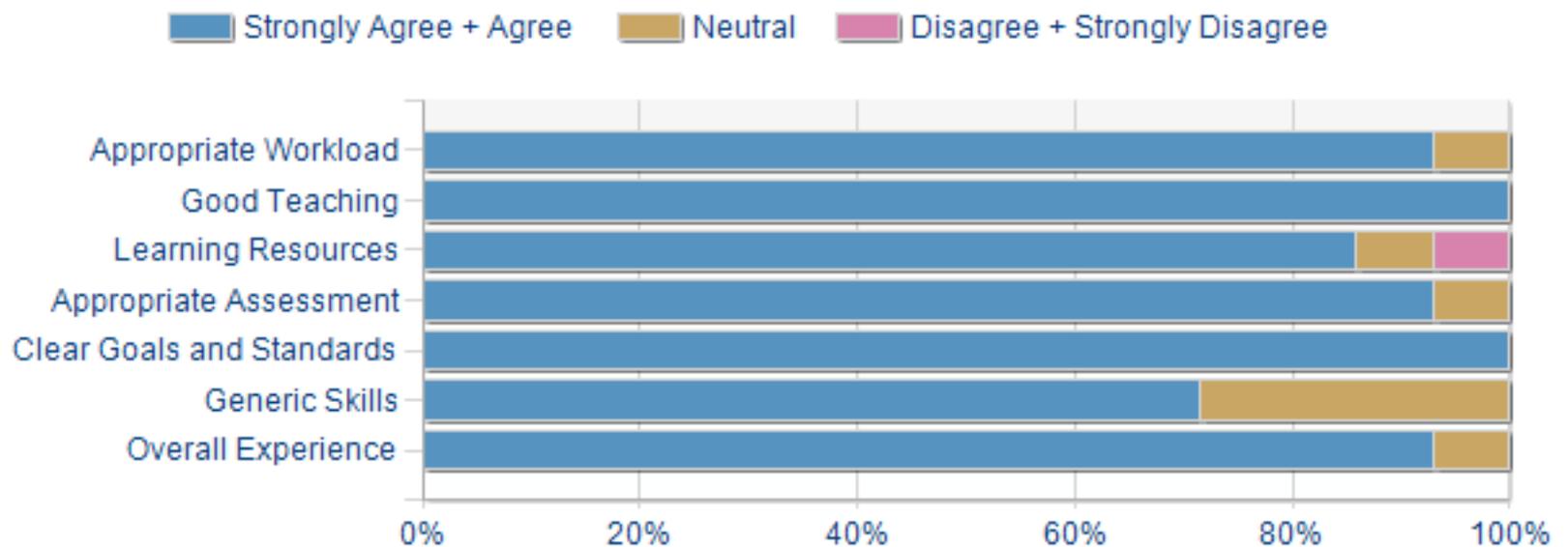
Examples of student work

Kiwis are having smaller families



Student feedback

Paper ratings for JOUR703 Data Journalism - Overview



Student feedback

Best aspects of paper: learning how to find stories in data, learning to use Excel, how to formulate graphs, guest speakers, whole new skill set, class discussions, sparked my interest to pursue data journalism further

Things to improve: class could be shorter, more time on Datawrapper, more time on Google Fusion tables, more revision at the end, more guidance on the presentation assignment, too much required in the final assignment

3-hour class: Class structured well/good mix of activities (11)

Coding: most would have liked a practical session

Assessment: All said positive things. Proposal helped with final project. One said proposal could be due earlier, and one didn't like Week 13 deadline

Student presentations: all enjoyed these, learned a lot and found discussions interesting. But they could have wrapped up earlier

Changes for next year

Cover extra apps for infographics (eg Piktocharts) and mapping (CartoDB)

Spend more time on Google Sheets

Add in some practical sessions on coding

Review the statistics content with Robin Hankin

Provide extra readings for the non-journalism students

Get through student presentations by mid-semester break

Reduce final story word count (1500-1200), and require 3 not four sources

Bring in Excel revision exercises earlier