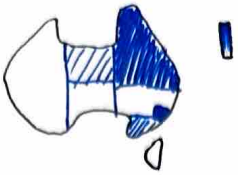
IDEAS

↳ Maps

Global birth rate (choropleth) map



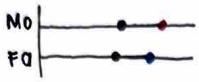
Fertility rate by state (choropleth map)

↳ Parents

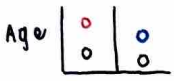
Proportion of mothers

(isotype chart)

Median age of mothers / fathers

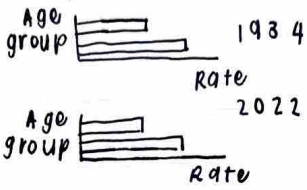


(ranged dot plot)



(Bubble plot)

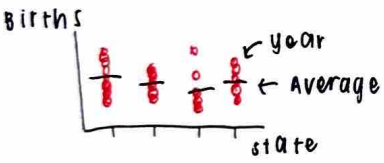
Fertility rate by age group



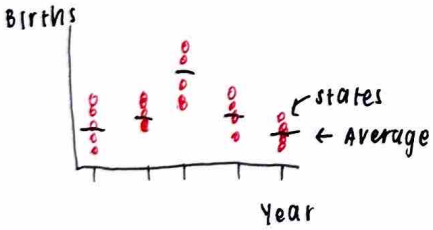
(Bar chart)

↳ Births

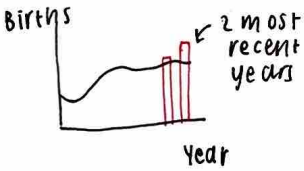
Births by state over time



(scatter plot)

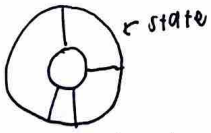


Total births over time



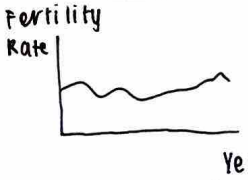
(Line chart)

Proportion of multiple births



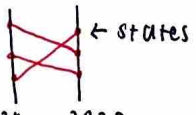
(donut chart)

Total fertility rate over time



(Line chart)

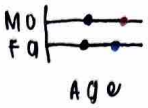
Fertility rate by state over time



(slope graph)

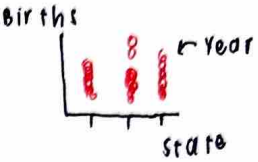
FILTER

↳ Parents



Easier to read and compare. Also increases diversity of chart types used.

↳ Births



x-axis will be state. This makes more sense as higher years can be darker, and results in a more condensed graph as there are only 7 categories.

CATEGORISE

parents
- Proportion of women who are mothers
- Median age of mothers / fathers

↓

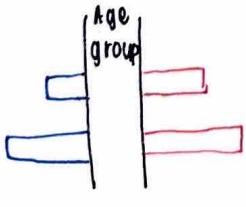
Global fertility vs Australia
- Global map
- Total Australian fertility rate / birth

↓

Fertility in Australia across states
- Fertility rate
- Births

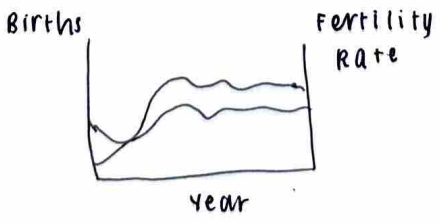
COMBINE & REFINE

↳ Parents



combine into butterfly chart / population pyramid for easier comparison and more compact representation.

↳ Births

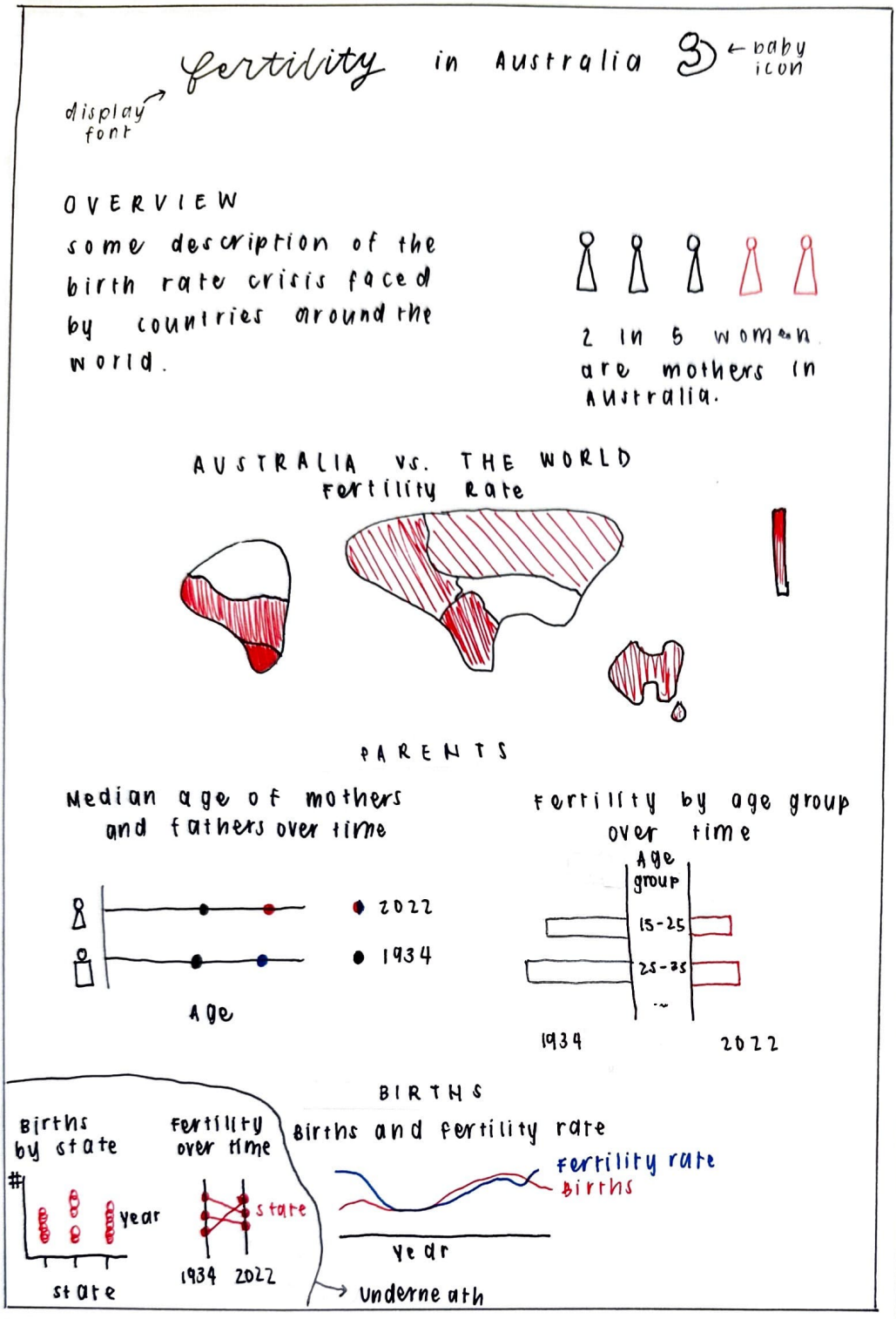


combine births and fertility rate to observe for trends.

QUESTIONS

- Are the idioms used appropriate for the data being shown?
- Are the chosen idioms varied and interesting to look at?
- Is the information and data being visualised relevant and important?

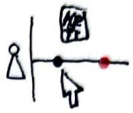
LAYOUT



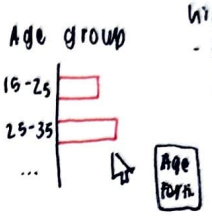
Title: Fertility in Australia
Author: Brenda Dang
Date: 29/09/2024
Sheet: 2
Task: Scrolling visualisation

OPERATION

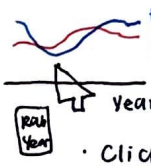
- Hovering over a country shows tooltip which shows exact fertility rate.
- Filter by continent.



- Hovering over dot shows the exact value.
- clicking on a dot highlights a period.



- Hovering over bar shows the exact fertility rate for the age group.
- clicking on a bar highlights the age group for each period.



- Hovering over a line shows the exact value.
- Clicking on a line highlights the line and greys the other one.

1934 2022

- Slider for year range.

- Hovering shows the year and exact data value.
- Clicking highlights a specific year.
- Filter by year and state.

- Hovering shows exact value.
- Filter by state.

FOCUS

Focus: ~~Parents~~ Mothers and global ~~#~~ fertility rate.

- Starts with isograph of proportion of mothers in Australia.
- Australia vs. The World map takes up a large amount of the space on the poster.
- Infographic format, with minimal and visually pleasing interface.

DISCUSSION

Pros:

- simple and visually appealing.
- Little chartjunk and visual clutter.
- clear storytelling.

Cons:

- Layout may be difficult to implement as it requires graphics to be made.
- Idioms may not be appropriate for data types.

LAYOUT

Title: Fertility in Australia
Author: Brenda Dang
Date: 1/10/2024
Sheet: 3
Task: Partitioned poster

Fertility in Australia

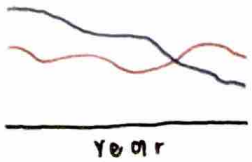
OVERVIEW

Some description of the fertility and birth rate crisis faced by countries across the world.

2 in 5 women are mothers in Australia.

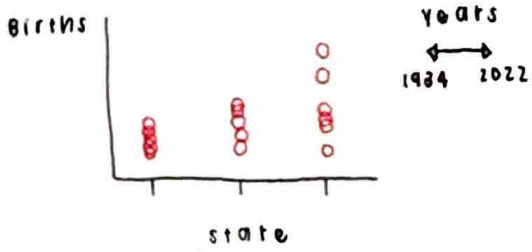
AUSTRALIAN STATES AND TERRITORIES

Fertility Rate and Births

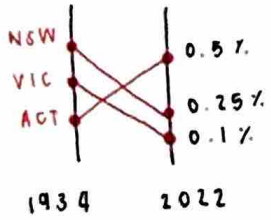


Some commentary about the trend in fertility rate and births over time.

Births by state



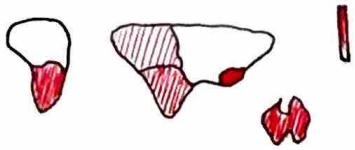
Fertility Rate by state



AUSTRALIA VS. THE WORLD

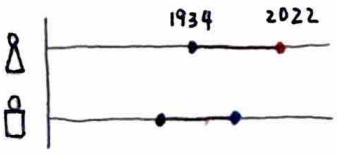
Fertility Rate Across the World

Some commentary about the fertility rate of Australia compared to the rest of the world.

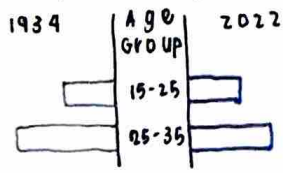


PARENTS

Median age of parents



Fertility Rate by Age Group

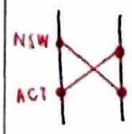


OPERATION

- Hover or click to highlight a line.
- Hover to show tooltip.

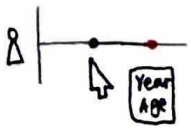
- Slider to filter years.

- Hover to show tooltip.
- Slider to filter year range.

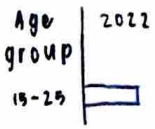


- Clicking on a dot/line filters by that state.

- Hover to show tooltip.
- Filter by continent.



- Hover to show tool-tip.



- Hover to show tooltip.
- Click to filter both sides by an age group.
- Filter to select age range

FOCUS

Focus: Fertility across Australian states.

- Largest partition visualises statistics specific to the Australian states.
- Discusses trends within and outside of Australia.
- Comparison between each state/territory.

DISCUSSION

Pros:

- Clear layout and partitioning.
- Minimal and simple.
- Little visual clutter.

Cons:

- Full width header banners may be overwhelming.
- Left-aligned headings may distort guidelines and draw attention towards info on the left, but away from the right.

Title: Fertility in Australia
Author: Brenda Dang
Date: 2/10/2024
sheet: 4
Task: Poster w/ side bar

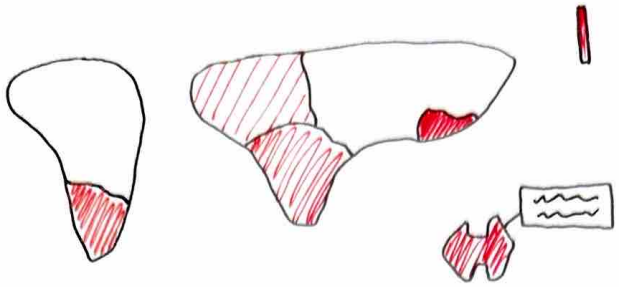
LAYOUT

fertility IN AUSTRALIA

some description of the current fertility rate crisis globally.

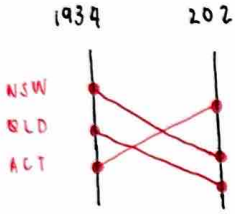
2 in 5 women in Australia are mums.

Fertility Rate Across the World



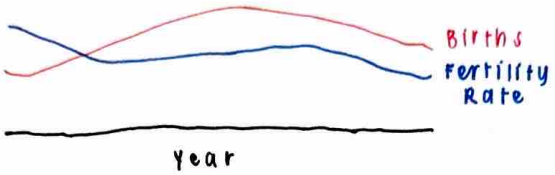
Australia has the 3rd highest fertility rate in the world.

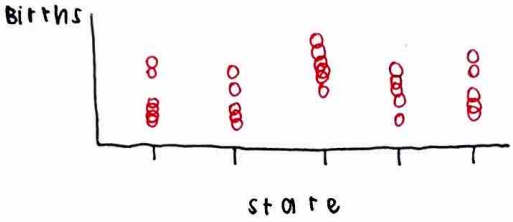
FERTILITY ACROSS THE STATES



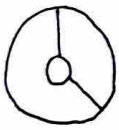
some description of the overall trend in the fertility rate.

Births and Fertility Rate

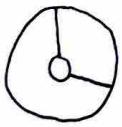




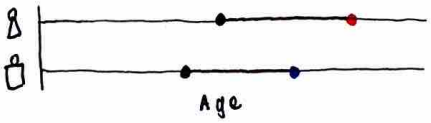
PARENTS IN AUSTRALIA



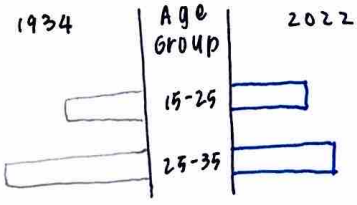
some survey statistics



Median Age of Parents

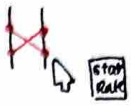


Fertility Rate by Age Group

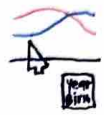


OPERATION

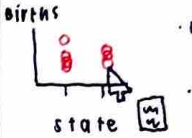
- Hover to show tooltip.



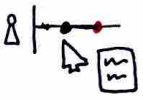
- Hover to show tooltip.



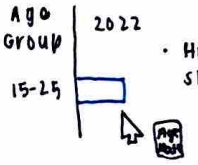
- Hover to show tooltip.
- Click to highlight a line on the chart.



- Hover to show tooltip
- Filter by year range.
- Filter by state.



- Hover to show tooltip.



- Hover to show tooltip.
- Click on age group to filter.

FOCUS

Focus: sidebar as heading.

- Uses sidebar to organise and name partitions.
- Topic of each section can be easily seen even if you scroll.
- Each topic is given equal focus and attention, as the poster is divided into 3 equal parts.

DISCUSSION

Pros:

- Equal focus for each topic.
- Easy to see what topic is being viewed.
- Clear organisation.

Cons:

- Layout is more complex and could be difficult to implement.
- Careful consideration of fonts and typefaces should be made for sight lines.

Title: Fertility in Australia
Author: Brenda Dang
Date: 2/10/2024
Sheet: 5
Task: final design

LAYOUT

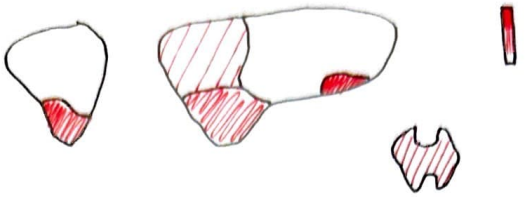
fertility IN AUSTRALIA

OVERVIEW

some description of the fertility rate crisis globally.

2 in 5 women in Australia are mothers.

AUSTRALIA VS. THE WORLD

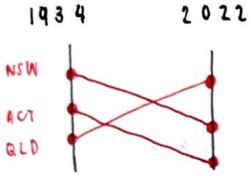


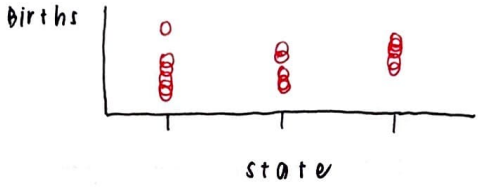
FERTILITY ACROSS THE STATES

some commentary on the overall trend in the fertility rate across the states.

BIRTHS AND FERTILITY RATE

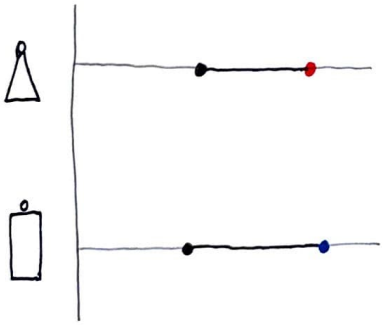
BIRTHS BY STATE



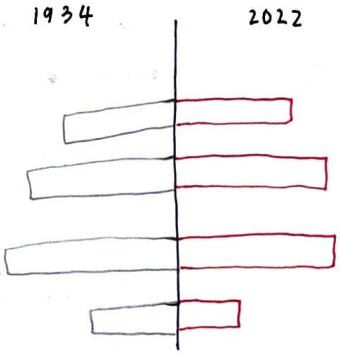


PARENTS IN AUSTRALIA

MEDIAN AGE OF PARENTS



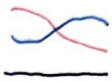
FERTILITY RATE BY AGE GROUP



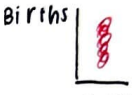
OPERATION

- Hover to show tooltip.
- Filter by continent.

- Hover to show tooltip.
- Filter by states.
- Click to highlight.



- Hover to show tooltip.
- Click to highlight a line.



- Hover to show tooltip.
- Click to highlight.
- Filter by year range.

- Hover to show tooltip.

- Hover to show tooltip.
- Click to filter by age group.

FOCUS

comparing trends over time in births and fertility across Australia and across the world.

- Filters and interactions to help viewers understand data better.
- Minimal commentary to draw attention to visualisations.
- simple layout with plenty of whitespace to better define 'ground' and make charts stand out further.

DETAILS

↳ compiling data
Download and clean data to make it usable.
- ~1 day.

↳ Dependencies
- Learning how to code with vegalite and integrating with HTML/CSS.
- Learning what charts and interactions are possible.

↳ Timeline
1 day - clean data
3 days - make charts
3 days - format & style