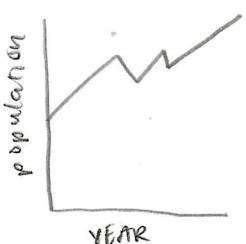


IDEAS

1. BAR CHART



2. LINE CHART

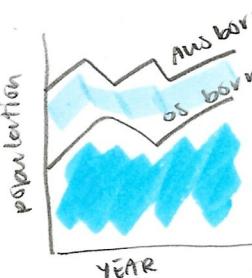


3. BUBBLE CHART

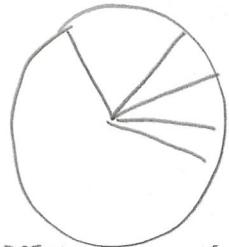


*size = proportion of population for each state

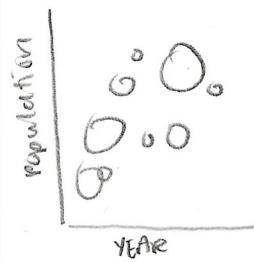
4. STACKED LINE GRAPH



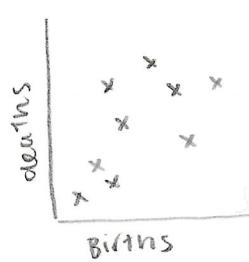
5. PIE CHART



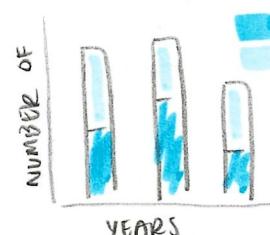
6. BUBBLE PLOT



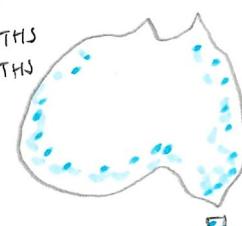
7. SCATTER PLOT



8. STACKED BAR CHART

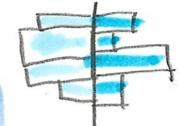


9. AZURE MAP



DEATHS
BIRTHS

11. BACK-TO-BACK BAR CHART

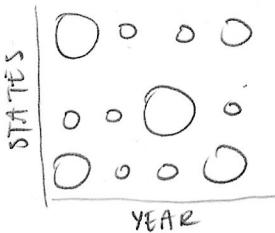


10. CHOROPLETH MAP



COMBINE + REFINER

- (2) (6) * combining two graphs can make data more clear to read and interpret
- * combine to create a bar-bubble plot where year on x-axis STATES ARE ON Y-AXIS, proportion of bubbles = size of population proportion



QUESTIONS

- would visualisations be enough to inform client?
- can users filter according to data period, state?
- After filtering can users view all graphics after again?

CATEGORISE

- AUS POPULATION CHANGE (1)
- AVS BORN VS OVERSEAS BORN AUSTRALIANS (4) (6) (10) (1)
- DEATHS VS BIRTHS IN AUS (7)

FILTER

2. LINE CHART

- * BASIC GRAPH
- * NOT MUCH INFO TO DISPLAY
- * OTHER GRAPHS MORE INTERESTING

3. BUBBLE CHART

- STATES
- * DATA SIMILAR TO BAR CHART
- * BUBBLE PLOT MORE INTERESTING
- * DOESN'T DISPLAY MUCH INFO

5. PIE CHART

- * INFO PRESENTED SIMILAR TO MAP
- * HARD TO VIEW SMALLER SEGMENTS

8. STACKED BAR CHART

- * NOT VERY INTERESTING
- * BASIC GRAPH

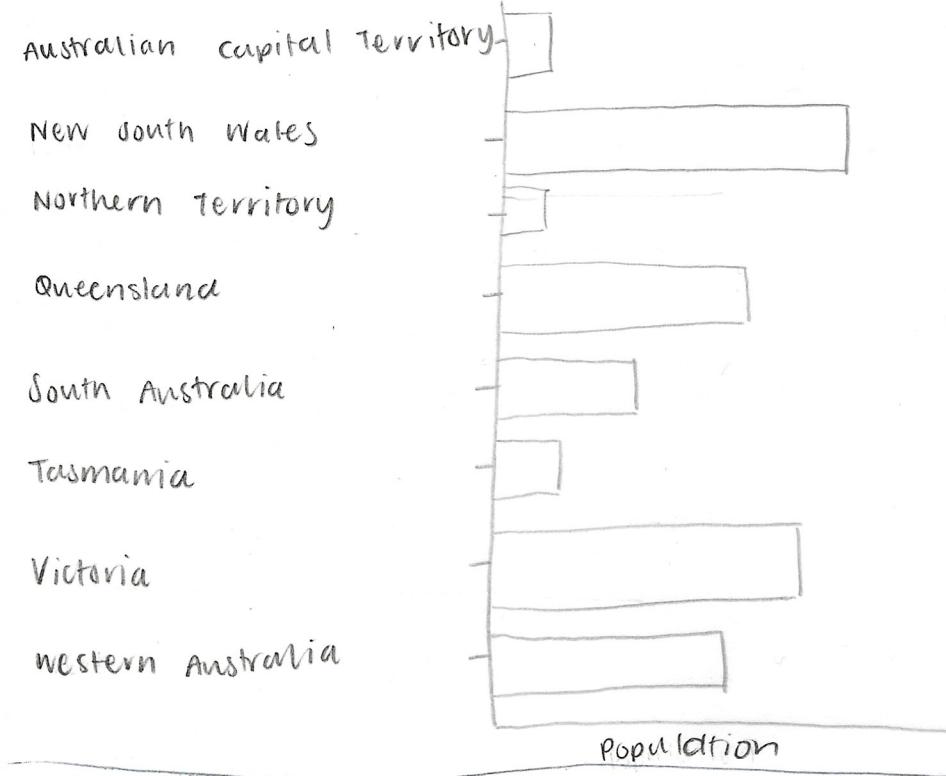
9. AZURE MAP

- * COMPLICATED TO VIEW DATA
- * DOESN'T SHOW FULL COMPARISON OF DATA

LAYOUT

INFO

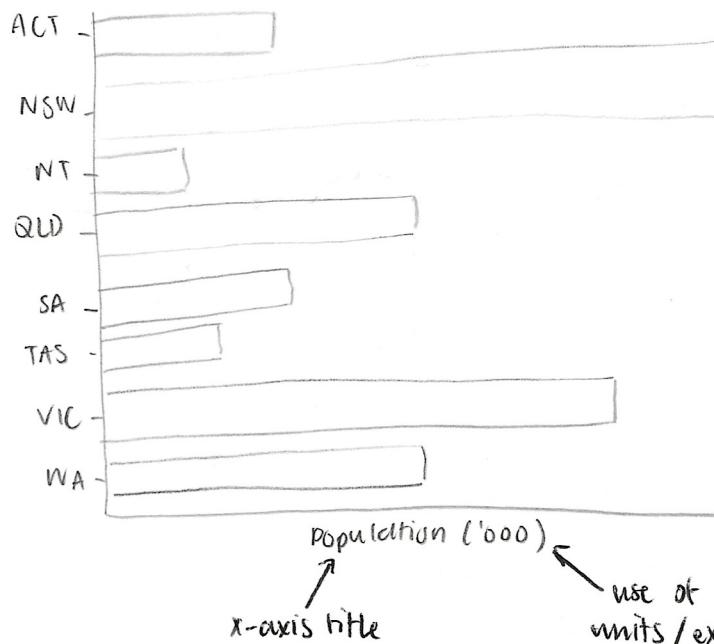
Title: Australia's changing population
Author: Annie Ho
Date: 26/10/2024
Sheet: 2
Task: the overall population change in each Australian state / territory



FOCUS

Bar chart of Australia's population distribution by each state

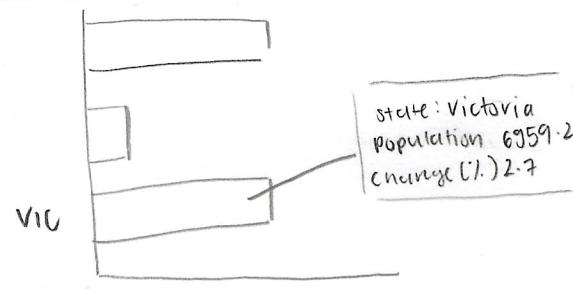
states displayed
over
label
order



- * shows overall distribution of population in each state
- * compares each state population informs viewers of the busier cities
- * hovering over each bar shows value of population and change percentage. showing growth

OPERATION

- * Hovering over each bar it will display the state name, the population and the percentage of population change in a tooltip



DISCUSSION

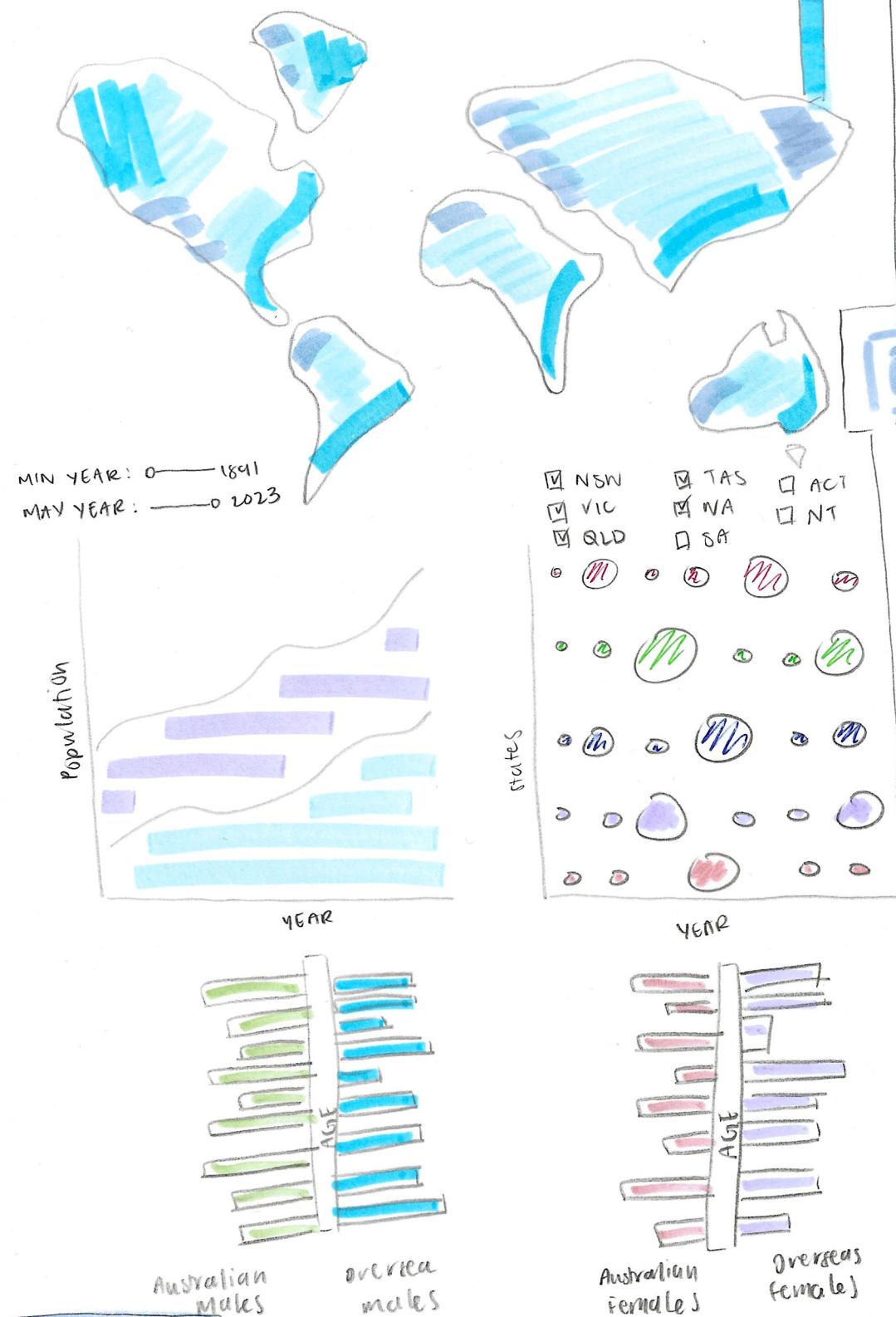
ADVANTAGES:

- * COHESIVE, SIMPLE ENOUGH TO UNDERSTAND
- * Hovering over data will give viewers extra ~~info~~ information about the state and their population

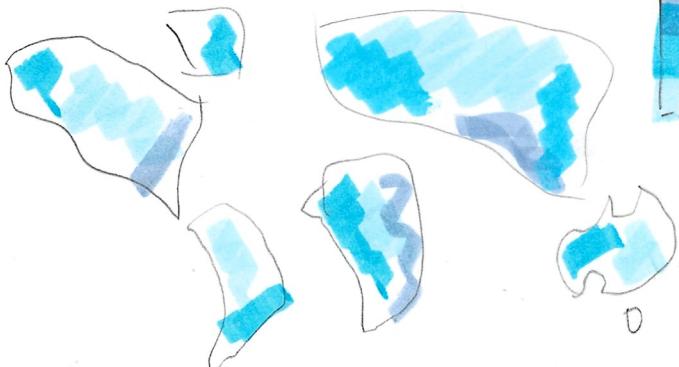
DISADVANTAGES:

- * NO filtering options
- * Limited user interactions with graph
- * NO colour differentiation between each state.

AYOUT



FOCUS



* focus on choropleth map displays overall location of most of Australia's immigrants

* hover over country to see value of overseas Australians (Aus that weren't born in Aus)

Population

INFO

Title: Australia's changing population
Author: Annie Ho
Date: 26/11/9/2024
Sheet: 3
Task: compare Australian born Australians and overseas Australians and where they're from

OPERATION

- * Hover over area of map to view value of non-Australian born Australians on map, stacked line graph, bubble plot, back-to-back bar graph
- * click on tick box to filter
- * drag filter to change min, max years on stacked line graph

DISCUSSION

ADVANTAGES:

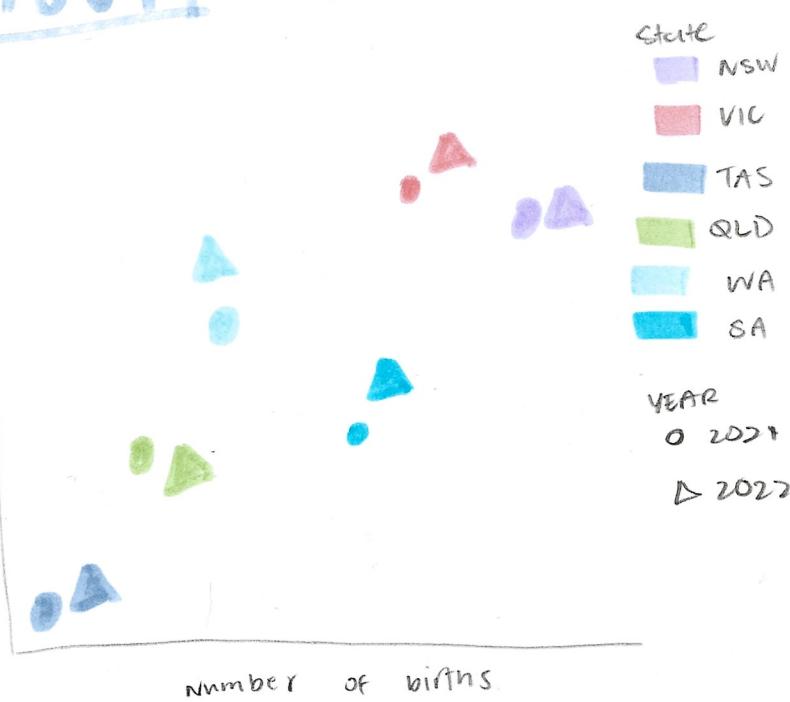
- * use colours to differentiate different states and for different categories
- * includes more filters better interaction for users
- * Tooltips lets users to view the data more accurately

DISADVANTAGES:

- * Text will be needed to explain the graphs and how they work

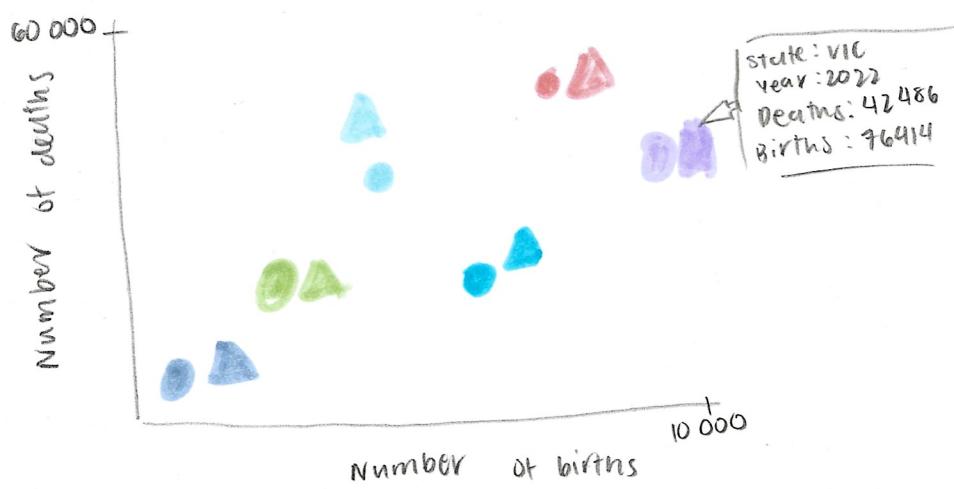
LAYOUT

Number of deaths



FOCUS

scatter plot of Australia's birth rates and deaths based on the different states and years



- * Displays the connection of higher birth rates but at the same time there is a high death rate too
- * comparison between each states and their birth and death rate
- * Hover over point it will display the info for that point, state, year, deaths and births

INFO

Title: Australia's changing population

Author: Annie Ho

Date: 27/09/2024

sheet: 4

Task: compare births to deaths in each state

OPERATION

- * Hover over point displays tooltip
- * Different colours represent different states
- * Different shapes is the different years of the death and births compares 2021 and 2022

DISCUSSION

ADVANTAGES:

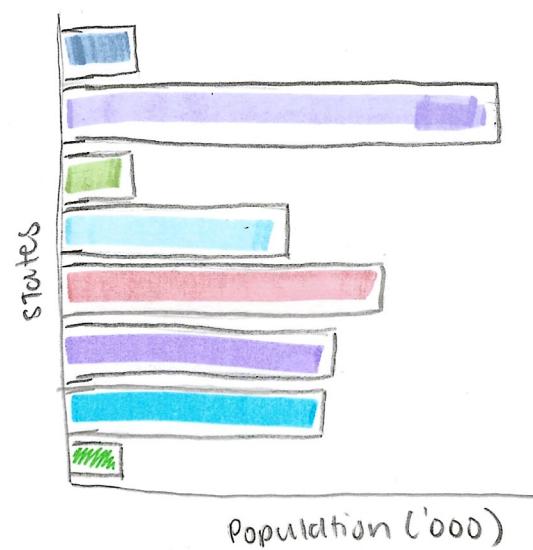
- * Hover will display tooltips informing viewer of data
- * colours differentiate the different states making it obvious
- * different point shape informs viewers of the different year

DISADVANTAGE:

- * Limited interactions only have hover
- * trend not displayed
- * Potentially include more filters.

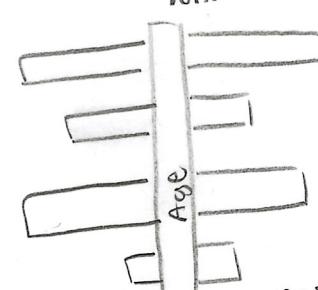
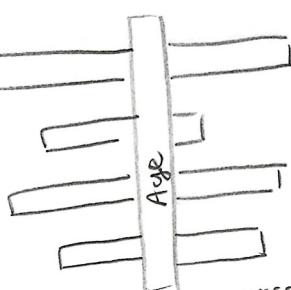
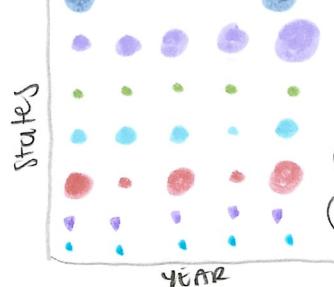
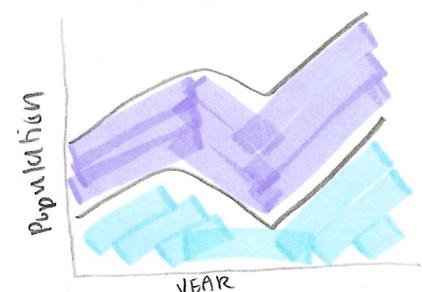
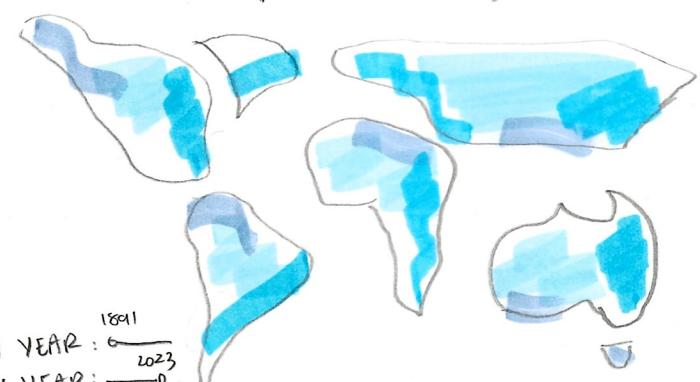
LAYOUT

Australia's Changing Population



TEXT

- Info about Australia's rising population



Number of deaths

States:

- NT
- ACT
- SA
- WA
- TAS
- NSW
- VIC
- QLD

YEAR:

- 2021
- ▲ 2022

TEXT

- Explaining the different birth rates around each state
- Average death age

INFO

Title: Australia's changing population

Author: Annie Ho

DATE: 28/09/2024

Sheet: 5

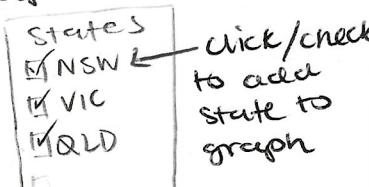
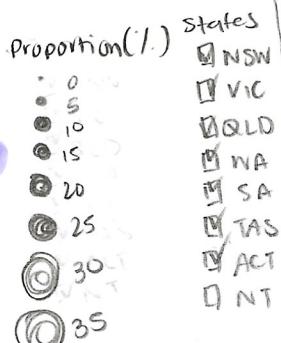
Task: Design final layout

FOCUS

- * The distribution of population in each state sets context for most of the graphs below - Focus
- * Map can be a focus too again sets context to other graphs below

OPERATION

- * Select states to filter in/out states in graph



* Tooltips: colour is used to differentiate each state from others

* Filter slider: changing min and max years will show the values in between those years

DETAILS

Dependencies: data from ABS
Used Vega-Lite to form graphs

Time estimates:

3 DAYS DATA COLLECTION

SHEET 1-3: 1 DAY

SHEET 4: 1 DAY

SHEETS: 1 DAY