s0801944 **Data Visualisation Online - Final Project Report**

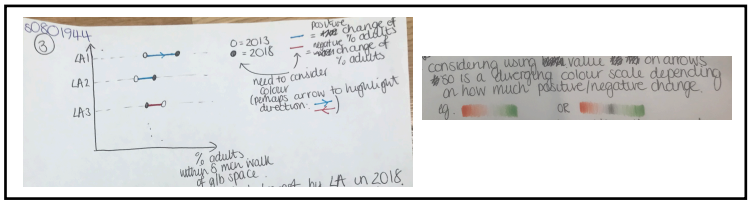
Big question: How does the change in percentage of adults who are within 5 minute walking distance of a green or blue space between 2013 and 2018 compare between Scottish Local Authorises (LAs)?
Target users: Government/council members of environmental department/planners (work environment).

Initial sketch design & EDA
Full range of initial sketch ideas & arguments for weighing them up in journal appendix.
- Prior to course learnings would probably have created a map (as geographic data) or line chart (as temporal data).
- From EDA found needed to consider clear way of showing many LAs on one visual and that implementation of some of sketch designs would have been too cluttered (see data appendix).

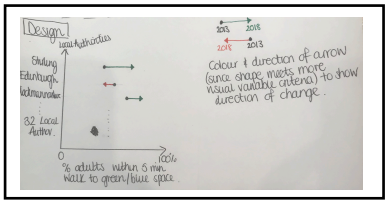
Felt chosen visual was best fit from…
- …learning comparable effectiveness of different visual variables (week 2) - using position, length, categorical hue.
- …focusing on task & goal of the end users. Feel this visual communicates:
  - Values at 2 time points
  - Makes clear direction of change between time points
  - Allows easy/precise comparisons between LAs

Chosen visual & learning/feedback changes

Week 2



Week 3 & 4



Based on learnings from…
- …tutorial feedback changed from circle ended line with mid arrow to full arrow (group members said clearer and reduces redundant shapes).
- …colour and time lectures decided to change from diverging colour scale to categorical as hue more effective and was overemphasising large changes.
- …week 2 decided to keep horizontal gridlines (as ‘chart junk’ ok if reduces audiences effort to read)
- …week 1 added option to toggle between full and truncated axis (so not to mislead)
- …project 1-2-1 customised the axis (as default legend was not clear).
- …week 2 took colour blindness into consideration.

Tool exploration and review
- Created visual in 3 different tools and compared each (details in journal appendix).
- From learnings in assignment 3 picked tool which mapped better to requirements to support task (rather than ‘cooler output’ tool, which likely would have picked before course learnings!).

Skills gained/takeaways
- Purposely used visualisation tools which had no experience to learn new tools.

Learnt about…
- …different visual variables and their effectiveness.
- …sketching out plans & getting (continual) feedback before diving into creating.
- …mapping out requirements of visualisation and using this to evaluate tools.
- …importance of brief and focusing on end users and continually coming back to this.
- …thinking about user and author driven visuals when implementing.

Future plans
- Recreate visual in D3 as a small project to learn D3.
- Implement the evaluation plan documented in evaluation appendix.
- **Extensibility** - incorporate and consider further questions of the data (details in journal appendix).
- **Reusability** - final design could be used as visual to compare other variables between 2 time points/categories for different categories in the data.

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