HCDE 511 - Final Project Feedback/Grading
Group: Group 2
Grade: 84/90 (excluding 10 peer evaluation points graded separately)

Final Presentation with Demo (14/15pts):

1. Brief intro to goals, data, target users, early views

Great and specific/solid intro to goal and data. Maybe need a slightly more engaging presentation of concept of tool/project itself in order to grab audience attention.

2. Highlights of design process: challenges, insights. Usability assessments and changes

Showed hi fi prototype from midterm presentation and talked about what it showed. This discussion is welcome, but it was hard to connect what we were seeing to the goals/users/data rather than just sort of vague descriptions of what we were looking at from a graphical level.

It wasn't clear where the "initial tableau design" came into the process? Talking about this slide and pointing things out about the vis was difficult to follow in terms of relevance. Overall this section could have been improved.

Target users slides: where did these personas come from? Their primary goals/use task was good.

It's good you tested the prototype with one of each user group. Good summary of user feedback, but these was a missed opportunity to draw connections between what users liked and good info vis principles.

Briefly discussed some of the critical feedback as well. This is also another time to connect their feedback to concrete reasons/evidence for why this might be the case? Were you violating any info/interaction/design principles?

3. Demo of final interactive vis: explain views w/ rationale, several tasks. Viewable later?

Good job giving brief overview of views and possible interactions to establish the setting for the "story" demo.

The temperature example is compelling from a story-telling perspective, but it's somewhat difficult to immediately see the views themselves be convincing for a "non-expert". Also the "this is leveraging human perceptual system" comment felt a bit unsubstantiated. The story/example was good overall, just maybe needed to be a bit better presented/practiced.

Overall, the demo felt very dense. Although the vis is thorough and is almost definitely very useful for a "professional", it is probably a bit difficult for a general audience to process and extract meaning/insight from.

4. Evaluation of success

Did colorblind testing. The evaluation feedback was very vague and general. It would have been nice to see at least a couple of targeted and specific pieces of feedback that connect directly to the vis itself.

5. Extensions or improvements

Good. Again somewhat vague.

Notes:

Overall good, a bit hard to follow at times due to density of topic/data/vis. The story of the demo was compelling, but is again maybe a bit hard for general audience.

Interactive Visualization Design (42/45pts):

1. Use of real data, augmented/curated if needed. Handle missing/flawed data? Significant amount/complexity of data? *[Optional: Multiple sources used?]*

Excellent data source, preparation. Well handled complexity and richness/size of data for purpose of project.

2. User-centered design process:
    a. Support real tasks of real users. Use specific questions/tasks to guide work and in usability tests. *[++Verify info needs, early usability evals (eg paper prototype/low-fi)?]*
    b. Conduct usability assessment with at least 3 target users in time for changes

Good job matching goals of project, to real user for testing/evaluation, and your overall UCD process and results are clearly described in your write-up and evident in your finished vis.

3. Good static infovis practice: appropriate chart type(s), data encodings

Generally your selection of chart types and encodings is quite good, and aligns with the principles/examples we have learned in class and that you derived from user testing. There are some instances in which the charts are initially presented as very cluttered and difficult to read, lots of occlusion, or too many color/categories in a legend/encoding. Many of these are resolved through significant filtering and selection on the part of the user, but they are initially somewhat difficult to manage and comprehend, and this could have been improved.

4. Support Shneiderman's interactive infovis tasks: overview, zoom/filter, details on demand, relate (brushing/linking), history, extract.

Most of these are well-supported and well executed. There are some instances in which the brushing/linking doe not behave in a consistent or predictable/useful way (selecting a single line in the lower timeline, then selecting an additional month, for instance, creates an inconsistent view in terms of the variables presented/compared). While some of this is undoubtedly a byproduct of using tableau (and you acknowledge some of these problems), it is worth considering the many ways that a user can unexpectedly interact with your vis and the poor or confusing views this can sometimes present. This is compounded in the "advanced" view, where many selections can result in somewhat meaningless charts/views. But again, overall very good job here, just with some room for improvement.

5. Usability**:** helps user complete tasks/achieve insight: show data, trends, patterns, outliers, missing info. In general, multiple coordinated views to offer varied perspectives.

Good use of filters and coordinated views to enable users to compare many different relevant dimensions in a way that is fairly easy to understand and extract insight/actionable information

from. There is perhaps still a steep learning curve coming in to using the vis, but given you are directing it at specific user groups with specific needs, this is somewhat to be expected.

6. Novelty: new views, answers to new questions, new insights over prior vises

In addition to above, really liked that you had an "advanced" view that allowed you/your users to explore additional ways of generating useful insights into the relationships between these variables, their meaning for the specific information seeking tasks your users have.

7. High quality final product, complete in major respect (at least one task/interaction)

In looking at the user tasks and testing script, and then running through them in the vis, you clearly achieved the goal of a useful interactive visualization that is geared towards user needs and is able to effectively support many of those tasks. The overall design is thoughtful, well laid out, and general clean and easy to comprehend and interact with. There is still room for improvement in some of the above-noted areas, but overall your project is of very high quality and presents your users with an effective and useful tool.

Final Paper (28/30pts):

1. Abstract

Overall really good abstract that highlights problem and goal for addressing problem. There could be something mentioned here about process and results.

2. Introduction

Good job calling out and citing sources. Provides excellent context for project. Could again discuss a bit more about how visualization can address this problem space most effectively. Also you call out your goals, but could take it a step further and briefly describe what this would mean for users to have this tool with these affordances.

3. Previous work: good exploration, more than 1 item or prior vis

Good job surveying related tools, pointing out strengths, and also citing a weakness + source. Could have spent a bit more time critically identifying more room for improvement, and some additional discussion of how you thought, broadly, your tool would address these gaps would be great!

4. Design process including milestones, with ample sketches, redesigns/iterations

Really strong discussion of data, feature engineering, and model development. You clearly put a lot of thought and work into that aspect. Some of this could have been further summarized/clarified in less technical terms, to fully demonstrate the importance/value of what it produced.

Good overview of user interviews (tell us a bit about concretely who these people are?) and persona creation (also in appendix). Nice walkthrough of sketching and development process culminating with low-fi prototype that is a nice mix of sketches and digital. Could have discussed connections to/between course concepts and decisions/ideation here, something that is important in these early stages but is not touched on. Good discussion of iterations/re-designs throughout following sections.

5. User evaluation(s) with methods, results and discussion

It is not clear if low-fi prototype/sketches were shown to users. This is referenced, but not discussed-an important step that should generate insight/direction early on. Introduction of "advanced" view seemed to somewhat come out of nowhere. Where was user-data cited/discussed that warranted this advanced view? It is a good inclusion, just not clear where motivation comes from.

Description and level of detail from user tests is very good. Nice discussion of insights/changes and user feedback that motivated them. Still significant room to more often bring in and discuss concepts from class connecting to these more (user didn't like X, we changed to Y, this is supported be concept Z). Your user test script (appendix) is very good. Overall it is clear you put a lot of time and effort into your user tests and were very thoughtful in how you applied user feedback to implement changes.

6. Evaluation of Final Visualization
    a. Assess final system design given goals, target users, and tasks
    b. Discuss effectiveness of overview and detail views, including data encodings, presentation choices, and interaction support
    c. Assess effectiveness of interaction techniques and other system features in supporting users and their tasks. Relate to Shneiderman's infovis tasks (overview, zoom/filter, details on demand, relate (brushing/linking), history, extract). If any were excluded, justify.

Good initial description of final views, purpose and design decisions (a couple of good citations, could do more) for both "main" and "advanced" view.

Really nice job discussing final design decisions, user task support, and affordances/interactions in sections 6.2.1, 2, 3–including citations/evidence!

Excellent job of evaluating interaction techniques utilizing Shneiderman's tasks. Really appreciated you briefly described what they entail, and then how you specifically achieved them in your vis. You actually had a thoughtful discussion of history/extract, something many folks neglect to consider.

7. Conclusion
    a. Further work

    Further works section is great overall. For some of the suggestions, going a bit further in describing what additional affordances or meaning those changes would entail for your users (such as what exactly additional forecasting would enable users to do, etc.) just to clarify the importance and value of this potential future work.

    b. Acknowledgments

    n/a

    c. References

    Good.

    d. Appendices if needed

Good.