Project - Redesigns - Studio 1, Group 2

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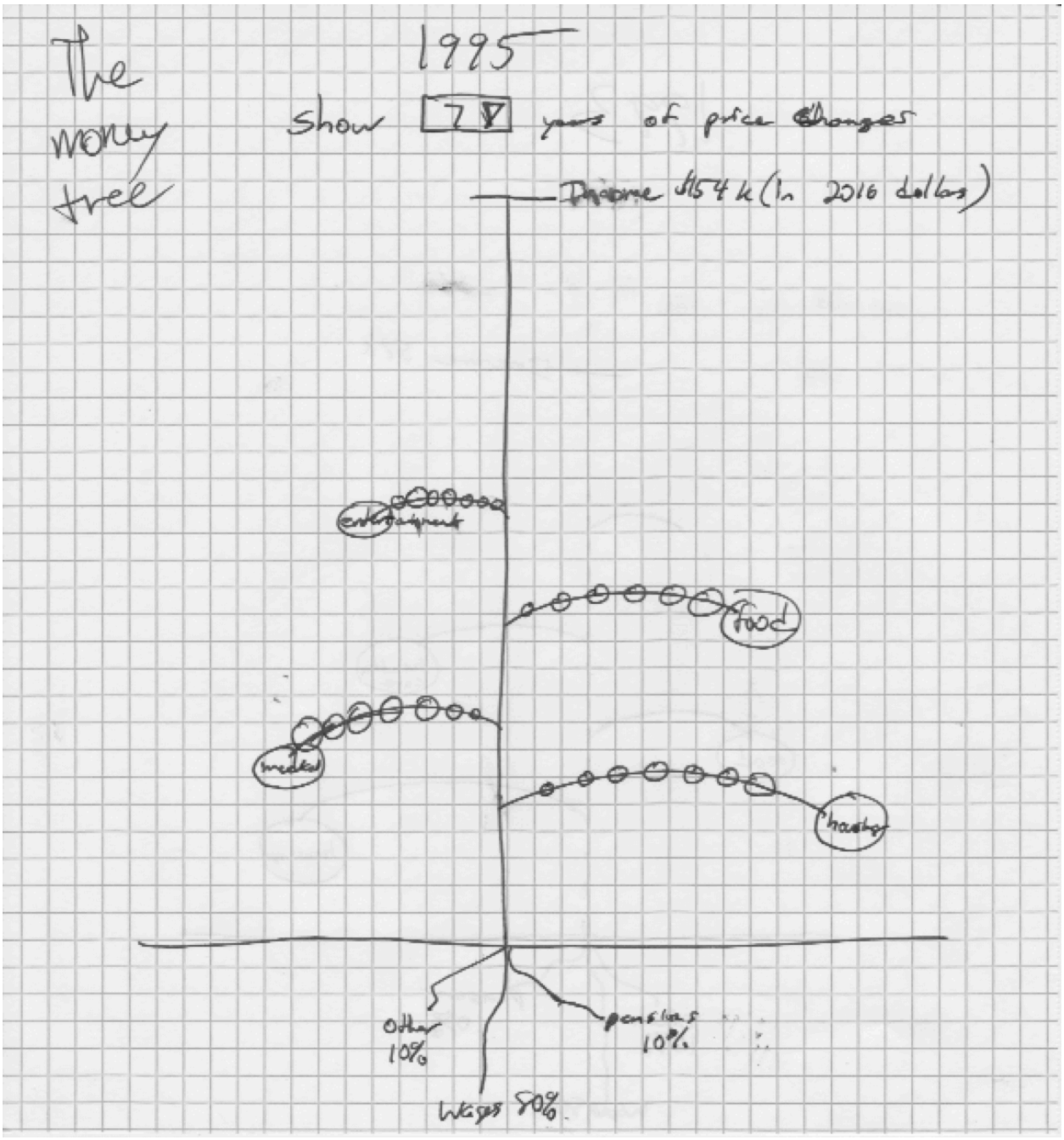
The following sketch is a redesign of a tree-based sketch that was meant to visualize the relationship between prices and spending. The original sketch was evaluated as somewhat confusing by our expert evaluators - and we think this alternate design is both more innovative and clearer.

The idea here is to illustrate a tree that really looks like a tree in the ground. There is some inspiration from http://www.amazon.com/The-Book-Trees-Visualizing-Knowledge/dp/1616892188
Here are the encodings:

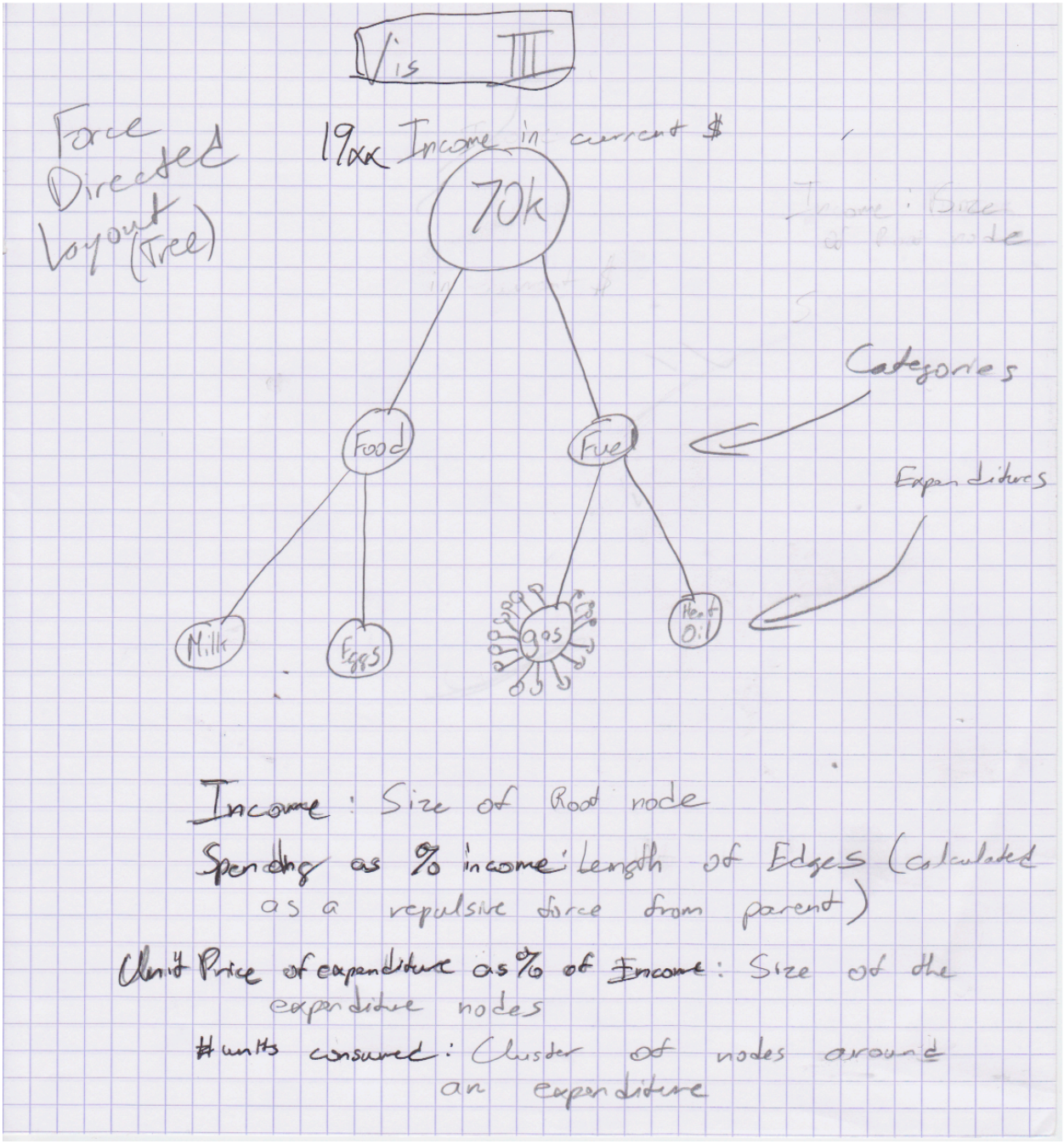
- The size of each root represents % of income source
- The length of the trunk represents total income (adjusted to todays $)
- Each branch represents a spending category, designated by the node at the end (either with a text label or perhaps the node could be a representative image)
- The length of the branch represents the amount spent on that category as a % of total income. Branches get smaller toward the top of the tree
- The interstitial 'nodes' on the branches represent percent change in the Consumer Price Index for that category for the number of years selected in the drop down
    - User can choose different number of years to compare
    - Another way to encode this may be to 'thicken' the branch over time
    - Yet another way would be to use representative images for every interstitial node that represents CPI change

The overall idea plays upon our understanding of trees in nature as generally in balance. As income gets bigger or smaller (adjusted for inflation), the tree grows or shrinks in size. As prices and spending habits change dramatically, it will throw the tree out of balance by having some branches be much bigger than others, and 'weighted' down by the increase in CPI. If we use a force layout or some other animation, there may even be a way to 'bend' the tree as spending on certain categories becomes more lopsided.

This helps us tell the story how certain events may affect spending (change rate in CPI in this case). Also, when considered in historical context as defined by the user in their visible time range, then even more connections can be made.



This is a replacement for the originally submitted Vis III



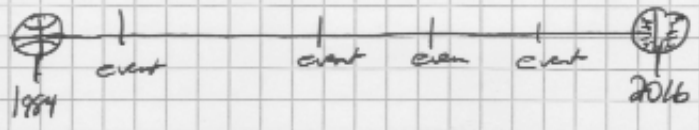
Another issue mentioned was the need to make controls more obvious. As such, an small adjustment is suggested below in the addition of ‘thematically’ aligned slider controls for filtering the time range under analysis. Notice the small sports icons and currency icons on the sports and economics timelines, respectively. I’ve also added a note below the control section that indicates the usage of the control panel.

Control Panel

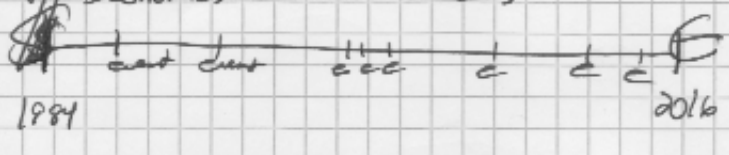
Add slider controls as icons

Wars And violence

Sports



Economics and markets



Drag sliders to filter time series
(all categories will stay in sync)

Add instructions below