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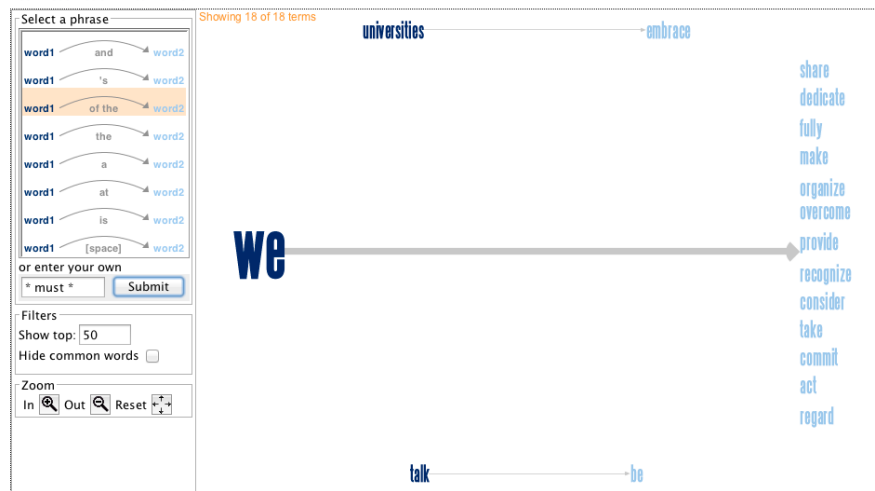
CS-171 - Homework 3

2/21/2013

PART A

When trying to answer the following questions, "What does president Faust see in the future?" and "What does Faust see as the responsibility of Harvard? What must "we" do?" I tried the four options under "Analyze a text". I quickly found that both Tag Cloud and Word cloud, though visually interesting, showed me little about connections to the particular words "future" and "must".

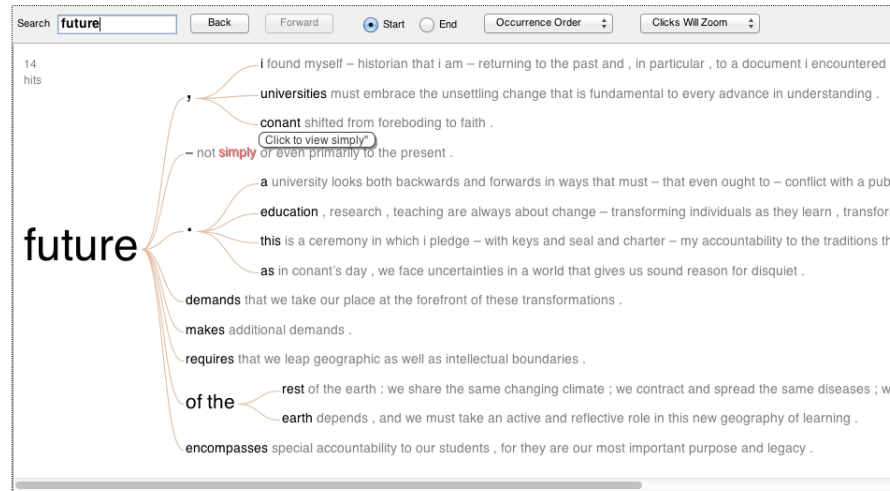A Phrase Net did offer a little more insight, but only connected words to the one following.

A Word Tree showed the most and was easy to search, read and gather information about the larger picture.

Customizing Word Tree

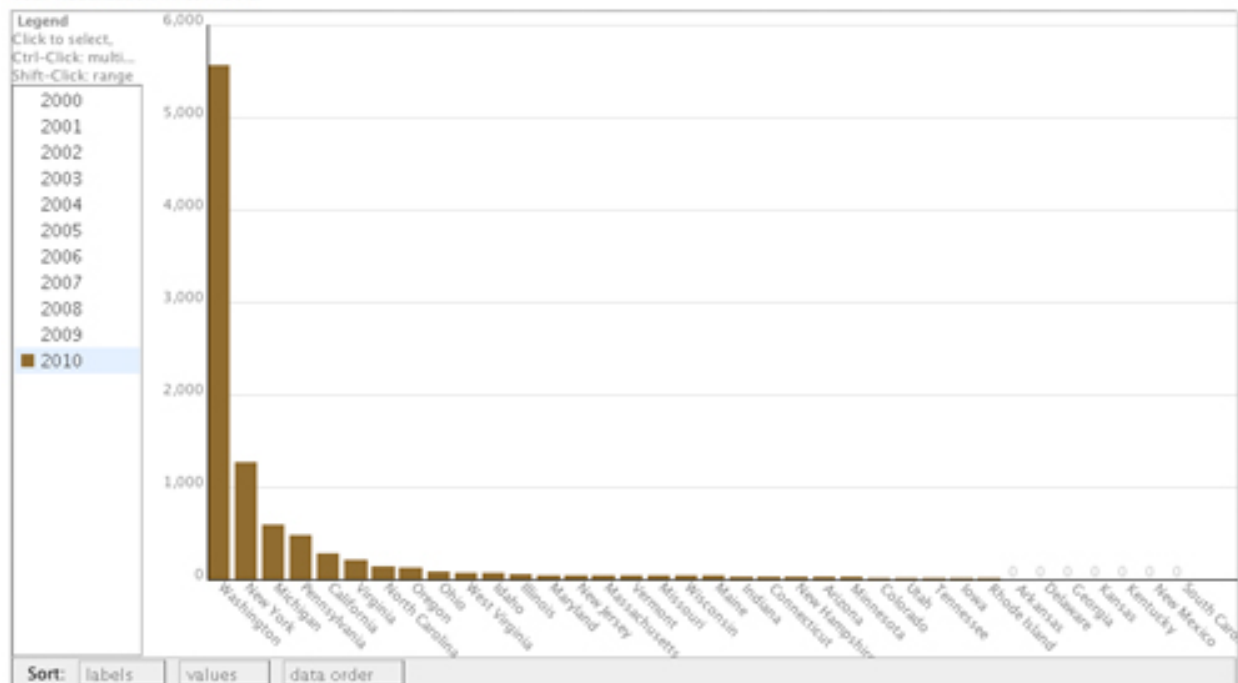Data set: Harvard President Faust's Installation Speech (Version 1)

Your visualization will look like this:

Search [future] [Back] [Forward] ⦿ Start ◯ End [Occurrence Order ⬍] [Clicks Will Zoom ⬍]

14 hits

- i found myself – historian that i am – returning to the past and , in particular , to a document i encountered
- , universities must embrace the unsettling change that is fundamental to every advance in understanding .
- conant shifted from foreboding to faith .
- [Click to view simply"]
- – not **simply** or even primarily to the present .
- a university looks both backwards and forwards in ways that must – that even ought to – conflict with a pub
- education , research , teaching are always about change – transforming individuals as they learn , transfor
- . this is a ceremony in which i pledge – with keys and seal and charter – my accountability to the traditions th
- as in conant's day , we face uncertainties in a world that gives us sound reason for disquiet .

future

- demands that we take our place at the forefront of these transformations .
- makes additional demands .
- requires that we leap geographic as well as intellectual boundaries .
- of the — rest of the earth : we share the same changing climate ; we contract and spread the same diseases ; w
- earth depends , and we must take an active and reflective role in this new geography of learning .
- encompasses special accountability to our students , for they are our most important purpose and legacy .
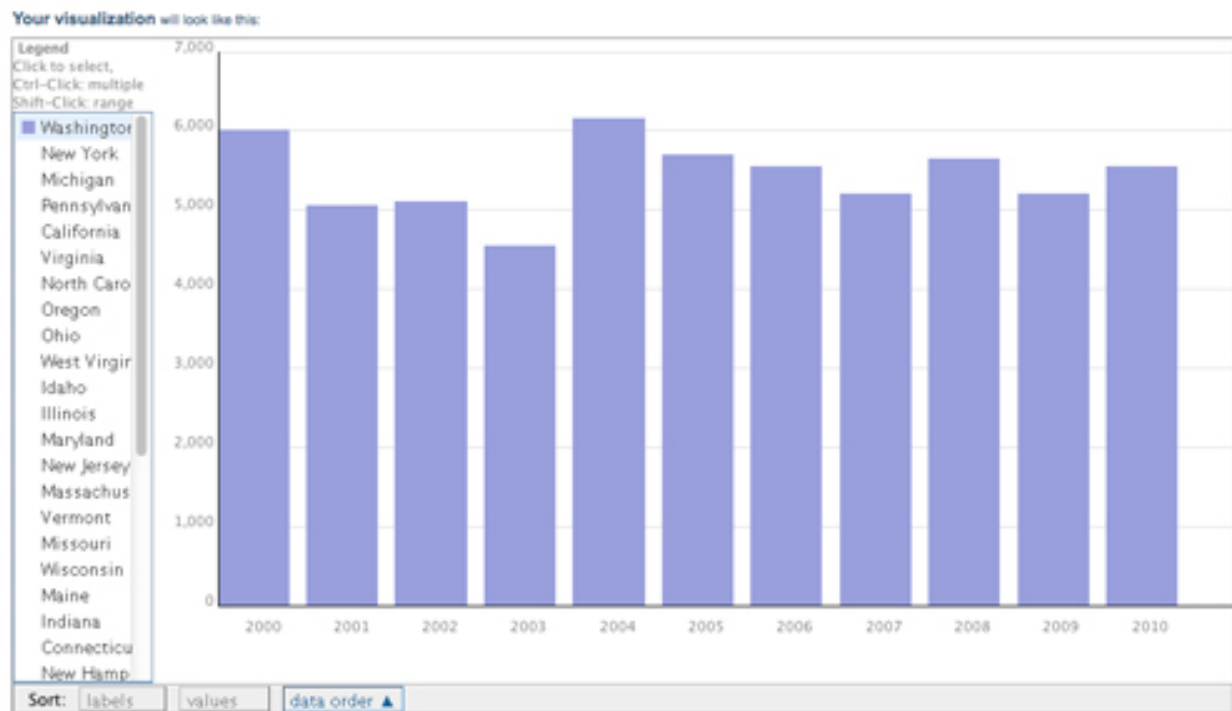
PART B

The following questions "Which states produced the most apples? Which state produced the least?" Which state(s) had an increase in apple production? Which state(s) showed a decrease?" are all realted to quantitative data. Because of this my first thoughts were to use bar graphs for finding the min/max values.
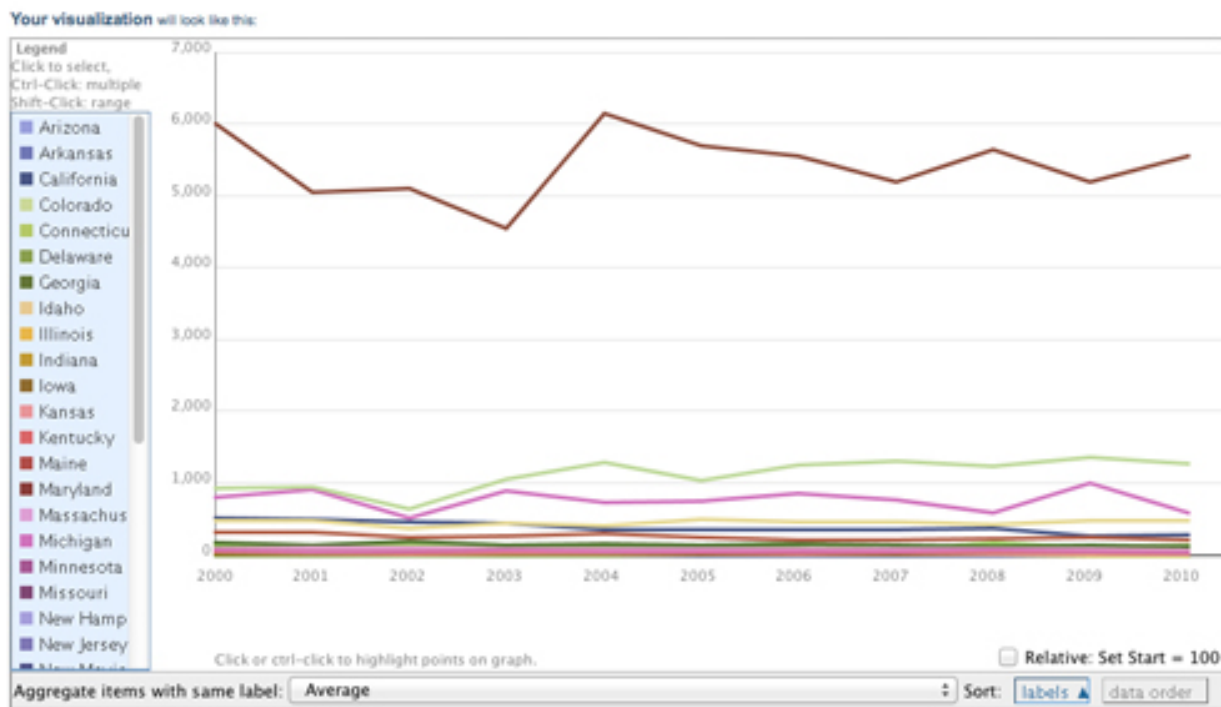
Your visualization will look like this:

| Legend | | 6,000 |
| Click to select. | | |

Click to select.
Ctrl-Click: multi...
Shift-Click: range

2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
■ 2010

5,000

4,000

3,000

2,000

1,000

0

Washington, New York, Michigan, Pennsylvania, California, Virginia, North Carolina, Oregon, Ohio, West Virginia, Idaho, Illinois, Maryland, New Jersey, Massachusetts, Vermont, Missouri, Wisconsin, Maine, Indiana, Connecticut, New Hampshire, Arizona, Minnesota, Colorado, Utah, Tennessee, Iowa, Rhode Island, Arkansas, Delaware, Georgia, Kansas, Kentucky, New Mexico, South Caro

Sort: [labels] [values] [data order]

Using the "FLIP" button one can see a particular state's increases and decreases in production.

This however is not very useful in derermining overall trend. For this a line graph would be more pertinant. Though we may wish to isolate particular areas to better see trend lines, we can quickly see that production overall is flat for the past 10 years of data.

To convey the differences between education attainment and income, a grouped bar chart was most successful. Because income was represented by length for each color-coded bar, one could quickly see income levels rise with income. In particular the jump to a professional degree not only results in the highest level of income, but the largest gain from one level to another. With all values represented by height, sorted from most to least, one can quicly see that men make the most at any education level, though slight at lower education levels. In contrast blacks and hispanics, even at high levels of education, fare much worse than others.