Ranking Senators w/ Bernie Sanders’ Votes

Sep 22 2015
We’ve done this

Define Problem

Use Bernie Sanders’ votes to compare how liberal other senators are

Write a set of instructions

Vote on bills only!

Find Data

Make a HUGE spreadsheet table

Solution

Computer (spreadsheet)

XML Format

CSV Format
Last Class: Completed So Far

1. Open the spreadsheet from last class.
2. You should have 2401 rows (Task 3.7)
3. You should have columns through E.
4. You should have added `vote_id` column
Encoding data numerically: easier to process, esp. in spreadsheets

• Add a `numerical_vote` column in cell G1.
• Write a formula to output:
  – 1 if the senator voted Nay
  – 2 if the senator voted Yea
  – 0 for anything else
Decision Trees

vote_cast = “Nay”

1 if the senator voted Nay
2 if the senator voted Yea
0 otherwise
This Class: Summarize data

• For each senator
  – For each vote
    • What was vote?

• Organize in a table whose rows are senators and columns are vote-names
  – Row-column entry is a senator’s vote
  – Row = all votes by senator
  – Column = all votes on this bill

• Do this with a pivot table
What is a pivot table good for?
Pivot table uses

• Restructure data (our use)
• Summarize data (more common use)
  – If our data was salesperson, customer, itemSold, itemCount
  – A “salesperson x itemSold” table could show the sum of all sales of this item, or the max sale of this item, etc.
We did these things!

1. Find out what CSV is
2. XML Format → CSV Format → Make HUGE Table
3. Import the data we want into spreadsheet
4. Format the table to get what we want
See anything odd in the pivot table?

• **Use** Format...Conditional Formatting **to color all blank cells red**
See anything odd in the pivot table?

• **Use** Format...Conditional Formatting to color all blank cells red

• What happened to Booker, Chiesa, and Lautenberg?

• What about Kerry and Markey?
See anything odd in the pivot table?

- Use Home...Conditional Formatting to color all blank cells red

- Name csv_output RawData
- Name Sheet2 PivotTable
Now what?

Compare senators to Bernie
Activity 1-2

• Do Tasks 0 and 1
Are we done?

• We’ve got the similarity between any senator’s voting record and Bernie’s record...
• Isn’t that what we were hoping to produce?
• Who is the least Bernie-like?
• What if we compared to that person instead?
• Homework suggests that there could be surprises...