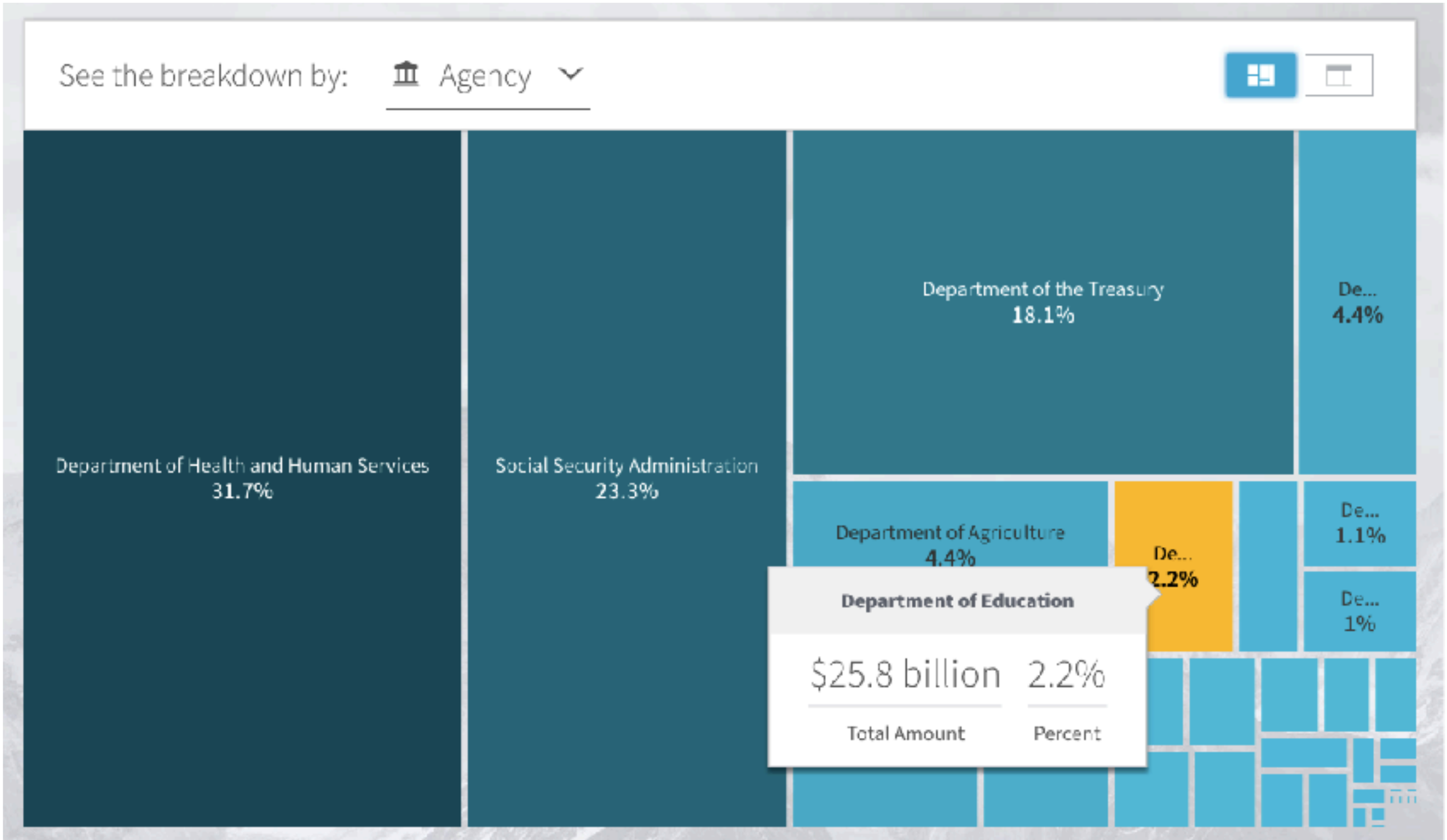
Visualization of Education Budget

Group: Fanlin Wang; Frenci Rakipi

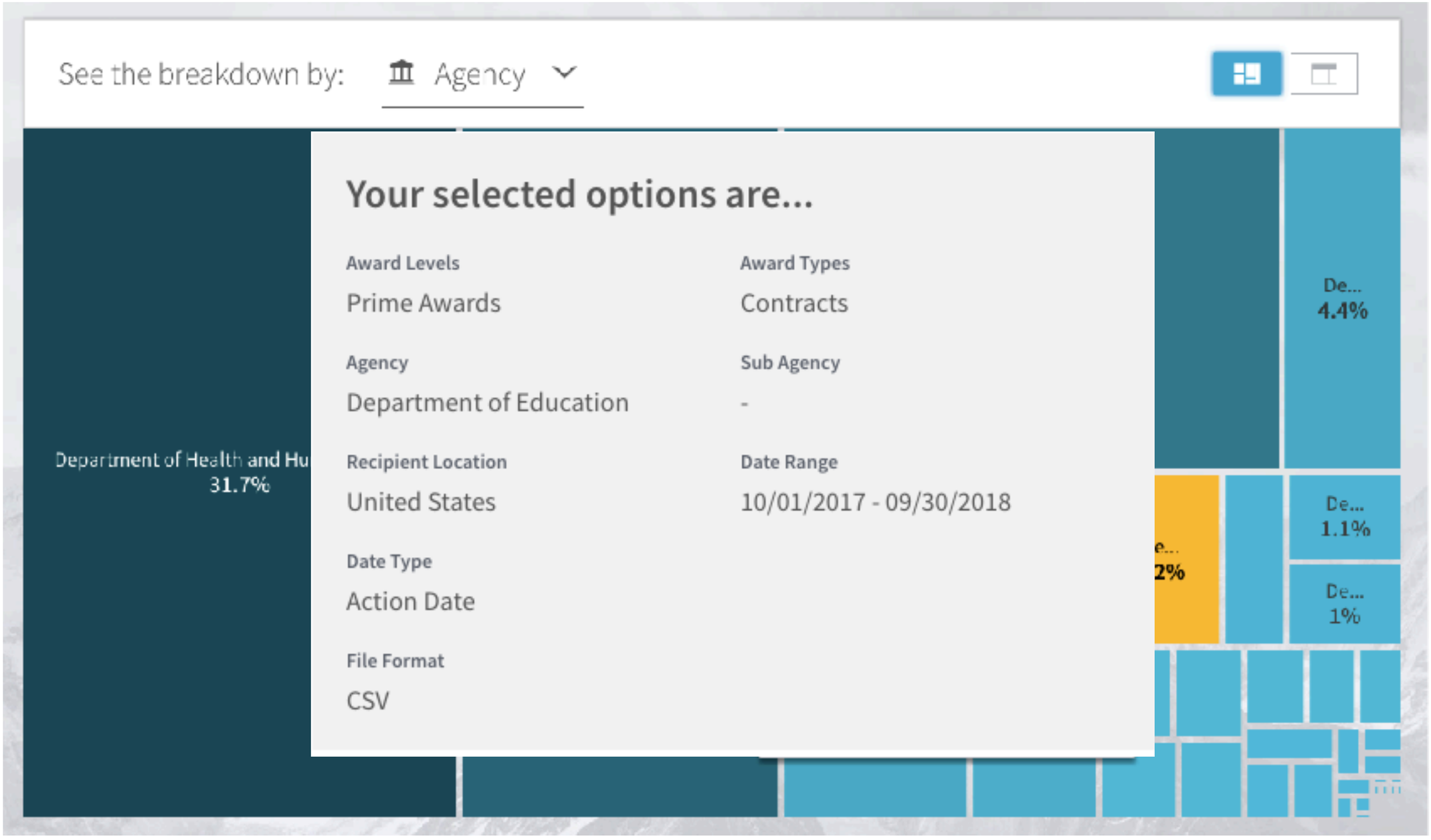
What?

- Dataset: U.S. education budget

What?

- 
See the breakdown by:
Agency
Department of Health and Human Services
31.7%
Social Security Administration
23.3%
Department of the Treasury
18.1%
De...
4.4%
Department of Agriculture
4.4%
De...
2.2%
De...
1.1%
De...
1%
Department of Education
$25.8 billion
Total Amount
2.2%
Percent

What?


See the breakdown by:
Agency
Your selected options are...
Award Levels
Prime Awards
Award Types
Contracts
Agency
Department of Education
Sub Agency
-
Recipient Location
United States
Date Range
10/01/2017 - 09/30/2018
Date Type
Action Date
File Format
CSV
Department of Health and Hu
31.7%
De...
4.4%
De...
1.1%
De...
1%

What?

- Aim:
  - to help people understand how the education budget is spent:
    - which region?
    - which discipline?

How?

How?

- First step:
  - select data from a huge dataset

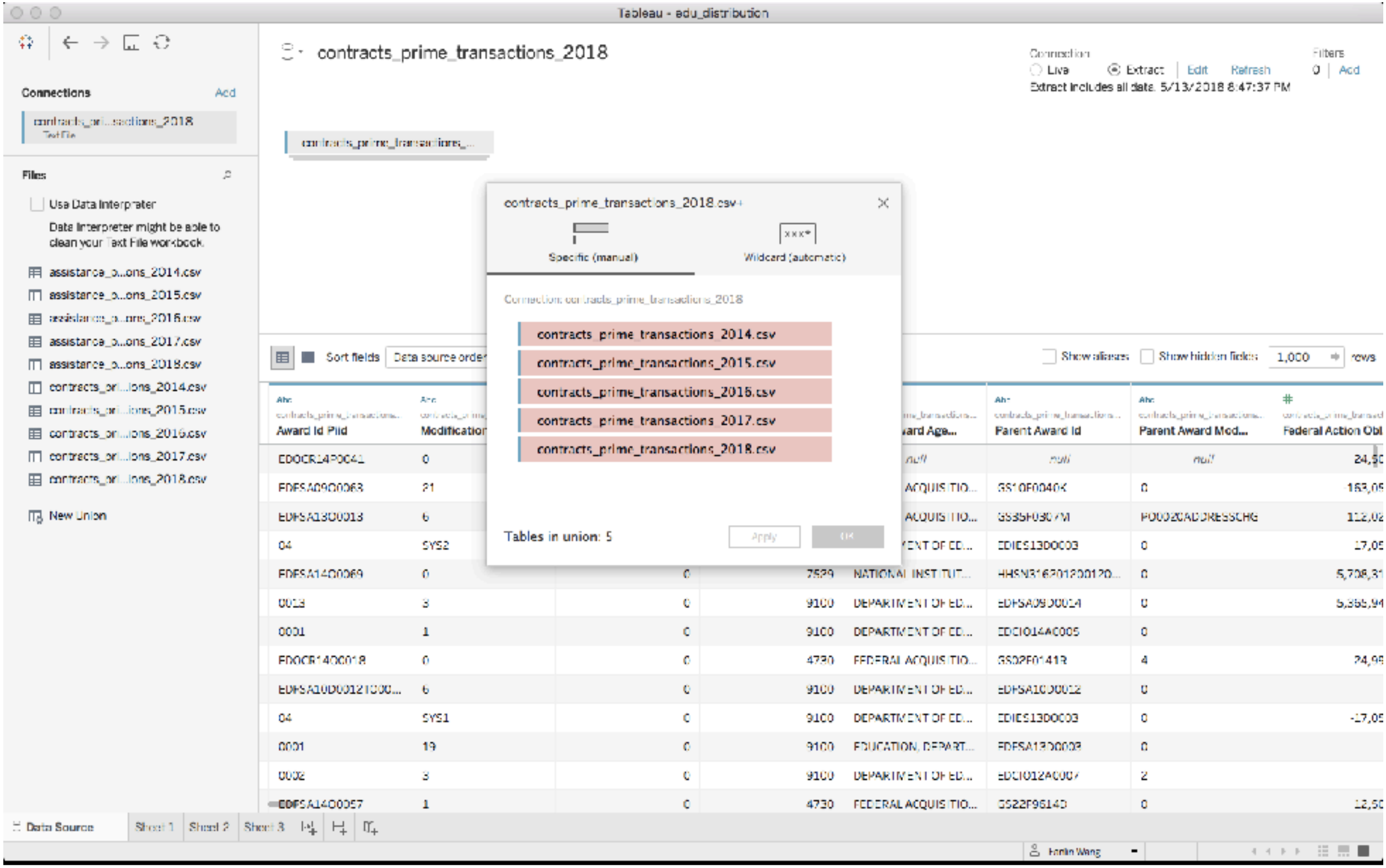
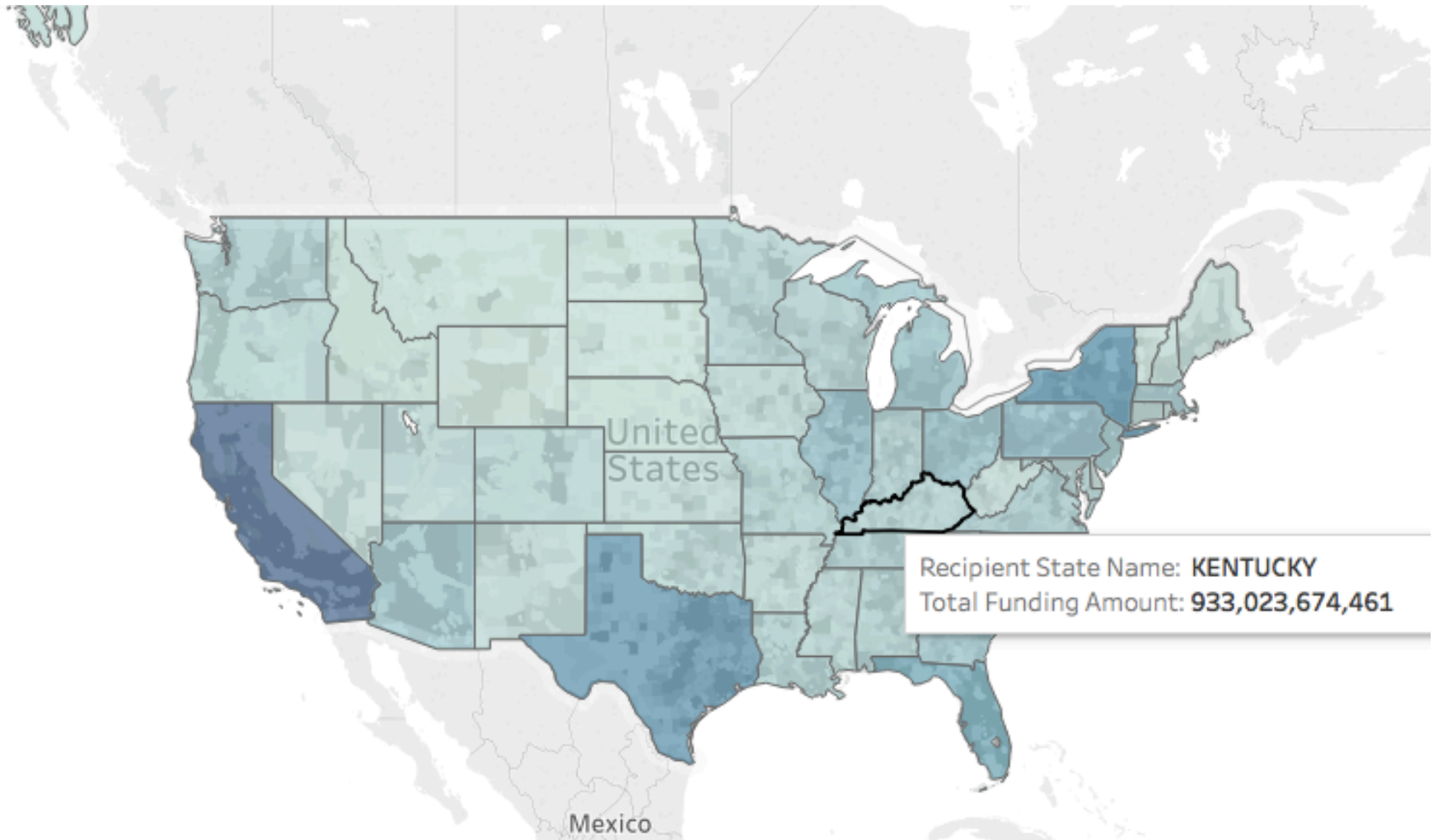


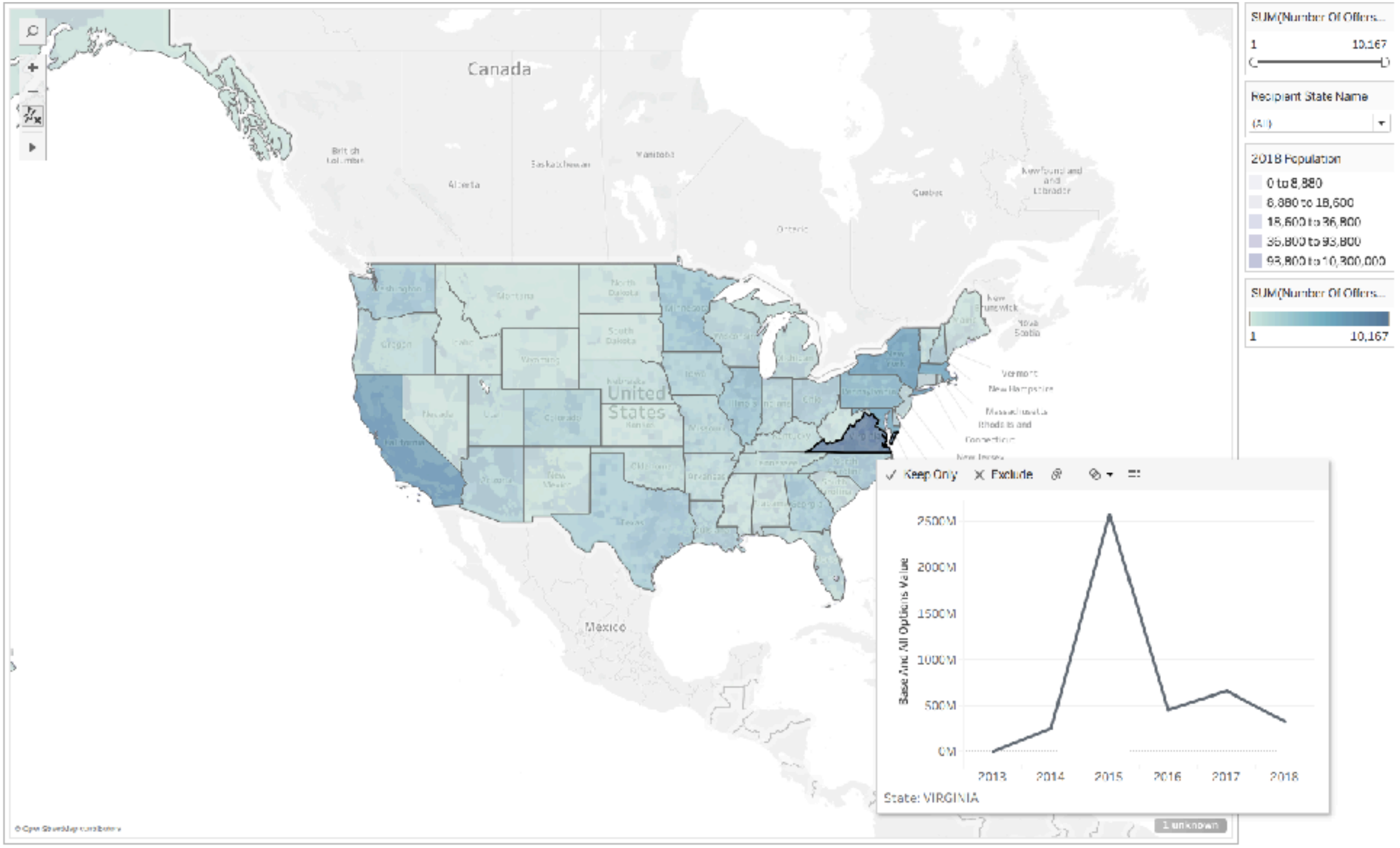
Tableau - edu_distribution
contracts_prime_transactions_2018
Connections
Add
Files
Use Data Interpreter
Data Interpreter might be able to clean your Text File workbook.
assistance_p...ons_2014.csv
assistance_p...ons_2015.csv
assistance_p...ons_2016.csv
assistance_p...ons_2017.csv
assistance_p...ons_2018.csv
contracts_pri...ions_2014.csv
contracts_pri...ions_2015.csv
contracts_pri...ions_2016.csv
contracts_pri...ions_2017.csv
contracts_pri...ions_2018.csv
New Union
Connection
Live
Extract
Edit
Refresh
Filters
0
Add
Extract includes all data. 5/13/2018 8:47:37 PM
contracts_prime_transactions_2018.csv+
Specific (manual)
Wildcard (automatic)
Connection: contracts_prime_transactions_2018
contracts_prime_transactions_2014.csv
contracts_prime_transactions_2015.csv
contracts_prime_transactions_2016.csv
contracts_prime_transactions_2017.csv
contracts_prime_transactions_2018.csv
Tables in union: 5
Apply
OK
Sort fields
Data source order
Show aliases
Show hidden fields
1,000
rows
Award Id Piid
Modification
Parent Award Id
Parent Award Mod...
Federal Action Obl
Data Source
Sheet 1
Sheet 2
Sheet 3
Fanlin Wang

How?

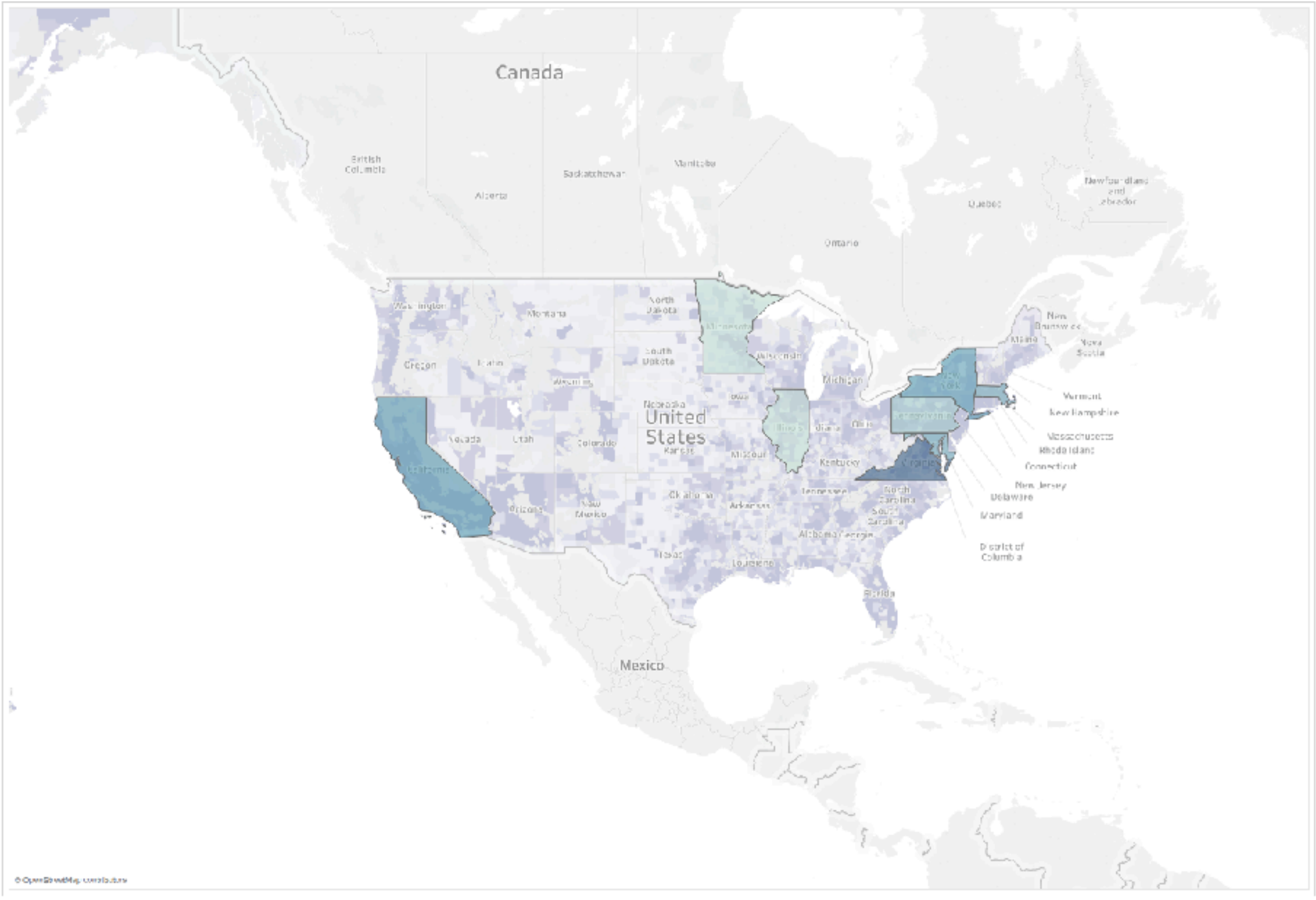
- Visual encoding methods
  - Choropleth Map
  - Box-and-whisker plot
- Interation techniques:
  - Filtering
  - Zoom

Choropleth Map





Sheet 1 Sheet 2 Sheet 3



SUM(Number Of...

2,904 10,157

Recipient State Name

(All)

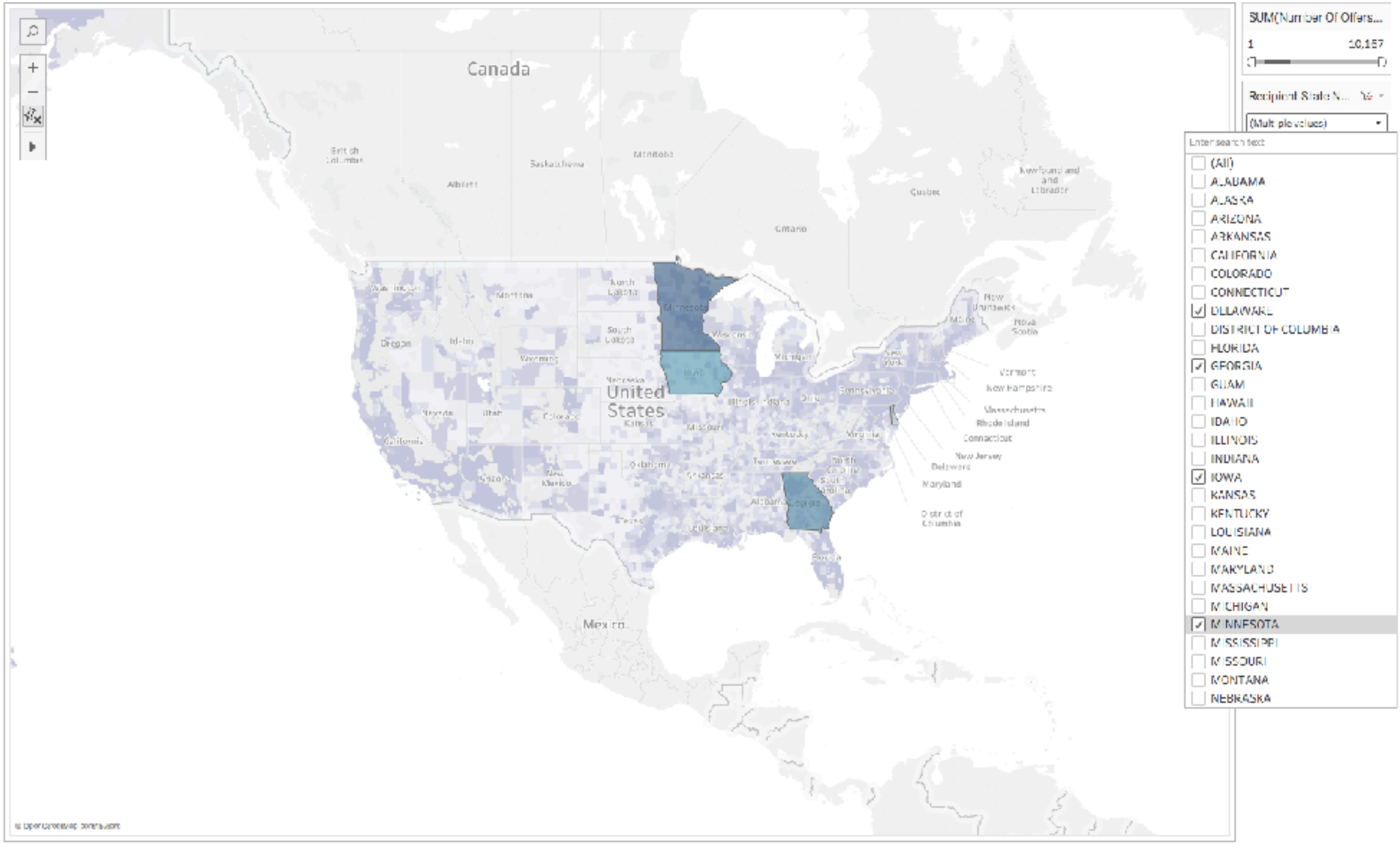
2018 Population

- 0 to 8,880
- 8,880 to 18,600
- 18,600 to 36,800
- 36,800 to 93,800
- 93,800 to 10,300,000

SUM(Number Of Offers...

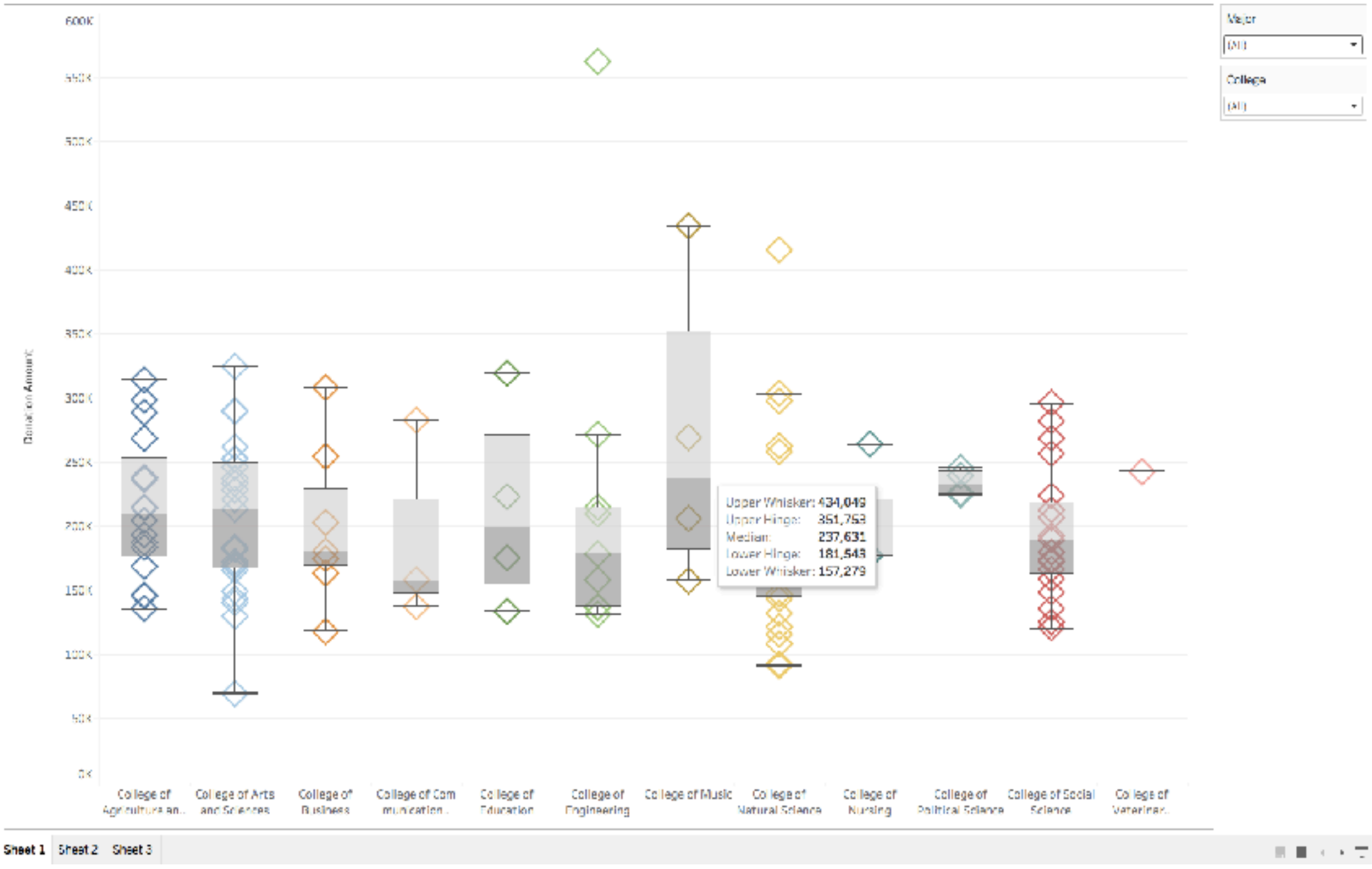
2,904 10,157

Sheet 1 Sheet 2 Sheet 3



Sheet 1 Sheet 2 Sheet 3

Box-and-whisker plot



Major

(All)

College

(All)

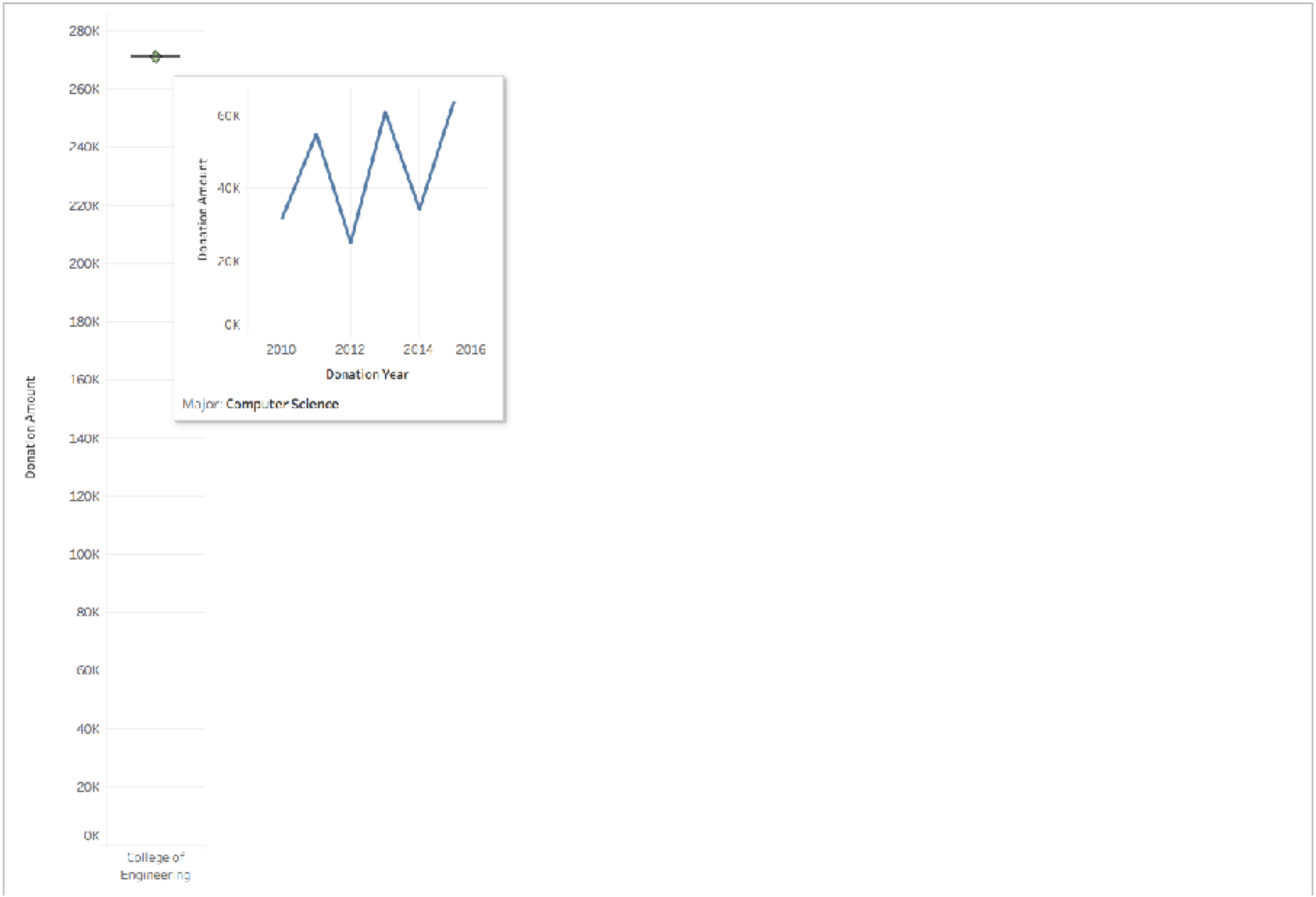
Donation Amount

550K
500K
450K
400K
350K
300K
250K
200K
150K
100K
50K
0K

College of Agriculture ar..
College of Arts and Sciences
College of Business
College of Communication..
College of Education
College of Engineering
College of Music
College of Natural Science
College of Nursing
College of Political Science
College of Social Science
College of Veterinar..

Donation Amount
60K
40K
20K
0K
2010
2012
2014
2016
Donation Year
Major: Computer Science

Sheet 1 Sheet 2 Sheet 3



Major

Computer Science

College

(All)

Sheet 1 Sheet 2 Sheet 3

Some results…

Thank you
for
your attention.

Reference

- http://www.storytellingwithdata.com/blog/2018/2/9/education-visualized

- https://www.statcan.gc.ca/edu/power-pouvoir/ch12/5214889-eng.htm

- https://www.usaspending.gov/#/

- https://www.tableau.com/about/blog/2014/12/5-chart-types-youve-never-tried-tableau-35281?__src=liftigniter&__widget=blog-widget&li_li_medium=blog-widget