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United States®
Census
2020

CENSUS2020 IDENTIFY LOW RESPONDING COMMUNITIES

November 12, 2019

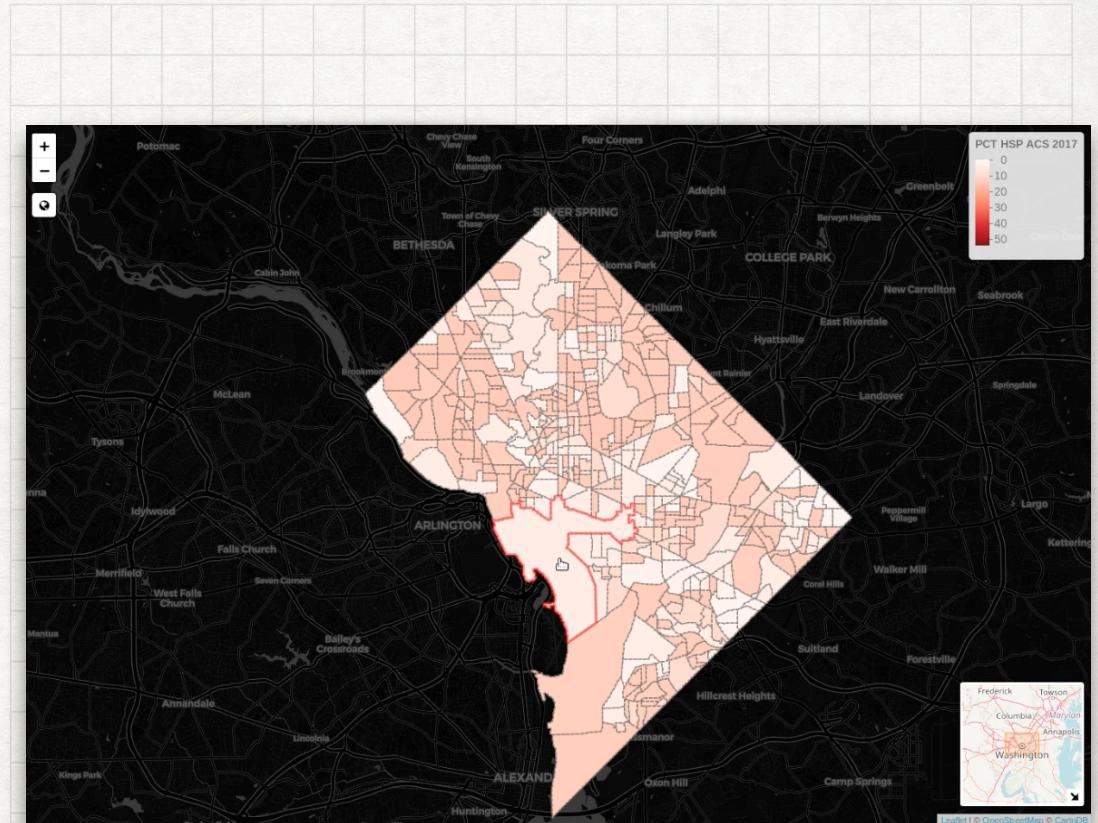
By: @AbiyuGiday & @Dominic

OBJECTIVES

- ✓ MOTIVATION
- ✓ PROPOSED SOLUTION
- ✓ PROPOSED FEATURES
- ✓ MORE FEATURES

MOTIVATION

- **Building tools to identify low responding communities in the 2020 National Census as part of the Census Bureau's Opportunity Project.**



THE PROBLEM

- In theory, (almost) everybody should respond to the National Census. In practice, large segments of the population do not, and this has significant costs for the jurisdictions in which those uncounted people reside.
- For example, an uncounted person in California is estimated to cost ~\$2000 in missed Federal funding per year. In a state with a large population, this adds up: the low response to the 1990 census is thought to have cost the state 2 billion dollars in funding over the subsequent decade (as well as a seat in the House of Representatives)

PROPOSED SOLUTION

- We are using demographic data in order to identify different low-response areas, and the marketing strategies that they will best respond to.
- We are building a mapping tool to visualize demographic variation across the USA in low-response communities, and to identify outreach strategies that will best serve those communities.

BUILDING THE WITH “R”

- R packages used
- leaflet(), sf(), tidycensus(), flexdashboard(),
- tidyverse_packages()
 - + #> [1] "broom" "cli" "crayon" "dbplyr" "dplyr"
 - + #> [6] "forcats" "ggplot2" "haven" "hms" "httr"
 - + #> [11] "jsonlite" "lubridate" "magrittr" "modelr" "pillar"
 - + #> [16] "purrr" "readr" "readxl" "reprex" "rlang"
 - + #> [21] "rstudioapi" "rvest" "stringr" "tibble" "tidyverse"
 - + #> [26] "xml2" "tidyverse"

DATA SOURCE

- Those who speak another language and speak english less than very well.
- CENSUS ACS tables including (but not limited to)
 - + **B16005 {a - i}**
- CENSUS Tract and blog_group spatial data (Decennial, ACS)

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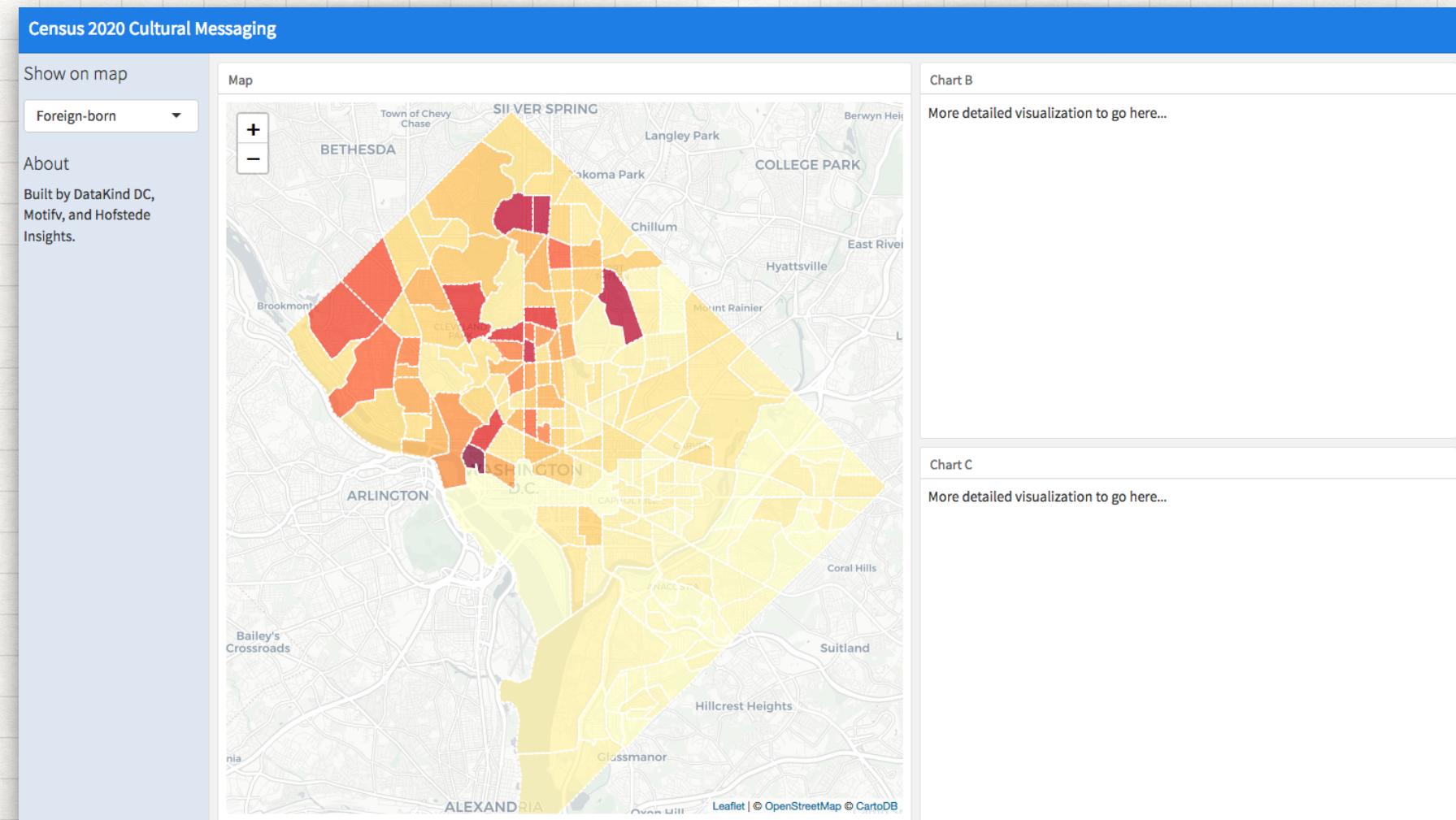
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PROPOSED SOLUTION

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DASHBOARD APP



DataKindDC

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DC CENSUS TRACT 2102

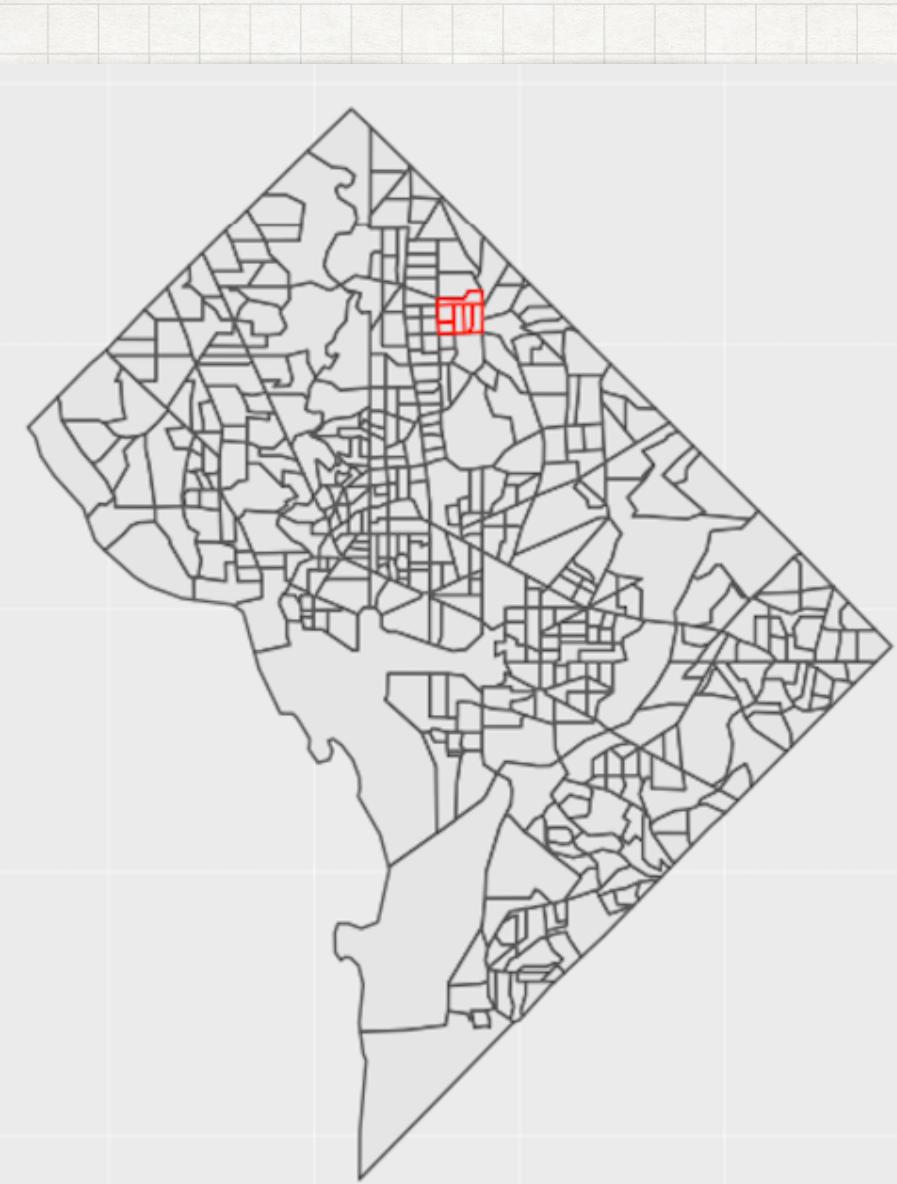


Figure 4.1: Washington DC leaflet map for Census tract 002102

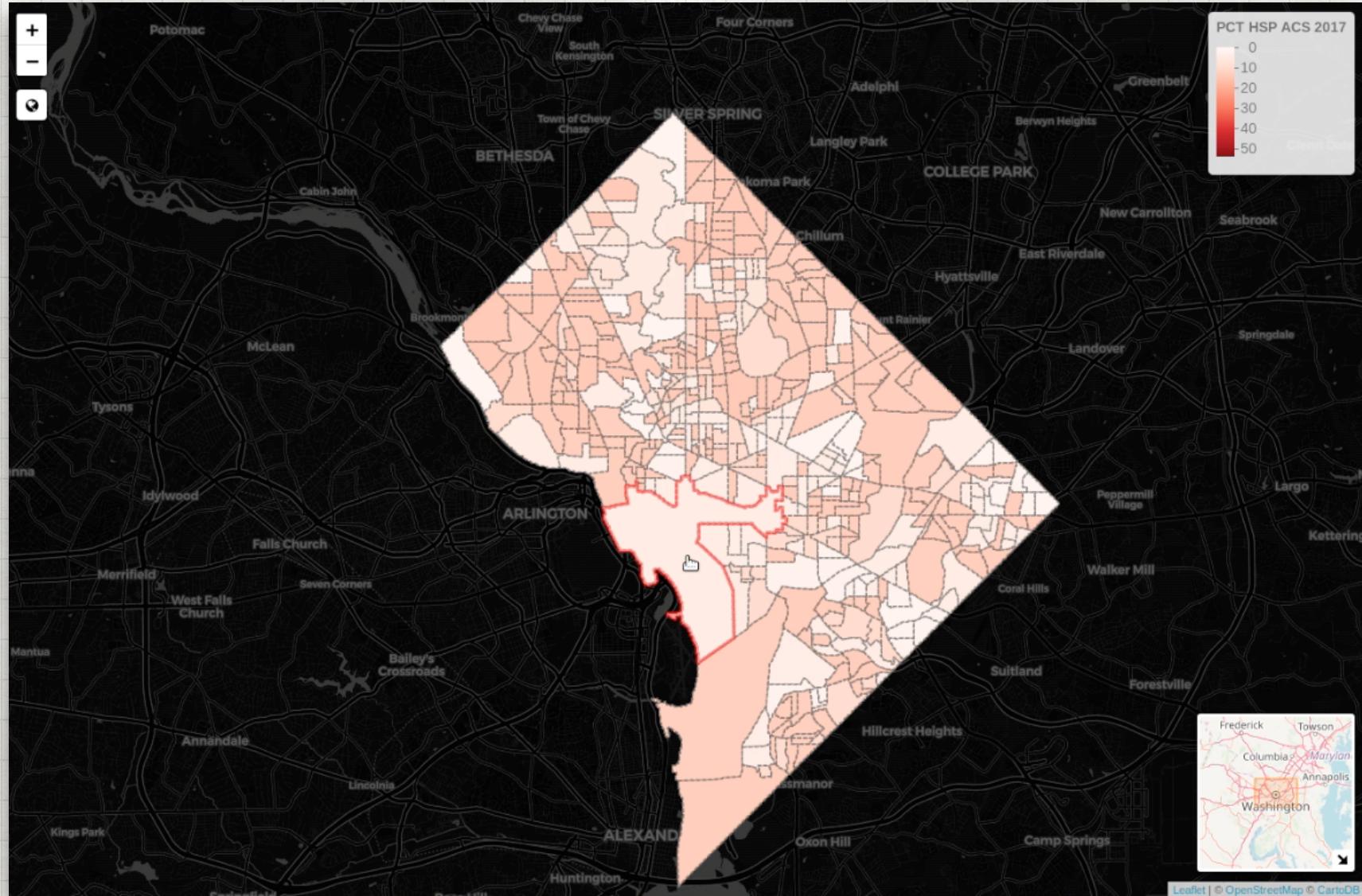
Leaflet | © OpenStreetMap | © CartoDB

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PROPOSED FEATURES

LEAFLET MAP HTML WIDGET

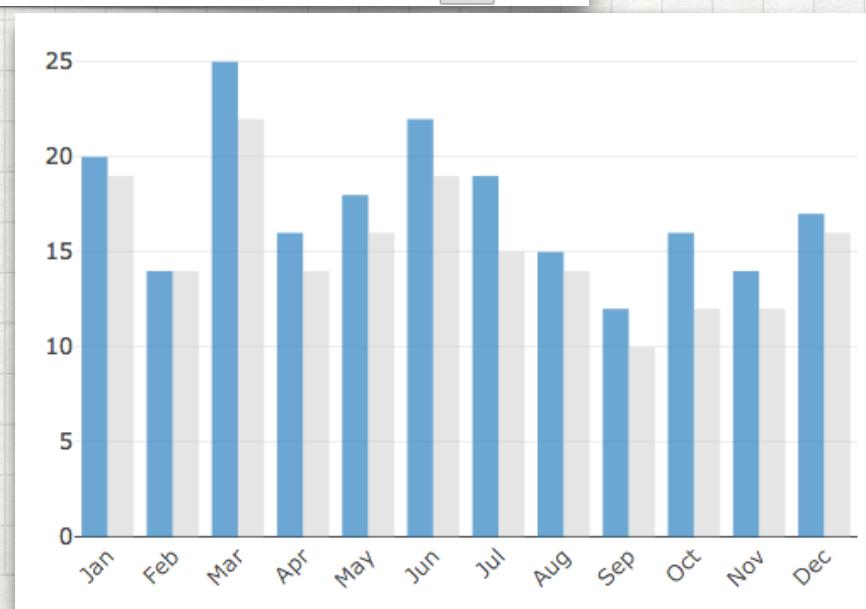
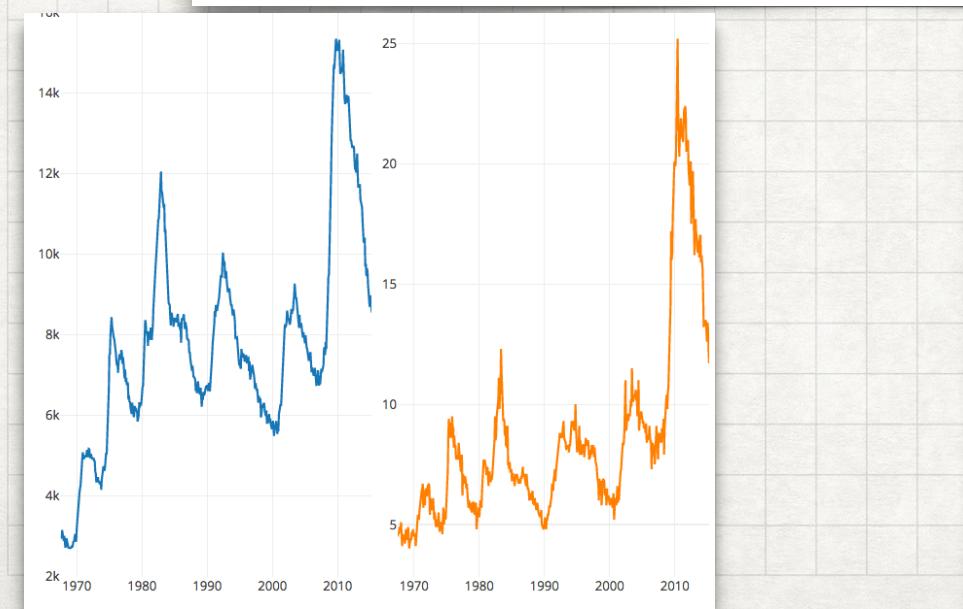


JS GRAPHIC WIDGETS

Show 20 entries Search: hisp

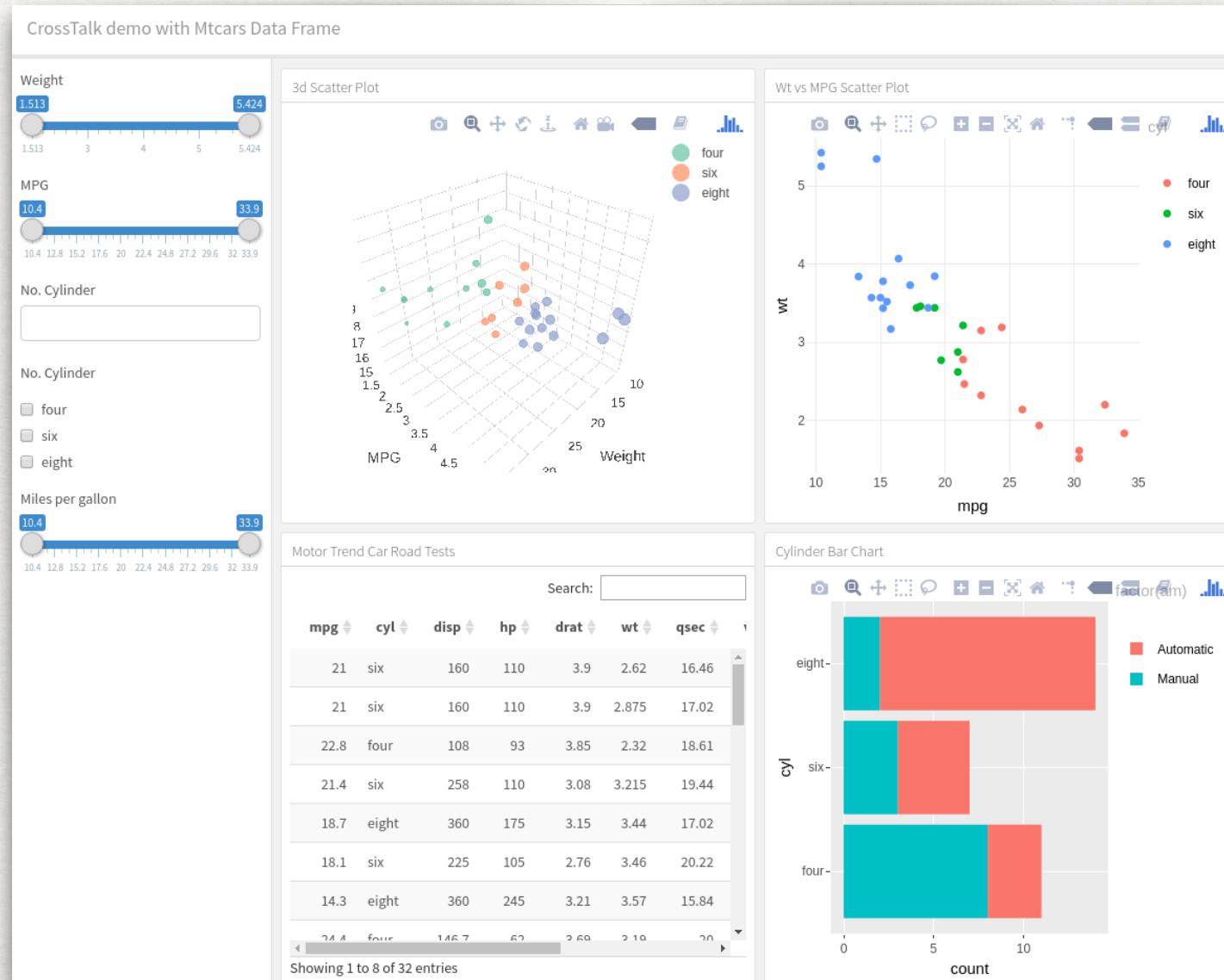
	geoid	tract	block_group	language	prcnt
1	110010021021	002102	1	pct_hispanic_cen_2010	10.76
2	110010021021	002102	1	pct_hispanic_acs_13_17	3.58
8	110010021022	002102	2	pct_hispanic_cen_2010	14.06
9	110010021022	002102	2	pct_hispanic_acs_13_17	2.25
15	110010021023	002102	3	pct_hispanic_cen_2010	13.65
16	110010021023	002102	3	pct_hispanic_acs_13_17	26.3
22	110010021024	002102	4	pct_hispanic_cen_2010	12.63
23	110010021024	002102	4	pct_hispanic_acs_13_17	13.99
29	110010021025	002102	5	pct_hispanic_cen_2010	19.7
30	110010021025	002102	5	pct_hispanic_acs_13_17	21.7
36	110010021026	002102	6	pct_hispanic_cen_2010	23.31
37	110010021026	002102	6	pct_hispanic_acs_13_17	12.61

Showing 1 to 12 of 12 entries (filtered from 42 total entries) Previous 1 Next



- Data Table
- Plotly
- d3 heatmap
- rbokeh
- crosstalk

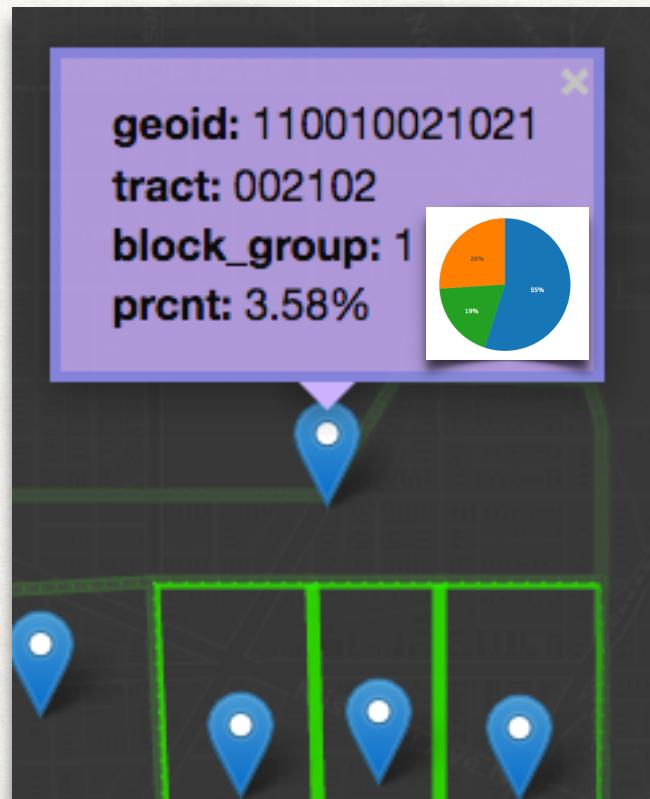
FILTER BY LANGUAGE, GEOID,TRACT, BLOG_GROUP, BY SUMMARY FEATURE



POPUP/HOVER FEATURES

Features Including

- Text
- Chart
- Labels



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MORE FEATURES

MORE PROPOSED FEATURES

- D3 HEATMAP
- RBOKEH
- DYNAMIC TOOLTIP
- D3JS

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END OF SLIDES