Enabling Use of Government Tabular Data in a Geographic Context

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U.S. Federal Geographic Data Committee
2009 CAP Grant, Category 4
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geocommons

Project Status

- Developed and deployed geocoding on GeoCommons
  - US Street Level geocoding
  - TIGER/Line data source
  - Supports NAVTEQ or other data imports
- Adding GeoNames Data to provide International Capabilities
- Enhancing U.S. Geocoding to accept both string addresses and structured address queries (address, city, state, ZIP)

FGDC Cap Grant, Category 4

- Easy and productive access to geographic, tabular government data
- Reference location by Address, Code, or Coordinates
- Shared Public Web Service
- Discoverable, Accessible, and Applicable to geographic contexts

Open-Sourced GeoCoder

- Technical Discussion Group
- http://groups.google.com/group/geocommons-geocode
- Source Code Location
- http://github.com/geocommons/geocoder/
- 59 Repository Watchers and 6 Forks

Implementation

- Open-Source Geocoding Engine for Street Address georeferencing
- GeoJoin Engine for polygonal regional georeferencing
- Spatial, hierarchical aggregation

Open and Accessible Public Service

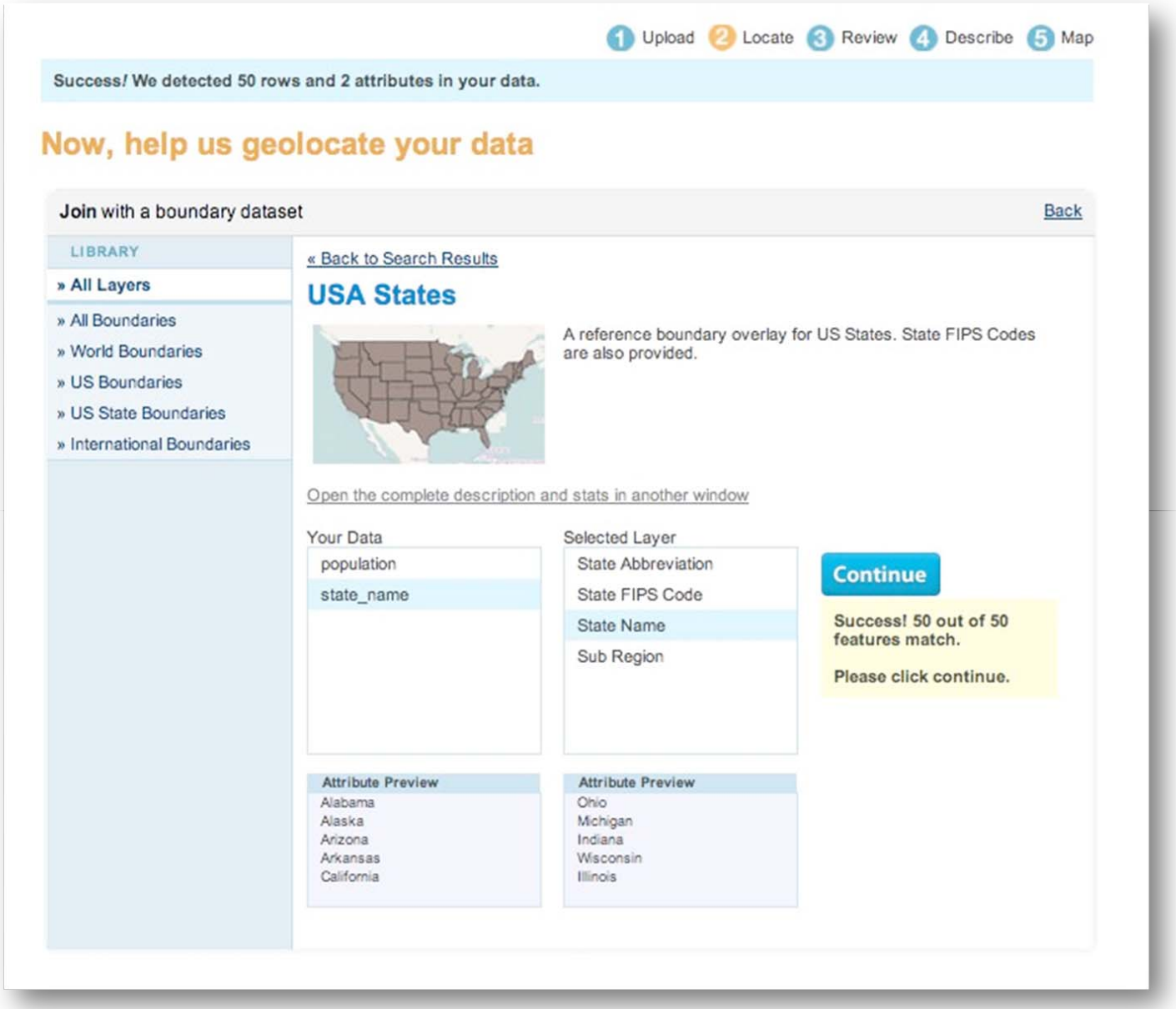
- GeoCommons.com
  - Public Web Service
  - ReST Application Programming Interface (API)
  - KML, GeoRSS, WMS, ... output
- Discovery
  - Catalog Services for the Web (CSW)
  - OpenSearch (-Geo, -Time)
  - Atom GeoRSS

Test Data Sets

- Bureau of Labor Statistics
- Federal Communications Commission
- Centers for Disease Control
- Additionally
  - USAspending.gov
  - Grants.gov
  - Many others

Apportionment

Using simple analysis to answer questions



Join the latest population data to boundaries

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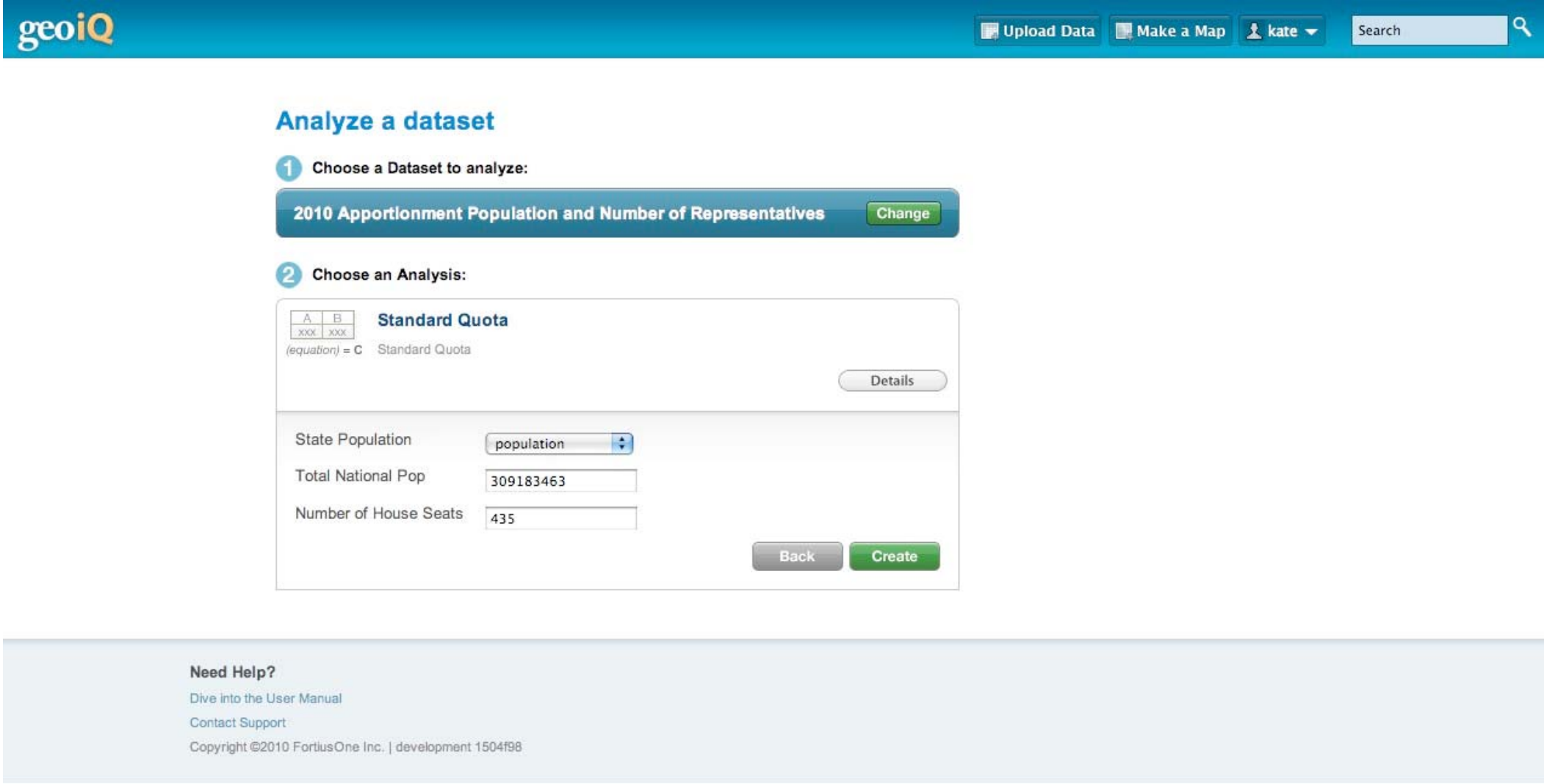

Choose an analysis widget

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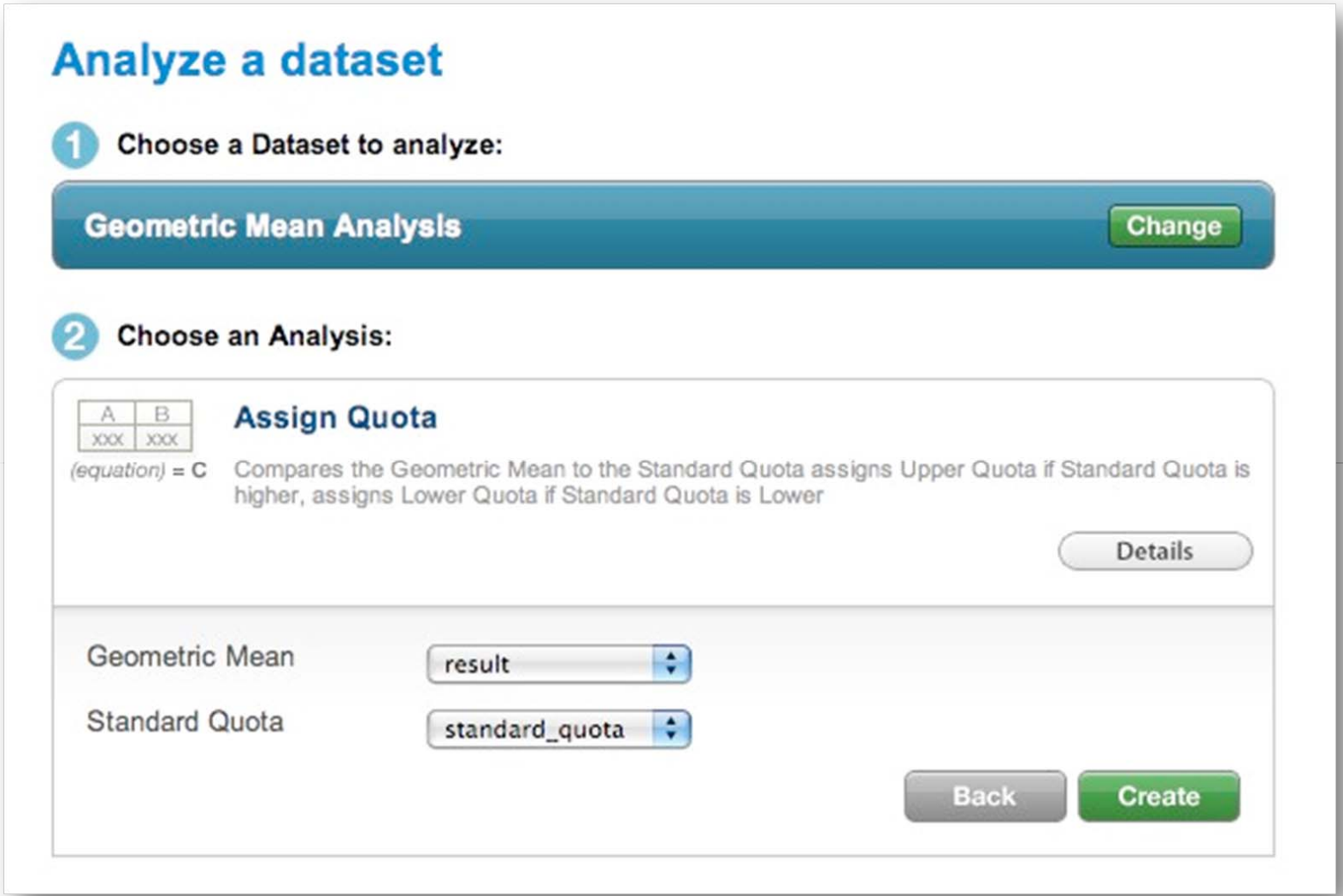

Connect the results to a 2nd widget

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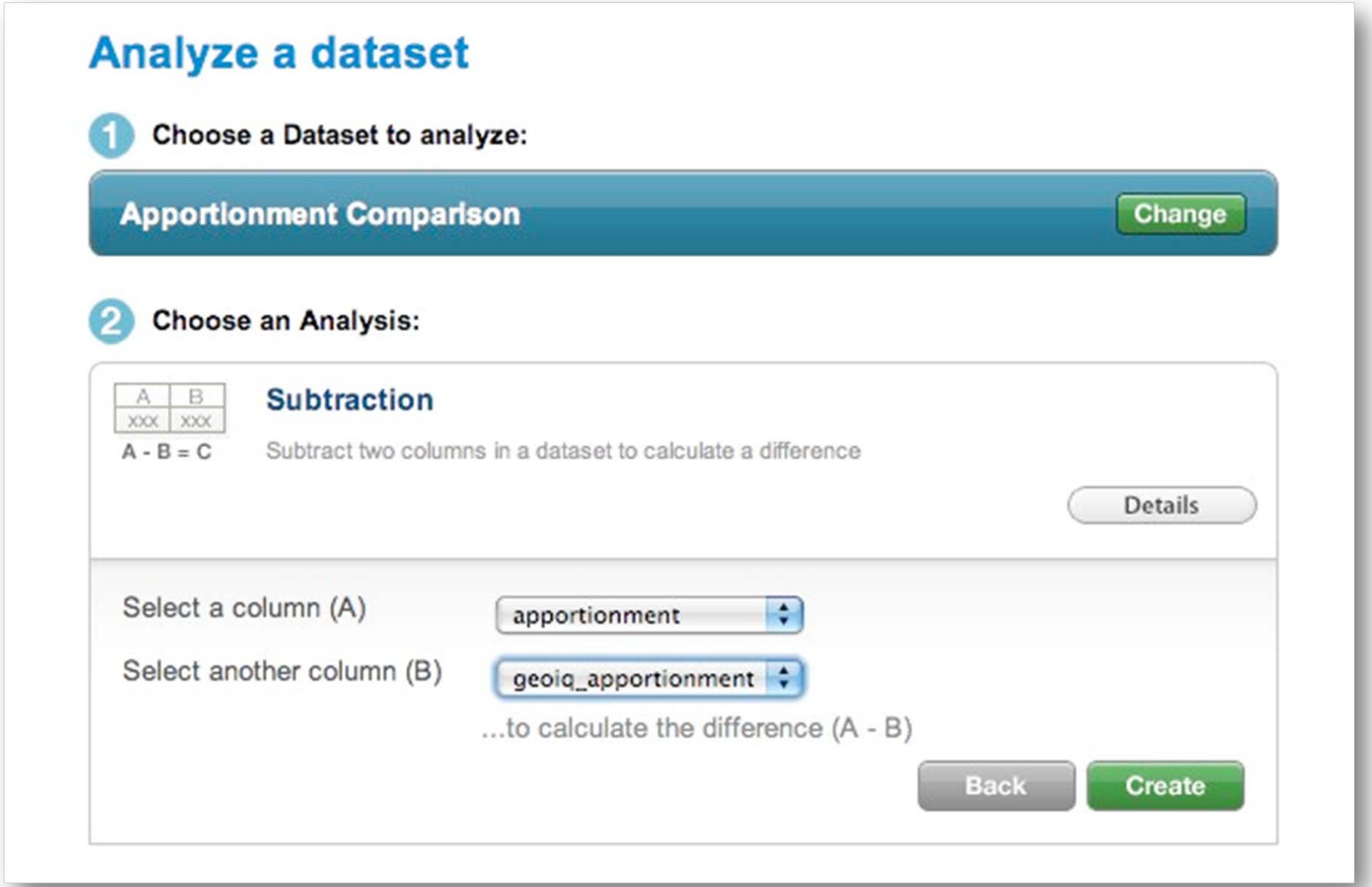
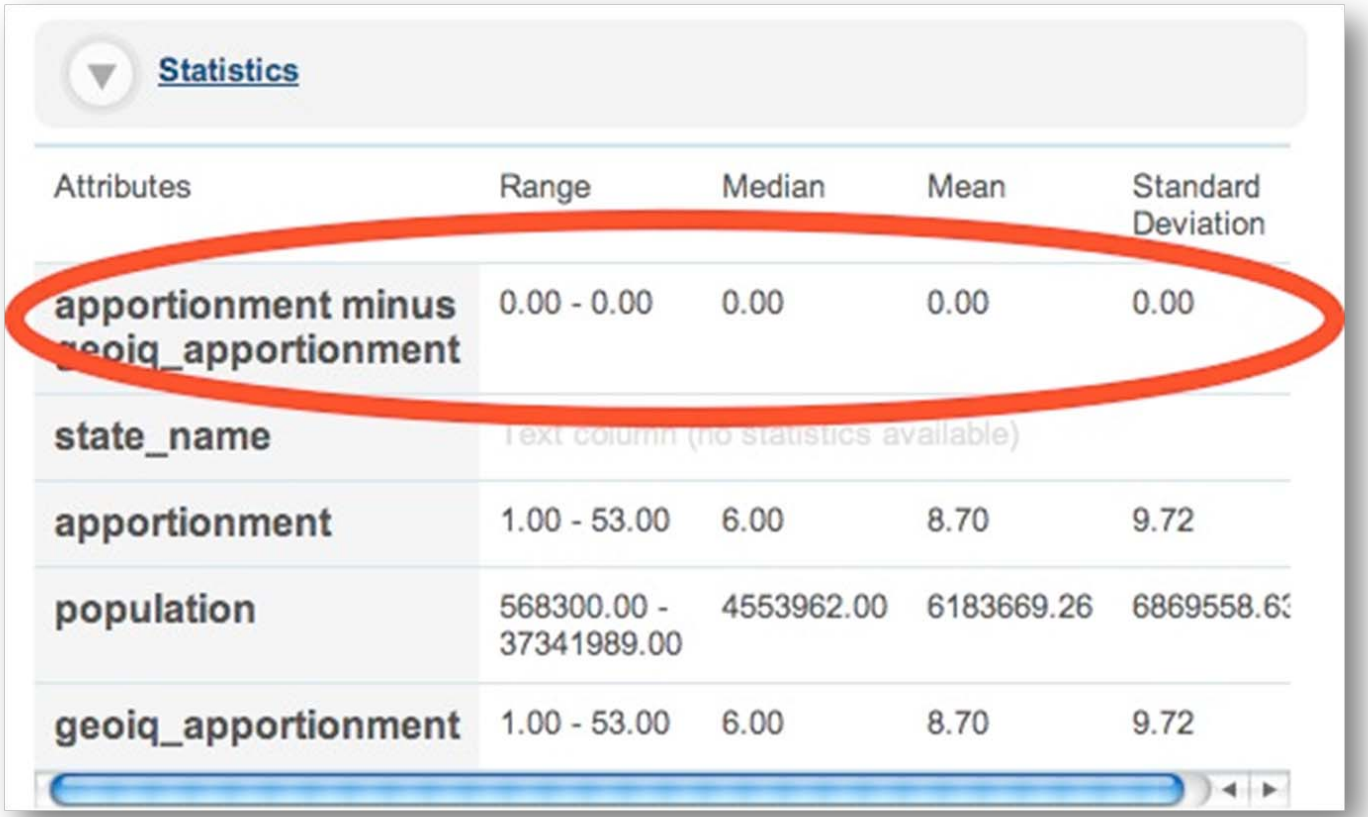
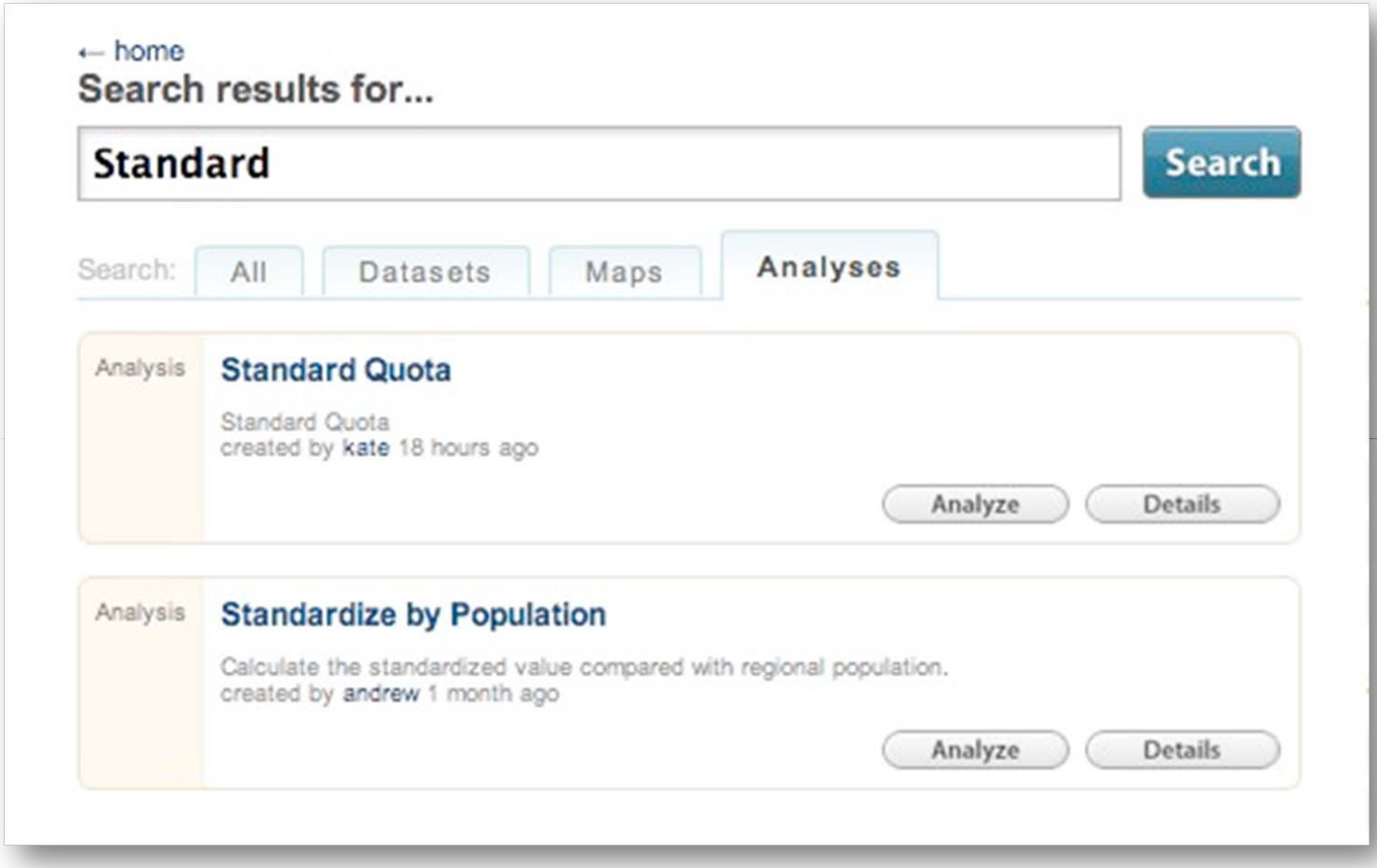


Test the result


Statistics
Attributes
Range
Median
Mean
Standard Deviation
apportionment minus geoiq_apportionment
0.00 - 0.00
0.00
0.00
0.00
state_name
Text column (no statistics available)
apportionment
1.00 - 53.00
6.00
8.70
9.72
population
568300.00 - 37341989.00
4553962.00
6183669.26
6869558.63
geoiq_apportionment
1.00 - 53.00
6.00
8.70
9.72

Perfect!!!



Share widget to be discovered by others

The Result

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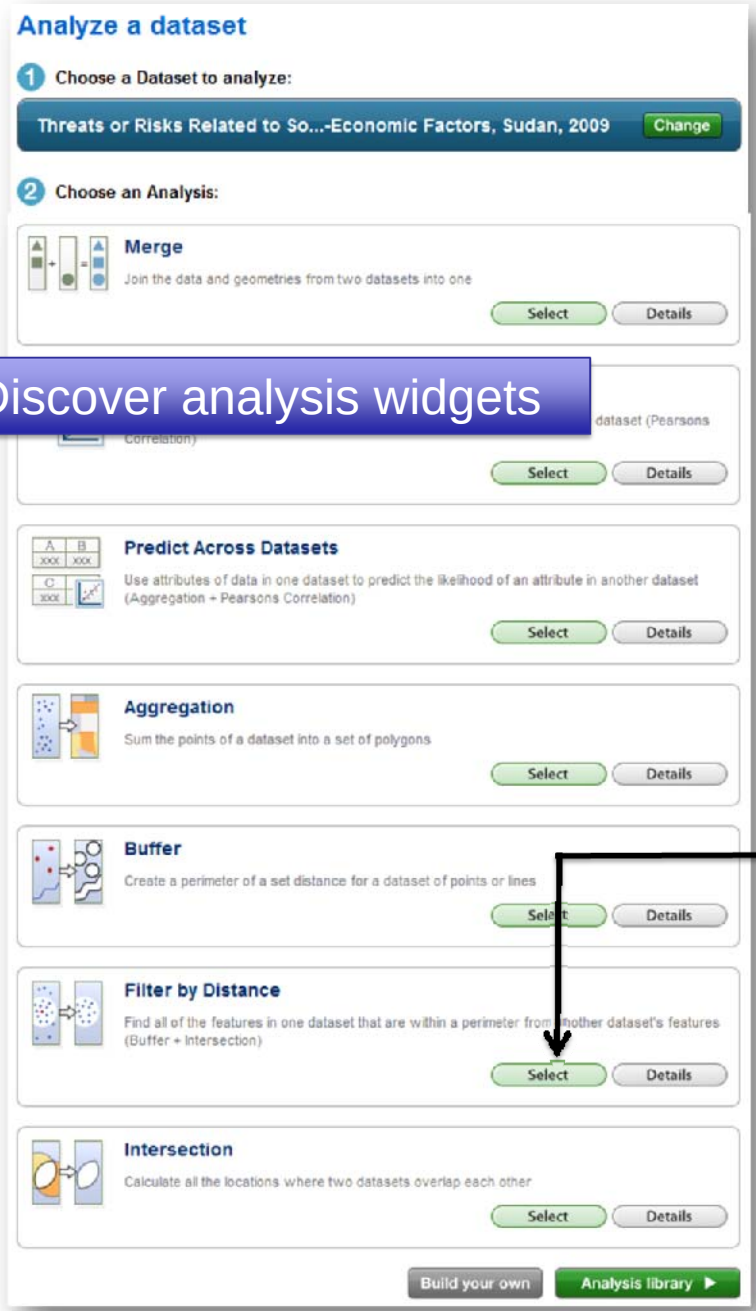
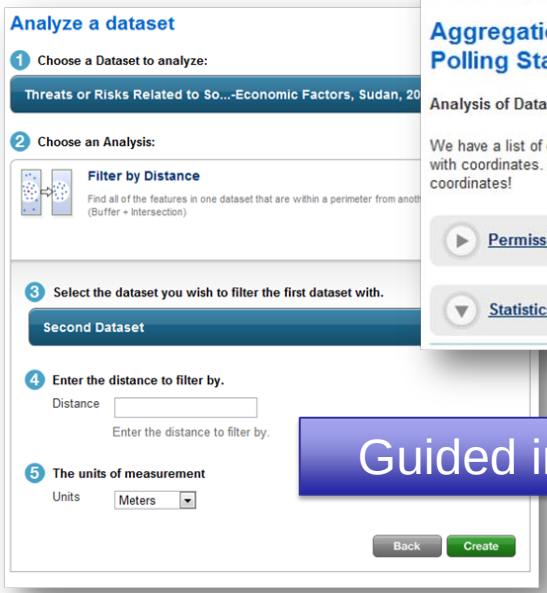
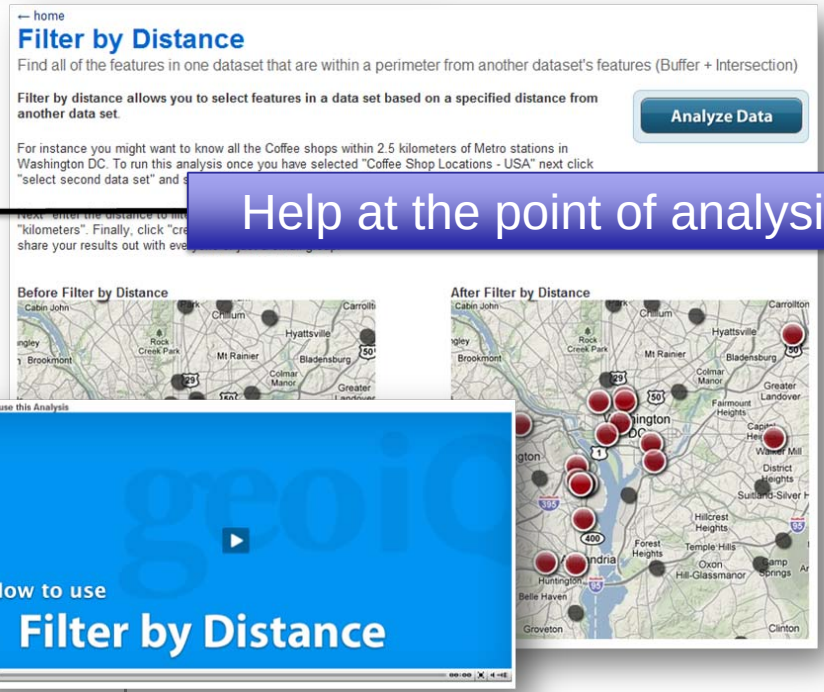


Discover analysis widgets



Guided interfaces

Automated metadata of analysis



Help at the point of analysis

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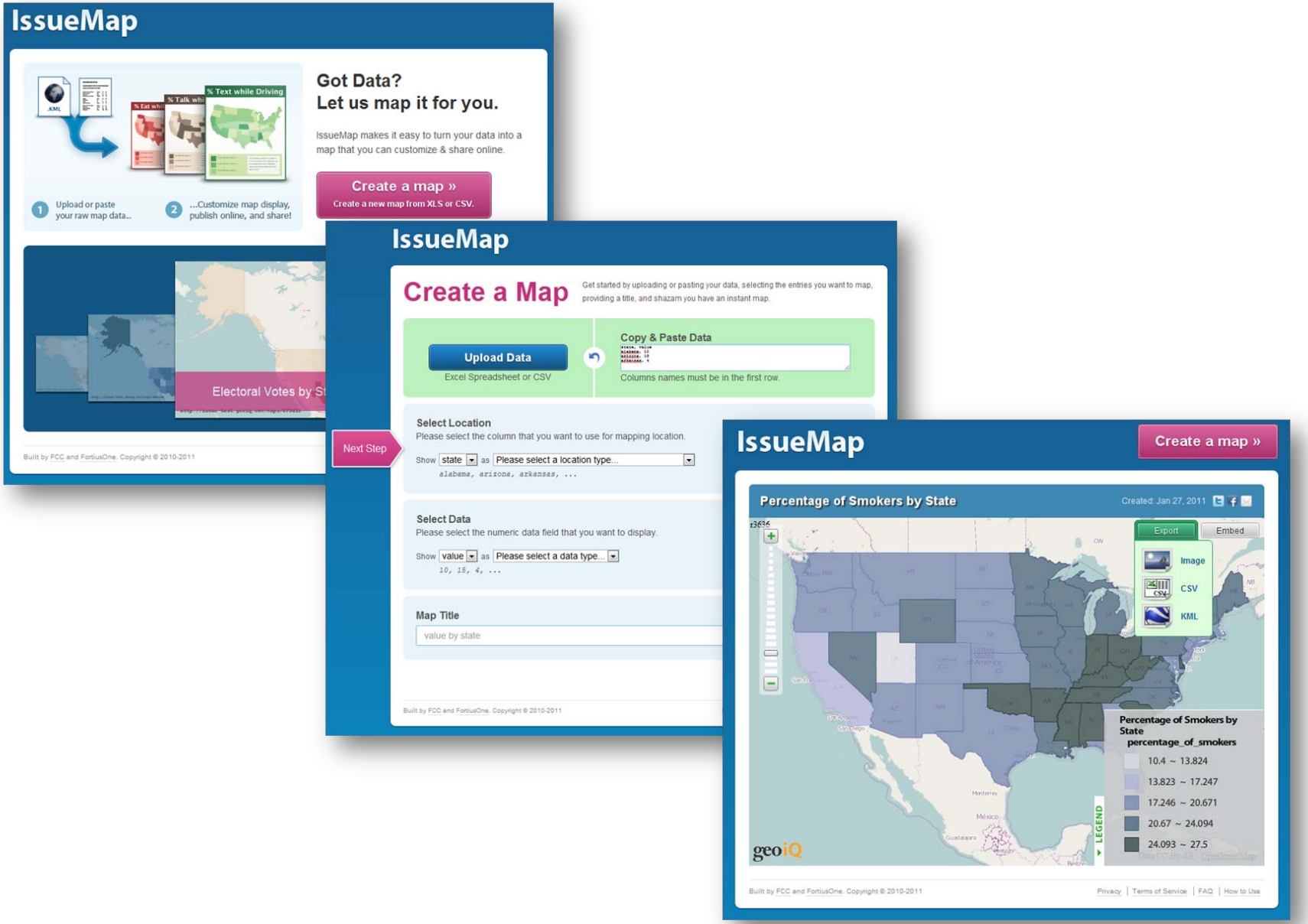

IssueMap for fast map creation and sharing

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