

Getting Started with GeoDa

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Purpose of this workshop.

- ▶ Lightning introduction and discussion of GeoDA.
 - ▶ What it is?
 - ▶ Uses?
- ▶ Hands on exercise to get you familiar with:
 - ▶ Interface.
 - ▶ Tools and features of the software.

What is GeoDa?

- ▶ GeoDa is a user-friendly software program that has been developed since 2003 to support the free and open-source spatial analysis research infrastructure.
- ▶ It has one goal: To help researchers and analysts meet the data-to-value challenge. This challenge involves translating data into insights.
- ▶ Explicit focus on spatial methods for spatial data.

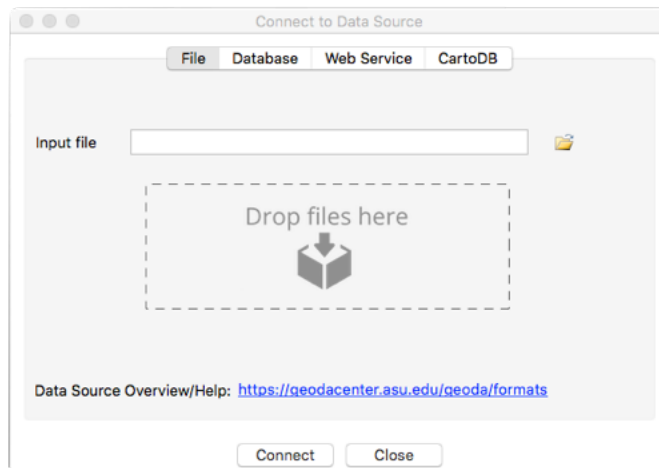


Uses?

- ▶ The program is specialized in exploratory data analysis and geo-visualization, where it exploits techniques for dynamic linking and brushing.
 - ▶ When the user has multiple views or windows in a project, selecting an object in one of them will highlight the same object in all other windows.
- ▶ GeoDa also is capable of producing histograms, box plots, scatter plots to conduct simple exploratory analyses of the data.
- ▶ GeoDa has the capability of mapping and linking those statistical devices with the spatial distribution of the phenomenon that the users are studying.

Some other features:

- ▶ Supports many different data formats.
- ▶ Multi-layer support for geospatial data.
- ▶ Basemaps for visualizing data.
- ▶ Comparing averages across time and space.
- ▶ Analyze spatial and temporal patterns across linked views.
- ▶ And many more.



Difference from standard GIS?

- ▶ GeoDa is an analytical tool with GIS capabilities, not a standalone GIS.
- ▶ Doesn't feature:
 - ▶ Cartographical operations (as robust as something like ArcMap or QGIS).
 - ▶ GIS program integration.
 - ▶ Manipulating geometry within system.



Workshop Exercise:

- ▶ We will do some basic spatial data wrangling.
- ▶ If you downloaded “GeoDA” workflow document you will also have access to the tutorial concerning the GIS operations.

