



Food Desert

Examining Grocery Equity
Erin L. Smith



Background

- Food Desert/Food Equity
 - Areas with low access to nutritious food
- Health
 - Obesity
 - Diabetes
 - Heart Disease



Census Data

- Census Data at the Block Group level
 - Source: Simply Map
 - Median household income
 - Age
 - Percentage 0-17 and over 85
 - Percentage households without vehicles
 - Percentage owner occupied household
 - Percentage renter occupied household

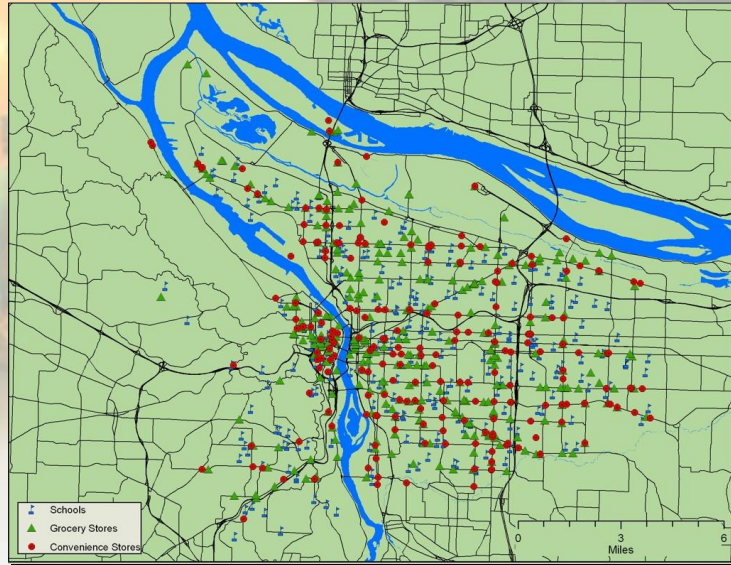


Food Source Data

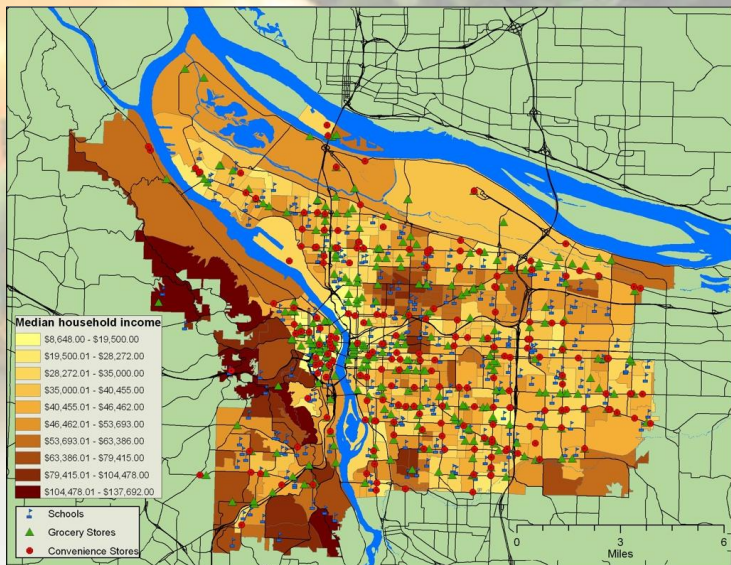
- Source: Reference USA, via David Banis
 - Grocery stores
 - Convenience stores
 - Schools

Base Map

Grocery
Stores
Convenience
Stores
Schools

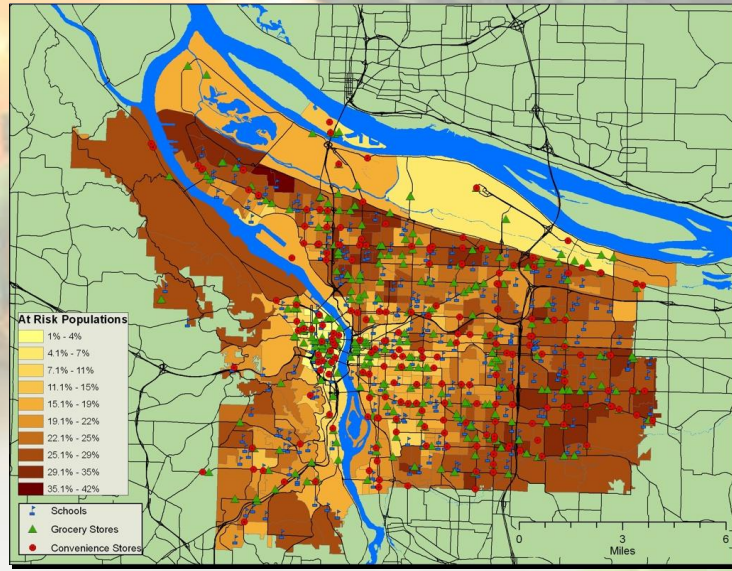


Household Income

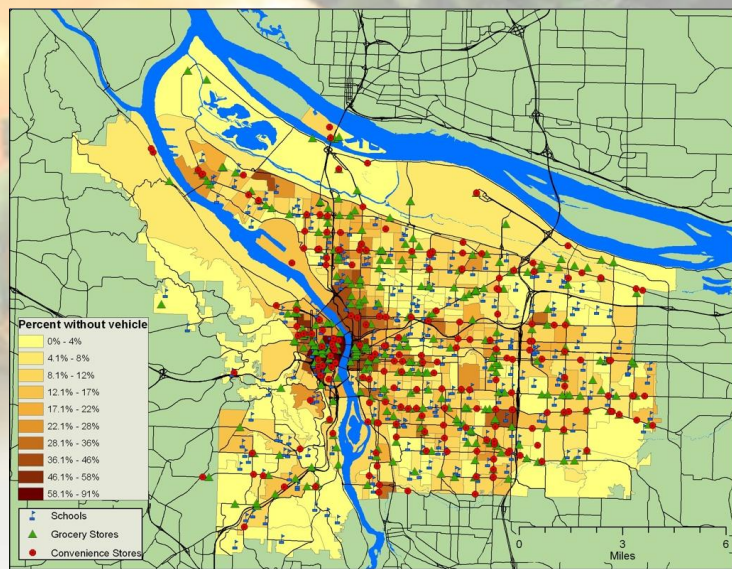


At risk populations

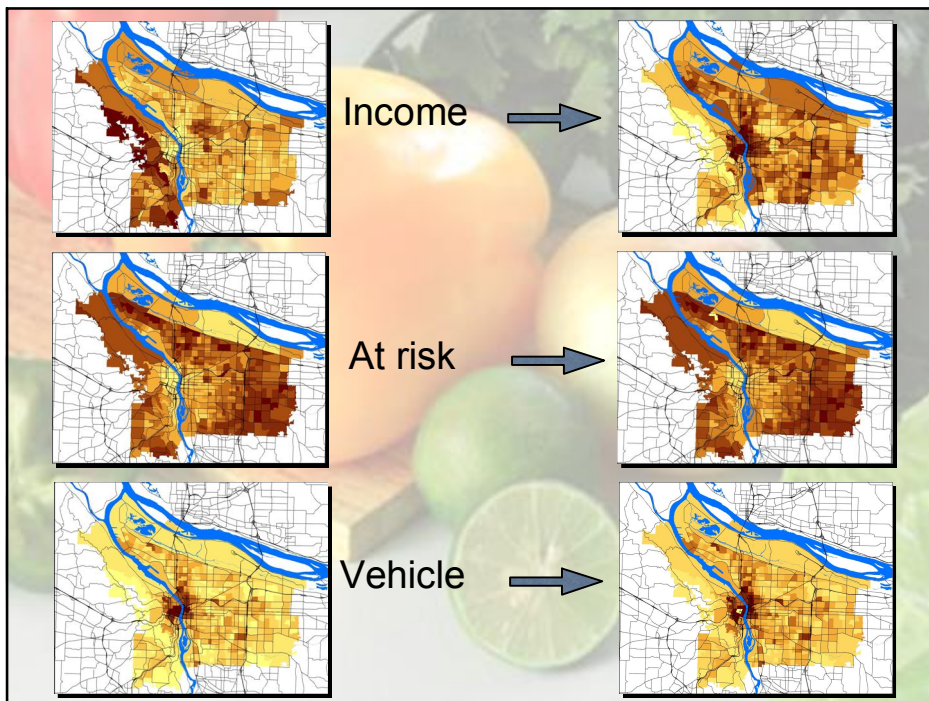
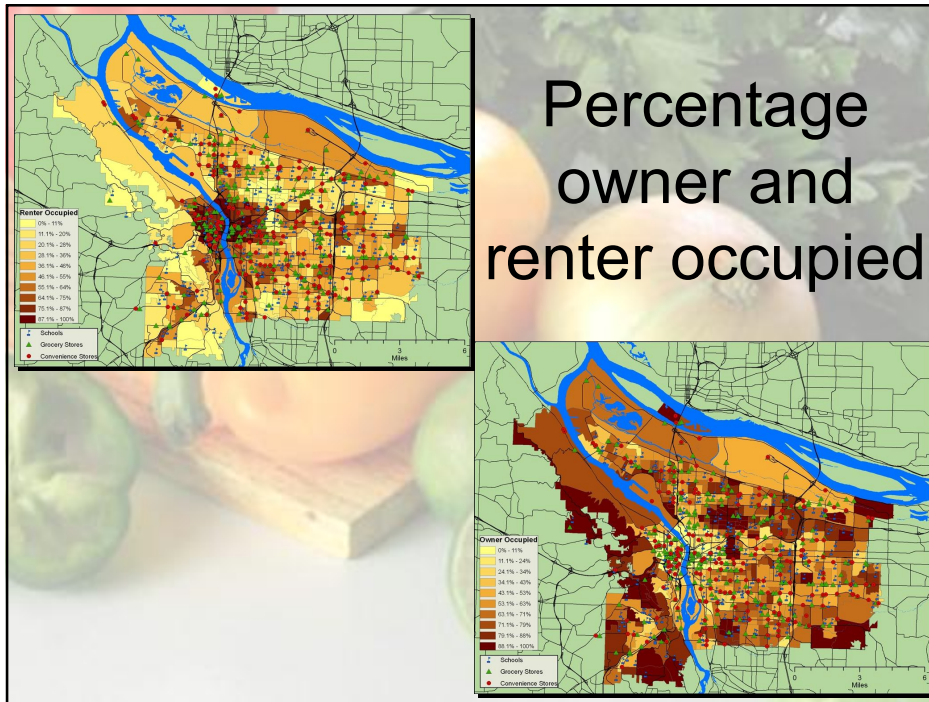
Ages 0-17,
85 and over

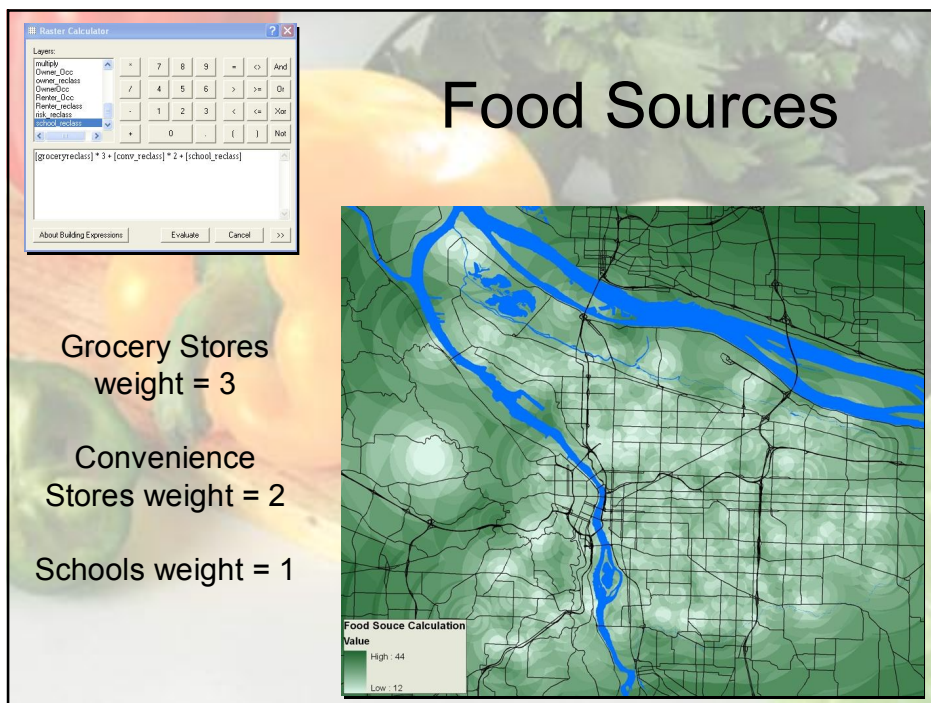
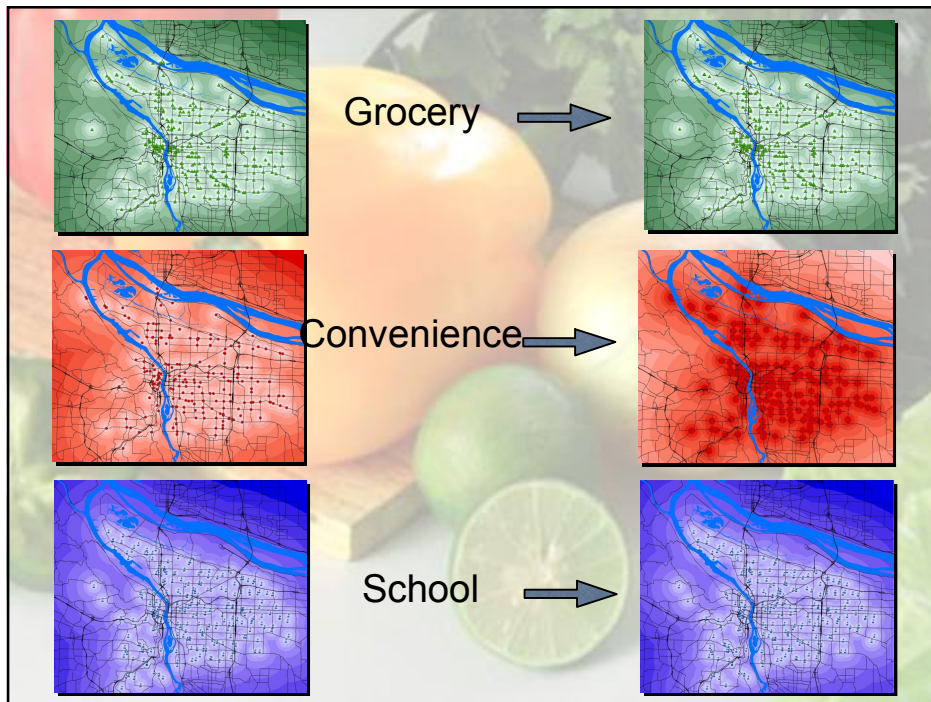


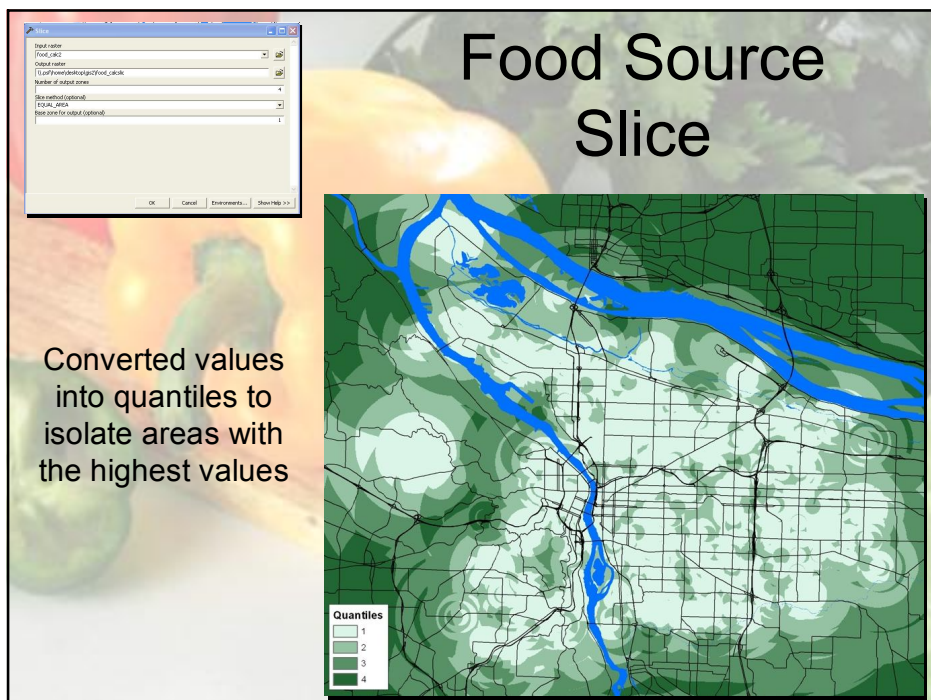
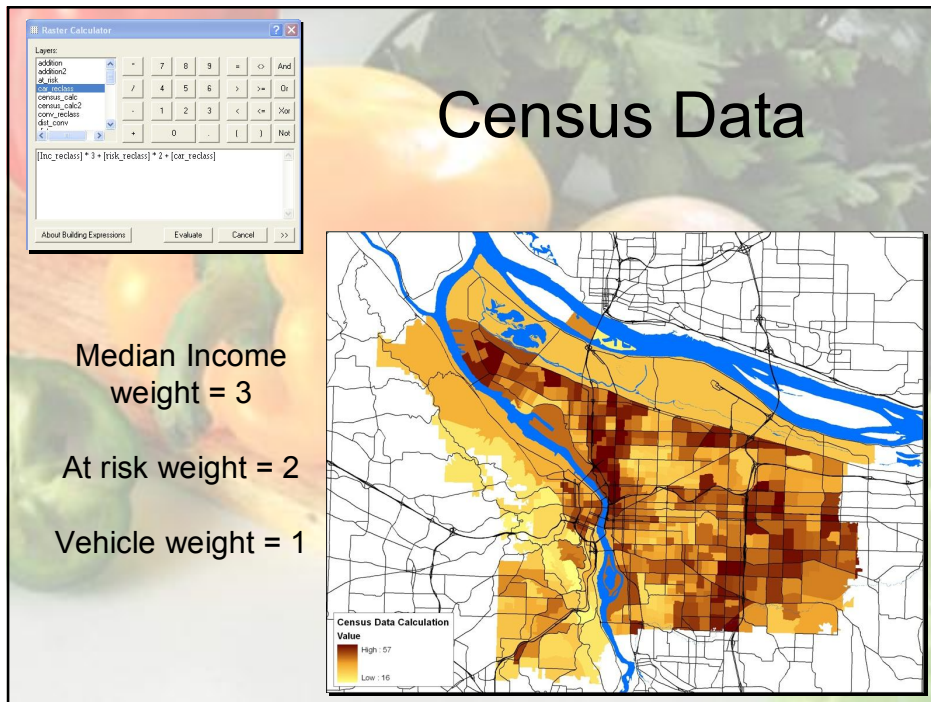
Households without vehicle



Percentage owner and renter occupied





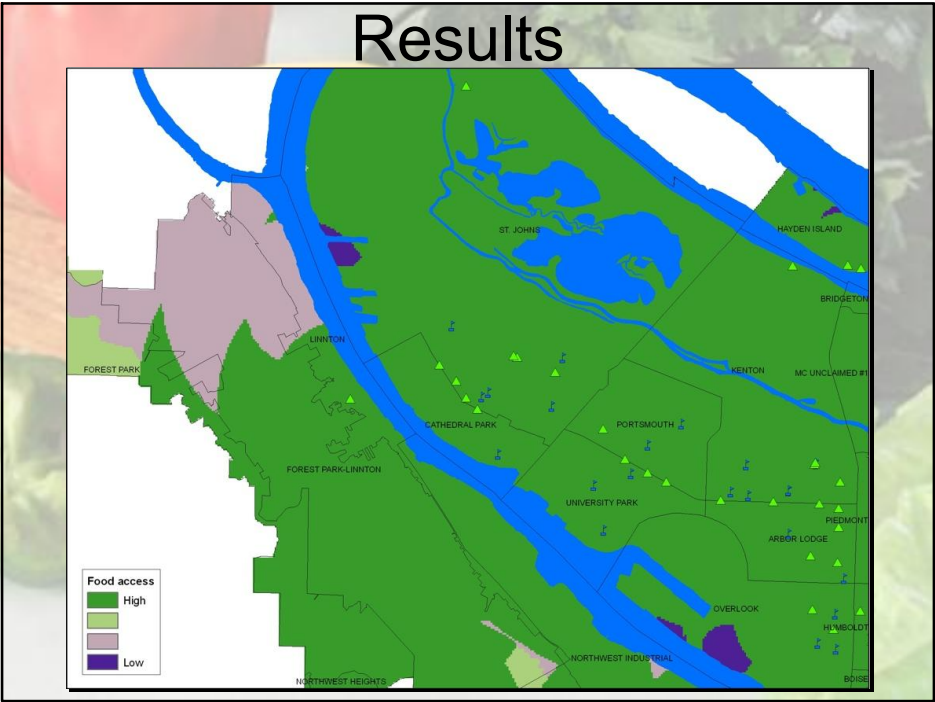
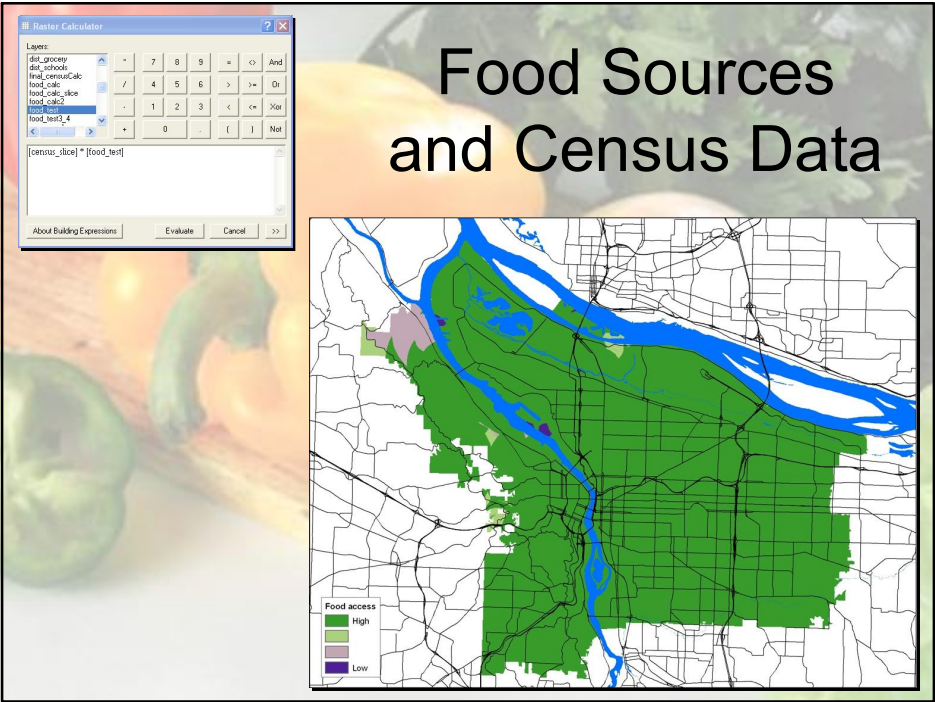


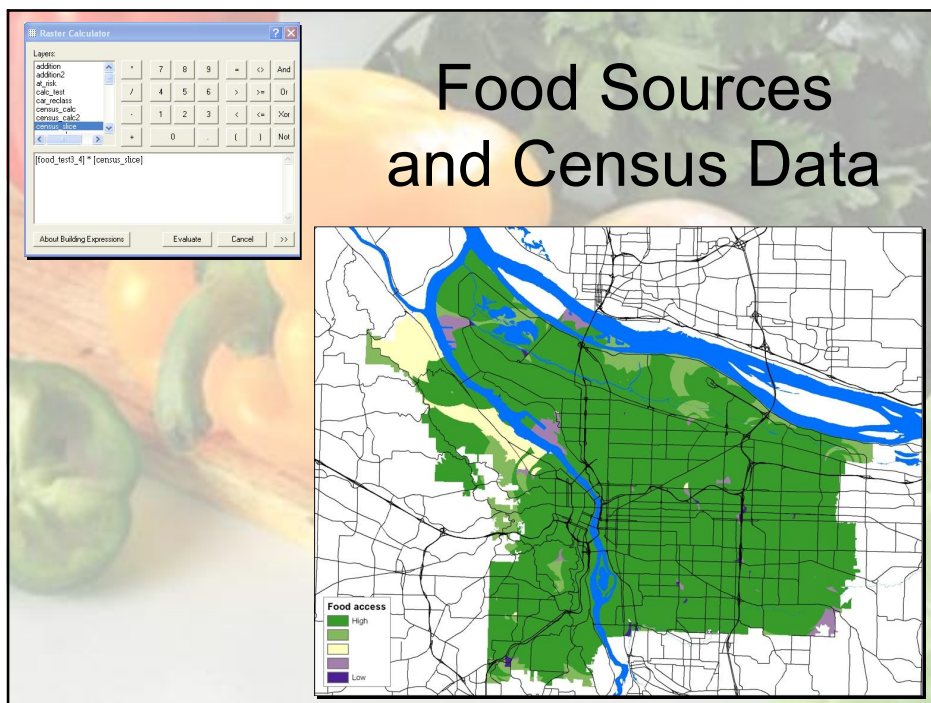
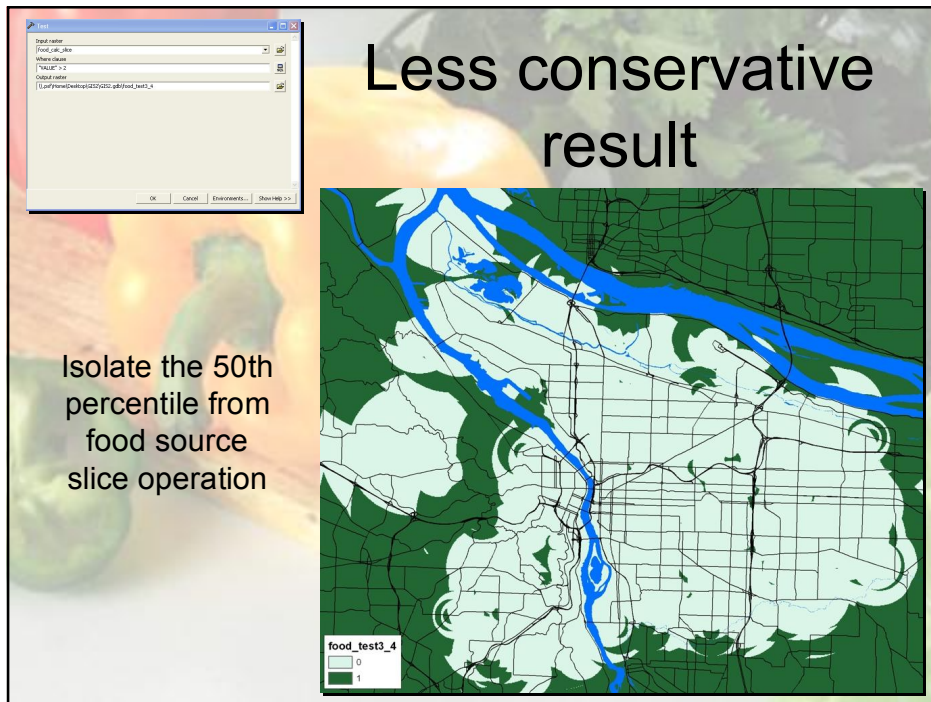
Census Data Slice

Food Source Test

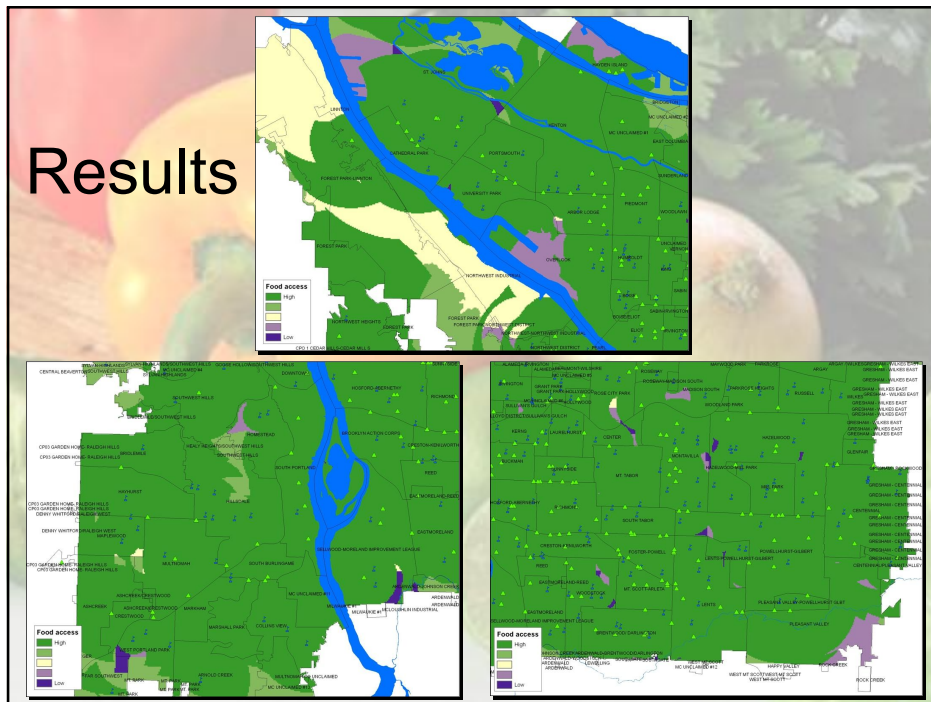
Isolates the 75th percentile from the Slice operation

The figure consists of two parts. On the left is a screenshot of a GIS software window titled 'Test'. It contains a list of layers: 'Input raster', 'Food_slic_200', 'Watershed', 'Value = 1', 'Output raster', and 'Input raster: C:\GIS\QGIS2\QGIS2\qgis\food_test'. The 'Value = 1' layer is selected. At the bottom are buttons for 'OK', 'Cancel', 'Environment...', and 'Show Help >>'. On the right is a map of a watershed. The map shows a network of roads and a river. The river and its immediate surroundings are highlighted in blue. A legend in the bottom left corner, titled 'food_test', shows a white box for '0' and a green box for '1'. The map area is mostly white, with some green areas representing the watershed boundary and the river area.





Results



Limitations

- Age of census data
- Food source data



Sources and Thanks

Simply Map - Census Data
Reference USA - Food Source
Data

Thanks to:
David Banis
Geoffrey Duh