TELLING STORIES WITH MAPPING

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Why do you need a map? What's it's purpose?

Who is the audience?

How will they access/use the map.

What is the map's job?

For example:

- Looking at **several data sources** at once
- Communicating or **illustrating a point** or key finding
- **Persuading**
- Exploring: a tool for people to use to **make their own meaning**

Cartography 101

- Basemaps
- Titles
- Types of data and layer symbology
- Layer properties
- Legends

Title

A good title includes:

- Theme
- Place
- Time

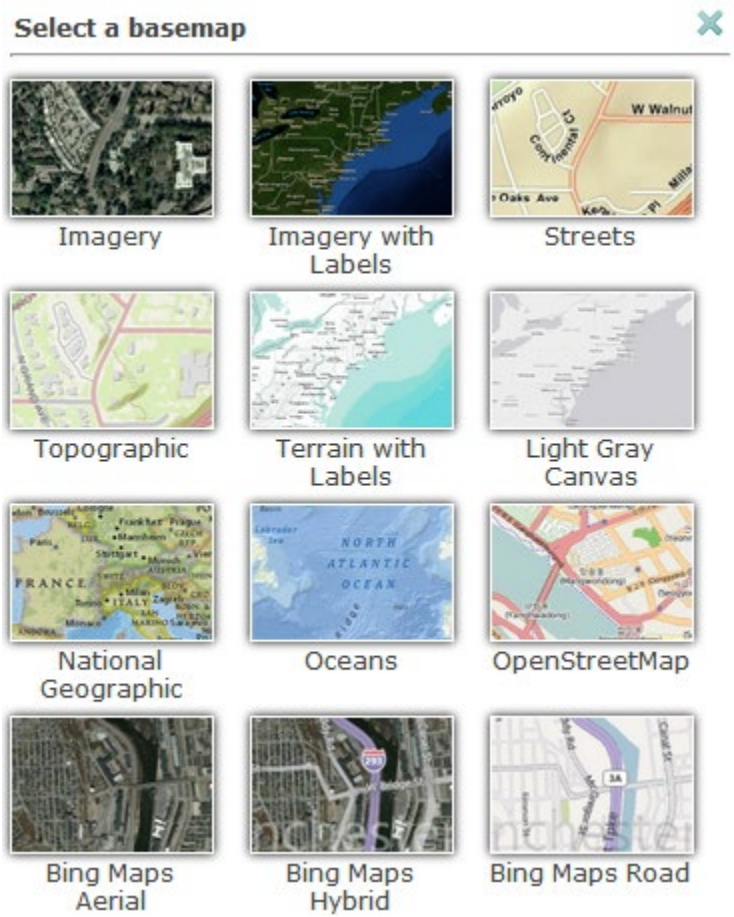
e.g. Twin Cities Bicycle Trails, 2018

You don’t need to include the word “map” in your title!

Basemaps

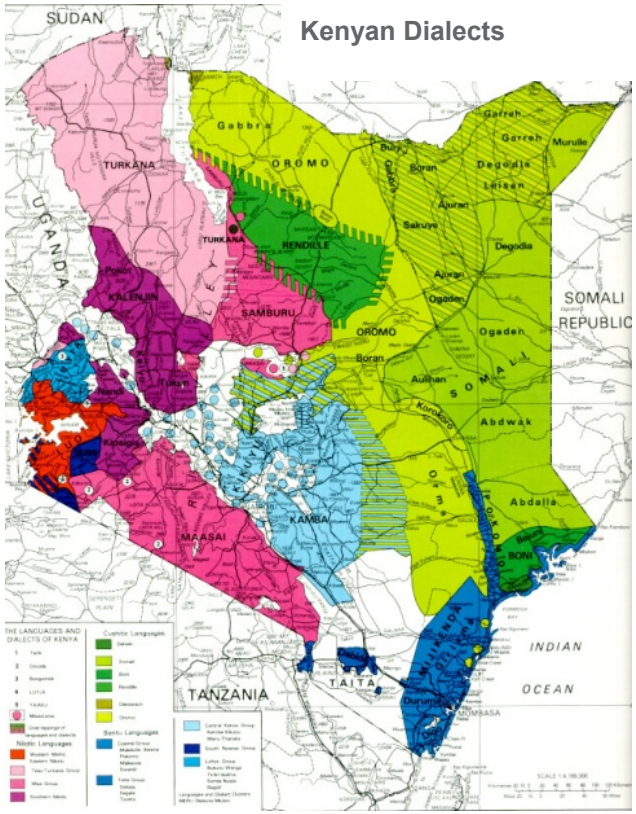
Appropriate applications for different basemaps:

- **Reference**
  - *Business locations*
  - *Mountain peaks (for hikers)*
  - *Nearby landmarks for tourism*
- **Thematic**
  - *Obesity rates by state*
  - *Ecological footprints by country*
  - *Housing values by neighborhood*



Layer Symbology

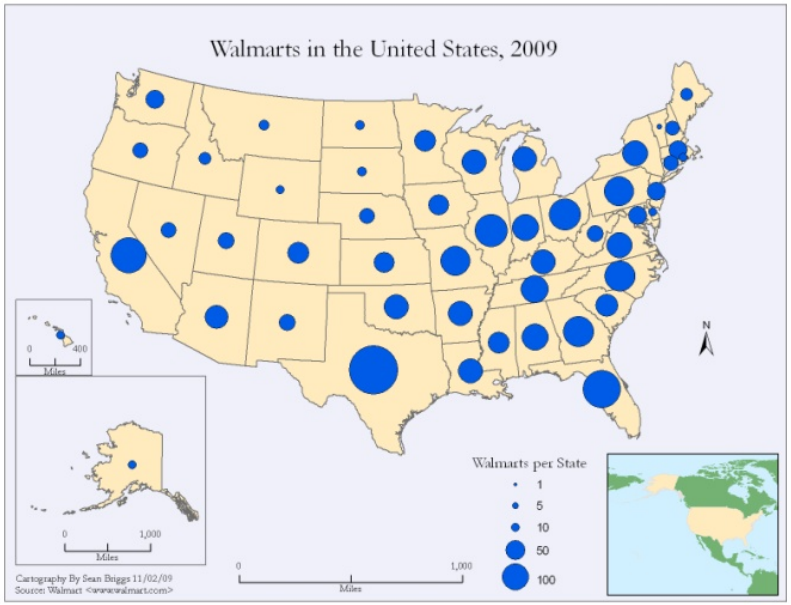
- Qualitative
  - Differences in kind of thing
  - No order is implied



Layer Symbology

- Qualitative
  - Differences in kind of thing
  - No order is implied

- Quantitative
  - Differences in amount, rank, etc.
  - Graduated order
  - Rates vs counts



Symbology: Qualitative Data

- Hue

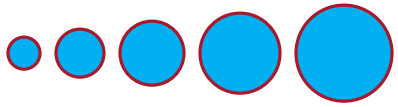
- Shape

- Examples:
  - Points symbolizing different kinds of schools – public vs private, K-12 vs higher ed
  - Polygons of land use classification – residential, commercial, etc.

Symbology: Quantitative Data

- Lightness

- Size



- Examples:
  - State population
  - Employment density by census tract
- Use conventions – lighter color = less, darker color = more; red = bad, green = good… or challenge conventions, carefully
- Use a different color (gray, for example) for “no data”

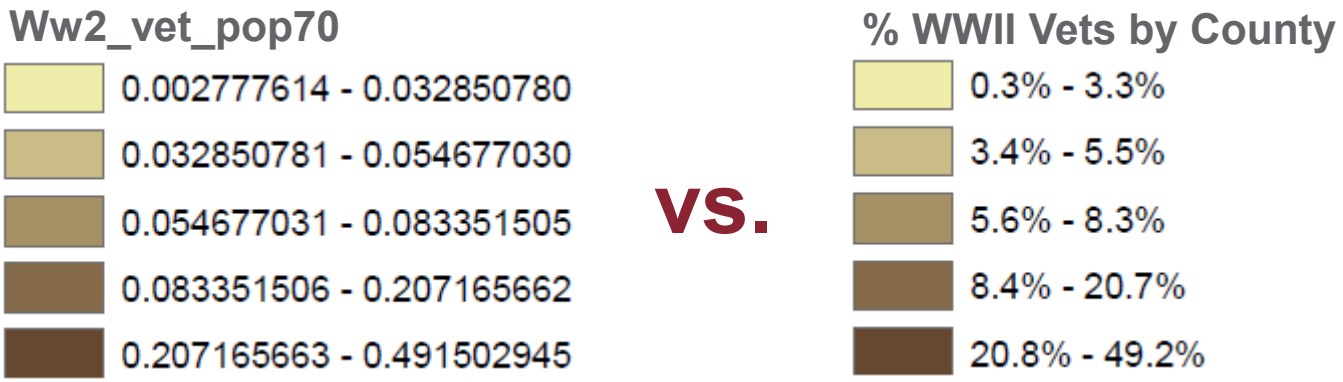
Layer Properties

- Transparency: can be set from 0-100%
- Order matters: watch out for top layers to obscure lower layers

Legend

- You can choose what to hide/show in your legend
- It should be easy to interpret

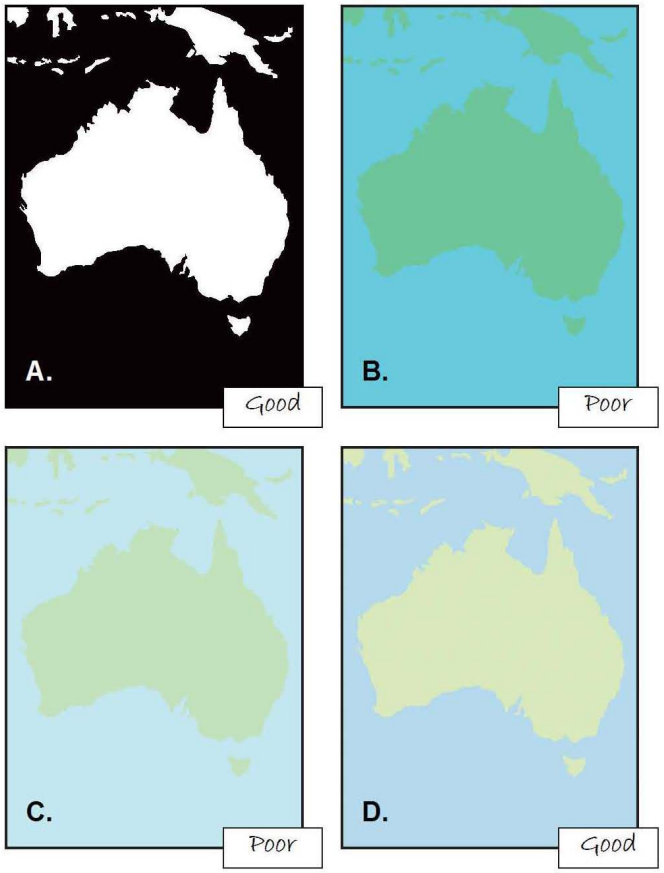
For example:

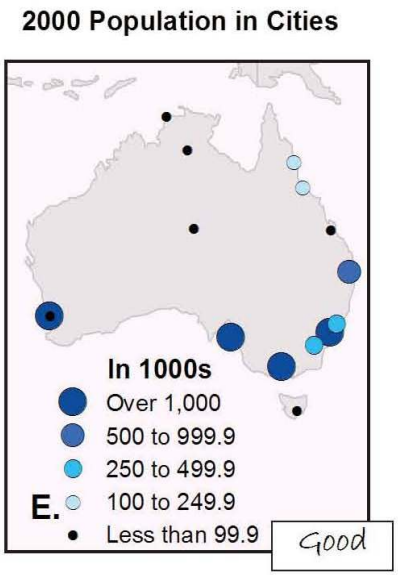


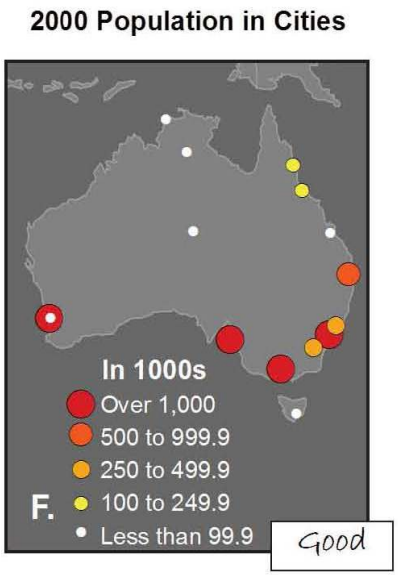
Tips for Making Clearer Maps

- Visual Contrast
- Legibility
- Figure-Ground
- Hierarchical Organization
- Balance

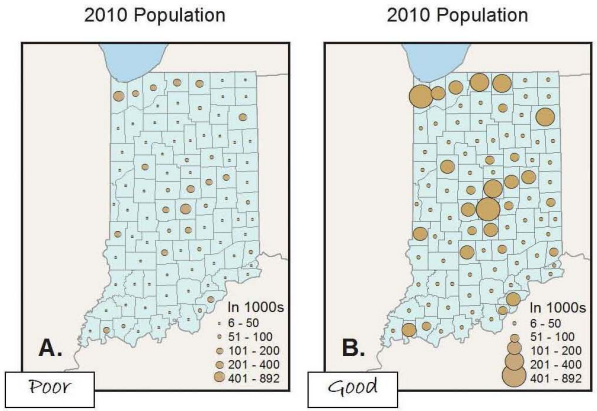
Visual Contrast

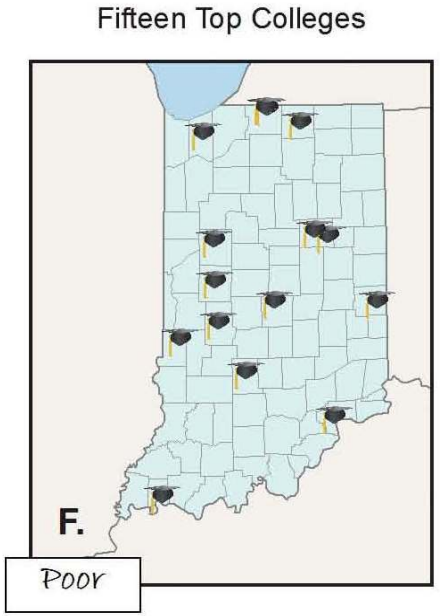






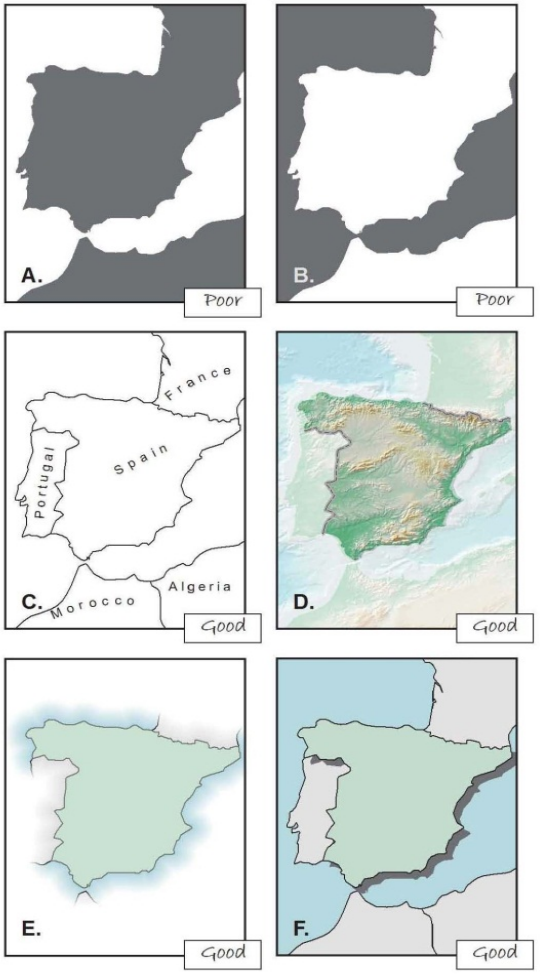
Legibility





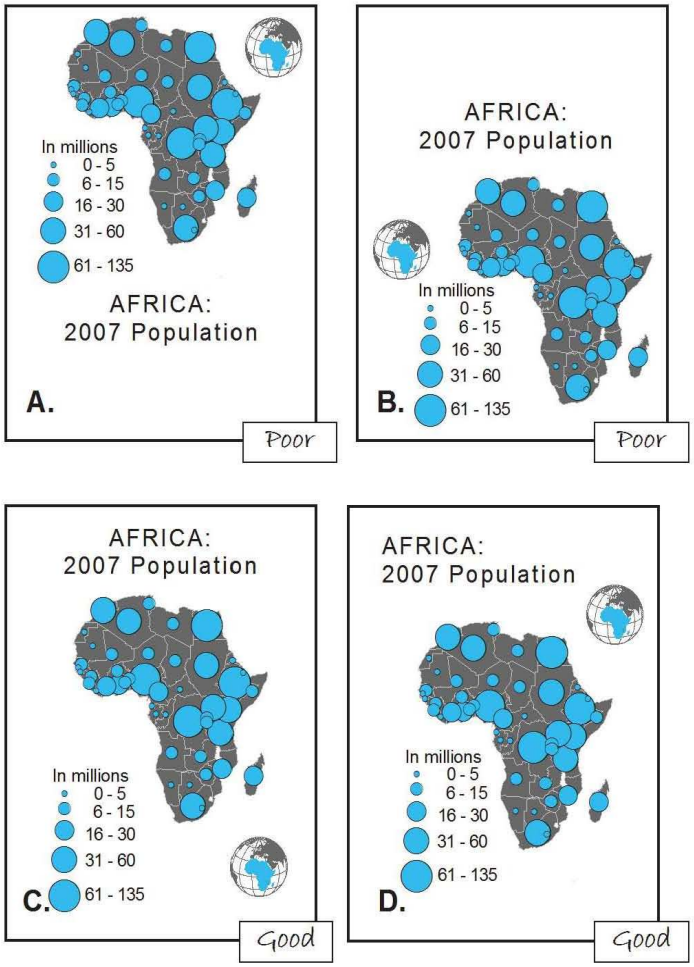
Source for Map F: http://collegeapps.about.com/od/collegerankings/tp/top-indiana-colleges.htm

Figure-Ground



Hierarchical Organization

Balance


In millions
0 - 5
6 - 15
16 - 30
31 - 60
61 - 135
AFRICA:
2007 Population
A.
Poor
AFRICA:
2007 Population
In millions
0 - 5
6 - 15
16 - 30
31 - 60
61 - 135
B.
Poor
AFRICA:
2007 Population
In millions
0 - 5
6 - 15
16 - 30
31 - 60
61 - 135
C.
Good
AFRICA:
2007 Population
In millions
0 - 5
6 - 15
16 - 30
31 - 60
61 - 135
D.
Good

Tips for Making Clearer Maps

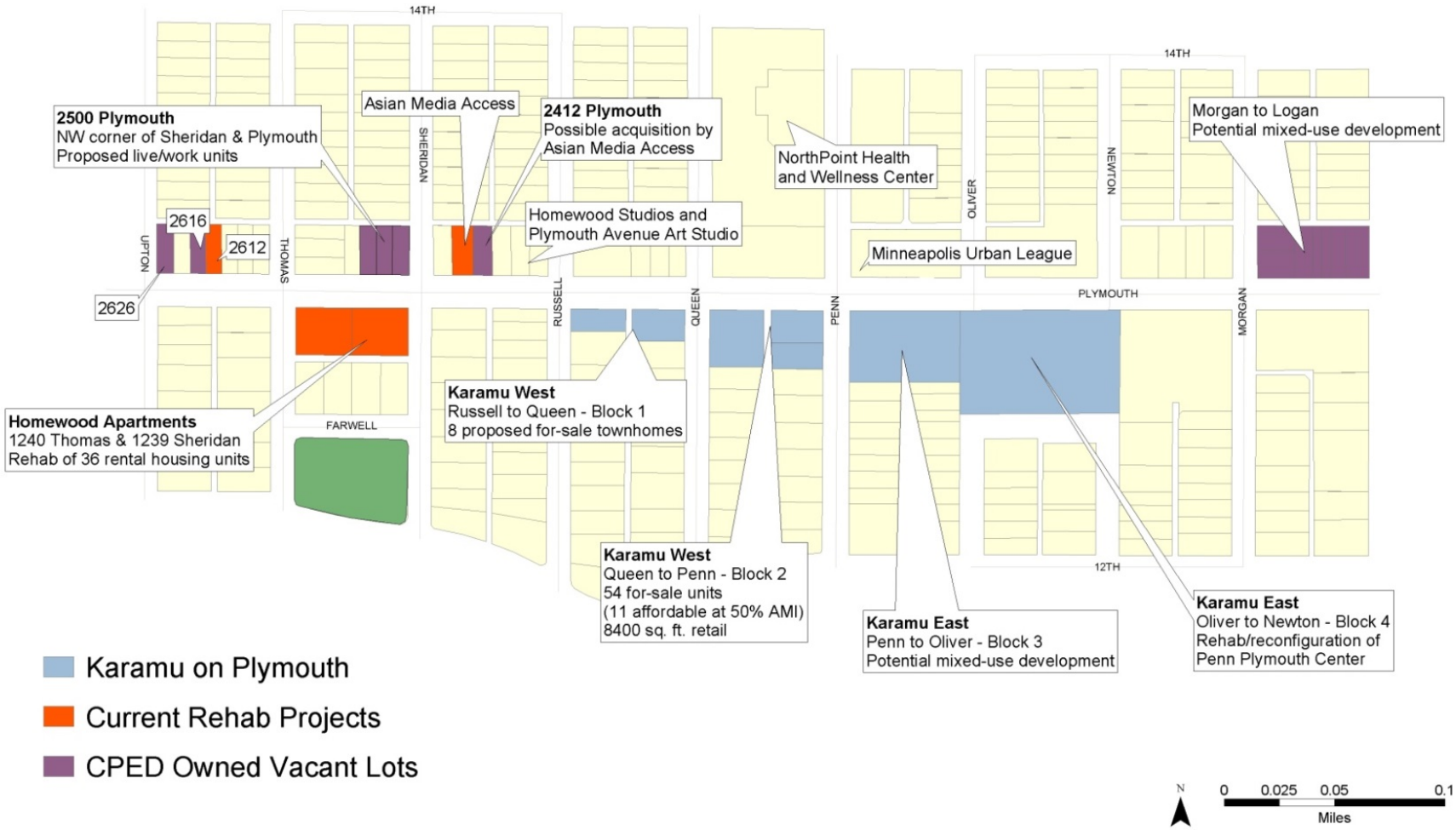
Put your map into the format and scale it will be in

Step away from it to look at it critically

Invite someone else to look at it and tell you what they see

Karamu on Plymouth

Proposed Redevelopment and Revitalization Plan for Plymouth Avenue



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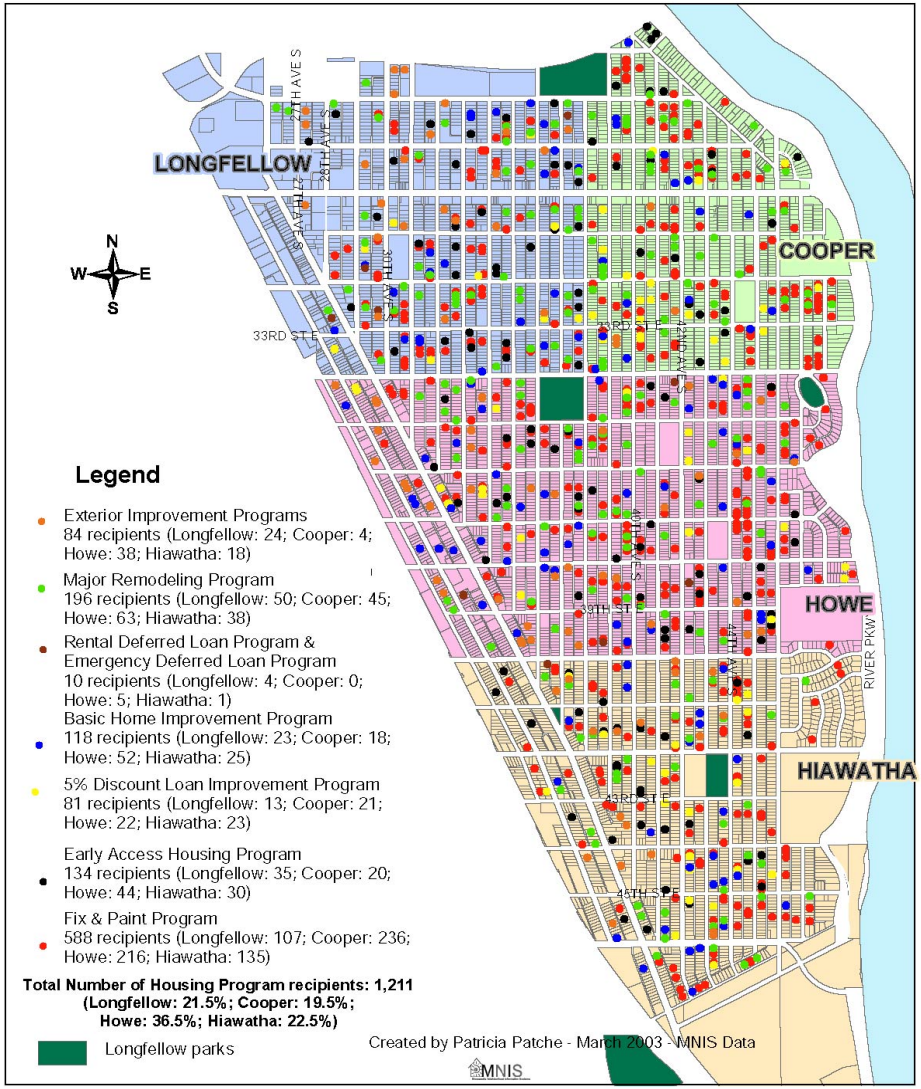
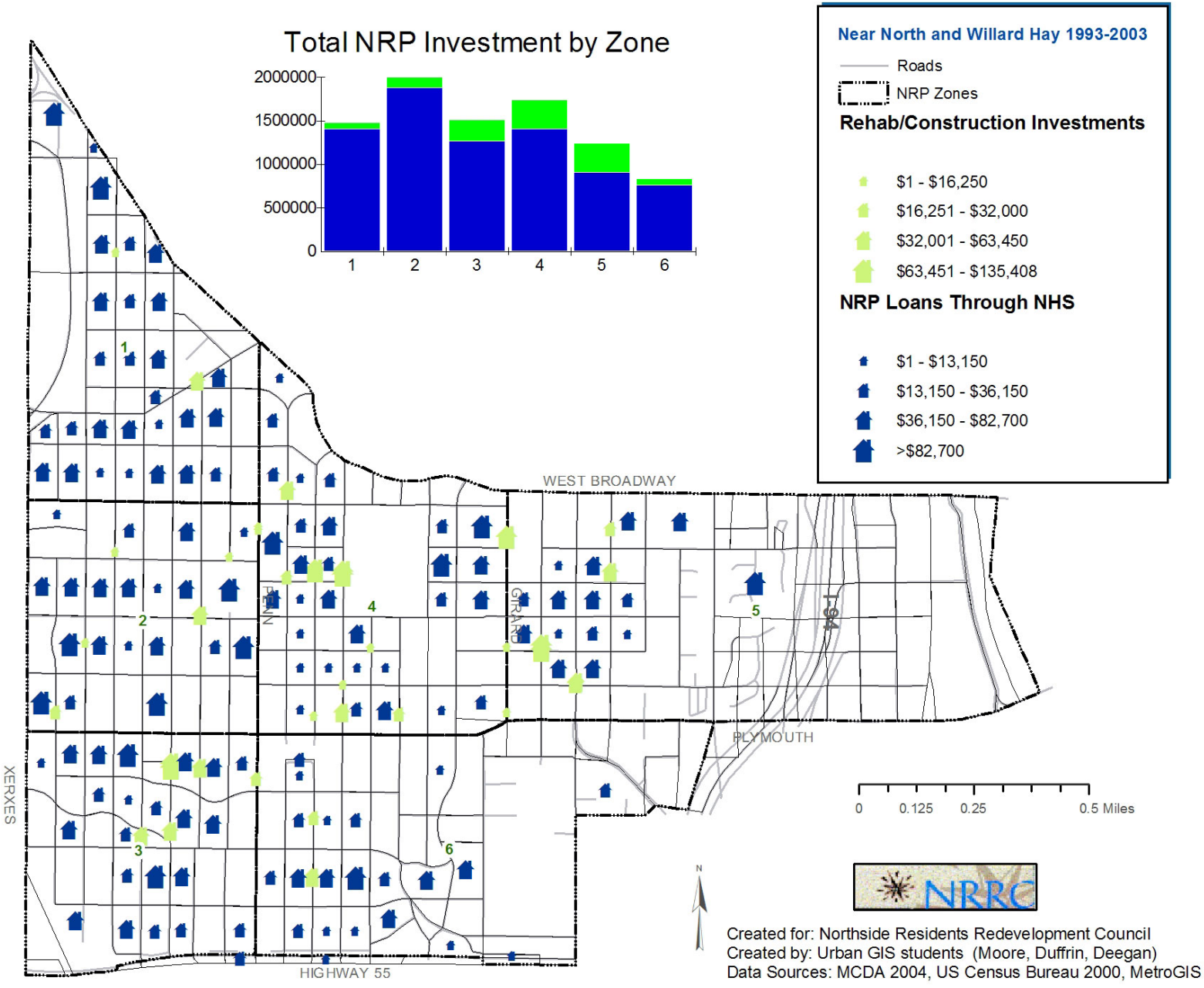
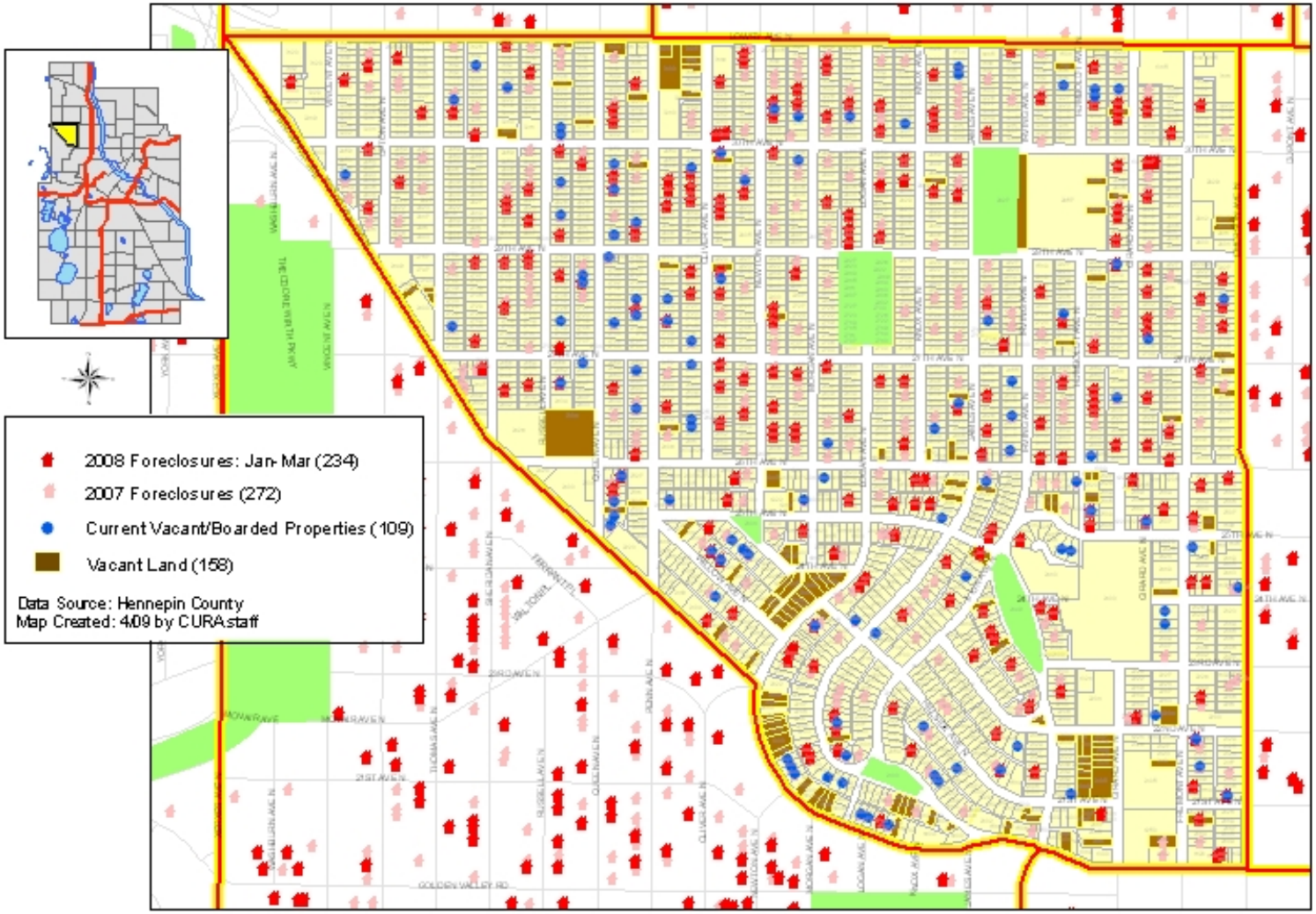
Longfellow Housing Program Recipients
1995- Feb. 2003



Map 11: Total NRP Investments (1993-2003)



JORDAN NEIGHBORHOOD: Foreclosures, Boarded Buidlings and Vacant Lots



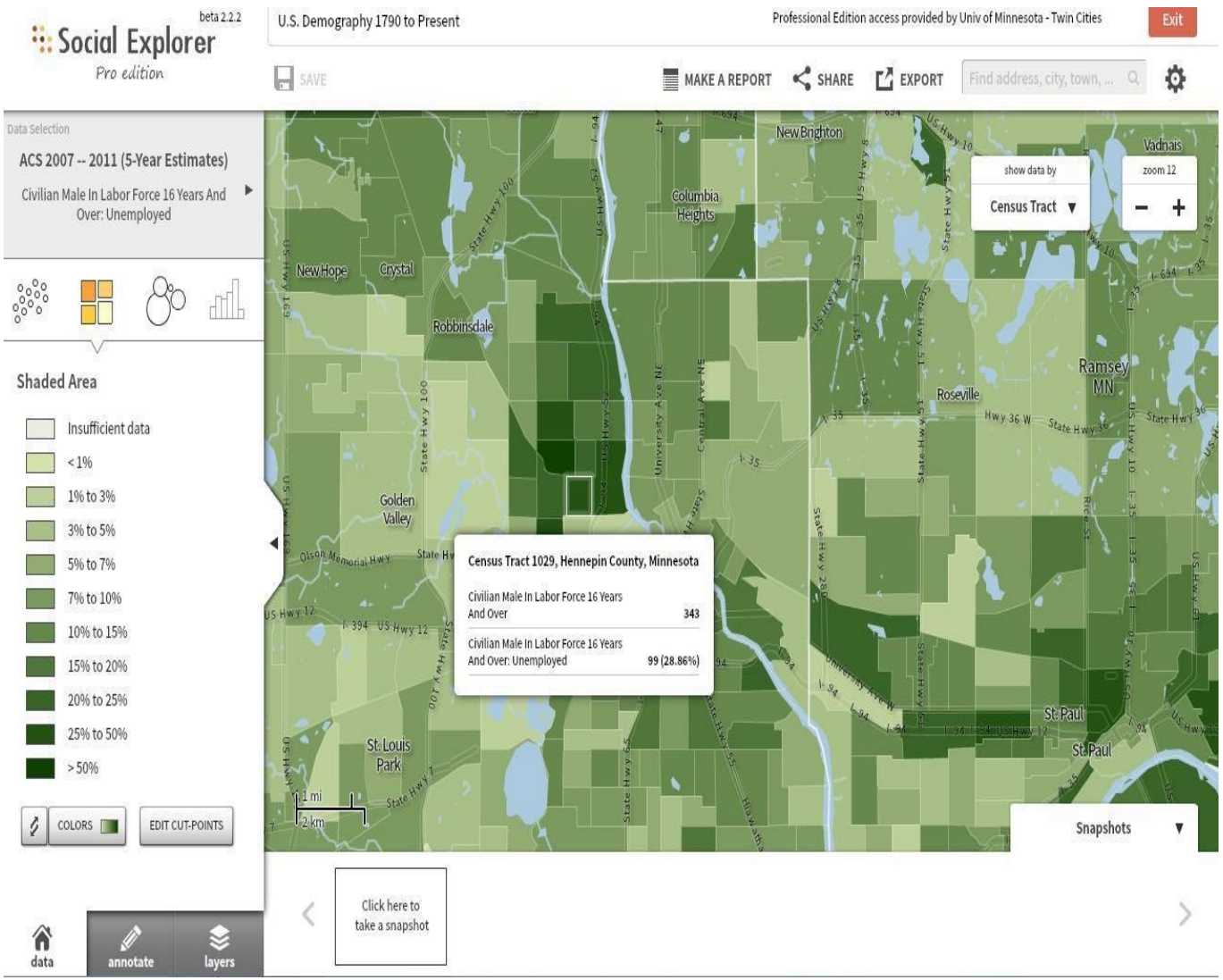
Common GIS Tools

Places to get data to use in ArcMap/ArcGIS Online:

- City and county open data websites (Mpls, St. Paul, Hennepin and Ramsey Counties, etc.)
- MN Geospatial Commons (statewide and MetroGIS datasets)
- Social Explorer and Factfinder (Census and ACS data)

Places to create maps that you download, link to, etc.

- Social Explorer
- OnTheMap
- MN Compass and Neighborhood Profiles
- ArcGIS Online to make web maps, including story maps


Social Explorer
beta 2.2.2
Pro edition
U.S. Demography 1790 to Present
Professional Edition access provided by Univ of Minnesota - Twin Cities
Exit
SAVE
MAKE A REPORT
SHARE
EXPORT
Find address, city, town, ...
Data Selection
ACS 2007 -- 2011 (5-Year Estimates)
Civilian Male In Labor Force 16 Years And Over: Unemployed
Shaded Area
Insufficient data
< 1%
1% to 3%
3% to 5%
5% to 7%
7% to 10%
10% to 15%
15% to 20%
20% to 25%
25% to 50%
> 50%
COLORS
EDIT CUT-POINTS
data
annotate
layers
show data by
Census Tract
zoom 12
Census Tract 1029, Hennepin County, Minnesota
Civilian Male In Labor Force 16 Years And Over 343
Civilian Male In Labor Force 16 Years And Over: Unemployed 99 (28.86%)
New Brighton
Vadnais
Columbia Heights
New Hope
Crystal
Robbinsdale
Roseville
Ramsey MN
Golden Valley
St. Louis Park
St. Paul
1 mi
2 km
Snapshots
Click here to take a snapshot

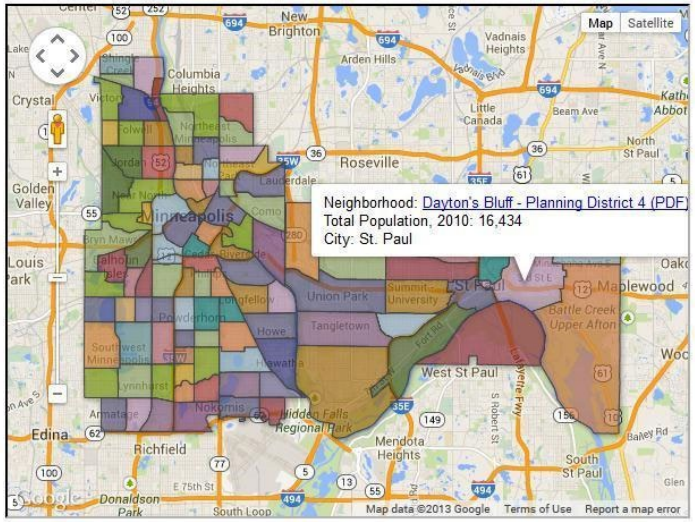
PROFILES

MINNEAPOLIS-SAINT PAUL NEIGHBORHOODS

Find at-a-glance trends and data by neighborhood, including population, housing, and employment.

View or download a pdf of any profile: Click on a section of the map, or choose View List (above the map, right) to select a neighborhood by name. In Minneapolis, profiles are also available by community – groupings of several neighborhoods (map). Some data are unavailable by neighborhood, but may be found at the larger community level.
Download data file with margins of error.

View List



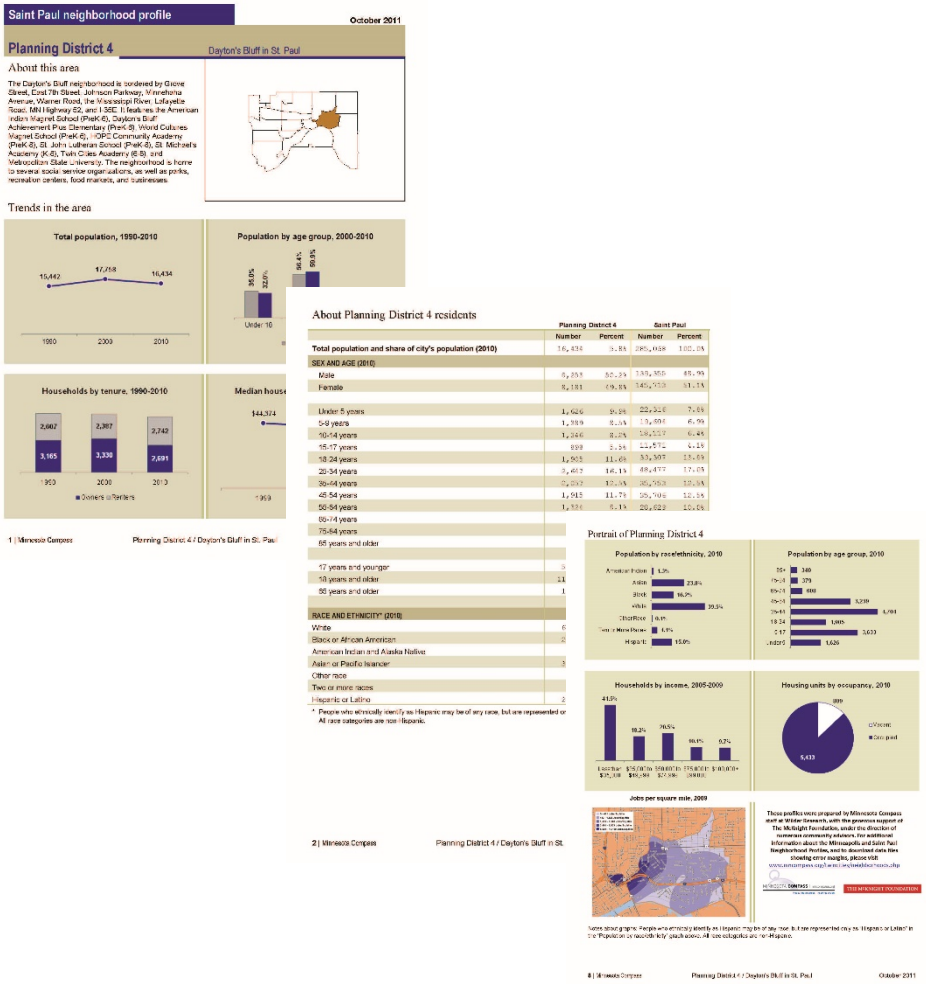
Special thanks to the McKnight Foundation for providing funding for Compass neighborhood profiles. Additional thanks to our Neighborhood Profile Advisory Committee and also to the **Community Planning & Economic Development** department at the City of Minneapolis for providing data assistance.

MORE NEIGHBORHOOD DATA

Looking for more data? We've identified these links to useful sites.

City of Minneapolis neighborhood profiles (2000 census)

City of Minneapolis 2010 Census Results



Support

U-Spatial training: both in-person and downloadable content for desktop and web mapping

ESRI online trainings and technical workshops from user conferences are available to UMN students