

# Using Demographic and Socio-economic Data to Identify Potential Environmental Justice Concerns

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# Defining Environmental Justice Concerns

- EPA: A potential EJ concern is defined as “the actual or potential lack of fair treatment or meaningful involvement of **minority populations, low-income populations, tribes, and indigenous peoples** in the development, implementation and enforcement of environmental laws, regulations and policies” (U.S. EPA, 2015a).
- Disproportionate impacts on minority populations, low-income populations, and/or indigenous people



# Environmental Justice

- **Distributional Justice** refers to spatial fairness of the physical distribution of environmental benefits and burdens.
- **Procedural Justice** refers to providing equal protection from environmental hazards regarding rulemaking and enforcement.
- **Process Justice** refers to providing opportunities for *meaningful* citizen involvement in decisions that affect environmental health, including access to information and adequate authority for local knowledge (Pena, 2005).



# STAR Communities Rating System

Environmental Justice Objective:

Reduce polluted and toxic environments with an emphasis on **alleviating disproportionate health hazards in areas where low-income residents and persons of color live**

# Defining Minority Population (or People of Color)

- Hispanic or Latino
- Plus the following race groups:
  - ✦ American Indian or Alaskan Native
  - ✦ Asian
  - ✦ Native Hawaiian or Pacific Islander
  - ✦ Black or African American

# MARION COUNTY

## Minority Population as a Percent of Total Population

### 2014

Marion County: 41.4%

Metro Area: 25.4%

— Interstate Highways

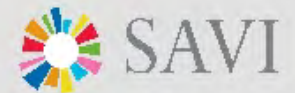
0.4% to 21.6%

21.6% to 38%

38% to 66.3%

66.3% - 99%

Marion County



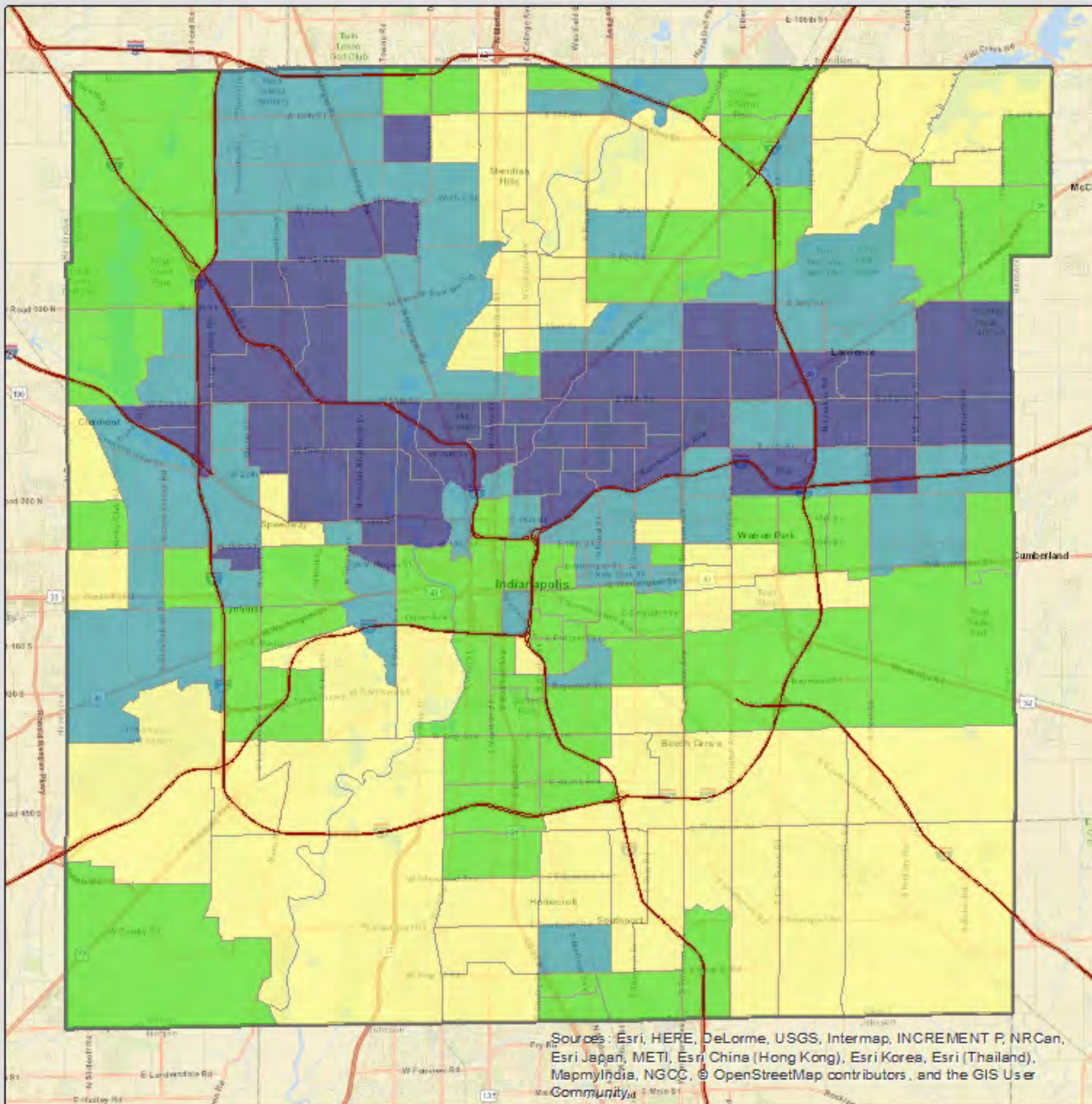
Source: American Community Survey  
5-year Averages, via SAVI  
Community Information System

0 3.25 6.5

Miles

Map created 12/6/2016  
by The Polis Center at IUPUI

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan,  
Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand),  
MapmyIndia, NGCC, OpenStreetMap contributors, and the GIS User  
Community



# Defining Low Income

- Based the median income of all households in a neighborhood (census tract)
- For our analysis, a census tract will be called “low income” if it is in the:
  - ✦ 1<sup>st</sup> option: Lowest half of all census tracts
  - ✦ 2<sup>nd</sup> option: Lowest quarter of all census tracts

## Self-sufficiency wage\* (Marion County Household)

- 2 adults, 1 pre-schooler, 1 school-age child: \$55,872
- 2 adults: \$32,915

\*Indiana Institute for Working Families



# MARION COUNTY

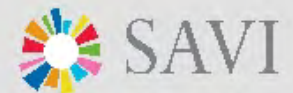
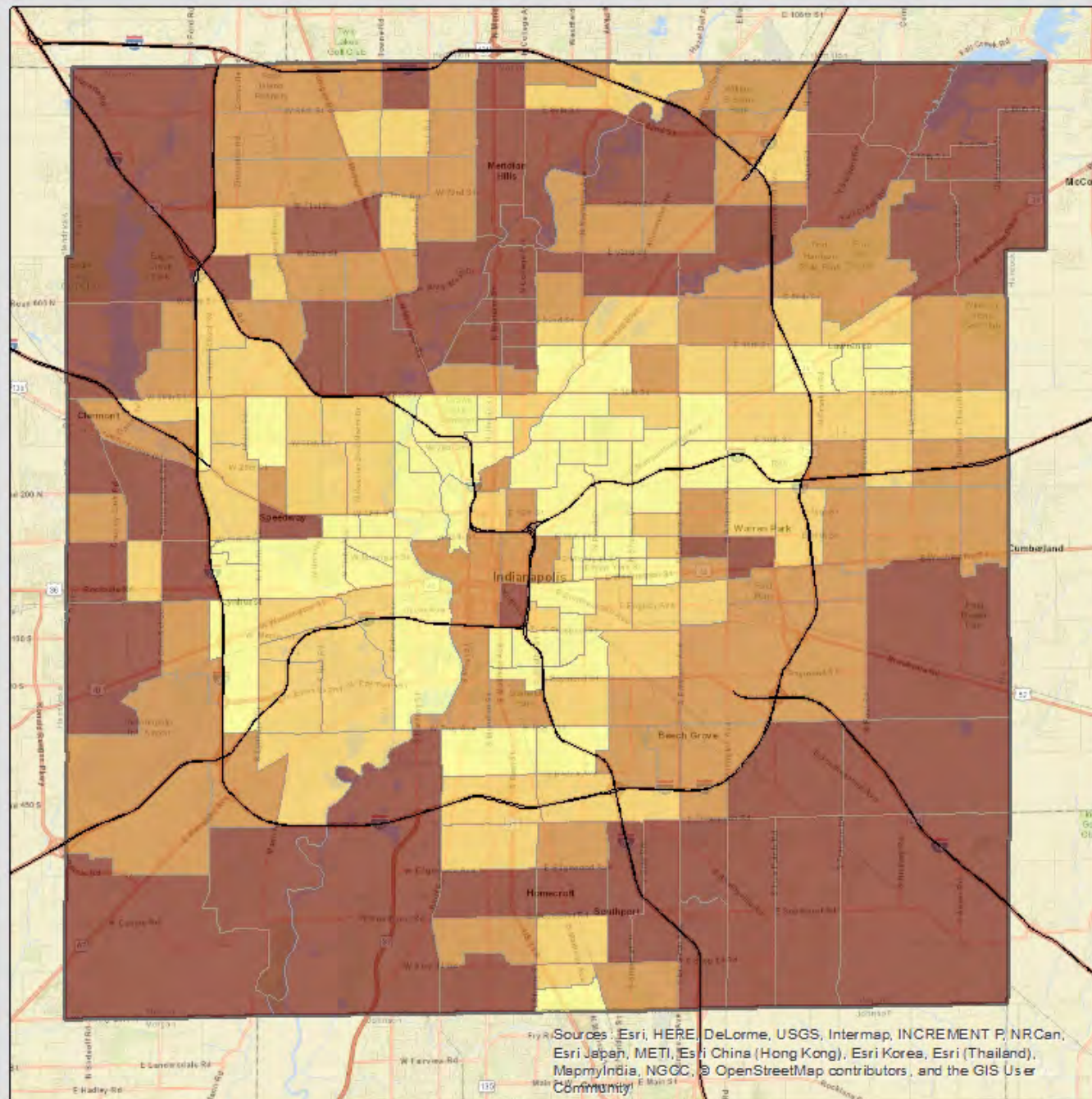
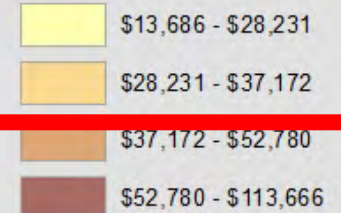
## Median Household Income by Census Tract

### 2014

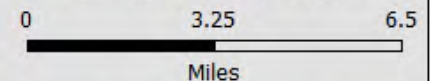
Marion County Median: \$42,378

Metro Area Median: \$52,434

— Interstate Highways



Source: American Community Survey  
5-year Averages, via SAVI  
Community Information System



Map created 12/6/2016  
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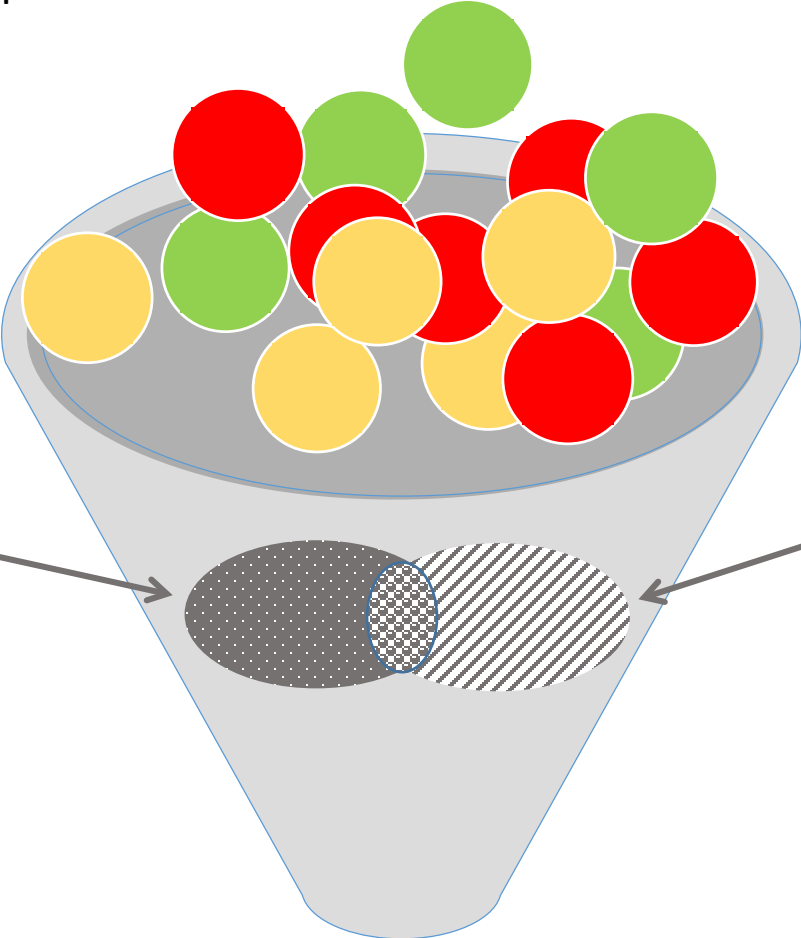


# Narrowing the Geographic Focus

*One of many options*



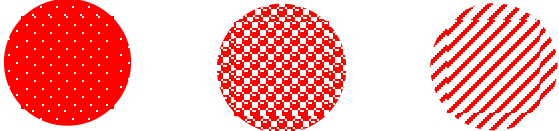
# Environmental Risk Burden



Low  
Income  
Tracts

High  
Minority  
Tracts

## Potential Priority Areas



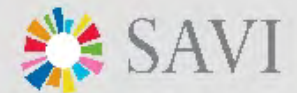
# MARION COUNTY

## Census Tracts with High Environmental Burden

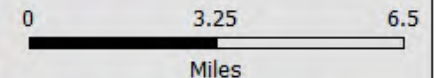
2014

Top 25% by Scaled Pollution Value

- Interstate Highways
- Census Tracts

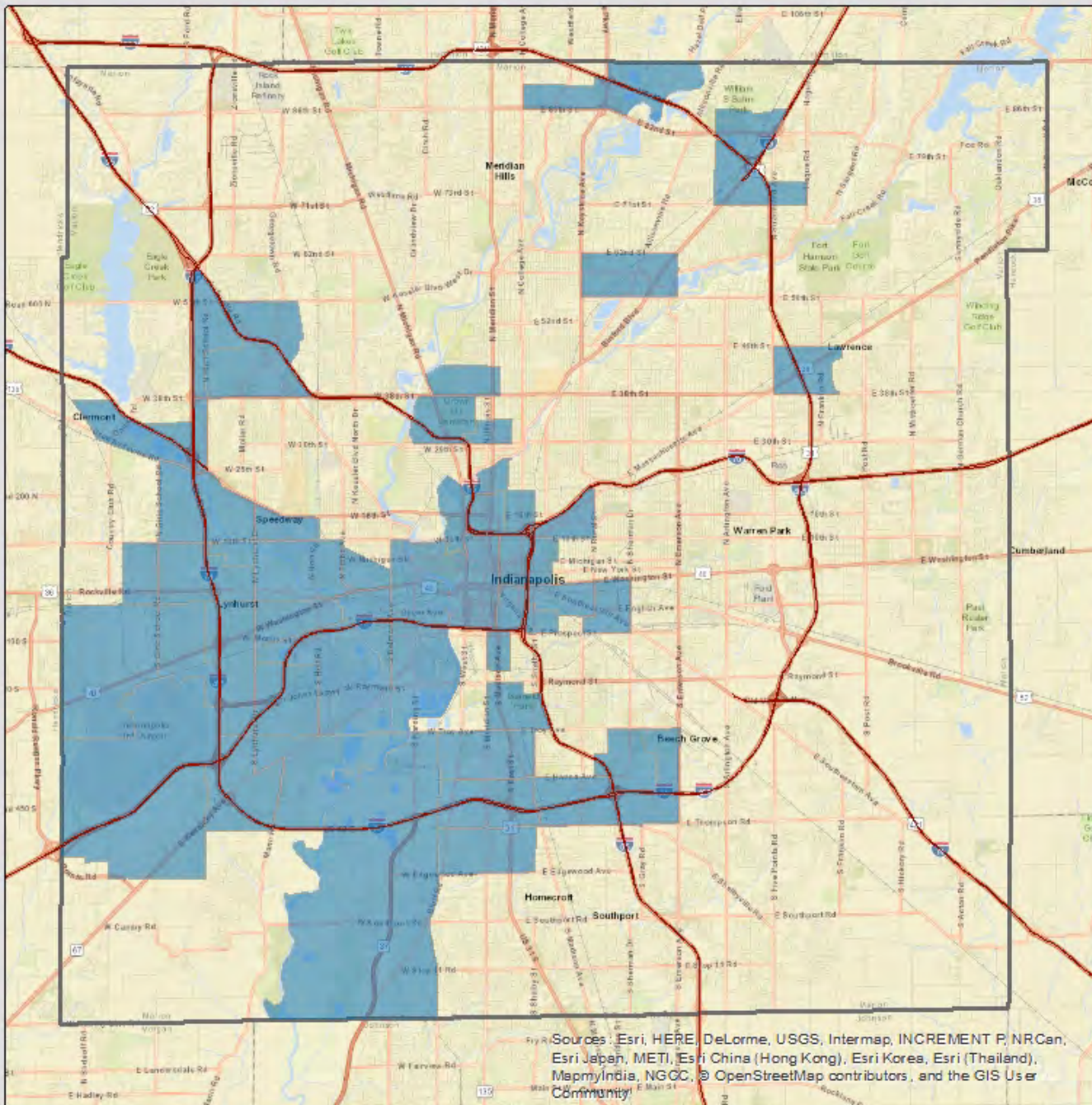


Source: IU Fairbanks School of Public Health: [hecap.squarespace.com](http://hecap.squarespace.com)



Map created 12/6/2016  
by The Polis Center at IUPUI

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# Selecting Census Tracts that are...

- The most environmentally burdened (**top 25%**)

AND are in one or both of the following groups:

- Low income (**bottom 50%** of tracts based on median household income)
- High proportion of minority population (**top 50%**)



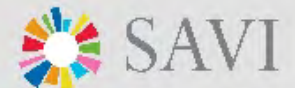
# MARION COUNTY

## Potential High Priority Environmental Justice Areas 2014

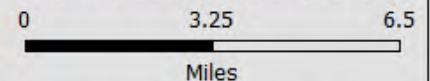
Areas with High Environmental Burden and Either High Proportion of Minority Population or Low Median Household Income

- Interstate Highways
- Census Tracts
- Marion County

\* of top 25% environmental burden, bottom 50% median HH income or top 50% proportion minority pop



Source: American Community Survey  
5-year Averages, via SAVI  
Community Information System  
IU Fairbanks School of  
Public Health: [hecap.squarespace.com](http://hecap.squarespace.com)



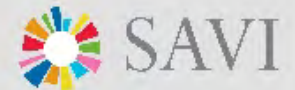
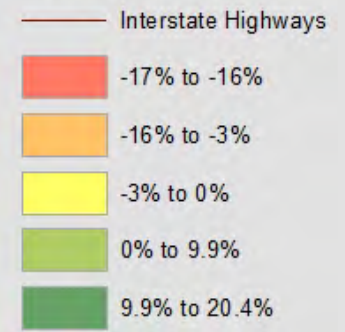
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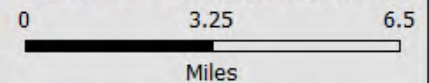


# MARION COUNTY

## Potential High Priority Environmental Justice Areas with Change in Assessed Value 2010 - 2013



Source: American Community Survey  
5-year Averages, via SAVI  
Community Information System  
IU Fairbanks School of  
Public Health: [hecap.squarespace.com](http://hecap.squarespace.com)



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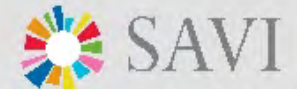
# MARION COUNTY

## Potential High Priority Environmental Justice Areas 2014

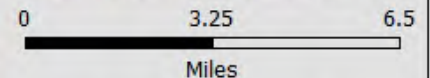
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- Marion County

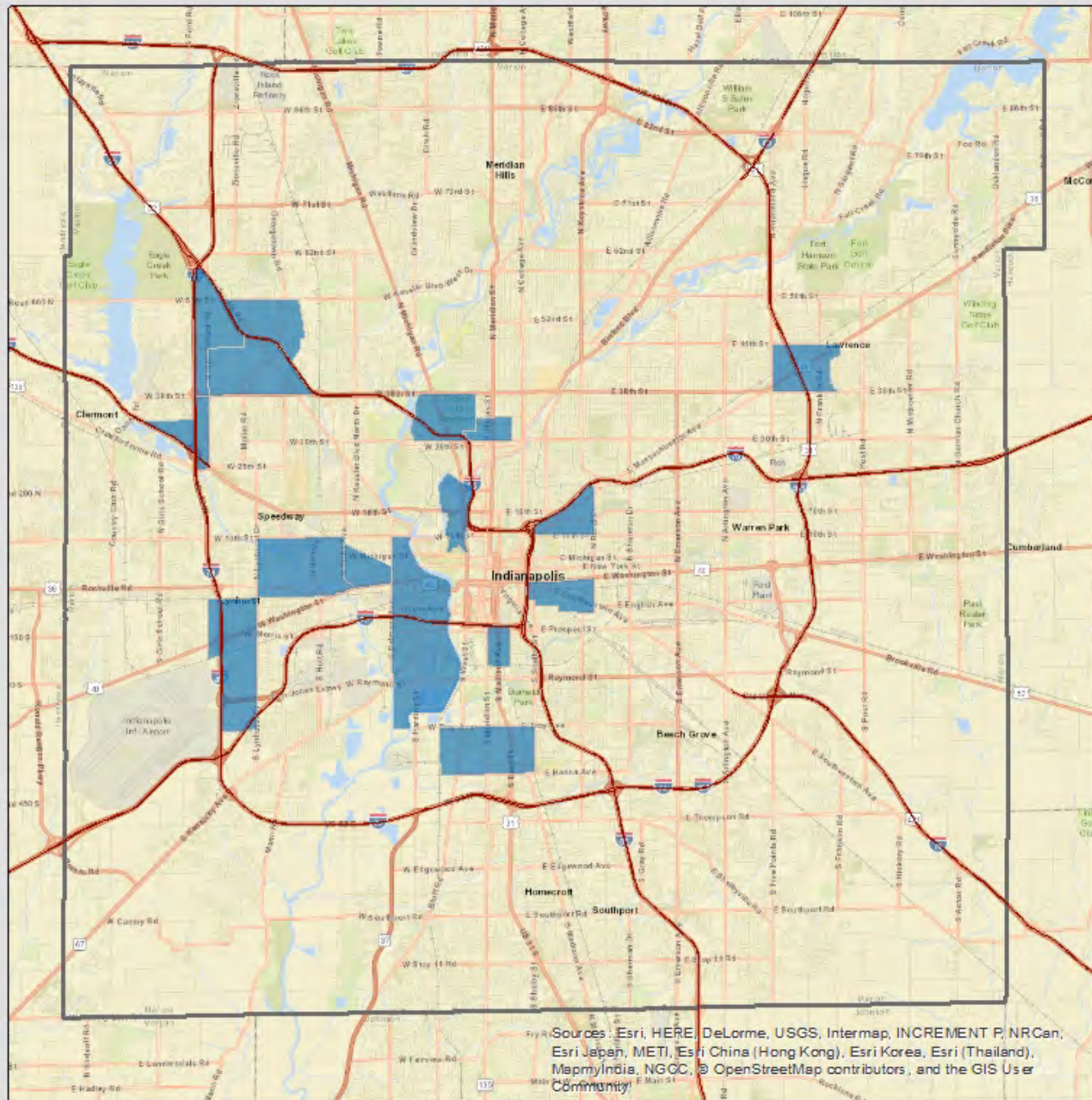
\* of top 25% environmental burden, bottom 25% median HH income or top 25% proportion minority pop



Source: American Community Survey  
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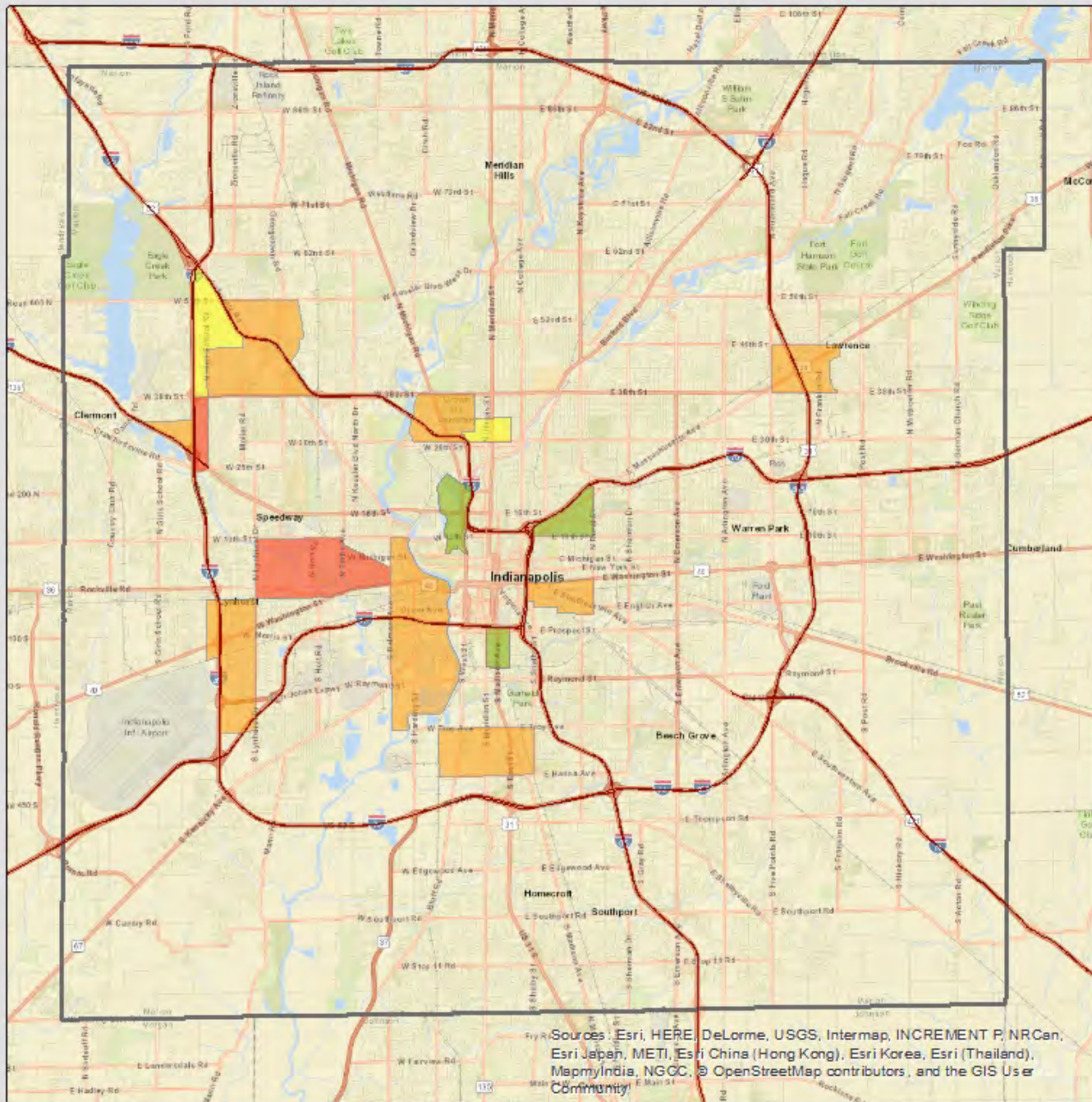







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# MARION COUNTY Potential High Priority Environmental Justice Areas with Change in Assessed Value 2010 - 2013

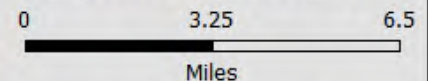


-  Interstate Highways
-  -17% to -16%
-  -16% to -3%
-  -3% to 0%
-  0% - 3%

\* of top 25% environmental burden,  
bottom 25% median HH income  
or top 25% proportion minority pop



Source: American Community Survey  
5-year Averages, via SAVI  
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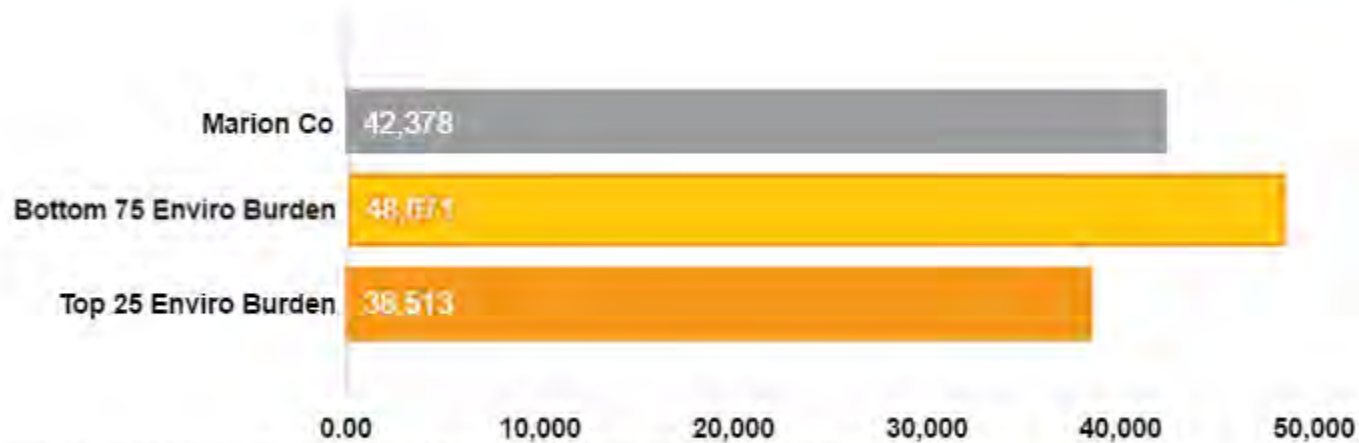
# Is there a Disproportionate Impact?

*The following are ideas, just scraping the surface of the data*





## Median Household Income 2010-2014



Data source: American Community Survey 5-year Averages, via SAVI Community Information System

Note: these values are calculated within a margin of error. Each data point shown in the chart is an estimate for a value that falls within a range of numbers. The margin of error refers to that range. Please contact Polis staff for assistance with margins of error.

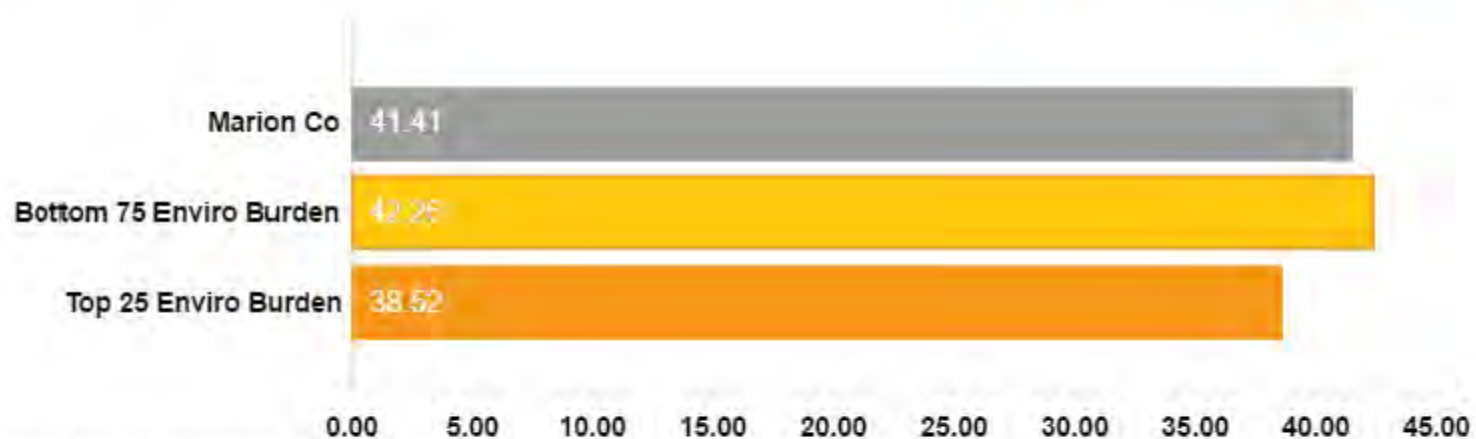
## Percent People of Color 2010-2014



SAVI



United Way  
of Central Indiana



Data source: American Community Survey 5-year Averages, via SAVI Community Information System

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