

# Johnson County Household Hazardous Waste Site

TAYLOR SHULSE

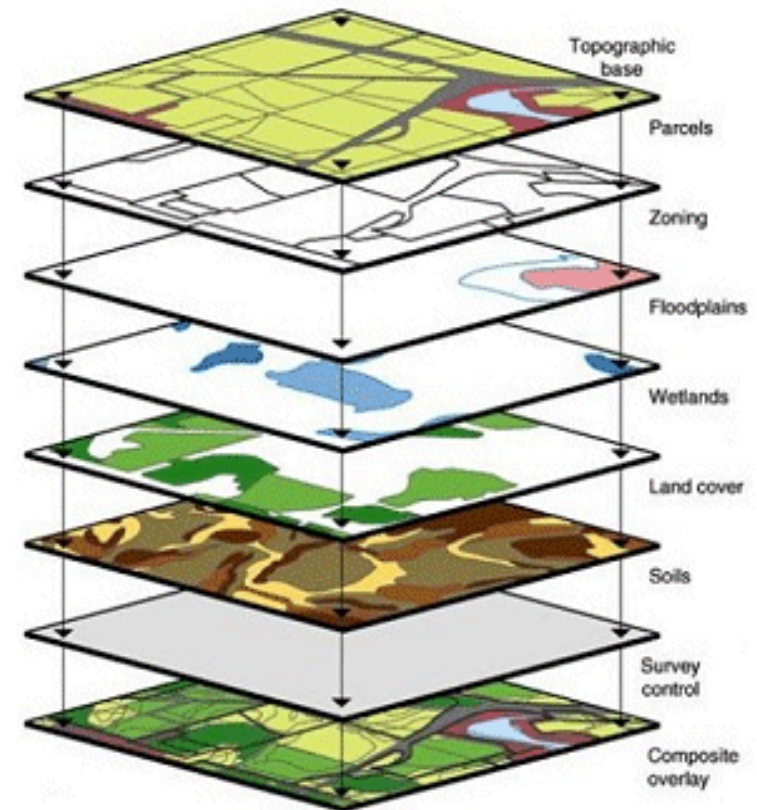


# Materials & Methods

- ▶ American Community Survey (ACS)
  - ▶ Most up to date data
- ▶ U.S. Census Bureau
  - ▶ Reliable data not estimates
- ▶ Arc Map GIS
- ▶ Excel

# Arc Map GIS

- ▶ Used to create, view, edit, and analyze geospatial data.
- ▶ Use of symbols, and chlorophyll areas to represent data.
- ▶ Create layers that are able to be overlaid.



# Restrictions

- ▶ Used 2010 Census data
  - ▶ Correlates with our map data for the population and population density
- ▶ American Community Survey is Estimated based on the population surveyed
  - ▶ Pulled in information that was relevant to research, and not found in Census data
- ▶ Had to extrapolate data for Olathe HHW for the missing month

# Introduction

- ▶ Household Hazardous Waste (HHW) represents waste is produced as a result of normal household activities.



# Introduction

- ▶ Household Hazardous Waste (HHW) represents waste is produced as a result of normal household activities. (5)
- ▶ Among the most common of these are:
  - ▶ Pesticides, paints, and varnishes
  - ▶ Paint thinners and solvents
  - ▶ Motor oil, antifreeze
  - ▶ Household cleaners
  - ▶ Swimming pool chemicals
  - ▶ Fluorescent bulbs, electronics



# Introduction

- ▶ Agency for Toxic Substances and Disease Registry (ATSDR)



# Introduction

- ▶ Agency for Toxic Substances and Disease Registry (ATSDR) (2)
  - ▶ Mitigate or prevent adverse human health effects





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- ▶ Agency for Toxic Substances and Disease Registry (ATSDR) (2)
  - ▶ Mitigate or prevent adverse human health effects
- ▶ Priority Health Conditions (PHCs) (4)

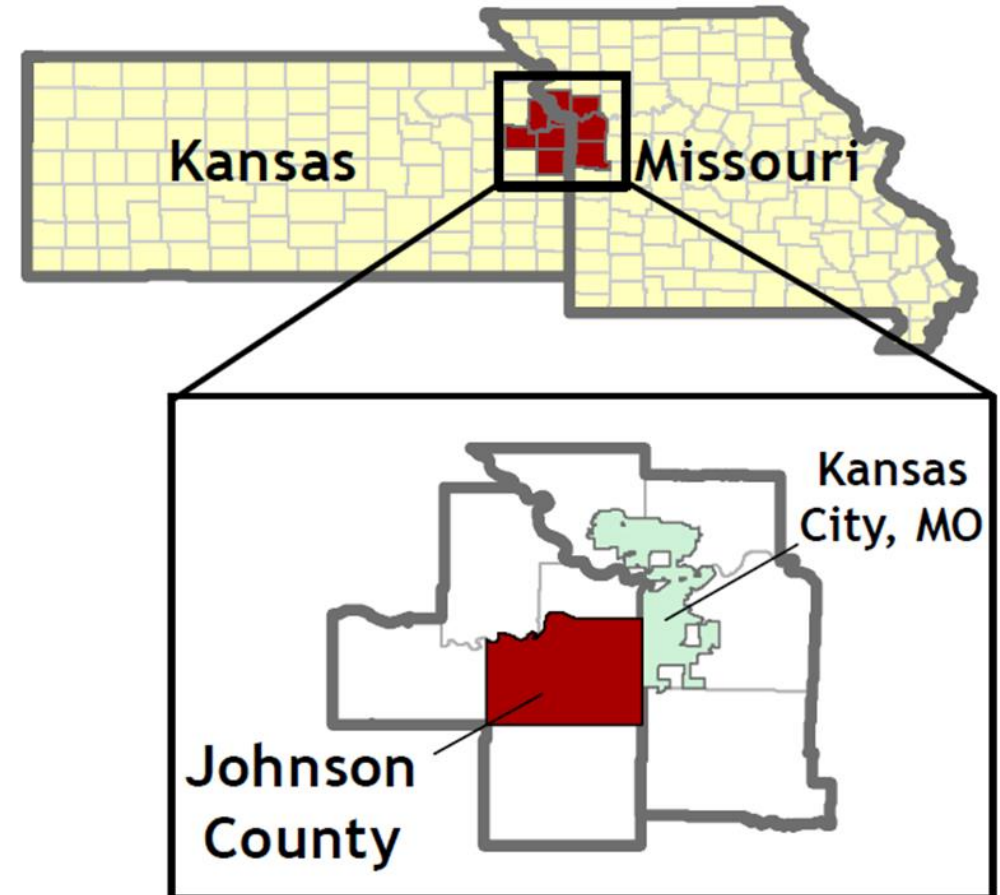


- [illegible]



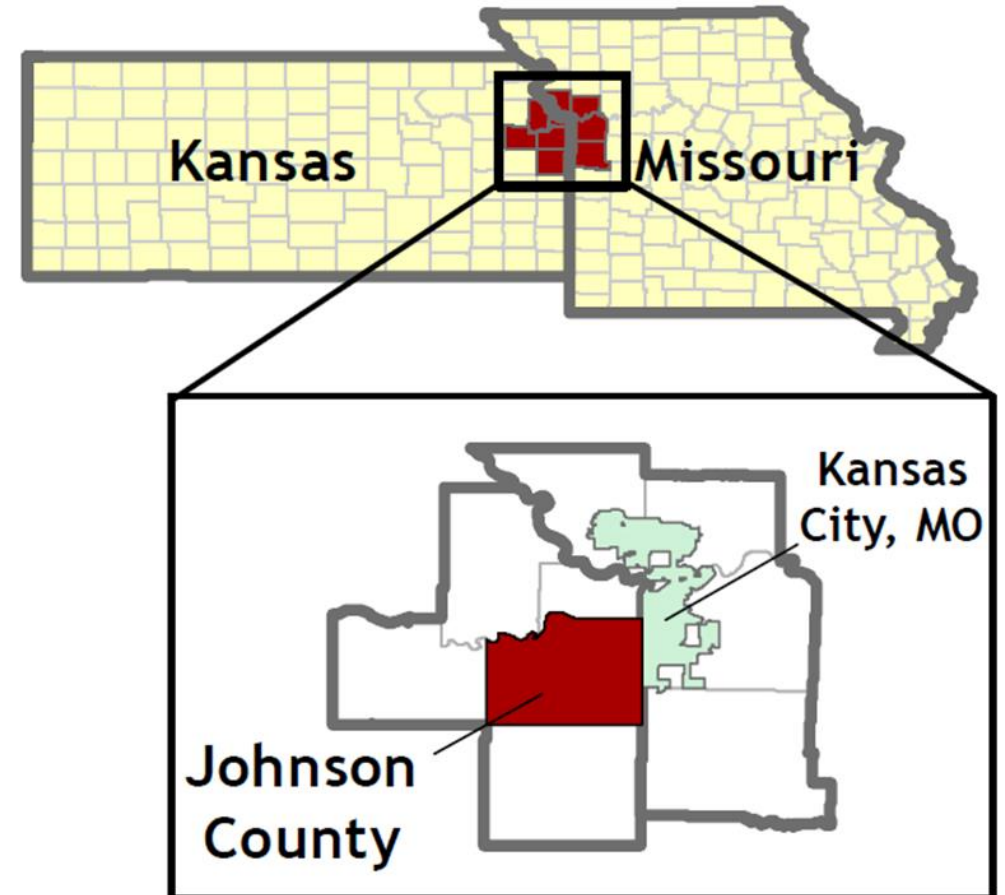
# Johnson County Location

- ▶ Johnson County is located south west of Kansas City, and borders the state line of KS, MO



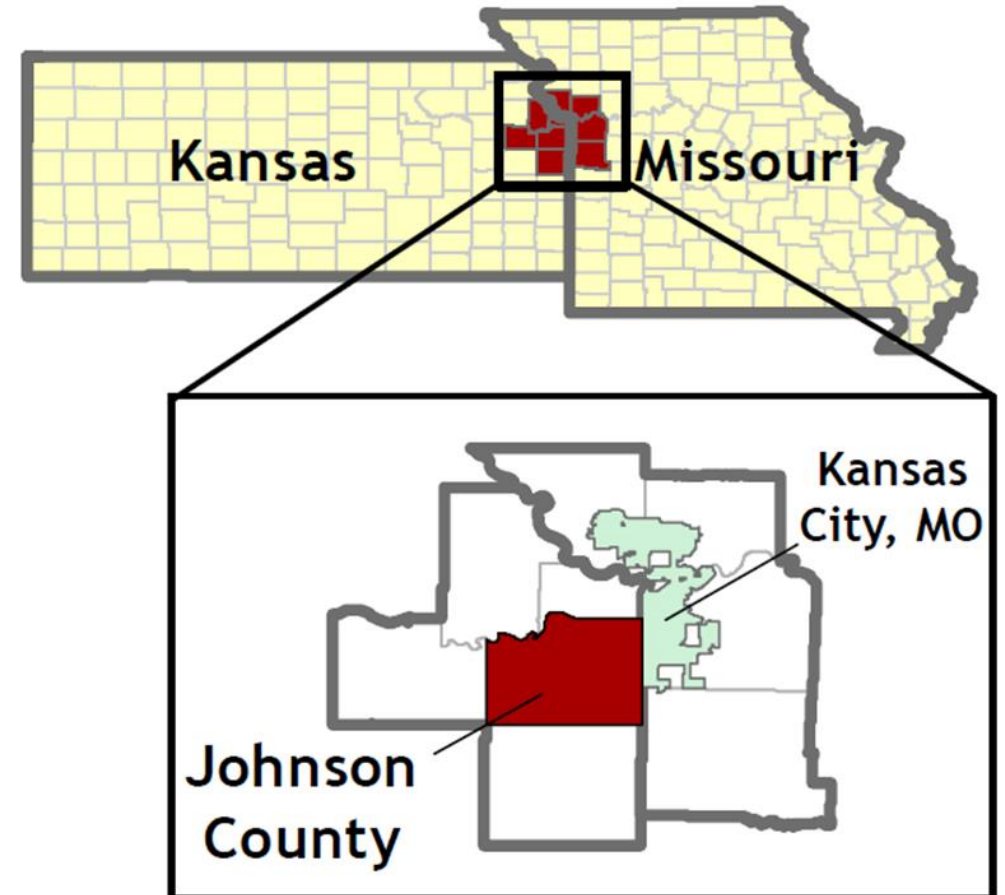
# Johnson County Location

- ▶ Johnson County is located south west of Kansas City, and borders the state line of KS, MO
- ▶ 2010 census, report the county population as 544,179



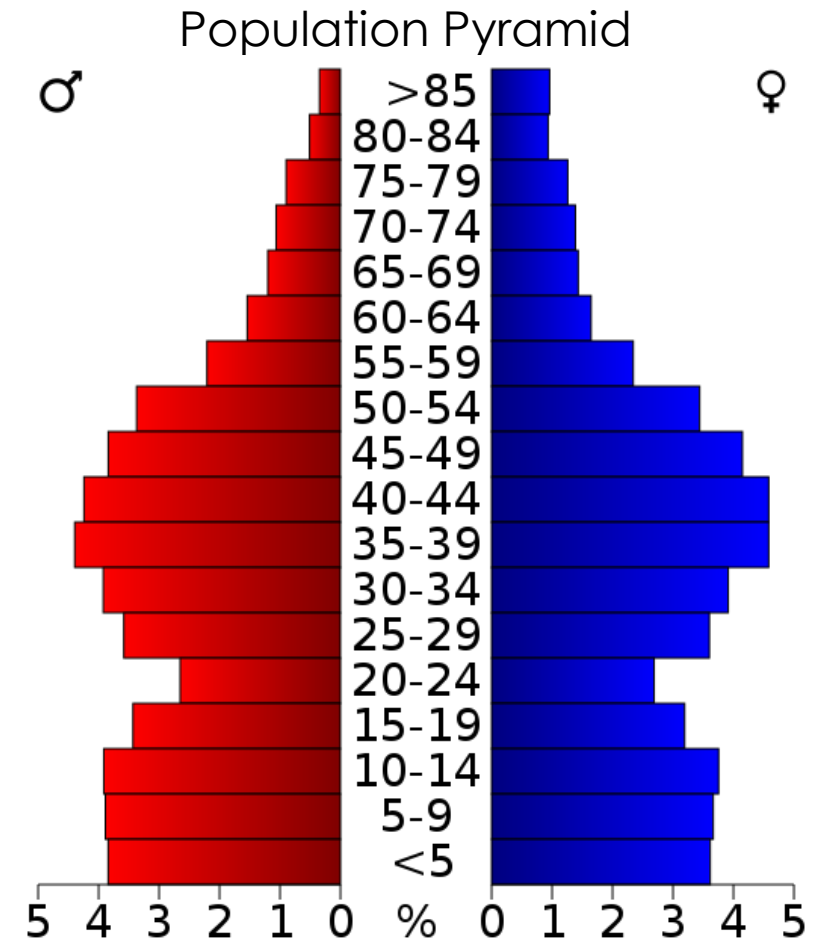
# Johnson County Location

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- ▶ 2010 census, report the county population as 544,179
- ▶ 19 Cities in the County, County seat is in Olathe, the most populous City being Overland Park



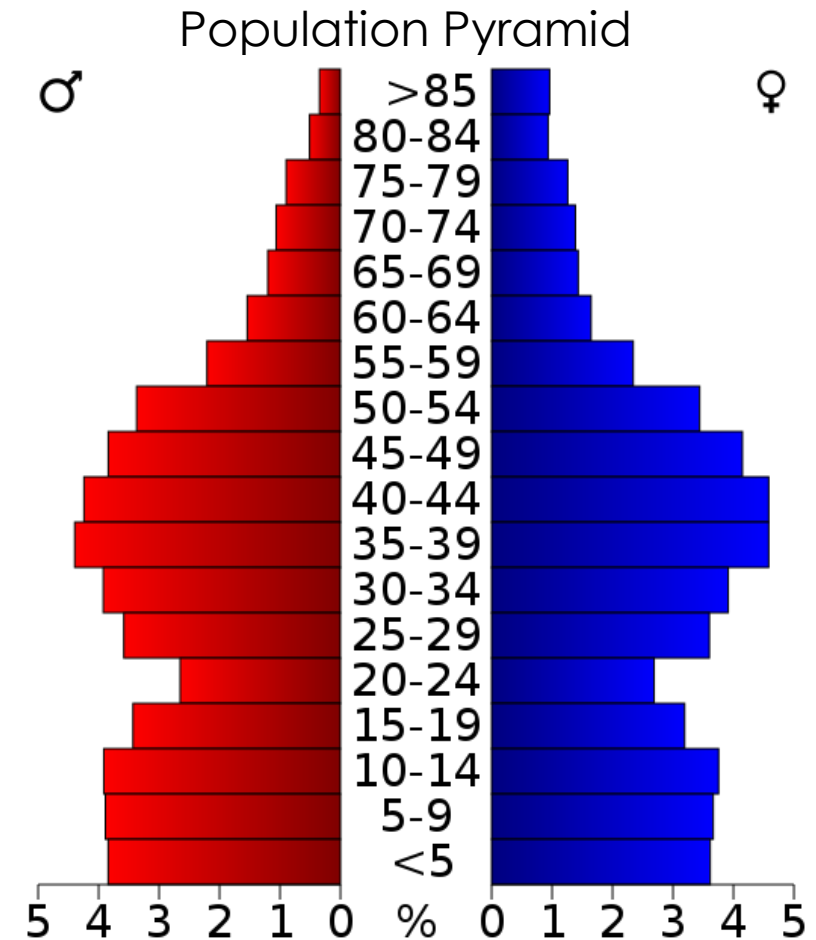
# Demographics

- ▶ 210,278 Households in the County
  - ▶ 143,509 families
    - ▶ 56% married couple
    - ▶ 35% with children under 18 living in household
    - ▶ US Census (2010)



# Demographics

- ▶ 210,278 Households in the County
  - ▶ 143,509 families
    - ▶ 56% married couple
    - ▶ 35% with children under 18 living in household
- (U.S. Census)
- ▶ Highest median household income in Kansas
- ▶ Highest per-capita income in Kansas
- ▶ Represents 28% of Kansas's Income
- Community Commons



# Health Equity

- ▶ Healthy People 2020 defines health equity as the "attainment of the highest level of health for all people
- ▶ Everyone deserves a fair chance to lead a health life.
- ▶ No one should be denied this chance because of who they are or their socio-economic opportunities



# Overview

- ▶ HHW site information:
  - ▶ Johnson County Population Served
  - ▶ City of Olathe Population Served



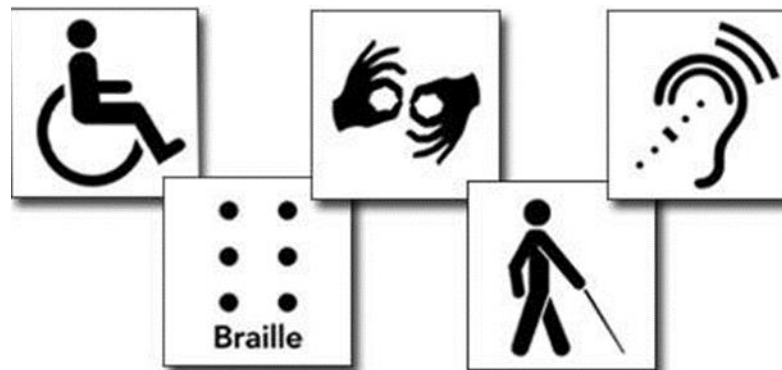
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  - ▶ Racial makeup of Population
    - ▶ How Race & Ethnicity might affect who we serve



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- ▶ Mobile Pickup Service:
  - ▶ Disabilities
  - ▶ Households with No Motor Vehicle



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- ▶ Poverty Factors on the Population:
  - ▶ Ethnicity in Poverty
    - ▶ How they may benefit from the Services Provided

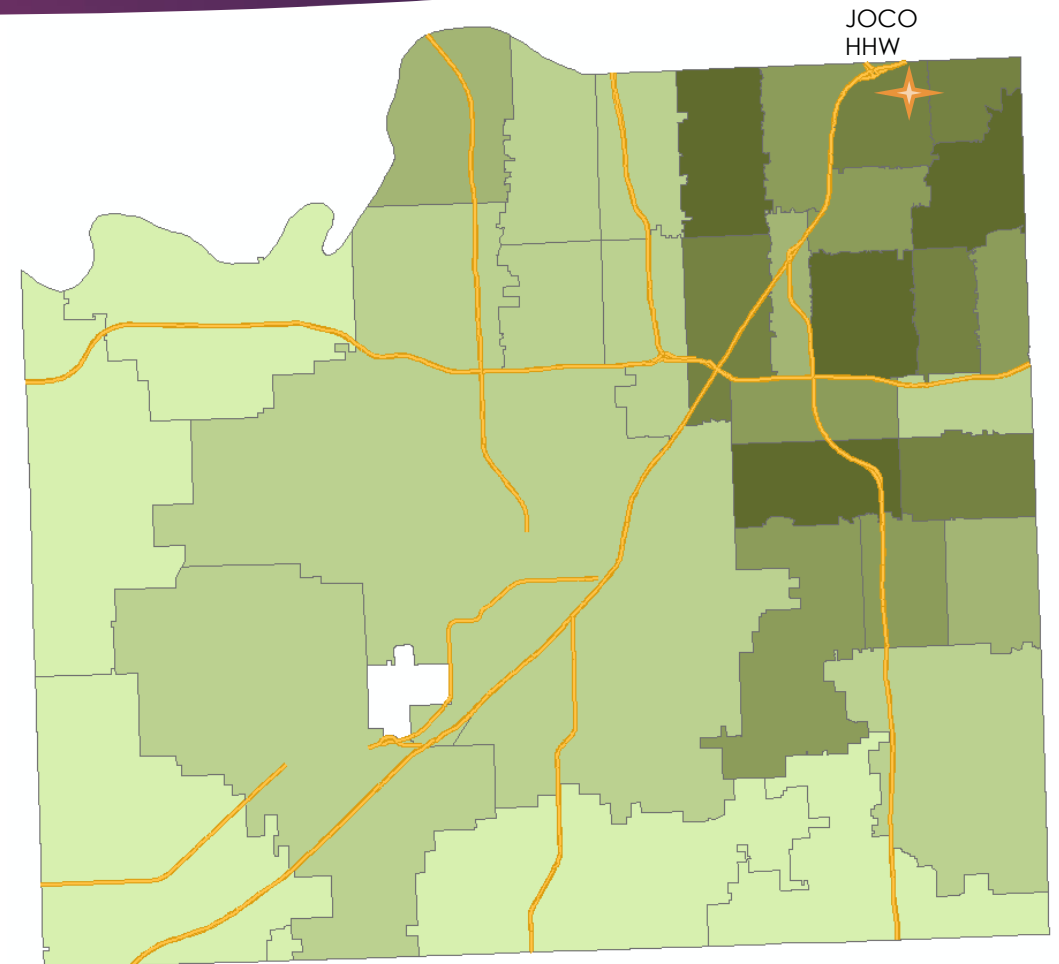
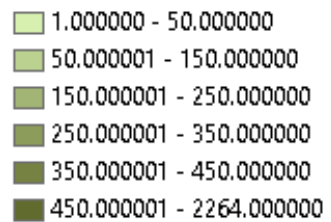
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- ▶ Poverty Factors on the Population:
  - ▶ Ethnicity in Poverty
    - ▶ How they may benefit from the Services Provided
- ▶ Household Density:
  - ▶ New home owners
  - ▶ People migrating into the County

# Johnson County HHW

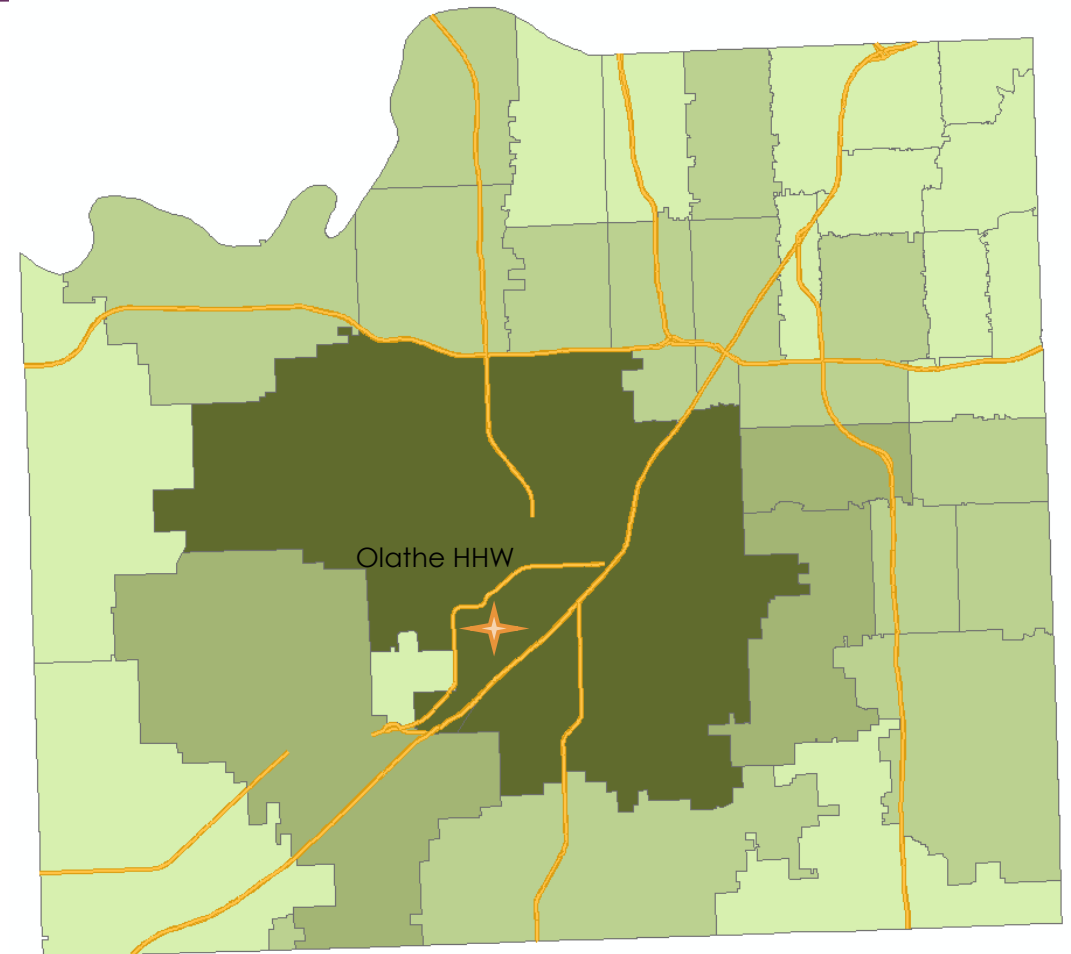
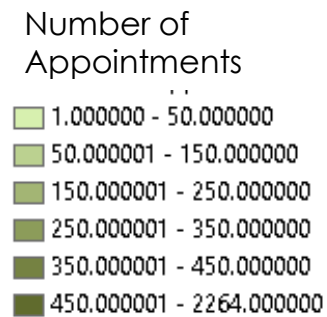
- ▶ 10 complete years worth of data 2005-2015
- ▶ 91,976 people served in 10 years
  - ▶ Serve ~8,000 a year

## Number of Appointments



# City of Olathe HHW

- ▶ Olathe Serves ~6000 people per Year
  - ▶ Almost 70% from two zip codes
    - ▶ 66061 = 30%
    - ▶ 66062 = 37%

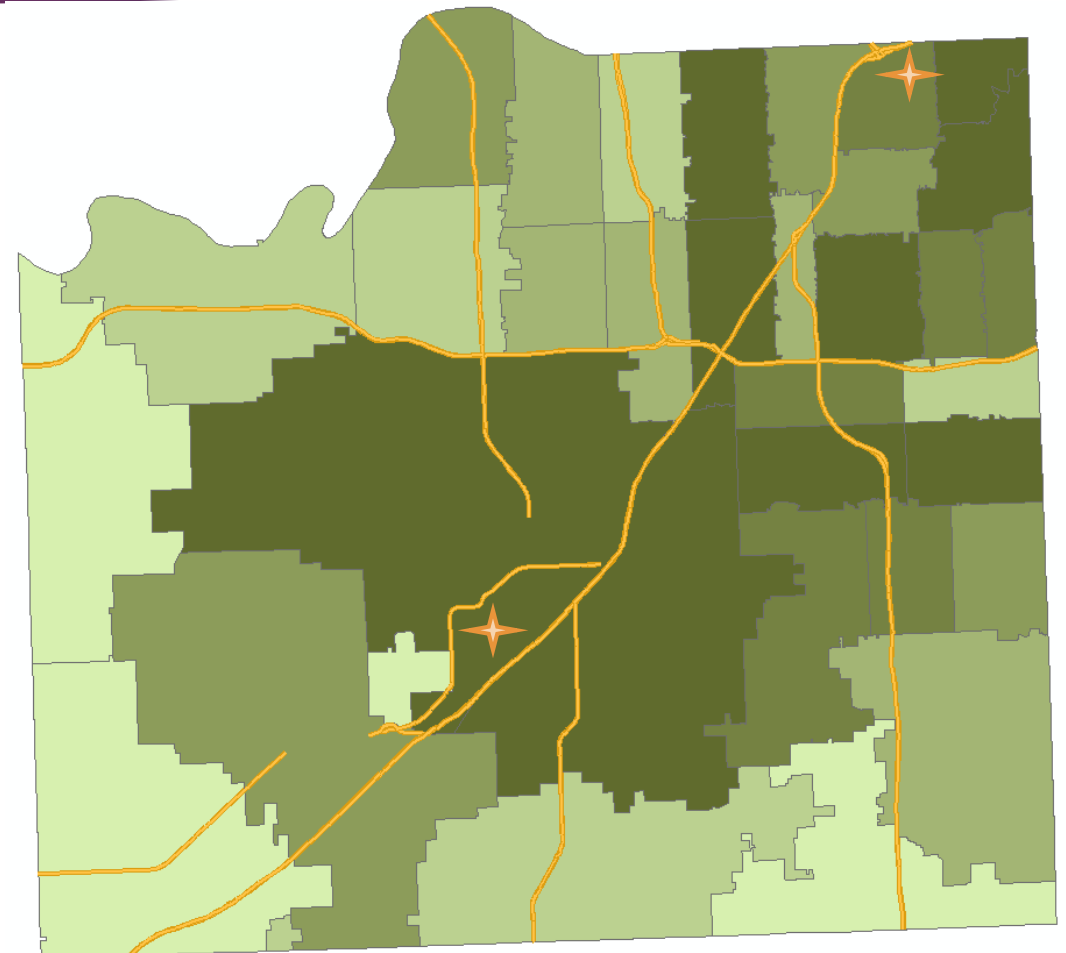


# Combined Data For Both HHW Sites

- ▶ Allows us to get a more complete view of the areas we are serving
  - ▶ Average ~14,000 per year

Number of  
Appointments

0.000000 - 50.000000
50.000001 - 150.000000
150.000001 - 250.000000
250.000001 - 350.000000
350.000001 - 450.000000
450.000001 - 2397.000000



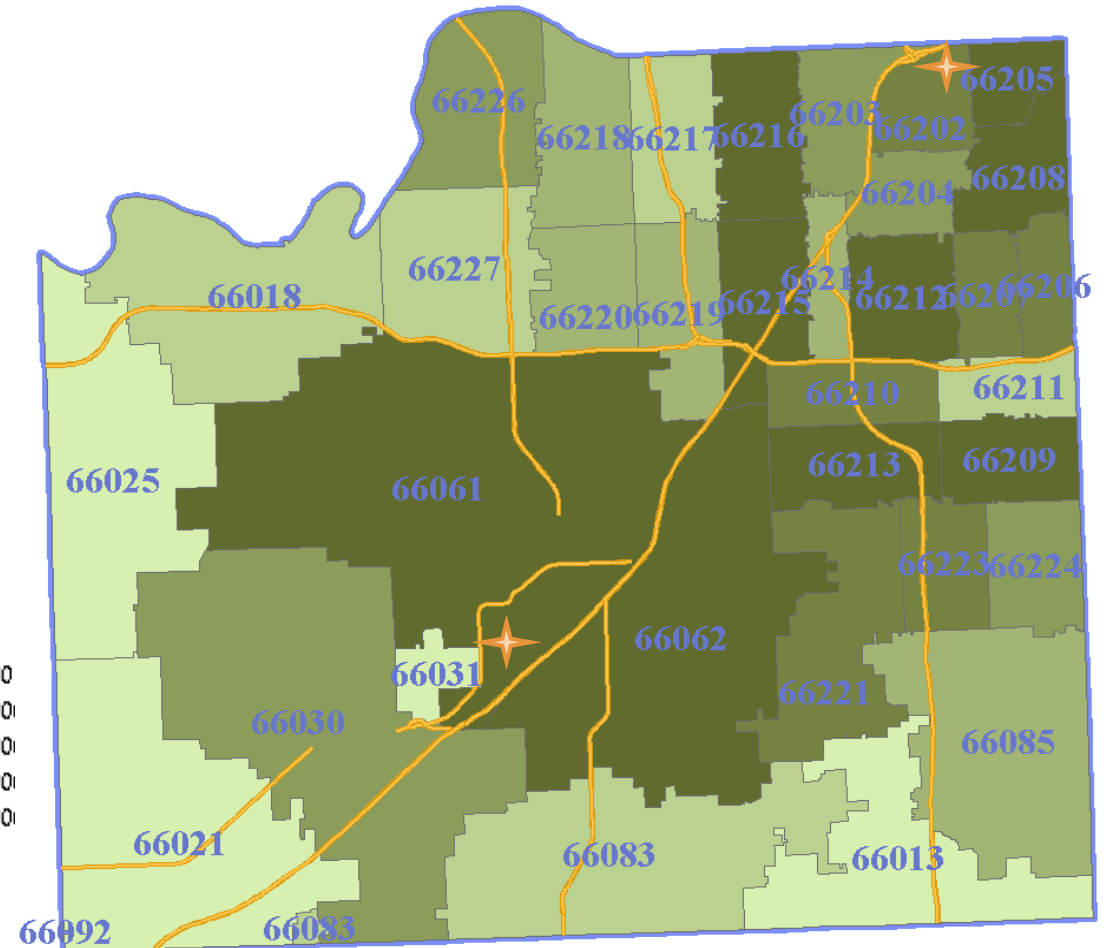


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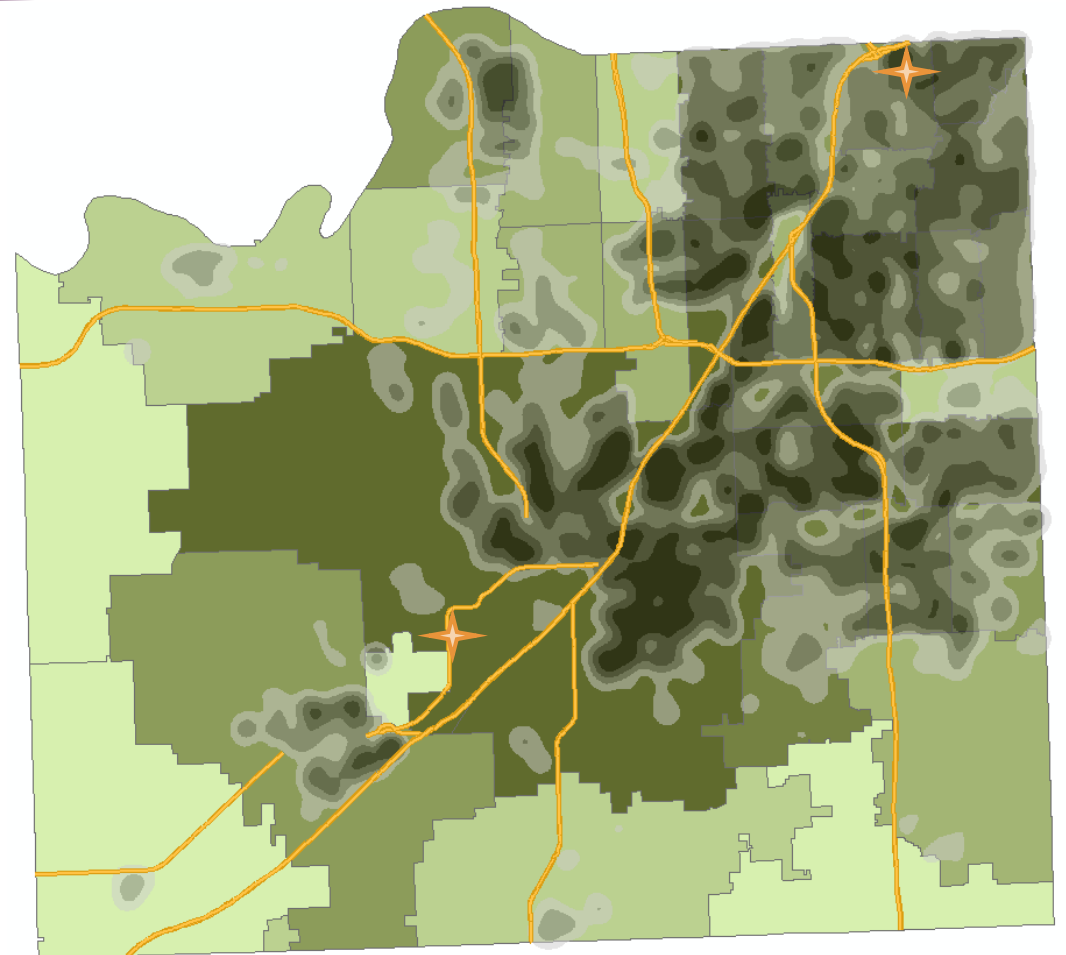
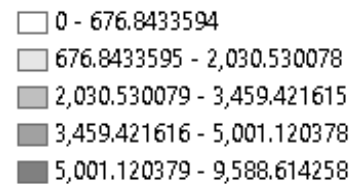
0.000000 - 50.000000
50.000001 - 150.000000
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250.000001 - 350.000000
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450.000001 - 2397.000000



# Population Density

- ▶ Population density map:
  - ▶ We are serving the general population
  - ▶ Areas that are not served due to less population in those areas

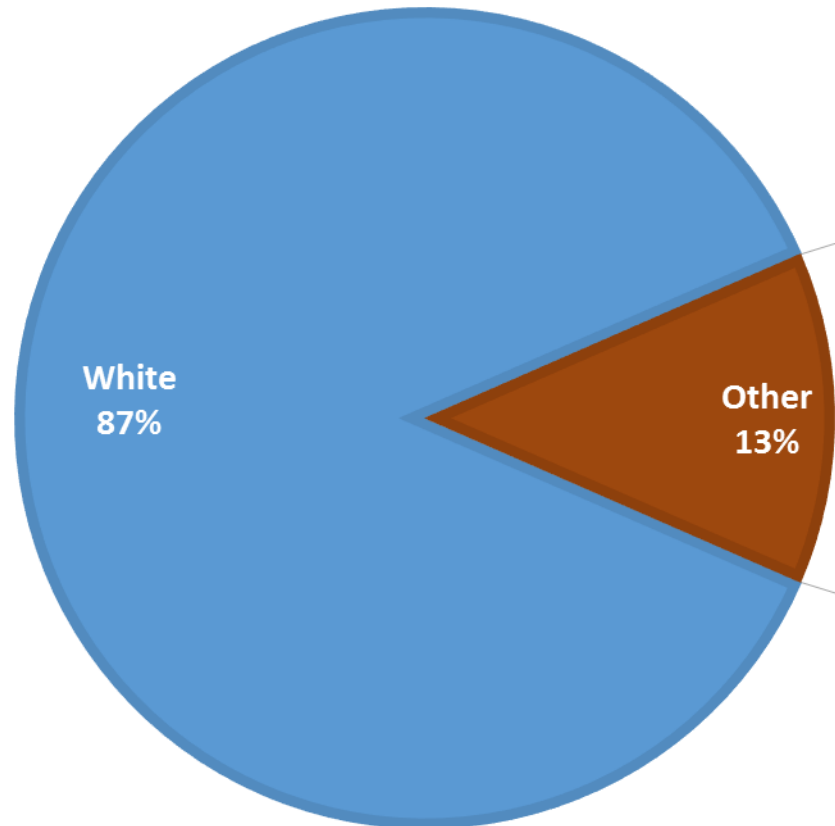
Population Density



# Racial Makeup

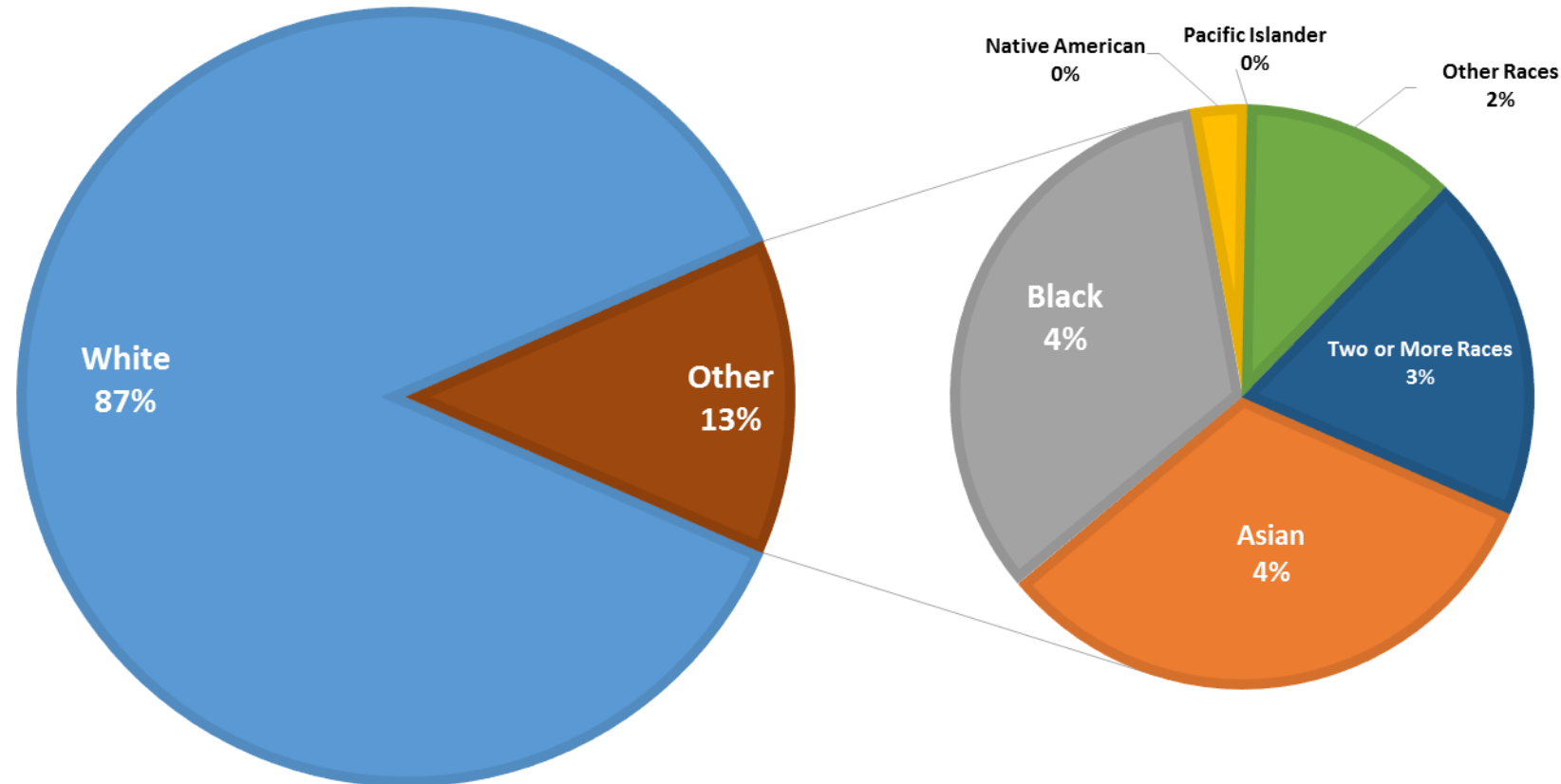
# Racial Makeup

► 87.0% White



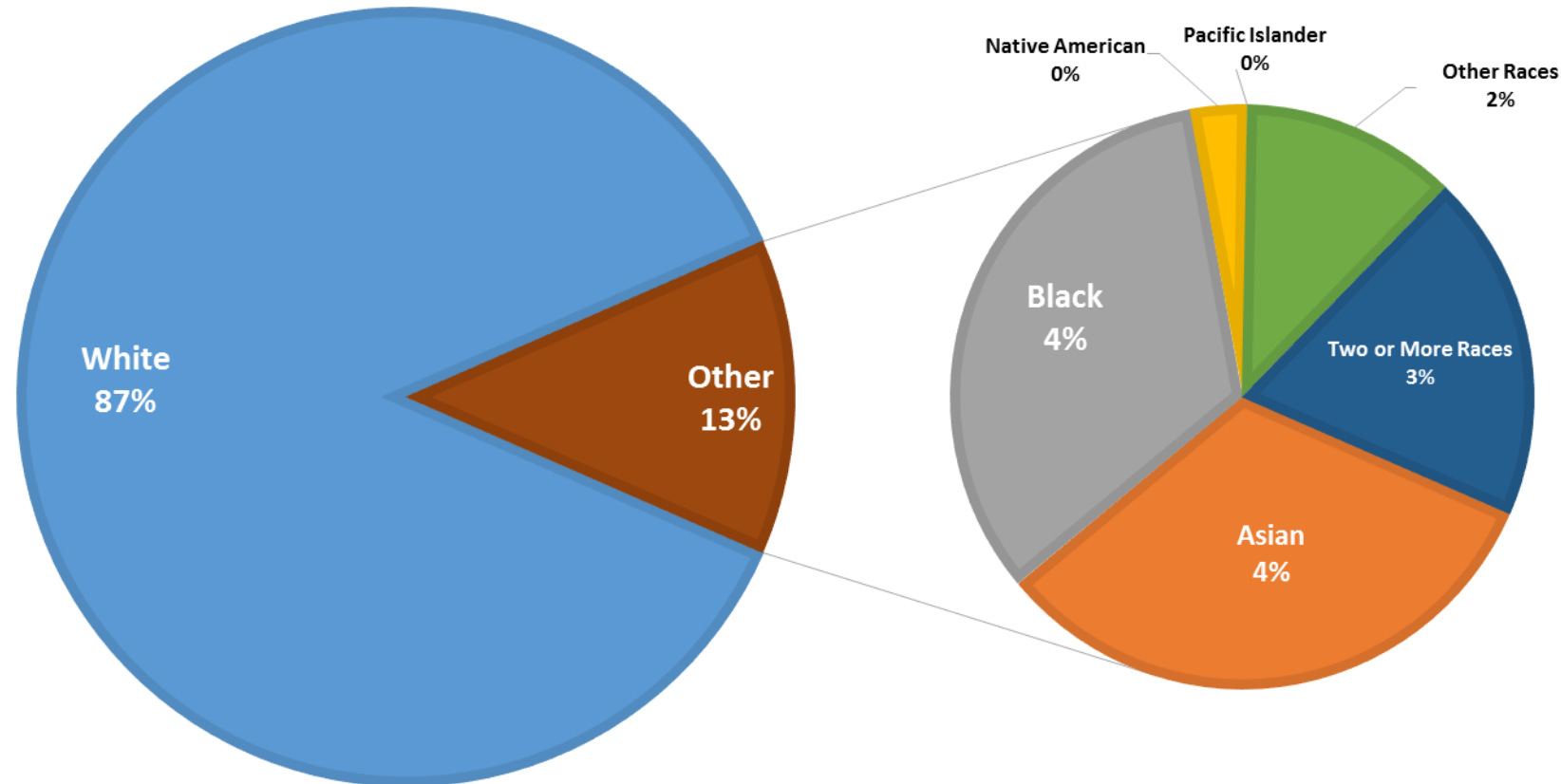
# Racial Makeup

- ▶ 87.0% White
- ▶ 4.2% Asian
- ▶ 4.3% Black
- ▶ 0.4% Native American
- ▶ 0.01% Pacific Islander
- ▶ 1.55% Other Races
- ▶ 2.5% from Two or More Races



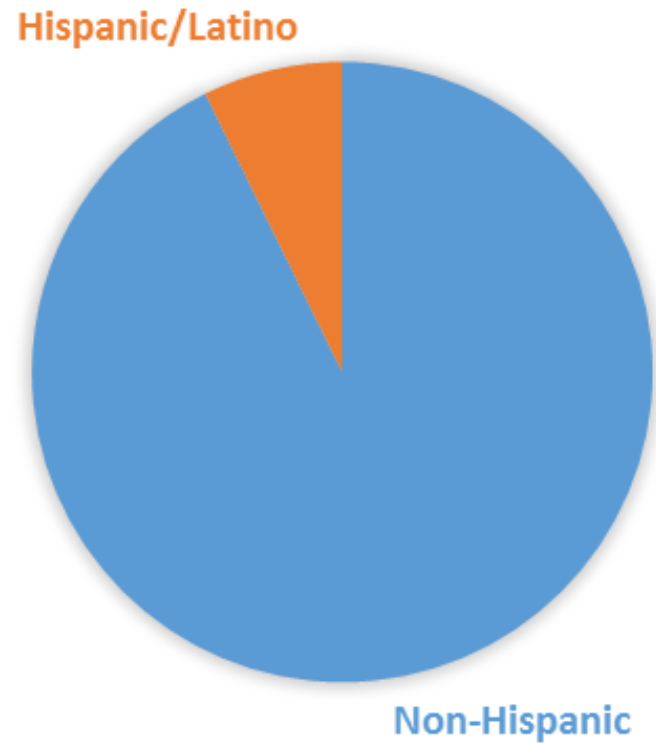
# Racial Makeup

- ▶ 87.0% White
  - ▶ 7,678
- ▶ 4.2% Asian
  - ▶ 353
- ▶ 4.3% Black
  - ▶ 441
- ▶ 0.4% Native American
- ▶ 0.01% Pacific Islander
- ▶ 1.55% Other Races
- ▶ 2.5% from Two or More Races



# Ethnicity

- ▶ 93% Non-Hispanic
- ▶ 7% Hispanic/Latino



# Ethnicity

- ▶ 93% Non-Hispanic
  - ▶ 7440
- ▶ 7% Hispanic/Latino
  - ▶ 643

Hispanic/Latino



Non-Hispanic



# Limited English

# Government Definition of Limited English

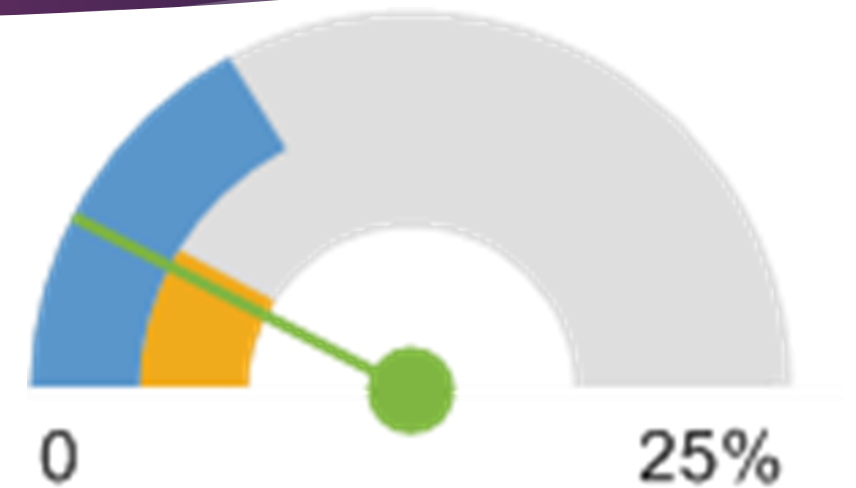
- ▶ Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English.

- ▶ <https://www.lep.gov/faqs/faqs.html>



# Limited English

- ▶ Limited English poses a problem to our program
  - ▶ Website is written in English
  - ▶ Brochures are written in English

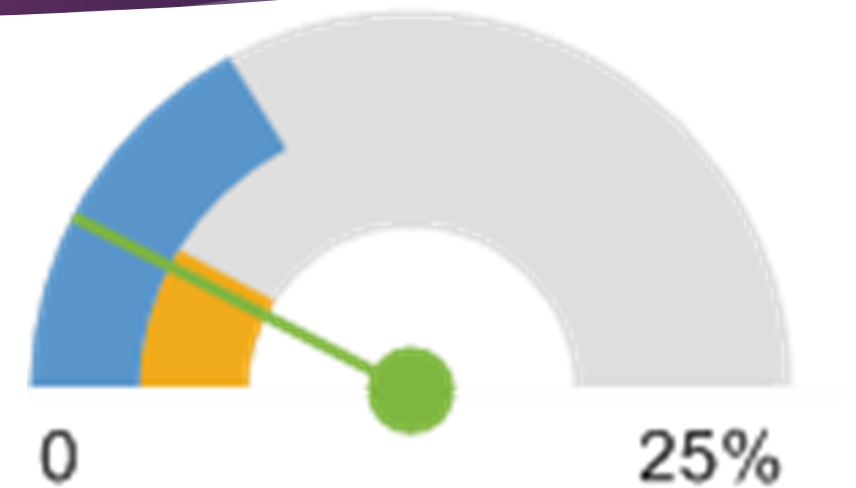


- Johnson County, KS (3.8%)
- Kansas (4.46%)
- United States (8.6%)

Community Commons

# Limited English

- ▶ Limited English poses a problem to our program
  - ▶ Website is written in English
  - ▶ Brochures are written in English
- ▶ How do We Reach This Population
  - ▶ Is it a certain Ethnicity or Race?



■ Johnson County, KS (3.8%)  
■ Kansas (4.46%)  
■ United States (8.6%)

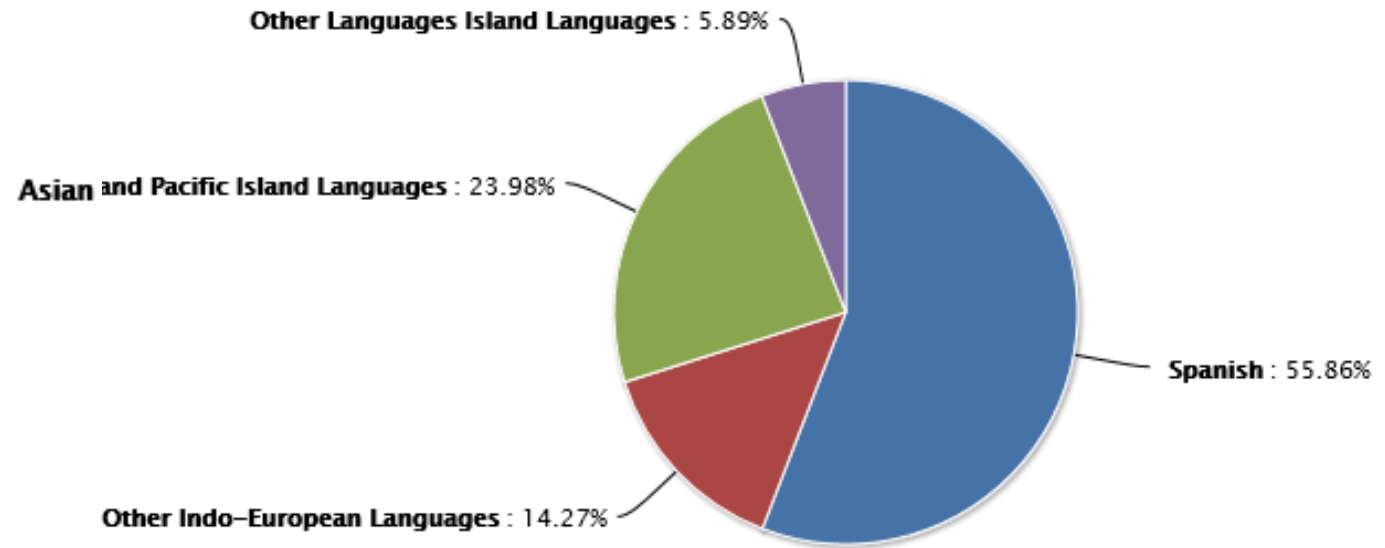
Community Commons

# Limited English

- ▶ Race:
  - ▶ White 60.23%
  - ▶ Asian 27.36%

# Limited English

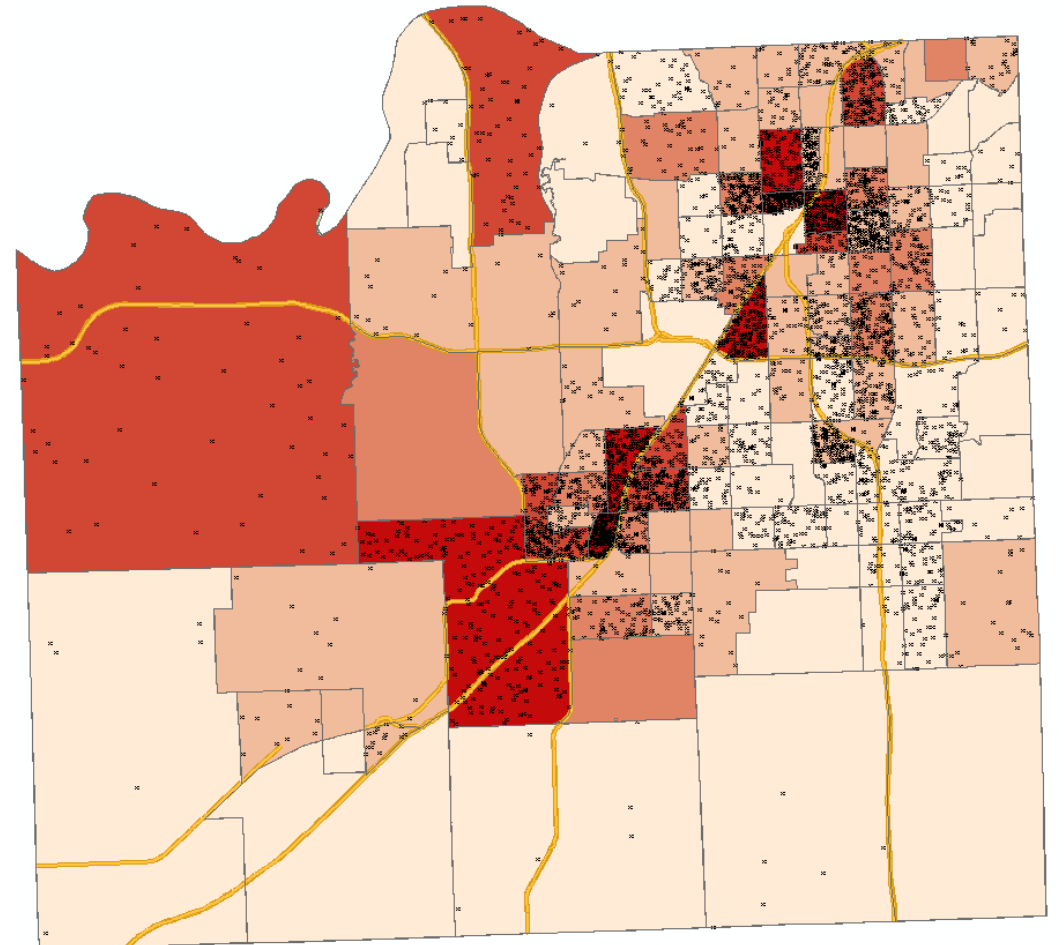
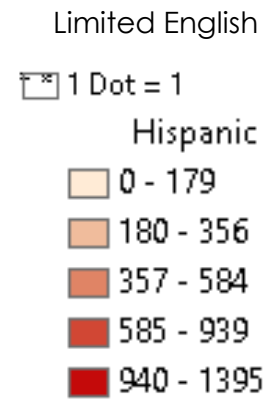
- ▶ Race:
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- ▶ Ethnicity:
  - ▶ Spanish 55.86%
  - ▶ Asian 23.96



Community Commons

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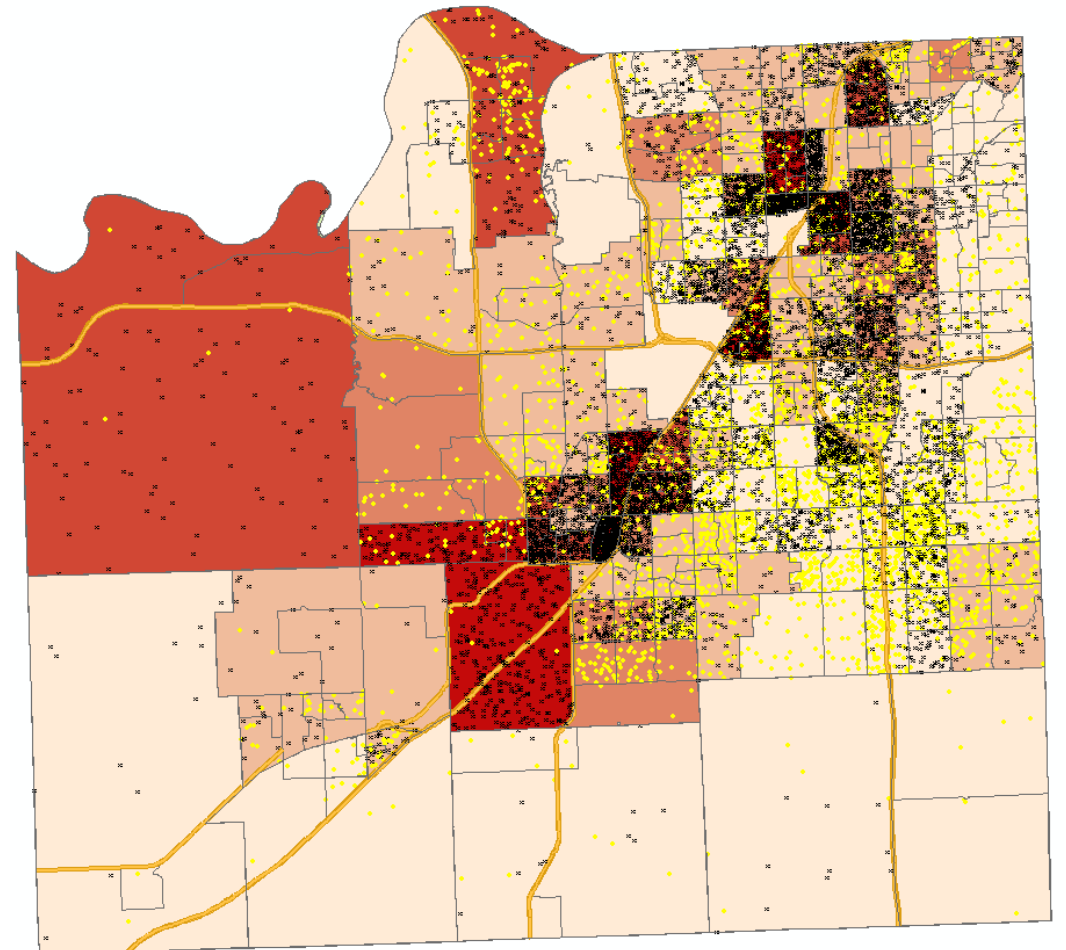
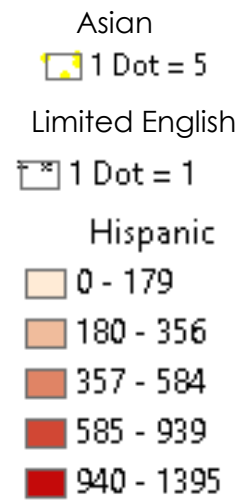
## ► Ethnicity:

► Spanish 55.86%

► 12,189

► Asian 23.96

► 5,224



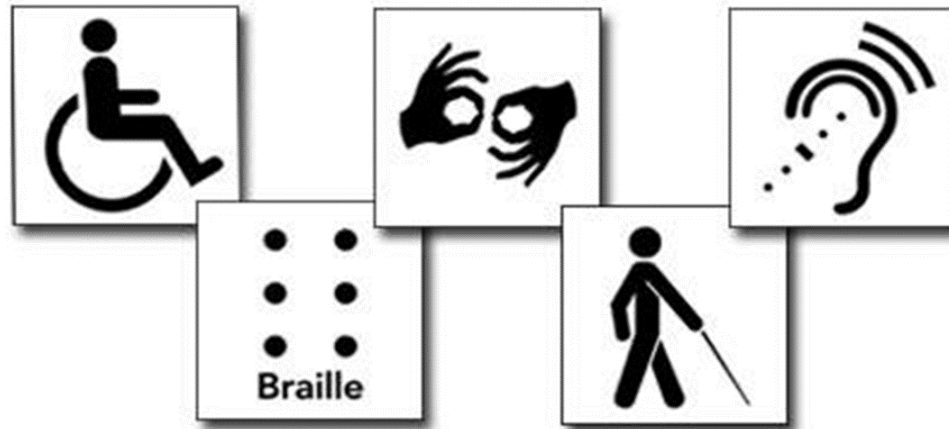


# Mobile Pickup

- ▶ Two Factors We Looked at

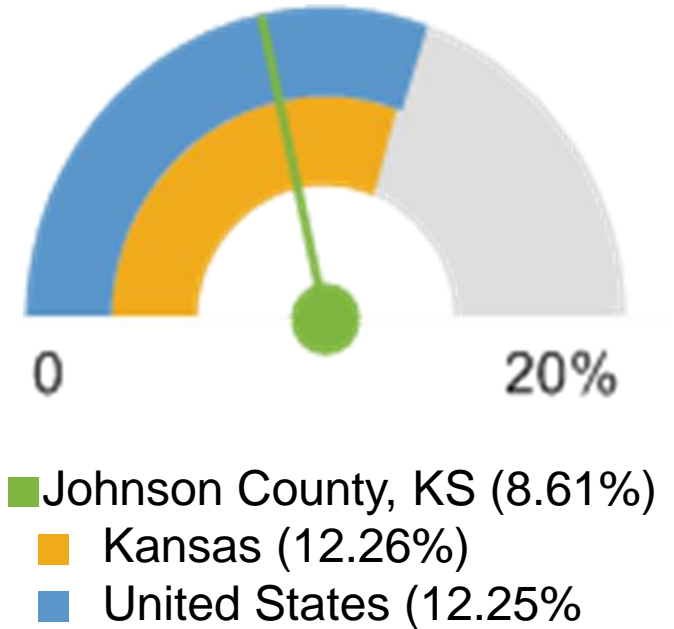
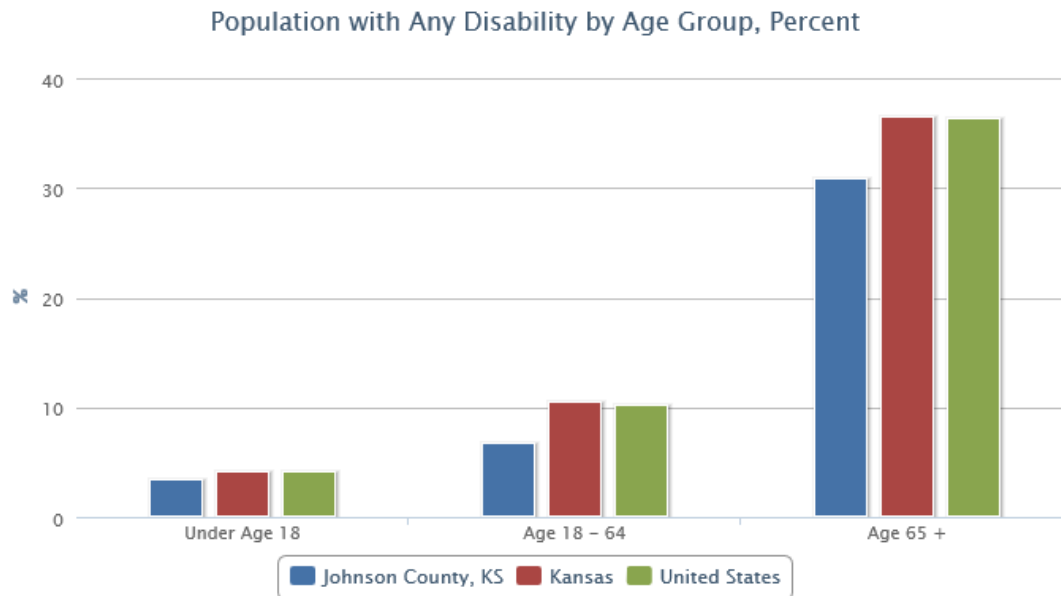
# Mobile Pickup

- ▶ Two Factors We Looked at
  - ▶ People With Disabilities
  - ▶ Households With No Motor Vehicle



# Mobile Pickup

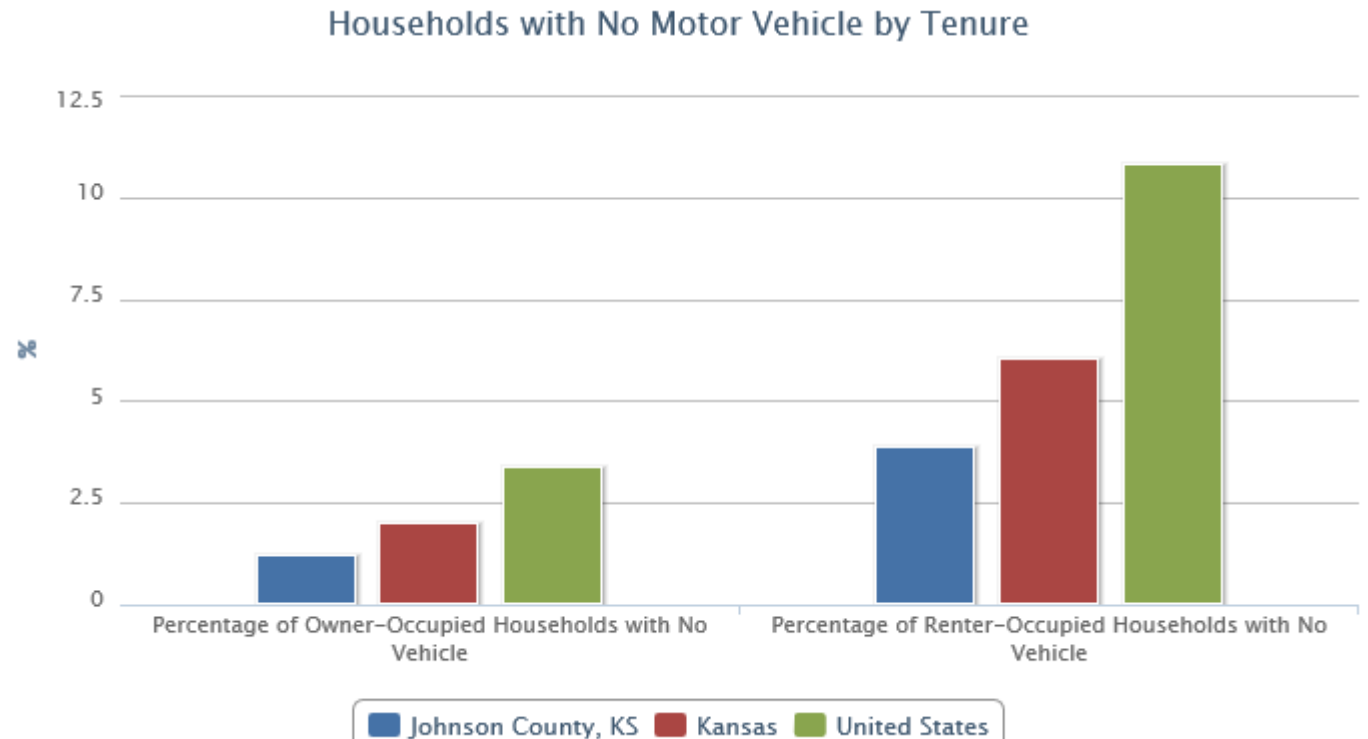
- ▶ Two Factors We Looked at
  - ▶ People With Disabilities



Community Commons

# Mobile Pickup

- ▶ Two Factors We Looked at
  - ▶ Households With No Motor Vehicle
  - ▶ 7,700
    - ▶ 1.2% Home Owners

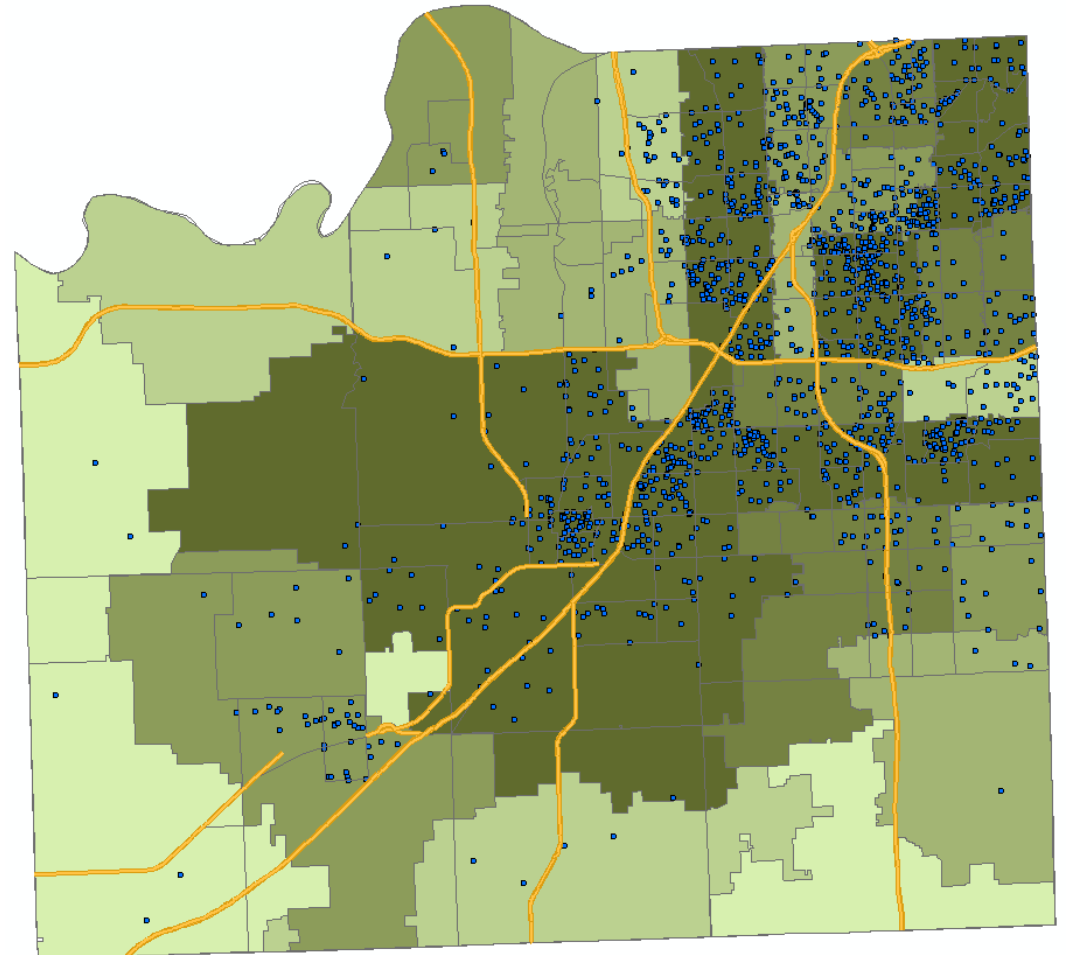


Community Commons

# Mobile Pickup

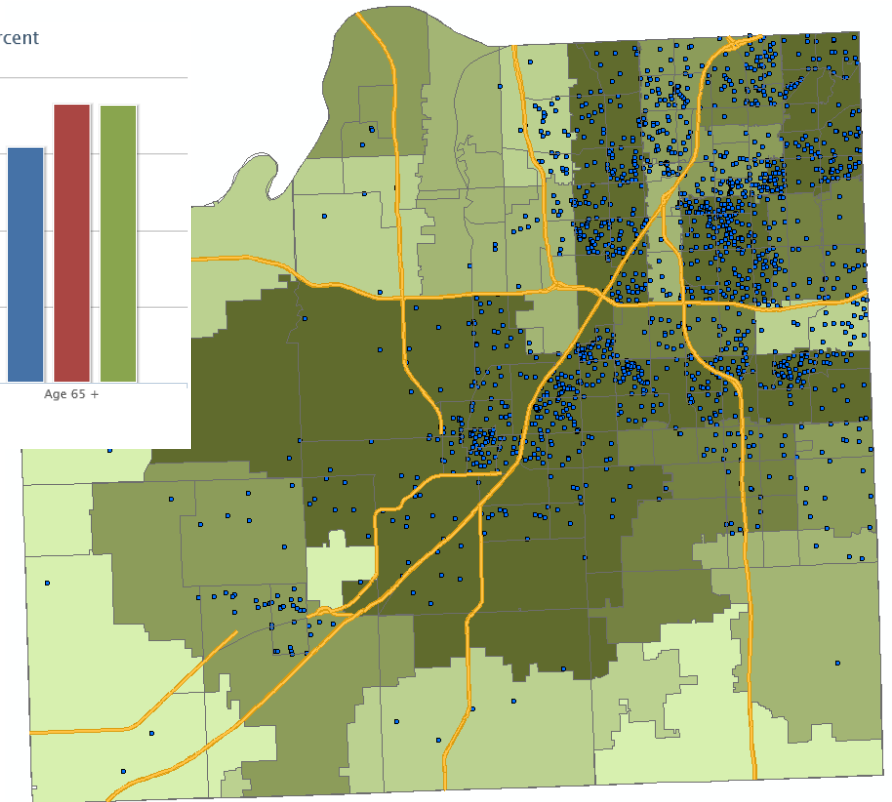
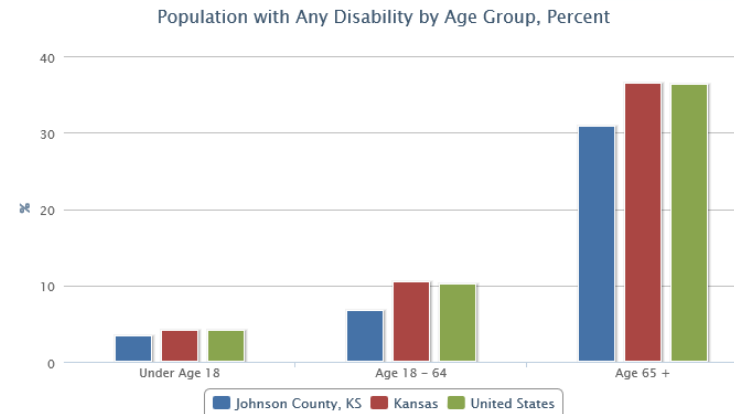
- ▶ Two Factors We Looked at
  - ▶ Households With No Motor Vehicle

Households with  
No Motor Vehicle  
1 Dot = 5



# Mobile Pickup

- ▶ Two Factors We Looked at
  - ▶ Households With No Motor Vehicle
  - ▶ Disabled Older Population
  - ▶ Currently average ~50 pickups a year
  - ▶ Need to increase our outreach and information about our mobile pickup service.
  - ▶ Place information about service in retirement homes



# Poverty

U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
WASHINGTON, D.C. 20233

## PRELIMINARY ESTIMATE OF WEIGHTED AVERAGE POVERTY THRESHOLDS FOR 2015

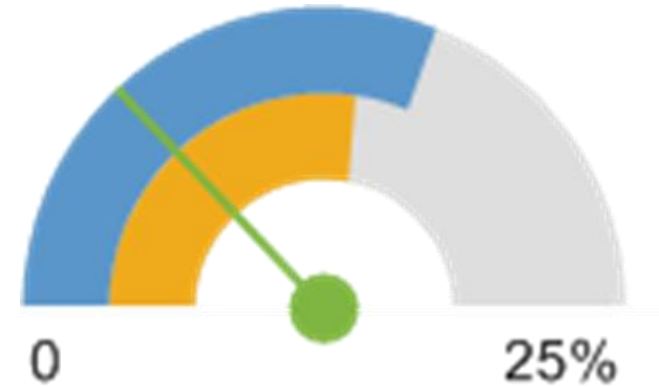
Size of Family Unit	Estimated Threshold
1 person (unrelated individual).....	\$12,085
Under 65 years .....	12,331
65 years and over .....	11,367
2 people .....	\$15,397
Householder under 65 years .....	15,953
Householder 65 years and over .....	14,343
3 people .....	\$18,872
4 people .....	24,259
5 people .....	28,729
6 people .....	32,512
7 people .....	36,971
8 people .....	41,017
9 people or more .....	49,079



<http://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html>

# Poverty

- ▶ 6.5% or 36,000 individual are living in poverty in the County



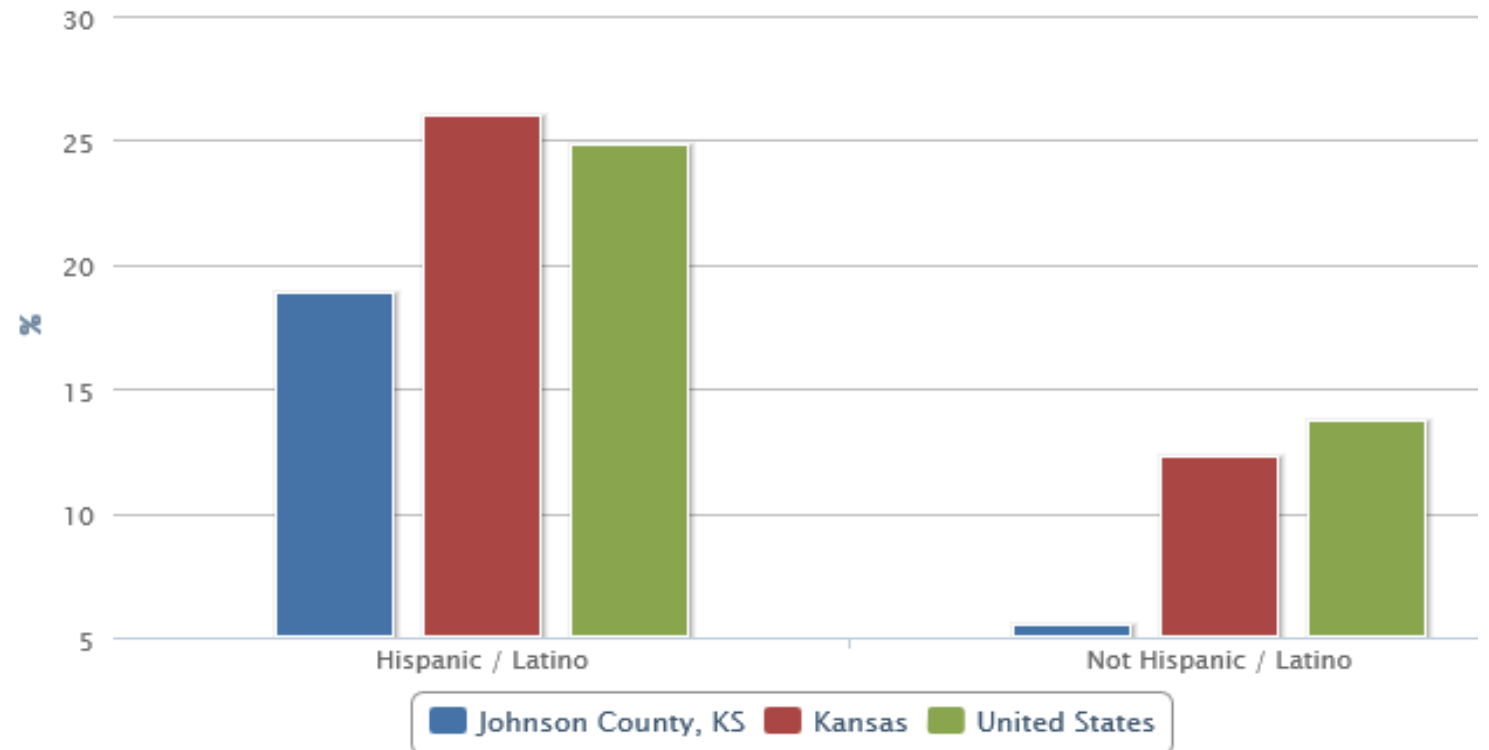
- Johnson County, KS (6.5%)
- Kansas (13.79%)
- United States (15.59%)

Community Commons



# Poverty

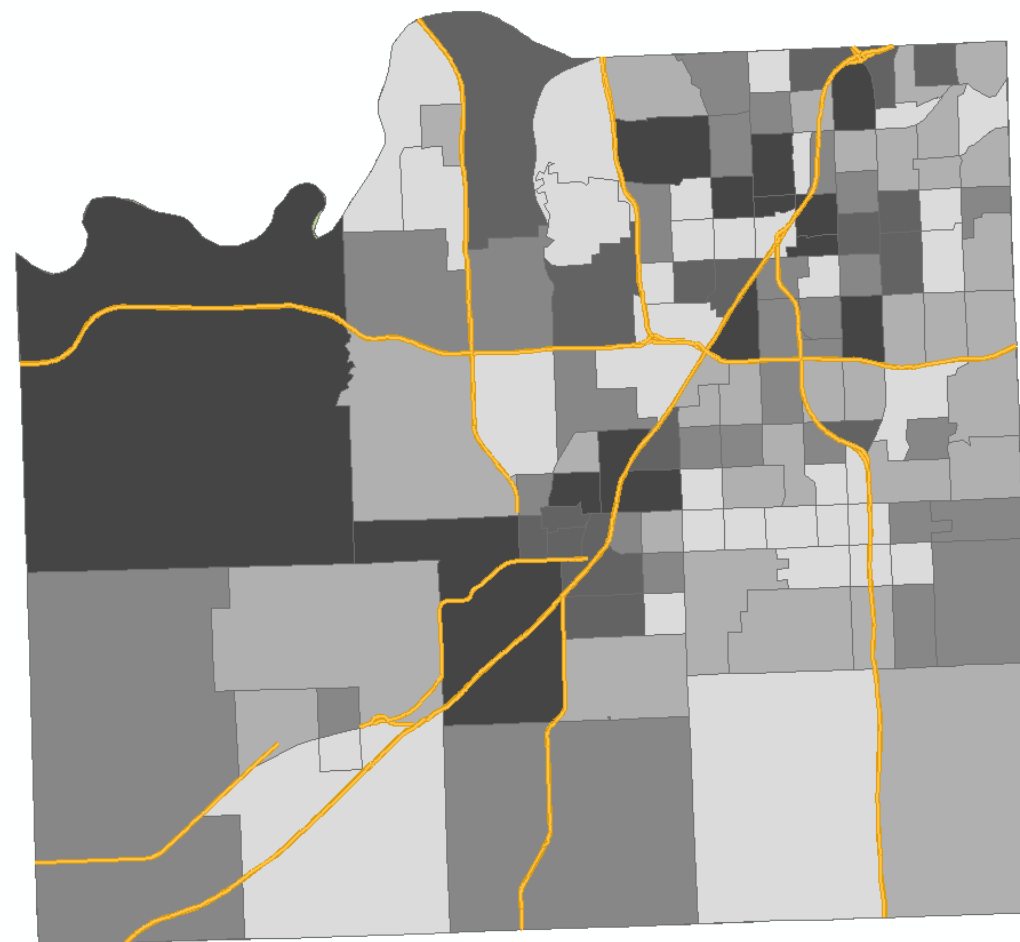
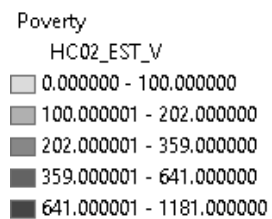
- ▶ 6.5% or 36,000 individual are living in poverty in the County
- ▶ Ethnicity
  - ▶ Hispanic Population 19%
    - ▶ 6840 people



Community Commons

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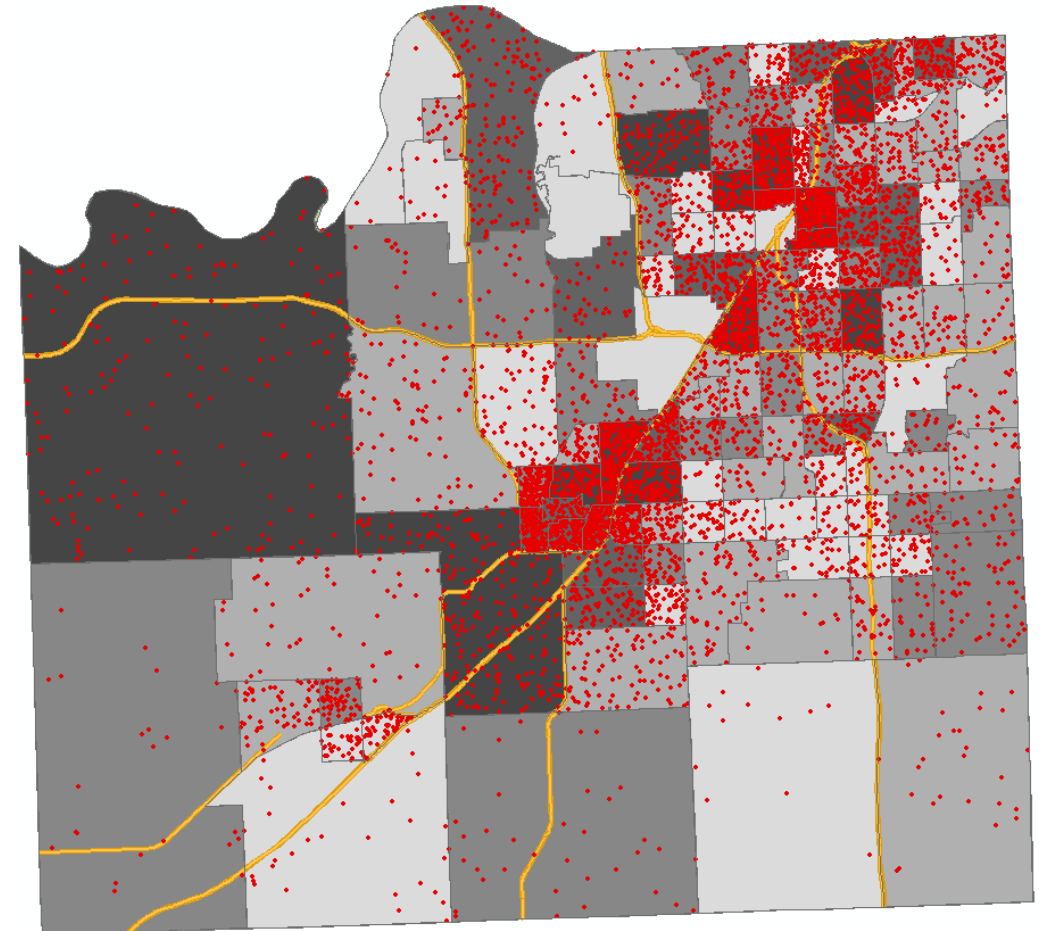
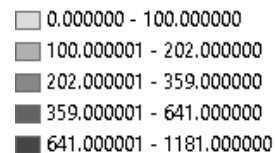
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- ▶ 6.5% or 36,000 individual are living in poverty in the County
- ▶ Ethnicity
  - ▶ Hispanic Population 19%
- ▶ Suggestion:
  - ▶ Promote the Free Store

Hispanic

1 Dot = 5

Poverty



# Reaching Households

- Where are households most dense in Johnson County



# Reaching Households

- ▶ Where are households most dense in Johnson County
  - ▶ Occupied Household Density map



# Reaching Households

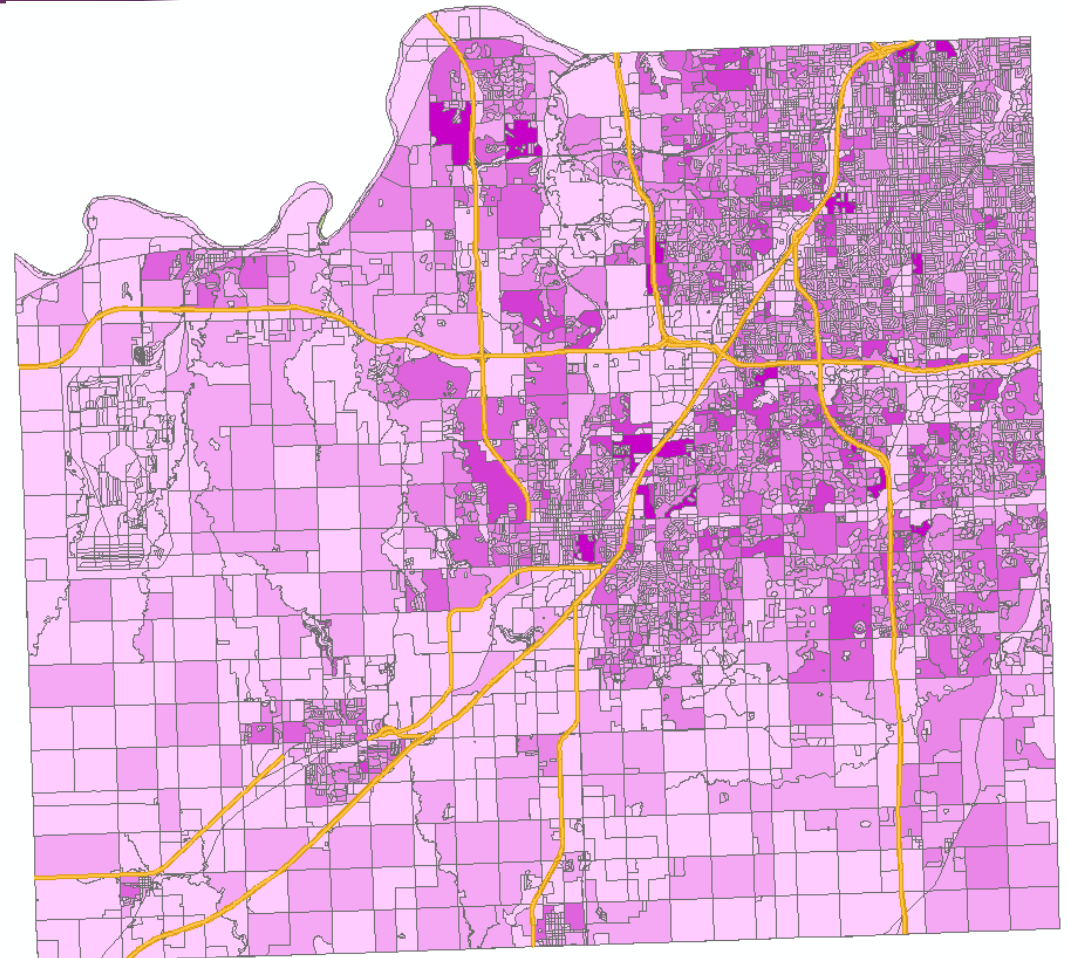
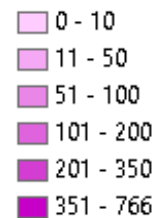
- ▶ Where are households most dense in Johnson County
  - ▶ Occupied Household Density map
- ▶ Who is migrating into the County
  - ▶ How can we reach new home owners



# Household Density

- ▶ Target areas with higher density of occupied homes
  - ▶ Less waste in unneeded flyers

Occupied  
Home Density



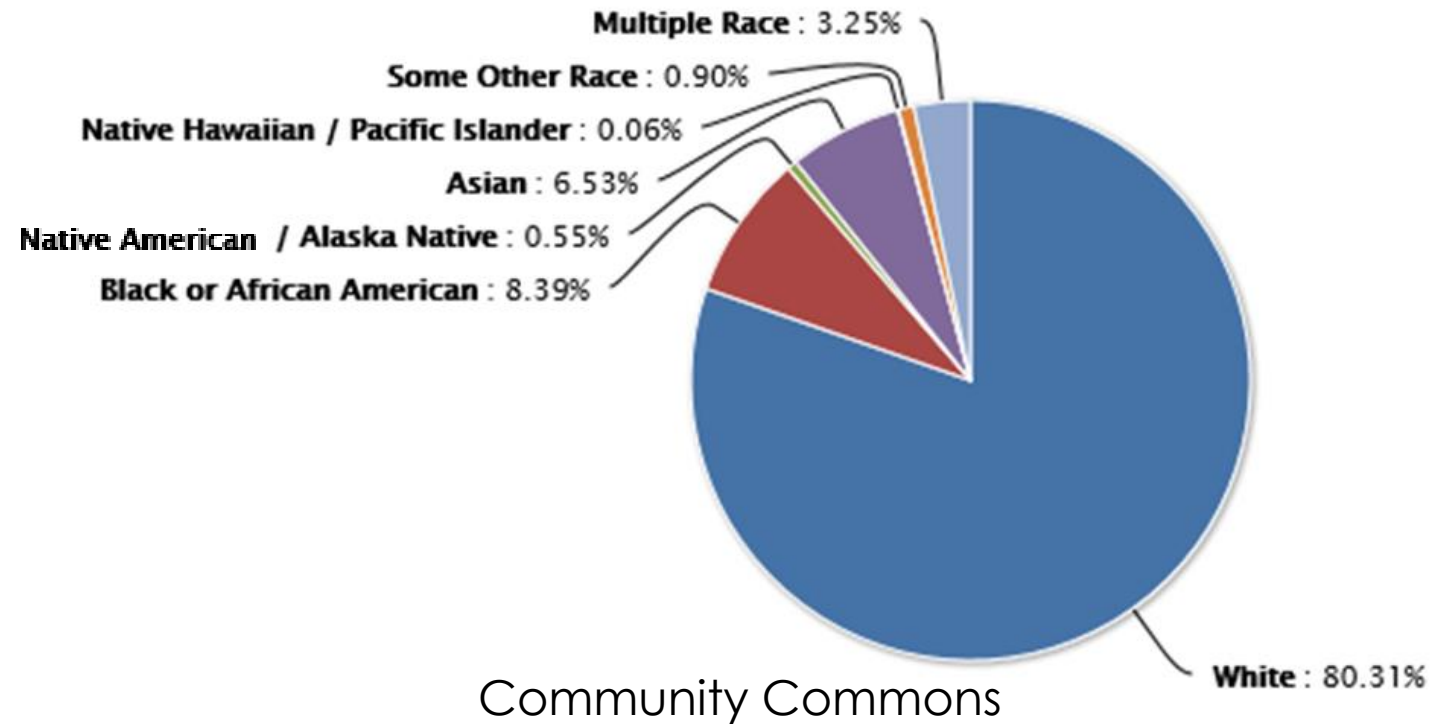
# Population Migrating into the County

- ▶ From 2014-2015 35,706 new residents enters the county



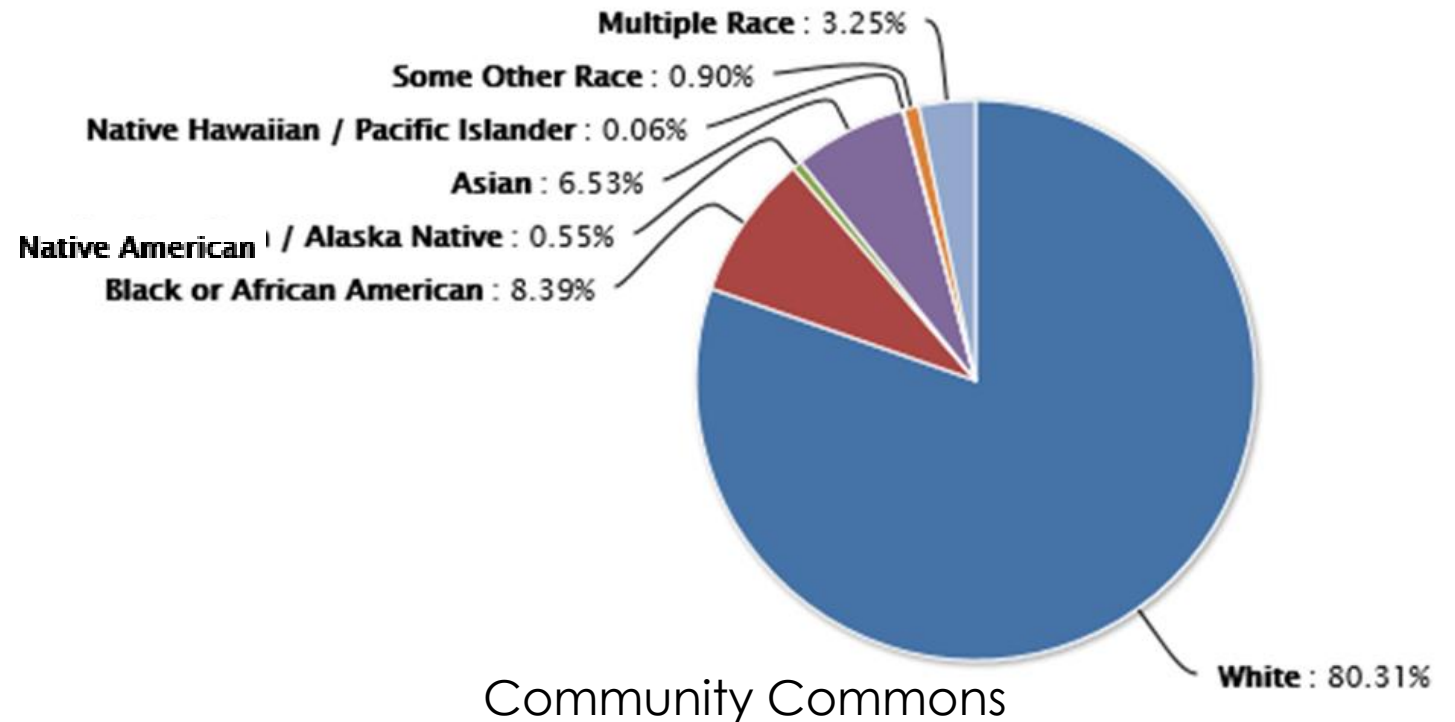
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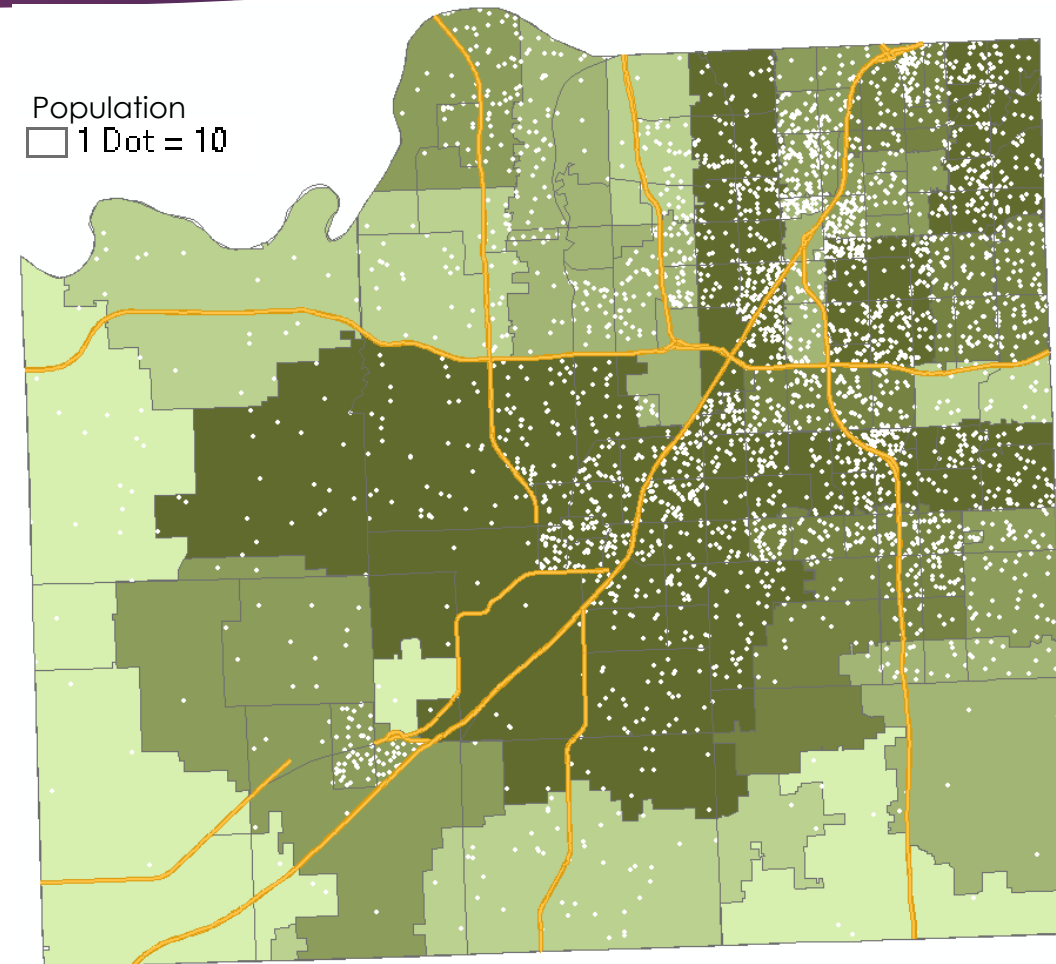
# Population Migrating into the County

- ▶ From 2014-2015 35,706 new residents enters the county
- ▶ Mainly
  - ▶ White 28,677
    - ▶ Black/African American 2,994
    - ▶ Multiple Race 1,159



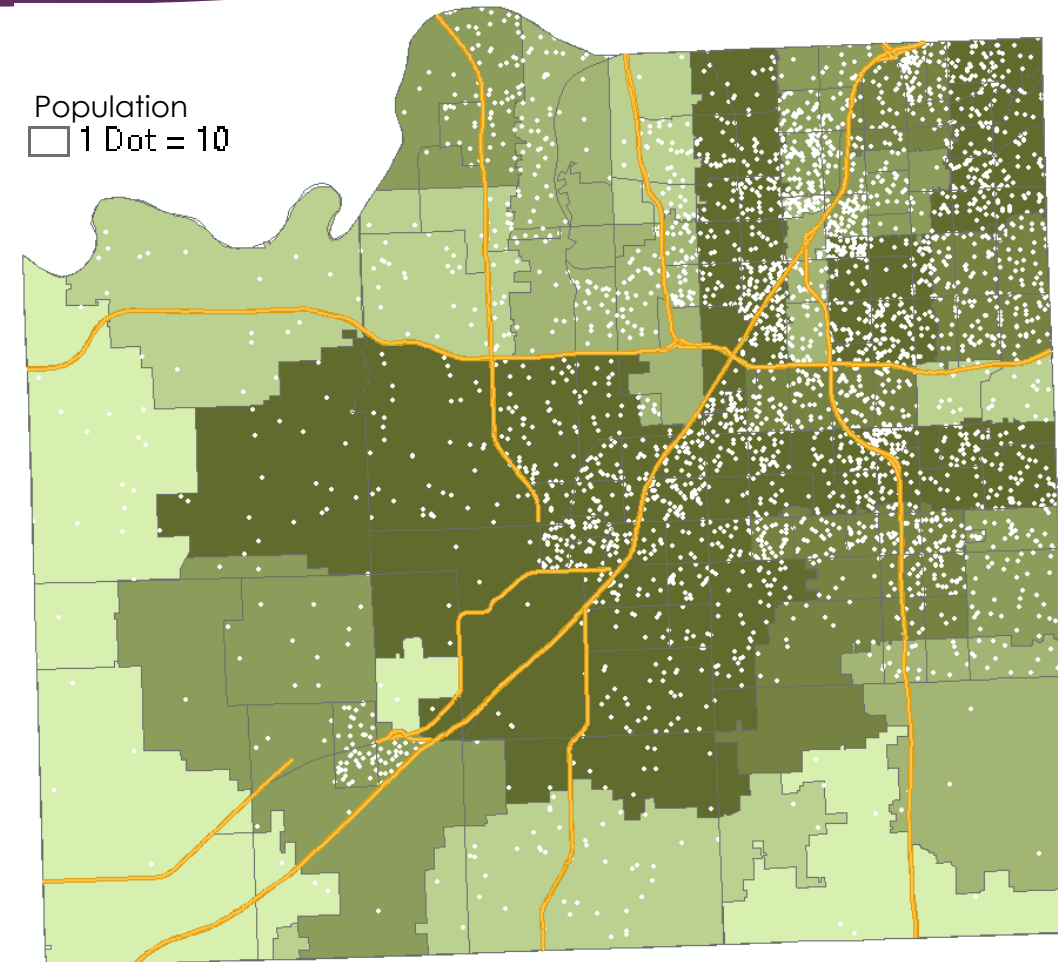
# Population Migrating into the County

► Out Reach



# Population Migrating into the County

- ▶ Out Reach
  - ▶ Work with the cities within Johnson county to provide our flier:
    - ▶ In their new home owners packet
    - ▶ Account change in utilities



# Current Outreach

- ▶ Payed Media
  - ▶ 5-10 thousand dollars on current outreach (radio, Internet)
  - ▶ Limited Hispanic outreach on Spanish radio stations
- ▶ Free Media
  - ▶ Social media, work with city websites & news letters
- ▶ Mobile Pickup
  - ▶ ~50 per year

# Suggestions

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- ▶ Make flyers & website easy to read and understand when making an appointment
- ▶ Consider translating information into Spanish on both the website and flyers

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- ▶ When mailing out adds to the county use the Occupied Household Density map to send out fliers to only the areas they are needed
- ▶ Promote the free store in areas of poverty in the county.
- ▶ Make flyers & website easy to read and understand when making an appointment
- ▶ Consider translating information into Spanish on both the website and flyers
- ▶ Set up an outreach program to the disabled, homebound communities, and households with no motor vehicle for mobile collection services

# Reference

- ▶ 1. Community Commons. *Community Health Needs Assessment*. Retrieve from: <http://assessment.communitycommons.org/CHNA/report?page=1&id=700&reporttype=libraryCHNA> Accessed 6/5/16
- ▶ 2. Public Health Service. *Agency for Toxic Substances and Disease Registry annual report, FY90*. Atlanta: US Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, 1991:1. (June 18, 2016)
- ▶ 3. U.S. Census. *State & County Quick Facts United States Census Bureau*. Retrieved July 26, 2014. Retrieved From: <http://www.census.gov/quickfacts/table/PST045215/00> . Accessed June 7, 2016
- ▶ 4. US Environmental Protection Agency. *Basic facts about waste*. Washington, DC: US Environmental Protection Agency; 2004. Retrieved from <http://www.epa.gov/epaoswer/osw/facts.htm>. Accessed June 20, 2016
- ▶ 5. US Environmental Protection Agency. *Household hazardous waste*. Washington, DC: US Environmental Protection Agency; 2005. Retrieved from <http://www.epa.gov/epaoswer/non-hw/muncpl/hhw.htm>. Accessed on June 21, 2016

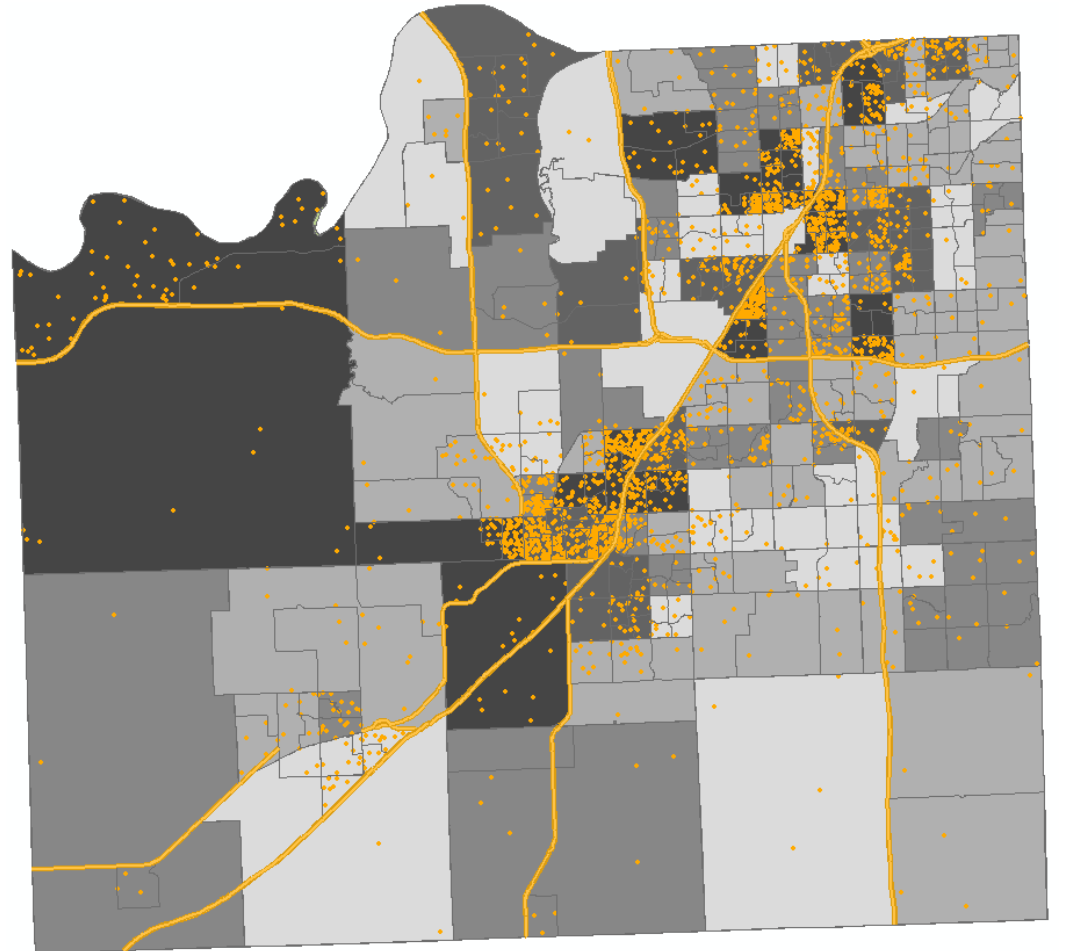
# Questions?



# Poverty

Other Race

 1 Dot = 5



JOCO HHW



Olathe HHW