

# **DATA TO ACTION**

## **Exploring CalFresh Access in a Mid-sized County with Geo-mapping Analytics**

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**Data to Action...**

**Reflections on CDSS  
Research Context**

Akhtar Khan

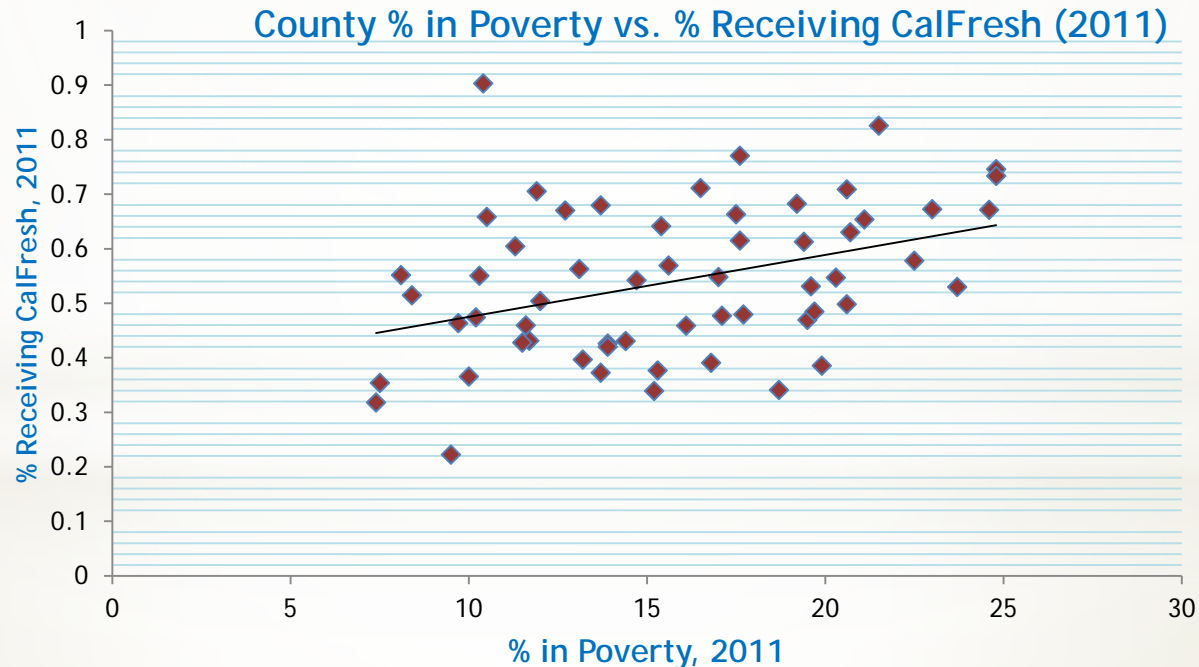
# I - The Context for Our Research

- Socio-economic indicators at the county level rarely explain differences in CalFresh access.
- Explanations for county-level variation exist at below-county levels - neighborhoods and communities.
- Need local level data and tools to understand neighborhood- and community level effects.
- Geocoding analytics offer excellent tools to explore local community level dynamics.

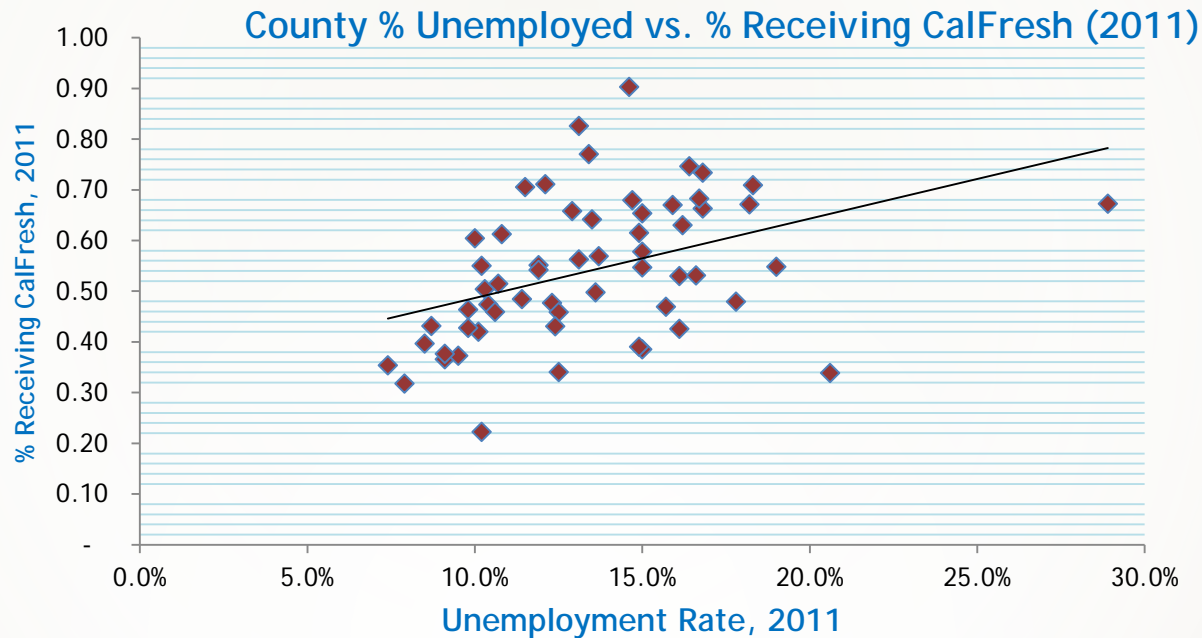
# The Search for Answers

What sub-county-level geographies should be used to identify areas of low participation?

- Counties' unemployment rates and poverty levels are not good predictors of CalFresh access.



# The Search for Answers (continued)



- The distribution of proportions of non-English speakers points to:
  - Language as an important factor
  - The possible role of immigration status
  - The need to develop a program access measure that takes citizenship status into account

# II - Measuring Program Access

## Questions about the PAI

- Why is participation so low in California?
- How does program access vary among counties?
- Does variation among counties relate to local unemployment rates, local poverty rates, a rural-urban divide, etc.?
- Is the PAI the best way to measure program access?
  - In particular, does the PAI's denominator accurately capture the eligible population? (income below 125% of FPL - FDPIR - SSI)

# Measuring Program Access

## The Program Access Index (PAI): USDA/Food and Nutrition Service (FNS)

$$PAI = \frac{\text{CalFresh Participants} - \text{Disaster CalFresh Program Participants}}{(\text{Individuals with Income} < 125\% \text{ of FPL}) - \text{FDPIR participants} - \text{SSI Recipients}}$$

By this measure:

- California's PAI was 3<sup>rd</sup> lowest in the country at 53.2% in 2013\*
- 4.1 million eligible Californians were not receiving CalFresh in 2013

FDPIR: Food Distribution Program on Indian Reservations

\*Wyoming and Utah had a lower participation rate than California

Source: FNS, *Calculating the Supplemental Nutrition Assistance Program (SNAP) Program Access Index: A Step-by-Step Guide*, January 2015

# Geocoding Basics

## What is geocoding?

Geocoding is a process of converting **tabular data** into **spatial data** by assigning geographic coordinates

- ✓ Similar to putting pins on a paper map
- ✓ Multiple data elements can be displayed or analyzed together

## Why geocode?

To establish the **geographic location(s)** of a record (single address) or records (multiple addresses) in a table.

- ✓ **It is also called address-matching.**



Geocoding helps counties gain a holistic view of the environments  
Surrounding each CalFresh recipient address

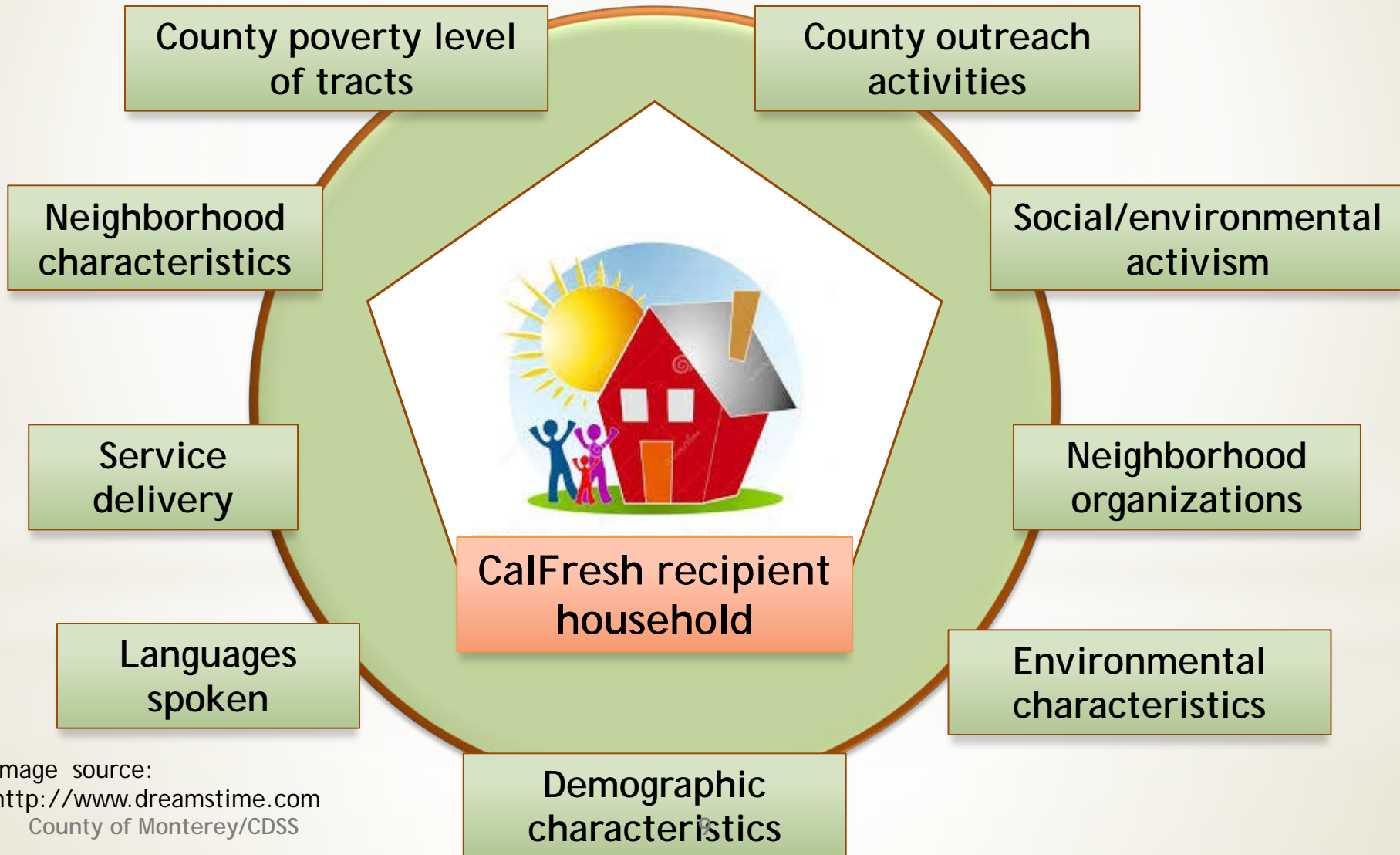
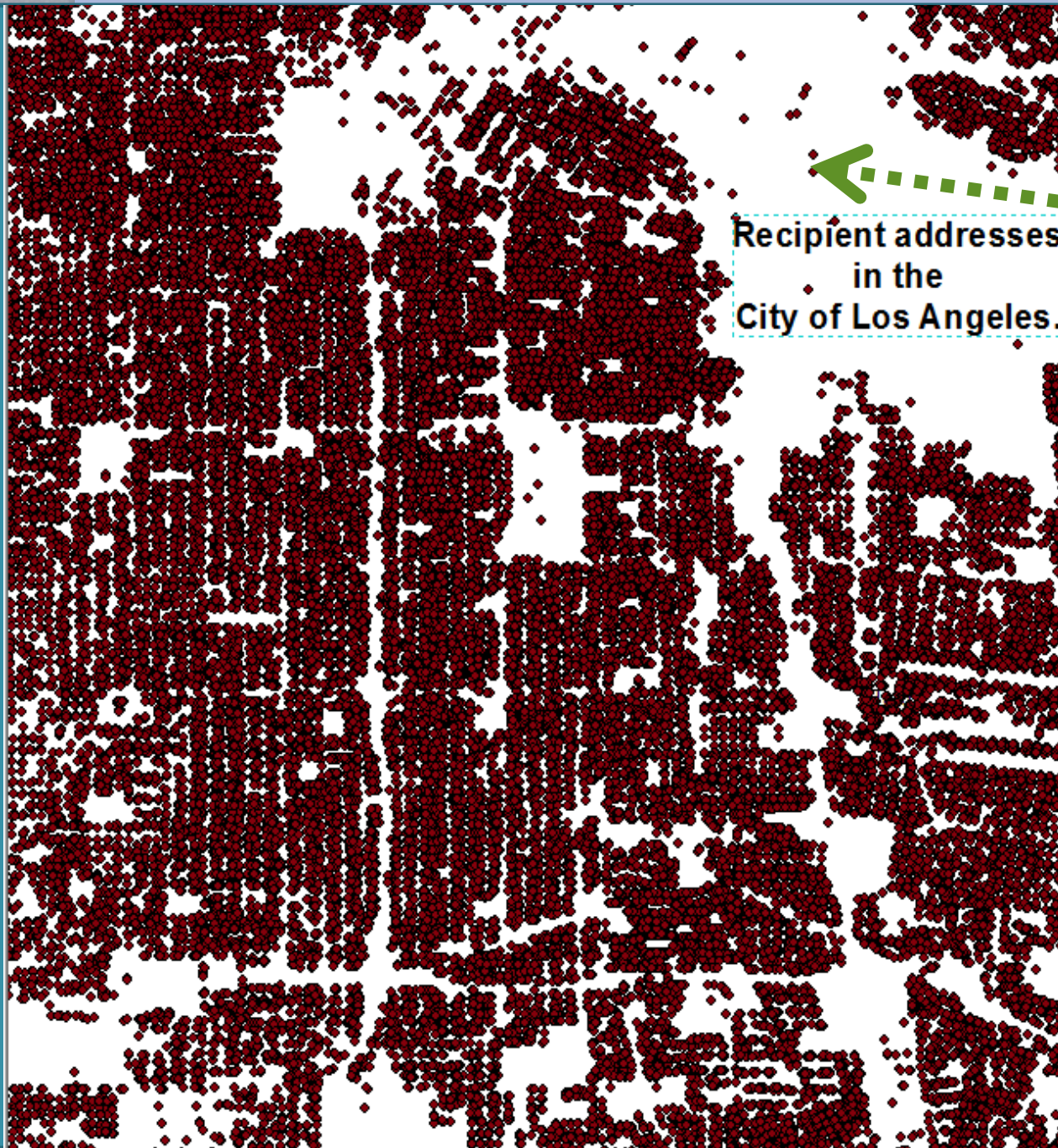


Image source:  
<http://www.dreamstime.com>  
County of Monterey/CDSS



Recipient addresses  
in the  
City of Los Angeles.

Over two hundred tract-level data elements are linked to each dot.

## Example:

- Total tract population.
- % Below poverty level.
- % Non-native.
- Number of Hispanics.
- Number of families with children under 18.
- Number of Female-headed households.
- % Speaking languages other than English.
- EBT access.

# III - Identify True-hot-spots

Overarching Goal...

Geocoding  
For Targeted Outreach

A. Adugna

# Geocoding Analytics: CalFresh Outreach in a Mid-sized County

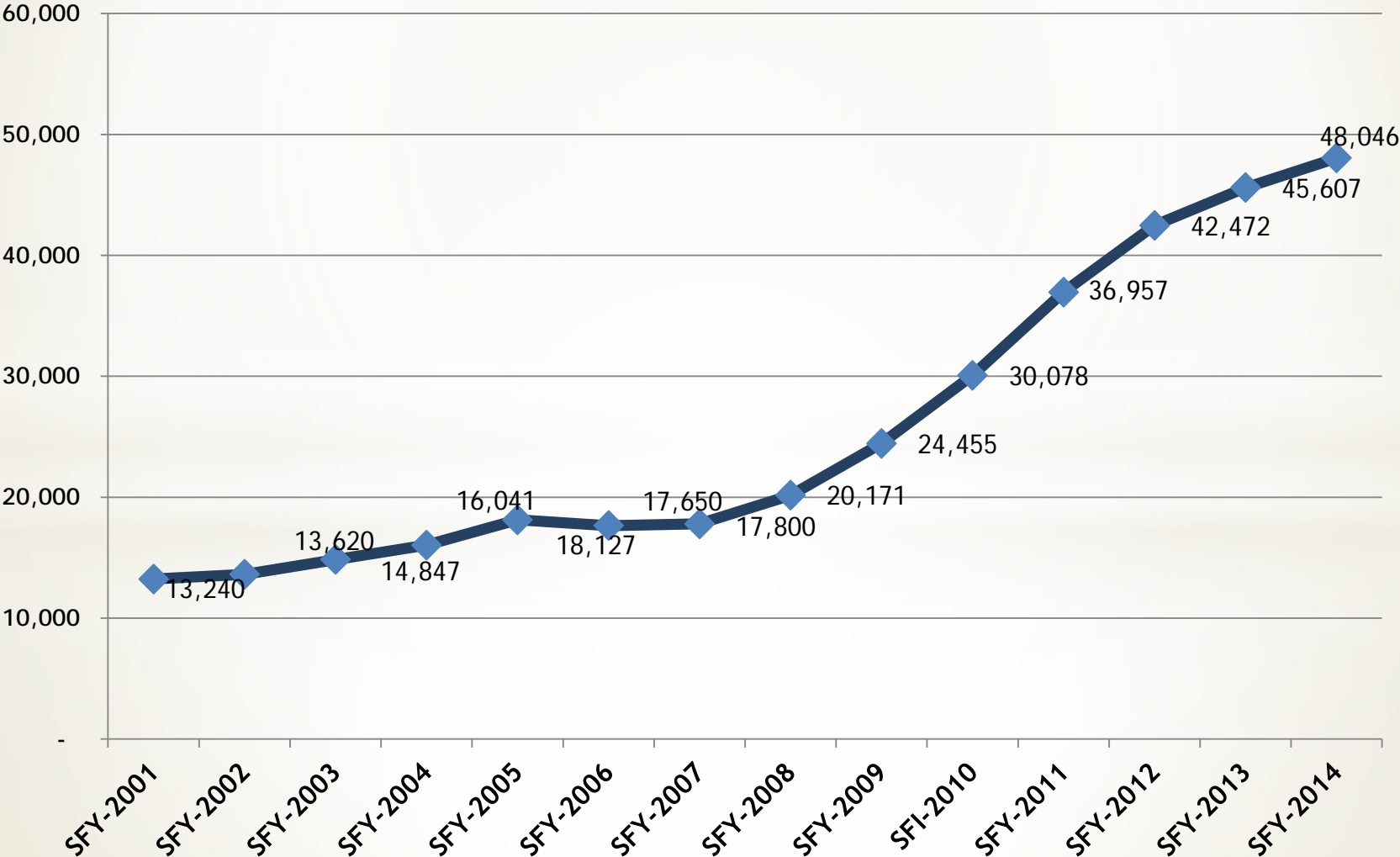
## Objectives

1. To inform targeted outreach strategies by providing outreach staff with spatial analyses of CalFresh participation, indicating where potential non-participating eligibles reside
2. To improve future spatial analyses with feedback and data from outreach staff to advance understanding of differences in, and barriers to, CalFresh access



# Monterey County: CalFresh Trends

## State Fiscal Year 2001 - 2014



Source: Food Stamp Program Participation and Benefit Issuance Report: DFA 256

# Addressing the CalFresh Denominator Problem: The Child-only Method

- The child-only method was developed to obtain an indirect estimation of undocumented persons.
- **The starting point is the number of child-only households in a geographic area.**
- It makes assumptions regarding the:
  - percent of child-only households who are child-only due to the **citizenship** status of parents/guardians
  - percent of child-only households who are child-only because the parent is an **SSI recipient or a minor**
  - **number of adults in each child-only household**
  - **number of adults in households without children**

## Note:

- The methodology under estimates undocumented adults in counties or ZIP codes with high percentage of **unmarried adults living and cooking meals together** such as in labor camps.
- It also under estimates undocumented adults in counties or ZIP codes where a high percentage of the **children of undocumented households are not receiving CalFresh.**
- The methodology slightly over-estimates the number of undocumented adults in counties or ZIP codes where **single-motherhood is high** and the average number of adults in a household is close to one.<sup>14</sup>

# The Program Reach Index: An Even Better Measure of Program Index

## Removing Ineligible Undocumented Immigrants from the Denominator

$$\text{PRI} = \frac{\text{CalFresh Recipients} - \text{Disaster CalFresh Program Participants}}{(\text{pop} < 130\% \text{ FPL}) - (\text{SSI} * p) - \left( (0.94 \text{ child-only households}) * 1.77 * \left( 1 + \left( \frac{1.24}{1.77} \right) \right) \right)}$$

\**p*: County proportion of SSI recipients at or below 130% FPL  
Fresno = 0.54

### Data assumptions:

- Of child-only households, 94% have undocumented immigrant adults \*
- Number of adults by household type \*\*
  - Undocumented immigrant households with children have an average of 1.77 adults
  - Undocumented immigrant households without children have an average of 1.24 adults

\* Based on child-only households in regions with low immigration

\*\* The Urban Institute

# Geocoding Pilot: Lessons for a Mid-sized County

A. Lomboy

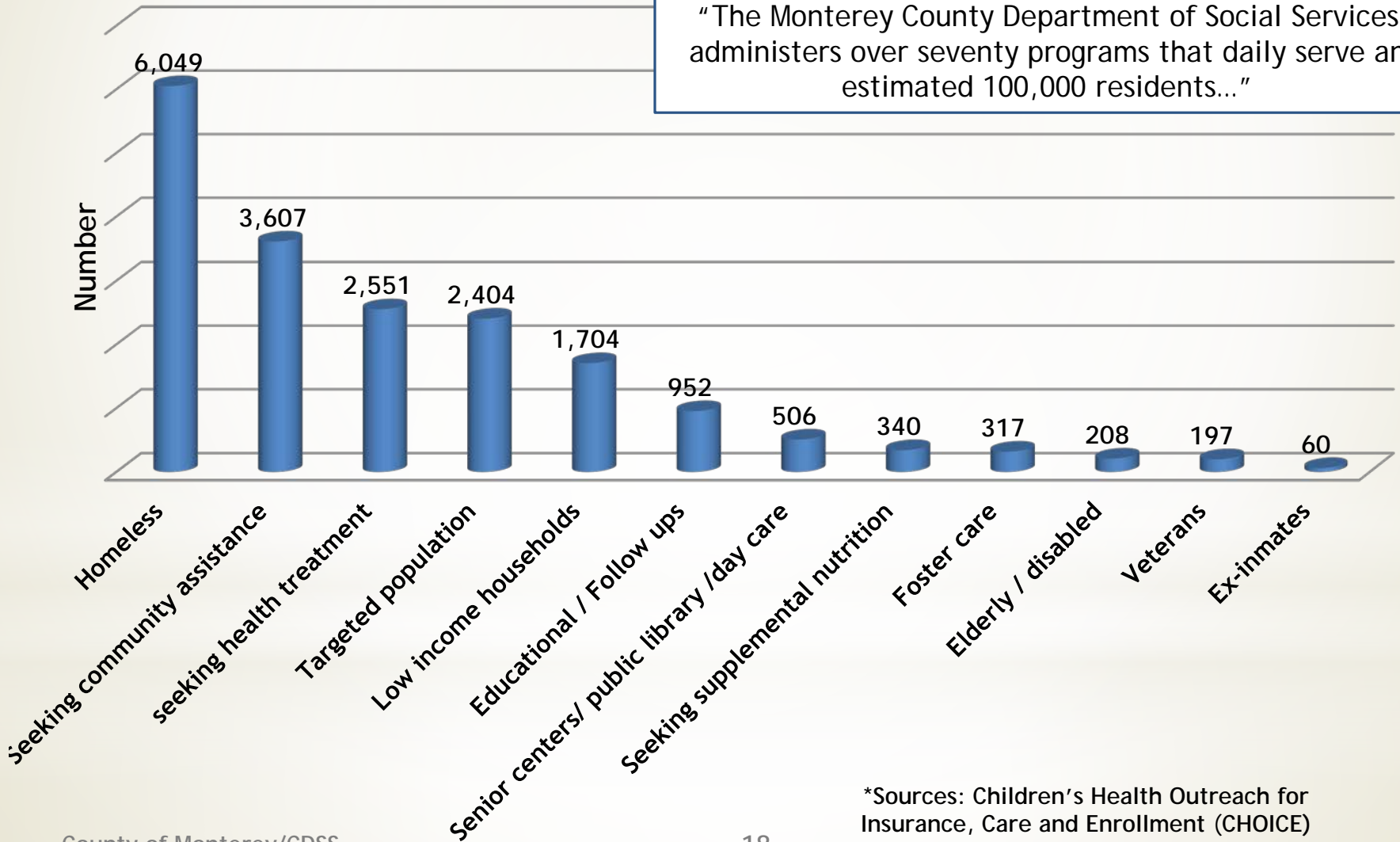


# Applied GIS - Geographic Information System Minimum County Infrastructure Requirements

- ✓ Software: ArcGIS (ESRI)
- ✓ Trained GIS professional (s)
- ✓ Data analyst (s)
- ✓ Easy access to SAWS CalFresh data
- ✓ Complete and up-to-date data on SSI recipients
- ✓ Accurate street-level address data enabling high geocoding match rate
- ✓ Accurate and up-to-date address locator

# Monterey County CalFresh Outreach Population Targeted for Assistance July 2014 - June 2015

“The Monterey County Department of Social Services administers over seventy programs that daily serve an estimated 100,000 residents...”

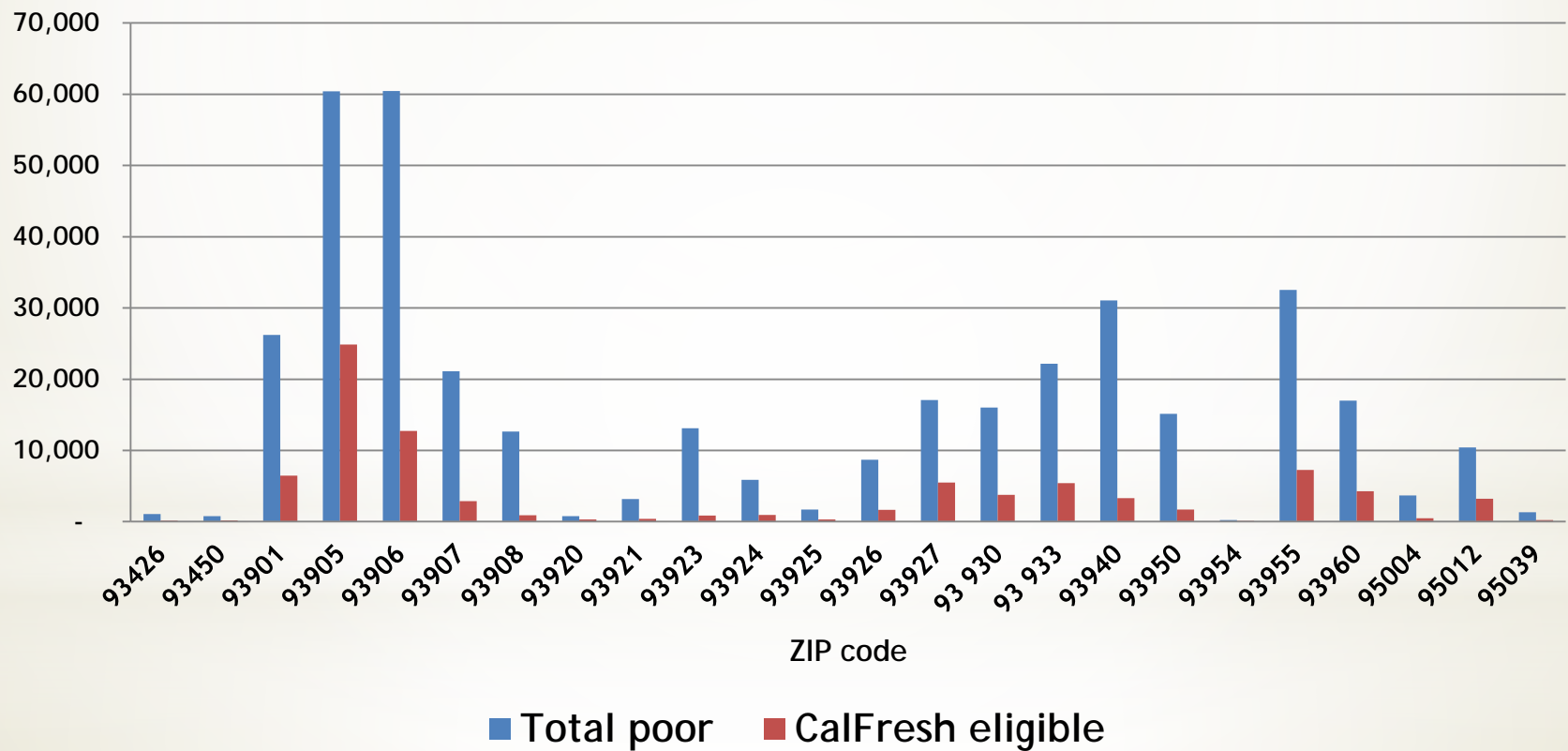


# Monterey County: The Number and Percentage of Persons Eligible to Receive CalFresh by ZIP code

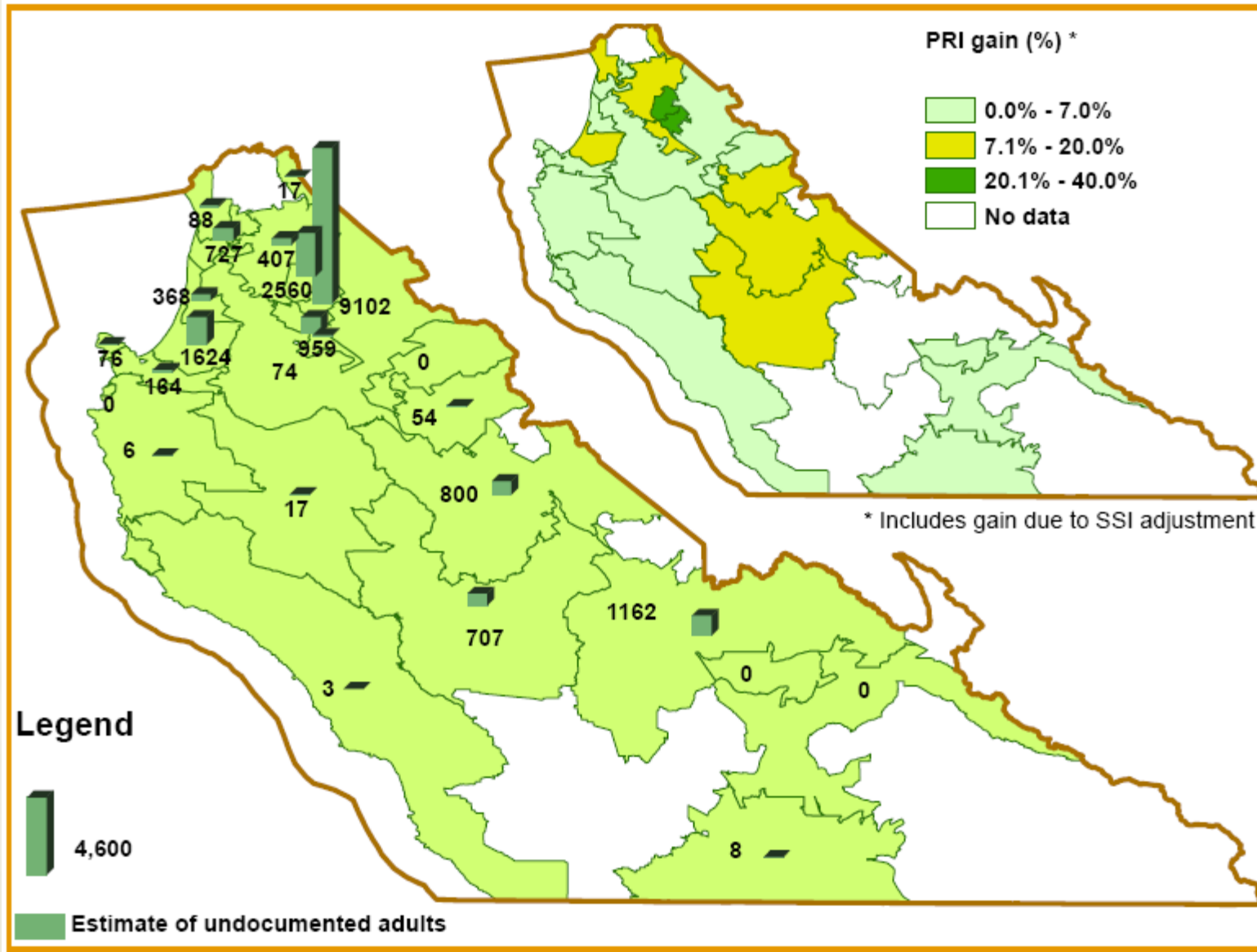
Total poor: 382,539

CalFresh eligible : 87,912

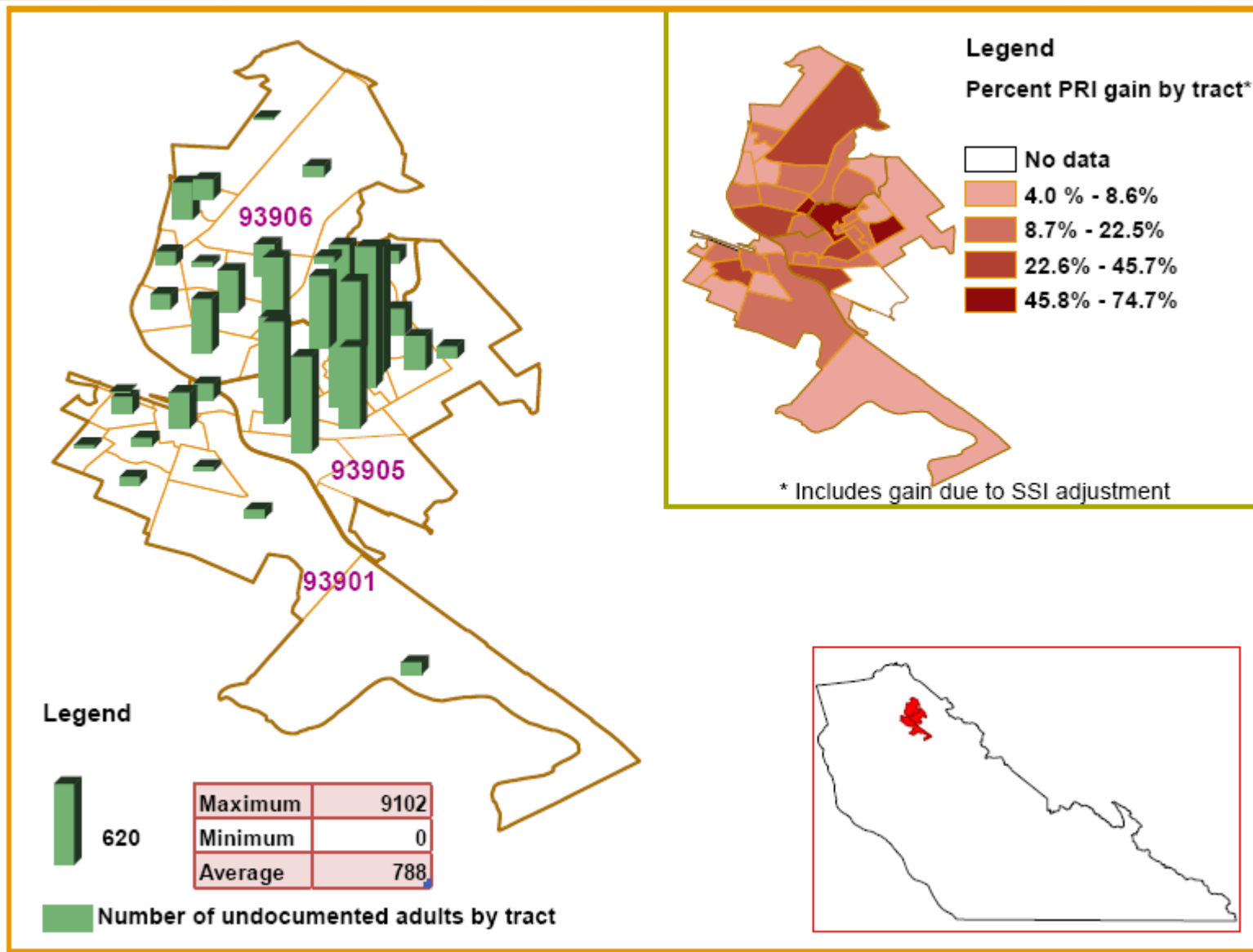
Average ZIP code percentage of CalFresh eligible = 23.0%



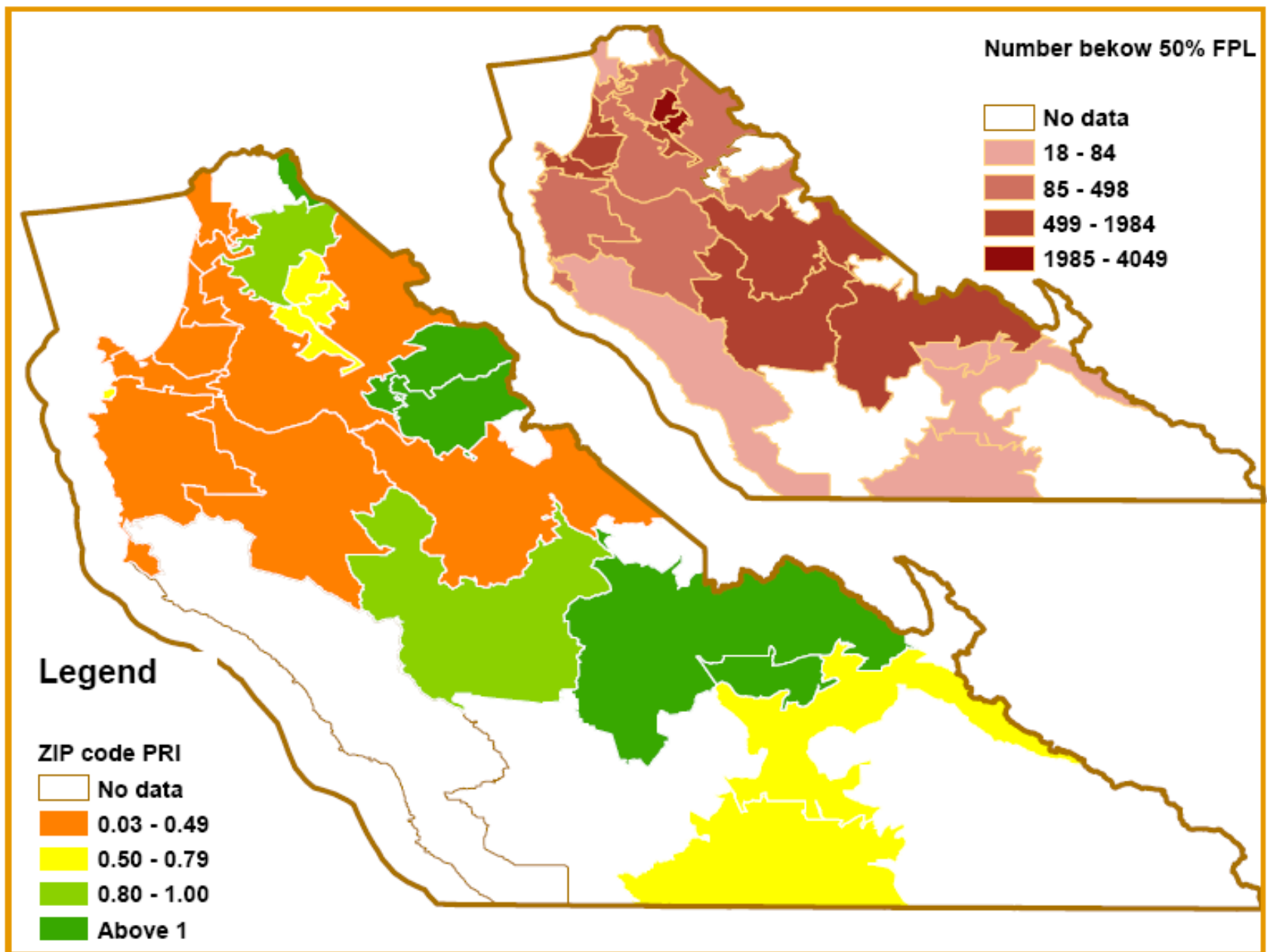
# Monterey County, Application of CDSS' Child-only Method: Estimated Number of Undocumented Persons and Associated PRI Gain by ZIP code



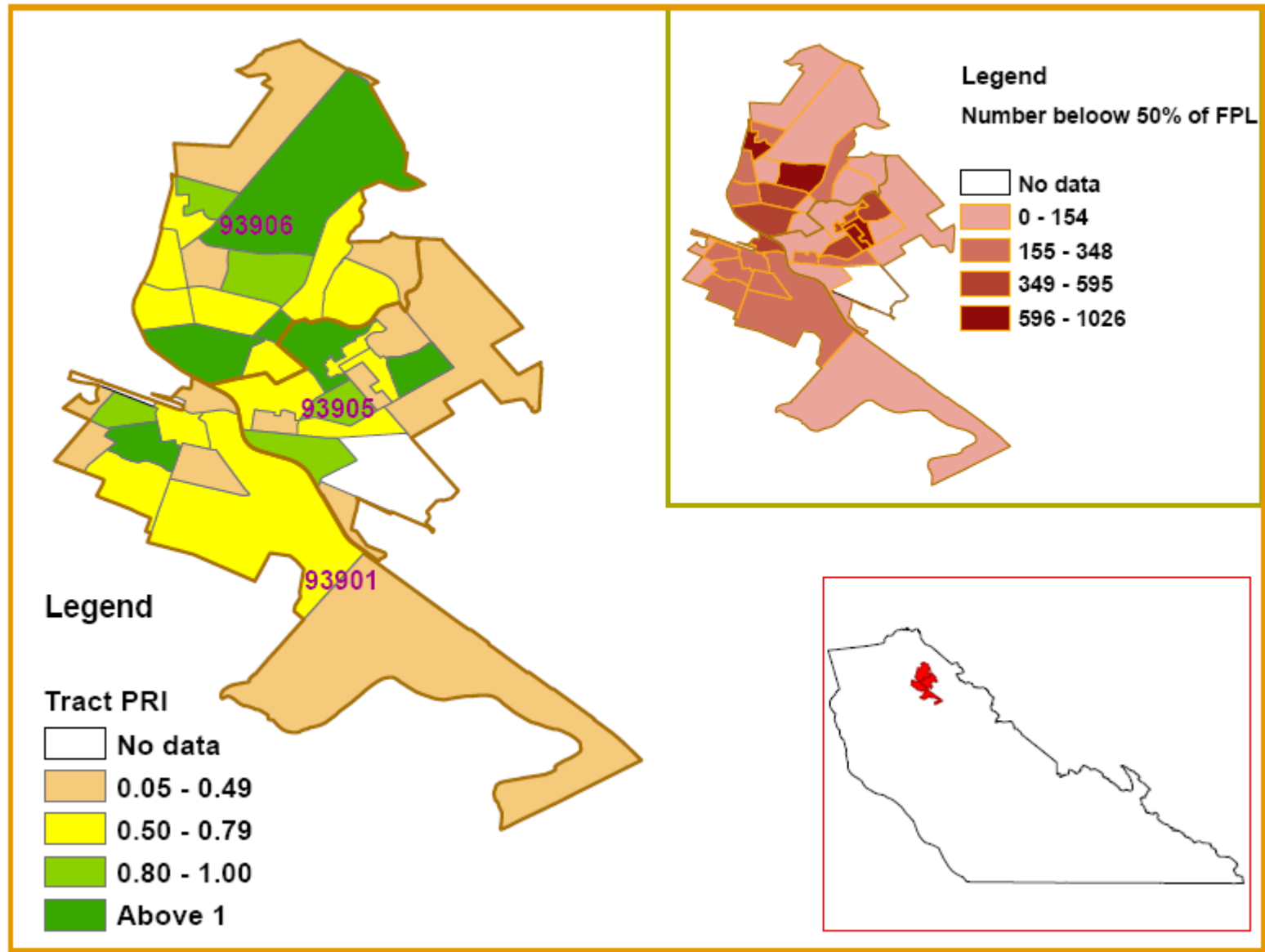
# Monterey County, Application of CDSS' Child-only Method: Estimated Number of Undocumented Persons and Associated PRI Gain for Census Tracts in ZIP code 93901, 93905, 93906



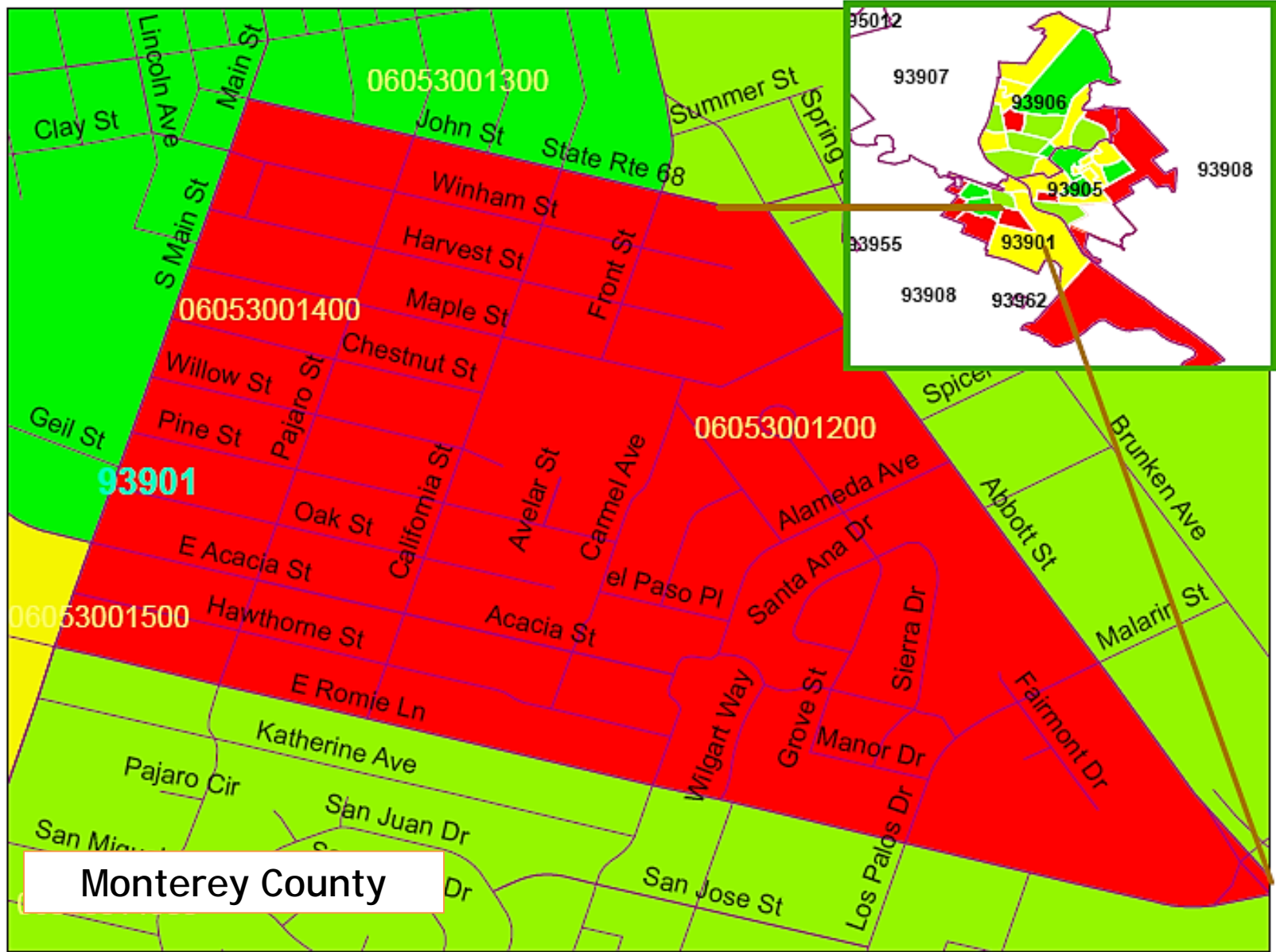
# Monterey County : Program Reach Index and the Number of Persons Below 50 % of FPL by ZIP code



# Monterey County : Program Reach Index and the Number of Persons Below 50 % of FPL by Census tract ZIP codes 93901, 93905, 93906



# Getting Down to the Street Level





# SUMMARY AND CONCLUSION

A. Adugna

**Summary:** Advantages of the Program Reach Index: Monterey County in Comparison with Amador, a County with Low Undocumented Population

<b>County</b>	<b>Amador</b>	<b>Monterey</b>
CalFresh recipients	3,278	46,899
Number of child only households	65	7,209
SSI recipients (total)	702	9,172
% SSI recipients (below 130% FPL)	0.24	0.43
No. SSI recipients (below 130% FPL)	168	3,944
No. undocumented below 130% FPL	184	20,390
No. below 50% FPL	1,767	23,644
No. 50 -99 % FPL	2,383	44,541
No. 100 - 124% FPL	1,061	24,515
No. below 125% FPL	5,211	92,700
CalFresh denominator (no. below 130% FPL)	5,419	96,408
Adjusted denominaor	5,067	72,074
Program Access Index (CFPA 2013)	0.65	0.53
Program Reach Index (DSS - 2013)	0.65	0.65

# Conclusion

- Geocoding enables us to analyze CalFresh data in the context of the environments in which recipients and potential eligibles live.
- The Child-Only Method can be used at county levels and for regions within a county.
  - In some instances, zip code or tract-level analysis may be feasible.
  - Data quality declines for smaller geographic areas.
- It appears that in places where non-English speakers are a minority, the participation rate of child-only and non child-only households is significantly lower than in places where they are a majority.
- The low number of child-only household in places where non-English speakers are a minority also leads to low estimates of undocumented persons in those areas.

# THANK YOU

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