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.

Source: Poverty rates, American Community Survey; percent receiving CalFresh, CDSS
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

Source: Unemployment rates, EDD; percent receiving CalFresh, CDSS
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?
  o 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)

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

By this measure:

- California’s PAI was 3rd 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

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.

- County poverty level of tracts
- County outreach activities
- Neighborhood characteristics
- Social/environmental activism
- Service delivery
- Neighborhood organizations
- Languages spoken
- Environmental characteristics
- Demographic characteristics

CalFresh recipient household

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

  o 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.
  o 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.
  o 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.
The Program Reach Index: An Even Better Measure of Program Index
Removing Ineligible Undocumented Immigrants from the Denominator

PRI = \[
\frac{\text{CalFresh Recipients} - \text{Disaster CalFresh Program Participants}}{(\text{pop} < 130\% \text{ FPL}) - (\text{SSI} \times p) - (0.94 \text{ child-only households} \times 1.77 \times (1 + \frac{124}{177}))}
\]

*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

<table>
<thead>
<tr>
<th>Population Targeted for Assistance</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homeless</td>
<td>6,049</td>
</tr>
<tr>
<td>Seeking community assistance</td>
<td>3,607</td>
</tr>
<tr>
<td>Seeking health treatment</td>
<td>2,551</td>
</tr>
<tr>
<td>Targeted population</td>
<td>2,404</td>
</tr>
<tr>
<td>Low income households</td>
<td>1,704</td>
</tr>
<tr>
<td>Educational / Follow ups</td>
<td>952</td>
</tr>
<tr>
<td>Seeking supplemental nutrition</td>
<td>506</td>
</tr>
<tr>
<td>Foster care</td>
<td>340</td>
</tr>
<tr>
<td>Elderly / disabled</td>
<td>317</td>
</tr>
<tr>
<td>Veterans</td>
<td>208</td>
</tr>
<tr>
<td>Ex-inmates</td>
<td>197</td>
</tr>
<tr>
<td></td>
<td>60</td>
</tr>
</tbody>
</table>

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

*Sources: Children’s Health Outreach for Insurance, Care and Enrollment (CHOICE)*

Monterey County Department of Social Services
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

Monterey County

CDSS Research Services Branch
SUMMARY AND CONCLUSION

A. Adugna
## Summary:
Advantages of the Program Reach Index: Monterey County in Comparison with Amador, a County with Low Undocumented Population

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