Profile of SNAP Usage at the State and County Levels: 
Evidence from Texas & New York Administrative Records and the American Community Survey

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Disclaimer: This presentation is released to inform interested parties of research and to encourage discussion. The views expressed are those of the authors and not necessarily those of the U.S. Census Bureau or the U.S. Department of Agriculture Economic Research Service.
Background

• Food and Nutrition Service (FNS) encourages states to provide the Census Bureau with recipient information in Administrative Records (AR) from the Supplemental Nutrition Assistance Program (SNAP) for mutually beneficial research.

• Collaborative work between states, USDA Economic Research Service, Census, and academic researchers through Research Data Centers.

• Active research using SNAP AR from Texas and New York.

• Data from additional states expected during 2014.
SNAP Access at the State and County Levels

Using Texas SNAP Administrative Records linked to the American Community Survey

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Data

- Texas SNAP Administrative Records for calendar years 2008–2009
- American Community Survey (ACS) 2009
- Individual records in the ACS linked to administrative records by Protected Identification Key (PIK)
- ACS used to model individuals’ eligibility for SNAP during a 12-month period
- SNAP participation of each individual determined using SNAP administrative records
Methods

• SNAP Units
  – Construct SNAP units from ACS households
  – Infer some family relationships

• Eligibility
  – Account for excess shelter, earned income and standard deductions
  – Model ineligible immigrants, college students, and individuals with disabilities
  – Not included: deductions for medical expenses, child support payments and dependent care

• Variable of interest: Group-specific SNAP Access Rate
## Access Rates by Age in Select Texas Counties, 2008-2009

<table>
<thead>
<tr>
<th>Age</th>
<th>Texas</th>
<th>Bexar</th>
<th>Dallas</th>
<th>El Paso</th>
<th>Harris</th>
<th>Hidalgo</th>
<th>Tarrant</th>
<th>Travis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>62.8</td>
<td>64.2</td>
<td>57.3</td>
<td>71.0</td>
<td>55.1</td>
<td>78.2</td>
<td>58.9</td>
<td>60.2</td>
</tr>
<tr>
<td>0 to 17</td>
<td>76.5</td>
<td>81.3</td>
<td>69.4</td>
<td>84.8</td>
<td>67.2</td>
<td>87.8</td>
<td>71.8</td>
<td>76.9</td>
</tr>
<tr>
<td>18 to 29</td>
<td>56.4</td>
<td>54.6</td>
<td>50.5</td>
<td>65.9</td>
<td>46.8</td>
<td>75.3</td>
<td>53.5</td>
<td>51.4</td>
</tr>
<tr>
<td>30 to 39</td>
<td>63.3</td>
<td>67.4</td>
<td>53.9</td>
<td>71.5</td>
<td>54.4</td>
<td>81.9</td>
<td>57.4</td>
<td>55.9</td>
</tr>
<tr>
<td>40 to 49</td>
<td>55.0</td>
<td>54.1</td>
<td>49.6</td>
<td>68.5</td>
<td>46.0</td>
<td>70.4</td>
<td>47.7</td>
<td>52.9</td>
</tr>
<tr>
<td>50 to 59</td>
<td>46.8</td>
<td>43.8</td>
<td>45.9</td>
<td>51.2</td>
<td>44.5</td>
<td>53.5</td>
<td>43.5</td>
<td>36.2</td>
</tr>
<tr>
<td>60 to 69</td>
<td>43.2</td>
<td>45.4</td>
<td>39.4</td>
<td>51.3</td>
<td>35.2</td>
<td>59.2</td>
<td>30.5</td>
<td>33.8</td>
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<tr>
<td>70+</td>
<td>39.4</td>
<td>34.3</td>
<td>35.7</td>
<td>48.8</td>
<td>39.2</td>
<td>56.2</td>
<td>32.9</td>
<td>40.7</td>
</tr>
</tbody>
</table>

*Source: Texas SNAP administrative records 2008-2009 linked to 2009 ACS*
SNAP Access Rates of Elderly Individuals in Texas, by Household Composition, 2008-2009

Living with at least one non-elderly

Living with only other elderly

Living alone

Source: Texas 2008-2009 SNAP administrative records linked to 2009 ACS.
Profile of SNAP Eligibility and Access at the State and County Levels 2008–2010:
Evidence from New York SNAP Administrative Records and the American Community Survey

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Data and Methods

• Data
  – American Community Survey 2008–2010
  – Individual records linked by PIK

• Methods
  – Identical methods for constructing SNAP households
  – Identical model for predicting eligibility

• Main innovation
  – Several years allow for dynamic analysis
<table>
<thead>
<tr>
<th>Age</th>
<th>Eligibility Rate</th>
<th>Access Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008</td>
<td>2009</td>
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<tr>
<td>Total</td>
<td>27.0</td>
<td>28.4</td>
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<tr>
<td>0 to 17</td>
<td>35.5</td>
<td>36.5</td>
</tr>
<tr>
<td>18 to 29</td>
<td>30.8</td>
<td>33.6</td>
</tr>
<tr>
<td>30 to 39</td>
<td>25.6</td>
<td>27.0</td>
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<tr>
<td>40 to 49</td>
<td>22.8</td>
<td>24.1</td>
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<tr>
<td>50 to 59</td>
<td>19.7</td>
<td>21.7</td>
</tr>
<tr>
<td>60 to 69</td>
<td>21.3</td>
<td>22.1</td>
</tr>
<tr>
<td>70+</td>
<td>25.1</td>
<td>25.5</td>
</tr>
</tbody>
</table>

Source: New York SNAP administrative records 2007-2010 linked to 2008-2010 1-year ACS
Within and Across County Variation in SNAP Misreporting:
Evidence from Linked American Community Survey and SNAP Administrative Records

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Research Questions and Motivation

• False negative and false positive reporting

• Research Questions:
  – Cross-county variation in survey misreporting rates
  – Persistence of misreporting rates within counties
  – County-level correlates with misreporting rates

• Motivation
  – Cross-county differences will bias cross-county comparisons
  – Within-county persistence will bias estimates of program effects
  – Researchers can assess the threat of bias using public data on county characteristics
Data and Methods

• Data
  – American Community Survey, 2006–2010

• Methods
  – Compare ACS to AR to identify individual false negative and false positive responses
  – Obtain county-level false negative and false positive rates for each year
Key Findings

• Substantial variation in SNAP misreporting rates across counties in a given year
• Persistence of false negative rates within counties, especially highly populous counties.
• County correlates:
  – Percent male
  – percent foreign born
  – average length of SNAP spell
  – percent participating in other transfer programs
## Autocorrelation of County Misreporting, Populous Counties

<table>
<thead>
<tr>
<th>false Negative Rates</th>
<th>false Positive Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>t</strong></td>
<td><strong>t</strong></td>
</tr>
<tr>
<td>t</td>
<td>1.0</td>
</tr>
<tr>
<td>t-1</td>
<td>0.7***</td>
</tr>
<tr>
<td>t-2</td>
<td>0.4*** 0.7*** 1.0</td>
</tr>
<tr>
<td>t-1</td>
<td>0.5*** 1.0</td>
</tr>
<tr>
<td>t-2</td>
<td>-0.1 -0.1 1.0</td>
</tr>
</tbody>
</table>

Source: New York and Texas SNAP administrative records linked to the ACS, 2007 to 2010. Unit of observation is the county. Counties with at least 60,000 residents and 1,500 observations are included.
Discussion

• Data sharing and record linkage benefit both the state agencies and the Census
  – Inform states about performance and outreach
  – Improve survey products and record linkage

• Availability of additional states and years would expand the potential for benefits
Thank you!

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