Young Adult or Empty Nest Household?
Exploring the Use of Geo-demographic Clusters in Sample Stratification

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What is the Opportunity of Address-Based Samples?

- Better targeted stratification, materials and/or treatments
  - Demographic characteristics of selected addresses' neighborhoods
  - RDD sample may not have address or may have an old address in a different neighborhood
- Targeted by geo-demographic clusters

What are Geo-demographic Clusters?

- “Birds of a feather…”
- Multivariate demographic inputs
  - Combine demographics and consumer behavior
- Used in consumer marketing
- 66 separate clusters in Claritas’ PRIZM® system
  - “Bohemian Mix” – Urban mid scale younger singles
  - “Shotguns & Pickups” – Rural lower-mid scale families
Available at Several Geography Levels

- ZIP Code
- Block Group
- ZIP + 4

ZIP Code 85044
Median Income $60,959
Children in 30% of Households

Census Block Groups: 31 Geo Units
Median Income $41,346 - $155,909
HH with Children 1% - 59%
First Project - Incentive Test

- ZIP Code-level response rate history
  - 887,000 households
  - Cluster return rate from 23.0% to 37.1%
- Cluster-level Census demographics
  - High 55+ percent
  - High 18-34 percent
- Selected clusters that were in the highest or lowest quartile of both rankings: response rate and demographics

Estimated Characteristics of the Final Groups

<table>
<thead>
<tr>
<th></th>
<th>High Group</th>
<th>Low Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical Response Rate</td>
<td>30.5%</td>
<td>25.5%</td>
</tr>
<tr>
<td>Percent P 55+</td>
<td>21.2%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Percent P 18-34</td>
<td>11.4%</td>
<td>23.9%</td>
</tr>
<tr>
<td>Percent of U.S. HH</td>
<td>14.2%</td>
<td>12.9%</td>
</tr>
</tbody>
</table>
Incentive Test – Results

- Significant drop in high group response: test vs. control
  - 25.6% vs. 28.6%
- No significant response rate change in low group
- Significant differences in high vs. low groups
  - Response Rates
  - Percent 55+ only households
  - Percent 18-34 only households

Second Project - Stratification Analysis

- 29 purposively selected Metros and 45 randomly selected Metros
- Calculated historical response rates, by cluster, by Metro. Then for cluster total in all 74 Metros.
- High response group: Cluster response index greater than 110 vs. both lists (29 or 45)
- Low response group: Cluster response index less than 90 vs. both lists (29 or 45)

Stratification Analysis – Method

- Hypothesized additional 18-24 sample and change in total sample
  - With 10% sample increase in low response, and
  - 10% sample decrease in high response clusters.
Stratification Analysis – Results

- Modest gains, at best, in 18-34 representation.
- Best group of markets were college towns where low response clusters made up a large portion of the Metro’s 18-34 population.

Stratification Analysis – Results

<table>
<thead>
<tr>
<th>Metro</th>
<th>Percent of Metro 18-34 in low response clusters</th>
<th>Hypothetical representation increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Metro 1</td>
<td>62.0%</td>
<td>6%</td>
</tr>
<tr>
<td>Midwest Metro 1</td>
<td>56.5%</td>
<td>7%</td>
</tr>
<tr>
<td>South Metro 2</td>
<td>52.6%</td>
<td>6%</td>
</tr>
<tr>
<td>Midwest Metro 2</td>
<td>43.8%</td>
<td>5%</td>
</tr>
<tr>
<td>Midwest Metro 3</td>
<td>43.3%</td>
<td>6%</td>
</tr>
<tr>
<td>Midwest Metro 4</td>
<td>36.2%</td>
<td>4%</td>
</tr>
</tbody>
</table>

What did we learn?

- Basic idea still holds promise
- No “one size fits all” stratification scheme.
  - “Need to cluster the markets for clusters.”
  - Cluster penetrations vary market by market
  - Need very high target pop penetration as well as high cluster penetration.
- New Census data and annual ACS will also help.