Total number of iterations: 15000

Burn-in period: 5000

Thinning: 10

Kmax = 50

Dirichlet prior with gamma = 1/Kmax

Estimated posterior distribution of the number of clusters for each survey wave.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ACS Survey Year** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** |
| 2006-2010 | 0 | 0 | 0 | **0.397** | 0.383 | 0.158 | 0.055 | 0.007 |
| 2011-2015 | 0 | 0.001 | 0.279 | **0.387** | 0.206 | 0.074 | 0.039 | 0.014 |
| 2015-2019 | 0.124 | 0.132 | **0.269** | 0.258 | 0.137 | 0.063 | 0.014 | 0.003 |

Estimated number of observations per cluster conditionally on **mapK** (3 label switching algorithms); however, the model outputs the posterior mean of the probability of success per feature and cluster using the ECR algorithm.

|  |  |  |  |
| --- | --- | --- | --- |
| **Cluster** | **2006-2010\*** | **2011-2015** | **2015-2019** |
| 1 | 109 |  |  |
| 2 | 343 |  |  |
| 3 | 110 |  |  |
| 4 | 137 |  |  |
| 5 | 140 |  |  |
| 6 | 274 |  |  |
| 7 | 85 |  |  |
| 8 | 201 |  |  |
| 9 | 79 |  |  |

\*Same frequencies using either label switching algorithm

|  |  |  |  |
| --- | --- | --- | --- |
| Cluster | Cluster descriptions and distribution of age across census tracts  For this, we are also going to look at the distribution of age and race/ethnicity across census tracts within the clusters | | |
|  | **ACS 2006-2010** | **ACS 2011-2015** | **ACS 2015-2019** |
| 1 | High success probabilities for:   * Renter * White collar occupation * < HS * >= Bachelor’s * TPPR   Low house ownership, vehicle, poverty line |  |  |
| 2 | High success probabilities for:   * Renter * TPPR * Lack of complete plumbing + < HS   Low probabilities for all other variables ranging from 0.3-0.04. |  |  |
| 3 | High success probabilities for:   * Owner   Medium probabilities for:   * < HS * SNAP benefits * Female household |  |  |
| 4 | High success probabilities for:   * Owner * >= Bachelors * >= HS * Median income * White collar occupation   More affluent census tracts? |  |  |
| 5 | High probabilities for:   * Owner * >= HS * Median Income   Low for:   * >= Bachelor’s degree * White collar occupation * Renter |  |  |
| 6 | High probabilities for:   * Owner * >= Bachelor's degree * >= HS * white collar occupation |  |  |
| 7 | High probabilities for:   * Renter * < HS * Female household * SNAP * Below poverty |  |  |
| 8 | High probabilities for:   * Renter * >= Bachelor’s degree * White collar occupation * >= HS * Median income * TPPR |  |  |
| 9 | High probabilities for:   * Owner * < HS * Median income * unemployment |  |  |

\*\* This means that the average of the proportion of the population in the categories 25-34 and 34-44 where higher compared to other categories

For variables: lack of plumbing and two or more rooms, 0 means there is no lack and no households with two or more ppr, respectively.

2006-2010

A graph of progress on a graph

Description automatically generated with medium confidence

A colorful squares with black text

Description automatically generatedA colorful graph with numbers

Description automatically generated with medium confidence