**National Establishment Time Series (NETS) Business Data for the MESA Neighborhood Study and Jackson Heart Study**

**Food Stores, Recreational Facilities, Popular Walking Destinations, Social Engagement, and Social Services**

**Methods and Documentation**

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# I. INTRODUCTION

A goal of the Multi-Ethnic Study of Atherosclerosis (MESA) Neighborhood Study and the Jackson Heart Study (JHS) is to determine how the specific characteristics of the participant’s neighborhood are associated with health outcomes as part of the Center for Integrative Approaches to Health Disparities (CIAHD) – Environmental Rev (Grant # 3P60 MD002249-05S1) and the CVD and Neighborhoods ancillary study of the Multi-Ethnic Study of Atherosclerosis (MESA) (Grant # R01 HL071759). As part of this, data on food stores, eating establishments, recreational facilities, popular walking destinations, destinations for social engagement, and social support was collected to determine the availability of these resources in the participants’ area. This documentation file will outline the data available and methods used to collect and clean the business data.

# II. DATA SOURCE, AREA SELECTED, AND STANDARD INDUSTRIAL CLASSIFICATION CODE SELECTION

## II.A. SOURCE DATA

The business data was purchased as the National Establishment Time-Series (NETS) Database from Walls & Associates (<http://youreconomy.org/pages/walls.lasso>). The contact person for the company is Don Walls (dwalls2@earthlink.net). The NETS database is based on Dun and Bradstreet (D&B) data and converted to a time series database by taking annual snapshots of the D&B data between January 1990-January 2011. Data was provided to us for all years 1990-2011. Since the data collection is from January of 2011, this data actually represents the years of interest of 2000-2010 the January 2011 data actually represents business activity in the year 2010. For the JHS project, the entire business data for the state of Mississippi was requested which includes all establishments over time and all standard industrial classification (SIC) codes available. Due to cost restrictions, for the MESA study and any JHS addresses which fall outside the state of Mississippi, the data provided to us contains all the establishments that have at least 1 year with our requested SIC codes (described in Section II.C below) which fall within our selected zip codes (described in Section II.B below). This includes historic data for the businesses which includes SIC code, addresses, moving status, years active, sales, and number of employees for each year. Historic addresses were only provided for the years 2000-2011 (as reported in January of each year). The data was provided to us by Walls & Associates as described in Appendix A. The raw data is stored on password protected external hard drive, which is currently located in Kari Moore’s office. For full information of the NETS data sent by Walls & Associates, see additional documentation provided with the data in the folder “U:\SECURE\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Documentation\From\_NETS.”

## II.B. AREA SELECTION

### II.B.1. SOURCE ADDRESSES

For the MESA study, zip codes were selected based on addresses provided for the MESA home addresses (baseline and follow-up moving), MESA work/activities addresses, Community Survey #1 (CS1), Community Survey #2 (CS2), and Community Survey #3 (CS3). See Appendix B for a list of the source for the address lists and date the addresses are current through. These include all addresses reported for home and work/activities including addresses for those who moved during the study period. The data available covers Exams1-5.

For the JHS study, addresses were collected for baseline exam 1, exam 2, and annual follow-up (AFU) studies which are available from July 2000 to December 2011.  For more information on the JHS addresses geocoding, see the file “U:\EPID\CIAHD\JHS Data\Environmental Assessment Core\data\JHS address geocode data\ JHS addresses and NETS geocode\_documentation\_012813.doc.”  For the purpose of GIS measure creation, JHS participants ID and geocoding information are extracted from this address geocode dataset and the new dataset containing variables sent to Kari for GIS tasks are saved at “U:\SECURE\Diezroux\Projects\svnwang\JHS\_Address\_Geocode\_GIS\participant.sas7dat”. For more information on this dataset creation, see the file “U:\Secure\Diezroux\Projects\svnwang\JHS\_Address\_Geocode\_GIS\description\_03082013.docx.”

### II.B.2. SELECTION OF AREA TO PURCHASE (ZIP CODES)

To determine the area to purchase NETS data for MESA and Community Surveys, all of the addresses were set together and mapped using ArcMap Version 9.3. All addresses were included regardless of geocoding accuracy (ie: includes those that were geocoded to zip code centroids). Only those that could not be geocoded were removed. Five mile buffers were created around all of the addresses. Zip code maps for 2000 and 2010 boundaries were downloaded from the Census Tiger website. Zip codes were selected if they were overlapped by any of the 5 mile buffers for any address. See Appendix L for detailed methods to determine the zip codes selected for the MESA and Community Surveys.

For JHS, it was decided to purchase the NETS data for the entire state of Mississippi to cover all addresses that fall within that state. For those participants who reside on the boarder or moved outside MS, we first identified all zip codes within a 5 mile radius of any reported JHS participant in exam 1 and AFU addresses that were available through 2011. The zip codes were identified using the Census 2000 boundaries as downloaded from the website <http://www.census.gov/geo/www/cob/bdy_files.html>. The identified zip codes were used to purchase additional NETS data that are outside MS.

Once the final lists of zip codes were compiled for each study, these lists were merged together for the final zip code purchase list. This gave a total of 5,967 zip codes (4,963 in MESA only, 397 in JHS only, and 607 in both studies). See Table II.B.1 for a summary of the number of zip codes purchased in each state. See Appendix C for a list of the zip codes that were purchased.

**Table II.B.1: Summary of number of zip codes selected by state**

| **STATE** | **N (%)** |
| --- | --- |
| CA | 865 (14.50%) |
| NY | 482 (8.08%) |
| FL | 459 (7.69%) |
| TX | 352 (5.90%) |
| NC | 350 (5.87%) |
| IL | 349 (5.85%) |
| MD | 320 (5.36%) |
| MN | 241 (4.04%) |
| PA | 215 (3.60%) |
| NJ | 210 (3.52%) |
| VA | 198 (3.32%) |
| GA | 185 (3.10%) |
| MA | 140 (2.35%) |
| AZ | 137 (2.30%) |
| WI | 137 (2.30%) |
| CO | 104 (1.74%) |
| OH | 14 (1.74%) |
| WA | 98 (1.64%) |
| SC | 86 (1.44%) |
| TN | 82 (1.37%) |
| IN | 81 (1.36%) |
| NV | 80 (1.34%) |
| LA | 77 (1.29%) |
| MI | 77 (1.29%) |
| OR | 65 (1.09%) |
| MO | 64 (1.07%) |
| AL | 58 (0.97%) |
| DC | 56 (0.94%) |
| CT | 51 (0.85%) |
| KY | 42 (0.70%) |
| UT | 29 (0.49%) |
| KS | 23 (0.39%) |
| AR | 21 (0.35%) |
| WV | 19 (0.32%) |
| NM | 17 (0.28%) |
| RI | 17 (0.28%) |
| SD | 16 (0.27%) |
| OK | 15 (0.25%) |
| PR | 15 (0.25%) |
| DE | 7 (0.12%) |
| IA | 7 (0.12%) |
| ID | 5 (0.08%) |
| ND | 4 (0.07%) |
| NH | 4 (0.07%) |
| VT | 3 (0.05%) |
| TOTAL | 5,967 |

### II.B.3. SELECTION CENSUS TRACTS AND BLOCK GROUPS COVERED BY ZIP CODES

Area-level analyses of the NETS data will generally be done at either the census tract or block group level. Since the data was purchased at the zip code level, the census tracts and block groups that can be used in analyses are those that overlap with the purchase area. These were determined by using ArcGIS to select the zip codes that were purchased and then overlaying them with the census tract or block group files and selecting those that are overlapped. For any of the measures created that are not supermarkets, the full NETS coverage area can be used. For the supermarkets, the full NETS coverage area cannot be used since we purchased additional supermarkets from Nielsen/Trade Dimensions to supplement the list (see documentation “Trade Dimensions 2012 Data Documentation.docx” for more information on this data). An additional indicator for the area that was purchased for the TD data was created and this is the area extent that should be used when using the supermarkets data. In addition, indicators were created if the entire county is covered by the NETS and TD purchases. See Appendix M for detailed methods on how the census tract and block group coverage area was created. All DBF files with these indicators are found in the folder “U:\EPID\CSEPH\Projects\Diez Roux\Built Environment II\NETS\_to\_be\_transferred\Tasks\_2\_3\_Preliminary\_Assessment.”

### II.B.4. DISTANCE FROM ADDRESSES TO CLOSEST ZIP CODES NOT WITHIN PURCHASE AREA

The distance from each address for MESA and JHS to the closest area where the NETS data was not purchased was calculated. This was needed since the distance to the nearest NETS businesses in the groupings described in sections below was calculated. For some domains, the distance to the edge of the purchase area may be less than the distance to the nearest business. In these cases, there may be a business in the non-purchase area that we do not know about that may be closer than one within the purchase area. This is especially true for those that have a small distance subset of zip codes around their address and then they “skip over” the non-purchase area to the next set of zip codes where data was purchased. See Figure II.B.1 for an example of this. See Appendix N for detailed methods on how the distance to nearest non-purchase area was calculated. The final data with the measure is located in “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\GIS\Deliverables\Individuals\NETS\Euclid\_dist\_extra\_assessment\ZCTA\_empty\_near.dbf.” This was also merged with the final density and distance to measures datasets (as described in sections below) and the variable is called “DNODATA” in each of these datasets.

**Figure II.B.1: Example of distance to nearest business being farther than the zip code area purchased**

Business not in zip code area that

was purchased so we didn’t

get this business and would be missing

from our data

Distance that would be calculated

if we had all data in US

Distance calculated

Business in zip code area that

was purchased so we know

about this business

Person

When the distance to nearest non-purchase area was created, it was discovered that there were two JHS addresses that fell completely outside the purchase area (distance to non-purchase area is 0). These addresses were both outside the state of Mississippi (one in IL and one in TN). Upon further investigation, it could not be determined why these addresses were not within the zip codes provided by former data analyst Samson Gebreab. Since we cannot be confident in any of the NETS data created for these addresses, all data will be missing for these.

## II.C. SIC CODE SELECTION AND CODING

Standard Industrial Classification (SIC) codes were used to select the businesses that are food stores, eating establishments, liquor stores, recreational facilities, popular walking destinations, establishments for social engagement, and social services. For the purchase of the SIC codes, the 8-digit SIC code was used. See Appendix D for the full list of the SIC codes purchased (n=640). Full documentation on the methods and determinations used to select the SIC codes and final coding for each type of data are described in the following subsections.

## II.C.1. SIC CODE SELECTION AND CODING – FOOD STORES

### II.C.1.A. FOOD STORES SIC CODE SELECTION

The SIC codes selected to be purchased was based on codes that are used to categorize grocers, supermarkets, and other places used for food shopping, restaurants, both fast food and service restaurants, liquor stores, and drinking places such as bars, pubs, nightclubs, ect. This was largely based on the SIC codes that were selected using the InfoUSA data that was used previously in the MESA Neighborhood Study by Latetia Moore. See Appendix D for the list of SIC codes related to food stores.

### II.C.1.B. FOOD STORES CODING

Decisions for categorization of the food stores data were made by Amy Auchincloss, Melissa Smiley, and Kari Moore in late 2009-2010 as part of the MESA Neighborhood study. The same categorizations were applied here.

All food stores were divided into categories largely defined by primary SIC codes, with some additional input from outside sources for fast food chains and supermarket chains. To maximize the flexibility of future analyses, we erred on the side of creating many categories, even though some smaller categories may have to be combined with other categories for analysis. Only primary SIC codes at the specified year of interest were used, even if the SIC code for that business changed over time. This decision reflects email correspondence between Kari Moore and Don Walls (Walls and Associates) and also the fact that secondary and tertiary SIC codes are not available for the historical years. Those establishments that are listed as headquarters in the NETS data were excluded from the coding since it was determined that many of these will not provide access for the general public.

The fifteen food store categories are described in detail below.

1. **Grocers (Category #1)**
   1. *Technical definition:* Any food store with fewer than 25 employees, sales less than $2million, and not on the supermarket name list, and a primary SIC code of 54110000, 54110100, 54110101, 54110102, 54110103, 54110104, 54110105, 54119900, 54119901, 54119904, or 54119905.
   2. *General description:* This category was derived from whatever stores remained after removing supermarkets and convenience stores. Thus, it includes all smaller, non-supermarket, non-convenience stores.
   3. *Assumed health association:* Unknown. This is a heterogeneous category including stores that sell fresh food and stores that almost exclusively sell food with a long shelf life.
2. **Supermarket Chains (Category #2)**
   1. *Technical definition:* Industry defines a “chain” supermarket operators as having >=10 locations[[1]](#footnote-1). For this study, we defined it as companies that operate 8 or more stores in the study area. This cut point is slightly lower than the industry definition reflecting that there will be fewer stores in MESA ZIP codes. The cut point was also based on examination of the distribution of the TD data. Creation of the supermarket chain name list is described in Section III.D below. Stores were counted toward this number regardless of primary SIC code and were not headquarter locations. D&B/NETS trade/company names are un-standardized and have many spelling irregularities, whereas TD’s names require minimal corrections. Thus, we use the standardized supermarket name list from TD to determine “chain” companies (that had 8 or more locations within the 2000, 2005, or 2010 data).
   2. *General description:* For this study, the store is a chain if it has the company and/or trade name of any of the 263 stores listed in Appendix E.
   3. *Assumed health association:* Favorable. A wide variety of fruits, vegetables and low-fat foods are assumed to be available, though unhealthy food options are also available. Food sold in large markets is typically cheaper than food sold in small grocers. If healthier food is more expensive than unhealthy food, then supermarkets may encourage healthier food purchases.
3. **Supermarket Non-Chain (Category #3)**
   1. *Technical definition:* Any food store with 25 employees or greater or sales of $2 million or greater, and a primary SIC code of 54110000, 54110100, 54110101, 54110102, 54110103, 54110104, 54110105, 54119900, 54119901, 54119904, or 54119905 and not part of category #2 (Supermarket Chains) above.
   2. *General description:* The categories of grocers (described above) and supermarkets derive from the constellation of SIC Codes that generally apply to all types of grocery stores and supermarkets.
   3. *Assumed health association:* Favorable. A wide variety of fruits, vegetables and low-fat foods are assumed to be available, though unhealthy food options are also available. Food sold in large markets is typically cheaper than food sold in small grocers. If healthier food is more expensive than unhealthy food, then supermarkets may encourage healthier food purchases.
4. **Convenience (Category #4)**
   1. *Technical definition:* Any food store with a primary SIC code of 54110200, 54110201, or 54110202.
   2. *General description:* National Association of Convenience Stores, an international trade association and publisher of the industry trade publication Convenience Store News, defines the channel as small stores between 800 and 3,000 square feet, carrying between 500 and 1,500 SKUs, and meet the following criteria: operating at least 13 hours per day, the store must carry a limited selection of grocery items including at least two of the following: toilet paper, soap, disposable diapers, pet foods, breakfast cereal, tuna fish, toothpaste, ketchup, and canned goods. These stores may or may not sell gasoline and offer fast food services.
   3. *Assumed health association*: Unfavorable. Assumed to sell mostly highly processed snack food, fast food to go (microwave burgers, etc.) and low quantity (if any) fresh produce.
   4. NOTE: There are some chain convenience stores (ie: 7-Eleven, Speedway) that are categorized as small grocers (category #1) rather than convenience stores based on their SIC. It is recommended that grocers and convenience stores be grouped together for analysis purposes.
5. **Deli, meat, fish, dairy (not ice cream) (Category #5)**
   1. *Technical definition:* Any food store with a primary SIC code of 54119902, 54210000, 54210100, 54210101, 54210102, 54210200, 54210201, 54210202, 54999902, 54999904, 54510000, 54519900, 54519901, 54519902, or 54519904.
   2. *General description*: Stand-alone stores that sell primarily meat, fish, egg products, milk, cheese, and/or other dairy products (except ice cream) including delicatessens and gourmet shops.
   3. *Assumed health association:* Unknown. These places tend to offer foods that are high in fat and cholesterol but they also stock foods that may not be highly processed and are a part of a healthy Mediterranean diet.
   4. NOTE: The SIC 54510000 (Dairy products stores) which is classified in category #5 Deli, Meat, Dairy appears to be a general dairy stores classification. This code appears to contain some stores that may be classified as ice cream places (ie: Dairy Queen, Baskin Robbins). Since it appeared that only about 25% of these were obviously more likely ice cream places, we decided to leave this SIC in the Dairy category.
6. **Fruit, vegetable (Category #6)**
   1. *Technical definition:* Any food store with a primary SIC code of 54319900, 54310000, 54319901, or 54319902.
   2. *General description:* Stand-alone stores that sell primarily fruits and vegetables. This category may be too small to analyze on its own and could be combined with several different categories, depending on the research question.
   3. *Assumed health association*: Favorable.
7. **Bakeries, pastry, candy, nuts, ice cream (Category #7)**
   1. *Technical definition:* Any food store that is NOT a fast food restaurant (see categories 11 and 12) with a primary SIC code of 54610000, 54619900, 54619901, 54619902, 54410000, 54419900, 54419901, 54419902, 54419903, 54419904, 54419905, 54519903, 54619903, 54619904, 54619905, 54619906, 54619907, 54619908, 54999901, 58120202, 58120203, 58120204, or 58120200.
   2. *General description:* Bakeries, candy and nut shops, and ice cream parlors.
   3. *Assumed health association:* Unfavorable. Though some of the bakeries may provide fresh breads and some of the nut stores may have plain/unprocessed nuts, it is impossible to differentiate these stores from providers of cupcakes, cookies, pastries, and candied nuts. It is assumed that the majority of these stores sell high calorie and high sugar foods.
8. **Health food, vitamins, and supplements (Category #8)**
   1. *Technical definition*: Any food store with a primary SIC code of 54990100, 54990102, 54990103, or 54990101.
   2. *General description:* Small stores that specialize in natural foods, vitamins and nutritional supplements. These SIC categories were kept together because stores listed under these codes are indistinguishable from each other (health food stores classify themselves as vitamin stores so are not able to be separated). This category may be too small to analyze on its own.
   3. *Assumed health association*: Unknown. Health food stores are generally considered to be healthy. However, stores that exclusively sell vitamins and supplements are not comparable to food stores, rarely sell fresh produce, and may sell supplements that can be harmful to health (e.g., athletic supplements).
9. **Liquor (Category #9)**
   1. *Technical definition:* Any food store with a primary SIC code of 59210000, 59210100, 59210101, 59210102, 59219900, or 59219901.
   2. *General description*: Stores that primarily sell alcohol for consumption elsewhere.
   3. *Assumed health association:* Unfavorable
10. **Drinking places (non-alcohol) (Category #10)**
    1. *Technical definition:* Any food store with a primary SIC code of 54990200, 54990201, 54990202, 54990203, 54990204, 54990205, 58120205, 58120206, or 58120304.
    2. *General description:* Food stores that sell coffee, smoothies, juices, and tea for consumption on site.
    3. *Assumed health association*: Unknown. These beverages are generally not thought to be health promoting, but 100% fresh juices and green tea can be beneficial. There may be other social benefits from having local places like these.
11. **Drinking places (alcohol) (Category #11)**
    1. *Technical definition:* Any food store with a primary SIC code of 58130000, 58130101, 58130202, 58130103, 58130200, 58130201, 58130100, 58130102, 58130104, 58130105, 58130106, or 58130203.
    2. *General description:* Food stores that primarily sell alcohol for consumption on site.
    3. *Assumed health association*: Unfavorable.
12. **Fast food (chains) (Category #12)**
    1. *Technical definition:* Any food store regardless of SIC code that appears on the list of fast food eating places (See Appendix G).
    2. *General description:* Large chain eating places that specialize in low preparation time foods that are eaten cafeteria-style (no waiter service) or take-away. The list of the largest chains was derived from pulling the top 75 revenue-ranked fast-food restaurants for the year during 2005 (derived from Restaurant & Institutions Top 100)[[2]](#footnote-2). We excluded coffee, donut, and ice cream shops because those shops generally sell snacks and thus are not often thought of fast-food by consumers and so MESA respondents who report on fast-food eating behaviors and presence of fast food in their neighborhood are not likely to count the coffee, donut, and ice cream restaurants. Latetia's chain-name list also excluded coffee, donut, and ice cream chains. Creation of the fast food chain name list is described in Section III.E below.
    3. *Assumed health association*: Unfavorable. Foods tend to be highly processed and therefore high in calories, saturated fat, salt, and sugar.
13. **Fast food (non-chain) (Category #13)**
    1. *Technical definition:* Any food store with the limited service restaurant SIC 581203 (except 58120304: Coffee shops) that are not on the fast food chain list as described in above category #12 (Fast food chains).
    2. *General description:* Eating places that specialize in low preparation time foods that are eaten cafeteria-style (no waiter service) or take-away. Fast food is defined by the industry as being "designed for ready availability, use or consumption and sold at eating establishments for quick availability or take-out. Fast food restaurants are also known as quick-service restaurants[[3]](#footnote-3). That definition has low specificity so we added cafeteria style (no waiter service).
    3. *Assumed health association*: Unfavorable. Foods tend to be highly processed and therefore high in calories, saturated fat, salt, and sugar.
14. **Other eating places (Category #14)**
    1. *Technical definition:* Any eating place with SIC 5812 that is not in the fast food categories above.
    2. *General description:* A wide variety of restaurants and other eating places that are not considered to be fast food.
    3. *Assumed health association:* Unknown. There is a wide variety of different types of restaurants in this category.
15. **Other (Category #15)**
    1. *Technical definition:* Any food establishment not already in a category including stores with "general" or "unknown" SIC codes 54119903, 54990000, 54999900, 54999903, or 54999905.
    2. *General description*: All other food stores not in another category.
    3. *Assumed health association:* Unknown.

For analysis purposes, the categories above were combined together into broader categorizations as described in Table II.C.1. It is possible that future researchers will conceive of questions that need to be answered differently, but for now this provides a blueprint for combining the categories for possible analyses.

**Table II.C.1: Combined categories of food stores for analysis purposes**

|  |  |  |
| --- | --- | --- |
| Source | Density | Categories |
| 1. To examine relationships previously found in Latetia's research | Supermarkets (chain) | 2 |
| Supermarkets (chain and non-chain) | 2, 3 |
| Supermarkets (chain and non-chain) & Fresh Food Stores (ie: favorable food stores) | 2, 3, 6 |
| Fast food (chain) | 12 |
| Fast food (chain and non chain) | 12, 13 |
| 2. To do an analysis similar to the Rundle article[[4]](#footnote-4) | "Favorable" food stores  Supermarkets & Fruit, vegetable stores | 2, 3, 6 |
| "Unfavorable" food stores  Convenience Stores; Bakeries, candy/nut shops, and ice cream parlors; Liquor stores | 4, 7, 9 |
| "Unfavorable" eating/drinking places  Bars and fast food restaurants. | 11, 12, 13 |
| 3. Additional favorable, unfavorable, and neutral | “Favorable” food stores: Supermarkets (chain and non-chain); fruit and vegetable stores | 2, 3, 6 |
| “Unfavorable” food stores including alcohol for full environment: convenience stores; bakery, candy/nut shops, and ice cream; liquor stores; drinking places alcoholic; fast food (chain and non-chain) | 4, 7, 9, 11, 12, 13 |
| “Unfavorable” food stores excluding alcohol for food only environment: convenience stores; bakery, candy/nut shops, and ice cream; fast food (chain and non-chain) | 4, 7, 12, 13 |
| “Neutral” or “unknown” food stores: grocers; deli, meat, and dairy; health and vitamin stores; drinking places non-alcoholic; other food stores | 1, 5, 8, 10, 15 |
| Other eating places | 14 |

A variable for the total number of food stores is also calculated as the sum of favorable food stores, unfavorable food stores, neutral food stores, and other eating places.

In addition to the categories listed in the table above, there may be interest in looking indices of unfavorable to favorable food stores. The following indices have been created:

1. Ratio of Unfavorable to Favorable food stores including alcohol

This is calculated as:

RATIO\_TOT = (Unfavorable)/(Favorable)

Where Unfavorable is defined as 4, 7, 9, 11, 12, 13 and Favorable is defined as 2, 3, 6 (see table above)

This is based on the FOODSTAT variable as defined by Stringer[[5]](#footnote-5). Modifications were made to the definition of unfavorable to include bakery/candy/nut/ice cream shops, liquor stores, and alcoholic drinking places.

This will give a ratio where the larger the number, the worse the mix of retail options (ie: if there is a high number, there is much easier access to unhealthy food compared to healthy food). For densities where the denominator only (favorable food stores) is 0 but unfavorable food stores is not 0, this is will be coded as 888888888. This indicates that there are some unfavorable food stores in the area but there is no retail mix to calculate. For those where both favorable and unfavorable food stores are 0, this will be coded as 999999999. This indicates that there are no stores in the area.

1. Ratio of Unfavorable to Favorable food stores excluding alcohol (food only environment)

This is calculated as:

RATIO\_NOALC = (Unfavorable)/(Favorable)

Where Unfavorable is defined as 4, 7, 12, 13 (to reflect the food only environment) and Favorable is defined as 2, 3, 6 (see table above)

This is based on the FOODSTAT variable as defined by Stringer[[6]](#footnote-6). Modifications were made to the definition of unfavorable to include bakery/candy/nut/ice cream shops.

This will give a ratio where the larger the number, the worse the mix of retail options (ie: if there is a high number, there is much easier access to unhealthy food compared to healthy food). For densities where the denominator only (favorable food stores) is 0 but unfavorable food stores is not 0, this is will be coded as 888888888. This indicates that there are some unfavorable food stores in the area but there is no retail mix to calculate. For those where both favorable and unfavorable food stores are 0, this will be coded as 999999999. This indicates that there are no stores in the area

1. Modified Retail Food Environment Index including alcohol

This is calculated as:

MRFEI\_TOT = (Favorable)/(Favorable+Unfavorable)

Where Unfavorable is defined as 4, 7, 9, 11, 12, 13 and Favorable is defined as 2, 3, 6 (see table above)

This is based on the mRFEI variable as defined by the CDC8. Modifications were made to the definition of unfavorable to include bakery/candy/nut/ice cream shops, liquor stores, and alcoholic drinking places.

This will give a proportion of favorable food stores compared to the total amount of favorable and unfavorable where the larger the number, better the access to favorable food (ie: if there is a high number close to 1, there is better access to favorable food). For those where both favorable and unfavorable food stores are 0, this will be coded as 999999999. This indicates that there are no stores in the area.

1. Modified Retail Food Environment Index excluding alcohol (food only environment)

This is calculated as:

MRFEI\_NOALC = (Favorable)/(Favorable+Unfavorable)

Where Unfavorable is defined as 4, 7, 12, 13 and Favorable is defined as 2, 3, 6 (see table above)

This is based on the mRFEI variable as defined by the CDC8. Modifications were made to the definition of unfavorable to include bakery/candy/nut/ice cream shops.

This will give a proportion of favorable food stores compared to the total amount of favorable and unfavorable where the larger the number, better the access to favorable food (ie: if there is a high number close to 1, there is better access to favorable food). For those where both favorable and unfavorable food stores are 0, this will be coded as 999999999. This indicates that there are no stores in the area.

Additional notes:

There are some chain convenience stores (ie: 7-Eleven, Speedway) that are categorized as small grocers (category #1) rather than convenience stores based on their SIC. It is recommended that grocers and convenience stores be grouped together for analysis purposes.

The SIC 54510000 (Dairy products stores) which is classified in category #5 Deli, Meat, Dairy appears to be a general dairy stores classification. This code appears to contain some stores that may be classified as ice cream places (ie: Dairy Queen, Baskin Robbins). Since it appeared that only about 25% of these were obviously more likely ice cream places, we decided to leave this SIC in the Dairy category.

## II.C.2. SIC CODE SELECTION AND CODING – RECREATIONAL FACILITIES

### II.C.2.A. RECREATIONAL FACILITIES SIC CODE SELECTION

To determine which SIC codes to purchase for recreational facilities, we identified all SIC 8-digit codes used by Lisa Powell[[7]](#footnote-7) (list provided by her and used as part of ongoing work – Appendix H) and Penny Gordon-Larsen[[8]](#footnote-8) based on SIC codes she identified for her built environment project (Appendix I). A list of 133 SIC codes (Appendix D) was compiled, based on the following criteria:

1. All of Lisa Powell’s 100 codes were included.
2. All of Penny Gordon-Larsen’s codes were included from the following subcategories: outdoor, membership, instruction, public, public fee, parks. Other categories (schools, youth organizations, YMCAs) were not included because they were not considered relevant for this project since they applied to a younger study population.
3. After inspection of a complete SIC code list, three additional codes were included, based on conversations between Kelly Evenson, Ana Diez Roux, Stina Mair and Kari Moore. These were: (1) Bowling centers, nec; (2) Ping pong parlors; and (3) Skating rink operation services, resulting in a total of 133 SIC codes (Appendix D). “Bowling centers, nec” was added since all other facilities with “bowling” in the title were included. “Ping pong parlors” and “skating rink operation services” were added since they both seem to be recreational facilities where physical activity (table tennis/ice skating) occurs.

After additional review a total 19 codes were excluded from the 133 purchased SIC codes. Codes were eliminated if:

1. They were resources only used by children (“Childrens' dancing school” (SIC 79110201), “Youth center” (SIC 83220205 ), “Youth camps” (SIC 70320200), “Boys’ camp” (SIC 70320201), “Girls’ camp” (SIC 70320202), “Gymnastic instruction, non-membership” (SIC 79991109), “Instruction schools, camps, and services” (SIC 79991100), “Sports instruction schools, camps, and services” (SIC 79991120), “Day camp” (SIC 79991106) and “Summer camp, except day and sports instruct.” (SIC 70320203))
2. They were only for weight reduction/spa treatments (“Spas” (SIC 79910103), “Weight reducing clubs” (SIC 79910200), “Reducing facilities”(SIC 79910201) and “Slenderizing salons” (SIC 79910202)).
3. We also excluded “Zoological garden, commercial”(SIC 79991515) “community centers” (SIC 83220601), “Country club, membership” (SIC 79979904), “Games, instruction” (79991108) and “Lifeguard services” (SIC 79991407) because they were deemed not to be significant sources of physical activity for adults. For the 4 most questionable codes, we looked at the % of places with secondary/tertiary codes that would be included if they primary SIC codes.
   1. Weight reducing clubs: 18 (of 242) have secondary/tertiary codes; 2 (11%) of these are relevant.
   2. Country clubs: 288 (of 1184) have secondary/tertiary codes; 88 (31%) of these are relevant.
   3. Instruction schools, camps, and services: 132 (of 1339) have secondary/tertiary codes; 17 (13%) of these are relevant.
   4. Sports instruction, schools, and camps: 64 (of 474) have secondary/tertiary codes; 6 (9%) of these are relevant.
   5. Community centers: 201 (of 1608) have secondary/tertiary codes; 8 (4%) of these are relevant.

Based on this, we decided to exclude all of these codes. This left us with a total of 114 8-digit SIC codes (Appendix D) that were used for categorization into type of activity.

### II.C.2.B. RECREATIONAL FACILITIES CODING

The 114 SIC codes were divided into 13 categories based on the predominant type of activity offered by each facility as inferred from their SIC code. Each SIC code was assigned to one category (Appendix D). Establishments that are listed as headquarters are included as recreational facilities. This is different from the food stores data where they are excluded. For the recreational facilities, they are included because it was felt that there are fewer chains where they would have just an administrative head that didn’t offer any services as opposed to the food stores where there are many more chains where the headquarters represent just an administrative head without services. There will be some locations that don’t actually offer any services but this will be a small minority of the locations. Only about 2% of the locations at each year 2000-2010 are considered headquarters in the recreational facilities data.

Five categories were based on categories previously used by Kelly Evenson (indoor conditioning, recreational, team sports, water activities, racquet sports)[[9]](#footnote-9).

From APPENDIX of paper: “Up to 56 mutually exclusive types of activities were recorded during the interview and these were classified into the following categories:

**Indoor conditioning activities.** Aerobic class, boxing, calisthenics, dancing–aerobics/ballet, health club exercise, home exercise, judo/karate, rope skipping, stair climbing, weight lifting, bicycling machine exercise, rowing machine exercise.

**Recreational.** Backpacking, bicycling for pleasure, bowling, golf, hiking cross-country, horseback riding, hunting large game–deer, elk, mountain climbing, skating–ice or roller, sledding, tobogganing, snow shoeing, snow skiing, table tennis, other.

**Team sports.** Basketball, soccer, softball, touch football, volleyball.

**Water activities\*.** Boating (canoeing, rowing, sailing for pleasure or camping), canoeing/rowing in competition, fishing from riverbank or boat, scuba diving, snorkeling, stream fishing in waders, surfing, swimming laps, water skiing.

**Racquet sports.** Badminton, handball, paddle ball, racquetball, squash, tennis.**”**

\* Kelly Evenson’s water activities category was subdivided based on whether the facility could be inferred to offer moderate/heavy conditioning activities. The two mutually exclusive categories are:

**Water activities with conditioning**

**Other water activities**

In order to fully capture all the SIC codes, we created 2 additional categories:

**Camps/Vacation Activities.** (non-regular activities)

**Instruction facilities.** Any SIC code that includes the words “school,” “professional” and/or “instructor/instruction” was labeled as an instruction facility. This category was later subdivided based on what type of instruction each facility offers (in order to differentiate the instruction facilities with moderate/heavy conditioning activities). These categories are:

**Instruction in indoor conditioning**

**Instruction in recreational activities**

**Instruction in team sports**

**Instruction in water activities**

**Instruction in racquet sports**

Final list of categories and components of each category:

1. **Indoor Conditioning Activities (Category #1 (IC))**
   1. *Technical definition:* Any recreational facility with SIC codes 79110100, 79110101, 79110102, 79910000, 79910100, 79910101, 79910102, 79910300, 79910301, 79910302, 79970000.
   2. *General description*: Physical fitness facilities, dancing–aerobics/ballet, athletic club exercise.
2. **Recreational (Category #2 (RE))**
   1. *Technical definition:* Any recreational facility with SIC codes 79330000, 79339901, 79339902, 79339903, 79920000, 79970100, 79970400, 79979906, 79979907, 79979908, 79990202, 79990204, 79990205, 79990601, 79990602, 79990603, 79990700, 79990701, 79991200, 79991202, 79991204, 79991604, 79999903, 79999907, 79999910, 79999912, 79999917, 79990501, 79991205, 79970302, 79990000, 79339900, 79990402, 79990600.
   2. *General description*: Bowling, golf, ice sports, outdoor field clubs, horse riding, lawn bowling, skating–ice or roller, shooting/hunting, archery, trail hiking, baseball batting cage, recreation centers/services, trampolines, biking, ping pong.
3. **Team Sports (Category #3 (TS))**
   1. *Technical definition:* Any recreational facility with SIC codes 79970101, 79970102, 79970401, 79970402, 79970404, 79979902.
   2. *General description*: Curling, hockey, baseball, football, soccer, bowling league/team.
4. **Water Activities (Category #4 (WA))**
   1. *Technical definition:* Any recreational facility with SIC codes 79970201, 79970202, 79991402, 79991512, 79991513, 79991409, 79991410, 79991411.
   2. *General description*: Boating, beach club/bathing beach, waterslide, wave pool, rowboat/canoe rental, sailboard/surfing rental.
5. **Water Activities that involve Conditioning (Category #5 (WC))**
   1. *Technical definition:* Any recreational facility with SIC codes 79970200, 79970203, 79991412.
   2. *General description*: Swimming clubs and pools.
6. **Racquet Sports (Category #6 (RS))**
   1. *Technical definition:* Any recreational facility with SIC codes 79970500, 79970501, 79970502, 79970503, 79970504, 79990101, 79990102, 79990300, 79990301, 79990302, 79990303.
   2. *General description*: Handball, racquetball, squash, tennis.
7. **Camps/Vacation (Category #7 (CV))**
   1. *Technical definition:* Any recreational facility with SIC codes 70110200, 70110201, 70110202, 70320000, 70320100, 70320101, 70320102, 70320300, 70320301, 70320302, 70330000, 70339900, 70339901, 70339902, 79991602.
   2. *General description*: Non-regular use and/or may be used by out-of-town people more than locals.
8. **Instructional in Indoor Conditioning (Category #8 (IIC))**
   1. *Technical definition:* Any recreational facility with SIC codes 79110000, 79110200, 79110202, 79110203, 79110204, 79991111, 79991112, 79991113, 79991127, 79991123.
   2. *General description*: Instruction in indoor conditioning.
9. **Instructional in Recreational (Category #9 (IRE))**
   1. *Technical definition:* Any recreational facility with SIC codes 79990200, 79990203, 79991104, 79991118, 79991119, 79991201.
   2. *General description*: Instruction in recreational activities.
10. **Instructional in Team Sports (Category #10 (ITS))**
    1. *Technical definition:* Any recreational facility with SIC codes 79991102, 79991103, 79991110.
    2. *General description*: Instruction in team sports.
11. **Instructional in Water Activities (Category #11 (IWA))**
    1. *Technical definition:* Any recreational facility with SIC codes 79991107, 79991115, 79991116, 79991121, 79991122.
    2. *General description*: Instruction in water activities.
12. **Instructional in Racquet Sports (Category #12 (IRS))**
    1. *Technical definition:* Any recreational facility with SIC codes 79990100, 79990103.
    2. *General description*: Instruction in racquet sports.
13. **Purchased for Recreational Facilities but not Classified (Category #13)**
    1. *Technical definition:* Any recreational facility with SIC codes 79110201, 83220205, 70320200, 70320201, 70320202, 79991109, 79991100, 79991120, 79991106, 70320203, 79910103, 79910200, 79910201, 79910202, 79991515, 83220601, 79979904, 79991108, 79991407.
    2. *General description*: Activities for children or not really recreational fitness but were purchased in the SIC code purchasing process.

The SIC codes were also further categorized into whether or not the physical activities offered at the establishment are mainly indoor, outdoor, or both. Two variables were created, one for indoor (0=no indoor activities, 1=offers indoor activities) and one for outdoor (0=no outdoor activities, 1=offers outdoor activities). These variables are not mutually exclusive so certain SIC codes that offer both indoor and outdoor activities will be counted in both areas.

The categories above were also combined into broader categories for analysis purposes as described in Table II.C.2. This matches the recreational facility codes and individual-level MESA data collected in the MESA Physical Activity survey to the main combined categories. The combined categories contain both those with recreational activities and one version that do not contain these. It was decided that we wanted a version without these since they do not provide as much intentional physical activity as the other categories and want to be able to at least test sensitivity analyses by excluding these. The MESA Physical Activity survey is available for Exams 1-3 and Exam 5 (not Exam 4). When creating densities and other analysis variables, team sports and racquet sports were combined together into one category since these will mainly be used together in analyses. The camps/vacation (CV) was left out of all of the combined densities, as it was determined it was not relevant for the analyses since these are mainly activities used by people visiting the area, rather than people local to the area.

**Table II.C.2: Combined categories of recreational facilities for analysis purposes**

|  |  |  |
| --- | --- | --- |
| **Physical Activity Density** | **Individual-level MESA variable(s)** | **Relevant SIC category or categories** |
| Total Physical Activity (including Recreational) | Team Sports; Dual Sports; Individual Activities; Moderate Conditioning; Heavy Effort Conditioning; Dancing | IC, RE, TS, RS, WC |
| Total Physical Activity (including Recreational): Outdoor | Team Sports; Dual Sports; Individual Activities; Moderate Conditioning; Heavy Effort Conditioning | IC, RE, TS, RS, WC that are also Outdoor |
| Total Physical Activity (including Recreational): Indoor | Team Sports; Dual Sports; Individual Activities; Moderate Conditioning; Heavy Effort Conditioning; Dancing | IC, RE, TS, RS, WC that are also Indoor |
| Total Physical Activity with instructional and Water Activities (including Recreational) | Team Sports; Dual Sports; Individual Activities; Moderate Conditioning; Heavy Effort Conditioning; Dancing | IC, RE, TS, RS, WC, WA, IIC, IRE, ITS, IRS, IWA |
| Total Physical Activity with instructional and Water Activities (including Recreational): Outdoor | Team Sports; Dual Sports; Individual Activities; Moderate Conditioning; Heavy Effort Conditioning | IC, RE, TS, RS, WC, WA, IIC, IRE, ITS, IRS, IWA that are also Outdoor |
| Total Physical Activity with instructional (including Recreational): Indoor | Team Sports; Dual Sports; Individual Activities; Moderate Conditioning; Heavy Effort Conditioning; Dancing | IC, RE, TS, RS, WC, IIC, IRE, ITS, IRS that are also Indoor (water activities are all outdoor so not included) |
| Total Physical Activity (excluding Recreational) | Team Sports; Dual Sports; Individual Activities; Moderate Conditioning; Heavy Effort Conditioning; Dancing | IC, TS, RS, WC |
| Total Physical Activity (excluding Recreational): Outdoor | Team Sports; Dual Sports; Individual Activities; Moderate Conditioning; Heavy Effort Conditioning | IC, TS, RS, WC that are also Outdoor |
| Total Physical Activity (excluding Recreational): Indoor | Team Sports; Dual Sports; Individual Activities; Moderate Conditioning; Heavy Effort Conditioning; Dancing | IC, TS, RS, WC that are also Indoor |
| Total Physical Activity with instructional and Water Activities (excluding Recreational) | Team Sports; Dual Sports; Individual Activities; Moderate Conditioning; Heavy Effort Conditioning; Dancing | IC, TS, RS, WC, WA, IIC, ITS, IRS, IWA |
| Total Physical Activity with instructional and Water Activities (excluding Recreational): Outdoor | Team Sports; Dual Sports; Individual Activities; Moderate Conditioning; Heavy Effort Conditioning | IC, TS, RS, WC, WA, IIC, ITS, IRS, IWA that are also Outdoor |
| Total Physical Activity with instructional (excluding Recreational): Indoor | Team Sports; Dual Sports; Individual Activities; Moderate Conditioning; Heavy Effort Conditioning; Dancing | IC, TS, RS, WC, IIC, ITS, IRS that are also Indoor (water activities are all outdoor so not included) |

## II.C.3. SIC CODE SELECTION AND CODING – POPULAR WALKING DESTINATIONS, SOCIAL ENGAGMENT, AND SOCIAL SERVICES

### II.C.3.A. POPULAR WALKING DESTINATIONS, SOCIAL ENGAGEMENT, AND SOCIAL SERVICES SIC CODE SELECTION

To determine which SIC codes to purchase for popular walking destinations and social engagement, we identified the SIC 8-digit codes used by Christine Hoehner.[[10]](#footnote-10) This included 4-digit SIC codes that were categorized as popular walking destinations and services promoting social engagement (Table II.C.1) which we used as the starting point for selecting the final SIC codes.

**Table II.C.1: List of 4-digit SIC codes from Hoehner paper used as the starting point for selecting SIC codes**

|  |  |
| --- | --- |
| Business type classification | Four-digit SIC codes |
| Popular walking destinations | 4331 (U.S. Postal Service)  5411 (Grocery stores)  5461 (Retail bakeries)  5499 (Miscellaneous food, stores)  5812 (Eating places)  5912 (Drug stores and proprietary stores)  6021 (National commercial banks)  6022 (State commercial banks)  6035 (Federal savings institutions)  6036 (Savings institutions, except federal)  6061 (Federal credit unions) |
| Services promoting social engagement | 5812 (Eating places)  7231 (Beauty shops)  7241 (Barber shops)  7829 (Motion picture distribution services)  7832 (Motion picture theaters, except drive-in)  7911 (Dance studios, schools, and halls)  7922 (Theatrical producers and services)  7929 (Entertainers and entertainment groups)  7933 (Bowling centers)  7941 (Sports clubs, managers, and promoters)  7948 (Racing, including track operation)  7991 (Physical fitness facilities)  7992 (Public golf courses)  7993 (Coin-operated amusement devices)  7996 (Amusement parks)  7997 (Membership sports and recreation clubs)  7999 (Amusement and recreation, nec)  8231 (Libraries)  8322 (Individual and family services)  8399 (Social services, nec)  8412 (Museums and art galleries)  8422 (Botanical and zoological gardens)  8611 (Business associations)  8621 (Professional organizations)  8631 (Labor organizations)  8641 (Civic and social associations)  8651 (Political organizations)  8661 (Religious organizations)  8699 (Membership organizations, nec)  9441 (Administration of social and manpower programs) |

After looking at the 8-digit SIC codes that fall within these broad 4-digit categories, modifications were made as follows:

1. For Popular walking destinations:
   1. Additional banks SIC codes were added to include all banks. This includes:
      1. 4 digit SIC 6029 (Commercial banks, nec)
      2. 4 digit SIC 6062 (State credit unions)
2. For Social engagement:
   1. 4 digit SIC 5813 (Drinking places) were included since we felt that these are places people go for social interaction, especially since restaurants are also included.
   2. The following were excluded from social engagement:
      1. Schools and instructional since we felt that people use them to learn something specific and they don’t provide enough social interaction. This includes:
         1. 6 digit SIC 723102 (Beauty schools)
         2. 6 digit SIC 791102 (Dance instructor and school services)
         3. 8 digit SIC 79990103 (Tennis professional)
         4. 8 digit SIC 79990203 (Golf professional)
         5. 6 digit SIC 799911 (Instruction schools, camps, and services)
         6. 8 digit SIC 79991201 (Riding academy and school)
         7. 8 digit SIC 79999915 (Sports professionals, nec)
         8. 8 digit SIC 86610203 (Religious instruction)
      2. Distribution centers, producers, talent agents, and ticket offices since these are not places where people would go to use a service and don’t provide social interaction. This includes:
         1. 4 digit SIC 7829 (Motion picture distribution services)
         2. 6 digit SIC 792201 (Theatrical talent and booking agencies)
         3. 6 digit SIC 792204 (Theatrical producers)
         4. 6 digit SIC 792206 (Costume and scenery design services)
         5. 6 digit SIC 792299 (Theatrical producers and services, nec)
         6. 6 digit SIC 794199 (Sports clubs, managers, and promoters, nec)
         7. 8 digit SIC 79480102 (Race car drivers)
         8. 8 digit SIC 79480103 (Race car owners)
         9. 6 digit SIC 794803 (Racehorse care)
         10. 8 digit SIC 79480405 (Jockey, horse racing)
         11. 8 digit SIC 79991304 (Lottery operation)
         12. 8 digit SIC 79991305 (Lottery tickets, sale of)
         13. 8 digit SIC 79991306 (Off-track betting)
         14. 8 digit SIC 79999916 (Ticket sales office for sporting events, contract)
      3. Rental locations since we felt that these were only used to obtain something and were not used on site. This includes:
         1. 6 digit SIC 792205 (Theatrical rental services)
         2. 8 digit SIC 79930201 (Amusement machine rental, coin-operated)
         3. 8 digit SIC 79990201 (Golf cart, power, rental)
         4. 6 digit SIC 799905 (Bicycle and motorcycle rental services)
         5. 8 digit SIC 79991203 (Rodeo animal rental)
         6. 8 digit SIC 79991205 (Saddlehorse rental)
         7. 8 digit SIC 79991400 (Beach and water sports equipment rental and services)
         8. 8 digit SIC 79991403 (Beach chair and accessory rental)
         9. 8 digit SIC 79991406 (Houseboat rentals)
         10. 8 digit SIC 79991407 (Lifeguard service)
         11. 8 digit SIC 79991408 (Pleasure boat rental)
         12. 8 digit SIC 79991409 (Rowboat and canoe rental)
         13. 8 digit SIC 79991410 (Sailboard rental)
         14. 8 digit SIC 79991411 (Surfing equipment rental)
         15. 8 digit SIC 79991510 (Ski rental concession)
         16. 8 digit SIC 79999906 (Jukebox rental)
         17. 8 digit SIC 79999911 (Recreation equipment rental)
         18. 8 digit SIC 79999914 (Sporting goods rental, nec)
      4. Services and locations for children since we felt this did not provide places for adults’ social interaction. This includes:
         1. 8 digit SIC 79969901 (Kiddie park)
         2. 6 digit SIC 864103 (Youth organizations)
      5. Services designed for tourists since these are not places people living in the area are likely to utilize. This includes:
         1. 8 digit SIC 79991500 (Tourist attractions, amusement park concessions and rides)
         2. 8 digit SIC 79991501 (Aerial tramway or ski lift, amusement or scenic)
         3. 8 digit SIC 79991507 (Observation tower operation)
         4. 8 digit SIC 79991511 (Tourist attraction, commercial)
         5. 6 digit SIC 799916 (Tour and guide services)
      6. Other services we felt did not provide enough social interaction. This includes:
         1. 8 digit SIC 79999908 (Phrenologist)
         2. 8 digit SIC 86519904 (Political fundraising)
         3. 8 digit SIC 86610201 (Convent)
         4. 8 digit SIC 86610202 (Monastery)
      7. Social services or organizations for businesses since these do not provide social interaction for the general population. This includes:
         1. 4 digit SIC 8611 (Business associations)
         2. 4 digit SIC 8621 (Professional organizations)
         3. 4 digit SIC 8631 (Labor organizations)
         4. 4 digit SIC 9441 (Administration of social and manpower programs)
      8. Social services since these do not provide social interaction. It was decided that these should not be included in the social engagement categories but were purchased to use on their own as a separate category. This includes:
         1. 4 digit SIC 8322 (Individual and family services)
         2. 4 digit SIC 8399 (Social services, nec)

A final list of 566 SIC codes (Appendix D) was compiled for purchase. This includes 137 for walking destinations, 430 for social engagement, and 69 for social services. These SIC codes are not mutually exclusive.

### II.C.3.B. POPULAR WALKING DESTINATIONS CODING

The 137 SIC codes for popular walking destinations were divided into 6 categories based on the predominant type of activity offered by each facility as inferred from their SIC code. Each SIC code was assigned to one category (Appendix D). For non-food based SIC codes, establishments that are listed as headquarters are included as popular walking destinations. This is different from the food stores data where they are excluded. For the non-food based, they are included because it was felt that there are fewer chains where they would have just an administrative head that didn’t offer any services as opposed to the food stores where there are many more chains where the headquarters represent just an administrative head without services. There will be some locations that don’t actually offer any services but this will be a small minority of the locations. Less than 2% of the locations at each year 2000-2010 are considered headquarters.

Final categorizations were determined by Jana Hirsch and Kari Moore and were based mainly on general groupings of 4 digit SIC codes as follows. The food based and non-food based SIC codes were categorized separately and maintained in the database as such (ie: 2 variables in the data for popular walking destinations).

**NON-FOOD BASED:**

1. **Postal Service (Category #1)**
   1. *Technical definition:* Any walking destination with 4 digit SIC code 4311.
   2. *General description*: Post offices and other postal services.
2. **Drug Stores and Pharmacy (Category #2)**
   1. *Technical definition:* Any walking destination with 4 digit SIC code 5912.
   2. *General description*: Drug stores and pharmacies. Does not include those that are also supermarkets.
3. **Banks and Credit Unions (Category #3)**
   1. *Technical definition:* Any walking destination with 4 digit SIC code 6021, 6022, 6029, 6035, 6036, 6061, 6062.
   2. *General description*: Banks and credit unions including private banks and federal and state credit unions.

**FOOD BASED:**

1. **Food Stores Non-Beverage (Category #1)**
   1. *Technical definition:* Any walking destination with 4 digit SIC code 5411, 5421, 5431, 5441, 5451, 5461, 5499 (except 549902) or 8 digit SIC code 86999907 or on supermarket chain name list as described in the Food Stores section (II.C.1.B). Creation of the supermarket chain name list is described in Section III.D below.
   2. *General description*: Food stores designed for grocery shopping including supermarkets, grocers, convenience stores, delis, food co-ops, ect. Excludes any stores used only for purchases of beverages.
2. **Eating and Dining Places Non-Beverage (Category #2)**
   1. *Technical definition:* Any walking destination with 4 digit SIC code 5812 (except 58120205, 58120206, 58120304) or on fast food chain name list as described in the Food Stores section (II.C.1.B). Creation of the fast food stores chain name list is described in Section III.E below.
   2. *General description*: Food stores designed for dining out and consumption on site. Excludes any stores used only for purchases of beverages including coffee.
3. **Drinking Places Non-Alcoholic (Category #3)**
   1. *Technical definition:* Any walking destination with SIC code 54990200, 54990201, 54990202, 54990203, 54990204, 54990205, 58120205, 58120206, 58120304. Note that this is the same definition as the drinking places non-alcoholic in food stores coding in Section II.C.1.B.
   2. *General description*: Food stores that sell coffee, smoothies, juices, and tea for consumption on site.

The above categories were also combined into a total walking destinations grouping by summing all of these together.

### II.C.3.C. SOCIAL ENGAGEMENT CODING

The 430 SIC codes for social engagement destinations were divided into 15 categories based on the predominant type of activity offered by each facility as inferred from their SIC code. Each SIC code was assigned to one category (Appendix D). For non-food based SIC codes, establishments that are listed as headquarters are included as social engagement destinations. This is different from the food stores data where they are excluded. For the non-food based, they are included because it was felt that there are fewer chains where they would have just an administrative head that didn’t offer any services as opposed to the food stores where there are many more chains where the headquarters represent just an administrative head without services. There will be some locations that don’t actually offer any services but this will be a small minority of the locations. Less than 2% of the locations at each year 2000-2010 are considered headquarters.

Final categorizations were determined by Jana Hirsch and Kari Moore and were based mainly on general groupings of 4 digit SIC codes as follows. The food based and non-food based SIC codes were categorized separately and maintained in the database as such (ie: 2 variables in the data for social engagement destinations).

**NON-FOOD BASED:**

1. **Beauty Shops and Barbers (Category #1)**
   1. *Technical definition:* Any social engagement destination with 4 digit SIC code 7231, 7241.
   2. *General description*: Beauty shops and barbers including cosmetology and nail salons.
2. **Performance Based Entertainment (Category #2)**
   1. *Technical definition:* Any social engagement destination with 4 digit SIC code 7832, 7911 (except 79110200, 79110202, 79110203, 79110204), 7922, 7929.
   2. *General description*: Locations for watching performances. Includes movie theaters, dance studios and theaters, opera production, performing arts centers, entertainment and musical groups.
3. **Participatory Entertainment (Category #3)**
   1. *Technical definition:* Any social engagement destination with 4 digit SIC code 7933, 7992 or 6 digit SIC code in 799901 (except 79990103), 799902 (except 79990203), 799903, 799904, 799906, 799907, 799908, 799914 (except 79991409, 79991410, 79991411) or 8 digit SIC code in 79999902, 79999903, 79999905, 79999907, 79999909, 79999910, 79999912.
   2. *General description*: Clubs and sporting and game venues in which the use participates in the activities that typically do not require a membership. Includes bowling centers, golf courses, tennis clubs, indoor court sports, table tennis, billiards, skating rinks, archery and other shooting ranges, card and bingo halls, bath houses, beaches, and recreation centers.
4. **Sports and Professional Stadium Entertainment (Category #4)**
   1. *Technical definition:* Any social engagement destination with 4 digit SIC code 7941, 7948 or 8 digit SIC code in 79999913.
   2. *General description*: Sporting venues in which the user watches an event but does not participate. Includes professional sports clubs (ie: baseball, basketball, football, ect), motor vehicle racing, horse racing, and dog racing.
5. **Exercise Facilities (Category #5)**
   1. *Technical definition:* Any social engagement destination with 4 digit SIC code 7991.
   2. *General description*: Exercise facilities where the user participates in physical fitness activities in gym or class setting. Includes athletic clubs, spas, and exercise classes.
6. **Coin-Operated Amusements and Gambling (Category #6)**
   1. *Technical definition:* Any social engagement destination with 4 digit SIC code 7993 or 6 digit SIC code in 799913.
   2. *General description*: Venues for gambling or other machine-based entertainment. Includes gaming machines, arcades, gambling machines, and gambling and lottery services.
7. **Amusement Parks, Carnivals, and Rodeos (Category #7)**
   1. *Technical definition:* Any social engagement destination with 4 digit SIC code 7996 or 6 digit SIC code in 799909, 799910, 799912 (except 79991201, 79991205) or 8 digit SIC code in 79990000, 79991502, 79991503, 79991504, 79991505, 79991506, 79991508, 79991509, 79991512, 79991513, 79991514, 79991516, 79991604, 79999900, 79999904, 79999917.
   2. *General description*: Amusement parks and other recreational shows and activities typically not used frequently. Typically includes places with amusement rides or shows. Includes amusement parks, animal and circus shows, exhibitions, fairs, carnivals, rodeo and riding stables, go carts, scenic trains, waterslides, wave pools, and fireworks.
8. **Membership Sports and Recreational Clubs (Category #8)**
   1. *Technical definition:* Any social engagement destination with 4 digit SIC code 7997 or 6 digit SIC code in 869901 or 8 digit SIC code in 86990000, 86999900, 86999906.
   2. *General description*: Sports and activities clubs that require a membership typically with monetary dues. Includes boating and beach clubs, swimming club, gun clubs, team sports clubs, ice sports clubs, racquet sports clubs, bowling club, golf club, riding club, and other athletic clubs (all require membership).
9. **Libraries (Category #9)**
   1. *Technical definition:* Any social engagement destination with 4 digit SIC code 8231.
   2. *General description*: Libraries and other places for book check out and reading. Includes general and specialized libraries and book rentals.
10. **Museums and Art Galleries (Category #10)**
    1. *Technical definition:* Any social engagement destination with 4 digit SIC code 8412 or 8 digit SIC code in 79999901.
    2. *General description*: Museums and galleries to observe art, history, science, etc. Includes museums, art galleries, historical societies, science centers, and planetarium.
11. **Zoo, Aquarium, and Arboretum (Category #11)**
    1. *Technical definition:* Any social engagement destination with 4 digit SIC code 8422 or 8 digit SIC code in 79991515.
    2. *General description*: Zoos, aquariums, etc to observe wildlife or plants. May not be used on a regular basis. Includes zoos, botanical gardens, aquarium, and arboretum.
12. **Civil, Social, and Political Clubs (Category #12)**
    1. *Technical definition:* Any social engagement destination with 4 digit SIC code 8651 or 6 digit SIC code in 864101, 864102, 864105, 864199 or 8 digit SIC code in 86410000, 86410400, 86410402, 86410403, 86990200, 86990202, 86990203, 86999901, 86999902, 86999903, 86999904, 86999905, 86999908, 86999909, 86999910.
    2. *General description*: Political, civil, and social clubs that typically require membership. Includes political organizations, fraternal associations, alumni associations, university clubs, business person club, homeowners associations, booster club, environmental protection club, PTA, charitable organization, travel club, and historical club.
13. **Religion (Category #13)**
    1. *Technical definition:* Any social engagement destination with 4 digit SIC code 8661 or 8 digit SIC code in 86990201, 86990204.
    2. *General description*: Religious organizations or other places of worship. Includes churches, temples, synagogue, mosque, and religious reading rooms.
14. **Purchased for Social Engagement but not Classified (Category #14)**
    1. *Technical definition:* Any recreational facility with 6 digit SIC codes in 799911 or 8 digit SIC codes in 79110200, 79110202, 79110203, 79110204, 79990103, 79990203, 79990501, 79991201, 79991205, 79991409, 79991410, 79991411, 79991602, 86999907.
    2. *General description*: Activities for children, rentals, tourist, or distribution centers but were obtained in the SIC code purchasing process but were not used because they either 1)serve a non-adult population, 2)are used primarily by tourists rather than residents and 3)cannot be used by the general population.

**FOOD BASED:**

1. **Eating and Dining Places (Category #1)**
   1. *Technical definition:* Any social engagement destination with 4 digit SIC code 5812 or on fast food chain name list as described in the Food Stores section (II.C.1.B). Creation of the fast food chain name list is described in Section III.E below.
   2. *General description*: Food stores designed for dining out and consumption on site.
2. **Night Clubs and Bars (Category #2)**
   1. *Technical definition:* Any social engagement destination with 4 digit SIC code 5813 or 8 digit SIC code in 79999918, 86410401.
   2. *General description*: Night clubs, dance halls, and bars. May or may not serve alcohol.

The above categories were also combined into a total social engagement destinations grouping by summing all of these together.

### II.C.3.D. SOCIAL SERVICES CODING

Coding of social services is currently pending.

## II.C.4. SIC CODE SELECTION AND CODING – CALCULATION OF TOTAL STORES

A variable is also created combining all of the coding above into a total stores measure. Since it was determined that this was needed after the densities were created, it was created by adding together the already calculated densities. Due to the overlap in SIC codes being in both social engagement and walking destinations with food stores and recreational coding, the densities selected to be added together captured the most stores possible. This mainly leads to including the social engagement and walking destinations densities. This covers all of the food stores coding but for recreational coding, there are some SIC codes that were left out due to the inconsistencies in how these were coded. We could not capture all of the SIC codes without also duplication of others. These are outlined in Table II.C.2. Additional densities variables were created that include these SIC codes so they can be added together to create the total stores density.

The following are the densities were added together to create the total stores densities:

1. Food Stores Coding
   1. Liquor (Category #9)
   2. Drinking places (non-alcohol) (Category #10)
2. Recreational Facilities
   1. Camps/Vacation (Category #7 (CV))
   2. Instructional in Water Activities (Category #11 (IWA))
   3. Extra Recreational Facilities in Table II.C.2.
3. Popular Walking Destinations non-food based
   1. Postal Service (Category #1)
   2. Drug Stores and Pharmacy (Category #2)
   3. Banks and Credit Unions (Category #3)
4. Popular Walking Destinations food-based
   1. Food Stores Non-Beverage (Category #1)
   2. Eating and Dining Places Non-Beverage (Category #2)
5. Social Engagement non-food based
   1. Beauty Shops and Barbers (Category #1)
   2. Performance Based Entertainment (Category #2)
   3. Participatory Entertainment (Category #3)
   4. Sports and Professional Stadium Entertainment (Category #4)
   5. Exercise Facilities (Category #5)
   6. Coin-Operated Amusements and Gambling (Category #6)
   7. Amusement Parks, Carnivals, and Rodeos (Category #7)
   8. Membership Sports and Recreational Clubs (Category #8)
   9. Libraries (Category #9)
   10. Museums and Art Galleries (Category #10)
   11. Zoo, Aquarium, and Arboretum (Category #11)
   12. Civil, Social, and Political Clubs (Category #12)
   13. Religion (Category #13)
6. Social Engagement food based
   1. Night Clubs and Bars (Category #2)

**Table II.C.2: Recreational categories that are not fully captured by the total stores**

| **SICCode** | **SIC Description** | **RECREATION CODE** |
| --- | --- | --- |
| 79110200 | Dance instructor and school services | Indoor Conditional Instructional |
| 79110202 | Dance instructor | Indoor Conditional Instructional |
| 79110203 | Dance studio and school | Indoor Conditional Instructional |
| 79110204 | Professional dancing school | Indoor Conditional Instructional |
| 79990103 | Tennis professional | Racquet Sports instructional |
| 79990203 | Golf professionals | Recreational Instructional |
| 79990501 | Bicycle rental | Recreational |
| 79991104 | Bowling instruction | Recreational Instructional |
| 79991111 | Judo instruction | Indoor Conditional Instructional |
| 79991112 | Karate instruction | Indoor Conditional Instructional |
| 79991113 | Martial arts school, nec | Indoor Conditional Instructional |
| 79991118 | Skating instruction, ice or roller | Recreational Instructional |
| 79991119 | Ski instruction | Recreational Instructional |
| 79991123 | Yoga instruction | Indoor Conditional Instructional |
| 79991127 | Physical fitness instruction | Indoor Conditional Instructional |
| 79991201 | Riding academy and school | Recreational Instructional |
| 79991205 | Saddlehorse rental | Recreational |
| 79991409 | Rowboat and canoe rental | Water Activities Instructional |
| 79991410 | Sailboard rental | Water Activities Instructional |
| 79991411 | Surfing equipment rental | Water Activities Instructional |

For the census tract and block group level data, the total stores is calculated as the total number of stores by using PROC FREQ by census tract/block group ID of all the possible stores so this will include all of the SIC codes described in Table II.C.2.

# III. PROCESSING OF NETS DATA

## III.A. CREATION OF FULL BUSINESS DATASET AND NETS MOVING DATASET

A SAS dataset that contains the full business data with selected variables was created. The variables to keep were selected based on need in further analysis of the data. This included id number, name of company, trade name, headquarters indication, SIC codes, number of employees, sales totals, years in business, county code, addresses, and geocoding. The final dataset contains data for both the MESA study and JHS set together into one file.

Due to problems with importing directly from the text file into SAS, the files with the addresses for Mississippi and outside Mississippi, as well as the text file containing SIC codes for outside Mississippi, were imported into Stata and saved as a Stata9 files which can be imported directly into SAS. When attempting to import directly into SAS, values were being cutoff to short and not reading in properly. Importing into Stata did not create this problem.

Since the state of Mississippi was sent in separate files from the zip codes obtained outside the state of Mississippi, the data was imported and merged together separately for these areas. For all imported files described, the D&B id number (DunsNumber) was changed from a character variable to numeric for consistency and ease in merging. This does cause the leading 0’s to be lost but upon investigation, this does not lead to any false duplicates.

First, the Mississippi tables as contained in the Microsoft Access files (as specified in Appendix A) and the address file in Stata9 format were imported in SAS. These files contain all businesses in the state of Mississippi regardless of SIC code (n=514129). This temporary file is not saved to the S-drive.

Then, the outside Mississippi text files (as specified in Appendix A) and the address and SIC code files in Stata9 format were imported into SAS. These files contain businesses for the zip codes outside the state of Mississippi that have SIC codes that are on the purchase list at some point between 1990-2011 (n=2820514). This temporary file is not saved to the S-drive.

Once the Mississippi and outside Mississippi files are imported, each of the files were processed to retain only records that were on the SIC code purchase list any time between 2000-2011 or for the last known SIC code (n=65956 for Mississippi, n=2802601 for outside Mississippi). The two files were set together into one file (n=2868557). Once these files were set together, it was discovered that any businesses that fell into the zip codes outside Mississippi but at some point in time between Jan 1990-Jan 2011 were located in Mississippi were in both files. The duplicate records were removed (n=9377). This gives a final dataset with n=2,859,180 records. This dataset was output to “U:\SECURE\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Original\_File\nets.sas7bdat.” See Appendix J for the SAS codes used to create this file. See Appendix K for a list of the final dataset name, details and descriptions of variables contained in the dataset.

Since the geocoding information provided in the main NETS dataset is only for the last known address of the business, an additional dataset with geocoding information on previous addresses for those that moved is provided (files as specified in Appendix A). This information was used to assign the correct latitude/longitude location for any years which take place before the move. Due to problems with importing directly from the text file into SAS, the files with the moving information outside Mississippi was imported into Stata and saved as a Stata9 files which can be imported directly into SAS. When attempting to import directly into SAS, values were being cutoff to short and not reading in properly. Importing into Stata did not create this problem. This data was provided by Walls & Associates in the Microsoft Access file for the state of Mississippi so this did not lead to any import problems with SAS. Both datasets were imported separately into SAS (n=246035 outside Mississippi, n=34068 in Mississippi), then set together (n=280103). Duplicate records between the two datasets were removed (n=1406) leading to the final dataset of all businesses which moved at any point (n=278697). We did not remove any records based on timing of business closing or SIC code restrictions. This dataset was output to “U:\SECURE\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Original\_File\nets\_move.sas7bdat.” See Appendix J for the SAS codes used to create this file. See Appendix K for a list of the final dataset name, details and descriptions of variables contained in the dataset.

## III.B. GEOCODING

For the NETS data that was received for the MESA project in 2009, we had geocoded all of the addresses using TeleAtlas EZ-Locate to maintain consistency with the geocoding provider of the MESA addresses to reduce error due to differences in companies. Given the cost (almost $13,000) that it would take to geocode the addresses for this expanded area and SIC code list, it was decided that we would use the geocoding provided by NETS based on the Dun&Bradstreet geocoding and supplement this with geocoding from TeleAtlas for those that did not have street segment or block face accuracy to try to increase the accuracy rate. For more information on the NETS geocoding, see the document provided by Walls & Associates “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Documentation\From\_NETS\Lat-LongAccuracy2009.pdf.”

Since TeleAtlas geocoding was already completed for any addresses that were collected with the 2009 data, we could use these geocodes for any businesses that were present in that dataset time frame to update the centroid geocodes where necessary. A “master list” of the old geocoded addresses was created. We decided to keep these by unique addresses rather than actually linking by id number since there are multiple records that all have the same address and the same geocoding can be used for any record with that address. The files from the 2009 data span the data years of 2000-2007. The geocodes were extracted from all records in these years (n=349,085 for 2000; n=375,245 for 2001; n=387,067 for 2002; n=391,515 for 2003; n=402,191 for 2004; n=426,122 for 2005; n=459,817 for 2006; n=465,072 for 2007) and set together (n=3,256,114). Any duplicate addresses based on matching street address, city, state, zip code, and zip+4 extension were removed (n=2,618,270 duplicates). The final dataset contains n=637,844 records. This file is saved under “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\netsgeo\_orig.sas7bdat”. Appendix J for the SAS codes used to create this file. See Appendix K for a list of the final dataset name, details and descriptions of variables contained in the dataset.

The initial step to determine which records needed to be geocoded with TeleAtlas EZ Locate, the following rules were applied (see Table III.B.1 for numbers in each category in the datasets):

1. If the NETS geocoding accuracy was to the street segment or block face, then use NETS geocoding and do not need to geocode in TeleAtlas.
2. If the last year the record was in business is before the year 2000 (last year<2000), then do not need to geocode since will not use this record.
3. If the address is missing, then do not need to geocode with TeleAtlas. These will not get a better accuracy.
4. If the address is a PO Box, then do not need to geocode with TeleAtlas. These will not get a better accuracy.
5. If none of the above, need to check if can use the TeleAtlas geocode from master list or additional geocoding is needed.

**Table III.B.1. Status of checking for if TeleAtlas geocoding is needed**

|  |  |  |
| --- | --- | --- |
|  | Main NETS dataset | NETS Move dataset |
| NETS geocode to street segment or block face | 2,506,515 (87.67%) | 196,281 (70.43%) |
| Last Year<2000 | 178,027 (6.23%) | 22,499 (8.07%) |
| Address is missing | 30,115 (1.05%) | 1,209 (0.43%) |
| Address is PO Box | 62 (0.00%) | 138 (0.05%) |
| Check for TeleAtlas | 144,461 (5.05%) | 58,570 (21.02%) |

Next, the TeleAtlas geocodes from the 2009 data master list were merged with the address files when the street address, city, state, zip code, and zip+4 extension all matched. Then these were checked to see if they gave a better accuracy than the NETS geocode. If the accuracy was the same or worse than the NETS geocode accuracy, then the NETS geocode was used. If the accuracy was better using the TeleAtlas geocode, then the TeleAtlas geocode was used. See Table III.B.2 for details on the numbers that will use NETS, old TeleAtlas geocodes, and those that needed to be geocoded with TeleAtlas.

**Table III.B.2. Status of use of NETS geocode, old TeleAtlas geocode, and needed to be geocoded**

|  |  |  |
| --- | --- | --- |
|  | Main NETS dataset | NETS Move dataset |
| Use NETS geocode | 2,719,663 (95.12%) | 220,837 (79.24%) |
| Use old TeleAtlas geocode | 34,990 (1.22%) | 780 (0.28%) |
| Need to geocode | 104,527 (3.66%) | 57,080 (20.48%) |

The addresses that needed to be geocoded (see Table III.B.2 above) were output into excel to the files “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\NETS\_check\_address.xlsx and NETSMOVE\_check\_address.xlsx.” These addresses were checked by hand and an indicator was added for any that were missing street names or have street name but no house number since wouldn’t be able to get better geocode for these. This excluded n=3,238 from the main NETS dataset and n=2,525 from the NETS move dataset. Additionally for the NETS move dataset, any addresses were the last move took place before the year 2000 were excluded from being geocoded since the business would already be at the address indicated in the years 2000 and later so we didn’t need to geocode these addresses (n=22,558). This left a total to geocode of n=101,289 in the main NETS dataset and n=31,997 in the NETS move dataset. These addresses were then formatted as text files as needed by TeleAtlas EZ-Locate and separated into batches of 20,000 to allow for efficient run time in TeleAtlas EZ-Locate (6 batches for main NETS dataset and 2 batches for NETS move dataset). The text files are saved in the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\ImportToTeleAtlas” (filenames: NETS\_GeocodeB1.txt- NETS\_GeocodeB6.txt for main dataset, NETSMOVE\_GeocodeB1.txt- NETSMOVE\_GeocodeB2.txt for move dataset). These were then uploaded into the TeleAtlas EZ-Locate batching processing software (geocode.com) using the ‘USA\_Geo\_001’ server, which uses Census 2000 boundaries and roads. For more information on TeleAtlas EZ-Locate, see the documentation file “USA\_Geo\_001.pdf.” The files were then output from TeleAtlas EZ-Locate to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas” (filenames for output: NETS\_GeocodeB1\_output.txt- NETS\_GeocodeB6\_output.txt for main dataset and NETSMOVE\_GeocodeB1\_output.txt- NETSMOVE\_GeocodeB2\_output.txt for move dataset). In addition, a report is generated by TeleAtlas for each of these files and saved to the same folder (filenames for reports: NETS\_GeocodeB1\_report.txt- NETS\_GeocodeB6\_report.txt for main dataset and NETSMOVE\_GeocodeB1\_report.txt- NETSMOVE\_GeocodeB2\_report.txt for move dataset).

For these additional addresses that were geocoded with TeleAtlas, addresses that did not geocode to the street level (MAT\_CENT not = ‘0’), were check by hand to see if they could be cleaned and regeocoded (n=18,616 for main dataset and n=3,793 for move dataset). Criteria for cleaning the addresses was as follows:

1. If there is only a PO Box or Box Number, then “N” can be entered into the REGEO column since this cannot be geocoded further.
2. If there is no house number listed, then enter “N” in the REGEO column.
3. If the name of a mall, airport, ballpark, ect is in the address field rather than an actual street address, then try to find the address of that location to enter into the NEW address fields. Be aware that sometimes the locations of businesses within malls are individual addresses (as in outdoor malls) and can’t be recoded further.
4. If there are spelling errors in the names of the street, then correct these in the NEW address fields (for example: MARTIN LTHR KNG BLVD should be MARTIN LUTHER KING BLVD).
5. If there is an apartment number or letter, remove these and put correct address in NEW address fields. Often these excess characters are causing problems.
6. If ‘ST’ or ‘RD’ or ‘AVE’ is missing, add this to the address in the NEW address fields.

Due to time constraints, the checking of addresses was limited so it was not as thorough as in the past. We attempted to update as many addresses as possible without having to look extensively into validating the addresses with Google Maps or other online mapping location. The addresses that could be cleaned (n=5,054 for the main dataset and n=1,236 for the move dataset) were then exported into text files to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\ImportToTeleAtlas” (filenames: NETS\_REGeocode.txt for main dataset, NETSMOVE\_REGeocode.txt for move dataset) and geocoding was done the same as above. The output datasets are located in the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas” (filenames for output: NETS\_REGeocode\_output.txt for main dataset and NETSMOVE\_REGeocode\_output.txt for move dataset). In addition, a report is generated by TeleAtlas for each of these files and saved to the same folder (filenames for reports: NETS\_REGeocode\_report.txt for main dataset and NETSMOVE\_REGeocode\_report.txt for move dataset).

These additional TeleAtlas geocodes were then merged with the main NETS and NETS move datasets to determine the final geocodes to be used for further GIS analysis of the data. To keep the most consistency in the geocodes that are used, the TeleAtlas geocode is only used if it gives a better accuracy than the NETS geocode. If the accuracy is the same (or worse) with TeleAtlas, then the NETS geocode is used. This is determined by:

1. If NETS geocode is to the street segment or block face accuracy, then use NETS geocode.
2. If NETS geocode is not to the street segment or block face accuracy, then do the following:
   1. If TeleAtlas geocode is to the street level, then use TeleAtlas geocode.
   2. If TeleAtlas geocode is to the zip+4 centroid level and NETS geocode is to to the zip+4 centroid level, then use NETS geocode (same accuracy).
   3. If TeleAtlas geocode is to the zip+4 centroid level and NETS geocode is to the zip+2 or zip centroid level or unable to geocode, then use TeleAtlas geocode (better accuracy).
   4. If TeleAtlas geocode is to the zip+2 centroid level and NETS geocode is to the zip+2 centroid, then use NETS geocode (same accuracy).
   5. If TeleAtlas geocode is to the zip+2 centroid and NETS geocode is to the zip centroid or unable to geocode, then use TeleAtlas geocode (better accuracy).
   6. If TeleAtlas geocode is to the zip centroid and NETS geocode is to the zip centroid, then use NETS geocode (same accuracy).
   7. If TeleAtlas geocode is to the zip centroid and NETS geocode is unable to geocode, then use TeleAtlas geocode (better accuracy).
   8. If TeleAtlas geocode is unable to geocode, then use NETS geocode.

See Table III.B.3 for details on which geocode was used as the final geocode for the main NETS dataset and NETS move dataset. See Table III.B.4 for difference in accuracy after TeleAtlas geocodes were applied.

**Table III.B.3. Status of use of NETS geocode and TeleAtlas geocode for final analysis**

|  |  |  |
| --- | --- | --- |
|  | Main NETS dataset | NETS Move dataset |
| Use NETS geocode | 2,737,306 (95.74%) | 249,168 (89.40%) |
| Use TeleAtlas geocode from 2009 data | 34,990 (1.22%) | 780 (0.28%) |
| Use TeleAtlas geocode from new geocoding | 86,884 (3.04%) | 28,749 (10.32%) |

**Table III.B.4. Accuracy of geocodes before and after applying TeleAtlas geocoding**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Main NETS dataset | | NETS Move dataset | |
|  | Before TeleAtlas | After TeleAtlas | Before TeleAtlas | After TeleAtlas |
| Street Level (street segment or block face) | 2,506,515 (87.67%) | 2,625,753 (91.84%) | 196,281 (70.43%) | 225,810 (81.02%) |
| ZIP+4 Centroid (Block group) | 4,712 (0.16%) | 2,204 (0.07%) | 623 (0.22%) | 196 (0.07%) |
| ZIP+2 Centroid (Census tract) | 10,093 (0.35%) | 5,610 (0.20%) | 1,599 (0.57%) | 867 (0.31%) |
| ZIP Centroid | 337,857 (11.82%) | 225,790 (7.90%) | 80,194 (28.77%) | 51,824 (18.60%) |
| Unable to geocode | 3 (0.00%) | 3 (0.00%) | 0 (0.00%) | 0 (0.00%) |

The geocodes from NETS are in the North American Datum 1983 (NAD83) coordinate system and the TeleAtlas geocodes are in World Geodetic System 1984 (WGS84) coordinate system. For our purposes in North America, these coordinate systems are very similar with NAD83 being about 304 feet different. For our purposes, we can consider these to be the same and they are sometimes described as the NAD83/WGS84 system[[11]](#footnote-11).

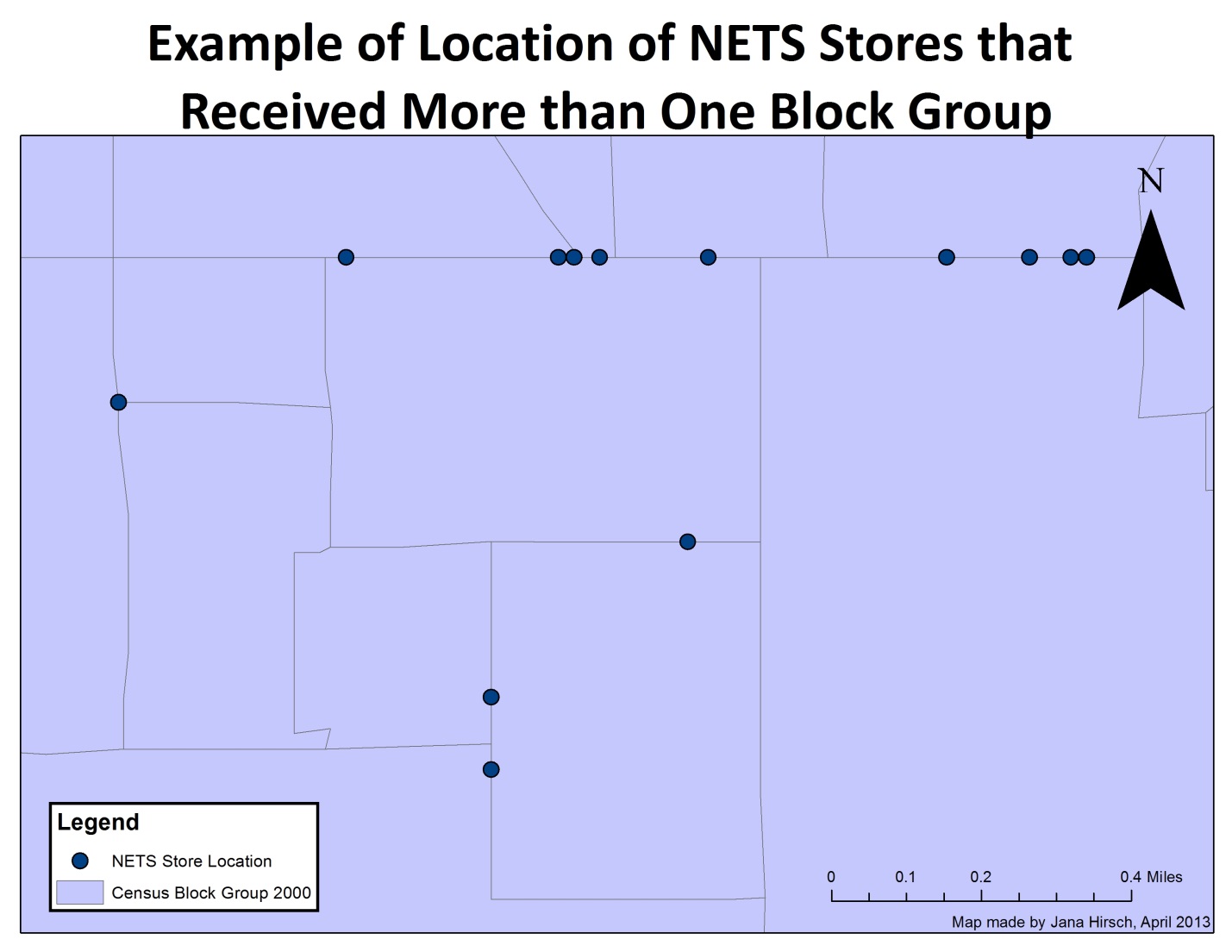
## III.C. CREATING CENSUS TRACT AND BLOCK GROUP ID

The geocoding provided with the NETS dataset does not include the census tract or block group designation. The block group was assigned to the 2000 block group boundaries downloaded from <http://www.esri.com/data/download/census2000-tigerline/index.html>. Block groups were only downloaded for counties where there is any coverage by the zip codes in the purchase area (see Section II.B.3 for details on this).

To create these measures, the Dunsnumber (ID), latitude, and longitude for the main (NETS\_LATLONG.dbf) and moves (NETSMOVE\_LATLONG.dbf) datasets were exported to dbf files and saved to the folder “U:\EPID\CSEPH\Projects\Diez Roux\Built Environment II\NETS\_to\_be\_transferred\CreateBGID.” These files contain all records (main n=2,859,180; move n=278,697). These points were then intersected with the block groups to obtain the block group ID for that point. Since only the counties where we have coverage were downloaded, any points that fall outside of the area where we have coverage were dropped from the ArcGIS output file. Points can be outside of the coverage area if the business has moved over time and the new or old address for that business no longer falls within the coverage area. These output files were saved to “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\GIS\Deliverables\Areas\2000\BG\NETS” in DBF files (main data= NETS\_LATLON\_Intersect.dbf and move data= NETSMOVE\_LATLON\_Intersect.dbf). These files only contain records within counties of the coverage area (main n=2,847,964; move n=263,962). There were a small percent of businesses that had a zip code (from NETS address data) that was in the purchase area but did not map to a county that was downloaded. Upon further investigation of these points, the latitude/longitude on the map fell outside the actual area defined by the zip codes. These were left as missing since we could not resolve this.

Duplicates records were in each of these files for cases where the point fell exactly on the line separating block groups. In some cases, there may have been up to three records in the output files (main file n of duplicate values=1132; move file n of duplicate values=132). Since there is no clear choice as to which block group to keep, the record to keep was randomly selected using a random number generator in SAS. There were a total of 570 removed records removed from the main data file (n after duplicates removed=2,847,394) and 68 removed from the move data file (n after duplicates removed=263,894). See Figure III.C.1 for visual description of these.

**Figure III.C.1. Example of points falling on borders of block groups and duplicates created**



The census tract ID was created by extracting this from the block group ID by keeping the first 11 digits of the block group ID using SAS. The block group and census tract IDs were then merged and saved on the SAS data files (U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Original\_File\nets.sas7bdat and netsmove.sas7bdat). Descriptions of the variables for these can be found in Appendix K. Detailed methods on this process can be found in Appendix O.

Table III.C.1 summarizes the missingness of block group within each dataset.

**Table III.C.1. Missingness of block group ID in NETS datasets**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Main NETS dataset | | Move NETS dataset | |
|  | Not missing BG | Missing BG | Not missing BG | Missing BG |
| Has Zip code in purchase area | 2,753,514 (96.30%) | 1,342 (0.05%) | 211,543 (75.90%) | 70 (0.03%) |
| Zip code not in purchase area | 93,880 (3.28%) | 10,444 (0.37%) | 52,351 (18.78%) | 14,733 (5.29%) |
| TOTAL | 2,847,394 (99.59%) | 11,786 (0.41%) | 263,894 (94.69%) | 14,803 (5.31%) |

## III.D. CREATION OF SUPERMARKET CHAIN NAME LIST

A dataset with the food stores that are categorized as being on the supermarket chain list at any year between 2000-2010 was developed separately and then referenced when categorizing the supermarkets. This was developed initially by Lu Mao and Kristin Johnson, Amy Auchincloss’s research assistants at Drexel University with updates and final coding by Kari Moore.

It is assumed that the Nielsen/Trade Dimensions (TD) data is the “gold standard” for identifying chain supermarkets. Therefore, we sought to derive a name list for the “universe” of chain supermarkets from 2000 through 2010. To do this, we used 3 one-year cuts of Trade Dimensions data (2000, 2005, and 2010). The generated name list will then be applied to annual cuts of NETS data to identify large chain names in the NETS database.

We define a large chain supermarket as a store having at least 8 records in Trade Dimensions. In the 2000 TD data, the large chain supermarkets are only 8% of the companies but own 74% of the stores. These are likely to be large supermarket chains and so constitute the majority of the records to be pulled from NETS.

The first step in the process was to identify all large chain supermarkets in 2005 TD data (names from TD 2000 and 2010 were added separately). A large chain name is defined as a store that has at least 8 records in any given year of TD. Since some stores have slightly different spellings, a standardized name will be applied to these stores using a name list/crosswalk. This name list/crosswalk will be used to identify large chains found in the NETS database. See Appendix E for a list of all standardized TD names from TD 2000, 2005, and 2010 that is used as the supermarket chain name list for all years.

The list of records in the NETS main dataset combining the years 2000-2010 was used as the base to pull the names (N=2,859,180). Retain only businesses that are not listed as headquarters (N=2,807,661). Any businesses that have a SIC code that is a food stores SIC code of 5411, 5421, 5431, 5441, 5451, 5461, 5499, 5812, 5813, or 5921 at any year 2000-2010 were retained (N=800914). In efforts to batch/standardize the exclusion process and reduce the amount of manual work, we created an Exclusionary String List to run against the records to remove records that are not large chain supermarkets (see Appendix F for the list of exclusion terms). This process removed records that contain any word included in the exclusionary list (for example: restaurant, catering, auto) (N=603,509). The exclusion list was checked to make sure that it was not overly sensitive to excluding any chain names. None of the large chain supermarkets included these strings. This list simplified the process of pulling the names by excluding any businesses that contained these words before the names were checked for inclusion on the chain name list.

With the remaining records, we created separate datasets for each store name by pulling records from NETS that match that specific name. There are 263 small pieces of code (one for each chain name) that created these datasets. Some additional exclusionary words were used within each of these pieces of code as necessary when additional names needed to be excluded but the key words were too sensitive for the batch process. These datasets were then combined (N=18,291). Once combined, there were duplicate IDs within the dataset. Duplicates were caused by having names (either in the company, trade name, or both) that matched with more than one of the chain names. There were 678 duplicate IDs that were removed from the list of supermarket name matches giving a total number of records in the supermarket name match file of 17,613. Variables containing the names of both of the names that the store was pulled on were retained in the dataset. This file was then saved to “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\FoodStoresLists\smlist\_final.sas7bdat.” See Appendix J for list of SAS code used to create this file and Appendix K for details on variables in the final dataset. This dataset was then used in further food stores coding as described in sections below to pull out those that are supermarket chains. See Appendix E for frequency of each supermarket name.

The SIC codes for the supermarket chains were checked to determine that those that did not fall in the SIC codes for grocery stores (SIC=5411). It was determined that any that were not within the grocery store SIC do belong on the supermarket chain list after further investigation of the records. See Table III.D.1 for frequency within food store type.

**Table III.D.1: Categorization of food store type of the records that are supermarket chains**

|  |  |
| --- | --- |
| **TYPE** | **FREQUENCY (%)** |
| Grocery Store | 16,640 (94.48%) |
| Convenience Store | 431 (2.45%) |
| Deli/Meat | 187 (1.06%) |
| Health/Vitamin | 102 (0.58%) |
| Bakery | 60 (0.34%) |
| Fruit/Vegetable Market | 56 (0.32%) |
| Liquor Store | 44 (0.25%) |
| Eating Places | 41 (0.23%) |
| Other food stores | 37 (0.21%) |
| Candy | 7 (0.04%) |
| Nonalcoholic drinking places | 5 (0.03%) |
| Alcoholic drinking places | 3 (0.02%) |
| TOTAL | 17,613 |

In exploratory processes, the TD2005 list was matched with the NETS2005 data to determine how closely these two lists match. This was done by Lu Mao using a “fuzzy name” match using the spedis function in SAS which creates a fuzzy match score. Using this score, a match was considered when there was a score less than 10 as manual inspection found that those with a score greater than 10 were not really matches. The stores were then checked to determine if the zip code also matched. The final match would be those with the fuzzy name match and zip code match. From looking at these matches, we determined that there were some stores that were represented in TD at a much greater rate than in NETS (ie: they had a lot of locations missing from the NETS data). The main reason for not being included in NETS is likely due to SIC categorization. Stores such as WalMart Supercenter, which are listed as supermarkets in TD are not included in NETS since the SIC is likely to be 0531 (Department Stores), 0533 (Variety Stores), or 0539 (Miscellaneous General Merchandise Stores) thus are not part of the food store category. We purchased the data from TD for the years 2001-2004, 2006-2009, and 2011 for stores that had 50 or more locations in TD compared to NETS. This lead to the purchase of 7 additional store names (as identified in TD):

1. ALDI aka "Aldi Food Store"

2. FRYS FOOD aka "Frys Food Store", "Frys Marketplace"

3. SAVE A LOT aka "Save A Lot", "Save A Lot Store"

4. SMART & FINAL aka "Smart & Final"

5. SUPER TARGET aka "SuperTarget Center"

6. TRADER JOES aka "Trader Joes Market"

7. WALMART SUPERCENTER aka "Wal Mart Neighborhood Mkt", "Wal Mart Supercenter"

Table III.D.2 shows the difference in the number of stores within NETS and TD in the 7 supermarket names above.

**Table III.D.2: Frequency and difference in number of 7 additional stores purchased from Trade Dimensions**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2000** | | | **2005** | | | **2010** | | |
| **Name** | **TD** | **NETS** | **Difference** | **TD** | **NETS** | **Difference** | **TD** | **NETS** | **Difference** |
| ALDI | 146 | 16 | 130 | 292 | 26 | 266 | 443 | 106 | 337 |
| FRYS FOOD | 79 | 13 | 66 | 79 | 13 | 66 | 80 | 34 | 46 |
| SAVE A LOT | 150 | 94 | 56 | 297 | 117 | 180 | 311 | 250 | 61 |
| SMART & FINAL | 140 | 15 | 125 | 151 | 20 | 131 | 149 | 39 | 110 |
| SUPER TARGET | 13 | 5 | 8 | 96 | 6 | 90 | 161 | 2 | 159 |
| TRADER JOES | 107 | 77 | 30 | 174 | 124 | 50 | 256 | 197 | 59 |
| WALMART SUPERCENTER | 204 | 8 | 196 | 567 | 99 | 468 | 891 | 127 | 764 |

These additional stores were matched with NETS based on name and zip code. This list was checked and those that had the same address or were within 1/3 mile or less from each other were considered matches. For more details on the matching process, see the documentation “Trade Dimensions 2012 Data Documentation.docx.”

## III.E. CREATION OF FAST FOOD CHAIN NAME LIST

A dataset with the restaurants that are categorized as being on the fast food chain list at any year between 2000-2010 was developed separately and then referenced when categorizing the fast food restaurants.

The list of all possible food stores was used as the base (N=2,859,180). This was then subset to only those with a 4-digit SIC of 5411, 5421, 5431, 5441, 5451, 5461, 5499, 5812, 5813, or 5921 at any year 2000-2010 (N=817,317). Headquarters were then excluded (N=800,914). The restaurants were then pulled that matched the company name list based in the 75 Restaurant and Institutions revenue-ranked fast-food restaurants in 2005 (see Appendix G for list of names). With the remaining records, we created separate datasets for each name by pulling records from NETS that match that name. There are 75 small pieces of code (one for each chain name) that created these datasets. We identified spelling variants, using some exploratory methods. We queried records with unrestrictive key elements of the name like ‘chick’, ’don’, ‘taco’, etc; then identified character patterns for the right records; then added/re-coded the key word code to pull these records. The name queries were further modified after looking at frequencies of the combination company/trade names to determine any other spelling variants to include. The records were then inspected and records that were wrongly included in the name list (ie: they matched with the name code for a fast food restaurant but we felt aren’t actually a fast food restaurant were eliminated via adding in additional key word exclusion coding. These were identified either individually or by patterns (e.g. McDonald Mobile, Subway Development Corp., etc). These smaller datasets were then combined to create the final fast food chain list (N=52,761). There were 118 duplicate IDs that were removed from the list of fast food name matches giving a total number of records in the fast food name match file of 52,642. This list was then checked against the supermarket chain name list to see if there were any duplicate IDs between the two lists. There was 1 duplicate with the company name “CITY MARKET ROLY POLY” with SIC code 54110000. Based on the SIC code, this was determined to be a supermarket rather than fast food so it was removed from the fast food chain list. This gives a final number of records in the fast food list file of 52,641. This file was then saved to “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\FoodStoresLists\ff00\_11\_final.sas7bdat.” See Appendix J for list of SAS code used to create this file and Appendix K for details on variables in the final dataset. This dataset was then used in further food stores coding as described in sections below to pull out those that are fast food chains. See Appendix G for frequency of each fast food name.

The SIC codes for the fast food chains were checked to determine that those that did not fall in the SIC codes for eating places (SIC=5812). It was determined that any that were not within the eating places SIC do belong on the fast food chain list after further investigation of the records. See Table III.E.1 for frequency within food store type.

**Table III.E.1: Categorization of food store type of the records that are fast food chains**

|  |  |
| --- | --- |
| **TYPE** | **FREQUENCY (%)** |
| Eating Places | 51,655 (98.13%) |
| Bakery | 734 (1.39%) |
| Grocery Store | 181 (0.34%) |
| Alcoholic drinking places | 52 (0.10%) |
| Other food stores | 14 (0.03%) |
| Liquor Store | 4 (0.01%) |
| Dairy Products | 1 (0.00%) |
| TOTAL | 52,641 |

## III.F. CREATION OF YEARLY BUSINESS DATASETS

The creation of the yearly business level files was done in multiple steps as described in detail in the sections below.

### III.F.1. EXTRACT RECORDS BY YEAR

Since when creating the GIS-based measures they are completed for each year 2000-2010 separately, the NETS data was separated into SAS datasets that contain only the active establishments in the years 2000-2010. First, the full business dataset was reduced to only those records where the last year in business is 2000 or later (n=2,431,530). Then, there is a separate SAS dataset for each year that was created. These were created by extracting the businesses from the dataset of full business data (nets.sas7bdat) based on FirstYear<=(year) and LastYear>=(year) as suggested by Don Walls. This also only keeps variables that are relevant for that year and other processing of the data. The variables for address, geocoding, employees, sales, and SIC code to be used are the variables labeled for the year after the year of the dataset (for example: for the year 2000 dataset, the variables labeled for 2001 (01 on the end of the variable name) are used). This is because the variables represent the data reported in January of the year but actually represent the location and performance for the previous year. For the businesses that have the LastYear=(year), the variables for January of the next year are missing since they were not in business then to report the data. In these cases, we “filled-in” the variables with the previous year’s data (for example, for the 2000 dataset, if the LastYear=2000 then we filled in then 2001 (01) variables with 2000 (00) variables). Since SIC codes can change over time, the yearly datasets are restricted to only containing those that are on the SIC code purchase list for that year. See Table III.F.1 for number of records before and after the SIC code exclusions. See Appendix J for SAS code used in this step.

**TABLE III.F.1: Number of records in the yearly NETS files before and after exclusions for those records contained on the SIC code purchase list**

|  |  |  |
| --- | --- | --- |
| **Year** | **N before exclusion** | **N after exclusion (final N)** |
| 2000 | 1,056,531 | 983,341 |
| 2001 | 1,203,927 | 1,120,512 |
| 2002 | 1,262,673 | 1,173,495 |
| 2003 | 1,275,167 | 1,183,838 |
| 2004 | 1,317,020 | 1,192,174 |
| 2005 | 1,360,869 | 1,256,401 |
| 2006 | 1,411,302 | 1,321,059 |
| 2007 | 1,468,050 | 1,364,993 |
| 2008 | 1,504,118 | 1,396,658 |
| 2009 | 1,546,239 | 1,235,521 |
| 2010 | 1,558,995 | 1,444,774 |

As described in Section III.C above, there are some records within each of the yearly files that are missing block group and census tract ID due to falling outside the purchase area due to moving either before or after the year of interest. See Table III.F.2 for details on the number missing.

**TABLE III.F.2: Number of records in the yearly NETS files missing block group and census tract IDs**

|  |  |  |  |
| --- | --- | --- | --- |
| **Year** | **Total N in dataset** | **N missing BG and CT** | **% missing** |
| 2000 | 983,341 | 7,497 | 0.76% |
| 2001 | 1,120,512 | 8,040 | 0.72% |
| 2002 | 1,173,495 | 8,214 | 0.70% |
| 2003 | 1,183,838 | 8,335 | 0.70% |
| 2004 | 1,192,174 | 8,405 | 0.71% |
| 2005 | 1,256,401 | 8,516 | 0.68% |
| 2006 | 1,321,059 | 8,292 | 0.63% |
| 2007 | 1,364,993 | 8,335 | 0.61% |
| 2008 | 1,396,658 | 8,150 | 0.58% |
| 2009 | 1,235,521 | 6,737 | 0.55% |
| 2010 | 1,444,774 | 6,332 | 0.44% |

### III.F.2. CODING FOOD STORES, RECREATIONAL FACILITIES, WALKING DESTINATIONS, SOCIAL ENGAGEMENT, AND SOCIAL SERVICES

Once the yearly files were created, the coding for the food stores, recreational facilities, walking destinations, social engagement, and social services was then applied to each year separately. Macros were created separately for the food stores and food based categories of the walking destinations and social engagement and another macro for recreational facilities and non-food based of the walking destinations and social engagement. This was due to the timing of the availability of the data. For both non-food based and food based coding, the coding is based on the primary SIC code for the year of interest, even if the SIC code for that business changed over time. This decision was based on email conversations between Kari Moore and Don Walls from Walls and Associates. Only primary SIC codes were used due to the fact that secondary and tertiary SIC codes are unavailable for the historic years. The variables for indoor and outdoor recreational facilities were also based on the primary SIC code for the year of interest.

For recreational facilities and non-food based, coding is based strictly on SIC code designation as described in Section II.C above. Headquarters are included and coded based on SIC code. For food stores and food based, businesses classified as a headquarters were coded as “0” (not a food store, walking destination, or social engagement) due to the fact that most of these will not offer services. The list of fast food chain restaurants and supermarket chains were then merged into the year datasets (keeping only those active during that year) to create the indicators of belonging on these lists (ie: if on the supermarket list, then supermarket indicator is set to 1). These indicators were used before using the SIC code in classification of food stores/food based. After these indicators were applied, coding was based strictly on SIC code. See Appendix J for SAS code used in this step.

### III.F.3. IDENTIFYING DUPLICATES

In some cases, there are records where more than one record appears in the yearly dataset that has the same location (latitude/longitude) and company/trade name. It was determined that these are duplicate records of the same business and need to be deleted from the final analysis files and keep only one of the records. An indicator was created to tag these records to be removed for further analyses since we don’t want to “double count” a location and falsely inflate the totals. These duplicates were determined based the steps described below. These steps were repeated for each year 2000-2010.

**1. Location.** The first step in the process of determining duplicates was to match based on latitude/longitude and code. The latitude/longitude match was done separately within each coding type: food stores, recreational facilities, non-food based walking destinations, and non-food based social engagement. Since the food based walking destinations and social engagement were much more broad than the main food stores coding, these were only done within food store coding. It was restricted to matching on the code since there are many latitude/longitude that have more than one type of business at the same location (for example: a coffee shop or fast food restaurant that is located within a grocery store). The food store codes of grocers (1), supermarket chain (2), supermarket non-chain (3), and convenience stores were combined together to check matching and food store codes of fast food chain (12), fast food non-chain (13), and other eating places (14) were combined together to check matching. A record was matched with all possible other records that have this location/code match since there are some locations that had multiple matches on these criteria.

**2. Name.** The next step was to determine if the names of the records matched. A “fuzzy name” match using the spedis function in SAS which creates a fuzzy match score was created. Separate codes were created looking at company name vs. company name, company name vs. trade name, and trade name vs. trade name in all possible combinations. When looking at the spedis scores, it was determined that a spedis score less than or equal 15 is a definite match. For those that were between 16-45, these had to be checked by hand to determine if they were really a match or not since there were a mix of those that really matched and those that didn’t. If the spedis score was greater than 45, then these were not considered matches and both records remain in the final file. At this step, excel files were output to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Check\_Dups” with the files “food\_dups2000.xlsx- food\_dups2010.xlsx” for the food stores and “nonfood\_dups2000.xlsx- nonfood\_dups2010.xlsx” for the non-food based. The records with spedis scores between 16-45 were then checked by hand within these files.

**3. Location and supermarket category that did not match by name.** When looking at supermarkets that match to the same location (food stores codes 2 and 3), there are some that match to the same location but do not match based on name. On further review of these records, it was determined that many of these are corporate takeovers or name changes and should be considered as duplicates for the location. These were matched strictly based on if the latitude/longitude match and if the food store code was supermarket chain (2) or supermarket non-chain at any year (3) regardless of the fuzzy name match score. The addresses for these matches were checked and if they had different suite numbers for the address, then they were not considered duplicates. This had to be checked by hand. These were output to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Check\_Dups” with the files “sm\_food\_dups2000.xlsx- sm\_food\_dups2010.xlsx.”

**4. Created indicator variable for type of match.** A variable called ‘dup’ was created to identify the type of match between the records. Matches used the following criteria:

1 = Match by name either by spedis score 15 or less or if spedis score was between 16-45, then matched based on hand checking the names.

2 = If the standard fast food chain name between the two records matched exactly.

3 = If the standard supermarket chain name between the two records matched exactly.

4 = If all spedis scores were greater than 45 and both records are supermarket chain.

5 = If all spedis scores were greater than 45 and both records were other supermarkets (ie: not both of them were a chain but one of them could be).

When checking based on name, Fry’s Foods and Smith Food and Drug were considered a name match. This is due to the fact that most Smith’s Food and Drug were rebranded as Fry’s Food after the merger of the stores[[12]](#footnote-12).

For records that matched on latitude/longitude but the geocoding accuracy was not at the street level, then the address of the possible matches were checked to make sure that they were the same (since the centroids geocode to the same latitude/longitude). A spedis score was created for the addresses. If the address spedis score was greater than 40, then these weren’t considered duplicates since they are actually at different locations. For addresses that were less than or equal 40, these were checked by hand to make sure they were actually matches on address. If they were not actually the same, they were deleted from the duplicates list. There is no consensus for what SPEDIS score threshold should be used. The cut-points for this study were based on the distribution of the score and manual review of matches to see where the bulk of correct matches fell.

In the non-food based duplicates files, since there is some overlap in the codes between recreational facilities and social engagement and walking destinations, when these were set together there were multiple matches that were the same. These were de-duplicated before checking the SPEDIS codes by hand. Variables were created for the duplicate type (described above), the minimum SPEDIS score, and the DunsNumber of the matching record. These indicators are only given to 1 record in the matching pair which will be considered the duplicate record. This is randomly selected as the first record based on DunsNumber. There are cases where there are multiple duplicate matches for one store. In these cases, only the first record based on DunsNumber is not given the duplicate codes and is considered the record to keep. Only one row per DunsNumber was kept in the final determination of duplicate records and merged with the yearly files. Table III.F.3 outlines the numbers within duplicates files. Table III.F.4 outlines the final numbers of duplicates in the yearly files.

**TABLE III.F.3: Outline of numbers within duplicates files (by year)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** |
| **NON-FOOD** |  |  |  |  |  |  |
| Duplicates in recreational facilities | 865 | 1,091 | 1,088 | 1,038 | 1,041 | 1,097 |
| Duplicates in non-food walking destinations | 4,015 | 4,066 | 4,028 | 3,948 | 4,100 | 4,141 |
| Duplicates in non-food social engagement | 9,829 | 17,375 | 19,425 | 18,499 | 16,828 | 15,436 |
| Total NON-FOOD | 14,709 | 22,532 | 24,541 | 23,485 | 21,969 | 20,674 |
| Remove duplicates between recreational facilities and walking and social | 14,116 | 21,823 | 23,817 | 22,796 | 21,283 | 19,926 |
| Remove any with min spedis>45 | 14,114 | 21,821 | 23,815 | 22,794 | 21,281 | 19,926 |
| Keep only those that were determine to be real duplicates based on name match | 10,419 | 12,546 | 11,702 | 10,710 | 10,737 | 11,120 |
| Delete those that match with more than 1 record | 8,290 | 10,173 | 9,388 | 8,668 | 8,677 | 9,118 |
| **FOOD** |  |  |  |  |  |  |
| Total duplicates | 9,032 | 10,432 | 10,124 | 9,692 | 9,315 | 10,195 |
| Keep only those that were determine to be real duplicates | 6,689 | 7,177 | 6,655 | 6,181 | 6,204 | 6,665 |
| Delete those that match with more than 1 record | 6,122 | 6,578 | 6,115 | 5,686 | 5,707 | 5,913 |
|  |  |  |  |  |  |  |
|  | **2006** | **2007** | **2008** | **2009** | **2010** |  |
| **NON-FOOD** |  |  |  |  |  |  |
| Duplicates in recreational facilities | 1,139 | 1,289 | 1,198 | 1,033 | 1,201 |  |
| Duplicates in non-food walking destinations | 3,932 | 3,717 | 3,767 | 2,775 | 3,177 |  |
| Duplicates in non-food social engagement | 15,213 | 15,936 | 18,431 | 15,246 | 30,500 |  |
| Total NON-FOOD | 20,284 | 20,942 | 23,396 | 19,054 | 34,878 |  |
| Remove duplicates between recreational facilities and walking and social | 19,481 | 19,995 | 22,568 | 18,326 | 34,070 |  |
| Remove any with min spedis>45 | 19,479 | 19,993 | 22,567 | 18,326 | 34,070 |  |
| Keep only those that were determine to be real duplicates based on name match | 10,551 | 10,121 | 10,386 | 7,935 | 9,272 |  |
| Delete those that match with more than 1 record | 8,771 | 8,429 | 8,856 | 7,147 | 8,239 |  |
| **FOOD** |  |  |  |  |  |  |
| Total duplicates | 11,570 | 10,658 | 9,922 | 8,753 | 9,840 |  |
| Keep only those that were determine to be real duplicates | 7,142 | 6,478 | 5,991 | 5,771 | 6,312 |  |
| Delete those that match with more than 1 record | 6,156 | 5,658 | 5,413 | 4,558 | 4,985 |  |

**TABLE III.F.4: Numbers of duplicates in yearly files**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** |
| Match by name | 13,131 (1.34%) | 15,524 (1.39%) | 14,300 (1.22%) | 13,234 (1.12%) | 13225 (1.11%) | 13,740 (1.09%) |
| Match standard fast food chain name | 850 (0.9%) | 764 (0.07%) | 753 (0.06%) | 714 (0.06%) | 715 (0.06%) | 807 (0.06%) |
| Match standard supermarket chain name | 271 (0.03%) | 260 (0.02%) | 243 (0.02%) | 208 (0.02%) | 221 (0.02%) | 215 (0.02%) |
| If all spedis scores were greater than 45 and both records are supermarket chain | 63 (0.01%) | 77 (0.01%) | 72 (0.01%) | 65 (0.01%) | 78 (0.01%) | 109 (0.01%) |
| If all spedis scores were greater than 45 and both records were other supermarkets | 97 (0.01%) | 126 (0.01%) | 135 (0.01%) | 133 (0.01%) | 145 (0.01%) | 160 (0.01%) |
| TOTAL | 14,412 (1.47%) | 16,751 (1.49%) | 15,503 (1.32%) | 14,354 (1.21%) | 14,384 (1.21%) | 15,031 (1.20%) |
|  |  |  |  |  |  |  |
|  | **2006** | **2007** | **2008** | **2009** | **2010** |  |
| Match by name | 13,606 (1.03%) | 12,780 (0.94%) | 12,992 (0.93%) | 10,520 (0.85%) | 11,860 (0.82%) |  |
| Match standard fast food chain name | 813 (0.06%) | 685 (0.05%) | 606 (0.04%) | 488 (0.04%) | 496 (0.03%) |  |
| Match standard supermarket chain name | 220 (0.02%) | 273 (0.02%) | 307 (0.02%) | 344 (0.03%) | 376 (0.02%) |  |
| If all spedis scores were greater than 45 and both records are supermarket chain | 124 (0.01%) | 162 (0.01%) | 166 (0.01%) | 196 (0.02%) | 288 (0.02%) |  |
| If all spedis scores were greater than 45 and both records were other supermarkets | 164 (0.01%) | 187 (0.01%) | 198 (0.01%) | 157 (0.01%) | 204 (0.01%) |  |
| TOTAL | 14,927 (1.13%) | 14,087 (1.03%) | 14,269 (1.02%) | 11,705 (0.95%) | 13,224 (0.92%) |  |

### III.F.4. FINAL FULL YEARLY DATASETS

Once all of the steps described above for subsetting to years, coding, and identifying duplicates were completed, the final yearly datasets were output keeping only the variables needed for final analysis. These datasets were output to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Yearly\_Files\FullYearlyData” as dataset names nets2000.sas7bdat-nets2010.sas7bdat. See Appendix J for the SAS code that was used to create these final datasets and Appendix K for details on the datasets and variable descriptions. Please note: separate datasets were created for analysis purposes as described in Section III.F.5 below.

### III.F.5. FINAL YEARLY ANALYSIS DATASETS

SAS datasets to be used as the final analysis datasets for each year at the business level were created from the full yearly datasets. Separate files were created for the food based and non-food based measures due to timing of creation of the datasets. All files were saved to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Yearly\_Files\AnalysisData”.

For the non-food based analysis datasets, these modified the full yearly datasets by removing any duplicate records and kept only those records that were coded as non-food based in recreational facilities, social engagement destinations, and walking destinations. For purposes of use in GIS data, indicator variables were created for each category within the recreational facilities, social engagement, and walking destinations. There is a separate file output for each year (nonfood2000.sas7bdat-nonfood2010.sas7bdat). See Table III.F.5 for summary of number of records kept in the files.

For the food based analysis datasets, these modified the full yearly datasets by removing any duplicate records and kept only those records that were coded as food based in food stores, social engagement destinations, and walking destinations. The additional TD list of 7 stores for that year of only non-matching locations was then appended to the list and all those on the list were coded as supermarket chain (ie: any locations that were a duplicate with the NETS list were dropped before appending the data). For purposes of use in GIS data, indicator variables were created for each category within the food stores, social engagement, and walking destinations. There is a separate file output for each year (food2000.sas7bdat-food2010.sas7bdat). See Table III.F.5 for summary of number of records kept in the files.

For both the food based and non-food based datasets, see Appendix J for list of SAS code used to create these. See Appendix K for details on the final datasets and descriptions of variables. See Table III.F.6 for frequencies of each category by year.

**TABLE III.F.5: Numbers records kept at each step when creating the business level analysis files**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** |
| Total Number of records in full file | 983,341 | 1,120,512 | 1,173,495 | 1,183,838 | 1,192,174 | 1,256,401 |
| **NON-FOOD** |  |  |  |  |  |  |
| After those that are not non-food dropped | 590,828 | 696,567 | 733,624 | 740,245 | 746,417 | 788,028 |
| After keep those only in categories needed | 517,454 | 614,407 | 649,693 | 655,711 | 658,475 | 694,618 |
| After drop duplicates | 509,164 | 604,234 | 640,305 | 647,043 | 649,798 | 685,500 |
| **FOOD** |  |  |  |  |  |  |
| After those that are not food dropped | 378,161 | 409,996 | 426,092 | 430,275 | 432,602 | 455,590 |
| After drop duplicates | 372,039 | 403,418 | 419,977 | 424,589 | 426,895 | 449,677 |
| Total in TD file | 839 | 1,052 | 1,196 | 1,367 | 1,504 | 1,656 |
| After drop TD duplicates with NETS | 653 | 841 | 966 | 1,126 | 1,225 | 1,291 |
| **Final file after append TD and NETS together** | **372,692** | **404,259** | **420,943** | **425,715** | **428,120** | **450,968** |
|  |  |  |  |  |  |  |
|  | **2006** | **2007** | **2008** | **2009** | **2010** |  |
| Total Number of records in full file | 1,321,059 | 1,364,993 | 1,396,658 | 1,235,521 | 1,444,774 |  |
| **NON-FOOD** |  |  |  |  |  |  |
| After those that are not non-food dropped | 810,610 | 861,916 | 911,841 | 818,534 | 1,009,801 |  |
| After keep those only in categories needed | 713,906 | 756,951 | 801,877 | 719,907 | 898,703 |  |
| After drop duplicates | 705,135 | 748,522 | 793,021 | 712,760 | 890,464 |  |
| **FOOD** |  |  |  |  |  |  |
| After those that are not food dropped | 497,827 | 490,608 | 472,663 | 405,464 | 423,988 |  |
| After drop duplicates | 491,671 | 484,950 | 467,250 | 400,906 | 419,003 |  |
| Total in TD file | 1,809 | 1,961 | 2,114 | 2,194 | 2,291 |  |
| After drop TD duplicates with NETS | 1,432 | 1,526 | 1,668 | 1,698 | 1,622 |  |
| **Final file after append TD and NETS together** | **493,103** | **486,476** | **468,918** | **402,604** | **420,625** |  |

**TABLE III.F.6: Frequency of each category by year**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| **FOOD STORES** |  |  |  |  |  |  |  |  |  |  |  |
| Grocers | 36,634 (9.84%) | 45,169 (11.19%) | 48,740 (11.59%) | 47,177 (11.09%) | 48,102 (11.25%) | 51,579 (11.45%) | 53,827 (10.93%) | 58,129 (11.96%) | 60,639 (12.95%) | 50,380 (12.53%) | 57,773 (13.75%) |
| Supermarket chain | 10,539 (2.83%) | 10,775 (2.67%) | 11,010 (2.62%) | 11,185 (2.63%) | 11,467 (2.68%) | 11,629 (2.58%) | 11,813 (2.40%) | 12,090 (2.49%) | 11,833 (2.53%) | 11,955 (2.97%) | 12,347 (2.94%) |
| Supermarket non-chain | 3,124 (0.84%) | 3,126 (0.77%) | 3,037 (0.72%) | 2,904 (0.68%) | 2,815 (0.66%) | 2,741 (0.61%) | 2,710 (0.55%) | 2,669 (0.55%) | 2,640 (0.56%) | 2,467 (0.61%) | 2,252 (0.54%) |
| Convenience store | 21,378 (5.74%) | 23,801 (5.89%) | 24,686 (5.87%) | 26,497 (6.23%) | 26,569 (6.21%) | 26,929 (5.98%) | 27,247 (5.53%) | 28,843 (5.93%) | 29,452 (6.29%) | 26,458 (6.58%) | 26,885 (6.40%) |
| Deli, meat, dairy | 14,246 (3.83%) | 16,719 (4.14%) | 18,029 (4.29%) | 17,754 (4.18%) | 17,461 (4.08%) | 17,718 (3.93%) | 18,137 (3.68%) | 18,902 (3.89%) | 19,046 (4.07%) | 15,204 (3.78%) | 15,539 (3.70%) |
| Fruit and vegetable market | 3,141 (0.84%) | 3,420 (0.84%) | 4,207 (1.00%) | 4,303 (1.01%) | 4,580 (1.07%) | 4,561 (1.01%) | 4,709 (0.96%) | 4,973 (1.02%) | 5,186 (1.11%) | 4,271 (1.06%) | 5,203 (1.24%) |
| Bakeries, pastry, nuts, ice cream, candy | 25,220 (6.78%) | 27,941 (6.92%) | 28,853 (6.86%) | 29,520 (6.94%) | 29,928 (7.00%) | 32,876 (7.30%) | 34,801 (7.06%) | 37,361 (7.69%) | 38,114 (8.14%) | 32,750 (8.14%) | 41,090 (9.78%) |
| Health food and vitamins | 10,299 (2.77%) | 11,758 (2.91%) | 11,964 (2.85%) | 11,952 (2.81%) | 11,562 (2.70%) | 11,800 (2.62%) | 12,003 (2.44%) | 13,072 (2.69%) | 13,401 (2.86%) | 11,027 (2.74%) | 12,400 (2.95%) |
| Liquor stores | 16,575 (4.45%) | 18,563 (4.60%) | 19,345 (4.60%) | 19,531 (4.59%) | 19,676 (4.60%) | 20,609 (4.57%) | 21,340 (4.33%) | 22,192 (4.57%) | 22,492 (4.80%) | 19,510 (4.85%) | 19,633 (4.67%) |
| Drinking places non-alcohol | 6,932 (1.86%) | 7,525 (1.86%) | 8,186 (1.95%) | 9,446 (2.22%) | 10,771 (2.52%) | 11,797 (2.62%) | 12,969 (2.63%) | 13,686 (2.82%) | 14,037 (3.00%) | 13,735 (3.42%) | 15,578 (3.71%) |
| Drinking places alcohol | 25,875 (6.95%) | 29,063 (7.20%) | 29,933 (7.12%) | 29,911 (7.03%) | 29,754 (6.96%) | 30,660 (6.81%) | 31,267 (6.35%) | 34,112 (7.02%) | 36,370 (7.76%) | 31,361 (7.80%) | 36,088 (8.59%) |
| Fast food chain | 32,550 (8.74%) | 33,226 (8.23%) | 34,060 (8.10%) | 34,974 (8.22%) | 35,274 (8.25%) | 37,381 (8.30%) | 38,810 (7.88%) | 38,038 (7.83%) | 36,773 (7.85%) | 35,136 (8.74%) | 34,083 (8.11%) |
| Fast food non-chain | 15,708 (4.22%) | 16,686 (4.13%) | 17,810 (4.24%) | 19,748 (4.64%) | 20,560 (4.81%) | 22,711 (5.04%) | 26,634 (5.41%) | 24,165 (4.97%) | 20,841 (4.45%) | 17,098 (4.25%) | 16,313 (3.88%) |
| Other eating places | 145,032 (38.96%) | 150,782 (37.34%) | 155,521 (36.99%) | 155,443 (36.55%) | 153,820 (35.97%) | 162,416 (36.05%) | 191,340 (38.84%) | 172,845 (35.57%) | 152,682 (32.60%) | 127,136 (31.61%) | 120,645 (28.71%) |
| Other food stores | 4,990 (1.34%) | 5,224 (1.29%) | 5,072 (1.21%) | 4,896 (1.15%) | 5,305 (1.24%) | 5,082 (1.13%) | 5,020 (1.02%) | 4,919 (1.01%) | 4,904 (1.05%) | 3,668 (0.91%) | 4,319 (1.03%) |
| TOTAL FOOD STORES | 372,243 | 403,778 | 420,453 | 425,241 | 427,644 | 450,489 | 492,627 | 485,996 | 468,410 | 402,156 | 420,148 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **RECREATIONAL FACILITIES** |  |  |  |  |  |  |  |  |  |  |  |
| Indoor conditioning | 12,019 (22.76%) | 13,498 (22.73%) | 16,933 (26.32%) | 18,942 (28.32%) | 21,783 (30.85%) | 24,396 (32.12%) | 29,655 (35.74%) | 30,215 (34.88%) | 29,380 (33.74%) | 25,136 (33.48%) | 29,613 (34.56%) |
| Recreational | 16,497 (31.24%) | 17,462 (29.40%) | 17,503 (27.21%) | 17,204 (25.72%) | 17,742 (25.13%) | 18,060 (23.78%) | 18,427 (22.21%) | 18,413 (21.25%) | 18,168 (20.87%) | 15,524 (20.68%) | 16,366 (19.10%) |
| Recreational - outdoor | 11,597 (21.96%) | 12,065 (20.31%) | 11,904 (18.50%) | 11,612 (17.36%) | 12,312 (17.44%) | 12,498 (16.46%) | 12,733 (15.35%) | 12,600 (14.54%) | 12,449 (14.30%) | 10,524 (14.02%) | 11,037 (12.88%) |
| Recreational – indoor | 9,397 (17.79%) | 9,909 (16.68%) | 9,842 (15.30%) | 9,560 (14.29%) | 10,219 (14.47%) | 10,393 (13.69%) | 10,537 (12.70%) | 10,551 (12.18%) | 10,493 (12.05%) | 8,851 (11.79%) | 9,740 (11.37%) |
| Team sports | 632 (1.20%) | 680 (1.14%) | 679 (1.06%) | 697 (1.04%) | 685 (0.97%) | 745 (0.98%) | 865 (1.04%) | 729 (0.84%) | 656 (0.75%) | 565 (0.75%) | 531 (0.62%) |
| Team sports – outdoor | 521 (0.99%) | 564 (0.95%) | 568 (0.88%) | 586 (0.88%) | 574 (0.81%) | 629 (0.83%) | 750 (0.90%) | 621 (0.72%) | 551 (0.63%) | 471 (0.63%) | 444 (0.52%) |
| Team sports – indoor | 266 (0.50%) | 304 (0.51%) | 306 (0.48%) | 317 (0.47%) | 307 (0.43%) | 328 (0.43%) | 383 (0.46%) | 348 (0.40%) | 303 (0.35%) | 267 (0.36%) | 244 (0.28%) |
| Water activities | 312 (0.59%) | 359 (0.60%) | 363 (0.56%) | 355 (0.53%) | 341 (0.48%) | 372 (0.49%) | 392 (0.47%) | 392 (0.45%) | 390 (0.45%) | 331 (0.44%) | 311 (0.36%) |
| Water activities conditioning | 1,106 (2.09%) | 1,164 (1.96%) | 1,161 (1.80%) | 1,178 (1.76%) | 1,188 (1.68%) | 1,328 (1.75%) | 1,415 (1.71%) | 1,411 (1.63%) | 1,380 (1.59%) | 1,200 (1.60%) | 1,183 (1.38%) |
| Racquet sports | 1,021 (1.93%) | 1,054 (1.77%) | 1,069 (1.66%) | 1,080 (1.61%) | 1,068 (1.51%) | 1,078 (1.42%) | 1,119 (1.35%) | 1,089 (1.26%) | 1,048 (1.20%) | 908 (1.21%) | 917 (1.07%) |
| Racquet sports – outdoor | 724 (1.37%) | 731 (1.23%) | 742 (1.15%) | 746 (1.12%) | 741 (1.05%) | 760 (1.00%) | 784 (0.94%) | 780 (0.90%) | 764 (0.88%) | 672 (0.90%) | 668 (0.78%) |
| Racquet sports – indoor | 1,021 (1.93%) | 1,054 (1.77%) | 1,069 (1.66%) | 1,080 (1.61%) | 1,068 (1.51%) | 1,078 (1.42%) | 1,119 (1.35%) | 1,089 (1.26%) | 1,048 (1.20%) | 908 (1.21%) | 917 (1.07%) |
| Camps/Vacation | 3,642 (6.90%) | 4,019 (6.77%) | 4,248 (6.60%) | 4,309 (6.44%) | 4,357 (6.17%) | 4,503 (5.93%) | 4,754 (5.73%) | 5,332 (6.15%) | 5,553 (6.38%) | 4,888 (6.51%) | 5,235 (6.11%) |
| Instructional indoor conditioning | 14,616 (27.68%) | 17,804 (29.98%) | 18,940 (29.44%) | 19,665 (29.40%) | 19,982 (28.30%) | 21,876 (28.81%) | 22,814 (27.50%) | 25,332 (29.24%) | 26,669 (30.63%) | 23,280 (31.01%) | 28,200 (32.91%) |
| Instructional recreational | 1,427 (2.70%) | 1,614 (2.72%) | 1,633 (2.54%) | 1,623 (2.43%) | 1,584 (2.24%) | 1,633 (2.15%) | 1,614 (1.95%) | 1,678 (1.94%) | 1,720 (1.98%) | 1,433 (1.91%) | 1,438 (1.68%) |
| Instructional recreational – outdoor | 1,346 (2.55%) | 1,518 (2.56%) | 1,540 (2.39%) | 1,534 (2.29%) | 1,496 (2.12%) | 1,545 (2.03%) | 1,528 (1.84%) | 1,579 (1.82%) | 1,615 (1.85%) | 1,345 (1.79%) | 1,352 (1.58%) |
| Instructional recreational – indoor | 81 (0.15%) | 96 (0.16%) | 93 (0.14%) | 89 (0.13%) | 88 (0.12%) | 88 (0.12%) | 86 (0.10%) | 99 (0.11%) | 105 (0.12%) | 88 (0.12%) | 86 (0.10%) |
| Instructional team sports | 285 (0.54%) | 389 (0.65%) | 401 (0.62%) | 402 (0.60%) | 408 (0.58%) | 443 (0.58%) | 435 (0.52%) | 475 (0.55%) | 514 (0.59%) | 460 (0.61%) | 534 (0.62%) |
| Instructional team sports – outdoor | 130 (0.25%) | 148 (0.25%) | 154 (0.24%) | 162 (0.24%) | 182 (0.26%) | 211 (0.28%) | 217 (0.26%) | 249 (0.29%) | 276 (0.32%) | 244 (0.32%) | 274 (0.32%) |
| Instructional team sports – indoor | 155 (0.29%) | 241 (0.41%) | 247 (0.38%) | 240 (0.36%) | 226 (0.32%) | 232 (0.31%) | 218 (0.26%) | 226 (0.26%) | 238 (0.27%) | 216 (0.29%) | 260 (0.30%) |
| Instructional water activities | 793 (1.50%) | 852 (1.43%) | 897 (1.39%) | 918 (1.37%) | 933 (1.32%) | 978 (1.29%) | 974 (1.17%) | 1,056 (1.22%) | 1,087 (1.25%) | 934 (1.24%) | 945 (1.10%) |
| Instructional racquet sports | 462 (0.87%) | 499 (0.84%) | 502 (0.78%) | 511 (0.76%) | 531 (0.75%) | 529 (0.70%) | 506 (0.61%) | 509 (0.59%) | 500 (0.57%) | 423 (0.56%) | 420 (0.49%) |
| TOTAL RECREATIONAL FACILITIES | 52,812 | 59,394 | 64,329 | 66,884 | 70,602 | 75,941 | 82,970 | 86,631 | 87,065 | 75,082 | 85,693 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **SOCIAL ENGAGEMENT** |  |  |  |  |  |  |  |  |  |  |  |
| Barbers/beauty shops | 143,323 (23.84%) | 160,405 (21.09%) | 166,207 (20.69%) | 169,424 (20.83%) | 175,954 (21.61%) | 191,359 (22.20%) | 198,342 (21.64%) | 214,599 (22.91%) | 223,880 (23.48%) | 189,677 (22.39%) | 217,567 (21.41%) |
| Performance based entertainment | 29,676 (4.94%) | 34,110 (4.48%) | 40,611 (5.06%) | 41,932 (5.16%) | 44,839 (5.51%) | 48,038 (5.57%) | 50,003 (5.46%) | 55,446 (5.92%) | 61,329 (6.43%) | 53,555 (6.32%) | 73,029 (7.19%) |
| Participatory entertainment and recreation clubs | 15,265 (2.54%) | 16,643 (2.19%) | 17,132 (2.13%) | 17,177 (2.11%) | 16,944 (2.08%) | 17,528 (2.03%) | 17,789 (1.94%) | 18,504 (1.98%) | 18,400 (1.93%) | 15,642 (1.85%) | 16,171 (1.59%) |
| Sport/professional stadium entertainment | 3,916 (0.65%) | 4,822 (0.63%) | 4,984 (0.62%) | 5,009 (0.62%) | 4,804 (0.59%) | 5,055 (0.59%) | 5,183 (0.57%) | 5,612 (0.60%) | 5,749 (0.60%) | 5,031 (0.59%) | 5,950 (0.59%) |
| Exercise facility | 9,203 (1.53%) | 10,513 (1.38%) | 13,173 (1.64%) | 14,945 (1.84%) | 17,929 (2.20%) | 20,582 (2.39%) | 23,045 (2.51%) | 27,821 (2.97%) | 32,752 (3.43%) | 30,600 (3.61%) | 41,083 (4.04%) |
| Coin operated amusement/gambling | 2,029 (0.34%) | 2,053 (0.27%) | 2,045 (0.25%) | 1,995 (0.25%) | 2,038 (0.25%) | 2,137 (0.25%) | 2,168 (0.24%) | 2,439 (0.26%) | 2,568 (0.25%) | 2,037 (0.24%) | 2,199 (0.22%) |
| Amusement parks, carnival, rodeo | 7,925 (1.32%) | 8,210 (1.08%) | 7,893 (0.98%) | 7,532 (0.95%) | 8,230 (1.01%) | 8,359 (0.97%) | 8,438 (0.92%) | 8,620 (0.92%) | 8,798 (0.92%) | 7,177 (0.85%) | 7,872 (0.77%) |
| Membership sports and recreation clubs | 15,806 (2.63%) | 19,446 (2.56%) | 29,757 (3.71%) | 31,214 (3.84%) | 31,681 (3.89%) | 27,066 (3.14%) | 29,219 (3.19%) | 26,669 (2.85%) | 28,836 (3.02%) | 30,797 (3.64%) | 53,529 (0.27%) |
| Libraries | 6,616 (1.10%) | 7,632 (1.00%) | 7,863 (0.98%) | 7,731 (0.95%) | 7,497 (0.92%) | 7,871 (0.91%) | 8,083 (0.88%) | 8,240 (0.88%) | 8,418 (0.88%) | 8,549 (1.01%) | 9,791 (0.96%) |
| Museum and art gallery | 7,615 (1.27%) | 8,451 (1.11%) | 8,673 (1.08%) | 8,863 (1.09%) | 9,223 (1.13%) | 10,225 (1.19%) | 10,715 (1.17%) | 12,277 (1.31%) | 13,618 (1.43%) | 12,141 (1.43%) | 13,157 (1.29%) |
| Zoo, arboretum, aquarium | 409 (0.07%) | 440 (0.06%) | 472 (0.06%) | 488 (0.06%) | 493 (0.06%) | 512 (0.06%) | 528 (0.06%) | 630 (0.07%) | 768 (0.08%) | 743 (0.09%) | 928 (0.09%) |
| Civil, social, political clubs | 47,291 (4.87%) | 72,091 (9.48%) | 74,490 (9.27%) | 73,268 (9.01%) | 66,087 (8.11%) | 68,754 (7.98%) | 69,654 (7.60%) | 73,113 (7.81%) | 82,890 (8.69%) | 83,935 (9.91%) | 138,456 (13.62%) |
| Religion | 141,250 (23.49%) | 176,529 (23.21%) | 182,215 (22.69%) | 181,461 (22.32%) | 175,492 (21.55%) | 185,765 (21.55%) | 187,585 (20.47%) | 197,498 (21.08%) | 204,842 (21.48%) | 183,187 (21.63%) | 216,372 (21.29%) |
| Eating places | 144,635 (24.06%) | 209,807 (27.58%) | 217,265 (27.05%) | 221,823 (27.28%) | 223,015 (27.38%) | 237,539 (27.56%) | 273,956 (29.90%) | 250,745 (26.77%) | 224,014 (3.86%) | 192,251 (22.70%) | 183,790 (18.08%) |
| Night clubs/bars | 26,258 (4.37%) | 29,479 (3.88%) | 30,353 (3.78%) | 30,317 (3.73%) | 30,160 (3.70%) | 31,061 (3.60%) | 31,663 (3.46%) | 34,503 (3.68%) | 36,784 (3.86%) | 31,725 (3.75%) | 36,483 (3.59%) |
| TOTAL SOCIAL ENGAGEMENT | 601,217 | 760,631 | 803,133 | 813,179 | 814,386 | 861,851 | 916,371 | 936,716 | 953,646 | 847,047 | 1,016,377 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| **WALKING DESTINATIONS** |  |  |  |  |  |  |  |  |  |  |  |
| Postal service | 4,307 (1.10%) | 4,399 (1.05%) | 4,428 (1.02%) | 4,855 (1.10%) | 5,031 (1.13%) | 5,092 (1.09%) | 5,105 (1.00%) | 5,086 (1.02%) | 5,060 (1.05%) | 4,583 (1.10%) | 4,546 (1.06%) |
| Drug store/pharmacy | 19,976 (5.11%) | 20,256 (4.84%) | 21,302 (4.90%) | 21,584 (4.91%) | 23,037 (5.19%) | 24,597 (5.26%) | 25,095 (4.93%) | 26,123 (5.24%) | 27,524 (5.73%) | 25,914 (6.24%) | 29,292 (6.81%) |
| Bank/credit union | 36,973 (9.45%) | 37,831 (9.04%) | 37,495 (8.63%) | 37,288 (8.48%) | 37,931 (8.54%) | 38,268 (8.19%) | 39,008 (7.66%) | 37,783 (7.58%) | 38,148 (7.94%) | 33,677 (8.10%) | 31,745 (7.38%) |
| Food sales (non-beverage) | 125,260 (32.03%) | 143,425 (34.25%) | 150,909 (34.73%) | 151,085 (34.37%) | 152,180 (34.25%) | 158,314 (33.88%) | 162,520 (31.91%) | 174,062 (34.90%) | 179,393 (37.34%) | 153,482 (36.94%) | 173,378 (40.31%) |
| Eating places (non-beverage) | 197,667 (50.54%) | 205,267 (49.02%) | 212,150 (48.83%) | 215,336 (48.99%) | 215,333 (48.87%) | 229,187 (49.05%) | 264,611 (51.96%) | 242,033 (48.53%) | 216,212 (45.01%) | 184,152 (44.32%) | 175,553 (40.82%) |
| Drinking places non-alcohol | 6,932 (1.77%) | 7,525 (1.80%) | 8,186 (1.88%) | 9,446 (2.15%) | 10,771 (2.42%) | 11,797 (2.52%) | 12,969 (2.55%) | 13,686 (2.74%) | 14,037 (2.92%) | 13,735 (3.31%) | 15,578 (3.62%) |
| TOTAL WALKING DESTINATIONS | 391,115 | 418,703 | 434,470 | 439,594 | 444,283 | 467,255 | 509,308 | 498,773 | 480,374 | 415,543 | 430,092 |

It was noted that the indoor conditioning category was increasing dramatically each year. We looked at the individual SIC codes that make up this category to see if there are any patterns that may be of concern. The SIC codes that increased the most were Physical Fitness Facilities (SIC=79910000) and Exercise Salon (SIC=79910302). It was determined that this increase is due to large increases in the number of facilities opening, not due to facilities changing SIC codes. This is confirmed by Don Walls who indicated that this is not an unusual occurrence.

There are some categories which appear to increase between 2000-2008, then dip in 2009, then increase again in 2010. Don Walls was emailed about his opinion on this. He states (7/10/2013):

“This phenomenon you described—while more extreme because of the 2009-10 “Great Recession”—is *consistent* over time in the NETS Database. When the overall economy slows down or contracts (slowing job growth or actual declines in jobs), there is always an *increase* in the following year of the number of small (1-2 person) establishments.  I call this the “Cisco Effect”:  when—in the face of declining sales—Cisco lays off 100 programmers, 50-60 of them hang out their shingle as programmers, system designers, Computer software writing services, etc.  Some of them actually sell services back to Cisco.  When economic times improve, many of those same new establishments close down because their owners go back to work for Cisco (or other high-tech firms) as they begin to hire again. If one looks over time at the correlation of creation, by size class, we are not at all surprised to find that size classes tend to move together (“all boats rise and fall with the overall economy”).  Not so with one-person firms.  Their job creation is completely uncorrelated with ALL other establishment size categories. However, if you take a look at *One-PersonFirmCreation-LargeFirmDestruction.jpg*, you will see that job creation in 1-person firms is correlated with the *destruction* of jobs in larger firms.”

# IV. DENSITY AND DISTANCE TO NEAREST CREATION

The follow sections describe in detail preparing the datasets for GIS use, the creation of the densities in ArcGIS, creation of the distance to nearest in ArcGIS, creation of the SAS files containing the measures, and recommendations for linking the data across time for each study.

## IV.A. PREPARING DATASETS FOR GIS USE

For creation of the GIS-based measures, datasets with the category indicators (0,1 indicators) and latitude/longitude were provided to Shannon Brines and Melissa Zagorski for each year 2000-2010 as DBF files for the food based, non-food based, and the additional recreational facilities needed for creating the total stores density separately due to timing of data preparation. These files were created directly from the yearly analysis files as described in Section III.F above. These files were saved to the folder “U:\EPID\CSEPH\Projects\Diez Roux\Built Environment II\NETS\_to\_be\_transferred\DensityCreation\food2000.dbf-food2010.dbf (food based), nonfood2000.dbf-nonfood2010.dbf (non-food based), and extrapa2000.dbf-extrapa2010.dbf. See Appendix J for list of SAS codes used to create these files. See Appendix K for details on datasets and variables.

Addresses were provided in the file “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\GIS\GIS\_Data\Participants\address\_points.gdb.” This file contains all addresses for the MESA home, MESA baseline, MESA work/activities, Community Surveys 1-3, and JHS as described in further detail in the Built Environment documentation (EAC\_MESA\_JHS\_BuiltEnvironment Documentation.docx). This file uses a fake id (uniqid) for confidentiality purposes. These can be linked to the fake id’s for each study through the file “new\_add\_id\_link.sas7bdat” which is located in a cabinet in Kari Moore’s office.

97-98% of facilities were able to be geocoded to the street address (Table IV.B.1). The rest were geocoded to ZIP+4, ZIP+2, or ZIP centroid. GIS-based measures include all facilities able to be geocoded regardless of geocoding accuracy. This decision was based on the fact that there is a relatively low percentage of facilities that geocoded to centroids. We would rather include these facilities rather than exclude them and under count the facilities in the densities.

**TABLE IV.B.1: Geocoding accuracy by year for food based and non-food based datasets**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** |
| Street level | 862,002 (97.75%) | 981,966 (97.37%) | 1,038,427 (97.85%) | 1,050,892 (97.96%) | 1,060,355 (98.37%) | 1,119,707 (98.53%) | 1,181,379 (98.59%) | 1,218,040 (98.63%) | 1,245,047 (98.66%) | 1,100,203 (98.64%) | 1,290,731 (98.45%) |
| Zip+4 Centroid | 781 (0.09%) | 751 (0.07%) | 718 (0.07%) | 668 (0.06%) | 622 (0.06%) | 627 (0.06%) | 620 (0.05%) | 593 (0.05%) | 585 (0.05%) | 462 (0.04%) | 485 (0.04%) |
| Zip+2 Centroid | 1,696 (0.19%) | 1,853 (0.18%) | 1,867 (0.18%) | 1,885 (0.18%) | 1,954 (0.18%) | 2,083 (0.18%) | 2,232 (0.19%) | 2,295 (0.19%) | 2,311 (0.18%) | 2,060 (0.18%) | 2,622 (0.20%) |
| Zip Centroid | 17,377 (1.97%) | 23,923 (2.37%) | 20,236 (1.91%) | 19,313 (1.80%) | 14,987 (1.39%) | 14,051 (1.24%) | 14,007 (1.17%) | 14,070 (1.14%) | 13,996 (1.11%) | 12,639 (1.13%) | 17,251 (1.32%) |
| TOTAL | 881,856 | 1,008,493 | 1,061,248 | 1,072,758 | 1,077,918 | 1,136,468 | 1,198,238 | 1,234,998 | 1,261,939 | 1,115,364 | 1,311,089 |

## IV.B. CREATION OF GIS-BASED DENSITIES

Densities were calculated for the categories of food stores, recreational facilities, social engagement destinations, and walking destinations listed in Section II.C above for each year the data is available (2000-2010). The densities were created for buffers of ¼ mile, ½ mile, 1 mile, 3 miles, and 5 miles around each address. Densities for each year are calculated for every address in the file. This will allow us to already have the density calculated and can merge if needed with the proper data timing.

The densities were calculated by Shannon Brines for both raw (simple) densities and kernel densities using the Silverman kernel, which is a quadratic kernel function as described by Silverman[[13]](#footnote-13). This tends to be the standard that is used by others in literature. Densities were created using ESRI ArcGIS software. The simple densities were created by using the Point Density[[14]](#footnote-14) command and the kernel densities were created using the Kernel Density command in ArcGIS[[15]](#footnote-15). All densities are expressed in units per square mile. The actual calculation creates a density raster surface for 48 states with a cell resolution of 100 meters. Boundaries for water/major roads/ect were not taken into consideration when calculating the densities. See Appendix P for detailed methods on how the densities were created.

## IV.C. CREATION OF GIS-BASED EUCLIDEAN DISTANCE TO NEAREST

Euclidean (straight-line) distance to nearest business were calculated for the categories of food stores, recreational facilities, social engagement destinations, and walking destinations listed in Section II.C above for each year the data is available (2000-2010). Distances for each year are calculated for every address in the file. This will allow us to already have the distance calculated and can merge if needed with the proper data timing.

The distances were calculated by Melissa Zagorski using the Near tool in ArcGIS using a search radius of 300 miles. All distances are calculated in meters. For those that do not have a business within the domain within 300 miles, these were set to be 300 miles in the data rather than missing. The actual calculation creates a density raster surface for 48 states with a cell resolution of 100 meters. Boundaries for water/major roads/ect were not taken into consideration when calculating the distances. These also do not follow road networks. See Appendix Q for detailed methods on how the Euclidean distances were created.

## IV.D. CREATION OF SAS DATASETS WITH FINAL DENSITIES AND DISTANCES

Once the densities and distance to nearest measures were created, the data was delivered in DBF files and saved in the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\GIS\Deliverables\Individuals\NETS” with a subfolder for each year.

For the dataset containing the densities, each buffer size was stored in a separate DBF file. The distance to nearest non-purchase area was also imported and any records where this distance was 0 were set to missing for all densities. These files where then read into SAS, merged, and saved as SAS files for storage in the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Densities”. The records were separated by study type and stored in separate folders by study as described in detail in Appendix K. The GIS fake id (uniqid) was dropped from all these files and the study ID numbers were linked with the data for further linkage with other data. Each year 2000-2010 is saved in a separate dataset. Once the data was imported into SAS, any additional calculated variables were created for analysis purposes as outlined in Table IV.C.1. See Appendix J for list of SAS codes used to create these files. See Appendix K for details on datasets and variable names and details.

For the dataset containing the Euclidean distance measures, each type of data (food based, non-food based, and extra pa) was in a separate DBF file. The distance to nearest non-purchase area was also imported and any records where this distance was 0 were set to missing for all distance measures. For measures that were greater than the distance to the non-purchase area, an additional variable was created where these records have the distance value being the average between the distance to the business type and distance to the non-purchase area. This was done since we don’t know for sure that there are no businesses between the purchase area that person falls in and the next purchase area where the business was located. These files where then read into SAS, merged, and saved as SAS files for storage in the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Distance”. The records were separated by study type and stored in separate folders by study as described in detail in Appendix K. The GIS fake id (uniqid) was dropped from all these files and the study ID numbers were linked with the data for further linkage with other data. Each year 2000-2010 is saved in a separate dataset. Once the data was imported into SAS, any additional calculated variables were created for analysis purposes as outlined in Table IV.C.1. See Appendix J for list of SAS codes used to create these files. See Appendix K for details on datasets and variable names and details.

## IV.E. CREATION OF SAS DATASETS FOR AREA LEVEL

Datasets were developed at the census tract and block group levels (2000 boundaries) aggregating the number of businesses within each category within each area. These are just raw numbers within the census tract/block group, not densities. Each variable was created for all businesses regardless of geocoding accuracy and also a separate variable restricting to only those with street level or zip+4 centroid level accuracy for block groups (ie: accurate to block group level) or those with street level, zip+4 centroid, or zip+2 centroid level for census tracts (ie: accurate to the census tract level). These were obtained by taking a frequency by census tract (or block group) id obtained from the methods outlined in Section III.C using SAS PROC FREQ and extracting the count by ID. Since there are some records that fall outside of the area where the data was purchased, the final dataset is restricted to only those census tracts/block groups that are within the study area as created in Section II.B.3. Indicators were added as to whether the county is completely covered by the purchase area (for area level analysis restrictions) and also whether the census tract/block group is covered by the purchase area for Trade Dimensions since this had a smaller restricted area in Mississippi where the data was purchased due to cost. This would affect any area level analyses performed with the food stores data. These data can also be linked to MESA, Community Survey, or JHS participants by census tract or block group ID if needed. Each year 2000-2010 is saved in a separate dataset. Once the data was imported into SAS, any additional calculated variables were created for analysis purposes as outlined in Table IV.D.1. The final datasets are saved to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Area\_Level\nets2000\_bg00.sas7bdat-nets2010\_bg00.sas7bdat (block groups) and nets2000\_ct00.sas7bdat and nets2010\_ct00.sas7bdat (census tracts).” See Appendix J for list of SAS codes used to create these files. See Appendix K for details on datasets and variable names and details.

# V. ANALYSIS RECOMMENDATIONS

## V.A. OVERALL

The densities can be added together when needed. Thought needs to be put into whether it makes conceptual sense to use combined densities based on your analysis.

For many of the variables, the densities variables are highly skewed, so some data exploration or transformations may need to be taken into consideration.

### V.A.I. SIMPLE VS KERNEL

The simple and kernel densities are highly correlated with one another. The choice as to which one to use needs to be carefully thought out in terms of the outcome of interest. The kernel density gives more weight to the facilities closer to the addresses while the simple densities give equal weight to everything within the buffer. In most cases, the kernel density will make more conceptual sense, but this is more complicated to interpret. This could have some policy ramifications. If using the kernel density, for any policy recommendations it should be understood that it’s not the full bandwidth that we’re saying has an impact. At about 80% of the radius (bandwidth) approximately 95% of the area under the kernel curve is represented (per Shannon Brines). To date, most analyses have used the kernel densities.

### V.A.II. BUFFER SIZE

The choice as to which buffer size to use needs to be carefully thought out in terms of the outcome of interest. Since there is a lot of variability across the sites, it may be useful to use different buffer sizes for each site, although this will lead to more difficulty in interpretation of results. ¼ and ½ mile buffers may need to be used with some caution for some of the variables, especially at certain sites, due to the high number of 0 values for the densities. To date, most analyses have used the 1-mile buffers.

It was noted that the means for the densities decreased as the buffer sizes increased. We looked at the difference between buffer sizes overall and by site to determine if there are any patterns to be concerned about. This does not appear to be a problem. Shannon Brines confirmed that this is not a problem since it is due to the buffer sizes increasing (ie: the total area of the buffer increases so you are dividing by a larger number).

### V.A.III. ADJUSTING FOR POPULATION DENSITY

Population density for buffer sizes of ¼, ½, and 1 mile have been created as part of the built environment data (see document “EAC\_MESA\_JHS\_BuiltEnvironment Documentation.docx” for more details). A measure for stores per population can be created by the formula:

NETS density/Population density

Where NETS density is your density of interest and population density is the population density per square mile. The population density per square mile is needed since the NETS density is in stores per square mile. Since the population density is not calculated as a kernel density, it is recommended that this ONLY be done with the simple densities.

For most analyses, rather than creating a measure for stores per population, it would be better to use the density as is (stores per square mile) and ADJUST for population density in your analysis model.

Note that when using densities for 3 and 5 miles, we do not have the population density created at these buffer sizes. A stores per population CANNOT be calculated at these buffer sizes and adjustment for population density may not be as meaningful.

## V.B. FOOD STORES

When using any of the ratio indices (FOODSTAT or mRFEI), careful consideration needs to be taken into account as to how to use them when the denominator is 0. This leads to incalculable values. The number of the incalculable by MESA exam is outlined in Table V.B.1.

**Table V.B.1: Number of incalculable values for FOODSTAT and mRFEI by MESA exam**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Exam1** | **Exam2** | **Exam3** | **Exam4** | **Exam5** |
| FOODSTAT – with alcohol | Calculable | 5262 (84.99%) | 5225 (85.91%) | 5010 (84.71%) | 4724 (83.14%) | 3819 (82.57%) |
| Favorable = 0 | 728 (11.76%) | 643 (10.57%) | 670 (11.33%) | 740 (13.02%) | 665 (14.38%) |
| Both Favorable and Unfavorable = 0 | 201 (3.25%) | 214 (3.52%) | 234 (3.96%) | 218 (3.84%) | 141 (3.05%) |
|  |  |  |  |  |  |  |
| FOODSTAT – without alcohol | Calculable | 5262 (84.99%) | 5225 (85.91%) | 5010 (84.71%) | 4724 (83.14%) | 3819 (82.57%) |
| Favorable = 0 | 697 (11.26%) | 612 (10.06%) | 632 (10.69%) | 689 (12.13%) | 628 (13.58%) |
| Both Favorable and Unfavorable = 0 | 232 (3.75%) | 245 (4.03%) | 272 (4.60%) | 269 (4.73%) | 178 (3.85%) |
|  |  |  |  |  |  |  |
| mRFEI – with alcohol | Calculable | 5990 (96.75%) | 5868 (96.48%) | 5680 (96.04%) | 5464 (96.16%) | 4484 (96.95%) |
| Both Favorable and Unfavorable = 0 | 201 (3.25%) | 214 (3.52%) | 234 (3.96%) | 218 (3.84%) | 141 (3.05%) |
|  |  |  |  |  |  |  |
| mRFEI – without alcohol | Calculable | 5959 (96.25%) | 5837 (95.97%) | 5642 (95.40%) | 5413 (95.27%) | 4447 (96.15%) |
| Both Favorable and Unfavorable = 0 | 232 (3.75%) | 245 (4.03%) | 272 (4.60%) | 269 (4.73%) | 178 (3.85%) |

In general, these indices work better for the simple densities rather than the kernel densities which weight for the distance away from the address and cause these ratios to be difficult to interpret. It is not recommended to use the ratios with the kernel densities.

For the mRFEI, it is recommended by Stephen Onufrak at the CDC (through Latetia Moore) to use this variable in analysis as a categorical variable (ie: tertiles) rather than a continuous variable. Values where there are no food stores (incalculable) should be categorized as a separate category.

## V.C. RECREATIONAL FACILITIES

For the recreational facilities, the primary category to be used is Total Physical Activity+Instructional+Water Activities, which includes all facilities with physical activity. For sensitivity analyses, it is suggested to try the version that is only Total Physical Activity without the instructional and water activities. The versions of these variables without Recreational should also be tested for sensitivity analyses. Outdoor/Indoor categories may be useful for select analyses, as determined by specific investigators. Indoor and outdoor are not mutually exclusive so they should not be used together or added together for analysis.

We also developed an approximate correspondence between these categories and MESA PA questions in order to facilitate future analyses (Table V.C.1).

**Table V.C.1: MESA Physical Activity Questionnaire and Matching Recreational Facility Categories**

|  |  |  |
| --- | --- | --- |
| **Question #** | **Question** | **Domain it matches to** |
| Baseline |  |  |
| 1 | Light housework |  |
| 2 | Moderate or heavy housework |  |
| 3 | Moderate lawn, yard, garden, farm |  |
| 4 | Heavy lawn, yard, garden, farm |  |
| 5 | Light child or adult care |  |
| 6 | Moderate child or adult care |  |
| 7 | Transportation |  |
| 8 | Walking for transport |  |
| 9 | Walking for exercise, pleasure, social reasons, walking during work breaks, walking the dog |  |
| 10 | Dancing in church, ceremonies, or for pleasure | IC |
| 11 | Team sports - softball, volleyball, basketball, soccer | TS |
| 12 | Dual sports - tennis, racquetball, paddleball | RS |
| 13 | Individual activities - golf, bowling, yoga, Tai Chi | RE |
| 14 | Moderate conditioning - low impact aerobics, slow bicycling, rowing, leisurely swimming, health club machines moderate intensity | IC; WC |
| 15 | Heavy effort conditioning - high impact aerobics, fast bicycling, running, jogging, fast swimming, health club machines vigorous intensity, judo, kickboxing, karate | IC; WC |

# APPENDIX A: LIST OF DATASETS PROVIDED BY WALLS & ASSOCIATES FOR NATIONAL ESTABLISHMENT TIME SERIES (NETS) DATA

|  |  |  |
| --- | --- | --- |
| **Description** | **File Type** | **File Name** |
| State of Mississippi data except historical addresses | Microsoft Access | NETS2011\_MS.accdb |
| State of Mississippi historical address data | ASCII text | Address2011\_MS.txt |
| Outside Mississippi company name information | ASCII text | NETS2011\_UMich\_MESA\_JHS\_Company.txt |
| Outside Mississippi Headquarters information | ASCII text | NETS2011\_UMich\_MESA\_JHS\_HQCompany.txt |
| Outside Mississippi First address information | ASCII text | NETS2011\_UMich\_MESA\_JHS\_AddressFirst.txt |
| Outside Mississippi Miscellaneous information | ASCII text | NETS2011\_UMich\_MESA\_JHS\_Misc.txt |
| Outside Mississippi D&B ratings data | ASCII text | NETS2011\_UMich\_MESA\_JHS\_Ratings.txt |
| Outside Mississippi Number of employees data | ASCII text | NETS2011\_UMich\_MESA\_JHS\_Emp.txt |
| Outside Mississippi Sales data | ASCII text | NETS2011\_UMich\_MESA\_JHS\_Sales.txt |
| Outside Mississippi SIC code data | ASCII text | NETS2011\_UMich\_MESA\_JHS\_SIC.txt |
| Outside Mississippi yearly headquarters information | ASCII text | NETS2011\_UMich\_MESA\_JHS\_HQs.txt |
| Outside Mississippi FIPS county data | ASCII text | NETS2011\_UMich\_MESA\_JHS\_FIPS.txt |
| Outside Mississippi Move Summary (only those that moved) | ASCII text | NETS2011\_UMich\_MESA\_JHS\_MoveSummary.txt |
| Outside Mississippi Move data | ASCII text | NETS2011\_UMich\_MESA\_JHS\_Move.txt |
| Outside Mississippi NAICS data | ASCII text | NETS2011\_UMich\_MESA\_JHS\_NAICS.txt |
| Outside Mississippi historical address data | ASCII text | Address2011\_Umich\_MESA\_JHS.txt |

# APPENDIX B: LIST OF ADDRESS DATASETS USED AS SOURCE FOR ZIP CODE SELECTION

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Study** | **Type of Addresses** | **Folder** | **Dataset** | **Last updated Date** |
| MESA | Baseline+follow-up (including moving) home addresses | U:\SECURE\Diezroux\Projects\MESA\_geocoded\_Baseline\_and\_FollowUp\Baseline\_Plus\_Follow\_Up\_Addresses\SAS\_Datasets\Final\_Datasets\final\_dataset\_with\_teleatlas\_and\_mappinganalytics | addresses\_monthlylong\_final\_2012.sas7bdat | Jan 2012 |
| MESA | Baseline home addresses | U:\SECURE\Diezroux\Projects\MESA\_geocoded\_Baseline\_and\_FollowUp\Baseline\_Addresses\Data\Final\_SAS\_Dataset | geo\_zips\_census.sas7bdat | 2004 |
| MESA | Work/Activities addresses from Exam4 | U:\SECURE\Diezroux\Projects\MESA\_geocoded\_Baseline\_and\_FollowUp\Work\_Addresses\Data | workadd\_geocoded.sas7bdat | Oct 2012 |
| MESA | Work/Activities addresses from Exam5 | U:\SECURE\Diezroux\Projects\MESA\_geocoded\_Baseline\_and\_FollowUp\Work\_Addresses\Data | e5\_workadd\_geocoded.sas7bdat | Mar 2012 |
| MESA | Work/Activities addresses from Follow-up 8 | U:\SECURE\Diezroux\Projects\MESA\_geocoded\_Baseline\_and\_FollowUp\Work\_Addresses\Data | fu8\_workadd\_geocoded.sas7bdat | Mar 2012 |
| MESA | Work/Activities addresses from Follow-up 9 | U:\SECURE\Diezroux\Projects\MESA\_geocoded\_Baseline\_and\_FollowUp\Work\_Addresses\Data | fu9\_workadd\_geocoded.sas7bdat | Mar 2012 |
| MESA | Work/Activities addresses from Follow-up 10 | U:\SECURE\Diezroux\Projects\MESA\_geocoded\_Baseline\_and\_FollowUp\Work\_Addresses\Data | fu10\_workadd\_geocoded.sas7bdat | Mar 2012 |
| CS1 | Community Survey #1 addresses | U:\SECURE\Diezroux\Projects\Community\_Survey\community survey I\Data\FINAL\_SAS\_Dataset | cs1\_address.sas7bdat | 2004 |
| CS2 | Community Survey #2 addresses | U:\SECURE\Diezroux\Projects\Community\_Survey\community survey II\data | cs2\_address.sas7bdat | 2008 |
| CS3 | Community Survey #3 addresses | U:\SECURE\Diezroux\Projects\Community\_Survey\community survey III\Data | cs3\_address.sas7bdat | Aug 2012 |
| JHS | JHS baseline and follow-up addresses | U:\EPID\CIAHD\JHS Data\Environmental Assessment Core\data\JHS address geocode data | all\_visit\_geocode.sas7bdat | Aug 2012 |

# APPENDIX C: LIST OF ZIP CODES PURCHASED

List of zip codes where NETS data was purchased (ie: this is the list that was sent to Don Walls to purchase the data). This is also found in the file “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Documentation\NETS\_zipcode\_list.xls.”

This list is organized by state and then study for which it was purchased.

**Alabama:**

Both JHS and MESA

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 36064 | 36093 | 36106 | 36109 | 36110 | 36116 | 36117 |

JHS only

|  |
| --- |
| 36115 |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 35020 | 35068 | 35205 | 35212 | 35218 | 35226 | 35254 | 36051 | 36091 | 36108 |
| 35022 | 35127 | 35207 | 35213 | 35221 | 35228 | 36022 | 36080 | 36092 | 36111 |
| 35023 | 35136 | 35208 | 35214 | 35222 | 35229 | 36025 | 36083 | 36104 | 36112 |
| 35061 | 35203 | 35209 | 35216 | 35223 | 35233 | 36026 | 36088 | 36105 | 36113 |
| 35064 | 35204 | 35211 | 35217 | 35224 | 35234 | 36043 | 36089 | 36107 | 36866 |

**Arizona:**

Both JHS and MESA

|  |  |  |
| --- | --- | --- |
| 85713 | 85745 | 85746 |

JHS only

|  |  |  |
| --- | --- | --- |
| 85735 | 86032 | 86047 |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 85003 | 85020 | 85048 | 85201 | 85219 | 85258 | 85307 | 85346 | 85383 | 85712 |
| 85004 | 85021 | 85051 | 85202 | 85220 | 85259 | 85308 | 85348 | 85387 | 85714 |
| 85006 | 85027 | 85053 | 85203 | 85222 | 85260 | 85309 | 85351 | 85388 | 85715 |
| 85007 | 85028 | 85083 | 85204 | 85224 | 85264 | 85310 | 85353 | 85392 | 85716 |
| 85008 | 85029 | 85085 | 85205 | 85231 | 85281 | 85323 | 85355 | 85395 | 85718 |
| 85009 | 85031 | 85086 | 85206 | 85242 | 85282 | 85326 | 85361 | 85396 | 85719 |
| 85012 | 85034 | 85119 | 85207 | 85250 | 85283 | 85334 | 85363 | 85619 | 85723 |
| 85013 | 85035 | 85120 | 85208 | 85251 | 85284 | 85335 | 85373 | 85701 | 85724 |
| 85014 | 85037 | 85122 | 85209 | 85253 | 85301 | 85338 | 85374 | 85704 | 85726 |
| 85015 | 85040 | 85131 | 85210 | 85254 | 85302 | 85339 | 85375 | 85705 | 85737 |
| 85016 | 85041 | 85140 | 85212 | 85255 | 85303 | 85340 | 85379 | 85707 | 85749 |
| 85017 | 85042 | 85193 | 85213 | 85256 | 85305 | 85344 | 85381 | 85708 | 85750 |
| 85018 | 85044 | 85194 | 85215 | 85257 | 85306 | 85345 | 85382 | 85711 | 86432 |
| 85019 |  |  |  |  |  |  |  |  |  |

**Arkansas:**

JHS only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 71653 | 72114 | 72117 | 72120 | 72202 | 72204 | 72205 | 72206 | 72301 | 72364 |
| 72076 | 72116 | 72118 | 72201 |  |  |  |  |  |  |

MESA only

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 72712 | 72718 | 72745 | 72756 | 72757 | 72758 | 72764 |

**California:**

Both JHS and MESA

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 90001 | 90011 | 90019 | 90038 | 90058 | 90302 | 94028 | 94110 | 94134 | 95758 |
| 90002 | 90012 | 90020 | 90043 | 90062 | 90303 | 94040 | 94112 | 94301 | 95823 |
| 90003 | 90013 | 90021 | 90044 | 90071 | 90304 | 94041 | 94114 | 94303 | 95824 |
| 90004 | 90014 | 90026 | 90045 | 90211 | 90305 | 94043 | 94116 | 94304 | 95826 |
| 90005 | 90015 | 90034 | 90047 | 90230 | 94022 | 94044 | 94122 | 94305 | 95828 |
| 90006 | 90016 | 90035 | 90048 | 90232 | 94024 | 94086 | 94127 | 94306 | 95829 |
| 90007 | 90017 | 90036 | 90056 | 90255 | 94025 | 94087 | 94131 | 95014 | 95830 |
| 90008 | 90018 | 90037 | 90057 | 90301 | 94027 | 94089 | 94132 | 95624 | 95832 |
| 90010 |  |  |  |  |  |  |  |  |  |

JHS only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 94005 | 94015 | 94080 | 94930 | 94946 | 94949 | 94960 | 95476 | 96120 | 96150 |
| 94014 | 94066 | 94903 | 94945 | 94947 | 94954 | 94963 |  |  |  |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 90022 | 90505 | 91115 | 91709 | 92105 | 92392 | 92677 | 93247 | 94516 | 95117 |
| 90023 | 90506 | 91118 | 91710 | 92106 | 92394 | 92678 | 93267 | 94517 | 95126 |
| 90024 | 90601 | 91124 | 91711 | 92107 | 92395 | 92679 | 93274 | 94518 | 95128 |
| 90025 | 90602 | 91125 | 91719 | 92108 | 92399 | 92683 | 93277 | 94523 | 95129 |
| 90027 | 90603 | 91201 | 91722 | 92109 | 92404 | 92688 | 93292 | 94526 | 95130 |
| 90028 | 90604 | 91202 | 91723 | 92110 | 92405 | 92691 | 93301 | 94530 | 95131 |
| 90029 | 90605 | 91203 | 91724 | 92111 | 92407 | 92692 | 93304 | 94546 | 95134 |
| 90031 | 90606 | 91204 | 91730 | 92113 | 92408 | 92694 | 93305 | 94549 | 95202 |
| 90032 | 90610 | 91205 | 91731 | 92114 | 92410 | 92701 | 93306 | 94550 | 95203 |
| 90033 | 90620 | 91206 | 91732 | 92115 | 92501 | 92703 | 93307 | 94552 | 95204 |
| 90039 | 90621 | 91207 | 91733 | 92116 | 92503 | 92704 | 93308 | 94553 | 95205 |
| 90040 | 90623 | 91208 | 91734 | 92117 | 92504 | 92705 | 93309 | 94555 | 95206 |
| 90041 | 90630 | 91210 | 91737 | 92118 | 92505 | 92706 | 93311 | 94556 | 95207 |
| 90042 | 90631 | 91214 | 91739 | 92121 | 92506 | 92707 | 93312 | 94560 | 95209 |
| 90046 | 90638 | 91301 | 91740 | 92122 | 92507 | 92708 | 93313 | 94563 | 95210 |
| 90049 | 90640 | 91302 | 91741 | 92123 | 92508 | 92711 | 93501 | 94575 | 95211 |
| 90059 | 90650 | 91303 | 91743 | 92126 | 92509 | 92780 | 93505 | 94577 | 95212 |
| 90060 | 90660 | 91304 | 91744 | 92130 | 92518 | 92782 | 93510 | 94578 | 95219 |
| 90061 | 90670 | 91306 | 91745 | 92132 | 92530 | 92799 | 93523 | 94579 | 95242 |
| 90063 | 90680 | 91307 | 91746 | 92134 | 92532 | 92801 | 93534 | 94580 | 95304 |
| 90064 | 90701 | 91311 | 91748 | 92135 | 92543 | 92802 | 93535 | 94583 | 95307 |
| 90065 | 90703 | 91316 | 91750 | 92139 | 92544 | 92804 | 93536 | 94595 | 95319 |
| 90066 | 90706 | 91320 | 91752 | 92140 | 92545 | 92805 | 93543 | 94596 | 95320 |
| 90067 | 90710 | 91321 | 91754 | 92147 | 92548 | 92806 | 93550 | 94597 | 95326 |
| 90068 | 90712 | 91324 | 91755 | 92154 | 92551 | 92807 | 93551 | 94598 | 95350 |
| 90069 | 90713 | 91325 | 91759 | 92155 | 92552 | 92808 | 93552 | 94601 | 95351 |
| 90073 | 90715 | 91326 | 91761 | 92173 | 92553 | 92821 | 93561 | 94602 | 95354 |
| 90077 | 90716 | 91330 | 91762 | 92201 | 92555 | 92822 | 93563 | 94603 | 95355 |
| 90079 | 90717 | 91331 | 91763 | 92203 | 92557 | 92823 | 93591 | 94605 | 95356 |
| 90089 | 90720 | 91335 | 91764 | 92210 | 92561 | 92831 | 93908 | 94606 | 95357 |
| 90090 | 90723 | 91340 | 91765 | 92211 | 92562 | 92832 | 93921 | 94607 | 95358 |
| 90093 | 90731 | 91342 | 91766 | 92220 | 92563 | 92833 | 93923 | 94608 | 95361 |
| 90094 | 90732 | 91343 | 91767 | 92223 | 92567 | 92835 | 93933 | 94609 | 95366 |
| 90095 | 90740 | 91344 | 91768 | 92225 | 92570 | 92840 | 93940 | 94610 | 95367 |
| 90201 | 90742 | 91345 | 91770 | 92230 | 92571 | 92841 | 93943 | 94611 | 95376 |
| 90202 | 90743 | 91350 | 91773 | 92234 | 92582 | 92843 | 93950 | 94612 | 95377 |
| 90210 | 90744 | 91351 | 91775 | 92236 | 92583 | 92844 | 93953 | 94613 | 95391 |
| 90212 | 90745 | 91352 | 91776 | 92239 | 92584 | 92845 | 93955 | 94618 | 95605 |
| 90220 | 90746 | 91354 | 91778 | 92240 | 92585 | 92860 | 94002 | 94619 | 95612 |
| 90221 | 90747 | 91355 | 91780 | 92241 | 92586 | 92861 | 94010 | 94621 | 95626 |
| 90222 | 90755 | 91356 | 91784 | 92253 | 92587 | 92862 | 94019 | 94702 | 95652 |
| 90240 | 90802 | 91360 | 91786 | 92256 | 92590 | 92865 | 94030 | 94703 | 95659 |
| 90241 | 90803 | 91361 | 91789 | 92258 | 92591 | 92866 | 94061 | 94704 | 95660 |
| 90242 | 90804 | 91362 | 91790 | 92260 | 92595 | 92867 | 94062 | 94705 | 95664 |
| 90245 | 90805 | 91364 | 91791 | 92262 | 92596 | 92868 | 94063 | 94706 | 95667 |
| 90247 | 90806 | 91367 | 91792 | 92264 | 92602 | 92869 | 94065 | 94707 | 95668 |
| 90248 | 90807 | 91371 | 91801 | 92270 | 92603 | 92870 | 94070 | 94708 | 95672 |
| 90249 | 90808 | 91377 | 91802 | 92274 | 92604 | 92879 | 94085 | 94709 | 95673 |
| 90250 | 90810 | 91381 | 91803 | 92276 | 92606 | 92880 | 94102 | 94710 | 95682 |
| 90254 | 90813 | 91384 | 91902 | 92282 | 92610 | 92881 | 94103 | 94720 | 95691 |
| 90260 | 90814 | 91387 | 91910 | 92301 | 92612 | 92882 | 94104 | 94803 | 95747 |
| 90261 | 90815 | 91390 | 91911 | 92307 | 92614 | 92883 | 94105 | 94804 | 95757 |
| 90262 | 90822 | 91401 | 91913 | 92308 | 92617 | 92886 | 94107 | 94850 | 95762 |
| 90265 | 90831 | 91402 | 91914 | 92313 | 92618 | 92887 | 94108 | 94920 | 95811 |
| 90266 | 91001 | 91403 | 91915 | 92314 | 92620 | 93001 | 94109 | 94965 | 95814 |
| 90270 | 91003 | 91405 | 91932 | 92316 | 92625 | 93003 | 94111 | 95002 | 95815 |
| 90272 | 91006 | 91406 | 91945 | 92318 | 92626 | 93004 | 94115 | 95003 | 95816 |
| 90274 | 91007 | 91411 | 91950 | 92320 | 92627 | 93010 | 94117 | 95008 | 95817 |
| 90275 | 91008 | 91423 | 91977 | 92324 | 92629 | 93012 | 94118 | 95010 | 95818 |
| 90277 | 91010 | 91436 | 92008 | 92335 | 92630 | 93015 | 94121 | 95018 | 95819 |
| 90278 | 91011 | 91501 | 92010 | 92336 | 92637 | 93021 | 94123 | 95020 | 95820 |
| 90280 | 91016 | 91502 | 92014 | 92337 | 92646 | 93030 | 94124 | 95033 | 95821 |
| 90290 | 91020 | 91504 | 92037 | 92344 | 92647 | 93033 | 94128 | 95037 | 95822 |
| 90291 | 91024 | 91505 | 92054 | 92345 | 92648 | 93035 | 94129 | 95050 | 95825 |
| 90292 | 91030 | 91506 | 92055 | 92346 | 92649 | 93036 | 94130 | 95051 | 95827 |
| 90293 | 91031 | 91523 | 92056 | 92354 | 92651 | 93040 | 94133 | 95053 | 95831 |
| 90306 | 91040 | 91601 | 92057 | 92356 | 92653 | 93041 | 94158 | 95054 | 95833 |
| 90307 | 91042 | 91602 | 92058 | 92358 | 92655 | 93043 | 94401 | 95060 | 95834 |
| 90401 | 91046 | 91604 | 92060 | 92359 | 92656 | 93060 | 94402 | 95062 | 95835 |
| 90402 | 91101 | 91605 | 92061 | 92368 | 92657 | 93063 | 94403 | 95064 | 95836 |
| 90403 | 91103 | 91606 | 92081 | 92373 | 92660 | 93064 | 94404 | 95065 | 95837 |
| 90404 | 91104 | 91607 | 92082 | 92374 | 92661 | 93065 | 94501 | 95066 | 95838 |
| 90405 | 91105 | 91608 | 92083 | 92376 | 92662 | 93066 | 94502 | 95070 | 95841 |
| 90501 | 91106 | 91701 | 92101 | 92377 | 92663 | 93203 | 94505 | 95073 | 95842 |
| 90502 | 91107 | 91702 | 92102 | 92382 | 92673 | 93220 | 94507 | 95076 | 95843 |
| 90503 | 91108 | 91706 | 92103 | 92384 | 92675 | 93221 | 94514 | 95110 | 95864 |
| 90504 | 91109 | 91708 | 92104 | 92385 | 92676 | 93241 |  |  |  |

**Colorado:**

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 80002 | 80120 | 80203 | 80216 | 80230 | 80264 | 80526 | 80905 | 80919 | 81212 |
| 80003 | 80121 | 80204 | 80218 | 80231 | 80290 | 80535 | 80906 | 80920 | 81240 |
| 80010 | 80122 | 80205 | 80219 | 80232 | 80293 | 80809 | 80907 | 80921 | 81501 |
| 80011 | 80123 | 80206 | 80220 | 80235 | 80294 | 80813 | 80909 | 80922 | 81503 |
| 80012 | 80125 | 80207 | 80221 | 80236 | 80401 | 80816 | 80910 | 80923 | 81504 |
| 80014 | 80126 | 80209 | 80222 | 80237 | 80465 | 80829 | 80914 | 80924 | 81505 |
| 80022 | 80127 | 80210 | 80223 | 80238 | 80512 | 80831 | 80915 | 80929 | 81506 |
| 80033 | 80128 | 80211 | 80224 | 80239 | 80521 | 80860 | 80916 | 80938 | 81507 |
| 80045 | 80129 | 80212 | 80226 | 80246 | 80524 | 80903 | 80917 | 80939 | 81520 |
| 80110 | 80130 | 80214 | 80227 | 80247 | 80525 | 80904 | 80918 | 80951 | 81523 |
| 80113 | 80202 | 80215 | 80228 |  |  |  |  |  |  |

**Connecticut:**

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 06010 | 06259 | 06281 | 06444 | 06489 | 06513 | 06518 | 06704 | 06712 | 06786 |
| 06234 | 06260 | 06401 | 06471 | 06504 | 06514 | 06519 | 06705 | 06716 | 06787 |
| 06239 | 06262 | 06405 | 06473 | 06510 | 06515 | 06524 | 06706 | 06762 | 06791 |
| 06241 | 06263 | 06410 | 06477 | 06511 | 06516 | 06525 | 06708 | 06779 | 06795 |
| 06243 | 06277 | 06418 | 06479 | 06512 | 06517 | 06702 | 06710 | 06782 | 06831 |
| 06255 |  |  |  |  |  |  |  |  |  |

**Delaware:**

MESA only

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 19930 | 19940 | 19944 | 19945 | 19967 | 19970 | 19975 |

**Florida:**

Both JHS and MESA

|  |  |  |
| --- | --- | --- |
| 32207 | 32216 | 32246 |

JHS only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 32011 | 32202 | 32206 | 32211 | 32225 | 32254 | 32301 | 32304 | 32310 | 32312 |
| 32034 | 32204 | 32208 | 32218 | 32226 | 32277 | 32303 | 32308 | 32311 | 32399 |
| 32097 | 32205 | 32209 |  |  |  |  |  |  |  |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 00041 | 32713 | 32903 | 33067 | 33184 | 33442 | 33616 | 33917 | 34231 | 34608 |
| 32114 | 32724 | 32920 | 33069 | 33185 | 33444 | 33617 | 33919 | 34232 | 34609 |
| 32117 | 32725 | 32922 | 33073 | 33186 | 33445 | 33618 | 33928 | 34233 | 34610 |
| 32119 | 32732 | 32925 | 33076 | 33193 | 33446 | 33619 | 33931 | 34234 | 34613 |
| 32124 | 32738 | 32926 | 33101 | 33194 | 33455 | 33620 | 33948 | 34235 | 34667 |
| 32128 | 32744 | 32927 | 33109 | 33196 | 33470 | 33624 | 33950 | 34236 | 34669 |
| 32168 | 32763 | 32931 | 33125 | 33301 | 33480 | 33625 | 33952 | 34237 | 34677 |
| 32174 | 32764 | 32934 | 33127 | 33304 | 33483 | 33626 | 33953 | 34238 | 34679 |
| 32179 | 32765 | 32935 | 33128 | 33305 | 33484 | 33629 | 33954 | 34239 | 34684 |
| 32210 | 32766 | 32937 | 33129 | 33306 | 33486 | 33634 | 33955 | 34241 | 34685 |
| 32212 | 32789 | 32940 | 33130 | 33308 | 33487 | 33635 | 33965 | 34242 | 34688 |
| 32217 | 32792 | 32952 | 33131 | 33309 | 33496 | 33637 | 33966 | 34243 | 34689 |
| 32223 | 32801 | 32953 | 33132 | 33311 | 33498 | 33647 | 33967 | 34266 | 34695 |
| 32256 | 32803 | 32955 | 33136 | 33312 | 33527 | 33716 | 33980 | 34269 | 34698 |
| 32257 | 32804 | 32958 | 33137 | 33314 | 33534 | 33755 | 33982 | 34275 | 34734 |
| 32258 | 32805 | 32960 | 33138 | 33315 | 33547 | 33756 | 33983 | 34286 | 34736 |
| 32501 | 32806 | 32963 | 33139 | 33316 | 33549 | 33759 | 33990 | 34288 | 34737 |
| 32502 | 32807 | 32967 | 33140 | 33324 | 33556 | 33760 | 33991 | 34289 | 34739 |
| 32503 | 32808 | 32970 | 33141 | 33325 | 33559 | 33761 | 33993 | 34292 | 34741 |
| 32504 | 32809 | 33004 | 33143 | 33328 | 33567 | 33762 | 34102 | 34293 | 34743 |
| 32505 | 32811 | 33009 | 33149 | 33330 | 33569 | 33763 | 34103 | 34420 | 34744 |
| 32506 | 32812 | 33012 | 33150 | 33331 | 33570 | 33764 | 34104 | 34428 | 34746 |
| 32507 | 32814 | 33013 | 33154 | 33332 | 33572 | 33765 | 34105 | 34432 | 34748 |
| 32514 | 32817 | 33014 | 33155 | 33334 | 33573 | 33767 | 34108 | 34433 | 34753 |
| 32526 | 32818 | 33015 | 33156 | 33394 | 33579 | 33770 | 34109 | 34434 | 34758 |
| 32530 | 32819 | 33016 | 33160 | 33403 | 33584 | 33771 | 34110 | 34442 | 34759 |
| 32561 | 32820 | 33018 | 33161 | 33404 | 33592 | 33773 | 34112 | 34445 | 34761 |
| 32570 | 32821 | 33019 | 33162 | 33407 | 33594 | 33774 | 34114 | 34452 | 34762 |
| 32571 | 32822 | 33020 | 33165 | 33408 | 33596 | 33777 | 34116 | 34453 | 34786 |
| 32583 | 32824 | 33021 | 33167 | 33410 | 33598 | 33778 | 34117 | 34461 | 34787 |
| 32601 | 32825 | 33023 | 33168 | 33411 | 33602 | 33782 | 34119 | 34465 | 34797 |
| 32603 | 32826 | 33024 | 33169 | 33412 | 33603 | 33837 | 34120 | 34470 | 34952 |
| 32605 | 32827 | 33025 | 33172 | 33418 | 33604 | 33844 | 34134 | 34471 | 34953 |
| 32607 | 32828 | 33026 | 33173 | 33426 | 33605 | 33901 | 34135 | 34472 | 34956 |
| 32608 | 32829 | 33027 | 33174 | 33428 | 33606 | 33903 | 34201 | 34473 | 34957 |
| 32609 | 32830 | 33028 | 33175 | 33431 | 33607 | 33904 | 34203 | 34474 | 34983 |
| 32612 | 32831 | 33029 | 33176 | 33432 | 33609 | 33907 | 34207 | 34476 | 34984 |
| 32640 | 32832 | 33040 | 33178 | 33433 | 33610 | 33908 | 34210 | 34480 | 34986 |
| 32641 | 32833 | 33054 | 33179 | 33434 | 33611 | 33909 | 34219 | 34481 | 34987 |
| 32667 | 32835 | 33055 | 33180 | 33435 | 33612 | 33912 | 34223 | 34488 | 34990 |
| 32703 | 32836 | 33056 | 33181 | 33436 | 33613 | 33913 | 34224 | 34491 | 34994 |
| 32706 | 32837 | 33060 | 33182 | 33437 | 33614 | 33914 | 34228 | 34606 | 34996 |
| 32708 | 32839 | 33062 | 33183 | 33441 | 33615 | 33916 | 34229 | 34607 | 34997 |
| 32709 | 32901 | 33064 |  |  |  |  |  |  |  |

**Georgia:**

Both JHS and MESA

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30002 | 30033 | 30058 | 30084 | 30126 | 30273 | 30306 | 30314 | 30326 | 30341 |
| 30008 | 30034 | 30060 | 30087 | 30127 | 30274 | 30307 | 30315 | 30327 | 30342 |
| 30012 | 30035 | 30064 | 30088 | 30134 | 30288 | 30308 | 30316 | 30329 | 30344 |
| 30013 | 30038 | 30072 | 30093 | 30135 | 30294 | 30309 | 30317 | 30331 | 30345 |
| 30021 | 30039 | 30078 | 30094 | 30141 | 30296 | 30310 | 30318 | 30336 | 30349 |
| 30022 | 30040 | 30079 | 30096 | 30152 | 30297 | 30311 | 30319 | 30337 | 30354 |
| 30024 | 30041 | 30080 | 30097 | 30168 | 30303 | 30312 | 30322 | 30339 | 30506 |
| 30030 | 30043 | 30082 | 30106 | 30236 | 30305 | 30313 | 30324 | 30340 | 30518 |
| 30032 | 30047 | 30083 | 30122 | 30260 |  |  |  |  |  |

JHS only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30044 | 30092 | 30228 | 30281 | 30350 | 30813 | 31008 | 31088 | 31216 | 31406 |
| 30067 | 30157 | 30238 | 30328 | 30360 | 30907 | 31028 | 31093 | 31328 | 31410 |
| 30068 | 30214 | 30250 | 30338 | 30802 | 30909 | 31030 | 31098 | 31404 | 31411 |
| 30071 | 30215 | 30253 | 30346 | 30809 | 31005 | 31047 |  |  |  |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30004 | 30019 | 30066 | 30115 | 30334 | 30504 | 30546 | 30602 | 30622 | 30680 |
| 30005 | 30025 | 30070 | 30144 | 30363 | 30507 | 30548 | 30605 | 30646 | 30683 |
| 30009 | 30028 | 30075 | 30188 | 30415 | 30517 | 30565 | 30606 | 30655 | 30701 |
| 30011 | 30045 | 30076 | 30189 | 30458 | 30519 | 30566 | 30607 | 30656 | 30733 |
| 30014 | 30052 | 30101 | 30252 | 30461 | 30534 | 30582 | 30609 | 30666 | 30735 |
| 30016 | 30054 | 30102 | 30332 | 30501 | 30542 | 30601 | 30621 | 30677 | 30746 |
| 30017 | 30062 | 30103 |  |  |  |  |  |  |  |

**Idaho:**

MESA only

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 83274 | 83401 | 83402 | 83404 | 83406 |

**Illinois:**

Both JHS and MESA

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 60101 | 60155 | 60302 | 60423 | 60452 | 60477 | 60526 | 60615 | 60628 | 60643 |
| 60104 | 60160 | 60304 | 60425 | 60461 | 60478 | 60534 | 60616 | 60632 | 60644 |
| 60106 | 60162 | 60305 | 60426 | 60462 | 60480 | 60546 | 60617 | 60633 | 60647 |
| 60126 | 60163 | 60402 | 60429 | 60466 | 60501 | 60558 | 60619 | 60634 | 60649 |
| 60130 | 60164 | 60406 | 60430 | 60469 | 60513 | 60559 | 60620 | 60636 | 60651 |
| 60131 | 60165 | 60409 | 60438 | 60471 | 60514 | 60605 | 60621 | 60637 | 60653 |
| 60141 | 60171 | 60411 | 60443 | 60473 | 60521 | 60608 | 60622 | 60638 | 60707 |
| 60148 | 60181 | 60419 | 60445 | 60475 | 60523 | 60609 | 60623 | 60639 | 60804 |
| 60153 | 60301 | 60422 | 60448 | 60476 | 60525 | 60612 | 60624 | 60641 | 60827 |
| 60154 |  |  |  |  |  |  |  |  |  |

JHS only

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 62901 | 62918 | 62958 | 62959 | 62998 |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 60008 | 60048 | 60099 | 60173 | 60421 | 60490 | 60604 | 60666 | 61340 | 62040 |
| 60010 | 60053 | 60102 | 60174 | 60428 | 60491 | 60606 | 60670 | 61348 | 62059 |
| 60011 | 60056 | 60103 | 60175 | 60431 | 60502 | 60607 | 60680 | 61354 | 62060 |
| 60012 | 60060 | 60107 | 60176 | 60432 | 60503 | 60610 | 60690 | 61356 | 62090 |
| 60013 | 60061 | 60108 | 60177 | 60433 | 60504 | 60611 | 60699 | 61359 | 62201 |
| 60014 | 60062 | 60110 | 60178 | 60435 | 60505 | 60613 | 60706 | 61362 | 62204 |
| 60015 | 60064 | 60112 | 60184 | 60436 | 60510 | 60614 | 60712 | 61363 | 62205 |
| 60016 | 60067 | 60115 | 60185 | 60439 | 60515 | 60618 | 60714 | 61548 | 62206 |
| 60018 | 60068 | 60118 | 60187 | 60440 | 60516 | 60625 | 60803 | 61552 | 62207 |
| 60020 | 60069 | 60119 | 60188 | 60441 | 60517 | 60626 | 60805 | 61571 | 62240 |
| 60021 | 60070 | 60120 | 60189 | 60446 | 60519 | 60629 | 61012 | 61603 | 62521 |
| 60022 | 60073 | 60123 | 60190 | 60449 | 60527 | 60630 | 61072 | 61611 | 62522 |
| 60025 | 60074 | 60124 | 60191 | 60453 | 60532 | 60631 | 61073 | 61614 | 62523 |
| 60026 | 60076 | 60133 | 60192 | 60455 | 60540 | 60640 | 61080 | 61615 | 62526 |
| 60029 | 60077 | 60134 | 60193 | 60456 | 60543 | 60642 | 61201 | 61616 | 62535 |
| 60030 | 60083 | 60136 | 60194 | 60457 | 60544 | 60645 | 61244 | 61814 | 62554 |
| 60031 | 60084 | 60137 | 60195 | 60458 | 60555 | 60646 | 61264 | 61817 | 62573 |
| 60033 | 60085 | 60139 | 60201 | 60459 | 60561 | 60652 | 61265 | 61832 | 62613 |
| 60035 | 60087 | 60142 | 60202 | 60463 | 60563 | 60654 | 61301 | 61833 | 62633 |
| 60037 | 60088 | 60143 | 60203 | 60464 | 60564 | 60659 | 61326 | 61834 | 62642 |
| 60040 | 60089 | 60151 | 60208 | 60465 | 60601 | 60660 | 61327 | 61858 | 62664 |
| 60043 | 60090 | 60152 | 60401 | 60484 | 60602 | 60661 | 61329 | 61883 | 62675 |
| 60044 | 60091 | 60156 | 60417 | 60487 | 60603 |  |  |  |  |

**Indiana:**

Both JHS and MESA

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46256 | 46312 | 46320 | 46322 | 46323 | 46324 | 46327 | 46375 | 46394 | 46406 |
| 46311 | 46319 | 46321 |  |  |  |  |  |  |  |

JHS only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46055 | 46216 | 46220 | 46229 | 46236 | 47303 | 47305 | 47342 | 47383 | 47396 |
| 46140 | 46219 | 46226 | 46235 | 47302 | 47304 | 47320 |  |  |  |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 46032 | 46074 | 46301 | 46373 | 46407 | 46544 | 46601 | 46617 | 46637 | 47122 |
| 46033 | 46240 | 46304 | 46402 | 46408 | 46545 | 46613 | 46619 | 46939 | 47129 |
| 46037 | 46250 | 46342 | 46403 | 46409 | 46556 | 46614 | 46628 | 46975 | 47130 |
| 46038 | 46280 | 46350 | 46404 | 46506 | 46561 | 46615 | 46629 | 47117 | 47136 |
| 46060 | 46290 | 46360 | 46405 | 46530 | 46573 | 46616 | 46635 | 47119 | 47150 |
| 46062 |  |  |  |  |  |  |  |  |  |

**Iowa:**

MESA only

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 52722 | 52801 | 52802 | 52803 | 52804 | 52806 | 52807 |

**Kansas:**

Both JHS and MESA

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 66061 | 66062 | 66085 | 66210 | 66213 | 66219 | 66221 | 66223 |

JHS only

|  |  |
| --- | --- |
| 66013 | 66083 |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 66202 | 66204 | 66207 | 66209 | 66211 | 66212 | 66214 | 66215 | 66216 | 66224 |
| 66203 | 66206 | 66208 |  |  |  |  |  |  |  |

**Kentucky:**

JHS only

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 42101 | 42103 | 42104 | 42122 | 42234 |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 40047 | 40202 | 40208 | 40212 | 40216 | 40228 | 41011 | 41075 | 41102 | 41144 |
| 40109 | 40203 | 40209 | 40213 | 40217 | 40229 | 41071 | 41076 | 41129 | 41169 |
| 40118 | 40204 | 40210 | 40214 | 40218 | 40291 | 41073 | 41101 | 41139 | 41183 |
| 40165 | 40206 | 40211 | 40215 | 40219 | 40299 | 41074 |  |  |  |

**Louisiana:**

JHS only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 70049 | 70726 | 70769 | 70802 | 70808 | 70812 | 70816 | 70820 | 71220 | 71261 |
| 70068 | 70739 | 70776 | 70805 | 70809 | 70814 | 70817 | 70836 | 71229 | 71282 |
| 70084 | 70767 | 70801 | 70806 | 70810 | 70815 | 70819 |  |  |  |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 70001 | 70032 | 70087 | 70123 | 70501 | 70517 | 70592 | 71106 | 71112 | 71303 |
| 70002 | 70043 | 70094 | 70126 | 70503 | 70518 | 71101 | 71107 | 71119 | 71346 |
| 70003 | 70062 | 70117 | 70127 | 70506 | 70529 | 71103 | 71108 | 71129 | 71360 |
| 70006 | 70065 | 70121 | 70128 | 70507 | 70555 | 71104 | 71109 | 71301 | 71409 |
| 70031 | 70075 | 70122 | 70129 | 70508 | 70583 | 71105 | 71111 | 71302 | 71485 |

**Maryland:**

Both JHS and MESA

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20705 | 20722 | 20744 | 20782 | 20815 | 20852 | 20861 | 20895 | 20903 | 20906 |
| 20707 | 20737 | 20745 | 20783 | 20816 | 20853 | 20866 | 20901 | 20904 | 20910 |
| 20710 | 20740 | 20759 | 20784 | 20832 | 20860 | 20868 | 20902 | 20905 | 20912 |
| 20712 | 20743 | 20781 | 20785 |  |  |  |  |  |  |

JHS only

|  |  |
| --- | --- |
| 20607 | 20616 |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20611 | 20723 | 20855 | 21034 | 21085 | 21158 | 21225 | 21532 | 21734 | 21801 |
| 20613 | 20724 | 20862 | 21035 | 21087 | 21161 | 21226 | 21545 | 21737 | 21802 |
| 20619 | 20735 | 20871 | 21036 | 21090 | 21162 | 21227 | 21555 | 21738 | 21804 |
| 20620 | 20742 | 20872 | 21037 | 21093 | 21163 | 21228 | 21560 | 21740 | 21810 |
| 20622 | 20746 | 20874 | 21040 | 21102 | 21201 | 21229 | 21617 | 21742 | 21811 |
| 20623 | 20747 | 20876 | 21042 | 21104 | 21202 | 21230 | 21619 | 21746 | 21813 |
| 20629 | 20748 | 20877 | 21043 | 21105 | 21203 | 21231 | 21625 | 21754 | 21821 |
| 20632 | 20755 | 20878 | 21044 | 21108 | 21204 | 21234 | 21629 | 21755 | 21822 |
| 20634 | 20762 | 20879 | 21045 | 21111 | 21205 | 21235 | 21636 | 21756 | 21826 |
| 20636 | 20763 | 20880 | 21046 | 21113 | 21206 | 21236 | 21638 | 21757 | 21829 |
| 20640 | 20764 | 20882 | 21047 | 21114 | 21207 | 21237 | 21639 | 21769 | 21830 |
| 20645 | 20769 | 20886 | 21048 | 21117 | 21208 | 21239 | 21640 | 21771 | 21837 |
| 20646 | 20770 | 20889 | 21050 | 21120 | 21209 | 21240 | 21641 | 21773 | 21841 |
| 20650 | 20772 | 20896 | 21051 | 21122 | 21210 | 21241 | 21657 | 21774 | 21842 |
| 20653 | 20774 | 20899 | 21052 | 21128 | 21211 | 21244 | 21660 | 21776 | 21849 |
| 20657 | 20776 | 21001 | 21053 | 21130 | 21212 | 21250 | 21661 | 21779 | 21851 |
| 20662 | 20777 | 21005 | 21054 | 21131 | 21213 | 21251 | 21666 | 21781 | 21853 |
| 20664 | 20778 | 21009 | 21056 | 21133 | 21214 | 21252 | 21701 | 21782 | 21856 |
| 20670 | 20794 | 21010 | 21057 | 21136 | 21215 | 21286 | 21702 | 21783 | 21862 |
| 20688 | 20812 | 21012 | 21060 | 21140 | 21216 | 21287 | 21703 | 21784 | 21863 |
| 20693 | 20814 | 21013 | 21061 | 21144 | 21217 | 21401 | 21704 | 21787 | 21864 |
| 20701 | 20817 | 21014 | 21071 | 21146 | 21218 | 21402 | 21705 | 21788 | 21867 |
| 20706 | 20818 | 21015 | 21074 | 21152 | 21219 | 21403 | 21713 | 21791 | 21871 |
| 20708 | 20833 | 21017 | 21075 | 21153 | 21220 | 21405 | 21714 | 21793 | 21872 |
| 20711 | 20837 | 21028 | 21076 | 21154 | 21221 | 21409 | 21722 | 21794 | 21875 |
| 20715 | 20841 | 21029 | 21077 | 21155 | 21222 | 21502 | 21723 | 21795 | 21890 |
| 20716 | 20850 | 21030 | 21078 | 21156 | 21223 | 21524 | 21727 | 21797 | 21903 |
| 20720 | 20851 | 21031 | 21082 | 21157 | 21224 | 21529 | 21733 | 21798 | 21904 |
| 20721 | 20854 | 21032 | 21084 |  |  |  |  |  |  |

**Massachusetts:**

JHS only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 01864 | 01904 | 01921 | 01940 | 01960 | 01982 | 01984 | 02760 | 02769 | 02771 |
| 01880 | 01915 | 01923 | 01949 | 01970 | 01983 | 02703 |  |  |  |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 01002 | 01235 | 01731 | 02119 | 02132 | 02149 | 02420 | 02464 | 02563 | 02672 |
| 01003 | 01237 | 01773 | 02120 | 02134 | 02150 | 02421 | 02465 | 02601 | 02673 |
| 01007 | 01240 | 01801 | 02121 | 02135 | 02151 | 02445 | 02466 | 02630 | 02675 |
| 01033 | 01254 | 01890 | 02122 | 02138 | 02152 | 02446 | 02467 | 02632 | 02717 |
| 01035 | 01373 | 02108 | 02124 | 02139 | 02155 | 02451 | 02468 | 02635 | 02721 |
| 01038 | 01375 | 02109 | 02125 | 02140 | 02163 | 02452 | 02472 | 02637 | 02723 |
| 01054 | 01507 | 02110 | 02126 | 02141 | 02171 | 02453 | 02474 | 02648 | 02740 |
| 01072 | 01516 | 02111 | 02127 | 02142 | 02199 | 02458 | 02476 | 02649 | 02745 |
| 01201 | 01540 | 02113 | 02128 | 02143 | 02203 | 02459 | 02478 | 02652 | 02746 |
| 01223 | 01550 | 02114 | 02129 | 02144 | 02210 | 02460 | 02481 | 02655 | 02747 |
| 01224 | 01570 | 02115 | 02130 | 02145 | 02215 | 02461 | 02493 | 02657 | 02748 |
| 01225 | 01571 | 02116 | 02131 | 02148 | 02222 | 02462 | 02537 | 02668 | 02790 |
| 01226 | 01590 | 02118 |  |  |  |  |  |  |  |

**Michigan:**

JHS only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 49085 | 49103 | 49120 | 49301 | 49503 | 49505 | 49507 | 49509 | 49525 | 49546 |
| 49101 | 49107 | 49126 | 49418 | 49504 | 49506 | 49508 | 49512 | 49544 | 49548 |
| 49102 | 49111 |  |  |  |  |  |  |  |  |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 48025 | 48105 | 48125 | 48150 | 48185 | 48239 | 48322 | 48334 | 48382 | 49117 |
| 48033 | 48108 | 48126 | 48170 | 48186 | 48242 | 48323 | 48335 | 48390 | 49119 |
| 48034 | 48109 | 48127 | 48174 | 48189 | 48301 | 48324 | 48336 | 49106 | 49125 |
| 48101 | 48120 | 48128 | 48178 | 48197 | 48302 | 48328 | 48375 | 49115 | 49128 |
| 48103 | 48122 | 48135 | 48180 | 48198 | 48320 | 48331 | 48377 | 49116 | 49129 |
| 48104 | 48124 | 48141 | 48184 | 48228 |  |  |  |  |  |

**Minnesota:**

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 55001 | 55043 | 55092 | 55124 | 55316 | 55357 | 55405 | 55429 | 55701 | 55902 |
| 55003 | 55044 | 55101 | 55125 | 55317 | 55359 | 55406 | 55430 | 55707 | 55904 |
| 55005 | 55045 | 55102 | 55126 | 55318 | 55362 | 55407 | 55431 | 55718 | 55905 |
| 55006 | 55047 | 55103 | 55127 | 55321 | 55363 | 55408 | 55432 | 55720 | 55906 |
| 55008 | 55055 | 55104 | 55128 | 55322 | 55364 | 55409 | 55433 | 55733 | 55932 |
| 55009 | 55056 | 55105 | 55129 | 55324 | 55369 | 55410 | 55434 | 55749 | 55934 |
| 55011 | 55063 | 55106 | 55130 | 55325 | 55370 | 55411 | 55435 | 55756 | 55960 |
| 55012 | 55065 | 55107 | 55133 | 55327 | 55372 | 55412 | 55436 | 55757 | 56001 |
| 55013 | 55066 | 55108 | 55144 | 55328 | 55373 | 55413 | 55437 | 55767 | 56003 |
| 55014 | 55068 | 55109 | 55145 | 55330 | 55374 | 55414 | 55438 | 55779 | 56024 |
| 55016 | 55069 | 55110 | 55150 | 55331 | 55376 | 55415 | 55439 | 55783 | 56037 |
| 55017 | 55070 | 55111 | 55155 | 55336 | 55378 | 55416 | 55441 | 55795 | 56050 |
| 55018 | 55071 | 55112 | 55165 | 55337 | 55379 | 55417 | 55442 | 55802 | 56055 |
| 55020 | 55073 | 55113 | 55301 | 55340 | 55382 | 55418 | 55443 | 55803 | 56063 |
| 55024 | 55074 | 55114 | 55302 | 55342 | 55384 | 55419 | 55444 | 55804 | 56082 |
| 55025 | 55075 | 55115 | 55303 | 55343 | 55386 | 55420 | 55445 | 55805 | 56243 |
| 55026 | 55076 | 55116 | 55304 | 55344 | 55387 | 55421 | 55446 | 55806 | 56308 |
| 55027 | 55077 | 55117 | 55305 | 55345 | 55388 | 55422 | 55447 | 55807 | 56318 |
| 55031 | 55079 | 55118 | 55306 | 55346 | 55389 | 55423 | 55448 | 55808 | 56319 |
| 55032 | 55080 | 55119 | 55310 | 55347 | 55391 | 55424 | 55449 | 55810 | 56332 |
| 55033 | 55082 | 55120 | 55311 | 55352 | 55401 | 55425 | 55450 | 55811 | 56336 |
| 55038 | 55084 | 55121 | 55313 | 55353 | 55402 | 55426 | 55454 | 55812 | 56347 |
| 55040 | 55089 | 55122 | 55314 | 55355 | 55403 | 55427 | 55455 | 55814 | 56355 |
| 55041 | 55090 | 55123 | 55315 | 55356 | 55404 | 55428 | 55479 | 55901 | 56438 |
| 55042 |  |  |  |  |  |  |  |  |  |

**Mississippi:**

ENTIRE STATE WAS PURCHASED

**Missouri:**

JHS only

|  |  |
| --- | --- |
| 63701 | 63755 |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 63005 | 63074 | 63107 | 63113 | 63122 | 63143 | 63304 | 64082 | 64145 | 65215 |
| 63011 | 63101 | 63108 | 63114 | 63124 | 63146 | 64012 | 64083 | 64146 | 65239 |
| 63017 | 63102 | 63109 | 63115 | 63131 | 63147 | 64034 | 64086 | 64149 | 65257 |
| 63021 | 63103 | 63110 | 63116 | 63132 | 63155 | 64063 | 64114 | 65201 | 65259 |
| 63043 | 63104 | 63111 | 63118 | 63139 | 63301 | 64080 | 64131 | 65202 | 65270 |
| 63044 | 63105 | 63112 | 63120 | 63141 | 63303 | 64081 | 64134 | 65203 | 65278 |
| 63045 | 63106 |  |  |  |  |  |  |  |  |

**Nevada:**

Both JHS and MESA

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 89031 | 89108 | 89124 | 89129 | 89131 | 89135 | 89144 | 89147 | 89149 | 89191 |
| 89032 | 89117 | 89128 | 89130 | 89134 | 89143 | 89145 | 89148 |  |  |

JHS only

|  |  |  |
| --- | --- | --- |
| 89410 | 89448 | 89449 |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 89004 | 89025 | 89074 | 89102 | 89110 | 89121 | 89142 | 89178 | 89436 | 89509 |
| 89011 | 89030 | 89081 | 89103 | 89113 | 89122 | 89146 | 89179 | 89501 | 89511 |
| 89012 | 89048 | 89084 | 89104 | 89115 | 89123 | 89156 | 89183 | 89502 | 89512 |
| 89014 | 89052 | 89085 | 89106 | 89118 | 89138 | 89161 | 89431 | 89503 | 89521 |
| 89015 | 89060 | 89086 | 89107 | 89119 | 89139 | 89166 | 89433 | 89506 | 89523 |
| 89019 | 89061 | 89101 | 89109 | 89120 | 89141 | 89169 | 89434 | 89508 |  |

**New Hampshire:**

MESA only

|  |  |  |  |
| --- | --- | --- | --- |
| 03750 | 03755 | 03766 | 03784 |

**New Jersey:**

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 07001 | 07033 | 07069 | 07095 | 07304 | 07501 | 07630 | 07666 | 07860 | 08824 |
| 07002 | 07036 | 07070 | 07102 | 07305 | 07503 | 07631 | 07670 | 07881 | 08830 |
| 07003 | 07039 | 07071 | 07103 | 07306 | 07504 | 07632 | 07675 | 07901 | 08831 |
| 07008 | 07040 | 07072 | 07104 | 07307 | 07506 | 07640 | 07676 | 07922 | 08832 |
| 07010 | 07041 | 07073 | 07105 | 07310 | 07508 | 07641 | 07677 | 07928 | 08837 |
| 07011 | 07042 | 07074 | 07106 | 07311 | 07513 | 07642 | 07721 | 07932 | 08840 |
| 07016 | 07044 | 07075 | 07107 | 07401 | 07514 | 07643 | 07722 | 07933 | 08844 |
| 07017 | 07047 | 07076 | 07108 | 07407 | 07524 | 07644 | 07726 | 07974 | 08850 |
| 07018 | 07050 | 07077 | 07109 | 07410 | 07601 | 07645 | 07728 | 08502 | 08852 |
| 07020 | 07052 | 07078 | 07110 | 07417 | 07603 | 07646 | 07730 | 08512 | 08854 |
| 07021 | 07055 | 07079 | 07111 | 07423 | 07604 | 07647 | 07733 | 08528 | 08857 |
| 07022 | 07057 | 07080 | 07112 | 07430 | 07605 | 07648 | 07734 | 08536 | 08859 |
| 07023 | 07059 | 07081 | 07114 | 07432 | 07606 | 07649 | 07735 | 08540 | 08861 |
| 07024 | 07060 | 07083 | 07201 | 07436 | 07607 | 07650 | 07746 | 08553 | 08863 |
| 07026 | 07062 | 07086 | 07202 | 07446 | 07608 | 07652 | 07747 | 08558 | 08872 |
| 07027 | 07063 | 07087 | 07203 | 07450 | 07620 | 07656 | 07748 | 08810 | 08873 |
| 07028 | 07064 | 07088 | 07204 | 07452 | 07621 | 07657 | 07751 | 08812 | 08879 |
| 07029 | 07065 | 07090 | 07205 | 07458 | 07624 | 07660 | 07825 | 08816 | 08882 |
| 07030 | 07066 | 07092 | 07206 | 07463 | 07626 | 07661 | 07826 | 08817 | 08901 |
| 07031 | 07067 | 07093 | 07208 | 07481 | 07627 | 07662 | 07832 | 08820 | 08902 |
| 07032 | 07068 | 07094 | 07302 | 07495 | 07628 | 07663 | 07851 | 08823 | 08904 |

**New Mexico:**

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 87001 | 87043 | 87124 | 88003 | 88005 | 88008 | 88012 | 88046 | 88047 | 88063 |
| 87004 | 87047 | 88001 | 88004 | 88007 | 88011 | 88044 |  |  |  |

**New York:**

Both JHS and MESA

|  |  |  |  |
| --- | --- | --- | --- |
| 11901 | 11933 | 11949 | 11978 |

JHS only

|  |  |
| --- | --- |
| 11947 | 11970 |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 10001 | 10111 | 10459 | 10606 | 11001 | 11230 | 11422 | 11697 | 11980 | 12790 |
| 10002 | 10112 | 10460 | 10607 | 11003 | 11231 | 11423 | 11706 | 12037 | 13613 |
| 10003 | 10115 | 10461 | 10701 | 11004 | 11232 | 11424 | 11713 | 12075 | 13662 |
| 10004 | 10119 | 10462 | 10703 | 11005 | 11233 | 11425 | 11716 | 12184 | 13667 |
| 10005 | 10122 | 10463 | 10704 | 11010 | 11234 | 11426 | 11717 | 12406 | 14005 |
| 10006 | 10128 | 10464 | 10705 | 11020 | 11235 | 11427 | 11718 | 12410 | 14013 |
| 10007 | 10152 | 10465 | 10706 | 11021 | 11236 | 11428 | 11719 | 12421 | 14020 |
| 10008 | 10153 | 10466 | 10707 | 11023 | 11237 | 11429 | 11722 | 12429 | 14026 |
| 10009 | 10154 | 10467 | 10708 | 11024 | 11238 | 11430 | 11727 | 12430 | 14028 |
| 10010 | 10162 | 10468 | 10709 | 11030 | 11239 | 11432 | 11730 | 12438 | 14031 |
| 10011 | 10165 | 10469 | 10710 | 11040 | 11351 | 11433 | 11738 | 12440 | 14036 |
| 10012 | 10166 | 10470 | 10801 | 11042 | 11354 | 11434 | 11739 | 12441 | 14043 |
| 10013 | 10167 | 10471 | 10803 | 11050 | 11355 | 11435 | 11749 | 12455 | 14058 |
| 10014 | 10168 | 10472 | 10804 | 11096 | 11356 | 11436 | 11751 | 12465 | 14059 |
| 10016 | 10169 | 10473 | 10805 | 11101 | 11357 | 11451 | 11752 | 12471 | 14072 |
| 10017 | 10170 | 10474 | 10901 | 11102 | 11358 | 11501 | 11763 | 12474 | 14086 |
| 10018 | 10171 | 10475 | 10910 | 11103 | 11359 | 11507 | 11764 | 12480 | 14120 |
| 10019 | 10172 | 10502 | 10913 | 11104 | 11360 | 11514 | 11766 | 12486 | 14125 |
| 10020 | 10173 | 10503 | 10914 | 11105 | 11361 | 11516 | 11769 | 12487 | 14150 |
| 10021 | 10174 | 10504 | 10916 | 11106 | 11362 | 11530 | 11772 | 12493 | 14201 |
| 10022 | 10177 | 10510 | 10917 | 11109 | 11363 | 11542 | 11776 | 12515 | 14202 |
| 10023 | 10199 | 10514 | 10918 | 11201 | 11364 | 11545 | 11778 | 12521 | 14203 |
| 10024 | 10271 | 10520 | 10920 | 11203 | 11365 | 11547 | 11779 | 12528 | 14204 |
| 10025 | 10278 | 10522 | 10921 | 11204 | 11366 | 11548 | 11782 | 12529 | 14206 |
| 10026 | 10279 | 10523 | 10924 | 11205 | 11367 | 11549 | 11784 | 12534 | 14207 |
| 10027 | 10280 | 10528 | 10925 | 11206 | 11368 | 11550 | 11786 | 12538 | 14208 |
| 10028 | 10282 | 10530 | 10926 | 11207 | 11369 | 11552 | 11788 | 12542 | 14209 |
| 10029 | 10301 | 10532 | 10927 | 11208 | 11370 | 11553 | 11789 | 12547 | 14210 |
| 10030 | 10302 | 10533 | 10930 | 11209 | 11371 | 11554 | 11790 | 12553 | 14211 |
| 10031 | 10303 | 10538 | 10950 | 11210 | 11372 | 11557 | 11792 | 12561 | 14212 |
| 10032 | 10304 | 10543 | 10952 | 11211 | 11373 | 11559 | 11795 | 12565 | 14213 |
| 10033 | 10305 | 10550 | 10953 | 11212 | 11374 | 11560 | 11796 | 12575 | 14214 |
| 10034 | 10306 | 10552 | 10954 | 11213 | 11375 | 11563 | 11934 | 12577 | 14215 |
| 10035 | 10307 | 10553 | 10956 | 11214 | 11377 | 11565 | 11940 | 12601 | 14216 |
| 10036 | 10308 | 10562 | 10960 | 11215 | 11378 | 11568 | 11941 | 12603 | 14217 |
| 10037 | 10309 | 10567 | 10962 | 11216 | 11379 | 11570 | 11942 | 12604 | 14220 |
| 10038 | 10310 | 10570 | 10964 | 11217 | 11385 | 11576 | 11950 | 12701 | 14221 |
| 10039 | 10311 | 10573 | 10965 | 11218 | 11411 | 11577 | 11951 | 12738 | 14222 |
| 10040 | 10312 | 10577 | 10968 | 11219 | 11412 | 11579 | 11953 | 12763 | 14223 |
| 10041 | 10314 | 10580 | 10975 | 11220 | 11413 | 11580 | 11955 | 12769 | 14224 |
| 10044 | 10451 | 10583 | 10976 | 11221 | 11414 | 11581 | 11959 | 12775 | 14225 |
| 10048 | 10452 | 10591 | 10977 | 11222 | 11415 | 11590 | 11960 | 12777 | 14226 |
| 10065 | 10453 | 10594 | 10983 | 11223 | 11416 | 11596 | 11961 | 12779 | 14227 |
| 10069 | 10454 | 10595 | 10987 | 11224 | 11417 | 11598 | 11967 | 12781 | 14301 |
| 10075 | 10455 | 10601 | 10989 | 11225 | 11418 | 11691 | 11972 | 12784 | 14303 |
| 10103 | 10456 | 10603 | 10990 | 11226 | 11419 | 11693 | 11973 | 12785 | 14304 |
| 10108 | 10457 | 10604 | 10992 | 11228 | 11420 | 11694 | 11977 | 12789 | 14305 |
| 10110 | 10458 | 10605 | 10994 | 11229 | 11421 |  |  |  |  |

**North Carolina:**

Both JHS and MESA

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27545 | 27603 | 27605 | 27607 | 27609 | 27612 | 28027 | 28075 | 28262 | 28269 |
| 27601 | 27604 | 27606 | 27608 | 27610 | 27616 | 28036 | 28078 |  |  |

JHS only

|  |
| --- |
| 27520 |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 27006 | 27054 | 27262 | 27410 | 27617 | 28117 | 28273 | 28374 | 28555 | 28714 |
| 27007 | 27055 | 27263 | 27429 | 27701 | 28120 | 28277 | 28375 | 28556 | 28716 |
| 27009 | 27101 | 27264 | 27455 | 27703 | 28125 | 28278 | 28379 | 28571 | 28718 |
| 27010 | 27102 | 27265 | 27502 | 27704 | 28134 | 28280 | 28383 | 28574 | 28721 |
| 27011 | 27103 | 27278 | 27508 | 27705 | 28137 | 28282 | 28384 | 28609 | 28724 |
| 27012 | 27104 | 27282 | 27510 | 27706 | 28144 | 28301 | 28387 | 28610 | 28726 |
| 27013 | 27105 | 27283 | 27511 | 27707 | 28146 | 28303 | 28388 | 28612 | 28730 |
| 27014 | 27106 | 27284 | 27513 | 27709 | 28147 | 28304 | 28390 | 28613 | 28731 |
| 27016 | 27107 | 27285 | 27514 | 27712 | 28164 | 28305 | 28394 | 28619 | 28732 |
| 27017 | 27109 | 27292 | 27516 | 27713 | 28166 | 28306 | 28395 | 28621 | 28735 |
| 27018 | 27110 | 27293 | 27517 | 27863 | 28173 | 28307 | 28401 | 28625 | 28739 |
| 27019 | 27114 | 27295 | 27518 | 27882 | 28174 | 28311 | 28403 | 28628 | 28742 |
| 27020 | 27115 | 27299 | 27519 | 28006 | 28202 | 28312 | 28405 | 28630 | 28743 |
| 27021 | 27116 | 27301 | 27523 | 28012 | 28203 | 28314 | 28409 | 28634 | 28748 |
| 27022 | 27117 | 27310 | 27530 | 28023 | 28204 | 28315 | 28411 | 28636 | 28756 |
| 27023 | 27120 | 27312 | 27531 | 28031 | 28205 | 28326 | 28412 | 28642 | 28757 |
| 27024 | 27127 | 27313 | 27534 | 28032 | 28206 | 28327 | 28423 | 28645 | 28758 |
| 27025 | 27130 | 27342 | 27542 | 28034 | 28207 | 28328 | 28429 | 28655 | 28759 |
| 27027 | 27155 | 27357 | 27549 | 28052 | 28208 | 28333 | 28432 | 28670 | 28762 |
| 27028 | 27157 | 27358 | 27555 | 28054 | 28209 | 28340 | 28442 | 28671 | 28768 |
| 27030 | 27201 | 27360 | 27559 | 28056 | 28210 | 28341 | 28450 | 28673 | 28772 |
| 27040 | 27202 | 27370 | 27560 | 28071 | 28211 | 28343 | 28451 | 28676 | 28773 |
| 27041 | 27214 | 27374 | 27568 | 28077 | 28212 | 28345 | 28472 | 28677 | 28778 |
| 27042 | 27215 | 27376 | 27569 | 28079 | 28213 | 28348 | 28479 | 28678 | 28787 |
| 27043 | 27217 | 27377 | 27571 | 28080 | 28214 | 28350 | 28510 | 28681 | 28790 |
| 27045 | 27235 | 27401 | 27576 | 28092 | 28215 | 28351 | 28516 | 28682 | 28791 |
| 27046 | 27239 | 27402 | 27587 | 28098 | 28216 | 28352 | 28529 | 28689 | 28792 |
| 27047 | 27244 | 27403 | 27591 | 28101 | 28217 | 28358 | 28532 | 28690 | 28801 |
| 27048 | 27249 | 27405 | 27596 | 28103 | 28223 | 28360 | 28540 | 28704 | 28803 |
| 27050 | 27253 | 27406 | 27597 | 28105 | 28226 | 28364 | 28543 | 28708 | 28804 |
| 27051 | 27258 | 27407 | 27613 | 28110 | 28227 | 28365 | 28546 | 28709 | 28805 |
| 27052 | 27260 | 27408 | 27614 | 28112 | 28244 | 28366 | 28547 | 28711 | 28806 |
| 27053 | 27261 | 27409 | 27615 | 28115 | 28270 | 28369 | 28551 | 28712 | 28904 |

**North Dakota:**

MESA only

|  |  |  |  |
| --- | --- | --- | --- |
| 58429 | 58448 | 58479 | 58492 |

**Ohio:**

Both MESA and JHS

|  |
| --- |
| 45680 |

JHS only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 45302 | 45363 | 45365 | 45380 | 45388 | 45619 | 45669 | 45845 | 45860 | 45865 |
| 45333 |  |  |  |  |  |  |  |  |  |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 43402 | 43604 | 43619 | 44121 | 44146 | 45068 | 45213 | 45229 | 45244 | 45429 |
| 43412 | 43605 | 43620 | 44122 | 44805 | 45069 | 45215 | 45230 | 45246 | 45439 |
| 43430 | 43607 | 43624 | 44124 | 44866 | 45202 | 45216 | 45231 | 45251 | 45440 |
| 43447 | 43608 | 44022 | 44125 | 44903 | 45206 | 45217 | 45232 | 45255 | 45449 |
| 43460 | 43609 | 44104 | 44127 | 45005 | 45207 | 45218 | 45236 | 45305 | 45458 |
| 43465 | 43611 | 44105 | 44128 | 45011 | 45208 | 45219 | 45237 | 45342 | 45459 |
| 43537 | 43614 | 44106 | 44131 | 45014 | 45209 | 45220 | 45240 | 45370 | 45475 |
| 43551 | 43615 | 44118 | 44137 | 45015 | 45210 | 45226 | 45241 | 45409 | 45638 |
| 43566 | 43616 | 44120 | 44139 | 45066 | 45212 | 45227 | 45243 | 45419 | 45645 |
| 43602 | 43618 |  |  |  |  |  |  |  |  |

**Oklahoma:**

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 73020 | 73066 | 73110 | 73115 | 73121 | 73130 | 73135 | 73141 | 73145 | 73150 |
| 73049 | 73084 | 73111 | 73117 | 73129 |  |  |  |  |  |

**Oregon:**

Both MESA and JHS

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 97201 | 97204 | 97209 | 97212 | 97215 | 97218 | 97220 | 97222 | 97227 | 97232 |
| 97202 | 97205 | 97210 | 97213 | 97216 | 97219 | 97221 | 97225 | 97229 | 97266 |
| 97203 | 97206 | 97211 | 97214 | 97217 |  |  |  |  |  |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 97009 | 97030 | 97060 | 97086 | 97230 | 97239 | 97303 | 97317 | 97396 | 97404 |
| 97015 | 97034 | 97062 | 97089 | 97231 | 97267 | 97304 | 97347 | 97401 | 97405 |
| 97024 | 97035 | 97068 | 97208 | 97233 | 97301 | 97305 | 97378 | 97402 | 97408 |
| 97027 | 97045 | 97080 | 97223 | 97236 | 97302 | 97306 | 97392 | 97403 | 97448 |

**Pennsylvania:**

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 15006 | 15131 | 15216 | 15611 | 17015 | 17311 | 17408 | 18036 | 18216 | 19010 |
| 15007 | 15132 | 15217 | 15617 | 17025 | 17313 | 17505 | 18037 | 18219 | 19073 |
| 15024 | 15133 | 15218 | 15623 | 17040 | 17316 | 17529 | 18046 | 18221 | 19085 |
| 15025 | 15135 | 15219 | 15626 | 17043 | 17322 | 17560 | 18049 | 18222 | 19087 |
| 15028 | 15137 | 15220 | 15632 | 17050 | 17325 | 17562 | 18052 | 18223 | 19301 |
| 15034 | 15145 | 15221 | 15633 | 17053 | 17327 | 17566 | 18062 | 18224 | 19312 |
| 15035 | 15146 | 15222 | 15634 | 17055 | 17329 | 17572 | 18064 | 18225 | 19333 |
| 15037 | 15147 | 15223 | 15636 | 17070 | 17331 | 17576 | 18067 | 18230 | 19335 |
| 15044 | 15148 | 15224 | 15642 | 17081 | 17339 | 17579 | 18068 | 18231 | 19343 |
| 15045 | 15201 | 15226 | 15644 | 17090 | 17340 | 17584 | 18069 | 18234 | 19355 |
| 15047 | 15203 | 15227 | 15665 | 17093 | 17344 | 17602 | 18087 | 18237 | 19403 |
| 15084 | 15204 | 15232 | 15672 | 17101 | 17349 | 17948 | 18092 | 18239 | 19406 |
| 15085 | 15206 | 15233 | 15675 | 17102 | 17350 | 18011 | 18101 | 18248 | 19425 |
| 15088 | 15207 | 15234 | 15691 | 17103 | 17355 | 18014 | 18102 | 18249 | 19460 |
| 15090 | 15208 | 15235 | 15692 | 17104 | 17356 | 18015 | 18103 | 18254 | 19464 |
| 15101 | 15209 | 15236 | 16002 | 17109 | 17360 | 18016 | 18104 | 18255 | 19465 |
| 15104 | 15210 | 15237 | 16046 | 17110 | 17361 | 18017 | 18105 | 18301 | 19470 |
| 15110 | 15211 | 15238 | 16056 | 17111 | 17362 | 18018 | 18106 | 18302 | 19475 |
| 15112 | 15212 | 15260 | 16059 | 17112 | 17363 | 18020 | 18109 | 18324 | 19508 |
| 15116 | 15213 | 15290 | 17007 | 17113 | 17364 | 18032 | 18201 | 18328 | 19518 |
| 15120 | 15214 | 15332 | 17011 | 17120 | 17404 | 18034 | 18202 | 18371 | 19520 |
| 15122 | 15215 | 15601 | 17013 | 17301 |  |  |  |  |  |

**Puerto Rico:**

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 00602 | 00604 | 00623 | 00662 | 00676 | 00680 | 00682 | 00683 | 00685 | 00690 |
| 00603 | 00622 | 00660 | 00667 | 00678 |  |  |  |  |  |

**Rhode Island:**

JHS only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 02860 | 02863 | 02865 | 02904 | 02906 | 02908 | 02911 | 02914 | 02916 | 02917 |
| 02861 | 02864 | 02903 | 02905 | 02907 | 02909 |  |  |  |  |

MESA only

|  |
| --- |
| 02878 |

**South Carolina:**

JHS only

|  |  |  |
| --- | --- | --- |
| 29821 | 29824 | 29927 |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 29020 | 29406 | 29429 | 29471 | 29501 | 29571 | 29609 | 29650 | 29710 | 29907 |
| 29045 | 29407 | 29432 | 29472 | 29505 | 29574 | 29611 | 29662 | 29715 | 29909 |
| 29078 | 29409 | 29450 | 29475 | 29506 | 29584 | 29613 | 29673 | 29720 | 29910 |
| 29128 | 29412 | 29451 | 29481 | 29512 | 29592 | 29614 | 29687 | 29730 | 29920 |
| 29161 | 29414 | 29455 | 29482 | 29520 | 29596 | 29615 | 29690 | 29732 | 29926 |
| 29401 | 29418 | 29456 | 29483 | 29532 | 29601 | 29617 | 29707 | 29902 | 29935 |
| 29403 | 29420 | 29461 | 29485 | 29541 | 29605 | 29635 | 29708 | 29904 | 29936 |
| 29404 | 29423 | 29464 | 29492 | 29565 | 29607 | 29640 | 29709 | 29906 | 29940 |
| 29405 | 29424 | 29466 |  |  |  |  |  |  |  |

**South Dakota:**

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 57032 | 57104 | 57106 | 57108 | 57117 | 57262 | 57754 | 57783 | 57785 | 57793 |
| 57103 | 57105 | 57107 | 57110 | 57197 | 57732 |  |  |  |  |

**Tennessee:**

Both MESA and JHS

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37027 | 37067 | 37076 | 37122 | 37203 | 37206 | 37211 | 37215 | 37220 | 38125 |
| 37064 | 37069 | 37115 | 37138 | 37204 | 37210 | 37214 | 37217 | 38118 | 38141 |

JHS only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37010 | 37043 | 38002 | 38028 | 38068 | 38106 | 38111 | 38116 | 38120 | 38134 |
| 37013 | 37086 | 38011 | 38036 | 38103 | 38107 | 38112 | 38117 | 38126 | 38138 |
| 37014 | 37135 | 38017 | 38049 | 38104 | 38108 | 38114 | 38119 | 38127 | 38139 |
| 37032 | 37167 | 38018 | 38060 | 38105 | 38109 | 38115 |  |  |  |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37066 | 37110 | 37207 | 37212 | 37218 | 37240 | 37246 | 37862 | 37865 | 37876 |
| 37072 | 37201 | 37208 | 37213 | 37219 | 37243 | 37738 | 37863 | 37868 | 38581 |
| 37075 | 37205 | 37209 | 37216 | 37228 |  |  |  |  |  |

**Texas:**

Both MESA and JHS

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 75006 | 75052 | 75234 | 76017 | 76120 | 77030 | 77063 | 77094 | 78201 | 78234 |
| 75007 | 75056 | 76001 | 76018 | 76155 | 77031 | 77071 | 77096 | 78213 | 78237 |
| 75010 | 75060 | 76002 | 76021 | 77004 | 77035 | 77072 | 77098 | 78217 | 78238 |
| 75024 | 75061 | 76006 | 76022 | 77005 | 77036 | 77074 | 77099 | 78218 | 78239 |
| 75025 | 75062 | 76010 | 76034 | 77006 | 77042 | 77077 | 77401 | 78219 | 78240 |
| 75034 | 75063 | 76011 | 76039 | 77007 | 77045 | 77079 | 77469 | 78227 | 78244 |
| 75035 | 75068 | 76012 | 76040 | 77019 | 77046 | 77081 | 77477 | 78228 | 78245 |
| 75038 | 75093 | 76013 | 76051 | 77024 | 77054 | 77082 | 77478 | 78229 | 78249 |
| 75039 | 75104 | 76014 | 76053 | 77025 | 77056 | 77083 | 77489 | 78230 | 78250 |
| 75050 | 75220 | 76015 | 76063 | 77027 | 77057 | 77085 | 78109 | 78233 | 78251 |
| 75051 | 75229 |  |  |  |  |  |  |  |  |

JHS only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 75019 | 75433 | 76249 | 77013 | 77032 | 77051 | 77070 | 77093 | 77388 | 77583 |
| 75022 | 75448 | 76259 | 77014 | 77033 | 77053 | 77073 | 77338 | 77389 | 77584 |
| 75028 | 76016 | 76266 | 77016 | 77037 | 77055 | 77078 | 77346 | 77396 | 78101 |
| 75057 | 76060 | 77002 | 77020 | 77038 | 77060 | 77080 | 77373 | 77450 | 78148 |
| 75065 | 76201 | 77003 | 77021 | 77043 | 77064 | 77084 | 77375 | 77459 | 78152 |
| 75067 | 76205 | 77008 | 77022 | 77044 | 77066 | 77086 | 77379 | 77532 | 78220 |
| 75077 | 76207 | 77009 | 77023 | 77047 | 77067 | 77087 | 77380 | 77545 | 78222 |
| 75078 | 76208 | 77010 | 77026 | 77048 | 77068 | 77090 | 77381 | 77578 | 78263 |
| 75422 | 76226 | 77011 | 77028 | 77049 | 77069 | 77092 | 77386 | 77581 | 79039 |
| 75428 | 76227 | 77012 | 77029 | 77050 |  |  |  |  |  |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 75001 | 75089 | 75208 | 75961 | 76182 | 77089 | 78069 | 78231 | 78566 | 79906 |
| 75002 | 75098 | 75209 | 75962 | 76244 | 77402 | 78073 | 78232 | 78572 | 79907 |
| 75013 | 75115 | 75211 | 75964 | 76248 | 77498 | 78202 | 78247 | 78573 | 79908 |
| 75023 | 75116 | 75212 | 75965 | 76262 | 77502 | 78203 | 78248 | 78574 | 79912 |
| 75032 | 75126 | 75218 | 76054 | 76501 | 77503 | 78204 | 78254 | 78578 | 79915 |
| 75041 | 75132 | 75227 | 76065 | 76502 | 77504 | 78205 | 78256 | 78597 | 79916 |
| 75043 | 75137 | 75228 | 76092 | 76504 | 77505 | 78207 | 78257 | 78852 | 79920 |
| 75048 | 75149 | 75235 | 76106 | 76508 | 77506 | 78208 | 78258 | 78861 | 79922 |
| 75054 | 75150 | 75236 | 76111 | 76513 | 77507 | 78209 | 78259 | 79836 | 79925 |
| 75069 | 75166 | 75237 | 76117 | 76528 | 77536 | 78210 | 78260 | 79849 | 79927 |
| 75070 | 75173 | 75247 | 76118 | 76544 | 77571 | 78212 | 78261 | 79901 | 79928 |
| 75074 | 75180 | 75248 | 76131 | 76557 | 77586 | 78215 | 78264 | 79902 | 79930 |
| 75075 | 75181 | 75249 | 76137 | 77017 | 77587 | 78216 | 78501 | 79903 | 79935 |
| 75080 | 75182 | 75252 | 76148 | 77034 | 77598 | 78224 | 78503 | 79904 | 79936 |
| 75087 | 75189 | 75287 | 76177 | 77059 | 78065 | 78226 | 78504 | 79905 | 79938 |
| 75088 | 75207 | 75390 | 76180 | 77062 |  |  |  |  |  |

**Utah:**

JHS only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 84047 | 84084 | 84094 | 84106 | 84108 | 84115 | 84119 | 84121 | 84123 | 84124 |
| 84070 | 84093 | 84105 | 84107 | 84109 | 84117 |  |  |  |  |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 84318 | 84326 | 84335 | 84733 | 84737 | 84738 | 84765 | 84770 | 84780 | 84790 |
| 84321 | 84332 | 84341 |  |  |  |  |  |  |  |

**Vermont:**

MESA only

|  |  |  |
| --- | --- | --- |
| 05001 | 05055 | 05088 |

**Virginia:**

Both MESA and JHS

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20112 | 22101 | 22193 | 22203 | 22206 | 22211 | 22303 | 22306 | 22309 | 22312 |
| 20124 | 22150 | 22201 | 22204 | 22207 | 22301 | 22304 | 22307 | 22310 | 22314 |
| 22039 | 22191 | 22202 | 22205 | 22209 | 22302 | 22305 | 22308 | 22311 | 22315 |
| 22079 | 22192 |  |  |  |  |  |  |  |  |

JHS only

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 20111 | 22015 | 22060 | 22125 | 22153 |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20115 | 22032 | 22185 | 23139 | 23233 | 23432 | 23702 | 23901 | 24121 | 24381 |
| 20120 | 22033 | 22213 | 23148 | 23234 | 23434 | 23703 | 23909 | 24124 | 24422 |
| 20144 | 22035 | 22214 | 23173 | 23235 | 23435 | 23704 | 23917 | 24134 | 24426 |
| 20151 | 22041 | 22448 | 23219 | 23236 | 23464 | 23707 | 23927 | 24137 | 24445 |
| 20164 | 22042 | 22454 | 23220 | 23237 | 23502 | 23708 | 23942 | 24139 | 24448 |
| 20165 | 22043 | 22485 | 23221 | 23238 | 23504 | 23709 | 23943 | 24147 | 24457 |
| 20171 | 22044 | 22554 | 23222 | 23298 | 23505 | 23801 | 23960 | 24150 | 24460 |
| 20186 | 22046 | 22560 | 23223 | 23320 | 23507 | 23803 | 23966 | 24161 | 24474 |
| 20187 | 22066 | 22639 | 23224 | 23321 | 23508 | 23805 | 23968 | 24176 | 24527 |
| 20190 | 22102 | 23023 | 23225 | 23322 | 23509 | 23806 | 24053 | 24184 | 24529 |
| 20191 | 22124 | 23039 | 23226 | 23323 | 23510 | 23832 | 24076 | 24317 | 24531 |
| 20198 | 22134 | 23103 | 23227 | 23324 | 23511 | 23834 | 24085 | 24328 | 24549 |
| 22003 | 22172 | 23112 | 23228 | 23325 | 23513 | 23836 | 24093 | 24333 | 24557 |
| 22025 | 22180 | 23113 | 23229 | 23356 | 23517 | 23842 | 24094 | 24343 | 24565 |
| 22026 | 22181 | 23115 | 23230 | 23395 | 23523 | 23860 | 24104 | 24351 | 24580 |
| 22030 | 22182 | 23120 | 23231 | 23415 | 23701 | 23875 | 24120 | 24352 | 24589 |
| 22031 |  |  |  |  |  |  |  |  |  |

**Washington:**

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 98004 | 98040 | 98107 | 98121 | 98174 | 98236 | 98342 | 98406 | 98467 | 98683 |
| 98012 | 98043 | 98108 | 98122 | 98177 | 98275 | 98345 | 98407 | 98607 | 98684 |
| 98020 | 98070 | 98109 | 98125 | 98195 | 98290 | 98346 | 98408 | 98660 | 99005 |
| 98021 | 98087 | 98110 | 98126 | 98199 | 98296 | 98366 | 98409 | 98661 | 99021 |
| 98026 | 98101 | 98112 | 98133 | 98201 | 98310 | 98370 | 98416 | 98662 | 99205 |
| 98033 | 98102 | 98115 | 98134 | 98203 | 98311 | 98383 | 98418 | 98663 | 99207 |
| 98034 | 98103 | 98116 | 98136 | 98204 | 98315 | 98392 | 98421 | 98664 | 99208 |
| 98036 | 98104 | 98117 | 98144 | 98205 | 98332 | 98402 | 98422 | 98665 | 99217 |
| 98037 | 98105 | 98118 | 98154 | 98207 | 98333 | 98403 | 98465 | 98682 | 99218 |
| 98039 | 98106 | 98119 | 98164 | 98208 | 98335 | 98405 | 98466 |  |  |

**Washington DC:**

Both MESA and JHS

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20001 | 20004 | 20007 | 20010 | 20015 | 20017 | 20019 | 20024 | 20036 | 20319 |
| 20002 | 20005 | 20008 | 20011 | 20016 | 20018 | 20020 | 20032 | 20037 | 20336 |
| 20003 | 20006 | 20009 | 20012 |  |  |  |  |  |  |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 20045 | 20064 | 20230 | 20260 | 20332 | 20390 | 20427 | 20520 | 20551 | 20565 |
| 20052 | 20202 | 20240 | 20307 | 20373 | 20405 | 20506 | 20535 | 20553 | 20566 |
| 20053 | 20204 | 20245 | 20317 | 20375 | 20418 | 20510 | 20540 | 20560 | 20593 |
| 20057 | 20228 |  |  |  |  |  |  |  |  |

**West Virginia:**

JHS only

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 25701 | 25702 | 25703 | 25704 | 25705 |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 24918 | 24963 | 25403 | 25411 | 25420 | 25427 | 25443 | 26719 | 26753 | 26767 |
| 24951 | 25401 | 25404 | 25419 |  |  |  |  |  |  |

**Wisconsin:**

Both MESA and JHS

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 53110 | 53154 | 53207 | 53212 | 53217 | 53221 | 53558 | 53704 | 53711 | 53715 |
| 53129 | 53172 | 53208 | 53214 | 53218 | 53227 | 53562 | 53705 | 53713 | 53716 |
| 53130 | 53204 | 53209 | 53215 | 53219 | 53228 | 53597 | 53706 | 53714 | 53718 |
| 53132 | 53206 | 53211 | 53216 | 53220 | 53235 | 53703 |  |  |  |

JHS only

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 53202 | 53203 | 53205 | 53210 | 53213 | 53222 | 53225 | 53226 | 53233 |

MESA only

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 53092 | 53191 | 53590 | 54003 | 54016 | 54082 | 54313 | 54727 | 54810 | 54853 |
| 53115 | 53195 | 53593 | 54004 | 54017 | 54115 | 54612 | 54729 | 54814 | 54858 |
| 53121 | 53223 | 53598 | 54005 | 54020 | 54155 | 54625 | 54748 | 54817 | 54870 |
| 53125 | 53295 | 53717 | 54006 | 54021 | 54301 | 54627 | 54750 | 54821 | 54871 |
| 53142 | 53511 | 53719 | 54007 | 54022 | 54302 | 54629 | 54759 | 54824 | 54875 |
| 53143 | 53525 | 53726 | 54009 | 54023 | 54303 | 54630 | 54762 | 54837 | 54876 |
| 53147 | 53532 | 53792 | 54011 | 54024 | 54304 | 54636 | 54767 | 54840 | 54880 |
| 53151 | 53546 | 54001 | 54014 | 54025 | 54307 | 54661 | 54769 | 54843 | 54889 |
| 53158 | 53575 | 54002 | 54015 | 54026 | 54311 | 54723 | 54801 | 54850 | 54891 |
| 53184 |  |  |  |  |  |  |  |  |  |

# APPENDIX D: LIST OF STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES PURCHASED AND CLASSIFICATION

List of SIC codes purchased from Walls and Associates. Coding is indicated for each of the broad categories. Note: for the Social Engagement and Walking, NF indicates the non-food based coding and FD indicates the food based coding. A “Y” in the Social Service column indicates that the SIC code was purchased for social services but coding is still pending.

| **SICCode** | **SIC Description** | **RECREATION** | **FOOD** | **SOCIAL ENGAGEMENT** | **SOCIAL SERVICE** | **WALKING** |
| --- | --- | --- | --- | --- | --- | --- |
| 43110000 | U.S. Postal Service |  |  |  |  | NF1 |
| 54110000 | Grocery stores |  | 1,3 |  |  | FD1 |
| 54110100 | Supermarkets |  | 1,3 |  |  | FD1 |
| 54110101 | Supermarkets, chain |  | 1,3 |  |  | FD1 |
| 54110102 | Supermarkets, greater than 100,000 square feet (hypermarket) |  | 1,3 |  |  | FD1 |
| 54110103 | Supermarkets, independent |  | 1,3 |  |  | FD1 |
| 54110104 | Supermarkets, 55,000 - 65,000 square feet (superstore) |  | 1,3 |  |  | FD1 |
| 54110105 | Supermarkets, 66,000 - 99,000 square feet |  | 1,3 |  |  | FD1 |
| 54110200 | Convenience stores |  | 4 |  |  | FD1 |
| 54110201 | Convenience stores, chain |  | 4 |  |  | FD1 |
| 54110202 | Convenience stores, independent |  | 4 |  |  | FD1 |
| 54119900 | Grocery stores, nec |  | 1,3 |  |  | FD1 |
| 54119901 | Cooperative food stores |  | 1,3 |  |  | FD1 |
| 54119902 | Delicatessen stores |  | 5 |  |  | FD1 |
| 54119903 | Frozen food and freezer plans, except meat |  | 15 |  |  | FD1 |
| 54119904 | Grocery stores, chain |  | 1,3 |  |  | FD1 |
| 54119905 | Grocery stores, independent |  | 1,3 |  |  | FD1 |
| 54210000 | Meat and fish markets |  | 5 |  |  | FD1 |
| 54210100 | Fish and seafood markets |  | 5 |  |  | FD1 |
| 54210101 | Fish markets |  | 5 |  |  | FD1 |
| 54210102 | Seafood markets |  | 5 |  |  | FD1 |
| 54210200 | Meat markets, including freezer provisioners |  | 5 |  |  | FD1 |
| 54210201 | Food and freezer plans, meat |  | 5 |  |  | FD1 |
| 54210202 | Freezer provisioners, meat |  | 5 |  |  | FD1 |
| 54310000 | Fruit and vegetable markets |  | 6 |  |  | FD1 |
| 54319900 | Fruit and vegetable markets, nec |  | 6 |  |  | FD1 |
| 54319901 | Fruit stands or markets |  | 6 |  |  | FD1 |
| 54319902 | Vegetable stands or markets |  | 6 |  |  | FD1 |
| 54410000 | Candy, nut, and confectionery stores |  | 7 |  |  | FD1 |
| 54419900 | Candy, nut, and confectionery stores, nec |  | 7 |  |  | FD1 |
| 54419901 | Candy |  | 7 |  |  | FD1 |
| 54419902 | Confectionery |  | 7 |  |  | FD1 |
| 54419903 | Confectionery produced for direct sale on the premises |  | 7 |  |  | FD1 |
| 54419904 | Nuts |  | 7 |  |  | FD1 |
| 54419905 | Popcorn, including caramel corn |  | 7 |  |  | FD1 |
| 54510000 | Dairy products stores |  | 5 |  |  | FD1 |
| 54519900 | Dairy products stores, nec |  | 5 |  |  | FD1 |
| 54519901 | Butter |  | 5 |  |  | FD1 |
| 54519902 | Cheese |  | 5 |  |  | FD1 |
| 54519903 | Ice cream (packaged) |  | 7 |  |  | FD1 |
| 54519904 | Milk |  | 5 |  |  | FD1 |
| 54610000 | Retail bakeries |  | 7 |  |  | FD1 |
| 54619900 | Retail bakeries, nec |  | 7 |  |  | FD1 |
| 54619901 | Bagels |  | 7 |  |  | FD1 |
| 54619902 | Bread |  | 7 |  |  | FD1 |
| 54619903 | Cakes |  | 7 |  |  | FD1 |
| 54619904 | Cookies |  | 7 |  |  | FD1 |
| 54619905 | Doughnuts |  | 7 |  |  | FD1 |
| 54619906 | Pastries |  | 7 |  |  | FD1 |
| 54619907 | Pies |  | 7 |  |  | FD1 |
| 54619908 | Pretzels |  | 7 |  |  | FD1 |
| 54990000 | Miscellaneous food stores |  | 15 |  |  | FD1 |
| 54990100 | Health and dietetic food stores |  | 8 |  |  | FD1 |
| 54990101 | Dietetic foods |  | 8 |  |  | FD1 |
| 54990102 | Health foods |  | 8 |  |  | FD1 |
| 54990103 | Vitamin food stores |  | 8 |  |  | FD1 |
| 54990200 | Beverage stores |  | 10 |  |  | FD3 |
| 54990201 | Coffee |  | 10 |  |  | FD3 |
| 54990202 | Juices, fruit or vegetable |  | 10 |  |  | FD3 |
| 54990203 | Soft drinks |  | 10 |  |  | FD3 |
| 54990204 | Tea |  | 10 |  |  | FD3 |
| 54990205 | Water: distilled mineral or spring |  | 10 |  |  | FD3 |
| 54999900 | Miscellaneous food stores, nec |  | 15 |  |  | FD1 |
| 54999901 | Dried fruit |  | 7 |  |  | FD1 |
| 54999902 | Eggs and poultry |  | 5 |  |  | FD1 |
| 54999903 | Food gift baskets |  | 15 |  |  | FD1 |
| 54999904 | Gourmet food stores |  | 5 |  |  | FD1 |
| 54999905 | Spices and herbs |  | 15 |  |  | FD1 |
| 58120000 | Eating places |  | 14 | FD1 |  | FD2 |
| 58120100 | Ethnic food restaurants |  | 14 | FD1 |  | FD2 |
| 58120101 | American restaurant |  | 14 | FD1 |  | FD2 |
| 58120102 | Cajun restaurant |  | 14 | FD1 |  | FD2 |
| 58120103 | Chinese restaurant |  | 14 | FD1 |  | FD2 |
| 58120104 | French restaurant |  | 14 | FD1 |  | FD2 |
| 58120105 | German restaurant |  | 14 | FD1 |  | FD2 |
| 58120106 | Greek restaurant |  | 14 | FD1 |  | FD2 |
| 58120107 | Indian/Pakistan restaurant |  | 14 | FD1 |  | FD2 |
| 58120108 | Italian restaurant |  | 14 | FD1 |  | FD2 |
| 58120109 | Japanese restaurant |  | 14 | FD1 |  | FD2 |
| 58120110 | Korean restaurant |  | 14 | FD1 |  | FD2 |
| 58120111 | Lebanese restaurant |  | 14 | FD1 |  | FD2 |
| 58120112 | Mexican restaurant |  | 14 | FD1 |  | FD2 |
| 58120113 | Spanish restaurant |  | 14 | FD1 |  | FD2 |
| 58120114 | Sushi bar |  | 14 | FD1 |  | FD2 |
| 58120115 | Thai restaurant |  | 14 | FD1 |  | FD2 |
| 58120116 | Vietnamese restaurant |  | 14 | FD1 |  | FD2 |
| 58120117 | Pakistani restaurant |  | 14 | FD1 |  | FD2 |
| 58120200 | Ice cream, soft drink and soda fountain stands |  | 7 | FD1 |  | FD2 |
| 58120201 | Concessionaire |  | 14 | FD1 |  | FD2 |
| 58120202 | Frozen yogurt stand |  | 7 | FD1 |  | FD2 |
| 58120203 | Ice cream stands or dairy bars |  | 7 | FD1 |  | FD2 |
| 58120204 | Snow cone stand |  | 7 | FD1 |  | FD2 |
| 58120205 | Soda fountain |  | 10 | FD1 |  | FD3 |
| 58120206 | Soft drink stand |  | 10 | FD1 |  | FD3 |
| 58120300 | Fast food restaurants and stands |  | 13 | FD1 |  | FD2 |
| 58120301 | Box lunch stand |  | 13 | FD1 |  | FD2 |
| 58120302 | Carry-out only (except pizza) restaurant |  | 13 | FD1 |  | FD2 |
| 58120303 | Chili stand |  | 13 | FD1 |  | FD2 |
| 58120304 | Coffee shop |  | 10 | FD1 |  | FD3 |
| 58120305 | Delicatessen (eating places) |  | 13 | FD1 |  | FD2 |
| 58120306 | Drive-in restaurant |  | 13 | FD1 |  | FD2 |
| 58120307 | Fast-food restaurant, chain |  | 13 | FD1 |  | FD2 |
| 58120308 | Fast-food restaurant, independent |  | 13 | FD1 |  | FD2 |
| 58120309 | Food bars |  | 13 | FD1 |  | FD2 |
| 58120310 | Grills (eating places) |  | 13 | FD1 |  | FD2 |
| 58120311 | Hamburger stand |  | 13 | FD1 |  | FD2 |
| 58120312 | Hot dog stand |  | 13 | FD1 |  | FD2 |
| 58120313 | Sandwiches and submarines shop |  | 13 | FD1 |  | FD2 |
| 58120314 | Snack bar |  | 13 | FD1 |  | FD2 |
| 58120315 | Snack shop |  | 13 | FD1 |  | FD2 |
| 58120400 | Lunchrooms and cafeterias |  | 14 | FD1 |  | FD2 |
| 58120401 | Automat (eating places) |  | 14 | FD1 |  | FD2 |
| 58120402 | Cafeteria |  | 14 | FD1 |  | FD2 |
| 58120403 | Luncheonette |  | 14 | FD1 |  | FD2 |
| 58120404 | Lunchroom |  | 14 | FD1 |  | FD2 |
| 58120405 | Restaurant, lunch counter |  | 14 | FD1 |  | FD2 |
| 58120500 | Family restaurants |  | 14 | FD1 |  | FD2 |
| 58120501 | Restaurant, family: chain |  | 14 | FD1 |  | FD2 |
| 58120502 | Restaurant, family: independent |  | 14 | FD1 |  | FD2 |
| 58120600 | Pizza restaurants |  | 14 | FD1 |  | FD2 |
| 58120601 | Pizzeria, chain |  | 14 | FD1 |  | FD2 |
| 58120602 | Pizzeria, independent |  | 14 | FD1 |  | FD2 |
| 58120700 | Seafood restaurants |  | 14 | FD1 |  | FD2 |
| 58120701 | Oyster bar |  | 14 | FD1 |  | FD2 |
| 58120702 | Seafood shack |  | 14 | FD1 |  | FD2 |
| 58120800 | Steak and barbecue restaurants |  | 14 | FD1 |  | FD2 |
| 58120801 | Barbecue restaurant |  | 14 | FD1 |  | FD2 |
| 58120802 | Steak restaurant |  | 14 | FD1 |  | FD2 |
| 58129900 | Eating places, nec |  | 14 | FD1 |  | FD2 |
| 58129901 | Buffet (eating places) |  | 14 | FD1 |  | FD2 |
| 58129902 | Cafe |  | 14 | FD1 |  | FD2 |
| 58129903 | Caterers |  | 14 | FD1 |  | FD2 |
| 58129904 | Chicken restaurant |  | 14 | FD1 |  | FD2 |
| 58129905 | Commissary restaurant |  | 14 | FD1 |  | FD2 |
| 58129906 | Contract food services |  | 14 | FD1 |  | FD2 |
| 58129907 | Diner |  | 14 | FD1 |  | FD2 |
| 58129908 | Dinner theater |  | 14 | FD1 |  | FD2 |
| 58129909 | Health food restaurant |  | 14 | FD1 |  | FD2 |
| 58130000 | Drinking places |  | 11 | FD2 |  |  |
| 58130100 | Bars and lounges |  | 11 | FD2 |  |  |
| 58130101 | Bar (drinking places) |  | 11 | FD2 |  |  |
| 58130102 | Beer garden (drinking places) |  | 11 | FD2 |  |  |
| 58130103 | Cocktail lounge |  | 11 | FD2 |  |  |
| 58130104 | Saloon |  | 11 | FD2 |  |  |
| 58130105 | Tavern (drinking places) |  | 11 | FD2 |  |  |
| 58130106 | Wine bar |  | 11 | FD2 |  |  |
| 58130200 | Night clubs |  | 11 | FD2 |  |  |
| 58130201 | Cabaret |  | 11 | FD2 |  |  |
| 58130202 | Discotheque |  | 11 | FD2 |  |  |
| 58130203 | Gentleman's club |  | 11 | FD2 |  |  |
| 59120000 | Drug stores and proprietary stores |  |  |  |  | NF2 |
| 59129900 | Drug stores and proprietary stores, nec |  |  |  |  | NF2 |
| 59129901 | Drug stores |  |  |  |  | NF2 |
| 59129902 | Proprietary (non-prescription medicine) stores |  |  |  |  | NF2 |
| 59210000 | Liquor stores |  | 9 |  |  |  |
| 59210100 | Wine and beer |  | 9 |  |  |  |
| 59210101 | Beer (packaged) |  | 9 |  |  |  |
| 59210102 | Wine |  | 9 |  |  |  |
| 59219900 | Liquor stores, nec |  | 9 |  |  |  |
| 59219901 | Hard liquor |  | 9 |  |  |  |
| 60210000 | National commercial banks |  |  |  |  | NF3 |
| 60219900 | National commercial banks, nec |  |  |  |  | NF3 |
| 60219901 | National trust companies with deposits, commercial |  |  |  |  | NF3 |
| 60220000 | State commercial banks |  |  |  |  | NF3 |
| 60229900 | State commercial banks, nec |  |  |  |  | NF3 |
| 60229901 | State trust companies accepting deposits, commercial |  |  |  |  | NF3 |
| 60290000 | Commercial banks, nec |  |  |  |  | NF3 |
| 60350000 | Federal savings institutions |  |  |  |  | NF3 |
| 60359900 | Federal savings institutions, nec |  |  |  |  | NF3 |
| 60359901 | Federal savings and loan associations |  |  |  |  | NF3 |
| 60359902 | Federal savings banks |  |  |  |  | NF3 |
| 60360000 | Savings institutions, except federal |  |  |  |  | NF3 |
| 60369900 | Savings institutions, except federal, nec |  |  |  |  | NF3 |
| 60369901 | Savings and loan associations, not federally chartered |  |  |  |  | NF3 |
| 60369902 | State savings banks, not federally chartered |  |  |  |  | NF3 |
| 60610000 | Federal credit unions |  |  |  |  | NF3 |
| 60620000 | State credit unions |  |  |  |  | NF3 |
| 60629900 | State credit unions, nec |  |  |  |  | NF3 |
| 60629901 | State credit unions, not federally chartered |  |  |  |  | NF3 |
| 70110200 | Vacation lodges | 7 |  |  |  |  |
| 70110201 | Ski lodge | 7 |  |  |  |  |
| 70110202 | Tourist camps, cabins, cottages, and courts | 7 |  |  |  |  |
| 70320000 | Sporting and recreational camps | 7 |  |  |  |  |
| 70320100 | Recreational camps | 7 |  |  |  |  |
| 70320101 | Cabin camp | 7 |  |  |  |  |
| 70320102 | Dude ranch | 7 |  |  |  |  |
| 70320300 | Sporting camps | 7 |  |  |  |  |
| 70320301 | Fishing camp | 7 |  |  |  |  |
| 70320302 | Hunting camp | 7 |  |  |  |  |
| 70330000 | Trailer parks and campsites | 7 |  |  |  |  |
| 70339900 | Trailer parks and campsites, nec | 7 |  |  |  |  |
| 70339901 | Campgrounds | 7 |  |  |  |  |
| 70339902 | Campsite | 7 |  |  |  |  |
| 72310000 | Beauty shops |  |  | NF1 |  |  |
| 72310100 | Cosmetology and personal hygiene salons |  |  | NF1 |  |  |
| 72310101 | Cosmetologist |  |  | NF1 |  |  |
| 72310102 | Electrolysis and epilatory services |  |  | NF1 |  |  |
| 72310103 | Facial salons |  |  | NF1 |  |  |
| 72310104 | Manicurist, pedicurist |  |  | NF1 |  |  |
| 72319900 | Beauty shops, nec |  |  | NF1 |  |  |
| 72319901 | Hairdressers |  |  | NF1 |  |  |
| 72319902 | Unisex hair salons |  |  | NF1 |  |  |
| 72410000 | Barber shops |  |  | NF1 |  |  |
| 72419900 | Barber shops, nec |  |  | NF1 |  |  |
| 72419901 | Barber college |  |  | NF1 |  |  |
| 72419902 | Barber shop selling wigs |  |  | NF1 |  |  |
| 72419903 | Hair stylist, men |  |  | NF1 |  |  |
| 78320000 | Motion picture theaters, except drive-in |  |  | NF2 |  |  |
| 78329900 | Motion picture theaters, except drive-in, nec |  |  | NF2 |  |  |
| 78329901 | Exhibitors for airlines, motion picture |  |  | NF2 |  |  |
| 78329902 | Exhibitors, itinerant: motion picture |  |  | NF2 |  |  |
| 79110000 | Dance studios, schools, and halls | 8 |  | NF2 |  |  |
| 79110100 | Dance hall services | 1 |  | NF2 |  |  |
| 79110101 | Dance hall or ballroom operation | 1 |  | NF2 |  |  |
| 79110102 | Discotheque, except those serving alcoholic beverages | 1 |  | NF2 |  |  |
| 79110200 | Dance instructor and school services | 8 |  | NF14 |  |  |
| 79110202 | Dance instructor | 8 |  | NF14 |  |  |
| 79110203 | Dance studio and school | 8 |  | NF14 |  |  |
| 79110204 | Professional dancing school | 8 |  | NF14 |  |  |
| 79220000 | Theatrical producers and services |  |  | NF2 |  |  |
| 79220200 | Theatrical production services |  |  | NF2 |  |  |
| 79220201 | Ballet production |  |  | NF2 |  |  |
| 79220202 | Community theater production |  |  | NF2 |  |  |
| 79220203 | Performing arts center production |  |  | NF2 |  |  |
| 79220300 | Theatrical companies |  |  | NF2 |  |  |
| 79220301 | Amateur theatrical company |  |  | NF2 |  |  |
| 79220302 | Burlesque company |  |  | NF2 |  |  |
| 79220303 | Opera company |  |  | NF2 |  |  |
| 79220304 | Plays, road and stock companies |  |  | NF2 |  |  |
| 79220305 | Repertory, road or stock companies: theatrical |  |  | NF2 |  |  |
| 79220306 | Summer theater |  |  | NF2 |  |  |
| 79220307 | Vaudeville company |  |  | NF2 |  |  |
| 79229904 | Ticket agency, theatrical |  |  | NF2 |  |  |
| 79290000 | Entertainers and entertainment groups |  |  | NF2 |  |  |
| 79290100 | Musical entertainers |  |  | NF2 |  |  |
| 79290101 | Chamber music groups or artists |  |  | NF2 |  |  |
| 79290102 | Classical music groups or artists |  |  | NF2 |  |  |
| 79290103 | Country music groups or artists |  |  | NF2 |  |  |
| 79290104 | Dance band |  |  | NF2 |  |  |
| 79290105 | Drum and bugle corps (drill teams) |  |  | NF2 |  |  |
| 79290106 | Gospel singers |  |  | NF2 |  |  |
| 79290107 | Jazz music group or artist |  |  | NF2 |  |  |
| 79290108 | Musician |  |  | NF2 |  |  |
| 79290109 | Orchestras or bands, nec |  |  | NF2 |  |  |
| 79290110 | Popular music groups or artists |  |  | NF2 |  |  |
| 79290111 | Symphony orchestra |  |  | NF2 |  |  |
| 79299900 | Entertainers and entertainment groups, nec |  |  | NF2 |  |  |
| 79299901 | Actor |  |  | NF2 |  |  |
| 79299902 | Actress |  |  | NF2 |  |  |
| 79299903 | Disc jockey service |  |  | NF2 |  |  |
| 79299904 | Entertainers |  |  | NF2 |  |  |
| 79299905 | Entertainment group |  |  | NF2 |  |  |
| 79299906 | Entertainment service |  |  | NF2 |  |  |
| 79299907 | Magician |  |  | NF2 |  |  |
| 79299908 | Singing telegram service |  |  | NF2 |  |  |
| 79330000 | Bowling centers | 2 |  | NF3 |  |  |
| 79339900 | Bowling centers, nec | 2 |  | NF3 |  |  |
| 79339901 | Candle pin center | 2 |  | NF3 |  |  |
| 79339902 | Duck pin center | 2 |  | NF3 |  |  |
| 79339903 | Ten pin center | 2 |  | NF3 |  |  |
| 79410000 | Sports clubs, managers, and promoters |  |  | NF4 |  |  |
| 79410100 | Professional and semi-professional sports clubs |  |  | NF4 |  |  |
| 79410101 | Baseball club, professional and semi- professional |  |  | NF4 |  |  |
| 79410102 | Basketball club |  |  | NF4 |  |  |
| 79410103 | Football club |  |  | NF4 |  |  |
| 79410104 | Ice hockey club |  |  | NF4 |  |  |
| 79410105 | Soccer club |  |  | NF4 |  |  |
| 79410200 | Stadium event operator services |  |  | NF4 |  |  |
| 79410201 | Boxing and wrestling arena |  |  | NF4 |  |  |
| 79410202 | Sports field or stadium operator, promoting sports events |  |  | NF4 |  |  |
| 79480000 | Racing, including track operation |  |  | NF4 |  |  |
| 79480100 | Motor vehicle racing and drivers |  |  | NF4 |  |  |
| 79480101 | Motorcycle racing |  |  | NF4 |  |  |
| 79480104 | Stock car racing |  |  | NF4 |  |  |
| 79480105 | Boat racing |  |  | NF4 |  |  |
| 79480200 | Race track operation |  |  | NF4 |  |  |
| 79480201 | Auto race track operation |  |  | NF4 |  |  |
| 79480202 | Dog race track operation |  |  | NF4 |  |  |
| 79480203 | Dragstrip operation |  |  | NF4 |  |  |
| 79480204 | Horse race track operation |  |  | NF4 |  |  |
| 79480400 | Dog and horse racing, and drivers |  |  | NF4 |  |  |
| 79480401 | Dog racing |  |  | NF4 |  |  |
| 79480402 | Harness horse racing |  |  | NF4 |  |  |
| 79480403 | Harness racing driver |  |  | NF4 |  |  |
| 79480404 | Horses, racing |  |  | NF4 |  |  |
| 79480406 | Thoroughbred horse racing |  |  | NF4 |  |  |
| 79910000 | Physical fitness facilities | 1 |  | NF5 |  |  |
| 79910100 | Physical fitness clubs with training equipment | 1 |  | NF5 |  |  |
| 79910101 | Athletic club and gymnasiums, membership | 1 |  | NF5 |  |  |
| 79910102 | Health club | 1 |  | NF5 |  |  |
| 79910103 | Spas | 13 |  | NF5 |  |  |
| 79910200 | Weight reducing clubs | 13 |  | NF5 |  |  |
| 79910201 | Reducing facility | 13 |  | NF5 |  |  |
| 79910202 | Slenderizing salon | 13 |  | NF5 |  |  |
| 79910300 | Exercise facilities | 1 |  | NF5 |  |  |
| 79910301 | Aerobic dance and exercise classes | 1 |  | NF5 |  |  |
| 79910302 | Exercise salon | 1 |  | NF5 |  |  |
| 79920000 | Public golf courses | 2 |  | NF3 |  |  |
| 79930000 | Coin-operated amusement devices |  |  | NF6 |  |  |
| 79930100 | Music machines |  |  | NF6 |  |  |
| 79930101 | Juke box |  |  | NF6 |  |  |
| 79930102 | Music systems, coin-operated |  |  | NF6 |  |  |
| 79930200 | Game machines |  |  | NF6 |  |  |
| 79930202 | Mechanical games, coin-operated |  |  | NF6 |  |  |
| 79930203 | Pinball machine |  |  | NF6 |  |  |
| 79930300 | Arcades |  |  | NF6 |  |  |
| 79930301 | Amusement arcade |  |  | NF6 |  |  |
| 79930302 | Video game arcade |  |  | NF6 |  |  |
| 79930400 | Gambling machines |  |  | NF6 |  |  |
| 79930401 | Gambling establishments operating coin- operated machines |  |  | NF6 |  |  |
| 79930402 | Gambling machines, coin-operated |  |  | NF6 |  |  |
| 79930403 | Slot machine |  |  | NF6 |  |  |
| 79960000 | Amusement parks |  |  | NF7 |  |  |
| 79969900 | Amusement parks, nec |  |  | NF7 |  |  |
| 79969902 | Pier, amusement |  |  | NF7 |  |  |
| 79969903 | Theme park, amusement |  |  | NF7 |  |  |
| 79970000 | Membership sports and recreation clubs | 1 |  | NF8 |  |  |
| 79970100 | Ice sports | 2 |  | NF8 |  |  |
| 79970101 | Curling club, membership | 3 |  | NF8 |  |  |
| 79970102 | Hockey club, except professional and semi- professional | 3 |  | NF8 |  |  |
| 79970200 | Boating and swimming clubs | 5 |  | NF8 |  |  |
| 79970201 | Beach club, membership | 4 |  | NF8 |  |  |
| 79970202 | Boating club, membership | 4 |  | NF8 |  |  |
| 79970203 | Swimming club, membership | 5 |  | NF8 |  |  |
| 79970204 | Yacht club, membership |  |  | NF8 |  |  |
| 79970300 | Gun and hunting clubs |  |  | NF8 |  |  |
| 79970301 | Gun club, membership |  |  | NF8 |  |  |
| 79970302 | Hunting club, membership | 2 |  | NF8 |  |  |
| 79970400 | Outdoor field clubs | 2 |  | NF8 |  |  |
| 79970401 | Baseball club, except professional and semi- professional | 3 |  | NF8 |  |  |
| 79970402 | Football club, except professional and semi- professional | 3 |  | NF8 |  |  |
| 79970403 | Polo club, membership |  |  | NF8 |  |  |
| 79970404 | Soccer club, except professional and semi- professional | 3 |  | NF8 |  |  |
| 79970500 | Indoor/outdoor court clubs | 6 |  | NF8 |  |  |
| 79970501 | Handball club, membership | 6 |  | NF8 |  |  |
| 79970502 | Racquetball club, membership | 6 |  | NF8 |  |  |
| 79970503 | Squash club, membership | 6 |  | NF8 |  |  |
| 79970504 | Tennis club, membership | 6 |  | NF8 |  |  |
| 79979900 | Membership sports and recreation clubs, nec |  |  | NF8 |  |  |
| 79979901 | Aviation club, membership |  |  | NF8 |  |  |
| 79979902 | Bowling league or team | 3 |  | NF8 |  |  |
| 79979903 | Bridge club, membership |  |  | NF8 |  |  |
| 79979904 | Country club, membership | 13 |  | NF8 |  |  |
| 79979905 | Flying field, maintained by aviation clubs |  |  | NF8 |  |  |
| 79979906 | Golf club, membership | 2 |  | NF8 |  |  |
| 79979907 | Lawn bowling club, membership | 2 |  | NF8 |  |  |
| 79979908 | Riding club, membership | 2 |  | NF8 |  |  |
| 79990000 | Amusement and recreation, nec | 2 |  | NF7 |  |  |
| 79990100 | Tennis services and professionals | 12 |  | NF3 |  |  |
| 79990101 | Tennis club, non-membership | 6 |  | NF3 |  |  |
| 79990102 | Tennis courts, outdoor/indoor: non-membership | 6 |  | NF3 |  |  |
| 79990103 | Tennis professional | 12 |  | NF14 |  |  |
| 79990200 | Golf services and professionals | 9 |  | NF3 |  |  |
| 79990202 | Golf driving range | 2 |  | NF3 |  |  |
| 79990203 | Golf professionals | 9 |  | NF14 |  |  |
| 79990204 | Golf, pitch-n-putt | 2 |  | NF3 |  |  |
| 79990205 | Miniature golf course operation | 2 |  | NF3 |  |  |
| 79990300 | Indoor court clubs | 6 |  | NF3 |  |  |
| 79990301 | Handball courts, non-membership | 6 |  | NF3 |  |  |
| 79990302 | Racquetball club, non-membership | 6 |  | NF3 |  |  |
| 79990303 | Squash club, non-membership | 6 |  | NF3 |  |  |
| 79990400 | Table sports parlor operation |  |  | NF3 |  |  |
| 79990401 | Billiard parlor |  |  | NF3 |  |  |
| 79990402 | Ping pong parlor | 2 |  | NF3 |  |  |
| 79990403 | Pool parlor |  |  | NF3 |  |  |
| 79990501 | Bicycle rental | 2 |  | NF14 |  |  |
| 79990600 | Skating rink operation services | 2 |  | NF3 |  |  |
| 79990601 | Curling rinks | 2 |  | NF3 |  |  |
| 79990602 | Ice skating rink operation | 2 |  | NF3 |  |  |
| 79990603 | Roller skating rink operation | 2 |  | NF3 |  |  |
| 79990700 | Shooting facilities and archery lanes | 2 |  | NF3 |  |  |
| 79990701 | Archery lanes | 2 |  | NF3 |  |  |
| 79990702 | Shooting gallery |  |  | NF3 |  |  |
| 79990703 | Shooting range operation |  |  | NF3 |  |  |
| 79990704 | Skeet shooting facility |  |  | NF3 |  |  |
| 79990705 | Trapshooting facility, non-membership |  |  | NF3 |  |  |
| 79990800 | Card and game services |  |  | NF3 |  |  |
| 79990801 | Bingo hall |  |  | NF3 |  |  |
| 79990802 | Bridge club, non-membership |  |  | NF3 |  |  |
| 79990803 | Card rooms |  |  | NF3 |  |  |
| 79990804 | Game parlor |  |  | NF3 |  |  |
| 79990900 | Animal shows/circuses |  |  | NF7 |  |  |
| 79990901 | Animal shows in circuses, fairs, and carnivals |  |  | NF7 |  |  |
| 79990902 | Circus company |  |  | NF7 |  |  |
| 79990903 | Horse shows |  |  | NF7 |  |  |
| 79991000 | Exhibition and carnival operation services |  |  | NF7 |  |  |
| 79991001 | Agricultural fair |  |  | NF7 |  |  |
| 79991002 | Air shows |  |  | NF7 |  |  |
| 79991003 | Carnival operation |  |  | NF7 |  |  |
| 79991004 | Exhibition operation |  |  | NF7 |  |  |
| 79991005 | Exposition operation |  |  | NF7 |  |  |
| 79991006 | Fair, nsk |  |  | NF7 |  |  |
| 79991007 | Festival operation |  |  | NF7 |  |  |
| 79991102 | Baseball instruction school | 10 |  | NF14 |  |  |
| 79991103 | Basketball instruction school | 10 |  | NF14 |  |  |
| 79991104 | Bowling instruction | 9 |  | NF14 |  |  |
| 79991107 | Diving instruction, underwater | 11 |  | NF14 |  |  |
| 79991110 | Hockey instruction school | 10 |  | NF14 |  |  |
| 79991111 | Judo instruction | 8 |  | NF14 |  |  |
| 79991112 | Karate instruction | 8 |  | NF14 |  |  |
| 79991113 | Martial arts school, nec | 8 |  | NF14 |  |  |
| 79991115 | Sailing instruction | 11 |  | NF14 |  |  |
| 79991116 | Scuba and skin diving instruction | 11 |  | NF14 |  |  |
| 79991118 | Skating instruction, ice or roller | 9 |  | NF14 |  |  |
| 79991119 | Ski instruction | 9 |  | NF14 |  |  |
| 79991121 | Surfing instruction | 11 |  | NF14 |  |  |
| 79991122 | Swimming instruction | 11 |  | NF14 |  |  |
| 79991123 | Yoga instruction | 8 |  | NF14 |  |  |
| 79991127 | Physical fitness instruction | 8 |  | NF14 |  |  |
| 79991200 | Riding and rodeo services | 2 |  | NF7 |  |  |
| 79991201 | Riding academy and school | 9 |  | NF14 |  |  |
| 79991202 | Riding stable | 2 |  | NF7 |  |  |
| 79991204 | Rodeo operation | 2 |  | NF7 |  |  |
| 79991205 | Saddlehorse rental | 2 |  | NF14 |  |  |
| 79991300 | Gambling and lottery services |  |  | NF6 |  |  |
| 79991301 | Bookmakers |  |  | NF6 |  |  |
| 79991302 | Gambling establishment |  |  | NF6 |  |  |
| 79991303 | Gambling machines, operation |  |  | NF6 |  |  |
| 79991401 | Bath house, independent |  |  | NF3 |  |  |
| 79991402 | Bathing beach, non-membership | 4 |  | NF3 |  |  |
| 79991404 | Fishing boats, party: operation |  |  | NF3 |  |  |
| 79991405 | Fishing lakes and piers, operation |  |  | NF3 |  |  |
| 79991409 | Rowboat and canoe rental | 4 |  | NF14 |  |  |
| 79991410 | Sailboard rental | 4 |  | NF14 |  |  |
| 79991411 | Surfing equipment rental | 4 |  | NF14 |  |  |
| 79991412 | Swimming pool, non-membership | 5 |  | NF3 |  |  |
| 79991502 | Amusement concession |  |  | NF7 |  |  |
| 79991503 | Amusement ride |  |  | NF7 |  |  |
| 79991504 | Cave operation |  |  | NF7 |  |  |
| 79991505 | Concession operator |  |  | NF7 |  |  |
| 79991506 | Go-cart raceway operation and rentals |  |  | NF7 |  |  |
| 79991508 | Pack train, for amusement |  |  | NF7 |  |  |
| 79991509 | Scenic railroads for amusement |  |  | NF7 |  |  |
| 79991512 | Waterslide operation | 4 |  | NF7 |  |  |
| 79991513 | Wave pool operation | 4 |  | NF7 |  |  |
| 79991514 | Wax museum, commercial |  |  | NF7 |  |  |
| 79991515 | Zoological garden, commercial | 13 |  | NF11 |  |  |
| 79991516 | Hot air balloon rides |  |  | NF7 |  |  |
| 79991602 | Rafting tours | 7 |  | NF14 |  |  |
| 79991604 | Trail guide | 2 |  | NF7 |  |  |
| 79999900 | Amusement and recreation, nec, nec |  |  | NF7 |  |  |
| 79999901 | Art gallery, commercial |  |  | NF10 |  |  |
| 79999902 | Astrologer |  |  | NF3 |  |  |
| 79999903 | Baseball batting cage | 2 |  | NF3 |  |  |
| 79999904 | Fireworks display service |  |  | NF7 |  |  |
| 79999905 | Fortune tellers |  |  | NF3 |  |  |
| 79999907 | Outfitters, recreation | 2 |  | NF3 |  |  |
| 79999909 | Picnic ground operation |  |  | NF3 |  |  |
| 79999910 | Recreation center | 2 |  | NF3 |  |  |
| 79999912 | Recreation services | 2 |  | NF3 |  |  |
| 79999913 | Slot-car race track |  |  | NF4 |  |  |
| 79999917 | Trampoline operation | 2 |  | NF7 |  |  |
| 79999918 | Night club, not serving alcoholic beverages |  |  | FD2 |  |  |
| 82310000 | Libraries |  |  | NF9 |  |  |
| 82310100 | Specialized libraries |  |  | NF9 |  |  |
| 82310101 | Law library |  |  | NF9 |  |  |
| 82310102 | Medical library |  |  | NF9 |  |  |
| 82310103 | Religious library |  |  | NF9 |  |  |
| 82310200 | College and military post libraries |  |  | NF9 |  |  |
| 82310201 | College or university library |  |  | NF9 |  |  |
| 82310202 | Junior college library |  |  | NF9 |  |  |
| 82310203 | Military post library |  |  | NF9 |  |  |
| 82310300 | General public libraries |  |  | NF9 |  |  |
| 82310301 | Circulating library |  |  | NF9 |  |  |
| 82310302 | Government library |  |  | NF9 |  |  |
| 82310303 | Lending library |  |  | NF9 |  |  |
| 82310304 | Public library |  |  | NF9 |  |  |
| 82310400 | Library services |  |  | NF9 |  |  |
| 82310401 | Book rental |  |  | NF9 |  |  |
| 82310402 | Documentation center |  |  | NF9 |  |  |
| 83220000 | Individual and family services |  |  |  | Y |  |
| 83220100 | Geriatric social service |  |  |  | Y |  |
| 83220101 | Adult day care center |  |  |  | Y |  |
| 83220102 | Old age assistance |  |  |  | Y |  |
| 83220103 | Senior citizens' center or association |  |  |  | Y |  |
| 83220200 | Child related social services |  |  |  | Y |  |
| 83220201 | Adoption services |  |  |  | Y |  |
| 83220202 | Aid to Families with Dependent Children (AFDC) |  |  |  | Y |  |
| 83220203 | Child guidance agency |  |  |  | Y |  |
| 83220204 | Childrens' aid society |  |  |  | Y |  |
| 83220205 | Youth center | 13 |  |  | Y |  |
| 83220206 | Youth self-help agency |  |  |  | Y |  |
| 83220300 | Emergency social services |  |  |  | Y |  |
| 83220301 | Crisis center |  |  |  | Y |  |
| 83220302 | Crisis intervention center |  |  |  | Y |  |
| 83220303 | Disaster service |  |  |  | Y |  |
| 83220304 | Emergency shelters |  |  |  | Y |  |
| 83220305 | First aid service |  |  |  | Y |  |
| 83220306 | Hotline |  |  |  | Y |  |
| 83220307 | Temporary relief service |  |  |  | Y |  |
| 83220400 | Rehabilitation services |  |  |  | Y |  |
| 83220401 | Offender rehabilitation agency |  |  |  | Y |  |
| 83220402 | Offender self-help agency |  |  |  | Y |  |
| 83220403 | Parole office |  |  |  | Y |  |
| 83220404 | Probation office |  |  |  | Y |  |
| 83220500 | Family counseling services |  |  |  | Y |  |
| 83220501 | Family (marriage) counseling |  |  |  | Y |  |
| 83220502 | Family location service |  |  |  | Y |  |
| 83220503 | Family service agency |  |  |  | Y |  |
| 83220504 | Homemakers' service |  |  |  | Y |  |
| 83220600 | General counseling services |  |  |  | Y |  |
| 83220601 | Community center | 13 |  |  | Y |  |
| 83220602 | Helping hand service (Big Brother, etc.) |  |  |  | Y |  |
| 83220603 | Multi-service center |  |  |  | Y |  |
| 83220604 | Neighborhood center |  |  |  | Y |  |
| 83220605 | Outreach program |  |  |  | Y |  |
| 83220606 | Public welfare center |  |  |  | Y |  |
| 83220607 | Referral service for personal and social problems |  |  |  | Y |  |
| 83220608 | Self-help organization, nec |  |  |  | Y |  |
| 83220609 | Service league |  |  |  | Y |  |
| 83220610 | Social service center |  |  |  | Y |  |
| 83220611 | Social worker |  |  |  | Y |  |
| 83220612 | Telephone counseling service |  |  |  | Y |  |
| 83220700 | Social services for the handicapped |  |  |  | Y |  |
| 83220701 | Association for the handicapped |  |  |  | Y |  |
| 83220800 | Substance abuse counseling |  |  |  | Y |  |
| 83220801 | Alcoholism counseling, nontreatment |  |  |  | Y |  |
| 83220802 | Drug abuse counselor, nontreatment |  |  |  | Y |  |
| 83229900 | Individual and family services, nec |  |  |  | Y |  |
| 83229901 | Meal delivery program |  |  |  | Y |  |
| 83229902 | Refugee service |  |  |  | Y |  |
| 83229903 | Settlement house |  |  |  | Y |  |
| 83229904 | Travelers' aid |  |  |  | Y |  |
| 83990000 | Social services, nec |  |  |  | Y |  |
| 83990100 | Community development groups |  |  |  | Y |  |
| 83990101 | Community action agency |  |  |  | Y |  |
| 83990102 | Community chest |  |  |  | Y |  |
| 83990103 | Neighborhood development group |  |  |  | Y |  |
| 83999900 | Social services, nec, nec |  |  |  | Y |  |
| 83999901 | Advocacy group |  |  |  | Y |  |
| 83999902 | Antipoverty board |  |  |  | Y |  |
| 83999903 | Council for social agency |  |  |  | Y |  |
| 83999904 | Fund raising organization, non-fee basis |  |  |  | Y |  |
| 83999905 | Health and welfare council |  |  |  | Y |  |
| 83999906 | Health systems agency |  |  |  | Y |  |
| 83999907 | Regional planning organization |  |  |  | Y |  |
| 83999908 | Social change association |  |  |  | Y |  |
| 83999909 | Social service information exchange |  |  |  | Y |  |
| 83999910 | United Fund councils |  |  |  | Y |  |
| 84120000 | Museums and art galleries |  |  | NF10 |  |  |
| 84120100 | Art gallery |  |  | NF10 |  |  |
| 84120101 | Art gallery, noncommercial |  |  | NF10 |  |  |
| 84120102 | Arts or science center |  |  | NF10 |  |  |
| 84129900 | Museums and art galleries, nec |  |  | NF10 |  |  |
| 84129901 | Historical society |  |  | NF10 |  |  |
| 84129902 | Museum |  |  | NF10 |  |  |
| 84129903 | Planetarium |  |  | NF10 |  |  |
| 84220000 | Botanical and zoological gardens |  |  | NF11 |  |  |
| 84220100 | Aquariums and zoological gardens |  |  | NF11 |  |  |
| 84220101 | Animal and reptile exhibit |  |  | NF11 |  |  |
| 84220102 | Aquarium |  |  | NF11 |  |  |
| 84220103 | Zoological garden, noncommercial |  |  | NF11 |  |  |
| 84220200 | Arboreta and botanical gardens |  |  | NF11 |  |  |
| 84220201 | Arboretum |  |  | NF11 |  |  |
| 84220202 | Botanical garden |  |  | NF11 |  |  |
| 86410000 | Civic and social associations |  |  | NF12 |  |  |
| 86410100 | Civic associations |  |  | NF12 |  |  |
| 86410101 | Citizens union |  |  | NF12 |  |  |
| 86410102 | Community membership club |  |  | NF12 |  |  |
| 86410103 | Taxpayer association |  |  | NF12 |  |  |
| 86410200 | Fraternal associations |  |  | NF12 |  |  |
| 86410201 | Alumni association |  |  | NF12 |  |  |
| 86410202 | University club |  |  | NF12 |  |  |
| 86410400 | Social associations |  |  | NF12 |  |  |
| 86410401 | Bars and restaurants, members only |  |  | FD2 |  |  |
| 86410402 | Business persons club |  |  | NF12 |  |  |
| 86410403 | Social club, membership |  |  | NF12 |  |  |
| 86410500 | Dwelling-related associations |  |  | NF12 |  |  |
| 86410501 | Condominium association |  |  | NF12 |  |  |
| 86410502 | Homeowners' association |  |  | NF12 |  |  |
| 86410503 | Neighborhood association |  |  | NF12 |  |  |
| 86410504 | Tenant association |  |  | NF12 |  |  |
| 86419900 | Civic and social associations, nec |  |  | NF12 |  |  |
| 86419901 | Booster club |  |  | NF12 |  |  |
| 86419902 | Educator's association |  |  | NF12 |  |  |
| 86419903 | Environmental protection organization |  |  | NF12 |  |  |
| 86419904 | Parent-teachers' association |  |  | NF12 |  |  |
| 86419905 | Recreation association |  |  | NF12 |  |  |
| 86419906 | Singing society |  |  | NF12 |  |  |
| 86419907 | Veterans' organization |  |  | NF12 |  |  |
| 86510000 | Political organizations |  |  | NF12 |  |  |
| 86519900 | Political organizations, nec |  |  | NF12 |  |  |
| 86519901 | Political action committee |  |  | NF12 |  |  |
| 86519902 | Political campaign organization |  |  | NF12 |  |  |
| 86519903 | Political club |  |  | NF12 |  |  |
| 86610000 | Religious organizations |  |  | NF13 |  |  |
| 86610100 | Churches, temples, and shrines |  |  | NF13 |  |  |
| 86610101 | Apostolic Church |  |  | NF13 |  |  |
| 86610102 | Assembly of God Church |  |  | NF13 |  |  |
| 86610103 | Baptist Church |  |  | NF13 |  |  |
| 86610104 | Brethren Church |  |  | NF13 |  |  |
| 86610105 | Buddhist temple |  |  | NF13 |  |  |
| 86610106 | Catholic Church |  |  | NF13 |  |  |
| 86610107 | Christian and Reformed Church |  |  | NF13 |  |  |
| 86610108 | Christian Reformed Church |  |  | NF13 |  |  |
| 86610109 | Christian Science Church |  |  | NF13 |  |  |
| 86610110 | Church of the Nazarene |  |  | NF13 |  |  |
| 86610111 | Church of Christ |  |  | NF13 |  |  |
| 86610112 | Church of God |  |  | NF13 |  |  |
| 86610113 | Community Church |  |  | NF13 |  |  |
| 86610114 | Covenant and Evangelical Church |  |  | NF13 |  |  |
| 86610115 | Episcopal Church |  |  | NF13 |  |  |
| 86610116 | Greek Orthodox Church |  |  | NF13 |  |  |
| 86610117 | Inter-denominational church |  |  | NF13 |  |  |
| 86610118 | Lutheran Church |  |  | NF13 |  |  |
| 86610119 | Mennonite Church |  |  | NF13 |  |  |
| 86610120 | Methodist Church |  |  | NF13 |  |  |
| 86610121 | Miscellaneous denomination church |  |  | NF13 |  |  |
| 86610122 | Church of Jesus Christ of Latter Day Saints (Mormon Church) |  |  | NF13 |  |  |
| 86610123 | Non-denominational church |  |  | NF13 |  |  |
| 86610124 | Pentecostal Church |  |  | NF13 |  |  |
| 86610125 | Presbyterian Church |  |  | NF13 |  |  |
| 86610126 | Reformed Church |  |  | NF13 |  |  |
| 86610127 | Seventh Day Adventist Church |  |  | NF13 |  |  |
| 86610128 | Shrines |  |  | NF13 |  |  |
| 86610129 | Synagogue |  |  | NF13 |  |  |
| 86610130 | Temples |  |  | NF13 |  |  |
| 86610131 | Islamic Mosque |  |  | NF13 |  |  |
| 86610200 | Nonchurch religious organizations |  |  | NF13 |  |  |
| 86990000 | Membership organizations, nec |  |  | NF8 |  |  |
| 86990100 | Athletic organizations |  |  | NF8 |  |  |
| 86990101 | Amateur sports promotion |  |  | NF8 |  |  |
| 86990102 | Bowling club |  |  | NF8 |  |  |
| 86990103 | Professional golf association |  |  | NF8 |  |  |
| 86990200 | Reading rooms and other cultural organizations |  |  | NF12 |  |  |
| 86990201 | Christian Science Reading Room |  |  | NF13 |  |  |
| 86990202 | Literary, film or cultural club |  |  | NF12 |  |  |
| 86990203 | Poetry association |  |  | NF12 |  |  |
| 86990204 | Reading room, religious materials |  |  | NF13 |  |  |
| 86999900 | Membership organizations, nec, nec |  |  | NF8 |  |  |
| 86999901 | Animal humane society |  |  | NF12 |  |  |
| 86999902 | Art council |  |  | NF12 |  |  |
| 86999903 | Automobile owners' association |  |  | NF12 |  |  |
| 86999904 | Charitable organization |  |  | NF12 |  |  |
| 86999905 | Farm bureau |  |  | NF12 |  |  |
| 86999906 | Flying club |  |  | NF8 |  |  |
| 86999907 | Food co-operative |  |  | NF14 |  | FD1 |
| 86999908 | Historical club |  |  | NF12 |  |  |
| 86999909 | Personal interest organization |  |  | NF12 |  |  |
| 86999910 | Travel club |  |  | NF12 |  |  |

# APPENDIX E: SUPERMARKET CHAIN LIST

The supermarkets chain list was derived from the full Trade Dimensions lists purchased for the years 2000, 2005, and 2010. These have at least 8 locations in the Trade Dimensions list.

DECA COMMISARY was on the original MESA list from 2009 but was dropped in this version since these are generally not open to the public and were not purchased from Trade Dimensions.

SUPERMARKET LIST AND FREQUENCY IN NETS DATA. First/main name of store refers to the first store name that the record was pulled on. Second name of store refers to the second name if the store was pulled under more than one name. Frequencies are from the main list from which the names are pulled in the yearly files (U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\FoodStoresLists\smlist\_final.sas7bdat)

| **Name** | **Alternate Name** | **Frequency (first/main name of store)** | **Percent (first/main name of store)** | **Frequency (second name of store)** | **Percent (second name of store)** | **On original list from 2009 coding in MESA?** | **Notes** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 99 RANCH | TAWA SUPERMARKET | 33 | 0.19% |  |  | YES |  |
| A & P | GREAT ATLANTIC & PACIFIC | 367 | 2.08% |  |  | YES |  |
| ABCO |  | 34 | 0.19% |  |  | YES |  |
| ACME MARKET |  | 36 | 0.20% |  |  | YES |  |
| AJS |  | 15 | 0.09% |  |  | YES |  |
| ALBERTSON |  | 1076 | 6.11% |  |  | YES |  |
| ALDI -ALBRECHT DISCOUNT |  | 126 | 0.72% |  |  | YES |  |
| AMERICANA GROCERY |  | 7 | 0.04% |  |  | NO |  |
| ANDRONICOS |  | 14 | 0.08% |  |  | NO |  |
| ASSOCIATED FOODS |  | 123 | 0.70% |  |  | YES |  |
| BALDUCCIS |  | 4 | 0.02% |  |  | NO |  |
| BASHAS |  | 97 | 0.55% | 11 | 1.62% | YES |  |
| BEL AIR |  | 15 | 0.09% |  |  | YES |  |
| BELL |  | 28 | 0.16% |  |  | NO |  |
| BEST WAY SUPERMARKET |  | 27 | 0.15% |  |  | NO |  |
| BEST YET MARKET |  | 11 | 0.06% |  |  | NO |  |
| BI-LO |  | 166 | 0.94% |  |  | NO |  |
| BIG 8 |  | 15 | 0.09% |  |  | YES | Bought by Lowe's, named changed to Lowe's Big 8; including since may in earlier years |
| BIG R |  | 5 | 0.03% |  |  | YES | 13 outlets in 2000 |
| BIG SAVER |  | 21 | 0.12% |  |  | YES |  |
| BIG Y SUPERMARKET |  | 8 | 0.05% |  |  | NO |  |
| BLOOM MARKET |  | 16 | 0.09% |  |  | NO |  |
| BOTTOM DOLLAR |  | 12 | 0.07% |  |  | NO |  |
| BRAVO |  | 103 | 0.58% |  |  | YES |  |
| BREAD & CIRCUS MARKET |  | 10 | 0.06% |  |  | NO |  |
| BRISTOL FARMS |  | 20 | 0.11% |  |  | YES |  |
| BROOKSHIRE |  | 56 | 0.32% |  |  | YES |  |
| BRUNOS FOOD & PHARMACY |  | 46 | 0.26% |  |  | NO |  |
| BUTERA |  | 17 | 0.10% |  |  | YES |  |
| C TOWN |  | 184 | 1.04% |  |  | YES |  |
| CALA FOODS |  | 15 | 0.09% | 1 | 0.15% | NO |  |
| CARDENA |  | 31 | 0.18% |  |  | YES |  |
| CARNIVAL |  | 17 | 0.10% |  |  | YES |  |
| CASH N CARRY |  | 121 | 0.69% |  |  | YES |  |
| CERMAK PRODUCE |  | 11 | 0.06% |  |  | NO |  |
| CITY MARKET |  | 57 | 0.32% |  |  | YES |  |
| COBORNS SUPER MARKET |  | 10 | 0.06% |  |  | NO |  |
| COMPARE FOODS |  | 57 | 0.32% |  |  | YES |  |
| COPPS FOOD CENTER |  | 10 | 0.06% |  |  | NO |  |
| COUNTY MARKET |  | 40 | 0.23% |  |  | YES |  |
| COXS FOODARAMA |  | 7 | 0.04% |  |  | NO |  |
| CUB FOODS |  | 140 | 0.79% |  |  | YES |  |
| CULEBRA MEAT MARKET |  | 17 | 0.10% |  |  | NO |  |
| D & W FOOD CENTER |  | 12 | 0.07% |  |  | NO |  |
| D AGOSTINO |  | 25 | 0.14% |  |  | YES |  |
| DELCHAMPS |  | 39 | 0.22% |  |  | YES |  |
| DELRAY FARMS |  | 9 | 0.05% |  |  | YES |  |
| DIERBERGS MARKET |  | 9 | 0.05% |  |  | NO |  |
| DILLON FOOD STORE |  | 156 | 0.89% | 6 | 0.88% | NO |  |
| DOMINICKS |  | 140 | 0.79% |  |  | YES |  |
| EAGLE |  | 55 | 0.31% |  |  | YES |  |
| EARTH FARE |  | 13 | 0.07% |  |  | YES |  |
| ECONOFOODS |  | 21 | 0.12% |  |  | YES |  |
| EGG STORE PRODUCE MARKET |  | 2 | 0.01% |  |  | NO |  |
| EL AHORRO SUPERMARKET |  | 14 | 0.08% |  |  | NO |  |
| EL SUPER |  | 18 | 0.10% |  |  | NO |  |
| EL TAPATIO MARKET |  | 16 | 0.09% |  |  | NO |  |
| ELRODS COST PLUS |  | 8 | 0.05% |  |  | NO |  |
| EXTRA SUPERMARKET |  | 11 | 0.06% |  |  | NO |  |
| FAIRPLAY FINER FOODS |  | 9 | 0.05% |  |  | NO |  |
| FAMILY FARE SUPERMARKET |  | 20 | 0.11% |  |  | NO |  |
| FARM FRESH |  | 39 | 0.22% |  |  | YES |  |
| FARMER JACK |  | 40 | 0.23% | 4 | 0.59% | YES |  |
| FESTIVAL FOODS |  | 22 | 0.12% |  |  | NO |  |
| FIESTA MART |  | 50 | 0.28% |  |  | YES |  |
| FINE FARE |  | 77 | 0.44% |  |  | YES |  |
| FOOD 4 LESS |  | 95 | 0.54% | 73 | 10.77% | YES |  |
| FOOD BASICS |  | 5 | 0.03% | 2 | 0.29% | YES |  |
| FOOD BAZAAR |  | 8 | 0.05% |  |  | YES |  |
| FOOD CITY |  | 48 | 0.27% | 45 | 6.64% | YES |  |
| FOOD DEPOT |  | 29 | 0.16% |  |  | YES |  |
| FOOD EMPORIUM |  | 45 | 0.26% | 5 | 0.74% | YES |  |
| FOOD FAIR |  | 43 | 0.24% | 5 | 0.74% | NO |  |
| FOOD LAND | FOODLAND SUPERMARKET | 117 | 0.66% | 4 | 0.59% | NO |  |
| FOOD LION |  | 716 | 4.07% | 15 | 2.21% | YES |  |
| FOOD MAX |  | 6 | 0.03% |  |  | YES |  |
| FOOD TOWN | FOODTOWN | 136 | 0.77% | 1 | 0.15% | YES |  |
| FOOD WORLD |  | 32 | 0.18% | 6 | 0.88% | YES |  |
| FOODMASTER SUPER MARKET |  | 15 | 0.09% |  |  | NO |  |
| FOODS CO |  | 23 | 0.13% |  |  | YES |  |
| FRED MEYER |  | 72 | 0.41% |  |  | YES |  |
| FRESH & EASY |  | 83 | 0.47% |  |  | NO |  |
| FRESH FIELDS |  | 11 | 0.06% |  |  | YES |  |
| FRESH MARKET |  | 81 | 0.46% |  |  | YES |  |
| FRUITFUL YIELD |  | 18 | 0.10% |  |  | YES |  |
| FRYS FOOD |  | 48 | 0.27% |  |  | YES |  |
| FURRS |  | 17 | 0.10% |  |  | YES |  |
| GARDEN FRESH MARKET |  | 13 | 0.07% |  |  | NO |  |
| GELSONS MARKET |  | 21 | 0.12% |  |  | YES |  |
| GENUARDI FAMILY MARKET |  | 10 | 0.06% |  |  | YES |  |
| GERLANDS |  | 0 | 0% | 11 | 1.62% | NO | All “Gerlands” are also pulled under “Food Fair” |
| GFS MARKETPLACE |  | 8 | 0.05% |  |  | YES |  |
| GIANT EAGLE |  | 121 | 0.69% |  |  | YES |  |
| GIANT FOOD |  | 304 | 1.73% |  |  | YES |  |
| GIGANTE SUPERMARKET |  | 12 | 0.07% |  |  | YES |  |
| GRAND UNION |  | 47 | 0.27% |  |  | YES |  |
| GRISTEDES |  | 73 | 0.41% |  |  | YES |  |
| GROCERY OUTLET |  | 98 | 0.56% |  |  | YES |  |
| H E B | BUTT HE | 233 | 1.32% |  |  | YES |  |
| H G HILL FOOD STORE |  | 18 | 0.10% |  |  | NO |  |
| H MART |  | 12 | 0.07% |  |  | NO |  |
| HANDY ANDY SUPERMARKET |  | 20 | 0.11% |  |  | NO |  |
| HARRIS TEETER |  | 205 | 1.16% |  |  | YES |  |
| HARRYS IN A HURRY |  | 5 | 0.03% |  |  | NO |  |
| HARVEST FOODS |  | 9 | 0.05% |  |  | NO |  |
| HEN HOUSE |  | 9 | 0.05% |  |  | YES |  |
| HENRYS FARMERS MARKET |  | 5 | 0.03% |  |  | NO | This was originally just “FARMERS MARKET”. Was split into “HENRYS FARMERS MARKET” and “SUNFLOWER FARMERS MARKET” |
| HENRYS MARKET |  | 28 | 0.16% |  |  | YES |  |
| HY VEE |  | 53 | 0.30% |  |  | YES |  |
| INGLES |  | 115 | 0.65% | 1 | 0.15% | YES |  |
| JETRO CASH & CARRY |  | 1 | 0.01% |  |  | NO |  |
| JEWEL FOOD |  | 231 | 1.31% | 1 | 0.15% | YES |  |
| JITNEY JUNGLE |  | 42 | 0.24% | 4 | 0.59% | YES |  |
| JONS MARKET |  | 19 | 0.11% |  |  | YES |  |
| JUBILEE |  | 33 | 0.19% |  |  | YES |  |
| KASH N KARRY |  | 51 | 0.29% | 9 | 1.33% | YES |  |
| KEY FOOD |  | 132 | 0.75% |  |  | YES |  |
| KEY MARKET |  | 11 | 0.06% |  |  | NO |  |
| KING KULLEN |  | 43 | 0.24% |  |  | YES |  |
| KING RANCH MARKET |  | 8 | 0.05% |  |  | NO |  |
| KING SOOPERS |  | 11 | 0.06% | 69 | 10.18% | YES |  |
| KINGS SUPER |  | 28 | 0.16% | 2 | 0.29% | YES |  |
| KLEINS |  | 16 | 0.09% |  |  | YES | 5 outlets in 2000, 7 outlets in 2005; this was on the original list in 2009. Not sure why it's not on here. Decided to include to keep consistent |
| KOHLS |  | 43 | 0.24% | 1 | 0.15% | NO |  |
| KOWALSKIS |  | 16 | 0.09% | 2 | 0.29% | YES |  |
| KROGER |  | 875 | 4.97% | 21 | 3.10% | YES |  |
| LA CHIQUITA SUPERMARKETS |  | 25 | 0.14% |  |  | NO |  |
| LIBORIO MARKET |  | 10 | 0.06% |  |  | NO |  |
| LOBILL FOODS |  | 5 | 0.03% |  |  | NO |  |
| LOWES FOOD |  | 92 | 0.52% |  |  | YES |  |
| LUCKY STORE |  | 139 | 0.79% | 49 | 7.23% | NO |  |
| LUNDS BYERLYS | LUNDS\_BYERLYS | 28 | 0.16% |  |  | YES |  |
| MAGRUDERS |  | 17 | 0.10% |  |  | YES |  |
| MARKET BASKET |  | 38 | 0.22% |  |  | NO |  |
| MARKET PLACE |  | 86 | 0.49% |  |  | NO | Only included those that were 'MARKET PLACE'. If they had any other words before (IE: BOBS MARKET PLACE) then not included |
| MARS |  | 19 | 0.11% |  |  | YES |  |
| MARSH SUPERMARKET |  | 58 | 0.33% | 2 | 0.29% | YES |  |
| MARTINS FOOD MARKET |  | 9 | 0.05% | 7 | 1.03% | NO |  |
| MARTINS SUPERMARKET |  | 14 | 0.08% |  |  | YES |  |
| MARVELOUS MARKET |  | 12 | 0.07% |  |  | NO |  |
| MEIJER |  | 4 | 0.02% |  |  | YES |  |
| MET FOOD |  | 96 | 0.55% | 1 | 0.15% | YES |  |
| METRO |  | 4 | 0.02% |  |  | YES |  |
| MI PUEBLO |  | 10 | 0.06% |  |  | NO |  |
| MINYARD |  | 51 | 0.29% | 12 | 1.77% | YES |  |
| MITSUWA |  | 13 | 0.07% |  |  | YES |  |
| MOLLIE STONES MARKET |  | 5 | 0.03% |  |  | NO |  |
| MOO & OINK |  | 3 | 0.02% |  |  | NO |  |
| MORTON WILLAMS |  | 9 | 0.05% |  |  | NO |  |
| MR SPECIAL |  | 11 | 0.06% |  |  | NO |  |
| MURRYS |  | 42 | 0.24% |  |  | YES |  |
| NATURES FRESH NORTHWEST |  | 7 | 0.04% |  |  | NO |  |
| NEW DEAL |  | 13 | 0.07% | 1 | 0.15% | NO |  |
| NEW SEASONS MARKET |  | 7 | 0.04% |  |  | NO |  |
| NOB HILL FOODS |  | 21 | 0.12% |  |  | NO |  |
| NORTHGATE MARKET |  | 19 | 0.11% |  |  | YES |  |
| NSA SUPERMARKET |  | 3 | 0.02% |  |  | NO |  |
| NUMERO UNO |  | 6 | 0.03% |  |  | NO |  |
| PAK N SAVE MARKET |  | 12 | 0.07% |  |  | NO |  |
| PATHMARK STORES |  | 106 | 0.60% |  |  | YES |  |
| PAVILIONS |  | 35 | 0.20% |  |  | YES |  |
| PAYLESS FOOD |  | 35 | 0.20% |  |  | YES |  |
| PETES MARKET |  | 10 | 0.06% |  |  | NO |  |
| PICK N SAVE |  | 55 | 0.31% |  |  | YES |  |
| PIGGLY WIGGLY |  | 309 | 1.75% |  |  | YES |  |
| PIONEER |  | 61 | 0.35% | 1 | 0.15% | YES |  |
| PRESIDENTE SUPERMARKET |  | 5 | 0.03% |  |  | NO |  |
| PRICE CHOICE |  | 9 | 0.05% |  |  | YES | 5 outlets in 2000, 6 outlets in 2005, 6 outlets in 2010; this was on the original list in 2009. Not sure why it's not on here. Decided to include to keep consistent |
| PRICE CHOPPER |  | 38 | 0.22% | 1 | 0.15% | YES |  |
| PRICE RITE |  | 21 | 0.12% |  |  | NO |  |
| PUBLIX |  | 827 | 4.70% |  |  | YES |  |
| PUEBLO SUPERMARKET |  | 13 | 0.07% |  |  | NO |  |
| QUALITY FOODS |  | 38 | 0.22% | 39 | 5.75% | YES |  |
| R RANCH MARKET |  | 10 | 0.06% |  |  | YES |  |
| RAINBOW FOOD |  | 62 | 0.35% |  |  | YES |  |
| RALEYS |  | 59 | 0.33% |  |  | YES |  |
| RALPHS |  | 354 | 2.01% | 37 | 5.46% | YES |  |
| RAMEYS |  | 6 | 0.03% |  |  | NO |  |
| RANCH MARKET |  | 57 | 0.32% |  |  | NO |  |
| RANDALLS |  | 54 | 0.31% |  |  | YES |  |
| RED APPLE MARKET |  | 38 | 0.22% | 2 | 0.29% | NO |  |
| REDNERS WAREHOUSE MARKET |  | 8 | 0.05% |  |  | NO |  |
| RICE EPICUREAN MARKET |  | 6 | 0.03% |  |  | NO |  |
| ROUSES SUPERMARKET |  | 11 | 0.06% |  |  | NO |  |
| SACK N SAVE |  | 3 | 0.02% | 18 | 2.65% | YES |  |
| SAFEWAY |  | 740 | 4.20% | 2 | 0.29% | YES |  |
| SAV MAX FOOD |  | 7 | 0.04% |  |  | NO |  |
| SAV MOR |  | 29 | 0.16% |  |  | NO |  |
| SAVE A LOT |  | 336 | 1.91% | 3 | 0.44% | YES |  |
| SAVE MART | S MART FOODS | 112 | 0.64% | 3 | 0.44% | YES |  |
| SAVE N PACK |  | 4 | 0.02% | 2 | 0.29% | YES |  |
| SAVERITE |  | 27 | 0.15% |  |  | NO |  |
| SCHNUCK MARKET |  | 61 | 0.35% |  |  | NO |  |
| SCOLARIS |  | 9 | 0.05% | 1 | 0.15% | NO |  |
| SEABRA |  | 13 | 0.07% |  |  | YES |  |
| SEAFOOD CITY |  | 10 | 0.06% |  |  | YES |  |
| SEDANOS |  | 43 | 0.24% |  |  | YES |  |
| SEESSELS |  | 0 | 0% | 11 | 1.62% | NO | All “Seessels” are also pulled under either “Albertsons” or “Schuck” |
| SELLERS BROTHERS |  | 17 | 0.10% |  |  | NO |  |
| SENDIKS MARKET |  | 9 | 0.05% |  |  | NO |  |
| SENTRY FOOD |  | 44 | 0.25% |  |  | YES |  |
| SF SUPERMARKET | SHUN FAT SUPERMARKET | 8 | 0.05% |  |  | NO |  |
| SHAWS |  | 62 | 0.35% |  |  | YES |  |
| SHOP N SAVE |  | 104 | 0.59% |  |  | YES |  |
| SHOP RITE | SHPPRITE. SHOPRITE | 226 | 1.28% | 3 | 0.44% | YES |  |
| SHOPPERS FOOD |  | 64 | 0.36% | 1 | 0.15% | YES |  |
| SMART & FINAL |  | 50 | 0.28% | 1 | 0.15% | YES |  |
| SMITHS FOOD & DRUG |  | 134 | 0.76% | 14 | 2.06% | YES |  |
| SOUTHERN FAMILY |  | 22 | 0.12% |  |  | YES |  |
| SOUTHWEST |  | 17 | 0.10% |  |  | YES |  |
| SPROUTS FARMER |  | 25 | 0.14% |  |  | YES |  |
| STAR MARKET |  | 25 | 0.14% | 10 | 1.47% | YES |  |
| STATER BROS |  | 175 | 0.99% |  |  | YES |  |
| STERKS SUPER FOOD |  | 13 | 0.07% |  |  | YES |  |
| STOP & SHOP |  | 320 | 1.82% | 4 | 0.59% | YES |  |
| STOP SHOP SAVE |  | 15 | 0.09% |  |  | YES |  |
| STRACK & VAN TIL MARKET |  | 16 | 0.09% | 2 | 0.29% | YES |  |
| SUN HARVEST FARMS MARKET |  | 6 | 0.03% |  |  | NO |  |
| SUNFLOWER FARMERS MARKET |  | 6 | 0.03% |  |  | NO | This was originally just “FARMERS MARKET”. Was split into “HENRYS FARMERS MARKET” and “SUNFLOWER FARMERS MARKET” |
| SUNFLOWER FOOD STORE | SUNFLOWER IGA FOOD STORE | 62 | 0.35% |  |  | NO |  |
| SUNFLOWER MARKET |  | 22 | 0.12% |  |  | NO |  |
| SUPER 1 FOOD | SUPER ONE FOODS | 13 | 0.07% | 11 | 1.62% | YES |  |
| SUPER A FOOD |  | 17 | 0.10% |  |  | YES |  |
| SUPER FRESH FOOD |  | 89 | 0.51% | 6 | 0.88% | YES |  |
| SUPER GIANT FOODS |  | 1 | 0.01% | 5 | 0.74% | NO |  |
| SUPER H MART |  | 4 | 0.02% | 4 | 0.59% | NO |  |
| SUPER KMART |  | 17 | 0.10% |  |  | YES |  |
| SUPER SAVER STORE |  | 69 | 0.39% | 5 | 0.74% | YES |  |
| SUPER TARGET |  | 8 | 0.05% |  |  | YES |  |
| SUPERIOR GROCERS |  | 9 | 0.05% |  |  | NO |  |
| SUPERIOR SUPER WAREHOUSE |  | 9 | 0.05% |  |  | YES |  |
| SUTTON PLACE GOURMET |  | 2 | 0.01% |  |  | NO |  |
| SWEETBAY SUPERMARKET |  | 110 | 0.62% | 1 | 0.15% | YES |  |
| TERRYS SUPERMARKET |  | 10 | 0.06% |  |  | NO |  |
| THE STORE |  | 11 | 0.06% |  |  | NO |  |
| THRIFTWAY FOOD & DRUG |  | 80 | 0.45% | 1 | 0.15% | NO |  |
| TOM THUMB |  | 206 | 1.17% | 42 | 6.19% | YES |  |
| TONYS FINER FOODS |  | 10 | 0.06% |  |  | NO |  |
| TOP VALU |  | 20 | 0.11% |  |  | YES |  |
| TOPS MARKET |  | 114 | 0.65% |  |  | YES |  |
| TRADE FAIR |  | 17 | 0.10% |  |  | YES |  |
| TRADER JOES |  | 214 | 1.22% |  |  | YES |  |
| U SAVE |  | 16 | 0.09% |  |  | YES | bought out by 'SUPER ONE FOODS'; on original list in 2007; kept since earlier years still pull by this name |
| UKROPS SUPERMARKET |  | 26 | 0.15% |  |  | YES |  |
| ULTRA FOODS |  | 7 | 0.04% | 6 | 0.88% | NO |  |
| VALLARTA SUPERMARKET |  | 30 | 0.17% |  |  | YES |  |
| VALU PLUS WAREHOUSE |  | 13 | 0.07% | 1 | 0.15% | YES |  |
| VILLAGE MARKET |  | 75 | 0.43% | 1 | 0.15% | NO |  |
| VITAMIN COTTAGE NATURAL GROCERS |  | 14 | 0.08% |  |  | NO |  |
| VONS |  | 282 | 1.60% | 34 | 5.01% | YES |  |
| WALDBAUM SUPERMARKET |  | 100 | 0.57% | 3 | 0.44% | YES |  |
| WALMART SUPERCENTER |  | 173 | 0.98% |  |  | YES |  |
| WALTS FOOD CENTER |  | 1 | 0.01% |  |  | NO |  |
| WAYFIELD FOODS |  | 15 | 0.09% |  |  | YES |  |
| WEGMANS FOOD MARKET |  | 28 | 0.16% |  |  | YES |  |
| WEIS MARKET |  | 77 | 0.44% |  |  | YES |  |
| WESTERN BEEF SUPERMARKET |  | 37 | 0.21% |  |  | YES |  |
| WHOLE FOODS MARKET |  | 267 | 1.52% |  |  | YES |  |
| WILD OATS |  | 51 | 0.29% | 8 | 1.18% | YES |  |
| WINCO |  | 26 | 0.15% |  |  | YES |  |
| WINN DIXIE |  | 732 | 4.16% | 24 | 3.54% | YES |  |
| ZUPANS MARKET |  | 5 | 0.03% |  |  | NO |  |
| TOTAL |  | 17,613 |  | 678 |  |  |  |

# APPENDIX F: SUPERMARKET EXCLUSIONARY TERMS LIST

In efforts to batch/standardize the exclusion process and reduce the amount of manual work, we creased an Exclusionary String List to run against the records to remove records that are not large chain supermarkets. There are a total of 96 words on the exclusionary list.

**EXCLUSIONARY LIST**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| AUTO |  | VAN LINES |  | FORMWORKS |
| INSPECTION |  | GIFTS |  | FOUNDATION |
| SYSTEM |  | AUCTION |  | HEALTHCARE |
| CONSTRUCTION |  | FLEA MARKET |  | LOGISTICS |
| LEASING |  | TREASURE |  | MORTGAGE |
| TRANSIT |  | BANK |  | RECOVERY |
| TANNING |  | LIGHTING |  | RECREATIONAL |
| TRANSPORT |  | MANAGED CARE |  | SAFETY |
| PET FOOD |  | MEDICAL |  | SECURITY |
| PIZZA |  | ARMORY |  | TAXES |
| DESIGN |  | LIQUORS |  | COMMUNICATIONS |
| PASTRY |  | TAKE OUT |  | EQUIPMENT |
| DONUT |  | HDWR |  | FLORIST |
| BEVERAGE |  | GOLF COURSE |  | CINEMA |
| SNACK |  | GAS |  | LAUNDROMAT |
| DELI |  | AWNINGS |  | PRINTERS |
| HOT DOG |  | RESTAURANT |  |  |
| COFFEE |  | CAFÉ |  |  |
| ICE CREAM |  | TOBACCO |  |  |
| DAIRY |  | PIZZERIA |  |  |
| EGGS |  | MACHINERY |  |  |
| WINE |  | CAFETERIA |  |  |
| SPIRITS |  | BUFFET |  |  |
| WINES & SPIRITS |  | DINING |  |  |
| LIQUOR |  | FILM |  |  |
| WINES |  | FUNDRAISING |  |  |
| CATERING |  | NURSERY |  |  |
| YOGA |  | FLOWERS |  |  |
| FITNESS |  | BABY |  |  |
| RACQUET |  | DADDY |  |  |
| FUEL |  | CAFE |  |  |
| OIL |  | DENTISTRY |  |  |
| LUBE |  | MOVERS |  |  |
| JEWELERS |  | H AND R BLOCK |  |  |
| POOL |  | AUTOMOTIVE |  |  |
| CONSTRUCTION |  | ARMED |  |  |
| CLEANING |  | CONTRACTING |  |  |
| MOTORS |  | FED CU |  |  |
| MOVING |  | FINANCE |  |  |
| TRANSPORTATION |  | FORMWORK |  |  |

# APPENDIX G: FAST FOOD CHAIN LIST

Fast food is defined as large chain eating places that specialize in low preparation time foods that are eaten cafeteria-style (no waiter service) or take-away. The list was derived from the top 75 *Restaurant and Institutions* revenue-ranked for the year 2005 (Hume, Scott (400 Editor). R&I Top 400 Chain Restaurants. Restaurants & Institutions. <http://www.rimag.com>).

R&I top 400 includes many kinds of restaurants including casual dining, buffet, and coffee shops. We excluded all except fast-food (defined above) and excluded coffee, donut, and ice cream shops because those shops generally sell snacks and thus are not often thought of fast-food by consumers. MESA respondents who report on fast-food eating behaviors and presence of fast food in their neighborhood are not likely to count the coffee, donut, and ice cream restaurants. Latetia Moore's chain-name list in 2003 also excluded coffee, donut, and ice cream chains.

**FAST FOOD LIST** (in order by total sales in 2005). Frequencies are from the main list from which the names are pulled in the yearly files (U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\FoodStoresLists\ ff00\_11\_final.sas7bdat):

| **Name** | **Frequency** | **Percent** |
| --- | --- | --- |
| McDonald's | 6225 | 11.83% |
| KFC | 2572 | 4.89% |
| Burger King | 3517 | 6.68% |
| Pizza Hut | 3185 | 6.05% |
| Subway | 6125 | 11.64% |
| Wendy's | 2659 | 5.05% |
| Taco Bell | 2210 | 4.20% |
| Domino’s Pizza | 2517 | 4.78% |
| Sonic | 981 | 1.86% |
| Arby's | 1408 | 2.67% |
| Jack In The Box | 1236 | 2.35% |
| Chick fil A | 532 | 1.01% |
| Papa John's | 1193 | 2.27% |
| Hardees | 971 | 1.84% |
| Popeyes Chicken and Biscuits | 785 | 1.49% |
| Panera Bread | 477 | 0.91% |
| Quiznos | 2082 | 3.96% |
| Carl's Jr | 606 | 1.15% |
| Church's Chicken | 908 | 1.72% |
| Little Caesars | 1066 | 2.03% |
| Whataburger | 363 | 0.69% |
| Long John Silver's | 424 | 0.81% |
| Panda Express | 628 | 1.19% |
| Boston Market | 577 | 1.10% |
| Chipotle | 570 | 1.08% |
| Checkers Drive-In/Rally's | 605 | 1.15% |
| Sbarro | 436 | 0.83% |
| White Castle | 259 | 0.49% |
| Del Taco | 392 | 0.74% |
| Captain D's | 321 | 0.61% |
| CiCi's Pizza | 300 | 0.57% |
| El Pollo Loco | 232 | 0.44% |
| Bojangles | 271 | 0.51% |
| Krystal | 217 | 0.41% |
| Chester's | 18 | 0.03% |
| In N Out Burger | 182 | 0.35% |
| Fazoli's | 186 | 0.35% |
| Round Table Pizza | 287 | 0.55% |
| Einstein Bros Bagels | 415 | 0.79% |
| Baja Fresh Mexican Grill | 94 | 0.18% |
| Fuddruckers | 154 | 0.29% |
| Jason's Deli | 88 | 0.17% |
| Blimpie | 794 | 1.51% |
| Au Bon Pain | 196 | 0.37% |
| Hungry Howie's Pizza | 147 | 0.28% |
| Taco Johns | 82 | 0.16% |
| Wienerschnitzel | 233 | 0.44% |
| Schlotzsky's Deli | 388 | 0.74% |
| McAlister's Deli | 106 | 0.20% |
| Taco Cabana | 85 | 0.16% |
| Moe's Southwest Grill | 131 | 0.25% |
| Corner Bakery | 90 | 0.17% |
| Atlanta Bread | 124 | 0.24% |
| Qdoba Mexican Grill | 93 | 0.18% |
| Jimmy John's Gourmet Sandwiches | 90 | 0.17% |
| Pollo Tropical | 32 | 0.06% |
| Taco Time | 59 | 0.11% |
| Togo's Eatery | 293 | 0.56% |
| Taco Bueno | 52 | 0.10% |
| Bruegger's Bagels | 273 | 0.52% |
| Rubio's Baja Grill | 141 | 0.27% |
| Back Yard Burgers | 59 | 0.11% |
| Roly Poly | 91 | 0.17% |
| Jersey Mike's | 112 | 0.21% |
| Pick Up Stix | 38 | 0.07% |
| La Madeleine | 55 | 0.10% |
| Portillo's Hot Dogs | 25 | 0.05% |
| Cosi | 49 | 0.09% |
| Pei Wei | 104 | 0.20% |
| D’Angelo Grilled Sandwiches | 72 | 0.14% |
| The Great Steak Potato Co | 72 | 0.14% |
| Firehouse Subs | 119 | 0.23% |
| Noodles Co | 28 | 0.05% |
| Potbelly Sandwich Works | 26 | 0.05% |
| Mrs Winner's Chicken | 108 | 0.21% |
| TOTAL | 52,641 |  |

# APPENDIX H: LIST OF STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES FROM LISA POWELL FOR RECREATIONAL FACILITIES

| **SIC** | **LABEL** |
| --- | --- |
| 7911-0000 | Dance studios, schools, and halls |
| 7911-0100 | Dance hall services |
| 7911-0101 | Dance hall or ballroom operation |
| 7911-0102 | Discotheque, except those serving alcoholic beverages |
| 7911-0200 | Dance instructor and school services |
| 7911-0201 | Childrens' dancing school |
| 7911-0202 | Dance instructor |
| 7911-0203 | Dance studio and school |
| 7911-0204 | Professional dancing school |
| 7933-0000 | Bowling centers |
| 7933-9901 | Candle pin center |
| 7933-9902 | Duck pin center |
| 7933-9903 | Ten pin center |
| 7991-0000 | Physical fitness facilities |
| 7991-0100 | Physical fitness clubs with training equipment |
| 7991-0101 | Athletic club and gymnasiums, membership |
| 7991-0102 | Health club |
| 7991-0103 | Spas |
| 7991-0200 | Weight reducing clubs |
| 7991-0201 | Reducing facility |
| 7991-0202 | Slenderizing salon |
| 7991-0300 | Exercise facilities |
| 7991-0301 | Aerobic dance and exercise classes |
| 7991-0302 | Exercise salon |
| 7992-0000 | Public golf courses |
| 7997-0000 | Membership sports and recreation clubs |
| 7997-0100 | Ice sports |
| 7997-0101 | Curling club, membership |
| 7997-0102 | Hockey club, except professional and semi-professional |
| 7997-0200 | Boating and swimming clubs |
| 7997-0201 | Beach club, membership |
| 7997-0202 | Boating club, membership |
| 7997-0203 | Swimming club, membership |
| 7997-0400 | Outdoor field clubs |
| 7997-0401 | Baseball club, except professional and semi-professional |
| 7997-0402 | Football club, except professional and semi-professional |
| 7997-0404 | Soccer club, except professional and semi-professional |
| 7997-0500 | Indoor/outdoor court clubs |
| 7997-0501 | Handball club, membership |
| 7997-0502 | Racquetball club, membership |
| 7997-0503 | Squash club, membership |
| 7997-0504 | Tennis club, membership |
| 7997-9902 | Bowling league or team |
| 7997-9904 | Country club, membership |
| 7997-9906 | Golf club, membership |
| 7997-9907 | Lawn bowling club, membership |
| 7997-9908 | Riding club, membership |
| 7999-0100 | Tennis services and professionals |
| 7999-0101 | Tennis club, non-membership |
| 7999-0102 | Tennis courts, outdoor/indoor: non-membership |
| 7999-0103 | Tennis professional |
| 7999-0200 | Golf services and professionals |
| 7999-0202 | Golf driving range |
| 7999-0203 | Golf professionals |
| 7999-0204 | Golf, pitch-n-putt |
| 7999-0205 | Miniature golf course operation |
| 7999-0300 | Indoor court clubs |
| 7999-0301 | Handball courts, non-membership |
| 7999-0302 | Racquetball club, non-membership |
| 7999-0303 | Squash club, non-membership |
| 7999-0601 | Curling rinks |
| 7999-0602 | Ice skating rink operation |
| 7999-0603 | Roller skating rink operation |
| 7999-0700 | Shooting facilities and archery lanes |
| 7999-0701 | Archery lanes |
| 7999-1100 | Instruction schools, camps, and services |
| 7999-1102 | Baseball instruction school |
| 7999-1103 | Basketball instruction school |
| 7999-1104 | Bowling instruction |
| 7999-1106 | Day camp |
| 7999-1107 | Diving instruction, underwater |
| 7999-1108 | Games, instruction |
| 7999-1109 | Gymnastic instruction, non-membership |
| 7999-1110 | Hockey instruction school |
| 7999-1111 | Judo instruction |
| 7999-1112 | Karate instruction |
| 7999-1113 | Martial arts school, nec |
| 7999-1115 | Sailing instruction |
| 7999-1116 | Scuba and skin diving instruction |
| 7999-1118 | Skating instruction, ice or roller |
| 7999-1119 | Ski instruction |
| 7999-1120 | Sports instruction, schools and camps |
| 7999-1121 | Surfing instruction |
| 7999-1122 | Swimming instruction |
| 7999-1123 | Yoga instruction |
| 7999-1127 | Physical fitness instruction |
| 7999-1200 | Riding and rodeo services |
| 7999-1201 | Riding academy and school |
| 7999-1202 | Riding stable |
| 7999-1204 | Rodeo operation |
| 7999-1402 | Bathing beach, non-membership |
| 7999-1412 | Swimming pool, non-membership |
| 7999-1512 | Waterslide operation |
| 7999-1513 | Wave pool operation |
| 7999-1604 | Trail guide |
| 7999-9903 | Baseball batting cage |
| 7999-9907 | Outfitters, recreation |
| 7999-9910 | Recreation center |
| 7999-9912 | Recreation services |
| 7999-9917 | Trampoline operation |

# APPENDIX I: LIST OF STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES FROM PENNY GORDON-LARSON FOR RECREATIONAL FACILITIES

**Outdoor Facilities (55 SIC codes)**

SIC DESCRIPTION

70110200 Vacation lodges

70110201 Ski lodge

70110202 Tourist camps, cabins, cottages, and courts

70320000 Sporting and recreational camps

70320100 Recreational camps

70320101 Cabin camp

70320102 Dude ranch

70320200 Youth camps

70320201 Boys' camp

70320202 Girls' camp

70320203 Summer camp, except day and sports instructional

70320300 Sporting camps

70320301 Fishing camp

70320302 Hunting camp

70330000 Trailer parks and campsites

70339901 Campgrounds

70339902 Campsite

79920000 Public golf courses

79970200 Boating and swimming clubs

79970201 Beach club, membership

79970202 Boating club, membership

79970203 Swimming club, membership

79970302 Hunting club, membership

79970401 Baseball club, except professional and semi-professional

79970402 Football club, except professional and semi-professional

79970404 Soccer club, except professional and semi-professional

79979906 Golf club, membership

79979908 Riding club, membership

79990000 Amusement and recreation, nec

79990200 Golf services and professionals

79990202 Golf driving range

79990203 Golf professionals

79990204 Golf, pitch-n-putt

79990205 Miniature golf course operation

79990501 Bicycle rental

79991102 Baseball instruction school

79991106 Day camp

79991115 Sailing instruction

79991119 Ski instruction

79991121 Surfing instruction

79991200 Riding and rodeo services

79991201 Riding academy and school

79991202 Riding stable

79991205 Saddlehorse rental

79991402 Bathing beach, non-membership

79991407 Lifeguard service

79991409 Rowboat and canoe rental

79991410 Sailboard rental

79991411 Surfing equipment rental

79991512 Waterslide operation

79991515 Zoological garden, commercial

79991602 Rafting tours

79991604 Trail guide

79999907 Outfitters, recreation

79999912 Recreation services

**Membership Facilities (23 SIC Codes)**

SIC DESCRIPTION

79910100 Physical fitness clubs with training equipment

79910101 Athletic club and gymnasiums, membership

79910102 Health club

79970000 Membership sports and recreation clubs

79970102 Hockey club, except professional and semi-professional

79970200 Boating and swimming clubs

79970201 Beach club, membership

79970202 Boating club, membership

79970203 Swimming club, membership

79970302 Hunting club, membership

79970401 Baseball club, except professional and semi-professional

79970402 Football club, except professional and semi-professional

79970404 Soccer club, except professional and semi-professional

79970500 Indoor/outdoor court clubs

79970501 Handball club, membership

79970502 Racquetball club, membership

79970503 Squash club, membership

79970504 Tennis club, membership

79979904 Country club, membership

79979906 Golf club, membership

79979908 Riding club, membership

79990000 Amusement and recreation, nec

79990300 Indoor court clubs

**Instruction Facilities (27 SIC Codes)**

SIC DESCRIPTION

79110000 Dance studios, schools, and halls

79110200 Dance instructor and school services

79110201 Childrens' dancing school

79110202 Dance instructor

79110203 Dance studio and school

79910301 Aerobic dance and exercise classes

79990000 Amusement and recreation, nec

79990103 Tennis professional

79990200 Golf services and professionals

79990203 Golf professionals

79991102 Baseball instruction school

79991103 Basketball instruction school

79991104 Bowling instruction

79991109 Gymnastic instruction, non-membership

79991110 Hockey instruction school

79991111 Judo instruction

79991112 Karate instruction

79991113 Martial arts school, nec

79991115 Sailing instruction

79991118 Skating instruction, ice or roller

79991119 Ski instruction

79991120 Sports instruction, schools and camps

79991121 Surfing instruction

79991122 Swimming instruction

79991123 Yoga instruction

79991127 Physical fitness instruction

79991201 Riding academy and school

**Public Facilities (8 SIC Codes)**

SIC DESCRIPTION

79990000 Amusement and recreation, nec

79990102 Tennis courts, outdoor/indoor: non-membership

79991402 Bathing beach, non-membership

79991412 Swimming pool, non-membership

79999910 Recreation center

79999912 Recreation services

83220205 Youth center

83220601 Community center

**Public Fee Facilities (30 SIC Codes)**

SIC DESCRIPTION

79330000 Bowling centers

79339901 Candle pin center

79339902 Duck pin center

79339903 Ten pin center

79910000 Physical fitness facilities

79910300 Exercise facilities

79910302 Exercise salon

79920000 Public golf courses

79970100 Ice sports

79990000 Amusement and recreation, nec

79990101 Tennis club, non-membership

79990102 Tennis courts, outdoor/indoor: non-membership

79990202 Golf driving range

79990204 Golf, pitch-n-putt

79990205 Miniature golf course operation

79990302 Racquetball club, non-membership

79990303 Squash club, non-membership

79990501 Bicycle rental

79990602 Ice skating rink operation

79990603 Roller skating rink operation

79991200 Riding and rodeo services

79991202 Riding stable

79991205 Saddlehorse rental

79991409 Rowboat and canoe rental

79991410 Sailboard rental

79991411 Surfing equipment rental

79991512 Waterslide operation

79991602 Rafting tours

79991604 Trail guide

79999907 Outfitters, recreation

**Parks Facilities (2 SIC Codes)**

SIC DESCRIPTION

79990000 Amusement and recreation, nec

79999912 Recreation services

# APPENDIX J: LIST OF SAS CODE USED TO PROCESS NETS DATA

1. 01\_NETS\_ReadIn\_MS.sas
   1. This program imports the Microsoft Access and Stata9 (for addresses) files from the state of Mississippi.
2. 02\_NETS\_ReadIn\_MESA\_JHS.sas
   1. This program imports the text and Stata9 (for addresses and SIC codes) files for the non-Mississippi areas.
3. 03\_NETS\_process.sas
   1. This program sets together the Mississippi and non-Mississippi files from 1 and 2 above. It also removes any duplicate records between the two files. This outputs the business files to the folder “U:\SECURE\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Original\_File”
      1. nets.sas7bdat
      2. nets\_move.sas7bdat
4. 04\_NETS\_Address\_Original\_Geocode.sas
   1. This program creates a “master list” of the geocoded NETS addresses from the MESA files from 2000-2007 from the 2009 NETS data. These addresses are used to link to those NETS addresses in the new files that are already cleaned. This outputs the file to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes”
      1. netsgeo\_orig.sas7bdat
5. 05\_NETS\_Determine\_Geocodes\_Needed.sas
   1. The program determines which addresses in NETS original and moving datasets are less than street level accurate and need geocoding in TeleAtlas. This creates the indicators for which geocode to use. This outputs the business files with additional variables to the folder “U:\SECURE\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Original\_File”
      1. nets.sas7bdat
      2. nets\_move.sas7bdat
6. 06\_NETS\_prepare\_address\_for\_TeleAtlas.sas
   1. This program prepares the addresses that need to be geocoded in TeleAtlas for importing into TeleAtlas EZ-Locate. They are output in batches of 20,000 for importing. This outputs the text files to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\ImportToTeleAtlas”
      1. NETS\_GeocodeB1.txt
      2. NETS\_GeocodeB2.txt
      3. NETS\_GeocodeB3.txt
      4. NETS\_GeocodeB4.txt
      5. NETS\_GeocodeB5.txt
      6. NETS\_GeocodeB6.txt
      7. NETSMOVE\_GeocodeB1.txt
      8. NETSMOVE\_GeocodeB2.txt
7. 07\_NETS\_Import\_geocodes\_round1.sas
   1. This program imports the geocodes from TeleAtlas and determines if any are less than street level accurate and needed to be checked to see if the address can be cleaned and regeocoded. This outputs the excel files of addresses to check to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes”
      1. NETS\_for\_regeo.xlsx
      2. NETSMOVE\_for\_regeo.xlsx
8. 08\_NETS\_prepare\_address\_for\_TeleAtlas\_regeocode.sas
   1. This program prepares the addresses that need to be regeocoded in TeleAtlas for importing into TeleAtlas EZ-Locate. They are output in batches of 20,000 for importing. This outputs the text files to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\ImportToTeleAtlas”
      1. NETS\_REGeocode.txt
      2. NETSMOVE\_REGeocode.txt
9. 09\_NETS\_Import\_geocodes\_round2.sas
   1. This program imports the TeleAtlas geocodes and regeocodes and merges with the final datasets and determines whether to use the TeleAtlas or NETS geocode as the final geocode. This outputs the business files with additional geocoded variables to the folder “U:\SECURE\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Original\_File”
      1. nets.sas7bdat
      2. nets\_move.sas7bdat
10. 10\_NETS\_BGID\_from\_GIS.sas
    1. This program imports the block group ID that was created in GIS and merges with the final datasets. This outputs the business files with additional census tract/block group variables to the folder “U:\SECURE\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Original\_File”
       1. nets.sas7bdat
       2. nets\_move.sas7bdat
11. 11\_NETS\_to\_Year.sas
    1. This program creates the yearly NETS files for the years 2000-2010. Only businesses that are active in that year and are on the SIC code list are included in each dataset. This outputs the NETS yearly files to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Yearly\_Files\FullYearlyData”
       1. nets2000.sas7bdat-nets2010.sas7bdat
12. 12\_NETS\_code\_nonfood.sas
    1. This program creates the non-food based coding for recreational facilities, social engagement, popular walking destinations, and social services. This outputs the NETS yearly files with the additional variables to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Yearly\_Files\FullYearlyData”
       1. nets2000.sas7bdat-nets2010.sas7bdat
13. 13\_NETS\_remove\_dups\_nonfood.sas
    1. This program identifies records that have duplicates within each year for the non-food based categories. This outputs excel files of duplicates that need to be checked by hand to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Check\_Dups”
       1. nonfood\_dups2000.xlsx- nonfood\_dup2010.xlsx
14. 14\_NETS\_merge\_dups\_nonfood.sas
    1. This program reads in the excel files that were check by hand with the non-food based duplicates and merges with the final NETS yearly files and creates in indicator if that record should be dropped from analysis due to being a duplicate. This outputs the NETS yearly files with the additional variables to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Yearly\_Files\FullYearlyData”
       1. nets2000.sas7bdat-nets2010.sas7bdat
15. 15\_NETS\_nonfood\_analysis\_files.sas
    1. This program creates the analysis files for the non-food based categories for recreational facilities, social engagement, and popular walking destinations. This outputs the FINAL NETS yearly analysis files to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Yearly\_Files\AnalysisData”
       1. nonfood2000.sas7bdat-nonfood2010.sas7bdat
16. 16\_NETS\_FastFood\_List.sas
    1. This program creates the final list of fast food chain restaurants based on the name list. This uses all records in the original NETS file. This outputs the fast food chain list file to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\FoodStoresLists”
       1. ff00\_11\_final.sas7bdat
17. 17\_NETS\_Supermarket\_List.sas
    1. This program creates the final list of supermarket chain stores based on the name list. This uses all records in the original NETS file. This outputs the supermarket chain list file to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\FoodStoresLists”
       1. smlist\_final.sas7bdat
18. 18\_NETS\_check\_dups\_ff\_sm\_lists.sas
    1. This program checks if there are any duplicate records between the fast food and supermarket chain lists and chooses which to keep. This outputs the FINAL fast food and supermarket chain list files to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\FoodStoresLists”
       1. ff00\_11\_final.sas7bdat
       2. smlist\_final.sas7bdat
19. 19\_NETS\_code\_food.sas
    1. This program creates the food based coding for food stores, social engagement, and popular walking destinations. This outputs the NETS yearly files with the additional variables to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Yearly\_Files\FullYearlyData”
       1. nets2000.sas7bdat-nets2010.sas7bdat
20. 20\_NETS\_remove\_dups\_food.sas
    1. This program identifies records that have duplicates within each year for the food based categories. This outputs excel files of duplicates that need to be checked by hand to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Check\_Dups”
       1. food\_dups2000.xlsx- food\_dup2010.xlsx
21. 21\_NETS\_remove\_dups\_food\_supermarket.sas
    1. This program identifies records that have duplicates within each year for the food based categories for supermarkets the don’t match by name but have the same location. This outputs excel files of duplicates that need to be checked by hand to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Check\_Dups”
       1. sm\_food\_dups2000.xlsx- sm\_food\_dup2010.xlsx
22. 22\_NETS\_merge\_dups\_food.sas
    1. This program reads in the excel files that were check by hand with the food based duplicates and merges with the final NETS yearly files and creates in indicator if that record should be dropped from analysis due to being a duplicate. This outputs the NETS yearly files with the additional variables to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Yearly\_Files\FullYearlyData”
       1. nets2000.sas7bdat-nets2010.sas7bdat
23. 23\_NETS\_food\_analysis\_files.sas
    1. This program creates the analysis files for the food based categories for food stores, social engagement, and popular walking destinations. This outputs the FINAL NETS yearly analysis files to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Yearly\_Files\AnalysisData”
       1. food2000.sas7bdat-food2010.sas7bdat
24. 24\_NETS\_Extra\_PA\_for\_total\_stores.sas
    1. This program creates the analysis files for the extra PA that needed to be created into densities to be able to add together to get total businesses. These are the ones that don’t overlap with any social uses. This outputs the FINAL NETS yearly analysis files to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Yearly\_Files\AnalysisData”
       1. nonfood2000.sas7bdat-nonfood2010.sas7bdat
    2. “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Yearly\_Files\FullYearlyData”
       1. nets2000.sas7bdat-nets2010.sas7bdat
25. 25\_NETS\_CT\_BG\_Level\_analysis\_files.sas
    1. This program creates the final files for the area level census tract and block group counts of each category for area-level analyses. This includes all food stores, recreational facilities, social engagement, and popular walking destinations. This outputs the FINAL analysis files to the folder “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Area\_Level”
       1. nets2000\_ct00.sas7bdat-nets2010\_ct00.sas7bdat
       2. nets2000\_bg00.sas7bdat-nets2010\_bg00.sas7bdat
26. 26\_NETS\_import\_densities.sas
    1. This program imports the densities created in GIS and separates the files into study type (MESA, JHS, CS). This outputs the FINAL analysis files to the folders
       1. “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Densities\CommunitySurvey”
          1. cs1\_nets\_den2000\_ct00.sas7bdat- cs1\_nets\_den2010\_ct00.sas7bdat
          2. cs2\_nets\_den2000\_ct00.sas7bdat- cs2\_nets\_den2010\_ct00.sas7bdat
          3. cs3\_nets\_den2000\_ct00.sas7bdat- cs3\_nets\_den2010\_ct00.sas7bdat
       2. “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Densities\JHS”
          1. jhs\_nets\_den2000\_ct00.sas7bdat- jhs\_nets\_den2010\_ct00.sas7bdat
       3. “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Densities\MESA”
          1. mesa\_nets\_den2000\_ct00.sas7bdat- mesa\_nets\_den2010\_ct00.sas7bdat
          2. mesabl\_nets\_den2000\_ct00.sas7bdat- mesabl\_nets\_den2010\_ct00.sas7bdat
          3. mesawork\_nets\_den2000\_ct00.sas7bdat- mesawork\_nets\_den2010\_ct00.sas7bdat
27. 27\_NETS\_import\_distance.sas
    1. This program imports the Euclidean distance measures created in GIS and separates the files into study type (MESA, JHS, CS). This outputs the FINAL analysis files to the folders
       1. “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Distance\CommunitySurvey”
          1. cs1\_nets\_dist2000\_ct00.sas7bdat- cs1\_nets\_dist2010\_ct00.sas7bdat
          2. cs2\_nets\_dist2000\_ct00.sas7bdat- cs2\_nets\_dist2010\_ct00.sas7bdat
          3. cs3\_nets\_dist2000\_ct00.sas7bdat- cs3\_nets\_dist2010\_ct00.sas7bdat
       2. “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Distance\JHS”
          1. jhs\_nets\_dist2000\_ct00.sas7bdat- jhs\_nets\_dist2010\_ct00.sas7bdat
       3. “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Distance\MESA”
          1. mesa\_nets\_dist2000\_ct00.sas7bdat- mesa\_nets\_dist2010\_ct00.sas7bdat
          2. mesabl\_nets\_dist2000\_ct00.sas7bdat- mesabl\_nets\_dist2010\_ct00.sas7bdat
          3. mesawork\_nets\_dist2000\_ct00.sas7bdat- mesawork\_nets\_dist2010\_ct00.sas7bdat
28. macro to code food based NETS measures.sas
    1. This program is the macro that creates the coding for the food based categories in food stores, social engagement, and popular walking destinations. This is called into other programs for coding.
29. macro to code nonfood based NETS measures.sas
    1. This program is the macro that creates the coding for the non-food based categories in recreational facilities, social engagement, and popular walking destinations. This is called into other programs for coding.
30. siccodes.sas
    1. This program contains the list of SIC codes on the purchase list to call into macros in other programs.
31. vartokeep.sas
    1. This program contains the list of variables to keep in the final SAS full business level file to call into macros in other programs.

# APPENDIX K: LIST OF FINAL DATASETS FOR NETS DATA AND VARIABLES DEFINITIONS

**Table K.1: List of datasets for NETS data**

|  |  |  |  |
| --- | --- | --- | --- |
| **FINAL ANALYSIS DATASETS** | | | |
| **Dataset name** | **Description** | **Location** | **Table with variables** |
| mesa\_nets\_den2000.sas7bdat- mesa\_nets\_den2010.sas7bdat | NETS-based densities for MESA participants – all follow-up addresses. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Densities\MESA | Table K2 |
| mesabl\_nets\_den2000.sas7bdat- mesabl\_nets\_den2010.sas7bdat | NETS-based densities for MESA participants – baseline addresses. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Densities\MESA | Table K2 |
| mesawork\_nets\_den2000.sas7bdat- mesawork\_nets\_den2010.sas7bdat | NETS-based densities for MESA participants – all work/activities addresses. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Densities\MESA | Table K2 |
| jhs\_nets\_den2000.sas7bdat-jhs\_nets\_den2010.sas7bdat | NETS-based densities for JHS participants. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Densities\JHS | Table K2 |
| cs1\_nets\_den2000.sas7bdat-cs1\_nets\_den2010.sas7bdat | NETS-based densities for CS1 participants. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Densities\CommunitySurvey | Table K2 |
| cs2\_nets\_den2000.sas7bdat-cs2\_nets\_den2010.sas7bdat | NETS-based densities for CS2 participants. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Densities\CommunitySurvey | Table K2 |
| cs3\_nets\_den2000.sas7bdat-cs3\_nets\_den2010.sas7bdat | NETS-based densities for CS3 participants. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Densities\CommunitySurvey | Table K2 |
| mesa\_nets\_dist2000.sas7bdat- mesa\_nets\_dist2010.sas7bdat | NETS-based Euclidean distance measures for MESA participants – all follow-up addresses. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Distance\MESA | Table K3 |
| mesabl\_nets\_dist2000.sas7bdat- mesabl\_nets\_dist2010.sas7bdat | NETS-based Euclidean distance measures for MESA participants – baseline addresses. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Distance\MESA | Table K3 |
| mesawork\_nets\_dist2000.sas7bdat- mesawork\_nets\_dist2010.sas7bdat | NETS-based Euclidean distance measures for MESA participants – all work/activities addresses. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Distance\MESA | Table K3 |
| jhs\_nets\_dist2000.sas7bdat-jhs\_nets\_dist2010.sas7bdat | NETS-based Euclidean distance measures for JHS participants. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Distance\JHS | Table K3 |
| cs1\_nets\_dist2000.sas7bdat-cs1\_nets\_dist2010.sas7bdat | NETS-based Euclidean distance measures for CS1 participants. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Distance\CommunitySurvey | Table K3 |
| cs2\_nets\_dist2000.sas7bdat-cs2\_nets\_dist2010.sas7bdat | NETS-based Euclidean distance measures for CS2 participants. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Distance\CommunitySurvey | Table K3 |
| cs3\_nets\_dist2000.sas7bdat-cs3\_nets\_dist2010.sas7bdat | NETS-based Euclidean distance measures for CS3 participants. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Distance\CommunitySurvey | Table K3 |
| nets2000\_ct00.sas7bdat- nets2010\_ct00.sas7bdat | Census tract (2000 boundaries) level analysis file. Contains counts of each category within the census tract. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Area\_Level | Table K4 |
| nets2000\_bg00.sas7bdat- nets2010\_bg00.sas7bdat | Block group (2000 boundaries) level analysis file. Contains counts of each category within the block group. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Area\_Level | Table K4 |
| food2000.sas7bdat-food2010.sas7bdat | Final business level dataset with food based categories coded. This includes food stores, social engagement, and popular walking destinations. There is a separate file for each year. Duplicates have been removed and TradeDimensions records are included. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Yearly\_Files\AnalysisData | Table K5 |
| nonfood2000.sas7bdat-nonfood2010.sas7bdat | Final business level dataset with non-food based categories coded. This includes recreational facilities, social engagement, and popular walking destinations. There is a separate file for each year. Duplicates have been removed. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Yearly\_Files\AnalysisData | Table K5 |
|  | | | |
| **FULL BUSINESS DATASETS** | | | |
| **Dataset name** | **Description** | **Location** | **Table with variables** |
| nets.sas7bdat | Main NETS business level dataset with all records. Not separated into years and there is no coding in this dataset. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Original\_File | Table K5 |
| nets\_move.sas7bdat | Dataset with NETS moving addresses. There can be more than 1 row per ID if the business moved multiple times. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Original\_File | Table K6 |
|  | | | |
| **CHAIN LISTS** | | | |
| **Dataset name** | **Description** | **Location** | **Table with variables** |
| ff00\_11\_final.sas7bdat | Final list of records from original file pulled as fast food chains. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\FoodStoresLists | Table K7 |
| smlist\_final.sas7bdat | Final list of records from original file pulled as supermarket chains. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\FoodStoresLists | Table K8 |
| Appendix B - Exclusionary list.xls | List if exclusionary terms for the supermarkets chain coding. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\FoodStoresLists |  |
|  | | | |
| **GIS FILES** | | | |
| **Dataset name** | **Description** | **Location** | **Table with variables** |
| food2000.dbf-food2010.dbf | GIS files for food based categories | U:\EPID\CSEPH\Projects\Diez Roux\Built Environment II\NETS\_to\_be\_transferred\DensityCreation | Table K5 |
| nonfood2000.dbf-nonfood2010.dbf | GIS files for non-food based categories | U:\EPID\CSEPH\Projects\Diez Roux\Built Environment II\NETS\_to\_be\_transferred\DensityCreation | Table K5 |
| extrapa2000.dbf-extrapa2010.dbf | GIS files for extra recreational facilities that do not overlap with the social uses for creating the total stores densities | U:\EPID\CSEPH\Projects\Diez Roux\Built Environment II\NETS\_to\_be\_transferred\DensityCreation | Table K5 |
|  | | | |
| **DATA CLEANING DATASETS** | | | |
| **Dataset name** | **Description** | **Location** | **Table with variables** |
| netsgeo\_orig.sas7bdat | File with geocodes from TeleAtlas from the NETS data in 2009 that was compiled as the master list of addresses to merge with the new NETS data. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes |  |
| NETS\_check\_address.xlsx | File output to check addresses in geocoding phase to determine if they can definitely not be modified and geocoded. This is for the main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes |  |
| NETS\_GeocodeB1.txt | Text file output to be imported into TeleAtlas EZ-Locate – Batch 1 for the main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\ImportToTeleAtlas |  |
| NETS\_GeocodeB2.txt | Text file output to be imported into TeleAtlas EZ-Locate – Batch 2 for the main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\ImportToTeleAtlas |  |
| NETS\_GeocodeB3.txt | Text file output to be imported into TeleAtlas EZ-Locate – Batch 3 for the main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\ImportToTeleAtlas |  |
| NETS\_GeocodeB4.txt | Text file output to be imported into TeleAtlas EZ-Locate – Batch 4 for the main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\ImportToTeleAtlas |  |
| NETS\_GeocodeB5.txt | Text file output to be imported into TeleAtlas EZ-Locate – Batch 5 for the main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\ImportToTeleAtlas |  |
| NETS\_GeocodeB6.txt | Text file output to be imported into TeleAtlas EZ-Locate – Batch 6 for the main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\ImportToTeleAtlas |  |
| NETS\_GeocodeB1\_output.txt | File output from TeleAtlas with geocodes – Batch 1 for main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETS\_GeocodeB1\_report.txt | Report file output from TeleAtlas with geocodes – Batch 1 for main NETS dataset (nets.sas7bdat) | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETS\_GeocodeB2\_output.txt | File output from TeleAtlas with geocodes – Batch 2 for main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETS\_GeocodeB2\_report.txt | Report file output from TeleAtlas with geocodes – Batch 2 for main NETS dataset (nets.sas7bdat) | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETS\_GeocodeB3\_output.txt | File output from TeleAtlas with geocodes – Batch 3 for main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETS\_GeocodeB3\_report.txt | Report file output from TeleAtlas with geocodes – Batch 3 for main NETS dataset (nets.sas7bdat) | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETS\_GeocodeB4\_output.txt | File output from TeleAtlas with geocodes – Batch 4 for main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETS\_GeocodeB4\_report.txt | Report file output from TeleAtlas with geocodes – Batch 4 for main NETS dataset (nets.sas7bdat) | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETS\_GeocodeB5\_output.txt | File output from TeleAtlas with geocodes – Batch 5 for main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETS\_GeocodeB5\_report.txt | Report file output from TeleAtlas with geocodes – Batch 5 for main NETS dataset (nets.sas7bdat) | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETS\_GeocodeB6\_output.txt | File output from TeleAtlas with geocodes – Batch 6 for main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETS\_GeocodeB6\_report.txt | Report file output from TeleAtlas with geocodes – Batch 6 for main NETS dataset (nets.sas7bdat) | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETS\_for\_regeo.xlsx | File output after first geocoding to determine if the address can be cleaned an re-geocoded. This is for the main NETS dataset (nets.sas7bdat) | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes |  |
| NETS\_REGeocode.txt | Text file output to be imported into TeleAtlas EZ-Locate – re-geocodes for the main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\ImportToTeleAtlas |  |
| NETS\_REGeocode\_output.txt | File output from TeleAtlas with re-geocodes for main NETS dataset (nets.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETS\_REGeocode\_report.txt | Report file output from TeleAtlas with regeocodes for main NETS dataset (nets.sas7bdat) | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETSMOVE\_check\_address.xlsx | File output to check addresses in geocoding phase to determine if they can definitely not be modified and geocoded. This is for the NETS moving dataset (nets\_move.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes |  |
| NETSMOVE\_GeocodeB1.txt | Text file output to be imported into TeleAtlas EZ-Locate – Batch 1 for the NETS moving dataset (nets\_move.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\ImportToTeleAtlas |  |
| NETSMOVE\_GeocodeB2.txt | Text file output to be imported into TeleAtlas EZ-Locate – Batch 2 for the NETS moving dataset (nets\_move.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\ImportToTeleAtlas |  |
| NETSMOVE\_GeocodeB1\_output.txt | File output from TeleAtlas with geocodes – Batch 1 for NETS moving dataset (nets\_move.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETSMOVE\_GeocodeB1\_report.txt | Report file output from TeleAtlas with geocodes – Batch 1 for NETS moving dataset (nets\_move.sas7bdat) | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETSMOVE\_GeocodeB2\_output.txt | File output from TeleAtlas with geocodes – Batch 2 for NETS moving dataset (nets\_move.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETSMOVE\_GeocodeB2\_report.txt | Report file output from TeleAtlas with geocodes – Batch 2 for NETS moving dataset (nets\_move.sas7bdat) | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETSMOVE\_for\_regeo.xlsx | File output after first geocoding to determine if the address can be cleaned an re-geocoded. This is for the NETS moving dataset (nets\_move.sas7bdat) | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes |  |
| NETSMOVE\_REGeocode.txt | Text file output to be imported into TeleAtlas EZ-Locate – re-geocodes for the NETS moving dataset (nets\_move.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\ImportToTeleAtlas |  |
| NETSMOVE\_REGeocode\_output.txt | File output from TeleAtlas with re-geocodes for NETS moving dataset (nets\_move.sas7bdat). | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| NETSMOVE\_REGeocode\_report.txt | Report file output from TeleAtlas with regeocodes for NETS moving dataset (nets\_move.sas7bdat) | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Geocodes\OutputFromTeleAtlas |  |
| food\_dups2000.xlsx-food\_dups2010.xlsx | Lists of duplicates for food based that were checked by hand to determine if they were real duplicates. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Check\_Dups |  |
| sm\_food\_dups2000.xlsx-sm\_food\_dups2010.xlsx | Lists of duplicates for supermarkets food based that were checked by hand to determine if they were real duplicates. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Check\_Dups |  |
| nonfood\_dups2000.xlsx-nonfood\_dups2010.xlsx | Lists of duplicates for non-food based that were checked by hand to determine if they were real duplicates. There is a separate file for each year. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Check\_Dups |  |
| nets2000.sas7bdat- nets2010.sas7bdat | Yearly datasets with main data separated into years. This includes the coding for food stores, recreational facilities, social engagement, and popular walking destinations. There are indicators for the duplicates but they are not removed from these files. | U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Data\Yearly\_Files\FullYearlyData | Table K4 |

**Table K.2: Variables for densities datasets**

This includes the datasets:

mesa\_nets\_den2000.sas7bdat-mesa\_nets\_den2010.sas7bdat

mesabl\_nets\_den2000.sas7bdat-mesabl\_nets\_den2010.sas7bdat

mesawork\_nets\_den2000.sas7bdat-mesawork\_nets\_den2010.sas7bdat

jhs\_nets\_den2000.sas7bdat-jhs\_nets\_den2010.sas7bdat

cs1\_nets\_den2000.sas7bdat-cs1\_nets\_den2010.sas7bdat

cs2\_nets\_den2000.sas7bdat-cs2\_nets\_den2010.sas7bdat

cs3\_nets\_den2000.sas7bdat-cs3\_nets\_den2010.sas7bdat

| **Variable name** | **Description** | **Coding** | **Notes** | **Category** |
| --- | --- | --- | --- | --- |
| idno | MESA id number |  | Only available in MESA datasets |  |
| add\_number | Address number |  | Available in MESA follow-up and JHS datasets |  |
| wadd\_number | Work address indicator | 4= Exam4  5 = Exam5  8= FU8  9 = FU9  10 = FU10 | Only available in MESA work datasets |  |
| fakeid | JHS address fake id number |  | Only available in JHS datasets |  |
| unique\_ID | JHS address fake id and address number merge together for unique id |  | Only available in JHS datasets |  |
| RECNO | CS1 unique ID number |  | Only available in CS1 datasets |  |
| uniqueID | CS2 unique ID number |  | Only available in CS2 datasets |  |
| SEQNO | CS3 unique ID number |  | Only available in CS3 datasets |  |
| K14GRO | 1/4 mile kernel density grocers. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S14GRO | 1/4 mile simple density grocers. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K0GRO | 1/2 mile kernel density grocers. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S0GRO | 1/2 mile simple density grocers. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K1GRO | 1 mile kernel density grocers. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S1GRO | 1 mile simple density grocers. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K3GRO | 3 mile kernel density grocers. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S3GRO | 3 mile simple density grocers. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K5GRO | 5 mile kernel density grocers. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S5GRO | 5 mile simple density grocers. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K14SCH | 1/4 mile kernel density supermarket chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S14SCH | 1/4 mile simple density supermarket chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K0SCH | 1/2 mile kernel density supermarket chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S0SCH | 1/2 mile simple density supermarket chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K1SCH | 1 mile kernel density supermarket chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S1SCH | 1 mile simple density supermarket chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K3SCH | 3 mile kernel density supermarket chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S3SCH | 3 mile simple density supermarket chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K5SCH | 5 mile kernel density supermarket chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S5SCH | 5 mile simple density supermarket chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K14SNO | 1/4 mile kernel density supermarket non-chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S14SNO | 1/4 mile simple density supermarket non-chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K0SNO | 1/2 mile kernel density supermarket non-chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S0SNO | 1/2 mile simple density supermarket non-chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K1SNO | 1 mile kernel density supermarket non-chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S1SNO | 1 mile simple density supermarket non-chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K3SNO | 3 mile kernel density supermarket non-chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S3SNO | 3 mile simple density supermarket non-chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K5SNO | 5 mile kernel density supermarket non-chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S5SNO | 5 mile simple density supermarket non-chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K14SMALL | 1/4 mile kernel density supermarket chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as K14SCH+K14SNO | Food Stores |
| S14SMALL | 1/4 mile simple density supermarket chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as S14SCH+S14SNO | Food Stores |
| K0SMALL | 1/2 mile kernel density supermarket chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as K0SCH+K0SNO | Food Stores |
| S0SMALL | 1/2 mile simple density supermarkets chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as S0SCH+S0SNO | Food Stores |
| K1SMALL | 1 mile kernel density supermarkets chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as K1SCH+K1SNO | Food Stores |
| S1SMALL | 1 mile simple density supermarkets chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as S1SCH+S1SNO | Food Stores |
| K3SMALL | 3 mile kernel density supermarkets chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as K3SCH+K3SNO | Food Stores |
| S3SMALL | 3 mile simple density supermarkets chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as S3SCH+S3SNO | Food Stores |
| K5SMALL | 5 mile kernel density supermarkets chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as K5SCH+K5SNO | Food Stores |
| S5SMALL | 5 mile simple density supermarkets chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as S5SCH+S5SNO | Food Stores |
| K14CON | 1/4 mile kernel density convenience store. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S14CON | 1/4 mile simple density convenience store. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K0CON | 1/2 mile kernel density convenience store. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S0CON | 1/2 mile simple density convenience store. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K1CON | 1 mile kernel density convenience store. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S1CON | 1 mile simple density convenience store. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K3CON | 3 mile kernel density convenience store. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S3CON | 3 mile simple density convenience store. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K5CON | 5 mile kernel density convenience store. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S5CON | 5 mile simple density convenience store. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K14MEA | 1/4 mile kernel density deli/meat/dairy. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S14MEA | 1/4 mile simple density deli/meat/dairy. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K0MEA | 1/2 mile kernel density deli/meat/dairy. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S0MEA | 1/2 mile simple density deli/meat/dairy. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K1MEA | 1 mile kernel density deli/meat/dairy. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S1MEA | 1 mile simple density deli/meat/dairy. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K3MEA | 3 mile kernel density deli/meat/dairy. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S3MEA | 3 mile simple density deli/meat/dairy. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K5MEA | 5 mile kernel density deli/meat/dairy. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S5MEA | 5 mile simple density deli/meat/dairy. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K14FRU | 1/4 mile kernel density fruit/vegetable market. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S14FRU | 1/4 mile simple density fruit/vegetable market. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K0FRU | 1/2 mile kernel density fruit/vegetable market. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S0FRU | 1/2 mile simple density fruit/vegetable market. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K1FRU | 1 mile kernel density fruit/vegetable market. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S1FRU | 1 mile simple density fruit/vegetable market. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K3FRU | 3 mile kernel density fruit/vegetable market. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S3FRU | 3 mile simple density fruit/vegetable market. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K5FRU | 5 mile kernel density fruit/vegetable market. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S5FRU | 5 mile simple density fruit/vegetable market. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K14BAK | 1/4 mile kernel density bakery, nuts, candy, ice cream. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S14BAK | 1/4 mile simple density bakery, nuts, candy, ice cream. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K0BAK | 1/2 mile kernel density bakery, nuts, candy, ice cream. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S0BAK | 1/2 mile simple density bakery, nuts, candy, ice cream. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K1BAK | 1 mile kernel density bakery, nuts, candy, ice cream. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S1BAK | 1 mile simple density bakery, nuts, candy, ice cream. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K3BAK | 3 mile kernel density bakery, nuts, candy, ice cream. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S3BAK | 3 mile simple density bakery, nuts, candy, ice cream. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K5BAK | 5 mile kernel density bakery, nuts, candy, ice cream. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S5BAK | 5 mile simple density bakery, nuts, candy, ice cream. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K14HEA | 1/4 mile kernel density health/vitamins. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S14HEA | 1/4 mile simple density health/vitamins. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K0HEA | 1/2 mile kernel density health/vitamins. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S0HEA | 1/2 mile simple density health/vitamins. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K1HEA | 1 mile kernel density health/vitamins. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S1HEA | 1 mile simple density health/vitamins. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K3HEA | 3 mile kernel density health/vitamins. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S3HEA | 3 mile simple density health/vitamins. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K5HEA | 5 mile kernel density health/vitamins. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S5HEA | 5 mile simple density health/vitamins. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K14LIQ | 1/4 mile kernel density liquor stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S14LIQ | 1/4 mile simple density liquor stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K0LIQ | 1/2 mile kernel density liquor stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S0LIQ | 1/2 mile simple density liquor stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K1LIQ | 1 mile kernel density liquor stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S1LIQ | 1 mile simple density liquor stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K3LIQ | 3 mile kernel density liquor stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S3LIQ | 3 mile simple density liquor stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K5LIQ | 5 mile kernel density liquor stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S5LIQ | 5 mile simple density liquor stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K14NAL | 1/4 mile kernel density nonalcoholic drinking places. The unit of measure is number of facilities per square mile. | Continuous |  | Food Stores, Walking |
| S14NAL | 1/4 mile simple density nonalcoholic drinking places. The unit of measure is number of facilities per square mile. | Continuous |  | Food Stores, Walking |
| K0NAL | 1/2 mile kernel density nonalcoholic drinking places. The unit of measure is number of facilities per square mile. | Continuous |  | Food Stores, Walking |
| S0NAL | 1/2 mile simple density nonalcoholic drinking places. The unit of measure is number of facilities per square mile. | Continuous |  | Food Stores, Walking |
| K1NAL | 1 mile kernel density nonalcoholic drinking places. The unit of measure is number of facilities per square mile. | Continuous |  | Food Stores, Walking |
| S1NAL | 1 mile simple density nonalcoholic drinking places. The unit of measure is number of facilities per square mile. | Continuous |  | Food Stores, Walking |
| K3NAL | 3 mile kernel density nonalcoholic drinking places. The unit of measure is number of facilities per square mile. | Continuous |  | Food Stores, Walking |
| S3NAL | 3 mile simple density nonalcoholic drinking places. The unit of measure is number of facilities per square mile. | Continuous |  | Food Stores, Walking |
| K5NAL | 5 mile kernel density nonalcoholic drinking places. The unit of measure is number of facilities per square mile. | Continuous |  | Food Stores, Walking |
| S5NAL | 5 mile simple density nonalcoholic drinking places. The unit of measure is number of facilities per square mile. | Continuous |  | Food Stores, Walking |
| K14ALC | 1/4 mile kernel density alcoholic drinking places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S14ALC | 1/4 mile simple density alcoholic drinking places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K0ALC | 1/2 mile kernel density alcoholic drinking places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S0ALC | 1/2 mile simple density alcoholic drinking places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K1ALC | 1 mile kernel density alcoholic drinking places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S1ALC | 1 mile simple density alcoholic drinking places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K3ALC | 3 mile kernel density alcoholic drinking places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S3ALC | 3 mile simple density alcoholic drinking places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K5ALC | 5 mile kernel density alcoholic drinking places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S5ALC | 5 mile simple density alcoholic drinking places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K14FFC | 1/4 mile kernel density fast food chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S14FFC | 1/4 mile simple density fast food chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K0FFC | 1/2 mile kernel density fast food chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S0FFC | 1/2 mile simple density fast food chain. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K1FFC | 1 mile kernel density fast food chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S1FFC | 1 mile simple density fast food chain. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K3FFC | 3 mile kernel density fast food chain. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S3FFC | 3 mile simple density fast food chain. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K5FFC | 5 mile kernel density fast food chain. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S5FFC | 5 mile simple density fast food chain. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K14FFN | 1/4 mile kernel density fast food non-chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S14FFN | 1/4 mile simple density fast food non-chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K0FFN | 1/2 mile kernel density fast food non-chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S0FFN | 1/2 mile simple density fast food non-chain. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K1FFN | 1 mile kernel density fast food non-chains. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S1FFN | 1 mile simple density fast food non-chain. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K3FFN | 3 mile kernel density fast food non-chain. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S3FFN | 3 mile simple density fast food non-chain. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K5FFN | 5 mile kernel density fast food non-chain. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S5FFN | 5 mile simple density fast food non-chain. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K14FFALL | 1/4 mile kernel density fast food chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as K14FFC+K14FFN | Food Stores |
| S14FFALL | 1/4 mile simple density fast food chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as S14FFC+S14FFN | Food Stores |
| K0FFALL | 1/2 mile kernel density fast food chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as K0FFC+K0FFN | Food Stores |
| S0FFALL | 1/2 mile simple density fast food chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as S0FFC+S0FFN | Food Stores |
| K1FFALL | 1 mile kernel density fast food chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as K1FFC+K1FFN | Food Stores |
| S1FFALL | 1 mile simple density fast food chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as S1FFC+S1FFN | Food Stores |
| K3FFALL | 3 mile kernel density fast food chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as K3FFC+K3FFN | Food Stores |
| S3FFALL | 3 mile simple density fast food chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as S3FFC+S3FFN | Food Stores |
| K5FFALL | 5 mile kernel density fast food chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as K5FFC+K5FFN | Food Stores |
| S5FFALL | 5 mile simple density fast food chain+non-chain. The unit of measure is number of businesses per square mile. | Continuous | Calculated as S5FFC+S5FFN | Food Stores |
| K14EAT | 1/4 mile kernel density other eating places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S14EAT | 1/4 mile simple density other eating places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K0EAT | 1/2 mile kernel density other eating places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S0EAT | 1/2 mile simple density other eating places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K1EAT | 1 mile kernel density other eating places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S1EAT | 1 mile simple density other eating places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K3EAT | 3 mile kernel density other eating places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S3EAT | 3 mile simple density other eating places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K5EAT | 5 mile kernel density other eating places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S5EAT | 5 mile simple density other eating places. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K14OTH | 1/4 mile kernel density other food stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S14OTH | 1/4 mile simple density other food stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K0OTH | 1/2 mile kernel density other food stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S0OTH | 1/2 mile simple density other food stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K1OTH | 1 mile kernel density other food stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S1OTH | 1 mile simple density other food stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K3OTH | 3 mile kernel density other food stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S3OTH | 3 mile simple density other food stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K5OTH | 5 mile kernel density other food stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| S5OTH | 5 mile simple density other food stores. The unit of measure is number of businesses per square mile. | Continuous |  | Food Stores |
| K14FAV | 1/4 mile kernel density favorable food stores. The unit of measure is number of businesses per square mile. This is the sum of supermarket chain and non-chain and fruit and vegetable markets. | Continuous | Calculated as K14SCH+K14SNO+K14FRU | Food Stores |
| S14FAV | 1/4 mile simple density favorable food stores. The unit of measure is number of businesses per square mile. This is the sum of supermarket chain and non-chain and fruit and vegetable markets. | Continuous | Calculated as S14SCH+S14SNO+S14FRU | Food Stores |
| K0FAV | 1/2 mile kernel density favorable food stores. The unit of measure is number of businesses per square mile. This is the sum of supermarket chain and non-chain and fruit and vegetable markets. | Continuous | Calculated as K0SCH+K0SNO+K0FRU | Food Stores |
| S0FAV | 1/2 mile simple density favorable food stores. The unit of measure is number of businesses per square mile. This is the sum of supermarket chain and non-chain and fruit and vegetable markets. | Continuous | Calculated as S0SCH+S0SNO+S0FRU | Food Stores |
| K1FAV | 1 mile kernel density favorable food stores. The unit of measure is number of businesses per square mile. This is the sum of supermarket chain and non-chain and fruit and vegetable markets. | Continuous | Calculated as K1SCH+K1SNO+K1FRU | Food Stores |
| S1FAV | 1 mile simple density favorable food stores. The unit of measure is number of businesses per square mile. This is the sum of supermarket chain and non-chain and fruit and vegetable markets. | Continuous | Calculated as S1SCH+S1SNO+S1FRU | Food Stores |
| K3FAV | 3 mile kernel density favorable food stores. The unit of measure is number of businesses per square mile. This is the sum of supermarket chain and non-chain and fruit and vegetable markets. | Continuous | Calculated as K3SCH+K3SNO+K3FRU | Food Stores |
| S3FAV | 3 mile simple density favorable food stores. The unit of measure is number of businesses per square mile. This is the sum of supermarket chain and non-chain and fruit and vegetable markets. | Continuous | Calculated as S3SCH+S3SNO+S3FRU | Food Stores |
| K5FAV | 5 mile kernel density favorable food stores. The unit of measure is number of businesses per square mile. This is the sum of supermarket chain and non-chain and fruit and vegetable markets. | Continuous | Calculated as K5SCH+K5SNO+K5FRU | Food Stores |
| S5FAV | 5 mile simple density favorable food stores. The unit of measure is number of businesses per square mile. This is the sum of supermarket chain and non-chain and fruit and vegetable markets. | Continuous | Calculated as S5SCH+S5SNO+S5FRU | Food Stores |
| K14NEUT | 1/4 mile kernel density neutral food stores. The unit of measure is number of businesses per square mile. This is the sum of grocers, deli/meat/dairy, health/vitamin stores, drinking places non-alcoholic, and other food stores. | Continuous | Calculated as K14GRO+K14MEA+K14HEA+K14NAL+K14OTH | Food Stores |
| S14NEUT | 1/4 mile simple density neutral food stores. The unit of measure is number of businesses per square mile. This is the sum of grocers, deli/meat/dairy, health/vitamin stores, drinking places non-alcoholic, and other food stores. | Continuous | Calculated as S14GRO+S14MEA+S14HEA+S14NAL+S14OTH | Food Stores |
| K0NEUT | 1/2 mile kernel density neutral food stores. The unit of measure is number of businesses per square mile. This is the sum of grocers, deli/meat/dairy, health/vitamin stores, drinking places non-alcoholic, and other food stores. | Continuous | Calculated as K0GRO+K0MEA+K0HEA+K0NAL+K0OTH | Food Stores |
| S0NEUT | 1/2 mile simple density neutral food stores. The unit of measure is number of businesses per square mile. This is the sum of grocers, deli/meat/dairy, health/vitamin stores, drinking places non-alcoholic, and other food stores. | Continuous | Calculated as S0GRO+S0MEA+S0HEA+S0NAL+S0OTH | Food Stores |
| K1NEUT | 1 mile kernel density neutral food stores. The unit of measure is number of businesses per square mile. This is the sum of grocers, deli/meat/dairy, health/vitamin stores, drinking places non-alcoholic, and other food stores. | Continuous | Calculated as K1GRO+K1MEA+K1HEA+K1NAL+K1OTH | Food Stores |
| S1NEUT | 1 mile simple density neutral food stores. The unit of measure is number of businesses per square mile. This is the sum of grocers, deli/meat/dairy, health/vitamin stores, drinking places non-alcoholic, and other food stores. | Continuous | Calculated as S1GRO+S1MEA+S1HEA+S1NAL+S1OTH | Food Stores |
| K3NEUT | 3 mile kernel density neutral food stores. The unit of measure is number of businesses per square mile. This is the sum of grocers, deli/meat/dairy, health/vitamin stores, drinking places non-alcoholic, and other food stores. | Continuous | Calculated as K3GRO+K3MEA+K3HEA+K3NAL+K3OTH | Food Stores |
| S3NEUT | 3 mile simple density neutral food stores. The unit of measure is number of businesses per square mile. This is the sum of grocers, deli/meat/dairy, health/vitamin stores, drinking places non-alcoholic, and other food stores. | Continuous | Calculated as S3GRO+S3MEA+S3HEA+S3NAL+S3OTH | Food Stores |
| K5NEUT | 5 mile kernel density neutral food stores. The unit of measure is number of businesses per square mile. This is the sum of grocers, deli/meat/dairy, health/vitamin stores, drinking places non-alcoholic, and other food stores. | Continuous | Calculated as K5GRO+K5MEA+K5HEA+K5NAL+K5OTH | Food Stores |
| S5NEUT | 5 mile simple density neutral food stores. The unit of measure is number of businesses per square mile. This is the sum of grocers, deli/meat/dairy, health/vitamin stores, drinking places non-alcoholic, and other food stores. | Continuous | Calculated as S5GRO+S5MEA+S5HEA+S5NAL+S5OTH | Food Stores |
| K14UNFAV | 1/4 mile kernel density unfavorable food stores including alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, liquor stores, drinking places alcoholic, fast food chains, and fast food non-chain. | Continuous | Calculated as K14CON+K14BAK+K14LIQ+K14ALC+K14FFC+K14FFN | Food Stores |
| S14UNFAV | 1/4 mile simple density unfavorable food stores including alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, liquor stores, drinking places alcoholic, fast food chains, and fast food non-chain. | Continuous | Calculated as S14CON+S14BAK+S14LIQ+S14ALC+S14FFC+S14FFN | Food Stores |
| K0UNFAV | 1/2 mile kernel density unfavorable food stores including alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, liquor stores, drinking places alcoholic, fast food chains, and fast food non-chain. | Continuous | Calculated as K0CON+K0BAK+K0LIQ+K0ALC+K0FFC+K0FFN | Food Stores |
| S0UNFAV | 1/2 mile simple density unfavorable food stores including alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, liquor stores, drinking places alcoholic, fast food chains, and fast food non-chain. | Continuous | Calculated as S0CON+S0BAK+S0LIQ+S0ALC+S0FFC+S0FFN | Food Stores |
| K1UNFAV | 1 mile kernel density unfavorable food stores including alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, liquor stores, drinking places alcoholic, fast food chains, and fast food non-chain. | Continuous | Calculated as K1CON+K1BAK+K1LIQ+K1ALC+K1FFC+K1FFN | Food Stores |
| S1UNFAV | 1 mile simple density unfavorable food stores including alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, liquor stores, drinking places alcoholic, fast food chains, and fast food non-chain. | Continuous | Calculated as S1CON+S1BAK+S1LIQ+S1ALC+S1FFC+S1FFN | Food Stores |
| K3UNFAV | 3 mile kernel density unfavorable food stores including alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, liquor stores, drinking places alcoholic, fast food chains, and fast food non-chain. | Continuous | Calculated as K3CON+K3BAK+K3LIQ+K3ALC+K3FFC+K3FFN | Food Stores |
| S3UNFAV | 3 mile simple density unfavorable food stores including alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, liquor stores, drinking places alcoholic, fast food chains, and fast food non-chain. | Continuous | Calculated as S3CON+S3BAK+S3LIQ+S3ALC+S3FFC+S3FFN | Food Stores |
| K5UNFAV | 5 mile kernel density unfavorable food stores including alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, liquor stores, drinking places alcoholic, fast food chains, and fast food non-chain. | Continuous | Calculated as K5CON+K5BAK+K5LIQ+K5ALC+K5FFC+K5FFN | Food Stores |
| S5UNFAV | 5 mile simple density unfavorable food stores including alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, liquor stores, drinking places alcoholic, fast food chains, and fast food non-chain. | Continuous | Calculated as S5CON+S5BAK+S5LIQ+S5ALC+S5FFC+S5FFN | Food Stores |
| K14UNFAVFO | 1/4 mile kernel density unfavorable food stores excluding alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, fast food chains, and fast food non-chain. | Continuous | Calculated as K14CON+K14BAK+K14FFC+K14FFN | Food Stores |
| S14UNFAVFO | 1/4 mile simple density unfavorable food stores excluding alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, fast food chains, and fast food non-chain. | Continuous | Calculated as S14CON+S14BAK+S14FFC+S14FFN | Food Stores |
| K0UNFAVFO | 1/2 mile kernel density unfavorable food stores excluding alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, fast food chains, and fast food non-chain. | Continuous | Calculated as K0CON+K0BAK+K0FFC+K0FFN | Food Stores |
| S0UNFAVFO | 1/2 mile simple density unfavorable food stores excluding alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, fast food chains, and fast food non-chain. | Continuous | Calculated as S0CON+S0BAK+S0FFC+S0FFN | Food Stores |
| K1UNFAVFO | 1 mile kernel density unfavorable food stores excluding alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, fast food chains, and fast food non-chain. | Continuous | Calculated as K1CON+K1BAK+K1FFC+K1FFN | Food Stores |
| S1UNFAVFO | 1 mile simple density unfavorable food stores excluding alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, fast food chains, and fast food non-chain. | Continuous | Calculated as S1CON+S1BAK+S1FFC+S1FFN | Food Stores |
| K3UNFAVFO | 3 mile kernel density unfavorable food stores excluding alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, fast food chains, and fast food non-chain. | Continuous | Calculated as K3CON+K3BAK+K3FFC+K3FFN | Food Stores |
| S3UNFAVFO | 3 mile simple density unfavorable food stores excluding alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, fast food chains, and fast food non-chain. | Continuous | Calculated as S3CON+S3BAK+S3FFC+S3FFN | Food Stores |
| K5UNFAVFO | 5 mile kernel density unfavorable food stores excluding alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, fast food chains, and fast food non-chain. | Continuous | Calculated as K5CON+K5BAK+K5FFC+K5FFN | Food Stores |
| S5UNFAVFO | 5 mile simple density unfavorable food stores excluding alcohol. The unit of measure is number of businesses per square mile. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, fast food chains, and fast food non-chain. | Continuous | Calculated as S5CON+S5BAK+S5FFC+S5FFN | Food Stores |
| K14TOTFOOD | ¼ mile kernel density total food stores. The unit of measure is number of businesses per square mile. This is the sum of favorable food stores, neutral food stores, unfavorable food stores, and other eating places. | Continuous | Calculated as K14FAV+K14NEUT+K14UNFAV+K14EAT | Food Stores |
| S14TOTFOOD | ¼ mile simple density total food stores. The unit of measure is number of businesses per square mile. This is the sum of favorable food stores, neutral food stores, unfavorable food stores, and other eating places. | Continuous | Calculated as S14FAV+S14NEUT+S14UNFAV+S14EAT | Food Stores |
| K0TOTFOOD | 1/2 mile kernel density total food stores. The unit of measure is number of businesses per square mile. This is the sum of favorable food stores, neutral food stores, unfavorable food stores, and other eating places. | Continuous | Calculated as K0FAV+K0NEUT+K0UNFAV+K0EAT | Food Stores |
| S0TOTFOOD | 1/2 mile simple density total food stores. The unit of measure is number of businesses per square mile. This is the sum of favorable food stores, neutral food stores, unfavorable food stores, and other eating places. | Continuous | Calculated as S0FAV+S0NEUT+S0UNFAV+S0EAT | Food Stores |
| K1TOTFOOD | 1 mile kernel density total food stores. The unit of measure is number of businesses per square mile. This is the sum of favorable food stores, neutral food stores, unfavorable food stores, and other eating places. | Continuous | Calculated as K1FAV+K1NEUT+K1UNFAV+K1EAT | Food Stores |
| S1TOTFOOD | 1 mile simple density total food stores. The unit of measure is number of businesses per square mile. This is the sum of favorable food stores, neutral food stores, unfavorable food stores, and other eating places. | Continuous | Calculated as S1FAV+S1NEUT+S1UNFAV+S1EAT | Food Stores |
| K3TOTFOOD | 3 mile kernel density total food stores. The unit of measure is number of businesses per square mile. This is the sum of favorable food stores, neutral food stores, unfavorable food stores, and other eating places. | Continuous | Calculated as K3FAV+K3NEUT+K3UNFAV+K3EAT | Food Stores |
| S3TOTFOOD | 3 mile simple density total food stores. The unit of measure is number of businesses per square mile. This is the sum of favorable food stores, neutral food stores, unfavorable food stores, and other eating places. | Continuous | Calculated as S5FAV+S5NEUT+S5UNFAV+S5EAT | Food Stores |
| K5TOTFOOD | 5 mile kernel density total food stores. The unit of measure is number of businesses per square mile. This is the sum of favorable food stores, neutral food stores, unfavorable food stores, and other eating places. | Continuous | Calculated as K5FAV+K5NEUT+K5UNFAV+K5EAT | Food Stores |
| S5TOTFOOD | 5 mile simple density total food stores. The unit of measure is number of businesses per square mile. This is the sum of favorable food stores, neutral food stores, unfavorable food stores, and other eating places. | Continuous | Calculated as S1FAV+S1NEUT+S1UNFAV+S1EAT | Food Stores |
| K14RATIO\_TOT | Unfavorable/favorable ratio (include alcohol) for 1/4 mile kernel density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as K14UNFAV/K14FAV | Food Stores |
| S14RATIO\_TOT | Unfavorable/favorable ratio (include alcohol) for 1/4 mile simple density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as S14UNFAV/S14FAV | Food Stores |
| K0RATIO\_TOT | Unfavorable/favorable ratio (include alcohol) for ½ mile kernel density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as K0UNFAV/K0FAV | Food Stores |
| S0RATIO\_TOT | Unfavorable/favorable ratio (include alcohol) for ½ mile simple density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as S0UNFAV/S0FAV | Food Stores |
| K1RATIO\_TOT | Unfavorable/favorable ratio (include alcohol) for 1 mile kernel density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as K1UNFAV/K1FAV | Food Stores |
| S1RATIO\_TOT | Unfavorable/favorable ratio (include alcohol) for 1 mile simple density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as S1UNFAV/S1FAV | Food Stores |
| K3RATIO\_TOT | Unfavorable/favorable ratio (include alcohol) for 3 mile kernel density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as K3UNFAV/K3FAV | Food Stores |
| S3RATIO\_TOT | Unfavorable/favorable ratio (include alcohol) for 3 mile simple density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as S3UNFAV/S3FAV | Food Stores |
| K5RATIO\_TOT | Unfavorable/favorable ratio (include alcohol) for 5 mile kernel density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as K5UNFAV/K5FAV | Food Stores |
| S5RATIO\_TOT | Unfavorable/favorable ratio (include alcohol) for 5 mile simple density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as S5UNFAV/S5FAV | Food Stores |
| K14RATIO\_NOALC | Unfavorable/favorable ratio (exclude alcohol) for 1/4 mile kernel density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as K14UNFAVFO/K14FAV | Food Stores |
| S14RATIO\_NOALC | Unfavorable/favorable ratio (exclude alcohol) for 1/4 mile simple density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as S14UNFAVFO/S14FAV | Food Stores |
| K0RATIO\_NOALC | Unfavorable/favorable ratio (exclude alcohol) for ½ mile kernel density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as K0UNFAVFO/K0FAV | Food Stores |
| S0RATIO\_NOALC | Unfavorable/favorable ratio (exclude alcohol) for ½ mile simple density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as S0UNFAVFO/S0FAV | Food Stores |
| K1RATIO\_NOALC | Unfavorable/favorable ratio (exclude alcohol) for 1 mile kernel density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as K1UNFAVFO/K1FAV | Food Stores |
| S1RATIO\_NOALC | Unfavorable/favorable ratio (exclude alcohol) for 1 mile simple density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as S1UNFAVFO/S1FAV | Food Stores |
| K3RATIO\_NOALC | Unfavorable/favorable ratio (exclude alcohol) for 3 mile kernel density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as K3UNFAVFO/K3FAV | Food Stores |
| S3RATIO\_NOALC | Unfavorable/favorable ratio (exclude alcohol) for 3 mile simple density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as S3UNFAVFO/S3FAV | Food Stores |
| K5RATIO\_NOALC | Unfavorable/favorable ratio (exclude alcohol) for 5 mile kernel density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as K5UNFAVFO/K5FAV | Food Stores |
| S5RATIO\_NOALC | Unfavorable/favorable ratio (exclude alcohol) for 5 mile simple density. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as S5UNFAVFO/S5FAV | Food Stores |
| K14MRFEI\_TOT | Modified Retail Food Environment Index (include alcohol) for 1/4 mile kernel density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as K14FAV/(K14FAV+K14UNFAV) | Food Stores |
| S14MRFEI\_TOT | Modified Retail Food Environment Index (include alcohol) for 1/4 mile simple density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as S14FAV/(S14FAV+S14UNFAV) | Food Stores |
| K0MRFEI\_TOT | Modified Retail Food Environment Index (include alcohol) for ½ mile kernel density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as K0FAV/(K0FAV+K0UNFAV) | Food Stores |
| S0MRFEI\_TOT | Modified Retail Food Environment Index (include alcohol) for ½ mile simple density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as S0FAV/(S0FAV+S0UNFAV) | Food Stores |
| K1MRFEI\_TOT | Modified Retail Food Environment Index (include alcohol) for 1 mile kernel density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as K1FAV/(K1FAV+K1UNFAV) | Food Stores |
| S1MRFEI\_TOT | Modified Retail Food Environment Index (include alcohol) for 1 mile simple density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as K1FAV/(K1FAV+K1UNFAV) | Food Stores |
| K3MRFEI\_TOT | Modified Retail Food Environment Index (include alcohol) for 3 mile kernel density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as K3FAV/(K3FAV+K3UNFAV) | Food Stores |
| S3MRFEI\_TOT | Modified Retail Food Environment Index (include alcohol) for 3 mile simple density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as S3FAV/(S3FAV+S3UNFAV) | Food Stores |
| K5MRFEI\_TOT | Modified Retail Food Environment Index (include alcohol) for 5 mile kernel density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as K5FAV/(K5FAV+K5UNFAV) | Food Stores |
| S5MRFEI\_TOT | Modified Retail Food Environment Index (include alcohol) for 5 mile simple density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as S5FAV/(S5FAV+S5UNFAV) | Food Stores |
| K14MRFEI\_NOALC | Modified Retail Food Environment Index (exclude alcohol) for 1/4 mile kernel density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as K14FAV/(K14FAV+K14UNFAVFO) | Food Stores |
| S14MRFEI\_NOALC | Modified Retail Food Environment Index (exclude alcohol) for 1/4 mile simple density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as S14FAV/(S14FAV+S14UNFAVFO) | Food Stores |
| K0MRFEI\_NOALC | Modified Retail Food Environment Index (exclude alcohol) for ½ mile kernel density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as K0FAV/(K0FAV+K0UNFAVFO) | Food Stores |
| S0MRFEI\_NOALC | Modified Retail Food Environment Index (exclude alcohol) for ½ mile simple density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as S0FAV/(S0FAV+S0UNFAVFO) | Food Stores |
| K1MRFEI\_NOALC | Modified Retail Food Environment Index (exclude alcohol) for 1 mile kernel density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as K1FAV/(K1FAV+K1UNFAVFO) | Food Stores |
| S1MRFEI\_NOALC | Modified Retail Food Environment Index (exclude alcohol) for 1 mile simple density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as S1FAV/(S1FAV+S1UNFAVFO) | Food Stores |
| K3MRFEI\_NOALC | Modified Retail Food Environment Index (exclude alcohol) for 3 mile kernel density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as K3FAV/(K3FAV+K3UNFAVFO) | Food Stores |
| S3MRFEI\_NOALC | Modified Retail Food Environment Index (exclude alcohol) for 3 mile simple density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as S3FAV/(S3FAV+S3UNFAVFO) | Food Stores |
| K5MRFEI\_NOALC | Modified Retail Food Environment Index (exclude alcohol) for 5 mile kernel density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as K5FAV/(K5FAV+K5UNFAVFO) | Food Stores |
| S5MRFEI\_NOALC | Modified Retail Food Environment Index (exclude alcohol) for 5 mile simple density. | 999999999 = Favorable and Unfavorable are 0 | Calculated as S5FAV/(S5FAV+S5UNFAVFO) | Food Stores |
| K14IC | 1/4 mile kernel density indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14IC | 1/4 mile simple density indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0IC | 1/2 mile kernel density indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0IC | 1/2 mile simple density indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1IC | 1 mile kernel density indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1IC | 1 mile simple density indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3IC | 3 mile kernel density indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3IC | 3 mile simple density indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5IC | 5 mile kernel density indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5IC | 5 mile simple density indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14RE | 1/4 mile kernel density recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14RE | 1/4 mile simple density recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0RE | 1/2 mile kernel density recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0RE | 1/2 mile simple density recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1RE | 1 mile kernel density recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1RE | 1 mile simple density recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3RE | 3 mile kernel density recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3RE | 3 mile simple density recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5RE | 5 mile kernel density recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5RE | 5 mile simple density recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14ORE | 1/4 mile kernel density outdoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14ORE | 1/4 mile simple density outdoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0ORE | 1/2 mile kernel density outdoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0ORE | 1/2 mile simple density outdoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1ORE | 1 mile kernel density outdoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1ORE | 1 mile simple density outdoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3ORE | 3 mile kernel density outdoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3ORE | 3 mile simple density outdoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5ORE | 5 mile kernel density outdoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5ORE | 5 mile simple density outdoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14IRE | 1/4 mile kernel density indoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14IRE | 1/4 mile simple density indoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0IRE | 1/2 mile kernel density indoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0IRE | 1/2 mile simple density indoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1IRE | 1 mile kernel density indoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1IRE | 1 mile simple density indoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3IRE | 3 mile kernel density indoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3IRE | 3 mile simple density indoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5IRE | 5 mile kernel density indoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5IRE | 5 mile simple density indoor recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14TR | 1/4 mile kernel density team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14TR | 1/4 mile simple density team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0TR | 1/2 mile kernel density team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0TR | 1/2 mile simple density team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1TR | 1 mile kernel density team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1TR | 1 mile simple density team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3TR | 3 mile kernel density team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3TR | 3 mile simple density team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5TR | 5 mile kernel density team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5TR | 5 mile simple density team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14OTR | 1/4 mile kernel density outdoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14OTR | 1/4 mile simple density outdoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0OTR | 1/2 mile kernel density outdoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0OTR | 1/2 mile simple density outdoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1OTR | 1 mile kernel density outdoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1OTR | 1 mile simple density outdoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3OTR | 3 mile kernel density outdoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3OTR | 3 mile simple density outdoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5OTR | 5 mile kernel density outdoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5OTR | 5 mile simple density outdoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14ITR | 1/4 mile kernel density indoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14ITR | 1/4 mile simple density indoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0ITR | 1/2 mile kernel density indoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0ITR | 1/2 mile simple density indoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1ITR | 1 mile kernel density indoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1ITR | 1 mile simple density indoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3ITR | 3 mile kernel density indoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3ITR | 3 mile simple density indoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5ITR | 5 mile kernel density indoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5ITR | 5 mile simple density indoor team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14WA | 1/4 mile kernel density water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14WA | 1/4 mile simple density water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0WA | 1/2 mile kernel density water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0WA | 1/2 mile simple density water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1WA | 1 mile kernel density water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1WA | 1 mile simple density water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3WA | 3 mile kernel density water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3WA | 3 mile simple density water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5WA | 5 mile kernel density water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5WA | 5 mile simple density water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14WC | 1/4 mile kernel density water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14WC | 1/4 mile simple density water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0WC | 1/2 mile kernel density water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0WC | 1/2 mile simple density water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1WC | 1 mile kernel density water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1WC | 1 mile simple density water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3WC | 3 mile kernel density water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3WC | 3 mile simple density water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5WC | 5 mile kernel density water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5WC | 5 mile simple density water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14OWC | 1/4 mile kernel density outdoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14OWC | 1/4 mile simple density outdoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0OWC | 1/2 mile kernel density outdoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0OWC | 1/2 mile simple density outdoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1OWC | 1 mile kernel density outdoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1OWC | 1 mile simple density outdoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3OWC | 3 mile kernel density outdoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3OWC | 3 mile simple density outdoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5OWC | 5 mile kernel density outdoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5OWC | 5 mile simple density outdoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14IWC | 1/4 mile kernel density indoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14IWC | 1/4 mile simple density indoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0IWC | 1/2 mile kernel density indoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0IWC | 1/2 mile simple density indoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1IWC | 1 mile kernel density indoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1IWC | 1 mile simple density indoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3IWC | 3 mile kernel density indoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3IWC | 3 mile simple density indoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5IWC | 5 mile kernel density indoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5IWC | 5 mile simple density indoor water activities involving conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14CV | 1/4 mile kernel density camps/vacation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14CV | 1/4 mile simple density camps/vacation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0CV | 1/2 mile kernel density camps/vacation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0CV | 1/2 mile simple density camps/vacation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1CV | 1 mile kernel density camps/vacation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1CV | 1 mile simple density camps/vacation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3CV | 3 mile kernel density camps/vacation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3CV | 3 mile simple density camps/vacation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5CV | 5 mile kernel density camps/vacation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5CV | 5 mile simple density camps/vacation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14II | 1/4 mile kernel density instructional indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14II | 1/4 mile simple density instructional indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0II | 1/2 mile kernel density instructional indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0II | 1/2 mile simple density instructional indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1II | 1 mile kernel density instructional indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1II | 1 mile simple density instructional indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3II | 3 mile kernel density instructional indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3II | 3 mile simple density instructional indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5II | 5 mile kernel density instructional indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5II | 5 mile simple density instructional indoor conditioning. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14IR | 1/4 mile kernel density instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14IR | 1/4 mile simple density instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0IR | 1/2 mile kernel density instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0IR | 1/2 mile simple density instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1IR | 1 mile kernel density instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1IR | 1 mile simple density instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3IR | 3 mile kernel density instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3IR | 3 mile simple density instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5IR | 5 mile kernel density instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5IR | 5 mile simple density instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14OIR | 1/4 mile kernel density outdoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14OIR | 1/4 mile simple density outdoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0OIR | 1/2 mile kernel density outdoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0OIR | 1/2 mile simple density outdoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1OIR | 1 mile kernel density outdoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1OIR | 1 mile simple density outdoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3OIR | 3 mile kernel density outdoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3OIR | 3 mile simple density outdoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5OIR | 5 mile kernel density outdoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5OIR | 5 mile simple density outdoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14IIR | 1/4 mile kernel density indoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14IIR | 1/4 mile simple density indoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0IIR | 1/2 mile kernel density indoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0IIR | 1/2 mile simple density indoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1IIR | 1 mile kernel density indoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1IIR | 1 mile simple density indoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3IIR | 3 mile kernel density indoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3IIR | 3 mile simple density indoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5IIR | 5 mile kernel density indoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5IIR | 5 mile simple density indoor instructional recreational. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14IT | 1/4 mile kernel density instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14IT | 1/4 mile simple density instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0IT | 1/2 mile kernel density instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0IT | 1/2 mile simple density instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1IT | 1 mile kernel density instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1IT | 1 mile simple density instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3IT | 3 mile kernel density instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3IT | 3 mile simple density instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5IT | 5 mile kernel density instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5IT | 5 mile simple density instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14OIT | 1/4 mile kernel density outdoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14OIT | 1/4 mile simple density outdoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0OIT | 1/2 mile kernel density outdoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0OIT | 1/2 mile simple density outdoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1OIT | 1 mile kernel density outdoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1OIT | 1 mile simple density outdoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3OIT | 3 mile kernel density outdoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3OIT | 3 mile simple density outdoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5OIT | 5 mile kernel density outdoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5OIT | 5 mile simple density outdoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14IIT | 1/4 mile kernel density indoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14IIT | 1/4 mile simple density indoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0IIT | 1/2 mile kernel density indoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0IIT | 1/2 mile simple density indoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1IIT | 1 mile kernel density indoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1IIT | 1 mile simple density indoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3IIT | 3 mile kernel density indoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3IIT | 3 mile simple density indoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5IIT | 5 mile kernel density indoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5IIT | 5 mile simple density indoor instructional team/racquet sports. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14IW | 1/4 mile kernel density instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14IW | 1/4 mile simple density instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0IW | 1/2 mile kernel density instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0IW | 1/2 mile simple density instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1IW | 1 mile kernel density instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1IW | 1 mile simple density instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3IW | 3 mile kernel density instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3IW | 3 mile simple density instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5IW | 5 mile kernel density instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5IW | 5 mile simple density instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14OIW | 1/4 mile kernel density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14OIW | 1/4 mile simple density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0OIW | 1/2 mile kernel density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0OIW | 1/2 mile simple density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1OIW | 1 mile kernel density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1OIW | 1 mile simple density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3OIW | 3 mile kernel density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3OIW | 3 mile simple density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5OIW | 5 mile kernel density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5OIW | 5 mile simple density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14IIW | 1/4 mile kernel density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14IIW | 1/4 mile simple density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0IIW | 1/2 mile kernel density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0IIW | 1/2 mile simple density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1IIW | 1 mile kernel density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1IIW | 1 mile simple density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3IIW | 3 mile kernel density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3IIW | 3 mile simple density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5IIW | 5 mile kernel density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5IIW | 5 mile simple density outdoor instructional water activities. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14PA | 1/4 mile kernel density total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14IC+K14RE+K14TR+K14WC | Recreational Facilities |
| S14PA | 1/4 mile simple density total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14IC+S14RE+S14TR+S14WC | Recreational Facilities |
| K0PA | 1/2 mile kernel density total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0IC+K0RE+K0TR+K0WC | Recreational Facilities |
| S0PA | 1/2 mile simple density total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S0IC+S0RE+S0TR+S0WC | Recreational Facilities |
| K1PA | 1 mile kernel density total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1IC+K1RE+K1TR+K1WC | Recreational Facilities |
| S1PA | 1 mile simple density total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1IC+S1RE+S1TR+S1WC | Recreational Facilities |
| K3PA | 3 mile kernel density total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3IC+K3RE+K3TR+K3WC | Recreational Facilities |
| S3PA | 3 mile simple density total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3IC+S3RE+S3TR+S3WC | Recreational Facilities |
| K5PA | 5 mile kernel density total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5IC+K5RE+K5TR+K5WC | Recreational Facilities |
| S5PA | 5 mile simple density total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5IC+S5RE+S5TR+S5WC | Recreational Facilities |
| K14OPA | 1/4 mile kernel density outdoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14ORE+K14OTR+K14OWC | Recreational Facilities |
| S14OPA | 1/4 mile simple density outdoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14ORE+S14OTR+S14OWC | Recreational Facilities |
| K0OPA | 1/2 mile kernel density outdoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0ORE+K0OTR+K0OWC | Recreational Facilities |
| S0OPA | 1/2 mile simple density outdoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S0ORE+S0OTR+S0OWC | Recreational Facilities |
| K1OPA | 1 mile kernel density outdoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1ORE+K1OTR+K1OWC | Recreational Facilities |
| S1OPA | 1 mile simple density outdoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1ORE+S1OTR+S1OWC | Recreational Facilities |
| K3OPA | 3 mile kernel density outdoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3ORE+K3OTR+K3OWC | Recreational Facilities |
| S3OPA | 3 mile simple density outdoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3ORE+S3OTR+S3OWC | Recreational Facilities |
| K5OPA | 5 mile kernel density outdoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5ORE+K5OTR+K5OWC | Recreational Facilities |
| S5OPA | 5 mile simple density outdoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5ORE+S5OTR+S5OWC | Recreational Facilities |
| K14IPA | 1/4 mile kernel density indoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14IC+K14IRE+K14ITR+K14IWC | Recreational Facilities |
| S14IPA | 1/4 mile simple density indoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14IC+S14IRE+S14ITR+S14IWC | Recreational Facilities |
| K0IPA | 1/2 mile kernel density indoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0IC+K0IRE+K0ITR+K0IWC | Recreational Facilities |
| S0IPA | 1/2 mile simple density indoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S0IC+S0IRE+S0ITR+S0IWC | Recreational Facilities |
| K1IPA | 1 mile kernel density indoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1IC+K1IRE+K1ITR+K1IWC | Recreational Facilities |
| S1IPA | 1 mile simple density indoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1IC+S1IRE+S1ITR+S1IWC | Recreational Facilities |
| K3IPA | 3 mile kernel density indoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3IC+K3IRE+K3ITR+K3IWC | Recreational Facilities |
| S3IPA | 3 mile simple density indoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3IC+S3IRE+S3ITR+S3IWC | Recreational Facilities |
| K5IPA | 5 mile kernel density indoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5IC+K5IRE+K5ITR+K5IWC | Recreational Facilities |
| S5IPA | 5 mile simple density indoor total physical activities. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5IC+S5IRE+S5ITR+S5IWC | Recreational Facilities |
| K14NR | 1/4 mile kernel density total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14IC+K14TR+K14WC | Recreational Facilities |
| S14NR | 1/4 mile simple density total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14IC+S14TR+S14WC | Recreational Facilities |
| K0NR | 1/2 mile kernel density total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0IC+K0TR+K0WC | Recreational Facilities |
| S0NR | 1/2 mile simple density total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S0IC+S0TR+S0WC | Recreational Facilities |
| K1NR | 1 mile kernel density total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1IC+K1TR+K1WC | Recreational Facilities |
| S1NR | 1 mile simple density total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1IC+S1TR+S1WC | Recreational Facilities |
| K3NR | 3 mile kernel density total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3IC+K3TR+K3WC | Recreational Facilities |
| S3NR | 3 mile simple density total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3IC+S3TR+S3WC | Recreational Facilities |
| K5NR | 5 mile kernel density total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5IC+K5TR+K5WC | Recreational Facilities |
| S5NR | 5 mile simple density total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5IC+S5TR+S5WC | Recreational Facilities |
| K14ONR | 1/4 mile kernel density outdoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14OTR+K14OWC | Recreational Facilities |
| S14ONR | 1/4 mile simple density outdoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14OTR+S14OWC | Recreational Facilities |
| K0ONR | 1/2 mile kernel density outdoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0OTR+K0OWC | Recreational Facilities |
| S0ONR | 1/2 mile simple density outdoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S0OTR+S0OWC | Recreational Facilities |
| K1ONR | 1 mile kernel density outdoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1OTR+K1OWC | Recreational Facilities |
| S1ONR | 1 mile simple density outdoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1OTR+S1OWC | Recreational Facilities |
| K3ONR | 3 mile kernel density outdoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3OTR+K3OWC | Recreational Facilities |
| S3ONR | 3 mile simple density outdoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3OTR+S3OWC | Recreational Facilities |
| K5ONR | 5 mile kernel density outdoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5OTR+K5OWC | Recreational Facilities |
| S5ONR | 5 mile simple density outdoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5OTR+S5OWC | Recreational Facilities |
| K14INR | 1/4 mile kernel density indoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14IC+K14ITR+K14IWC | Recreational Facilities |
| S14INR | 1/4 mile simple density indoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14IC+S14ITR+S14IWC | Recreational Facilities |
| K0INR | 1/2 mile kernel density indoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0IC+K0ITR+K0IWC | Recreational Facilities |
| S0INR | 1/2 mile simple density indoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S0IC+S0ITR+S0IWC | Recreational Facilities |
| K1INR | 1 mile kernel density indoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1IC+K1ITR+K1IWC | Recreational Facilities |
| S1INR | 1 mile simple density indoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1IC+S1ITR+S1IWC | Recreational Facilities |
| K3INR | 3 mile kernel density indoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3IC+K3ITR+K3IWC | Recreational Facilities |
| S3INR | 3 mile simple density indoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3IC+S3ITR+S3IWC | Recreational Facilities |
| K5INR | 5 mile kernel density indoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5IC+K5ITR+K5IWC | Recreational Facilities |
| S5INR | 5 mile simple density indoor total physical activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5IC+S5ITR+S5IWC | Recreational Facilities |
| K14PAI | 1/4 mile kernel density total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14IC+K14II+K14RE+K14IR+K14TR+K14IT+K14WA+K14IW+K14WC | Recreational Facilities |
| S14PAI | 1/4 mile simple density total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14IC+S14II+S14RE+S14IR+S14TR+S14IT+S14WA+S14IW+S14WC | Recreational Facilities |
| K0PAI | 1/2 mile kernel density total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0IC+K0II+K0RE+K0IR+K0TR+K0IT+K0WA+K0IW+K0WC | Recreational Facilities |
| S0PAI | 1/2 mile simple density total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S0IC+S0II+S0RE+S0IR+S0TR+S0IT+S0WA+S0IW+S0WC | Recreational Facilities |
| K1PAI | 1 mile kernel density total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1IC+K1II+K1RE+K1IR+K1TR+K1IT+K1WA+K1IW+K1WC | Recreational Facilities |
| S1PAI | 1 mile simple density total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1IC+S1II+S1RE+S1IR+S1TR+S1IT+S1WA+S1IW+S1WC | Recreational Facilities |
| K3PAI | 3 mile kernel density total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3IC+K3II+K3RE+K3IR+K3TR+K3IT+K3WA+K3IW+K3WC | Recreational Facilities |
| S3PAI | 3 mile simple density total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3IC+S3II+S3RE+S3IR+S3TR+S3IT+S3WA+S3IW+S3WC | Recreational Facilities |
| K5PAI | 5 mile kernel density total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5IC+K5II+K5RE+K5IR+K5TR+K5IT+K5WA+K5IW+K5WC | Recreational Facilities |
| S5PAI | 5 mile simple density total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5IC+S5II+S5RE+S5IR+S5TR+S5IT+S5WA+S5IW+S5WC | Recreational Facilities |
| K14OPAI | 1/4 mile kernel density outdoor total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14ORE+K14OIR+K14OTR+K14OIT+K14WA+K14OWC+K14OIW | Recreational Facilities |
| S14OPAI | 1/4 mile simple density outdoor total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14ORE+S14OIR+S14OTR+S14OIT+S14WA+S14OWC+S14OIW | Recreational Facilities |
| K0OPAI | 1/2 mile kernel density outdoor total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0ORE+K0OIR+K0OTR+K0OIT+K0WA+K0OWC+K0OIW | Recreational Facilities |
| S0OPAI | 1/2 mile simple density outdoor total PA+instruction+water The unit of measure is number of facilities per square mile. | Continuous | Calculated as S0ORE+S0OIR+S0OTR+S0OIT+S0WA+S0OWC+S0OIW | Recreational Facilities |
| K1OPAI | 1 mile kernel density outdoor total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1ORE+K1OIR+K1OTR+K1OIT+K1WA+K1OWC+K1OIW | Recreational Facilities |
| S1OPAI | 1 mile simple density outdoor total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1ORE+S1OIR+S1OTR+S1OIT+S1WA+S1OWC+S1OIW | Recreational Facilities |
| K3OPAI | 3 mile kernel density outdoor total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3ORE+K3OIR+K3OTR+K3OIT+K3WA+K3OWC+K3OIW | Recreational Facilities |
| S3OPAI | 3 mile simple density outdoor total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3ORE+S3OIR+S3OTR+S3OIT+S3WA+S3OWC+S3OIW | Recreational Facilities |
| K5OPAI | 5 mile kernel density outdoor total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5ORE+K5OIR+K5OTR+K5OIT+K5WA+K5OWC+K5OIW | Recreational Facilities |
| S5OPAI | 5 mile simple density outdoor total PA+instruction+water. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5ORE+S5OIR+S5OTR+S5OIT+S5WA+S5OWC+S5OIW | Recreational Facilities |
| K14IPAI | 1/4 mile kernel density indoor total PA+instruction. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14IC+K14II+K14IRE+K14IIR+K14ITR+K14IIT+K14IWC+K14IIW | Recreational Facilities |
| S14IPAI | 1/4 mile simple density indoor total PA+instruction. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14IC+S14II+S14IRE+S14IIR+S14ITR+S14IIT+S14IWC+S14IIW | Recreational Facilities |
| K0IPAI | 1/2 mile kernel density indoor total PA+instruction. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0IC+K0II+K0IRE+K0IIR+K0ITR+K0IIT+K0IWC+K0IIW | Recreational Facilities |
| S0IPAI | 1/2 mile simple density indoor total PA+instructionThe unit of measure is number of facilities per square mile. | Continuous | Calculated as S0IC+S0II+S0IRE+S0IIR+S0ITR+S0IIT+S0IWC+S0IIW | Recreational Facilities |
| K1IPAI | 1 mile kernel density indoor total PA+instruction. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1IC+K1II+K1IRE+K1IIR+K1ITR+K1IIT+K1IWC+K1IIW | Recreational Facilities |
| S1IPAI | 1 mile simple density indoor total PA+instruction. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1IC+S1II+S1IRE+S1IIR+S1ITR+S1IIT+S1IWC+S1IIW | Recreational Facilities |
| K3IPAI | 3 mile kernel density indoor total PA+instruction. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3IC+K3II+K3IRE+K3IIR+K3ITR+K3IIT+K3IWC+K3IIW | Recreational Facilities |
| S3IPAI | 3 mile simple density indoor total PA+instruction. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3IC+S3II+S3IRE+S3IIR+S3ITR+S3IIT+S3IWC+S3IIW | Recreational Facilities |
| K5IPAI | 5 mile kernel density indoor total PA+instruction. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5IC+K5II+K5IRE+K5IIR+K5ITR+K5IIT+K5IWC+K5IIW | Recreational Facilities |
| S5IPAI | 5 mile simple density indoor total PA+instruction. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5IC+S5II+S5IRE+S5IIR+S5ITR+S5IIT+S5IWC+S5IIW | Recreational Facilities |
| K14NRI | 1/4 mile kernel density total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14IC+K14II+K14TR+K14IT+K14WA+K14WC+K14IW | Recreational Facilities |
| S14NRI | 1/4 mile simple density total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14IC+S14II+S14TR+S14IT+S14WA+S14WC+S14IW | Recreational Facilities |
| K0NRI | 1/2 mile kernel density total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0IC+K0II+K0TR+K0IT+K0WA+K0WC+K0IW | Recreational Facilities |
| S0NRI | 1/2 mile simple density total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S0IC+S0II+S0TR+S0IT+S0WA+S0WC+S0IW | Recreational Facilities |
| K1NRI | 1 mile kernel density total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1IC+K1II+K1TR+K1IT+K1WA+K1WC+K1IW | Recreational Facilities |
| S1NRI | 1 mile simple density total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1IC+S1II+S1TR+S1IT+S1WA+S1WC+S1IW | Recreational Facilities |
| K3NRI | 3 mile kernel density total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3IC+K3II+K3TR+K3IT+K3WA+K3WC+K3IW | Recreational Facilities |
| S3NRI | 3 mile simple density total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3IC+S3II+S3TR+S3IT+S3WA+S3WC+S3IW | Recreational Facilities |
| K5NRI | 5 mile kernel density total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5IC+K5II+K5TR+K5IT+K5WA+K5WC+K5IW | Recreational Facilities |
| S5NRI | 5 mile simple density total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5IC+S5II+S5TR+S5IT+S5WA+S5WC+S5IW | Recreational Facilities |
| K14ONRI | 1/4 mile kernel density outdoor total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14OTR+K14OIT+K14WA+K14OWC+K14OIW | Recreational Facilities |
| S14ONRI | 1/4 mile simple density outdoor total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14OTR+S14OIT+S14WA+S14OWC+S14OIW | Recreational Facilities |
| K0ONRI | 1/2 mile kernel density outdoor total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0OTR+K0OIT+K0WA+K0OWC+K0OIW | Recreational Facilities |
| S0ONRI | 1/2 mile simple density outdoor total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S0OTR+S0OIT+S0WA+S0OWC+S0OIW | Recreational Facilities |
| K1ONRI | 1 mile kernel density outdoor total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1OTR+K1OIT+K1WA+K1OWC+K1OIW | Recreational Facilities |
| S1ONRI | 1 mile simple density outdoor total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1OTR+S1OIT+S1WA+S1OWC+S1OIW | Recreational Facilities |
| K3ONRI | 3 mile kernel density outdoor total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3OTR+K3OIT+K3WA+K3OWC+K3OIW | Recreational Facilities |
| S3ONRI | 3 mile simple density outdoor total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3OTR+S3OIT+S3WA+S3OWC+S3OIW | Recreational Facilities |
| K5ONRI | 5 mile kernel density outdoor total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5OTR+K5OIT+K5WA+K5OWC+K5OIW | Recreational Facilities |
| S5ONRI | 5 mile simple density outdoor total PA+instruction+water activities without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5OTR+S5OIT+S5WA+S5OWC+S5OIW | Recreational Facilities |
| K14INRI | 1/4 mile kernel density indoor total PA+instruction without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14IC+K14II+K14ITR+K14IIT+K14IWC+K14IIW | Recreational Facilities |
| S14INRI | 1/4 mile simple density indoor total PA+instruction without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14IC+S14II+S14ITR+S14IIT+S14IWC+S14IIW | Recreational Facilities |
| K0INRI | 1/2 mile kernel density indoor total PA+instruction without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0IC+K0II+K0ITR+K0IIT+K0IWC+K0IIW | Recreational Facilities |
| S0INRI | 1/2 mile simple density indoor total PA+instruction without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S0IC+S0II+S0ITR+S0IIT+S0IWC+S0IIW | Recreational Facilities |
| K1INRI | 1 mile kernel density indoor total PA+instruction without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1IC+K1II+K1ITR+K1IIT+K1IWC+K1IIW | Recreational Facilities |
| S1INRI | 1 mile simple density indoor total PA+instruction without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1IC+S1II+S1ITR+S1IIT+S1IWC+S1IIW | Recreational Facilities |
| K3INRI | 3 mile kernel density indoor total PA+instruction without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3IC+K3II+K3ITR+K3IIT+K3IWC+K3IIW | Recreational Facilities |
| S3INRI | 3 mile simple density indoor total PA+instruction without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3IC+S3II+S3ITR+S3IIT+S3IWC+S3IIW | Recreational Facilities |
| K5INRI | 5 mile kernel density indoor total PA+instruction without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5IC+K5II+K5ITR+K5IIT+K5IWC+K5IIW | Recreational Facilities |
| S5INRI | 5 mile simple density indoor total PA+instruction without recreational. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5IC+S5II+S5ITR+S5IIT+S5IWC+S5IIW | Recreational Facilities |
| K14XRC | 1/4 mile kernel density extra physical activity for total stores creation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S14XRC | 1/4 mile simple density extra physical activity for total stores creation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K0XRC | 1/2 mile kernel density extra physical activity for total stores creation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S0XRC | 1/2 mile simple density extra physical activity for total stores creation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K1XRC | 1 mile kernel density extra physical activity for total stores creation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S1XRC | 1 mile simple density extra physical activity for total stores creation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K3XRC | 3 mile kernel density extra physical activity for total stores creation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S3XRC | 3 mile simple density extra physical activity for total stores creation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K5XRC | 5 mile kernel density extra physical activity for total stores creation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| S5XRC | 5 mile simple density extra physical activity for total stores creation. The unit of measure is number of facilities per square mile. | Continuous |  | Recreational Facilities |
| K14POS | 1/4 mile kernel density postal service. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S14POS | 1/4 mile simple density postal service. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K0POS | 1/2 mile kernel density postal service. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S0POS | 1/2 mile simple density postal service. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K1POS | 1 mile kernel density postal service. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S1POS | 1 mile simple density postal service. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K3POS | 3 mile kernel density postal service. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S3POS | 3 mile simple density postal service. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K5POS | 5 mile kernel density postal service. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S5POS | 5 mile simple density postal service. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K14DRU | 1/4 mile kernel density drug store and pharmacy. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S14DRU | 1/4 mile simple density drug store and pharmacy. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K0DRU | 1/2 mile kernel density drug store and pharmacy. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S0DRU | 1/2 mile simple density drug store and pharmacy. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K1DRU | 1 mile kernel density drug store and pharmacy. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S1DRU | 1 mile simple density drug store and pharmacy. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K3DRU | 3 mile kernel density drug store and pharmacy. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S3DRU | 3 mile simple density drug store and pharmacy. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K5DRU | 5 mile kernel density drug store and pharmacy. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S5DRU | 5 mile simple density drug store and pharmacy. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K14BCU | 1/4 mile kernel density bank and credit union. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S14BCU | 1/4 mile simple density bank and credit union. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K0BCU | 1/2 mile kernel density bank and credit union. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S0BCU | 1/2 mile simple density bank and credit union. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K1BCU | 1 mile kernel density bank and credit union. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S1BCU | 1 mile simple density bank and credit union. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K3BCU | 3 mile kernel density bank and credit union. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S3BCU | 3 mile simple density bank and credit union. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K5BCU | 5 mile kernel density bank and credit union. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S5BCU | 5 mile simple density bank and credit union. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K14FDS | 1/4 mile kernel density food sales. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S14FDS | 1/4 mile simple density food sales. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K0FDS | 1/2 mile kernel density food sales. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S0FDS | 1/2 mile simple density food sales. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K1FDS | 1 mile kernel density food sales. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S1FDS | 1 mile simple density food sales. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K3FDS | 3 mile kernel density food sales. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S3FDS | 3 mile simple density food sales. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K5FDS | 5 mile kernel density food sales. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S5FDS | 5 mile simple density food sales. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K14EPL | 1/4 mile kernel density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S14EPL | 1/4 mile simple density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K0EPL | 1/2 mile kernel density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S0EPL | 1/2 mile simple density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K1EPL | 1 mile kernel density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S1EPL | 1 mile simple density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K3EPL | 3 mile kernel density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S3EPL | 3 mile simple density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K5EPL | 5 mile kernel density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| S5EPL | 5 mile simple density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Walking |
| K14WALK | 1/4 mile kernel density total popular walking destinations. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14POS+K14FDS+K14NAL+K14EPL+K14DRU+K14BCU | Walking |
| S14WALK | 1/4 mile simple density total popular walking destinations. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14POS+S14FDS+S14NAL+S14EPL+S14DRU+S14BCU | Walking |
| K0WALK | 1/2 mile kernel density total popular walking destinations. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0POS+K0FDS+K0NAL+K0EPL+K0DRU+K0BCU | Walking |
| S0WALK | 1/2 mile simple density total popular walking destinations. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S0POS+S0FDS+S0NAL+S0EPL+S0DRU+S0BCU | Walking |
| K1WALK | 1 mile kernel density total popular walking destinations. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1POS+K1FDS+K1NAL+K1EPL+K1DRU+K1BCU | Walking |
| S1WALK | 1 mile simple density total popular walking destinations. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1POS+S1FDS+S1NAL+S1EPL+S1DRU+S1BCU | Walking |
| K3WALK | 3 mile kernel density total popular walking destinations. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3POS+K3FDS+K3NAL+K3EPL+K3DRU+K3BCU | Walking |
| S3WALK | 3 mile simple density total popular walking destinations. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3POS+S3FDS+S3NAL+S3EPL+S3DRU+S3BCU | Walking |
| K5WALK | 5 mile kernel density total popular walking destinations. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5POS+K5FDS+K5NAL+K5EPL+K5DRU+K5BCU | Walking |
| S5WALK | 5 mile simple density total popular walking destinations. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5POS+S5FDS+S5NAL+S5EPL+S5DRU+S5BCU | Walking |
| K14BEU | 1/4 mile kernel density barbers/beauty shops. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14BEU | 1/4 mile simple density barbers/beauty shops. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0BEU | 1/2 mile kernel density barbers/beauty shops. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0BEU | 1/2 mile simple density barbers/beauty shops. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1BEU | 1 mile kernel density barbers/beauty shops. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1BEU | 1 mile simple density barbers/beauty shops. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3BEU | 3 mile kernel density barbers/beauty shops. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3BEU | 3 mile simple density barbers/beauty shops. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5BEU | 5 mile kernel density barbers/beauty shops. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5BEU | 5 mile simple density barbers/beauty shops. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14PBE | 1/4 mile kernel density performance based entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14PBE | 1/4 mile simple density performance based entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0PBE | 1/2 mile kernel density performance based entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0PBE | 1/2 mile simple density performance based entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1PBE | 1 mile kernel density performance based entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1PBE | 1 mile simple density performance based entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3PBE | 3 mile kernel density performance based entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3PBE | 3 mile simple density performance based entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5PBE | 5 mile kernel density performance based entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5PBE | 5 mile simple density performance based entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14PER | 1/4 mile kernel density participatory entertainment/recreation clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14PER | 1/4 mile simple density participatory entertainment/recreation clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0PER | 1/2 mile kernel density participatory entertainment/recreation clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0PER | 1/2 mile simple density participatory entertainment/recreation clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1PER | 1 mile kernel density participatory entertainment/recreation clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1PER | 1 mile simple density participatory entertainment/recreation clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3PER | 3 mile kernel density participatory entertainment/recreation clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3PER | 3 mile simple density participatory entertainment/recreation clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5PER | 5 mile kernel density participatory entertainment/recreation clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5PER | 5 mile simple density participatory entertainment/recreation clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14SPS | 1/4 mile kernel density sport/professional stadium entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14SPS | 1/4 mile simple density sport/professional stadium entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0SPS | 1/2 mile kernel density sport/professional stadium entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0SPS | 1/4 mile simple density sport/professional stadium entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1SPS | 1 mile kernel density sport/professional stadium entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1SPS | 1 mile simple density sport/professional stadium entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3SPS | 3 mile kernel density sport/professional stadium entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3SPS | 3 mile simple density sport/professional stadium entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5SPS | 5 mile kernel density sport/professional stadium entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5SPS | 5 mile simple density sport/professional stadium entertainment. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14EXR | 1/4 mile kernel density exercise facility. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14EXR | 1/4 mile simple density exercise facility. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0EXR | 1/2 mile kernel density exercise facility. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0EXR | 1/4 mile simple density exercise facility. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1EXR | 1 mile kernel density exercise facility. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1EXR | 1 mile simple density exercise facility. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3EXR | 3 mile kernel density exercise facility. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3EXR | 3 mile simple density exercise facility. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5EXR | 5 mile kernel density exercise facility. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5EXR | 5 mile simple density exercise facility. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14GAM | 1/4 mile kernel density coin-operated amusement/gambling. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14GAM | 1/4 mile simple density coin-operated amusement/gambling. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0GAM | 1/2 mile kernel density coin-operated amusement/gambling. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0GAM | 1/4 mile simple density coin-operated amusement/gambling. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1GAM | 1 mile kernel density coin-operated amusement/gambling. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1GAM | 1 mile simple density coin-operated amusement/gambling. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3GAM | 3 mile kernel density coin-operated amusement/gambling. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3GAM | 3 mile simple density coin-operated amusement/gambling. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5GAM | 5 mile kernel density coin-operated amusement/gambling. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5GAM | 5 mile simple density coin-operated amusement/gambling. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14AMU | 1/4 mile kernel density amusement park, carnival, rodeo. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14AMU | 1/4 mile simple density amusement park, carnival, rodeo. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0AMU | 1/2 mile kernel density amusement park, carnival, rodeo. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0AMU | 1/4 mile simple density amusement park, carnival, rodeo. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1AMU | 1 mile kernel density amusement park, carnival, rodeo. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1AMU | 1 mile simple density amusement park, carnival, rodeo. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3AMU | 3 mile kernel density amusement park, carnival, rodeo. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3AMU | 3 mile simple density amusement park, carnival, rodeo. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5AMU | 5 mile kernel density amusement park, carnival, rodeo. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5AMU | 5 mile simple density amusement park, carnival, rodeo. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14MSR | 1/4 mile kernel density membership sports/recreation club. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14MSR | 1/4 mile simple density membership sports/recreation club. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0MSR | 1/2 mile kernel density membership sports/recreation club. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0MSR | 1/4 mile simple density membership sports/recreation club. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1MSR | 1 mile kernel density membership sports/recreation club. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1MSR | 1 mile simple density membership sports/recreation club. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3MSR | 3 mile kernel density membership sports/recreation club. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3MSR | 3 mile simple density membership sports/recreation club. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5MSR | 5 mile kernel density membership sports/recreation club. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5MSR | 5 mile simple density membership sports/recreation club. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14LIB | 1/4 mile kernel density libraries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14LIB | 1/4 mile simple density libraries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0LIB | 1/2 mile kernel density libraries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0LIB | 1/4 mile simple density libraries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1LIB | 1 mile kernel density libraries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1LIB | 1 mile simple density libraries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3LIB | 3 mile kernel density libraries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3LIB | 3 mile simple density libraries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5LIB | 5 mile kernel density libraries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5LIB | 5 mile simple density libraries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14MAG | 1/4 mile kernel density museum and art galleries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14MAG | 1/4 mile simple density museum and art galleries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0MAG | 1/2 mile kernel density museum and art galleries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0MAG | 1/4 mile simple density museum and art galleries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1MAG | 1 mile kernel density museum and art galleries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1MAG | 1 mile simple density museum and art galleries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3MAG | 3 mile kernel density museum and art galleries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3MAG | 3 mile simple density museum and art galleries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5MAG | 5 mile kernel density museum and art galleries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5MAG | 5 mile simple density museum and art galleries. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14ZOO | 1/4 mile kernel density zoo, arboretum, aquarium. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14ZOO | 1/4 mile simple density zoo, arboretum, aquarium. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0ZOO | 1/2 mile kernel density zoo, arboretum, aquarium. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0ZOO | 1/4 mile simple density zoo, arboretum, aquarium. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1ZOO | 1 mile kernel density zoo, arboretum, aquarium. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1ZOO | 1 mile simple density zoo, arboretum, aquarium. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3ZOO | 3 mile kernel density zoo, arboretum, aquarium. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3ZOO | 3 mile simple density zoo, arboretum, aquarium. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5ZOO | 5 mile kernel density zoo, arboretum, aquarium. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5ZOO | 5 mile simple density zoo, arboretum, aquarium. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14CSP | 1/4 mile kernel density civil, social, and political clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14CSP | 1/4 mile simple density civil, social, and political clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0CSP | 1/2 mile kernel density civil, social, and political clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0CSP | 1/4 mile simple density civil, social, and political clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1CSP | 1 mile kernel density civil, social, and political clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1CSP | 1 mile simple density civil, social, and political clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3CSP | 3 mile kernel density civil, social, and political clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3CSP | 3 mile simple density civil, social, and political clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5CSP | 5 mile kernel density civil, social, and political clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5CSP | 5 mile simple density civil, social, and political clubs. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14REL | 1/4 mile kernel density religion. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14REL | 1/4 mile simple density religion. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0REL | 1/2 mile kernel density religion. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0REL | 1/4 mile simple density religion. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1REL | 1 mile kernel density religion. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1REL | 1 mile simple density religion. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3REL | 3 mile kernel density religion. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3REL | 3 mile simple density religion. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5REL | 5 mile kernel density religion. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5REL | 5 mile simple density religion. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14ETP | 1/4 mile kernel density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14ETP | 1/4 mile simple density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0ETP | 1/2 mile kernel density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0ETP | 1/4 mile simple density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1ETP | 1 mile kernel density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1ETP | 1 mile simple density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3ETP | 3 mile kernel density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3ETP | 3 mile simple density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5ETP | 5 mile kernel density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5ETP | 5 mile simple density eating places. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14NCL | 1/4 mile kernel density night clubs/bars. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S14NCL | 1/4 mile simple density night clubs/bars. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K0NCL | 1/2 mile kernel density night clubs/bars. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S0NCL | 1/4 mile simple density night clubs/bars. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K1NCL | 1 mile kernel density night clubs/bars. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S1NCL | 1 mile simple density night clubs/bars. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K3NCL | 3 mile kernel density night clubs/bars. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S3NCL | 3 mile simple density night clubs/bars. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K5NCL | 5 mile kernel density night clubs/bars. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| S5NCL | 5 mile simple density night clubs/bars. The unit of measure is number of facilities per square mile. | Continuous |  | Social Engagement |
| K14SOC | 1/4 mile kernel density total social engagement. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14ETP+K14BEU+K14PBE+K14PER+K14SPS+K14EXR+K14GAM+K14AMU+K14MSR+K14NCL+K14LIB+K14MAG+K14ZOO+K14CSP+K14REL | Social Engagement |
| S14SOC | 1/4 mile simple density total social engagement. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14ETP+S14BEU+S14PBE+S14PER+S14SPS+S14EXR+S14GAM+S14AMU+S14MSR+S14NCL+S14LIB+S14MAG+S14ZOO+S14CSP+S14REL | Social Engagement |
| K0SOC | 1/2 mile kernel density total social engagement. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0ETP+K0BEU+K0PBE+K0PER+K0SPS+K0EXR+K0GAM+K0AMU+K0MSR+K0NCL+K0LIB+K0MAG+K0ZOO+K0CSP+K0REL | Social Engagement |
| S0SOC | 1/4 mile simple density total social engagement. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S0ETP+S0BEU+S0PBE+S0PER+S0SPS+S0EXR+S0GAM+S0AMU+S0MSR+S0NCL+S0LIB+S0MAG+S0ZOO+S0CSP+S0REL | Social Engagement |
| K1SOC | 1 mile kernel density total social engagement. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1ETP+K1BEU+K1PBE+K1PER+K1SPS+K1EXR+K1GAM+K1AMU+K1MSR+K1NCL+K1LIB+K1MAG+K1ZOO+K1CSP+K1REL | Social Engagement |
| S1SOC | 1 mile simple density total social engagement. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1ETP+S1BEU+S1PBE+S1PER+S1SPS+S1EXR+S1GAM+S1AMU+S1MSR+S1NCL+S1LIB+S1MAG+S1ZOO+S1CSP+S1REL | Social Engagement |
| K3SOC | 3 mile kernel density total social engagement. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3ETP+K3BEU+K3PBE+K3PER+K3SPS+K3EXR+K3GAM+K3AMU+K3MSR+K3NCL+K3LIB+K3MAG+K3ZOO+K3CSP+K3REL | Social Engagement |
| S3SOC | 3 mile simple density total social engagement. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3ETP+S3BEU+S3PBE+S3PER+S3SPS+S3EXR+S3GAM+S3AMU+S3MSR+S3NCL+S3LIB+S3MAG+S3ZOO+S3CSP+S3REL | Social Engagement |
| K5SOC | 5 mile kernel density total social engagement. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5ETP+K5BEU+K5PBE+K5PER+K5SPS+K5EXR+K5GAM+K5AMU+K5MSR+K5NCL+K5LIB+K5MAG+K5ZOO+K5CSP+K5REL | Social Engagement |
| S5SOC | 5 mile simple density total social engagement. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5ETP+S5BEU+S5PBE+S5PER+S5SPS+S5EXR+S5GAM+S5AMU+S5MSR+S5NCL+S5LIB+S5MAG+S5ZOO+S5CSP+S5REL | Social Engagement |
| K14TOTSTR | 1/4 mile kernel density total stores. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K14POS+K14DRU+K14BCU+K14BEU+K14MAG+K14ZOO+K14CSP+K14REL+K14SPS+K14GAM+K14LIB+K14LIQ+K14CV+K14FDS+K14EPL+K14NAL+K14NCL+K14IW+K14PBE+K14PER+K14EXR+K14AMU+K14MSR+K14XRC |  |
| S14TOTSTR | 1/4 mile simple density total stores. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S14POS+S14DRU+S14BCU+S14BEU+S14MAG+S14ZOO+S14CSP+S14REL+S14SPS+S14GAM+S14LIB+S14LIQ+S14CV+S14FDS+S14EPL+S14NAL+S14NCL+S14IW+S14PBE+S14PER+S14EXR+S14AMU+S14MSR+S14XRC |  |
| K0TOTSTR | 1/2 mile kernel density total stores. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K0POS+K0DRU+K0BCU+K0BEU+K0MAG+K0ZOO+K0CSP+K0REL+K0SPS+K0GAM+K0LIB+K0LIQ+K0CV+K0FDS+K0EPL+K0NAL+K0NCL+K0IW+K0PBE+K0PER+K0EXR+K0AMU+K0MSR+K0XRC |  |
| S0TOTSTR | 1/2 mile simple density total stores. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S0POS+S0DRU+S0BCU+S0BEU+S0MAG+S0ZOO+S0CSP+S0REL+S0SPS+S0GAM+S0LIB+S0LIQ+S0CV+S0FDS+S0EPL+S0NAL+S0NCL+S0IW+S0PBE+S0PER+S0EXR+S0AMU+S0MSR+S0XRC |  |
| K1TOTSTR | 1 mile kernel density total stores. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K1POS+K1DRU+K1BCU+K1BEU+K1MAG+K1ZOO+K1CSP+K1REL+K1SPS+K1GAM+K1LIB+K1LIQ+K1CV+K1FDS+K1EPL+K1NAL+K1NCL+K1IW+K1PBE+K1PER+K1EXR+K1AMU+K1MSR+K1XRC |  |
| S1TOTSTR | 1 mile simple density total stores. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S1POS+S1DRU+S1BCU+S1BEU+S1MAG+S1ZOO+S1CSP+S1REL+S1SPS+S1GAM+S1LIB+S1LIQ+S1CV+S1FDS+S1EPL+S1NAL+S1NCL+S1IW+S1PBE+S1PER+S1EXR+S1AMU+S1MSR+S1XRC |  |
| K3TOTSTR | 3 mile kernel density total stores. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K3POS+K3DRU+K3BCU+K3BEU+K3MAG+K3ZOO+K3CSP+K3REL+K3SPS+K3GAM+K3LIB+K3LIQ+K3CV+K3FDS+K3EPL+K3NAL+K3NCL+K3IW+K3PBE+K3PER+K3EXR+K3AMU+K3MSR+K3XRC |  |
| S3TOTSTR | 3 mile simple density total stores. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S3POS+S3DRU+S3BCU+S3BEU+S3MAG+S3ZOO+S3CSP+S3REL+S3SPS+S3GAM+S3LIB+S3LIQ+S3CV+S3FDS+S3EPL+S3NAL+S3NCL+S3IW+S3PBE+S3PER+S3EXR+S3AMU+S3MSR+S3XRC |  |
| K5TOTSTR | 5 mile kernel density total stores. The unit of measure is number of facilities per square mile. | Continuous | Calculated as K5POS+K5DRU+K5BCU+K5BEU+K5MAG+K5ZOO+K5CSP+K5REL+K5SPS+K5GAM+K5LIB+K5LIQ+K5CV+K5FDS+K5EPL+K5NAL+K5NCL+K5IW+K5PBE+K5PER+K5EXR+K5AMU+K5MSR+K5XRC |  |
| S5TOTSTR | 5 mile simple density total stores. The unit of measure is number of facilities per square mile. | Continuous | Calculated as S5POS+S5DRU+S5BCU+S5BEU+S5MAG+S5ZOO+S5CSP+S5REL+S5SPS+S5GAM+S5LIB+S5LIQ+S5CV+S5FDS+S5EPL+S5NAL+S5NCL+S5IW+S5PBE+S5PER+S5EXR+S5AMU+S5MSR+S5XRC |  |

**Table K.3: Variables for distance to nearest datasets**

This includes the datasets:

mesa\_nets\_dist2000.sas7bdat-mesa\_nets\_dist2010.sas7bdat

mesabl\_nets\_dist2000.sas7bdat-mesabl\_nets\_dist2010.sas7bdat

mesawork\_nets\_dist2000.sas7bdat-mesawork\_nets\_dist2010.sas7bdat

jhs\_nets\_dist2000.sas7bdat-jhs\_nets\_dist2010.sas7bdat

cs1\_nets\_dist2000.sas7bdat-cs1\_nets\_dist2010.sas7bdat

cs2\_nets\_dist2000.sas7bdat-cs2\_nets\_dist2010.sas7bdat

cs3\_nets\_dist2000.sas7bdat-cs3\_nets\_dist2010.sas7bdat

| **Variable name** | **Description** | **Coding** | **Notes** | **Category** |
| --- | --- | --- | --- | --- |
| idno | MESA id number |  | Only available in MESA datasets |  |
| add\_number | Address number |  | Available in MESA follow-up and JHS datasets |  |
| wadd\_number | Work address indicator | 4= Exam4  5 = Exam5  8= FU8  9 = FU9  10 = FU10 | Only available in MESA work datasets |  |
| fakeid | JHS address fake id number |  | Only available in JHS datasets |  |
| unique\_ID | JHS address fake id and address number merge together for unique id |  | Only available in JHS datasets |  |
| RECNO | CS1 unique ID number |  | Only available in CS1 datasets |  |
| uniqueID | CS2 unique ID number |  | Only available in CS2 datasets |  |
| SEQNO | CS3 unique ID number |  | Only available in CS3 datasets |  |
| DNODATA | Minimum distance to nearest edge of non-purchase area for NETS data. | Continuous |  |  |
| SDGRO | Euclidean distance to grocers in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDGRO | Euclidean distance to grocers in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDSCH | Euclidean distance to supermarket chains in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDSCH | Euclidean distance to supermarket chains in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDSNO | Euclidean distance to supermarket non-chains in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDSNO | Euclidean distance to supermarket non-chains in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDSMALL | Euclidean distance to supermarket chain+non-chain in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDSCH,SDSNO) | Food Stores |
| ASDSMALL | Euclidean distance to supermarket chain+non-chain in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDSCH,ASDSNO) | Food Stores |
| SDCON | Euclidean distance to convenience store in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDCON | Euclidean distance to convenience store in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDMEA | Euclidean distance to deli/meat/dairy in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDMEA | Euclidean distance to deli/meat/dairy in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDFRU | Euclidean distance to fruit/vegetable market in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDFRU | Euclidean distance to fruit/vegetable market in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDBAK | Euclidean distance to bakery, nuts, candy, ice cream in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDBAK | Euclidean distance to bakery, nuts, candy, ice cream in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDHEA | Euclidean distance to health/vitamins in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDHEA | Euclidean distance to health/vitamins in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDLIQ | Euclidean distance to liquor stores in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDLIQ | Euclidean distance to liquor stores in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDNAL | Euclidean distance to nonalcoholic drinking places in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDNAL | Euclidean distance to nonalcoholic drinking places in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDALC | Euclidean distance to alcoholic drinking places in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDALC | Euclidean distance to alcoholic drinking places in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDFFC | Euclidean distance to fast food chains in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDFFC | Euclidean distance to fast food chains in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDFFN | Euclidean distance to fast food non-chains in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDFFN | Euclidean distance to fast food non-chains in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDFFALL | Euclidean distance to fast food chain+non-chain in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDFFALL | Euclidean distance to fast food chain+non-chain in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDEAT | Euclidean distance to other eating places in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDEAT | Euclidean distance to other eating places in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDOTH | Euclidean distance to other food stores in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Food Stores |
| ASDOTH | Euclidean distance to other food stores in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Food Stores |
| SDFAV | Euclidean distance to favorable food stores in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDSCH,SDSNO,SDFRU) | Food Stores |
| ASDFAV | Euclidean distance to favorable food stores in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDSCH,ASDSNO,ASDFRU) | Food Stores |
| SDNEUT | Euclidean distance to neutral food stores in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDGRO,SDMEA,SDHEA,SDNAL,SDOTH) | Food Stores |
| ASDNEUT | Euclidean distance to neutral food stores in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDGRO,ASDMEA,ASDHEA,ASDNAL,ASDOTH) | Food Stores |
| SDUNFAV | Euclidean distance to unfavorable food stores including alcohol in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDCON,SDBAK,SDLIQ,SDALC,SDFFC,SDFFN) | Food Stores |
| ASDUNFAV | Euclidean distance to unfavorable food stores including alcohol in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDCON,ASDBAK,ASDLIQ,ASDALC,ASDFFC,ASDFFN) | Food Stores |
| SDUNFAVFO | Euclidean distance to unfavorable food stores excluding alcohol in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDCON,SDBAK,SDFFC,SDFFN) | Food Stores |
| ASDUNFAVFO | Euclidean distance to unfavorable food stores excluding alcohol in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDCON,ASDBAK,ASDFFC,ASDFFN) | Food Stores |
| SDTOTFOOD | Euclidean distance to total food stores excluding alcohol in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDGRO,SDSCH,SDSNO,SDCON,SDMEA,SDFRU,SDBAK,SDHEA,SDLIQ,SDNAL,SDALC,SDFFC,SDFFN,SDEAT,SDOTH) | Food Stores |
| ASDTOTFOOD | Euclidean distance to total food stores excluding alcohol in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDGRO,ASDSCH,ASDSNO,ASDCON,ASDMEA,ASDFRU,ASDBAK,ASDHEA,ASDLIQ,ASDNAL,ASDALC,ASDFFC,ASDFFN,ASDEAT,ASDOTH) | Food Stores |
| SDIC | Euclidean distance to indoor conditioning in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDIC | Euclidean distance to indoor conditioning in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDRE | Euclidean distance to recreational in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDRE | Euclidean distance to recreational in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDORE | Euclidean distance to outdoor recreational in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDORE | Euclidean distance to outdoor recreational in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDIRE | Euclidean distance to indoor recreational in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDIRE | Euclidean distance to indoor recreational in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDTR | Euclidean distance to team/racquet sports in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDTR | Euclidean distance to team/racquet sports in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDOTR | Euclidean distance to outdoor team/racquet sports in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDOTR | Euclidean distance to outdoor team/racquet sports in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDITR | Euclidean distance to indoor team/racquet sports in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDITR | Euclidean distance to indoor team/racquet sports in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDWA | Euclidean distance to water activities in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDWA | Euclidean distance to water activities in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDWC | Euclidean distance to water activities involving conditioning in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDWC | Euclidean distance to water activities involving conditioning in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDOWC | Euclidean distance to outdoor water activities involving conditioning in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDOWC | Euclidean distance to outdoor water activities involving conditioning in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDIWC | Euclidean distance to indoor water activities involving conditioning in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDIWC | Euclidean distance to indoor water activities involving conditioning in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDCV | Euclidean distance to camps/vacation in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDCV | Euclidean distance to camps/vacation in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDII | Euclidean distance to instructional indoor conditioning in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDII | Euclidean distance to instructional indoor conditioning in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDIR | Euclidean distance to instructional recreational in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDIR | Euclidean distance to instructional recreational in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDOIR | Euclidean distance to outdoor instructional recreational in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDOIR | Euclidean distance to outdoor instructional recreational in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDIIR | Euclidean distance to indoor instructional recreational in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDIIR | Euclidean distance to indoor instructional recreational in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDIT | Euclidean distance to instructional team/racquet sports in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDIT | Euclidean distance to instructional team/racquet sports in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDOIT | Euclidean distance to outdoor instructional team/racquet sports in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDOIT | Euclidean distance to outdoor instructional team/racquet sports in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDIIT | Euclidean distance to indoor instructional team/racquet sports in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDIIT | Euclidean distance to indoor instructional team/racquet sports in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDIW | Euclidean distance to instructional water activities in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDIW | Euclidean distance to instructional water activities in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDOIW | Euclidean distance to outdoor instructional water activities in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDOIW | Euclidean distance to outdoor instructional water activities in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDIIW | Euclidean distance to indoor instructional water activities in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDIIW | Euclidean distance to indoor instructional water activities in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDPA | Euclidean distance to total physical activities in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDIC,SDRE,SDTR,SDWC) | Recreational Facilities |
| ASDPA | Euclidean distance to total physical activities in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDIC,ASDRE,ASDTR,ASDWC) | Recreational Facilities |
| SDOPA | Euclidean distance to outdoor total physical activities in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDORE,SDOTR,SSOWC) | Recreational Facilities |
| ASDOPA | Euclidean distance to outdoor total physical activities in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDORE,ASDOTR,ASSOWC) | Recreational Facilities |
| SDIPA | Euclidean distance to indoor total physical activities in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDIC,SDIRE,SDITR,SDIWC) | Recreational Facilities |
| ASDIPA | Euclidean distance to indoor total physical activities in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDIC,ASDIRE,ASDITR,ASDIWC) | Recreational Facilities |
| SDNR | Euclidean distance to total physical activities without recreational in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDIC,SDTR,SDWC) | Recreational Facilities |
| ASDNR | Euclidean distance to total physical activities without recreational in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDIC,ASDTR,ASDWC) | Recreational Facilities |
| SDONR | Euclidean distance to outdoor total physical activities without recreational in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDOTR,SDOWC) | Recreational Facilities |
| ASDONR | Euclidean distance to outdoor total physical activities without recreational in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDOTR,ASDOWC) | Recreational Facilities |
| SDINR | Euclidean distance to indoor total physical activities without recreational in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDIC,SDITR,SDIWC) | Recreational Facilities |
| ASDINR | Euclidean distance to indoor total physical activities without recreational in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDIC,ASDITR,ASDIWC) | Recreational Facilities |
| SDPAI | Euclidean distance to total PA+instruction+water in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDIC,SDII,SDRE,SDIR,SDTR,SDIT,SDWA,SDIW,SDWC) | Recreational Facilities |
| ASDPAI | Euclidean distance to total PA+instruction+water in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDIC,ASDII,ASDRE,ASDIR,ASDTR,ASDIT,ASDWA,ASDIW,ASDWC) | Recreational Facilities |
| SDOPAI | Euclidean distance to total outdoor PA+instruction+water in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDORE,SDOIR,SDOTR,SDOIT,SDWA,SDOWC,SDOIW) | Recreational Facilities |
| ASDOPAI | Euclidean distance to total outdoor PA+instruction+water in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDORE,ASDOIR,ASDOTR,ASDOIT,ASDWA,ASDOWC,ASDOIW) | Recreational Facilities |
| SDIPAI | Euclidean distance to total indoor PA+instruction+water in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDIC,SDII,SDIRE,SDIIR,SDITR,SDIIT,SDIWC,SDIIW) | Recreational Facilities |
| ASDIPAI | Euclidean distance to total indoor PA+instruction+water in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDIC,ASDII,ASDIRE,ASDIIR,ASDITR,ASDIIT,ASDIWC,ASDIIW) | Recreational Facilities |
| SDIPAI | Euclidean distance to total indoor PA+instruction+water in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDIC,SDII,SDIRE,SDIIR,SDITR,SDIIT,SDIWC,SDIIW) | Recreational Facilities |
| ASDIPAI | Euclidean distance to total indoor PA+instruction+water in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDIC,ASDII,ASDIRE,ASDIIR,ASDITR,ASDIIT,ASDIWC,ASDIIW) | Recreational Facilities |
| SDNRI | Euclidean distance to total PA+instruction+water activities without recreational in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDIC,SDII,SDTR,SDIT,SDWA,SDWC,SDIW) | Recreational Facilities |
| ASDNRI | Euclidean distance to total PA+instruction+water activities without recreational in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDIC,ASDII,ASDTR,ASDIT,ASDWA,ASDWC,ASDIW) | Recreational Facilities |
| SDONRI | Euclidean distance to outdoor total PA+instruction+water activities without recreational in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDOTR,SDOIT,SDWA,SDOWC,SDOIW) | Recreational Facilities |
| ASDONRI | Euclidean distance to outdoor PA+instruction+water activities without recreational in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDOTR,ASDOIT,ASDWA,ASDOWC,ASDOIW) | Recreational Facilities |
| SDINRI | Euclidean distance to indoor total PA+instruction+water activities without recreational in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDIC,SDII,SDITR,SDIIT,SDIWC,SDIIW) | Recreational Facilities |
| ASDINRI | Euclidean distance to indoor PA+instruction+water activities without recreational in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDIC,ASDII,ASDITR,ASDIIT,ASDIWC,ASDIIW) | Recreational Facilities |
| SDXRC | Euclidean distance to additional recreational facilities to calculate total stores in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Recreational Facilities |
| ASDXRC | Euclidean distance to additional recreational facilities to calculate total stores in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Recreational Facilities |
| SDPOS | Euclidean distance to postal service in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Walking |
| ASDPOS | Euclidean distance to postal service in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Walking |
| SDDRU | Euclidean distance to drug store and pharmacy in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Walking |
| ASDDRU | Euclidean distance to drug store and pharmacy in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Walking |
| SDBCU | Euclidean distance to bank and credit union in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Walking |
| ASDBCU | Euclidean distance to bank and credit union in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Walking |
| SDFDS | Euclidean distance to food sales in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Walking |
| ASDFDS | Euclidean distance to food sales in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Walking |
| SDEPL | Euclidean distance to eating places in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Walking |
| ASDEPL | Euclidean distance to eating places in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Walking |
| SDWALK | Euclidean distance to total popular walking destinations in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDPOS,SDFDS,SDNAL,SDEPL,SDDRU,SDBCU) | Walking |
| ASDWALK | Euclidean distance to total popular walking destinations in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDPOS,ASDFDS,ASDNAL,ASDEPL,ASDDRU,ASDBCU) | Walking |
| SDBEU | Euclidean distance to barbers/beauty shops in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDBEU | Euclidean distance to barbers/beauty shops in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDPBE | Euclidean distance to performance based entertainment in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDPBE | Euclidean distance to performance based entertainment in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDPER | Euclidean distance to participatory entertainment/recreation clubs in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDPER | Euclidean distance to participatory entertainment/recreation clubs in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDSPS | Euclidean distance to sport/professional stadium entertainment in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDSPS | Euclidean distance to sport/professional stadium entertainment in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDEXR | Euclidean distance to exercise facility in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDEXR | Euclidean distance to exercise facility in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDGAM | Euclidean distance to coin-operated amusement/gambling in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDGAM | Euclidean distance to coin-operated amusement/gambling in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDAMU | Euclidean distance to amusement park, carnival, rodeo in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDAMU | Euclidean distance to amusement park, carnival, rodeo in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDMSR | Euclidean distance to membership sports/recreation club in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDMSR | Euclidean distance to membership sports/recreation club in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDLIB | Euclidean distance to libraries in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDLIB | Euclidean distance to libraries in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDMAG | Euclidean distance to museum and art galleries in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDMAG | Euclidean distance to museum and art galleries in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDZOO | Euclidean distance to zoo, arboretum, aquarium in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDZOO | Euclidean distance to zoo, arboretum, aquarium in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDCSP | Euclidean distance to civil, social, and political clubs in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDCSP | Euclidean distance to civil, social, and political clubs in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDREL | Euclidean distance to religion in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDREL | Euclidean distance to religion in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDETP | Euclidean distance to eating places in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDETP | Euclidean distance to eating places in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDNCL | Euclidean distance to night clubs/bars in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous |  | Social Engagement |
| ASDNCL | Euclidean distance to night clubs/bars in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous |  | Social Engagement |
| SDSOC | Euclidean distance to total social engagement in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | Calculated as min(SDETP,SDBEU,SDPBE,SDPER,SDSPS,SDEXR,SDGAM,SDAMU,SDMSR,SDNCL,SDLIB,SDMAG,SDZOO,SDCSP,SDREL) | Social Engagement |
| ASDSOC | Euclidean distance to total social engagement in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | Calculated as min(ASDETP,ASDBEU,ASDPBE,ASDPER,ASDSPS,ASDEXR,ASDGAM,ASDAMU,ASDMSR,ASDNCL,ASDLIB,ASDMAG,ASDZOO,ASDCSP,ASDREL) | Social Engagement |
| SDTOTSTR | Euclidean distance to total stores in meters. This version does not correct for those where the distance is farther than the minimum distance to the nearest non-purchase area. | Continuous | min(SDGRO,SDSCH,SDSNO,SDCON,SDMEA,SDFRU,SDBAK,SDHEA,SDLIQ,SDNAL,SDALC,SDFFC,SDFFN,SDEAT,SDOTH,SDETP,SDNCL,SDFDS,SDEPL,SDIC,SDRE,SDORE,SDIRE,SDTR,SDOTR,SDITR,SDWA,SDWC,SDOWC,SDIWC,SDCV,SDII,SDIR,SDOIR,SDIIR,SDIT,SDOIT,SDIIT,SDIW,SDOIW,SDIIW,SDBEU,SDPBE,SDPER,SDSPS,SDEXR,SDGAM,SDAMU,SDMSR,SDLIB,SDMAG,SDZOO,SDCSP,SDREL,SDPOS,SDDRU,SDBCU,SDXRC) | Social Engagement |
| ASDTOTSTR | Euclidean distance to total stores in meters. This version uses the average of the distance calculated and the distance to the non-purchase area for the final distance measure. | Continuous | min(ASDGRO,ASDSCH,ASDSNO,ASDCON,ASDMEA,ASDFRU,ASDBAK,ASDHEA,ASDLIQ,ASDNAL,ASDALC,ASDFFC,ASDFFN,ASDEAT,ASDOTH,ASDETP,ASDNCL,ASDFDS,ASDEPL,ASDIC,ASDRE,ASDORE,ASDIRE,ASDTR,ASDOTR,ASDITR,ASDWA,ASDWC,ASDOWC,ASDIWC,ASDCV,ASDII,ASDIR,ASDOIR,ASDIIR,ASDIT,ASDOIT,ASDIIT,ASDIW,ASDOIW,ASDIIW,ASDBEU,ASDPBE,ASDPER,ASDSPS,ASDEXR,ASDGAM,ASDAMU,ASDMSR,ASDLIB,ASDMAG,ASDZOO,ASDCSP,ASDREL,ASDPOS,ASDDRU,ASDBCU,ASDXRC) | Social Engagement |

**Table K.4: Variables for area level datasets**

This includes the datasets:

nets2000\_ct00.sas7bdat- nets2010\_ct00.sas7bdat;

nets2000\_bg00.sas7bdat- nets2010\_bg00.sas7bdat

For the variable names, replace ‘xx’ with CT for census tract datasets and BG for block group datasets

| **Variable name** | **Description** | **Coding** | **Notes** | **Category** |
| --- | --- | --- | --- | --- |
| stcotrk | Census tract ID (2000 boundaries) |  | Only available in census tract datasets |  |
| stcotrkbg | Block group ID (2000 boundaries) |  | Only available in block group datasets |  |
| INTD | Indicator if the census tract overlaps with the area of zip codes purchased for Trade Dimensions | 0 = No  1 = Yes |  |  |
| CNTYNETS | Indicator if the county is completely covered by NETS zip codes purchase area | 0 = No  1 = Yes  2 = Almost all covered |  |  |
| CNTYTD | Indicator if the county is completely covered by Trade Dimensions zip codes purchase area | 0 = No  1 = Yes  2 = Almost all covered |  |  |
| N\_GRO\_xx00 | Number of grocers in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores |
| Nacc\_GRO\_xx00 | Number of grocers in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores |
| N\_SCH\_xx00 | Number of supermarket chains in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores |
| Nacc\_SCH\_xx00 | Number of supermarket chains in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores |
| N\_SNO\_xx00 | Number of supermarket non-chains in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores |
| Nacc\_SNO\_xx00 | Number of supermarket non-chains in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores |
| N\_SMALL\_xx00 | Number of supermarket chain+non-chain in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_SCH\_xx00+N\_SNO\_xx00 | Food Stores |
| Nacc\_SMALL\_xx00 | Number of supermarket chain+non-chain in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_SCH\_xx00+Nacc\_SNO\_xx00 | Food Stores |
| N\_CON\_xx00 | Number of convenience store in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores |
| Nacc\_CON\_xx00 | Number of convenience store in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores |
| N\_MEA\_xx00 | Number of deli/meat/dairy in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores |
| Nacc\_MEA\_xx00 | Number of deli/meat/dairy in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores |
| N\_FRU\_xx00 | Number of fruit/vegetable market in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores |
| Nacc\_FRU\_xx00 | Number of fruit/vegetable market in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores |
| N\_BAK\_xx00 | Number of bakery, nuts, candy, ice cream in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores |
| Nacc\_BAK\_xx00 | Number of bakery, nuts, candy, ice cream. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores |
| N\_HEA\_xx00 | Number of health/vitamins in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores |
| Nacc\_HEA\_xx00 | Number of health/vitamins in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores |
| N\_LIQ\_xx00 | Number of liquor stores in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores |
| Nacc\_LIQ\_xx00 | Number of liquor stores in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores |
| N\_NAL\_xx00 | Number of nonalcoholic drinking places in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores, Walking |
| Nacc\_NAL\_xx00 | Number of nonalcoholic drinking places in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores, Walking |
| N\_ALC\_xx00 | Number of alcoholic drinking places in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores |
| N\_acc\_ALC\_xx00 | Number of alcoholic drinking places in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores |
| N\_FFC\_xx00 | Number of fast food chains in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores |
| Nacc\_FFC\_xx00 | Number of fast food chains in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores |
| N\_FFN\_xx00 | Number of fast food non-chains in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores |
| Nacc\_FFN\_xx00 | Number of fast food non-chains in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores |
| N\_FFALL\_xx00 | Number of fast food chain+non-chain in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_FFC\_xx00+N\_FFN\_xx00 | Food Stores |
| Nacc\_FFALL\_xx00 | Number of fast food chain+non-chain in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_FFC\_x00+Nacc\_FFN\_xx00 | Food Stores |
| N\_EAT\_xx00 | Number of other eating places in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores |
| Nacc\_EAT\_xx00 | Number of other eating places in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores |
| N\_OTH\_xx00 | Number of other food stores in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Food Stores |
| Nacc\_OTH\_xx00 | Number of other food stores in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Food Stores |
| N\_FAV\_xx00 | Number of favorable food stores in census tract/block group. This includes all businesses regardless of geocoding accuracy. This is the sum of supermarket chain and non-chain and fruit and vegetable markets. | Continuous | Calculated as N\_SCH\_xx00+N\_SNO\_xx00+N\_FRU\_xx00 | Food Stores |
| Nacc\_FAV\_xx00 | Number of favorable food stores in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. This is the sum of supermarket chain and non-chain and fruit and vegetable markets. | Continuous | Calculated as Nacc\_SCH\_xx00+Nacc\_SNO\_xx00+Nacc\_FRU\_xx00 | Food Stores |
| N\_NEUT\_xx00 | Number of neutral food stores in census tract/block group. This includes all businesses regardless of geocoding accuracy. This is the sum of grocers, deli/meat/dairy, health/vitamin stores, drinking places non-alcoholic, and other food stores. | Continuous | Calculated as N\_GRO\_xx00+N\_MEA\_xx00+N\_HEA\_xx00+N\_NAL\_xx00+N\_OTH\_xx00 | Food Stores |
| Nacc\_NEUT\_xx00 | Number of neutral food stores in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. This is the sum of grocers, deli/meat/dairy, health/vitamin stores, drinking places non-alcoholic, and other food stores. | Continuous | Calculated as Nacc\_GRO\_xx00+Nacc\_MEA\_xx00+Nacc\_HEA\_xx00+Nacc\_NAL\_xx00+Nacc\_OTH\_xx00 | Food Stores |
| N\_UNFAV\_xx00 | Number of unfavorable food stores including alcohol in census tract/block group. This includes all businesses regardless of geocoding accuracy. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, liquor stores, drinking places alcoholic, fast food chains, and fast food non-chain. | Continuous | Calculated as N\_CON\_xx00+N\_BAK\_xx00+N\_LIQ\_xx00+N\_ALC\_xx00+N\_FFC\_xx00+N\_FFN\_xx00 | Food Stores |
| Nacc\_UNFAV\_xx00 | Number of unfavorable food stores including alcohol in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, liquor stores, drinking places alcoholic, fast food chains, and fast food non-chain. | Continuous | Calculated as Nacc\_CON\_xx00+Nacc\_BAK\_xx00+Nacc\_LIQ\_xx00+Nacc\_ALC\_xx00+Nacc\_FFC\_xx00+Nacc\_FFN\_xx00 | Food Stores |
| N\_UNFAVFO\_xx00 | Number of unfavorable food stores excluding alcohol in census tract/block group. This includes all businesses regardless of geocoding accuracy. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, fast food chains, and fast food non-chain. | Continuous | Calculated as N\_CON\_xx00+N\_BAK\_xx00+N\_FFC\_xx00+N\_FFN\_xx00 | Food Stores |
| Nacc\_UNFAVFO\_xx00 | Number of unfavorable food stores excluding alcohol in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. This is the sum of convenience stores, bakeries/nuts/candy/ice cream, fast food chains, and fast food non-chain. | Continuous | Calculated as Nacc\_CON\_xx00+Nacc\_BAK\_xx00+Nacc\_FFC\_xx00+Nacc\_FFN\_xx00 | Food Stores |
| N\_TOTFOOD\_xx00 | Number of total food stores in census tract/block group. This includes all businesses regardless of geocoding accuracy. This is the sum of favorable, neutral, unfavorable food stores, and other eating places. | Continuous | Calculated as N\_FAV\_xx00+N\_NEUT\_xx00+N\_UNFAV\_xx00+N\_EAT\_xx00 | Food Stores |
| Nacc\_TOTFOOD\_xx00 | Number of total food stores in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. This is the sum of favorable, neutral, unfavorable food stores, and other eating places. | Continuous | Calculated as Nacc\_FAV\_xx00+Nacc\_NEUT\_xx00+Nacc\_UNFAV\_xx00+Nacc\_EAT\_xx00 | Food Stores |
| N\_RATIO\_TOT\_xx00 | Unfavorable/favorable ratio (include alcohol) in census tract/block group. This includes all businesses regardless of geocoding accuracy. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as N\_UNFAV\_xx00/N\_FAV\_xx00 | Food Stores |
| Nacc\_RATIO\_TOT\_xx00 | Unfavorable/favorable ratio (include alcohol) in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as Nacc\_UNFAV\_xx00/Nacc\_FAV\_xx00 | Food Stores |
| N\_RATIO\_NOALC\_xx00 | Unfavorable/favorable ratio (exclude alcohol) in census tract/block group. This includes all businesses regardless of geocoding accuracy. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as N\_UNFAVFO\_xx00/N\_FAV\_xx00 | Food Stores |
| Nacc\_RATIO\_NOALC\_xx00 | Unfavorable/favorable ratio (exclude alcohol) in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | 88888888 = Favorable is 0  999999999 = Favorable and Unfavorable are 0 | Calculated as Nacc\_UNFAVFO\_xx00/Nacc\_FAV\_xx00 | Food Stores |
| N\_MRFEI\_TOT\_xx00 | Modified Retail Food Environment Index (include alcohol) in census tract/block group. This includes all businesses regardless of geocoding accuracy. | 999999999 = Favorable and Unfavorable are 0 | Calculated as N\_FAV\_xx00/(N\_FAV\_xx00+N\_UNFAV\_xx00) | Food Stores |
| Nacc\_MRFEI\_TOT\_xx00 | Modified Retail Food Environment Index (include alcohol) in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | 999999999 = Favorable and Unfavorable are 0 | Calculated as Nacc\_FAV\_xx00/(Nacc\_FAV\_xx00+Nacc\_UNFAV\_xx00) | Food Stores |
| N\_MRFEI\_NOALC\_xx00 | Modified Retail Food Environment Index (exclude alcohol) in census tract/block group. This includes all businesses regardless of geocoding accuracy. | 999999999 = Favorable and Unfavorable are 0 | Calculated as N\_FAV\_xx00/(N\_FAV\_xx00+N\_UNFAVFO\_xx00) | Food Stores |
| Nacc\_MRFEI\_NOALC\_xx00 | Modified Retail Food Environment Index (exclude alcohol) in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | 999999999 = Favorable and Unfavorable are 0 | Calculated as Nacc\_FAV\_xx00/(Nacc\_FAV\_xx00+Nacc\_UNFAVFO)\_xx00) | Food Stores |
| N\_IC\_xx00 | Number of indoor conditioning in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_IC\_xx00 | Number of indoor conditioning in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_RE\_xx00 | Number of recreational in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_RE\_xx00 | Number of recreational in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_ORE\_xx00 | Number of outdoor recreational in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_ORE\_xx00 | Number of outdoor recreational in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_IRE\_xx00 | Number of indoor recreational in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_IRE\_xx00 | Number of indoor recreational in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_TR\_xx00 | Number of team/racquet sports in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_TR\_xx00 | Number of team/racquet sports in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_OTR\_xx00 | Number of outdoor team/racquet sports in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_OTR\_xx00 | Number of outdoor team/racquet sports in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_ITR\_xx00 | Number of indoor team/racquet sports in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_ITR\_xx00 | Number of indoor team/racquet sports in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_WA\_xx00 | Number of water activities in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_WA\_xx00 | Number of water activities in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_WC\_xx00 | Number of water activities involving conditioning in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_WC\_xx00 | Number of water activities involving conditioning in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_OWC\_xx00 | Number of outdoor water activities involving conditioning in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_OWC\_xx00 | Number of outdoor water activities involving conditioning in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_IWC\_xx00 | Number of indoor water activities involving conditioning in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_IWC\_xx00 | Number of indoor water activities involving conditioning in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_CV\_xx00 | Number of camps/vacation in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_CV\_xx00 | Number of camps/vacation in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_II\_xx00 | Number of instructional indoor conditioning in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_II\_xx00 | Number of instructional indoor conditioning in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_IR\_xx00 | Number of instructional recreational in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_IR\_xx00 | Number of instructional recreational in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_OIR\_xx00 | Number of outdoor instructional recreational in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_OIR\_xx00 | Number of outdoor instructional recreational in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_IIR\_xx00 | Number of indoor instructional recreational in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_IIR\_xx00 | Number of indoor instructional recreational in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_IT\_xx00 | Number of instructional team/racquet sports in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_IT\_xx00 | Number of instructional team/racquet sports in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_OIT\_xx00 | Number of outdoor instructional team/racquet sports in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_OIT\_xx00 | Number of outdoor instructional team/racquet sports in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_IIT\_xx00 | Number of indoor instructional team/racquet sports in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_IIT\_xx00 | Number of indoor instructional team/racquet sports in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_IW\_xx00 | Number of instructional water activities in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_IW\_xx00 | Number of instructional water activities in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_OIW\_xx00 | Number of outdoor instructional water activities in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_OIW\_xx00 | Number of outdoor instructional water activities in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_IIW\_xx00 | Number of outdoor instructional water activities in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_IIW\_xx00 | Number of outdoor instructional water activities in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_XRC\_xx00 | Number of additional recreational facilities for total stores coding in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Recreational Facilities |
| Nacc\_XRC\_xx00 | Number of additional recreational facilities for total stores coding in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Recreational Facilities |
| N\_PA\_xx00 | Number of total physical activities in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_IC\_xx00+N\_RE\_xx00+ N\_TR\_xx00+N\_WC\_xx00 | Recreational Facilities |
| Nacc\_PA\_xx00 | Number of total physical activities in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_IC\_xx00+Nacc\_RE\_xx00+Nacc\_TR\_xx00+Nacc\_WC\_xx00 | Recreational Facilities |
| N\_OPA\_xx00 | Number of outdoor total physical activities in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_ORE\_xx00+N\_OTR\_xx00+N\_OWC\_xx00 | Recreational Facilities |
| Nacc\_OPA\_xx00 | Number of outdoor total physical activities in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_ORE\_xx00+Nacc\_OTR\_xx00+Nacc\_OWC\_xx00 | Recreational Facilities |
| N\_IPA\_xx00 | Number of indoor total physical activities in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_IC\_xx00+N\_IRE\_xx00+N\_ITR\_xx00+N\_IWC\_xx00 | Recreational Facilities |
| Nacc\_IPA\_xx00 | Number of indoor total physical activities in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_IC\_xx00+Nacc\_IRE\_xx00+Nacc\_ITR\_xx00+Nacc\_IWC\_xx00 | Recreational Facilities |
| N\_NR\_xx00 | Number of total physical activities without recreational in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_IC\_xx00+N\_TR\_xx00+N\_WC\_xx00 | Recreational Facilities |
| Nacc\_NR\_xx00 | Number of total physical activities without recreational in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_IC\_xx00+Nacc\_TR\_xx00+Nacc\_WC\_xx00 | Recreational Facilities |
| N\_ONR\_xx00 | Number of outdoor total physical activities without recreational in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_OTR\_xx00+N\_OWC\_xx00 | Recreational Facilities |
| Nacc\_ONR\_xx00 | Number of outdoor total physical activities without recreational in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_OTR\_xx00+Nacc\_OWC\_xx00 | Recreational Facilities |
| N\_INR\_xx00 | Number of indoor total physical activities without recreational in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_IC\_xx00+N\_ITR\_xx00+ N\_IWC\_xx00 | Recreational Facilities |
| Nacc\_INR\_xx00 | Number of indoor total physical activities without recreational in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_IC\_xx00+Nacc\_ITR\_xx00+Nacc\_IWC\_xx00 | Recreational Facilities |
| N\_PAI\_xx00 | Number of total PA+instruction+water in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_IC\_xx00+N\_II\_xx00+N\_RE\_xx00+N\_IR\_xx00+N\_TR\_xx00+N\_IT\_xx00+N\_WA\_xx00+N\_IW\_xx00+N\_WC\_xx00 | Recreational Facilities |
| Nacc\_PAI\_xx00 | Number of total PA+instruction+water in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_IC\_xx00+Nacc\_II\_xx00+Nacc\_RE\_xx00+ Nacc\_IR\_xx00+Nacc\_TR\_xx00+Nacc\_IT\_xx00+Nacc\_WA\_xx00+Nacc\_IW\_xx00+Nacc\_WC\_xx00 | Recreational Facilities |
| N\_OPAI\_xx00 | Number of outdoor total PA+instruction+water in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_ORE\_xx00+N\_OIR\_xx00+N\_OTR\_xx00+N\_OIT\_xx00+N\_WA\_xx00+N\_OWC\_xx00+N\_OIW\_xx00 | Recreational Facilities |
| Nacc\_OPAI\_xx00 | Number of outdoor total PA+instruction+water in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_ORE\_xx00+Nacc\_OIR\_xx00+Nacc\_OTR\_xx00+Nacc\_OIT\_xx00+Nacc\_WA\_xx00+Nacc\_OWC\_xx00+Nacc\_OIW\_xx00 | Recreational Facilities |
| N\_IPAI\_xx00 | Number of indoor total PA+instruction in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_IC\_xx00+N\_II\_xx00+N\_IRE\_xx00+N\_IIR\_xx00+N\_ITR\_xx00+N\_IIT\_xx00+N\_IWC\_xx00+N\_IIW\_xx00 | Recreational Facilities |
| Nacc\_IPAI\_xx00 | Number of indoor total PA+instruction in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_IC\_xx00+Nacc\_II\_xx00+Nacc\_IRE\_xx00+Nacc\_IIR\_xx00+Nacc\_ITR\_xx00+Nacc\_IIT\_xx00+Nacc\_IWC\_xx00+Nacc\_IIW\_xx00 | Recreational Facilities |
| N\_NRI\_xx00 | Number of total PA+instruction+water activities without recreational in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_IC\_xx00+N\_II\_xx00+N\_TR\_xx00+N\_IT\_xx00+N\_WA\_xx00+N\_WC\_xx00+N\_IW\_xx00 | Recreational Facilities |
| Nacc\_NRI\_xx00 | Number of total PA+instruction+water activities without recreational in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_IC\_xx00+Nacc\_II\_xx00+Nacc\_TR\_xx00+Nacc\_IT\_xx00+Nacc\_WA\_xx00+Nacc\_WC\_xx00+Nacc\_IW\_xx00 | Recreational Facilities |
| N\_ONRI\_xx00 | Number of outdoor total PA+instruction+water activities without recreational in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_OTR\_xx00+N\_OIT\_xx00+N\_WA\_xx00+N\_OWC\_xx00+N\_OIW\_xx00 | Recreational Facilities |
| Nacc\_ONRI\_xx00 | Number of outdoor total PA+instruction+water activities without recreational in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_OTR\_xx00+Nacc\_OIT\_xx00+Nacc\_WA\_xx00+Nacc\_OWC\_xx00+Nacc\_OIW\_xx00 | Recreational Facilities |
| N\_INRI\_xx00 | Number of indoor total PA+instruction without recreational in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_IC\_xx00+N\_II\_xx00+N\_ITR\_xx00+N\_IIT\_xx00+N\_IWC\_xx00+N\_IIW\_xx00 | Recreational Facilities |
| Nacc\_INRI\_xx00 | Number of indoor total PA+instruction without recreational in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_IC\_xx00+Nacc\_II\_xx00+Nacc\_ITR\_xx00+Nacc\_IIT\_xx00+Nacc\_IWC\_xx00+Nacc\_IIW\_xx00 | Recreational Facilities |
| N\_POS\_xx00 | Number of postal service in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Walking |
| Nacc\_POS\_xx00 | Number of postal service in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Walking |
| N\_DRU\_xx00 | Number of drug store and pharmacy in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Walking |
| Nacc\_DRU\_xx00 | Number of drug store and pharmacy in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Walking |
| N\_BCU\_xx00 | Number of bank and credit union in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Walking |
| Nacc\_BCU\_xx00 | Number of bank and credit union in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Walking |
| N\_FDS\_xx00 | Number of food sales in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Walking |
| Nacc\_FDS\_xx00 | Number of food sales in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Walking |
| N\_EPL\_xx00 | Number of eating places in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Walking |
| Nacc\_EPL\_xx00 | Number of eating places in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Walking |
| N\_WALK\_xx00 | Number of total popular walking destinations in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_POS\_xx00+N\_FDS\_xx00+N\_NAL\_xx00+N\_EPL\_xx00+N\_DRU\_xx00+N\_BCU\_xx00 | Walking |
| Nacc\_WALK\_xx00 | Number of total popular walking destinations in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_POS\_xx00+Nacc\_FDS\_xx00+Nacc\_NAL\_xx00+Nacc\_EPL\_xx00+Nacc\_DRU\_xx00+Nacc\_BCU\_xx00 | Walking |
| N\_BEU\_xx00 | Number of barbers/beauty shops in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_BEU\_xx00 | Number of barbers/beauty shops in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_PBE\_xx00 | Number of performance based entertainment in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_PBE\_xx00 | Number of performance based entertainment in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_PER\_xx00 | Number of participatory entertainment/recreation clubs in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_PER\_xx00 | Number of participatory entertainment/recreation clubs in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_SPS\_xx00 | Number of sport/professional stadium entertainment in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_SPS\_xx00 | Number of sport/professional stadium entertainment in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_EXR\_xx00 | Number of exercise facility in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_EXR\_xx00 | Number of exercise facility in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_GAM\_xx00 | Number of coin-operated amusement/gambling in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_GAM\_xx00 | Number of coin-operated amusement/gambling in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_AMU\_xx00 | Number of amusement park, carnival, rodeo in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_AMU\_xx00 | Number of amusement park, carnival, rodeo in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_MSR\_xx00 | Number of membership sports/recreation club in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_MSR\_xx00 | Number of membership sports/recreation club in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_LIB\_xx00 | Number of libraries in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_LIB\_xx00 | Number of libraries in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_MAG\_xx00 | Number of museum and art galleries in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_MAG\_xx00 | Number of museum and art galleries in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_ZOO\_xx00 | Number of zoo, arboretum, aquarium in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_ZOO\_xx00 | Number of zoo, arboretum, aquarium in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_CSP\_xx00 | Number of civil, social, and political clubs in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_CSP\_xx00 | Number of civil, social, and political clubs in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_REL\_xx00 | Number of religion in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_REL\_xx00 | Number of religion in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_ETP\_xx00 | Number of eating places in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_ETP\_xx00 | Number of eating places in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_NCL\_xx00 | Number of night clubs/bars in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous |  | Social Engagement |
| Nacc\_NCL\_xx00 | Number of night clubs/bars in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | Social Engagement |
| N\_SOC\_xx00 | Number of total social engagement in census tract/block group. This includes all businesses regardless of geocoding accuracy. | Continuous | Calculated as N\_ETP\_xx00+N\_BEU\_xx00+N\_PBE\_xx00+N\_PER\_xx00+N\_SPS\_xx00+N\_EXR\_xx00+N\_GAM\_xx00+N\_AMU\_xx00+N\_MSR\_xx00+N\_NCL\_xx00+N\_LIB\_xx00+N\_MAG\_xx00+N\_ZOO\_xx00+N\_CSP\_xx00+N\_REL\_xx00 | Social Engagement |
| Nacc\_SOC\_xx00 | Number of total social engagement in census tract/block group. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous | Calculated as Nacc\_ETP\_xx00+Nacc\_BEU\_xx00+Nacc\_PBE\_xx00+Nacc\_PER\_xx00+Nacc\_SPS\_xx00+Nacc\_EXR\_xx00+Nacc\_GAM\_xx00+Nacc\_AMU\_xx00+Nacc\_MSR\_xx00+Nacc\_NCL\_xx00+Nacc\_LIB\_xx00+Nacc\_MAG\_xx00+Nacc\_ZOO\_xx00+Nacc\_CSP\_xx00+Nacc\_REL\_xx00 | Social Engagement |
| N\_TOTSTR\_xx00 | Number of total businesses from all categories. This includes all businesses regardless of geocoding accuracy. | Continuous |  | All |
| Nacc\_TOTSTR\_xx00 | Number of total businesses from all categories. This is restricted to only those geocoded to census tract (zip+2) level for census tract datasets and to block group (zip+4) level for block group datasets. | Continuous |  | All |

**Table K.5: Variables for business level datasets**

The last column indicates the dataset that variable is in.

This includes the datasets:

food2000.sas7bdat-food2010.sas7bdat (FD)

food2000.dbf-food2010.dbf (FG)

nonfood2000.sas7bdat-nonfood2010.sas7bdat (NF)

nonfood2000.dbf-nonfood2010.dbf (NG)

nets.sas7bdat (ON)

nets2000.sas7bdat-nets2010.sas7bdat (YN)

| **Variable Name** | **Description** | **Coding** | **Notes** | **Dataset** |
| --- | --- | --- | --- | --- |
| DunsNumber | Unique DUNS ID number for merging data |  | Provided by Walls | ALL |
| Company | Name of the company |  | Provided by Walls | FD, NF, ON, YN |
| TradeName | Trade name of the company, many times this has the actual known business name |  | Provided by Walls | FD, NF, ON, YN |
| Address | Current address of the business |  | Provided by Walls | ON |
| City | Current city where business is located |  | Provided by Walls | ON |
| State | Current 2-digit postal state code where business is located |  | Provided by Walls | ON |
| ZipCode | Current zip code for business |  | Provided by Walls | ON |
| ZIP4 | Current 4-digit extension for the zip code of the business |  | Provided by Walls | ON |
| CBSA | Establishment CBSA/Metro Division code |  | Provided by Walls | ON |
| Region | Current Metropolitan area where the business is located |  | Provided by Walls | ON |
| HQDuns | Unique Headquarters DUNS ID number for the business. This may be the same as the DunsNumber if the establishment is a headquarters. |  | Provided by Walls | FD, NF, ON, YN |
| HQCompany | Name of the company headquarters |  | Provided by Walls | FD, NF, ON, YN |
| HQTradeName | Trade name of the company headquarters, many times this has the actual known business name |  | Provided by Walls | FD, NF, ON, YN |
| CityCode | Dun&Bradstreet city code for the current location of the establishment. |  | Provided by Walls | ON |
| Latitude | Latitude of the current location of the establishment. This was provided by Walls and is not from the geocoding done at UMich. | NA | Provided by Walls | ON |
| LAT | Final latitude of address which combines NETS and TeleAtlas (best accuracy) |  | Combination of NETS and Walls | ALL |
| Longitude | Longitude of the current location of the establishment. This was provided by Walls and is not from the geocoding done at UMich. | NA | Provided by Walls | ON |
| LON | Final longitude of address which combines NETS and TeleAtlas (best accuracy) |  | Combination of NETS and Walls | ALL |
| LevelCode | Level of the geocoding for latitude/longitude of the current location of the establishment. This was provided by Walls and is not from the geocoding done at UMich. | D = Block Face  B = Block Group  T = Census Tract Centroid  Z = Zip Code Centroid  N = Not Coded  S = Street Level | Provided by Walls | ON |
| accuracy | Accuracy level of the geocode. This is derived either from TeleAtlas or NETS as appropriate | 1 = Street level  2 = Zip+4 centroid (block group)  3 = Zip+2 centroid (census tract)  4 = Zip centroid  5 = Unable to geocode | Combination of NETS and Walls | FD, NF, ON, YN |
| usegeo | Indicator if can use NETS, old TeleAtlas geocode, or the address need to be checked. | 1 = NETS geocode  2 = TeleAtlas original geocode  3 = Check address |  | ON |
| finalusegeo | Indicator if NETS or TeleAtlas geocode is used as the final geocode. | 1 = NETS geocode  2 = TeleAtlas original geocode  3 = TeleAtlas new geocode |  | FD, NF, ON, YN |
| geostat | Indicator if need to check address for geocoding in TeleAtlas | 0 = Need geocoding in TeleAtlas  1 = Street level  2 = Last year is before 2000  3 = Address is missing  4 = PO Box |  | ON |
| geocomp | Indicator if the TeleAtlas EZ-Locate geocoding has been complete for this address. If it is a 1 then it is complete. If it is missing, then the geocoding is not complete. | 1 = Geocoding is complete in TeleAtlas  Missing = geocoding is not complete |  | ON |
| MAT\_ADDR | This is the matched address that contains the street number, pre-directional, street name, street type, and post-directional as found in the TeleAtlas database. For addresses that didn’t match or matched on centroids, this will be missing. |  | From TeleAtlas EZ-Locate output | ON |
| MAT\_CITY | This is the matched city found in the TeleAtlas database for the input address. |  | From TeleAtlas EZ-Locate output | ON |
| MAT\_ST | This is the matched state found in the TeleAtlas database for the input address. |  | From TeleAtlas EZ-Locate output | ON |
| MAT\_ZIP | This is the matched zipcode found in the TeleAtlas database for the input address. |  | From TeleAtlas EZ-Locate output | ON |
| MAT\_CENT | This indicates the centroid type of the match. MAT\_CENT=0 is the best match as it is to the address. | 0 = Not a centroid (street address match)  4 = Zip+4 centroid  2 = Zip+2 centroid  X = 5-digit ZIP code centroid  Blank = No centroid available | From TeleAtlas EZ-Locate output | ON |
| MAT\_STAT | This is a 2-digit code that indicates the type of match or failure. | See U:\SECURE\Diezroux\Projects\MESA\_Neighborhood\_Project\_2\NETS\_Data\Documentation\Geocoding\_documentation\USA\_Geo\_002.pdf | From TeleAtlas EZ-Locate output | ON |
| MAT\_TYPE | This is a code that indicates the type of match or failure with additionally indicating if there was an input error or network error. | See U:\SECURE\Diezroux\Projects\MESA\_Neighborhood\_Project\_2\NETS\_Data\Documentation\Geocoding\_documentation\USA\_Geo\_002.pdf | From TeleAtlas EZ-Locate output | ON |
| re\_geo | Indicator if the address was re-geocoded after reviewing non-matching addresses with codes greater than 9 | Missing = not re-geocoded  1 = RE-geocoded  2 = Re-geocoding was run but re-geocode is not as accurate as original so original was kept | If in text file being merged, then re\_geo = 1. | ON |
| NEWAddress | Address that was used for the re-geocoding where necessary. This will be missing for all re\_geo not equal 1. |  |  | ON |
| NEWCity | City that was used for the re-geocoding where necessary. This will be missing for all re\_geo not equal 1. |  |  | ON |
| NEWState | State that was used for the re-geocoding where necessary. This will be missing for all re\_geo not equal 1. |  |  | ON |
| NEWZip | Zip code that was used for the re-geocoding where necessary. This will be missing for all re\_geo not equal 1. |  |  | ON |
| NEWZip4 | Zip +4 extension that was used for the re-geocoding where necessary. This will be missing for all re\_geo not equal 1. |  |  | ON |
| OLD\_MAT\_TYPE | This is a code that indicates the type of match or failure with additionally indicating if there was an input error or network error. This is the code from before re-geocoding the addresses. | See U:\SECURE\Diezroux\Projects\MESA\_Neighborhood\_Project\_2\NETS\_Data\Documentation\Geocoding\_documentation\USA\_Geo\_002.pdf | From TeleAtlas EZ-Locate output | ON |
| MAT\_LAT | Latitude (decimal degrees) for the matched address. This is in geographic projection, World Geodetic System Datum 1984. From TeleAtlas geocoding. |  | From TeleAtlas EZ-Locate output | ON |
| MAT\_LON | Longitude (decimal degrees) for the matched address. This is in geographic projection, World Geodetic System Datum 1984. From TeleAtlas geocoding |  | From TeleAtlas EZ-Locate output | ON |
| batch | This indicates the batch number that the address was geocoded in. This will match the last number of the text file that the data was merged from. |  | Assigned when the data is read into SAS. | ON |
| stcotrk | FIPS census tract ID (2000 boundaries) | ssccctttttt | Created in ArcGIS | FD, NF, ON, YN |
| stcotrkbg | FIPS block group ID (2000 boundaries) | ssccctttttt | Created in ArcGIS | FD, NF, ON, YN |
| inzip | Indictor if the zip code of the address is on the list of zip codes purchased. | 0 = No  1 = Yes |  | FD, NF, ON, YN |
| missbg | Indicator if the block group ID is missing | 0 = No  1 = Yes |  | FD, NF, ON, YN |
| EstCat | Type of the establishment. This is the indicator if it is a headquarters, branch, division, or single location. |  | Provided by Walls | FD, NF, ON, YN |
| Subsidiary | Indicator if more than 50% owned by another corporation |  | Provided by Walls | FD, NF, ON, YN |
| Emp00 | Number of employees at this establishment in January 2000. This actually represents employees in the year 1999. |  | Provided by Walls | ON |
| EmpC00 | Code for accuracy of the number of employees in January 2000 (Emp00). This actually represents employees in the year 1999. | 0= Actual Figure  1 = Bottom of range  2 = D&B estimate  3 = Walls estimate | Provided by Walls and converted from Character to Numeric | ON |
| Emp01 | Number of employees at this establishment in January 2001. This actually represents employees in the year 2000. |  | Provided by Walls | FD00, NF00, ON, YN |
| EmpC01 | Code for accuracy of the number of employees in January 2001 (Emp01). This actually represents employees in the year 2000. | 0= Actual Figure  1 = Bottom of range  2 = D&B estimate  3 = Walls estimate | Provided by Walls and converted from Character to Numeric | FD00, NF00, ON, YN |
| Emp02 | Number of employees at this establishment in January 2002. This actually represents employees in the year 2001. |  | Provided by Walls | FD01, NF01, ON, YN |
| EmpC02 | Code for accuracy of the number of employees in January 2002 (Emp02). This actually represents employees in the year 2001. | 0= Actual Figure  1 = Bottom of range  2 = D&B estimate  3 = Walls estimate | Provided by Walls and converted from Character to Numeric | FD01, NF01, ON, YN |
| Emp03 | Number of employees at this establishment in January 2003. This actually represents employees in the year 2002. |  | Provided by Walls | FD02, NF02, ON, YN |
| EmpC03 | Code for accuracy of the number of employees in January 2003 (Emp03). This actually represents employees in the year 2002. | 0= Actual Figure  1 = Bottom of range  2 = D&B estimate  3 = Walls estimate | Provided by Walls and converted from Character to Numeric | FD02, NF02, ON, YN |
| Emp04 | Number of employees at this establishment in January 2004. This actually represents employees in the year 2003. |  | Provided by Walls | FD03, NF03, ON, YN |
| EmpC04 | Code for accuracy of the number of employees in January 2004 (Emp04). This actually represents employees in the year 2003. | 0= Actual Figure  1 = Bottom of range  2 = D&B estimate  3 = Walls estimate | Provided by Walls and converted from Character to Numeric | FD03, NF03, ON, YN |
| Emp05 | Number of employees at this establishment in January 2005. This actually represents employees in the year 2004. |  | Provided by Walls | FD04, NF04, ON, YN |
| EmpC05 | Code for accuracy of the number of employees in January 2005 (Emp05). This actually represents employees in the year 2004. | 0= Actual Figure  1 = Bottom of range  2 = D&B estimate  3 = Walls estimate | Provided by Walls and converted from Character to Numeric | FD04, NF04, ON, YN |
| Emp06 | Number of employees at this establishment in January 2006. This actually represents employees in the year 2005. |  | Provided by Walls | FD05, NF05, ON, YN |
| EmpC06 | Code for accuracy of the number of employees in January 2006 (Emp06). This actually represents employees in the year 2005. | 0= Actual Figure  1 = Bottom of range  2 = D&B estimate  3 = Walls estimate | Provided by Walls and converted from Character to Numeric | FD05, NF05, ON, YN |
| Emp07 | Number of employees at this establishment in January 2007. This actually represents employees in the year 2006. |  | Provided by Walls | FD06, NF06, ON, YN |
| EmpC07 | Code for accuracy of the number of employees in January 2007 (Emp07). This actually represents employees in the year 2006. | 0= Actual Figure  1 = Bottom of range  2 = D&B estimate  3 = Walls estimate | Provided by Walls and converted from Character to Numeric | FD06, NF06, ON, YN |
| Emp08 | Number of employees at this establishment in January 2008. This actually represents employees in the year 2007. |  | Provided by Walls | FD07, NF07, ON, YN |
| EmpC08 | Code for accuracy of the number of employees in January 2008 (Emp08). This actually represents employees in the year 2007. | 0= Actual Figure  1 = Bottom of range  2 = D&B estimate  3 = Walls estimate | Provided by Walls and converted from Character to Numeric | FD07, NF07, ON, YN |
| Emp09 | Number of employees at this establishment in January 2009. This actually represents employees in the year 2008. |  | Provided by Walls | FD08, NF08, ON, YN |
| EmpC09 | Code for accuracy of the number of employees in January 2009 (Emp09). This actually represents employees in the year 2008. | 0= Actual Figure  1 = Bottom of range  2 = D&B estimate  3 = Walls estimate | Provided by Walls and converted from Character to Numeric | FD08, NF08, ON, YN |
| Emp10 | Number of employees at this establishment in January 2010. This actually represents employees in the year 2009. |  | Provided by Walls | FD09, NF09, ON, YN |
| EmpC10 | Code for accuracy of the number of employees in January 2010 (Emp10). This actually represents employees in the year 2009. | 0= Actual Figure  1 = Bottom of range  2 = D&B estimate  3 = Walls estimate | Provided by Walls and converted from Character to Numeric | FD09, NF09, ON, YN |
| Emp11 | Number of employees at this establishment in January 2011. This actually represents employees in the year 2010. |  | Provided by Walls | FD10, NF10, ON, YN |
| EmpC11 | Code for accuracy of the number of employees in January 2011 (Emp11). This actually represents employees in the year 2010. | 0= Actual Figure  1 = Bottom of range  2 = D&B estimate  3 = Walls estimate | Provided by Walls and converted from Character to Numeric | FD10, NF10, ON, YN |
| EmpHere | Number of employees at this establishment in last year active. |  | Provided by Walls. | ON |
| EmpHereC | Code for accuracy of the number of employees in last year active (EmpHere). | 0= Actual Figure  1 = Bottom of range  2 = D&B estimate  3 = Walls estimate | Provided by Walls and converted from Character to Numeric | ON |
| emp | Indicator if the number of employees is >=25 for that year | 0 = <25  1 = >=25 | if Emp(yr) ne . and Emp(yr) ge 25 then emp = 1; else emp = 0; | FD, YN |
| SizeCat | Categories of employment size |  | Provided by Walls | ON |
| SIC2 | Primary Standard Industrial Classification (SIC) code for last year active. This is the code for the first 2 digits. |  | Provided by Walls | ON |
| SIC3 | Primary Standard Industrial Classification (SIC) code for last year active. This is the code for the first 3 digits. |  | Provided by Walls | ON |
| SIC4 | Primary Standard Industrial Classification (SIC) code for last year active. This is the code for the first 4 digits. |  | Provided by Walls | ON |
| SIC6 | Primary Standard Industrial Classification (SIC) code for last year active. This is the code for the first 6 digits. |  | Provided by Walls | ON |
| SIC8 | Primary Standard Industrial Classification (SIC) code for last year active. This is the code for the full 8 digits. |  | Provided by Walls | ON |
| SIC8\_2 | Secondary Standard Industrial Classification (SIC) code for last year active. This is the code for the full 8 digits. |  | Provided by Walls. | ON |
| SIC8\_3 | Tertiary Standard Industrial Classification (SIC) code for last year active. This is the code for the full 8 digits. |  | Provided by Walls. | ON |
| SIC8\_4 | Forth Standard Industrial Classification (SIC) code for last year active. This is the code for the full 8 digits. |  | Provided by Walls. | ON |
| SIC8\_5 | Fifth Standard Industrial Classification (SIC) code for last year active. This is the code for the full 8 digits. |  | Provided by Walls. | ON |
| SIC8\_6 | Sixth Standard Industrial Classification (SIC) code for last year active. This is the code for the full 8 digits. |  | Provided by Walls. | ON |
| SICChange | Did the primary SIC code change anytime between 1990-2011? | Yes = SIC code changed between 1990-2011  No = SIC code did not change between 1990-2011 | Provided by Walls. | ON |
| SIC00 | Primary Standard Industrial Classification (SIC) code for January 2000. This is the code for the full 8 digits. This actually represents SIC in the year 1999. | NA | Provided by Walls. | ON |
| SIC01 | Primary Standard Industrial Classification (SIC) code for January 2001. This is the code for the full 8 digits. This actually represents SIC in the year 2000. |  | Provided by Walls. | FD00, NF00, ON, YN |
| SIC02 | Primary Standard Industrial Classification (SIC) code for January 2002. This is the code for the full 8 digits. This actually represents SIC in the year 2001. |  | Provided by Walls. | FD01, NF01, ON, YN |
| SIC03 | Primary Standard Industrial Classification (SIC) code for January 2003. This is the code for the full 8 digits. This actually represents SIC in the year 2002. |  | Provided by Walls. | FD02, NF02, ON, YN |
| SIC04 | Primary Standard Industrial Classification (SIC) code for January 2004. This is the code for the full 8 digits. This actually represents SIC in the year 2003. |  | Provided by Walls. | FD03, NF03, ON, YN |
| SIC05 | Primary Standard Industrial Classification (SIC) code for January 2005. This is the code for the full 8 digits. This actually represents SIC in the year 2004. |  | Provided by Walls. | FD04, NF04, ON, YN |
| SIC06 | Primary Standard Industrial Classification (SIC) code for January 2006. This is the code for the full 8 digits. This actually represents SIC in the year 2005. |  | Provided by Walls. | FD05, NF05, ON, YN |
| SIC07 | Primary Standard Industrial Classification (SIC) code for January 2007. This is the code for the full 8 digits. This actually represents SIC in the year 2006. |  | Provided by Walls. | FD06, NF06, ON, YN |
| SIC08 | Primary Standard Industrial Classification (SIC) code for January 2008. This is the code for the full 8 digits. This actually represents SIC in the year 2007. |  | Provided by Walls. | FD07, NF07, ON, YN |
| SIC09 | Primary Standard Industrial Classification (SIC) code for January 2009. This is the code for the full 8 digits. This actually represents SIC in the year 2008. |  | Provided by Walls. | FD08, NF08, ON, YN |
| SIC10 | Primary Standard Industrial Classification (SIC) code for January 2010. This is the code for the full 8 digits. This actually represents SIC in the year 2009. |  | Provided by Walls. | FD09, NF09, ON, YN |
| SIC11 | Primary Standard Industrial Classification (SIC) code for January 2011. This is the code for the full 8 digits. This actually represents SIC in the year 2010. |  | Provided by Walls. | FD10, NF10, ON, YN |
| sicsame01 | Indicator if the current SIC code (from January 2001 information) is the same as the final primary SIC code. | 0 = No, SIC codes are not the same  1 = Yes, SIC codes are the same | if SIC8 = SIC01 then sicsame01 = 1; else sicsame01 = 0; | FD00, NF00, YN |
| sicsame02 | Indicator if the current SIC code (from January 2002 information) is the same as the final primary SIC code. | 0 = No, SIC codes are not the same  1 = Yes, SIC codes are the same | if SIC8 = SIC02 then sicsame02 = 1; else sicsame02= 0; | FD01, NF01, YN |
| sicsame03 | Indicator if the current SIC code (from January 2003 information) is the same as the final primary SIC code. | 0 = No, SIC codes are not the same  1 = Yes, SIC codes are the same | if SIC8 = SIC03 then sicsame03 = 1; else sicsame03 = 0; | FD02, NF02, YN |
| sicsame04 | Indicator if the current SIC code (from January 2004 information) is the same as the final primary SIC code. | 0 = No, SIC codes are not the same  1 = Yes, SIC codes are the same | if SIC8 = SIC04 then sicsame04 = 1; else sicsame04 = 0; | FD03, NF03, YN |
| sicsame05 | Indicator if the current SIC code (from January 2005 information) is the same as the final primary SIC code. | 0 = No, SIC codes are not the same  1 = Yes, SIC codes are the same | if SIC8 = SIC05 then sicsame05 = 1; else sicsame05 = 0; | FD04, NF04, YN |
| sicsame06 | Indicator if the current SIC code (from January 2006 information) is the same as the final primary SIC code. | 0 = No, SIC codes are not the same  1 = Yes, SIC codes are the same | if SIC8 = SIC06 then sicsame06 = 1; else sicsame06 = 0; | FD05, NF05, YN |
| sicsame07 | Indicator if the current SIC code (from January 2007 information) is the same as the final primary SIC code. | 0 = No, SIC codes are not the same  1 = Yes, SIC codes are the same | if SIC8 = SIC07 then sicsame07 = 1; else sicsame07 = 0; | FD06, NF06, YN |
| sicsame08 | Indicator if the current SIC code (from January 2008 information) is the same as the final primary SIC code. | 0 = No, SIC codes are not the same  1 = Yes, SIC codes are the same | if SIC8 = SIC08 then sicsame08 = 1; else sicsame08 = 0; | FD07, NF07, YN |
| sicsame09 | Indicator if the current SIC code (from January 2009 information) is the same as the final primary SIC code. | 0 = No, SIC codes are not the same  1 = Yes, SIC codes are the same | if SIC8 = SIC09 then sicsame09 = 1; else sicsame09 = 0; | FD08, NF08, YN |
| Sicsame10 | Indicator if the current SIC code (from January 2010 information) is the same as the final primary SIC code. | 0 = No, SIC codes are not the same  1 = Yes, SIC codes are the same | if SIC8 = SIC10 then sicsame10 = 1; else sicsame10 = 0; | FD09, NF09, YN |
| Sicsame11 | Indicator if the current SIC code (from January 2011 information) is the same as the final primary SIC code. | 0 = No, SIC codes are not the same  1 = Yes, SIC codes are the same | if SIC8 = SIC11 then sicsame11 = 1; else sicsame11 = 0; | FD10, NF10, YN |
| FIPS00 | 5-digit FIPS county code for January 2000. This was provided by Walls and is not from the geocoding done at UMich. This actually represents FIPS in the year 1999. | ssccc | Provided by Walls. | ON |
| FIPS01 | 5-digit FIPS county code for January 2001. This was provided by Walls and is not from the geocoding done at UMich. This actually represents FIPS in the year 2000. | ssccc | Provided by Walls. | FD00, NF00, ON, YN |
| FIPS02 | 5-digit FIPS county code for January 2002. This was provided by Walls and is not from the geocoding done at UMich. This actually represents FIPS in the year 2001. | ssccc | Provided by Walls. | FD01, NF01, ON, YN |
| FIPS03 | 5-digit FIPS county code for January 2003. This was provided by Walls and is not from the geocoding done at UMich. This actually represents FIPS in the year 2002. | ssccc | Provided by Walls. | FD02, NF02, ON, YN |
| FIPS04 | 5-digit FIPS county code for January 2004. This was provided by Walls and is not from the geocoding done at UMich. This actually represents FIPS in the year 2003. | ssccc | Provided by Walls. | FD03, NF03, ON, YN |
| FIPS05 | 5-digit FIPS county code for January 2005. This was provided by Walls and is not from the geocoding done at UMich. This actually represents FIPS in the year 2004. | ssccc | Provided by Walls. | FD04, NF04, ON, YN |
| FIPS06 | 5-digit FIPS county code for January 2006. This was provided by Walls and is not from the geocoding done at UMich. This actually represents FIPS in the year 2005. | ssccc | Provided by Walls. | FD05, NF05, ON, YN |
| FIPS07 | 5-digit FIPS county code for January 2007. This was provided by Walls and is not from the geocoding done at UMich. This actually represents FIPS in the year 2006. | ssccc | Provided by Walls. | FD06, NF06, ON, YN |
| FIPS08 | 5-digit FIPS county code for January 2008. This was provided by Walls and is not from the geocoding done at UMich. This actually represents FIPS in the year 2007. | ssccc | Provided by Walls. | FD07, NF07, ON, YN |
| FIPS09 | 5-digit FIPS county code for January 2009. This was provided by Walls and is not from the geocoding done at UMich. This actually represents FIPS in the year 2008. | ssccc | Provided by Walls. | FD08, NF08, ON, YN |
| FIPS10 | 5-digit FIPS county code for January 2010. This was provided by Walls and is not from the geocoding done at UMich. This actually represents FIPS in the year 2009. | ssccc | Provided by Walls. | FD09, NF09, ON, YN |
| FIPS11 | 5-digit FIPS county code for January 2011. This was provided by Walls and is not from the geocoding done at UMich. This actually represents FIPS in the year 2010. | ssccc | Provided by Walls. | FD10, NF10, ON, YN |
| YearStart | Year the establishment started as reported by the establishment. |  | Provided by Walls and converted from Character to Numeric | ON |
| Sales00 | Sales in dollars of the establishment in January 2000. This actually represents Sales in the year 1999. | DOLLAR21.2 | Provided by Walls. | ON |
| SalesC00 | Code for accuracy of the sales in January 2000 (Sales00) . This actually represents Sales in the year 1999. | 0 = Actual  1 = Bottom of range  2 = D&B Estimate  3 = Walls Estimate | Provided by Walls and converted from Character to Numeric | ON |
| Sales01 | Sales in dollars of the establishment in January 2001. This actually represents Sales in the year 2000. |  | Provided by Walls. | FD00, NF00, ON, YN |
| SalesC01 | Code for accuracy of the sales in January 2001 (Sales01) . This actually represents Sales in the year 2000. | 0 = Actual  1 = Bottom of range  2 = D&B Estimate  3 = Walls Estimate | Provided by Walls and converted from Character to Numeric | FD00, NF00, ON, YN |
| Sales02 | Sales in dollars of the establishment in January 2002. This actually represents Sales in the year 2001. |  | Provided by Walls. | FD01, NF01, ON, YN |
| SalesC02 | Code for accuracy of the sales in January 2002 (Sales02). This actually represents Sales in the year 2001. | 0 = Actual  1 = Bottom of range  2 = D&B Estimate  3 = Walls Estimate | Provided by Walls and converted from Character to Numeric | FD01, NF01, ON, YN |
| Sales03 | Sales in dollars of the establishment in January 2003. This actually represents Sales in the year 2002. |  | Provided by Walls. | FD02, NF02, ON, YN |
| SalesC03 | Code for accuracy of the sales in January 2003 (Sales03) . This actually represents Sales in the year 2002. | 0 = Actual  1 = Bottom of range  2 = D&B Estimate  3 = Walls Estimate | Provided by Walls and converted from Character to Numeric | FD02, NF02, ON, YN |
| Sales04 | Sales in dollars of the establishment in January 2004. This actually represents Sales in the year 2003. |  | Provided by Walls. | FD03, NF03, ON, YN |
| SalesC04 | Code for accuracy of the sales in January 2004 (Sales04) . This actually represents Sales in the year 2003. | 0 = Actual  1 = Bottom of range  2 = D&B Estimate  3 = Walls Estimate | Provided by Walls and converted from Character to Numeric | FD03, NF03, ON, YN |
| Sales05 | Sales in dollars of the establishment in January 2005. This actually represents Sales in the year 2004. |  | Provided by Walls. | FD04, NF04, ON, YN |
| SalesC05 | Code for accuracy of the sales in January 2005 (Sales05) . This actually represents Sales in the year 2004. | 0 = Actual  1 = Bottom of range  2 = D&B Estimate  3 = Walls Estimate | Provided by Walls and converted from Character to Numeric | FD04, NF04, ON, YN |
| Sales06 | Sales in dollars of the establishment in January 2006. This actually represents Sales in the year 2005. |  | Provided by Walls. | FD05, NF05, ON, YN |
| SalesC06 | Code for accuracy of the sales in January 2006 (Sales06) . This actually represents Sales in the year 2005. | 0 = Actual  1 = Bottom of range  2 = D&B Estimate  3 = Walls Estimate | Provided by Walls and converted from Character to Numeric | FD05, NF05, ON, YN |
| Sales07 | Sales in dollars of the establishment in January 2007. This actually represents Sales in the year 2006. |  | Provided by Walls. | FD06, NF06, ON, YN |
| SalesC07 | Code for accuracy of the sales in January 2007 (Sales07) . This actually represents Sales in the year 2006. | 0 = Actual  1 = Bottom of range  2 = D&B Estimate  3 = Walls Estimate | Provided by Walls and converted from Character to Numeric | FD06, NF06, ON, YN |
| Sales08 | Sales in dollars of the establishment in January 2008. This actually represents Sales in the year 2007. |  | Provided by Walls. | FD07, NF07, ON, YN |
| SalesC08 | Code for accuracy of the sales in January 2008 (Sales08) . This actually represents Sales in the year 2007. | 0 = Actual  1 = Bottom of range  2 = D&B Estimate  3 = Walls Estimate | Provided by Walls and converted from Character to Numeric | FD07, NF07, ON, YN |
| Sales09 | Sales in dollars of the establishment in January 2009. This actually represents Sales in the year 2008. |  | Provided by Walls. | FD08, NF08, ON, YN |
| SalesC09 | Code for accuracy of the sales in January 2009 (Sales09) . This actually represents Sales in the year 2008. | 0 = Actual  1 = Bottom of range  2 = D&B Estimate  3 = Walls Estimate | Provided by Walls and converted from Character to Numeric | FD08, NF08, ON, YN |
| Sales10 | Sales in dollars of the establishment in January 2010. This actually represents Sales in the year 2009. |  | Provided by Walls. | FD09, NF09, ON, YN |
| SalesC10 | Code for accuracy of the sales in January 2010 (Sales10) . This actually represents Sales in the year 2009. | 0 = Actual  1 = Bottom of range  2 = D&B Estimate  3 = Walls Estimate | Provided by Walls and converted from Character to Numeric | FD09, NF09, ON, YN |
| Sales11 | Sales in dollars of the establishment in January 2011. This actually represents Sales in the year 2010. |  | Provided by Walls. | FD10, NF10, ON, YN |
| SalesC11 | Code for accuracy of the sales in January 2011 (Sales11) . This actually represents Sales in the year 2010. | 0 = Actual  1 = Bottom of range  2 = D&B Estimate  3 = Walls Estimate | Provided by Walls and converted from Character to Numeric | FD10, NF10, ON, YN |
| sales | Indicator if sales >=$2,000,000 for that year | 0 = <$2,000,000  1 = >=$2,000,000 | if sales(yr) ne . and sales(yr) ge 2000000 then sales = 1; else sales = 0; | FD, YN |
| SalesHere | Sales in dollars of the establishment in last year active. | DOLLAR21.2 | Provided by Walls. | ON |
| SalesHereC | Code for accuracy of the sales in last year active (SalesHere). | 0 = Actual  1 = Bottom of range  2 = D&B Estimate  3 = Walls Estimate | Provided by Walls and converted from Character to Numeric | ON |
| SalesGrowth | Quartile of 3-yr Sales Growth based on last year active | 1 = fastest growth  2 = middle 50%  4 = slowest growth | Provided by Walls. | ON |
| SalesGrowthPeer | Quartile of 3-yr Sales Growth relative to other establishments in same 3-digit SIC peers based on last year active | 1 = fastest growth  2 = middle 50%  4 = slowest growth | Provided by Walls. | ON |
| MoveYears | Years of Moves for the establishment. This may contain multiple years if moved more than once. This is only provided for establishments that moved. |  | Provided by Walls. | FD, NF, ON, YN |
| MoveYear | Indicator for the year of the move for the address indicated in the yearly dataset. |  | Created from linking to ‘nets\_move.sas7bdat’ dataset | FD, NF, YN |
| LastMove | Year of last move for the establishment. This is only provided for establishments that moved. |  | Provided by Walls and converted from Character to Numeric | FD, NF, ON, YN |
| PubPriv | Public/Private indicator for establishment in last year active. | Y = Public  N = Private or Government | Provided by Walls. | ON |
| Relocate | Indicator of moving for the establishment | 0 = Never  1 = At least Once 1990-20002  2 = At least Once 2003-2005  3 = Moved in 2006-2007 | Provided by Walls and converted from Character to Numeric | FD, NF, ON, YN |
| MoveOften | Indicator if the establishment moved more than once between 1990-2007 | Y = Yes  N = No | Provided by Walls. | FD, NF, ON, YN |
| FirstYear | First year the establishment was active in D&B file. | 1989 = Existed before 1990 | Provided by Walls and converted from Character to Numeric | FD, NF, ON, YN |
| LastYear | Last year the establishment was active in D&B file. | 2011 = Currently present in 2011 | Provided by Walls and converted from Character to Numeric | FD, NF, ON, YN |
| Address00 | Street address of establishment in January 2000. If not active in January 2000, then this is missing. This actually represents address info in the year 1999. |  | Provided by Walls. | ON |
| City00 | City of establishment in January 2000. If not active in January 2000, then this is missing. This actually represents address info in the year 1999. |  | Provided by Walls. | ON |
| State00 | State 2 digit postal abbreviation of establishment in January 2000. If not active in January 2000, then this is missing. This actually represents address info in the year 1999. |  | Provided by Walls. | ON |
| ZIP00 | 5 digit zip code of establishment in January 2000. If not active in January 2000, then this is missing. This actually represents address info in the year 1999. |  | Provided by Walls. | ON |
| ZIP4\_00 | 4-digit extension for the zip code of establishment in January 2000. If not active in January 2000, then this is missing. This actually represents address info in the year 1999. |  | Provided by Walls. | ON |
| Address01 | Street address of establishment in January 2001. If not active in January 2001, then this is missing. This actually represents address info in the year 2000. |  | Provided by Walls. | FD00, NF00, ON, YN |
| City01 | City of establishment in January 2001. If not active in January 2001, then this is missing. This actually represents address info in the year 2000. |  | Provided by Walls. | FD00, NF00, ON, YN |
| State01 | State 2 digit postal abbreviation of establishment in January 2001. If not active in January 2001, then this is missing. This actually represents address info in the year 2000. |  | Provided by Walls. | FD00, NF00, ON, YN |
| ZIP01 | 5 digit zip code of establishment in January 2001. If not active in January 2001, then this is missing. This actually represents address info in the year 2000. |  | Provided by Walls. | FD00, NF00, ON, YN |
| ZIP4\_01 | 4-digit extension for the zip code of establishment in January 2001. If not active in January 2001, then this is missing. This actually represents address info in the year 2000. |  | Provided by Walls. | FD00, NF00, ON, YN |
| Address02 | Street address of establishment in January 2002. If not active in January 2002, then this is missing. This actually represents address info in the year 2001. |  | Provided by Walls. | FD01, NF01, ON, YN |
| City02 | City of establishment in January 2002. If not active in January 2002, then this is missing. This actually represents address info in the year 2001. |  | Provided by Walls. | FD01, NF01, ON, YN |
| State02 | State 2 digit postal abbreviation of establishment in January 2002. If not active in January 2002, then this is missing. This actually represents address info in the year 2001. |  | Provided by Walls. | FD01, NF01, ON, YN |
| ZIP02 | 5 digit zip code of establishment in January 2002. If not active in January 2002, then this is missing. This actually represents address info in the year 2001. |  | Provided by Walls. | FD01, NF01, ON, YN |
| ZIP4\_02 | 4-digit extension for the zip code of establishment in January 2002. If not active in January 2002, then this is missing. This actually represents address info in the year 2001. |  | Provided by Walls. | FD01, NF01, ON, YN |
| Address03 | Street address of establishment in January 2003. If not active in January 2003, then this is missing. This actually represents address info in the year 2002. |  | Provided by Walls. | FD02, NF02, ON, YN |
| City03 | City of establishment in January 2003. If not active in January 2003, then this is missing. This actually represents address info in the year 2002. |  | Provided by Walls. | FD02, NF02, ON, YN |
| State03 | State 2 digit postal abbreviation of establishment in January 2003. If not active in January 2003, then this is missing. This actually represents address info in the year 2002. |  | Provided by Walls. | FD02, NF02, ON, YN |
| ZIP03 | 5 digit zip code of establishment in January 2003. If not active in January 2003, then this is missing. This actually represents address info in the year 2002. |  | Provided by Walls. | FD02, NF02, ON, YN |
| ZIP4\_03 | 4-digit extension for the zip code of establishment in January 2003. If not active in January 2003, then this is missing. This actually represents address info in the year 2002. |  | Provided by Walls. | FD02, NF02, ON, YN |
| Address04 | Street address of establishment in January 2004. If not active in January 2004, then this is missing. This actually represents address info in the year 2003. |  | Provided by Walls. | FD03, NF03, ON, YN |
| City04 | City of establishment in January 2004. If not active in January 2004, then this is missing. This actually represents address info in the year 2003. |  | Provided by Walls. | FD03, NF03, ON, YN |
| State04 | State 2 digit postal abbreviation of establishment in January 2004. If not active in January 2004, then this is missing. This actually represents address info in the year 2003. |  | Provided by Walls. | FD03, NF03, ON, YN |
| ZIP04 | 5 digit zip code of establishment in January 2004. If not active in January 2004, then this is missing. This actually represents address info in the year 2003. |  | Provided by Walls. | FD03, NF03, ON, YN |
| ZIP4\_04 | 4-digit extension for the zip code of establishment in January 2004. If not active in January 2004, then this is missing. This actually represents address info in the year 2003. |  | Provided by Walls. | FD03, NF03, ON, YN |
| Address05 | Street address of establishment in January 2005. If not active in January 2005, then this is missing. This actually represents address info in the year 2004. |  | Provided by Walls. | FD04, NF04, ON, YN |
| City05 | City of establishment in January 2005. If not active in January 2005, then this is missing. This actually represents address info in the year 2004. |  | Provided by Walls. | FD04, NF04, ON, YN |
| State05 | State 2 digit postal abbreviation of establishment in January 2005. If not active in January 2005, then this is missing. This actually represents address info in the year 2004. |  | Provided by Walls. | FD04, NF04, ON, YN |
| ZIP05 | 5 digit zip code of establishment in January 2005. If not active in January 2005, then this is missing. This actually represents address info in the year 2004. |  | Provided by Walls. | FD04, NF04, ON, YN |
| ZIP4\_05 | 4-digit extension for the zip code of establishment in January 2005. If not active in January 2005, then this is missing. This actually represents address info in the year 2004. |  | Provided by Walls. | FD04, NF04, ON, YN |
| Address06 | Street address of establishment in January 2006. If not active in January 2006, then this is missing. This actually represents address info in the year 2005. |  | Provided by Walls. | FD05, NF05, ON, YN |
| City06 | City of establishment in January 2006. If not active in January 2006, then this is missing. This actually represents address info in the year 2005. |  | Provided by Walls. | FD05, NF05, ON, YN |
| State06 | State 2 digit postal abbreviation of establishment in January 2006. If not active in January 2006, then this is missing. This actually represents address info in the year 2005. |  | Provided by Walls. | FD05, NF05, ON, YN |
| ZIP06 | 5 digit zip code of establishment in January 2006. If not active in January 2006, then this is missing. This actually represents address info in the year 2005. |  | Provided by Walls. | FD05, NF05, ON, YN |
| ZIP4\_06 | 4-digit extension for the zip code of establishment in January 2006. If not active in January 2006, then this is missing. This actually represents address info in the year 2005. |  | Provided by Walls. | FD05, NF05, ON, YN |
| Address07 | Street address of establishment in January 2007. If not active in January 2007, then this is missing. This actually represents address info in the year 2006. |  | Provided by Walls. | FD06, NF06, ON, YN |
| City07 | City of establishment in January 2007. If not active in January 2007, then this is missing. This actually represents address info in the year 2006. |  | Provided by Walls. | FD06, NF06, ON, YN |
| State07 | State 2 digit postal abbreviation of establishment in January 2007. If not active in January 2007, then this is missing. This actually represents address info in the year 2006. |  | Provided by Walls. | FD06, NF06, ON, YN |
| ZIP07 | 5 digit zip code of establishment in January 2007. If not active in January 2007, then this is missing. This actually represents address info in the year 2006. |  | Provided by Walls. | FD06, NF06, ON, YN |
| ZIP4\_07 | 4-digit extension for the zip code of establishment in January 2007. If not active in January 2007, then this is missing. This actually represents address info in the year 2006. |  | Provided by Walls. | FD06, NF06, ON, YN |
| Address08 | Street address of establishment in January 2008. If not active in January 2008, then this is missing. This actually represents address info in the year 2007. |  | Provided by Walls. | FD07, NF07, ON, YN |
| City08 | City of establishment in January 2008. If not active in January 2008, then this is missing. This actually represents address info in the year 2007. |  | Provided by Walls. | FD07, NF07, ON, YN |
| State08 | State 2 digit postal abbreviation of establishment in January 2008. If not active in January 2008, then this is missing. This actually represents address info in the year 2007. |  | Provided by Walls. | FD07, NF07, ON, YN |
| ZIP08 | 5 digit zip code of establishment in January 2008. If not active in January 2008, then this is missing. This actually represents address info in the year 2007. |  | Provided by Walls. | FD07, NF07, ON, YN |
| ZIP4\_08 | 4-digit extension for the zip code of establishment in January 2008. If not active in January 2008, then this is missing. This actually represents address info in the year 2007. |  | Provided by Walls. | FD07, NF07, ON, YN |
| Address09 | Street address of establishment in January 2009. If not active in January 2009, then this is missing. This actually represents address info in the year 2008. |  | Provided by Walls. | FD08, NF08, ON, YN |
| City09 | City of establishment in January 2009. If not active in January 2009, then this is missing. This actually represents address info in the year 2008. |  | Provided by Walls. | FD08, NF08, ON, YN |
| State09 | State 2 digit postal abbreviation of establishment in January 2009. If not active in January 2009, then this is missing. This actually represents address info in the year 2008. |  | Provided by Walls. | FD08, NF08, YN |
| ZIP09 | 5 digit zip code of establishment in January 2009. If not active in January 2009, then this is missing. This actually represents address info in the year 2008. |  | Provided by Walls. | FD08, NF08, ON, YN |
| ZIP4\_09 | 4-digit extension for the zip code of establishment in January 2009. If not active in January 2009, then this is missing. This actually represents address info in the year 2008. |  | Provided by Walls. | FD08, NF08, ON, YN |
| Address10 | Street address of establishment in January 2010. If not active in January 2010, then this is missing. This actually represents address info in the year 2009. |  | Provided by Walls. | FD09, NF09, ON, YN |
| City10 | City of establishment in January 2010. If not active in January 2010, then this is missing. This actually represents address info in the year 2009. |  | Provided by Walls. | FD09, NF09, ON, YN |
| State10 | State 2 digit postal abbreviation of establishment in January 2010. If not active in January 2010, then this is missing. This actually represents address info in the year 2009. |  | Provided by Walls. | FD09, NF09, ON, YN |
| ZIP10 | 5 digit zip code of establishment in January 2010. If not active in January 2010, then this is missing. This actually represents address info in the year 2009. |  | Provided by Walls. | FD09, NF09, ON, YN |
| ZIP4\_10 | 4-digit extension for the zip code of establishment in January 2010. If not active in January 2010, then this is missing. This actually represents address info in the year 2009. |  | Provided by Walls. | FD09, NF09, ON, YN |
| Address11 | Street address of establishment in January 2011. If not active in January 2011, then this is missing. This actually represents address info in the year 2010. |  | Provided by Walls. | FD10, NF10, ON, YN |
| City11 | City of establishment in January 2011. If not active in January 2011, then this is missing. This actually represents address info in the year 2010. |  | Provided by Walls. | FD10, NF10, ON, YN |
| State11 | State 2 digit postal abbreviation of establishment in January 2011. If not active in January 2011, then this is missing. This actually represents address info in the year 2010. |  | Provided by Walls. | FD10, NF10, ON, YN |
| ZIP11 | 5 digit zip code of establishment in January 2011. If not active in January 2011, then this is missing. This actually represents address info in the year 2010. |  | Provided by Walls. | FD10, NF10, ON, YN |
| ZIP4\_11 | 4-digit extension for the zip code of establishment in January 2011. If not active in January 2011, then this is missing. This actually represents address info in the year 2010. |  | Provided by Walls. | FD10, NF10, ON, YN |
| NONFOOD | Indicator if the record is on the non-food based coding list. | 0 = Food based  1 = Non-food based |  | FD, NF, YN |
| smname | Supermarket name if record matched with the chain name list |  |  | FD, YN |
| smname2 | Supermarket name if record matched with the chain name list – secondary name if matches with more than one. |  |  | FD, YN |
| ffname | Fast food name if record matched with the chain name list |  |  | FD, YN |
| FOODSTORE | Food store code (all in one variable) | 1 = grocers  2 = supermarket chain  3 = supermarket non-chain  4 = convenience stores  5 = meat, deli, dairy  6 = fruit and vegetable markets  7 = bakeries, nuts, candy, ice cream  8 = health and vitamin  9 = liquor stores  10 = nonalcoholic drinking places  11 = alcoholic drinking places  12 = fast food chain  13 = fast food non-chain  14 = other eating places  15 = other food stores | Created in food stores macro | FD, YN |
| RECFAC | Recreational facilities coding (all in one variable) | 1 = indoor conditioning  2 = recreational  3 = team sports  4 = water activities  5 = water activities conditioning  6 = racquet sports  7 = camps, vacation  8 = instructional indoor conditioning  9 = instructional recreational  10 = instructional team sports  11 = instructional water activities  12 = instructional racquet sports  13 = purchased but not coded | Created in nonfood macro | NF, YN |
| OUTDOOR | Indicator for outdoor for recreational facilities | 0 = Not outdoor  1 = Outdoor | Created in nonfood macro | NF, YN |
| INDOOR | Indicator for indoor for recreational facilities | 0 = Not indoor  1 = Indoor | Created in nonfood macro | NF, YN |
| SOCENGFD | Food based social engagement coding (all in one variable) | 1 = eating places  2 = night clubs, bars | Created in food stores macro | FD, YN |
| SOCENGNF | Non-Food based social engagement coding (all in one variable) | 1 = beauty shops, barber  2 = performance based entertainment  3 = participatory entertainment/rec club  4 = sport and professional stadium entertainment  5 = exercise  6 = gambling, coin operated games  7 = amusement parks, carnival, rodeo  8 = membership sports/rec clubs  9 = libraries  10 = museum art gallery  11 = zoo, arboretum  12 = civil, social, political club  13 = religion  14 = purchased by excluded from coding | Created in nonfood macro | FD, YN |
| WALKFD | Food based popular walking destinations coding (all in one variable) | 1 = food sales (non-beverage)  2 = eating places (non-beverage)  3 = nonalcoholic drinking places | Created in food stores macro | FD, YN |
| WALKNF | Non-Food based popular walking destinations coding (all in one variable) | 1 = postal service  2 = drug stores  3 = bank and credit union | Created in nonfood macro | NF, YN |
| SOCSERV | Indicator if purchased for social services | 0 = Not social service  1 = Social service | Created in nonfood macro | NF, YN |
| GRO | Grocers indicator | if FOODSTORE = 1 then GRO = 1; else GRO = 0; | Created in food stores macro for GIS | FD, FG, YN |
| SCH | Supermarkets chain indicator | if FOODSTORE = 2 then SCH = 1; else SCH = 0; | Created in food stores macro for GIS | FD, FG, YN |
| SNO | Supermarkets non-chain indicator | if FOODSTORE = 3 then SNO = 1; else SNO = 0; | Created in food stores macro for GIS | FD, FG, YN |
| CON | Convenience store indicator | if FOODSTORE = 4 then CON = 1; else CON = 0; | Created in food stores macro for GIS | FD, FG, YN |
| MEA | Meat, deli, dairy store indicator | if FOODSTORE = 5 then MEA = 1; else MEA = 0; | Created in food stores macro for GIS | FD, FG, YN |
| FRU | Fruit and vegetable market indicator | if FOODSTORE = 6 then FRU = 1; else FRU = 0; | Created in food stores macro for GIS | FD, FG, YN |
| BAK | Bakery, nuts, candy, ice cream indicator | if FOODSTORE = 7 then BAK = 1; else BAK = 0; | Created in food stores macro for GIS | FD, FG, YN |
| HEA | Health and vitamin stores indicator | if FOODSTORE = 8 then HEA = 1; else HEA = 0; | Created in food stores macro for GIS | FD, FG, YN |
| LIQ | Liquor stores indicator | if FOODSTORE = 9 then LIQ = 1; else LIQ = 0; | Created in food stores macro for GIS | FD, FG, YN |
| NAL | Non-alcoholic drinking places indicator | if FOODSTORE = 10 then NAL = 1; else NAL = 0; | Created in food stores macro for GIS | FD, FG, YN |
| ALC | Alcoholic drinking places indicator | if FOODSTORE = 11 then ALC = 1; else ALC = 0; | Created in food stores macro for GIS | FD, FG, YN |
| FFC | Fast food chain indicator | if FOODSTORE = 12 then FFC = 1; else FFC = 0; | Created in food stores macro for GIS | FD, FG, YN |
| FFN | Fast food non-chain indicator | if FOODSTORE = 13 then FFN = 1; else FFN = 0; | Created in food stores macro for GIS | FD, FG, YN |
| EAT | Other eating places indicator | if FOODSTORE = 14 then EAT = 1; else EAT = 0; | Created in food stores macro for GIS | FD, FG, YN |
| OTH | Other food stores indicator | if FOODSTORE = 15 then OTH = 1; else OTH = 0; | Created in food stores macro for GIS | FD, FG, YN |
| IC | Indoor conditioning indicator | if RECFAC = 1 then IC = 1; else IC = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| RE | Recreational indicator | if RECFAC = 2 then RE = 1; else RE = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| ORE | Outdoor Recreational indicator | if RECFAC = 2 and OUTDOOR = 1 then ORE = 1; else ORE = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| IRE | Indoor Recreational indicator | if RECFAC = 2 and INDOOR = 1 then IRE = 1; else IRE = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| TR | Team and racquet sports indicator | if RECFAC in (3,6) then TR = 1; else TR = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| OTR | Outdoor Team and racquet sports indicator | if RECFAC in (3,6) and OUTDOOR = 1 then OTR = 1; else OTR = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| ITR | Indoor Team and racquet sports indicator | if RECFAC in (3,6) and INDOOR = 1 then ITR = 1; else ITR = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| WA | Water activities indicator | if RECFAC = 4 then WA = 1; else WA = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| WC | Water activities conditioning indicator | if RECFAC = 5 then WC = 1; else WC = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| OWC | Outdoor Water activities conditioning indicator | if RECFAC = 5 and OUTDOOR = 1 then OWC = 1; else OWC = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| IWC | Indoor Water activities conditioning indicator | if RECFAC = 5 and INDOOR = 1 then IWC = 1; else IWC = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| CV | Camps/vacation indicator | if RECFAC = 7 then CV = 1; else CV = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| II | Instructional indoor conditioning indicator | if RECFAC = 8 then II = 1; else II = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| IR | Instructional recreational indicator | if RECFAC = 9 then IR = 1; else IR = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| OIR | Outdoor Instructional recreational indicator | if RECFAC = 9 and OUTDOOR = 1 then OIR = 1; else OIR = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| IIR | Indoor Instructional recreational indicator | if RECFAC = 9 and INDOOR = 1 then IIR = 1; else IIR = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| IT | Instructional team and racquet sports indicator | if RECFAC in (10,12) then IT = 1; else IT = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| OIT | Outdoor Instructional team and racquet sports indicator | if RECFAC in (10,12) and OUTDOOR = 1 then OIT = 1; else OIT = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| IIT | Indoor Instructional team and racquet sports indicator | if RECFAC in (10,12) and INDOOR = 1 then IIT = 1; else IIT = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| IW | Instructional water activities indicator | if RECFAC = 11 then IW = 1; else IW = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| OIW | Outdoor Instructional water activities indicator | if RECFAC = 11 and OUTDOOR = 1 then OIW = 1; else OIW = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| IIW | Indoor Instructional water activities indicator | if RECFAC = 11 and INDOOR = 1 then IIW = 1; else IIW = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| XRC | Extra recreational facilities for total stores coding |  | Created in Program 26 | NF, NG, YN |
| BEU | Beauty shops/barbers (social engagement coding) indicator | if SOCENGNF = 1 then BEU = 1; else BEU = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| PBE | Performance based entertainment (social engagement coding) indicator | if SOCENGNF = 2 then PBE = 1; else PBE = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| PER | Participatory entertainment/recreation clubs (social engagement coding) indicator | if SOCENGNF = 3 then PER = 1; else PER = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| SPS | Sport/professional stadium entertainment (social engagement coding) indicator | if SOCENGNF = 4 then SPS = 1; else SPS = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| EXR | Exercise facility (social engagement coding) indicator | if SOCENGNF = 5 then EXR = 1; else EXR = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| GAM | Coin operated amusement/gambling (social engagement coding) indicator | if SOCENGNF = 6 then GAM = 1; else GAM = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| AMU | Amusement parks, carnival, rodeo (social engagement coding) indicator | if SOCENGNF = 7 then AMU = 1; else AMU = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| MSR | Membership sports/recreation clubs (social engagement coding) indicator | if SOCENGNF = 8 then MSR = 1; else MSR = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| LIB | Libraries (social engagement coding) indicator | if SOCENGNF = 9 then LIB = 1; else LIB = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| MAG | Museums, art galleries (social engagement coding) indicator | if SOCENGNF = 10 then MAG = 1; else MAG = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| ZOO | Zoo, arboretum, aquarium (social engagement coding) indicator | if SOCENGNF = 11 then ZOO = 1; else ZOO = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| CSP | Civil, social, political clubs (social engagement coding) indicator | if SOCENGNF = 12 then CSP = 1; else CSP = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| REL | Religion (social engagement coding) indicator | if SOCENGNF = 13 then REL = 1; else REL = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| ETP | Eating places (social engagement coding) indicator | if SOCENGFD = 1 then ETP = 1; else ETP = 0; | Created in food stores macro for GIS | FD, FG, YN |
| NCL | Night clubs and bars (social engagement coding) indicator | if SOCENGFD = 2 then NCL = 1; else NCL = 0; | Created in food stores macro for GIS | FD, FG, YN |
| POS | Postal services (popular walking destinations coding) indicator | if WALKNF = 1 then POS = 1; else POS = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| DRU | Drug stores, pharmacy (popular walking destinations coding) indicator | if WALKNF = 2 then DRU = 1; else DRU = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| BCU | Banks, credit unions (popular walking destinations coding) indicator | if WALKNF = 3 then BCU = 1; else BCU = 0; | Created in nonfood macro for GIS | NF, NG, YN |
| FDS | Food sales non-beverage (popular walking destinations coding) indicator | if WALKFD = 1 then FDS = 1; else FDS = 0; | Created in food stores macro for GIS | FD, FG, YN |
| EPL | Eating places non-beverage (popular walking destinations coding) indicator | if WALKFD = 2 then EPL = 1; else EPL = 0; | Created in food stores macro for GIS | FD, FG, YN |
| TDIND | Indicator if the record is from Trade Dimensions | 0 = No  1 = Yes |  | FD |
| dup\_dunsnumber | DunsNumber of duplicate record. This is missing if the record is not a duplicate |  |  | YN |
| minsped | Minimum SAS SPEDIS code number for the duplicated. This is missing if the record is not a duplicate |  |  | YN |
| dup | Indicator if the record is a duplicate and will be dropped in analysis files. | 1 = Match by name due to SPEDIS code  2 = Fast Food chain name match  3 = Supermarket chain name match  4 = SPEDIS>45 but both are supermarket chain  5 = SPEDIS>45 and other supermarkets |  | YN |

**Table K.6: Variables for moving datasets**

This includes the datasets:

nets\_move.sas7bdat

| **Variable Name** | **Description** | **Coding** | **Notes** |
| --- | --- | --- | --- |
| DunsNumber | Unique DUNS ID number for merging data |  | Provided by Walls |
| MoveYear | Indicator for the year of the move for the address indicated in the yearly dataset. |  | Provided by Walls |
| Company | Name of the company |  | Provided by Walls |
| TradeName | Trade name of the company, many times this has the actual known business name |  | Provided by Walls |
| OriginAddress | Origin Street address (ie: before move) |  | Provided by Walls |
| OriginCity | Origin city (ie: before move) |  | Provided by Walls |
| OriginState | Origin State (ie: before move) |  | Provided by Walls |
| OriginCounty | Origin County (ie: before move) |  | Provided by Walls |
| OriginZIP | Origin zip code (ie: before move) |  | Provided by Walls |
| ORIGINLatitude | Latitude of the origin of the establishment. This was provided by Walls and is not from the geocoding done at UMich. | NA | Provided by Walls |
| ORIGINLongitude | Longitude of the origin of the establishment. This was provided by Walls and is not from the geocoding done at UMich. | NA | Provided by Walls |
| ORIGINLevelCode | Level of the geocoding for latitude/longitude of the origin geocoding of the establishment. This was provided by Walls and is not from the geocoding done at UMich. | D = Block Face  B = Block Group  T = Census Tract Centroid  Z = Zip Code Centroid  N = Not Coded  S = Street Level | Provided by Walls |
| ORIGINFIPSCOUNTY | Origin 5-digit FIPS county code. This was provided by Walls and is not from the geocoding done at UMich. | ssccc | Provided by Walls. |
| DestAddress | Final Destination Street address (ie: after move) |  | Provided by Walls |
| DestCity | Final Destination city (ie: after move) |  | Provided by Walls |
| DestState | Final Destination State (ie: after move) |  | Provided by Walls |
| DestCounty | Final Destination County (ie: after move) |  | Provided by Walls |
| DESTZIP | Final Destination zip code (ie: after move) |  | Provided by Walls |
| DESTLatitude | Latitude of the final destination of the establishment. This was provided by Walls and is not from the geocoding done at UMich. | NA | Provided by Walls |
| DESTLongitude | Longitude of the final destination of the establishment. This was provided by Walls and is not from the geocoding done at UMich. | NA | Provided by Walls |
| DESTLevelCode | Level of the geocoding for latitude/longitude of the final destination geocoding of the establishment. This was provided by Walls and is not from the geocoding done at UMich. | D = Block Face  B = Block Group  T = Census Tract Centroid  Z = Zip Code Centroid  N = Not Coded  S = Street Level | Provided by Walls |
| DESTFIPSCOUNTY | Final destination 5-digit FIPS county code. This was provided by Walls and is not from the geocoding done at UMich. | ssccc | Provided by Walls. |
| DISTANCE | Distance (in miles) between origin and destination |  | Provided by Walls |
| MOVEEMP | Number of employees at this establishment in move year |  | Provided by Walls. |
| EmpC | Code for accuracy of the number of employees in move year (EmpHere). | 0= Actual Figure  1 = Bottom of range  2 = D&B estimate  3 = Walls estimate | Provided by Walls and converted from Character to Numeric |
| MOVESALES | Sales in dollars of the establishment in move year. |  | Provided by Walls. |
| MOVESalesC | Code for accuracy of the sales in move year (SalesHere). | 0 = Actual  1 = Bottom of range  2 = D&B Estimate  3 = Walls Estimate | Provided by Walls and converted from Character to Numeric |
| LAT | Final latitude of address which combines NETS and TeleAtlas (best accuracy) |  | Combination of NETS and Walls |
| LON | Final longitude of address which combines NETS and TeleAtlas (best accuracy) |  | Combination of NETS and Walls |
| accuracy | Accuracy level of the geocode. This is derived either from TeleAtlas or NETS as appropriate | 1 = Street level  2 = Zip+4 centroid (block group)  3 = Zip+2 centroid (census tract)  4 = Zip centroid  5 = Unable to geocode | Combination of NETS and Walls |
| usegeo | Indicator if can use NETS, old TeleAtlas geocode, or the address need to be checked. | 1 = NETS geocode  2 = TeleAtlas original geocode  3 = Check address |  |
| finalusegeo | Indicator if NETS or TeleAtlas geocode is used as the final geocode. | 1 = NETS geocode  2 = TeleAtlas original geocode  3 = TeleAtlas new geocode |  |
| geostat | Indicator if need to check address for geocoding in TeleAtlas | 0 = Need geocoding in TeleAtlas  1 = Street level  2 = Last year is before 2000  3 = Address is missing  4 = PO Box |  |
| geo\_comp | Indicator if the TeleAtlas EZ-Locate geocoding has been complete for this address. If it is a 1 then it is complete. If it is missing, then the geocoding is not complete. | 1 = Geocoding is complete in TeleAtlas  Missing = geocoding is not complete |  |
| MAT\_ADDR | This is the matched address that contains the street number, pre-directional, street name, street type, and post-directional as found in the TeleAtlas database. For addresses that didn’t match or matched on centroids, this will be missing. |  | From TeleAtlas EZ-Locate output |
| MAT\_CITY | This is the matched city found in the TeleAtlas database for the input address. |  | From TeleAtlas EZ-Locate output |
| MAT\_ST | This is the matched state found in the TeleAtlas database for the input address. |  | From TeleAtlas EZ-Locate output |
| MAT\_ZIP | This is the matched zipcode found in the TeleAtlas database for the input address. |  | From TeleAtlas EZ-Locate output |
| MAT\_CENT | This indicates the centroid type of the match. MAT\_CENT=0 is the best match as it is to the address. | 0 = Not a centroid (street address match)  4 = Zip+4 centroid  2 = Zip+2 centroid  X = 5-digit ZIP code centroid  Blank = No centroid available | From TeleAtlas EZ-Locate output |
| MAT\_STAT | This is a 2-digit code that indicates the type of match or failure. | See U:\SECURE\Diezroux\Projects\MESA\_Neighborhood\_Project\_2\NETS\_Data\Documentation\Geocoding\_documentation\USA\_Geo\_002.pdf | From TeleAtlas EZ-Locate output |
| MAT\_TYPE | This is a code that indicates the type of match or failure with additionally indicating if there was an input error or network error. | See U:\SECURE\Diezroux\Projects\MESA\_Neighborhood\_Project\_2\NETS\_Data\Documentation\Geocoding\_documentation\USA\_Geo\_002.pdf | From TeleAtlas EZ-Locate output |
| re\_geo | Indicator if the address was re-geocoded after reviewing non-matching addresses with codes greater than 9 | Missing = not re-geocoded  1 = RE-geocoded  2 = Re-geocoding was run but re-geocode is not as accurate as original so original was kept | If in text file being merged, then re\_geo = 1. |
| NEWAddress | Address that was used for the re-geocoding where necessary. This will be missing for all re\_geo not equal 1. |  |  |
| NEWCity | City that was used for the re-geocoding where necessary. This will be missing for all re\_geo not equal 1. |  |  |
| NEWState | State that was used for the re-geocoding where necessary. This will be missing for all re\_geo not equal 1. |  |  |
| NEWZip | Zip code that was used for the re-geocoding where necessary. This will be missing for all re\_geo not equal 1. |  |  |
| NEWZip4 | Zip +4 extension that was used for the re-geocoding where necessary. This will be missing for all re\_geo not equal 1. |  |  |
| OLD\_MAT\_TYPE | This is a code that indicates the type of match or failure with additionally indicating if there was an input error or network error. This is the code from before re-geocoding the addresses. | See U:\SECURE\Diezroux\Projects\MESA\_Neighborhood\_Project\_2\NETS\_Data\Documentation\Geocoding\_documentation\USA\_Geo\_002.pdf | From TeleAtlas EZ-Locate output |
| MAT\_LAT | Latitude (decimal degrees) for the matched address. This is in geographic projection, World Geodetic System Datum 1984. From TeleAtlas geocoding. |  | From TeleAtlas EZ-Locate output |
| MAT\_LON | Longitude (decimal degrees) for the matched address. This is in geographic projection, World Geodetic System Datum 1984. From TeleAtlas geocoding |  | From TeleAtlas EZ-Locate output |
| batch | This indicates the batch number that the address was geocoded in. This will match the last number of the text file that the data was merged from. |  | Assigned when the data is read into SAS. |
| stcotrk | FIPS census tract ID (2000 boundaries) | ssccctttttt | Created in ArcGIS |
| stcotrkbg | FIPS block group ID (2000 boundaries) | ssccctttttt | Created in ArcGIS |
| inzip | Indictor if the zip code of the address is on the list of zip codes purchased. | 0 = No  1 = Yes |  |
| missbg | Indicator if the block group ID is missing | 0 = No  1 = Yes |  |
| EstCat | Type of the establishment. This is the indicator if it is a headquarters, branch, division, or single location. |  | Provided by Walls |
| SizeCat | Categories of employment size in move year |  | Provided by Walls |
| MOVESIC | Primary Standard Industrial Classification (SIC) code for move year. This is the code for the full 8 digits. |  | Provided by Walls |
| MoveOften | Indicator if the establishment moved more than once between 1990-2007 | Y = Yes  N = No | Provided by Walls. |
| ACTIVE | Establishment status in 2011 | YES = in business  NO = Out of business | Provided by Walls |

**Table K.7: Variables for fast food chain name datasets**

This includes the datasets:

ff00\_11\_final.sas7bdat

| **Variable Name** | **Description** | **Coding** | **Notes** |
| --- | --- | --- | --- |
| DunsNumber | Unique DUNS ID number for merging data |  | Provided by Walls |
| Company | Name of the company |  | Provided by Walls |
| TradeName | Trade name of the company, many times this has the actual known business name |  | Provided by Walls |
| combname | Company and TradeName combined into 1 variable |  |  |
| SIC00 | Primary Standard Industrial Classification (SIC) code for January 2000. This is the code for the full 8 digits. This actually represents SIC in the year 1999. |  | Provided by Walls. |
| SIC01 | Primary Standard Industrial Classification (SIC) code for January 2001. This is the code for the full 8 digits. This actually represents SIC in the year 2000. |  | Provided by Walls. |
| SIC02 | Primary Standard Industrial Classification (SIC) code for January 2002. This is the code for the full 8 digits. This actually represents SIC in the year 2001. |  | Provided by Walls. |
| SIC03 | Primary Standard Industrial Classification (SIC) code for January 2003. This is the code for the full 8 digits. This actually represents SIC in the year 2002. |  | Provided by Walls. |
| SIC04 | Primary Standard Industrial Classification (SIC) code for January 2004. This is the code for the full 8 digits. This actually represents SIC in the year 2003. |  | Provided by Walls. |
| SIC05 | Primary Standard Industrial Classification (SIC) code for January 2005. This is the code for the full 8 digits. This actually represents SIC in the year 2004. |  | Provided by Walls. |
| SIC06 | Primary Standard Industrial Classification (SIC) code for January 2006. This is the code for the full 8 digits. This actually represents SIC in the year 2005. |  | Provided by Walls. |
| SIC07 | Primary Standard Industrial Classification (SIC) code for January 2007. This is the code for the full 8 digits. This actually represents SIC in the year 2006. |  | Provided by Walls. |
| SIC08 | Primary Standard Industrial Classification (SIC) code for January 2008. This is the code for the full 8 digits. This actually represents SIC in the year 2007. |  | Provided by Walls. |
| SIC09 | Primary Standard Industrial Classification (SIC) code for January 2009. This is the code for the full 8 digits. This actually represents SIC in the year 2008. |  | Provided by Walls. |
| SIC10 | Primary Standard Industrial Classification (SIC) code for January 2010. This is the code for the full 8 digits. This actually represents SIC in the year 2009. |  | Provided by Walls. |
| SIC11 | Primary Standard Industrial Classification (SIC) code for January 2011. This is the code for the full 8 digits. This actually represents SIC in the year 2010. |  | Provided by Walls. |
| name | Fast food name if record matched with the chain name list |  |  |
| type | Type of food store (4-digit SIC) |  |  |

**Table K.8: Variables for supermarket chain name datasets**

This includes the datasets:

smlist\_final.sas7bdat

| **Variable Name** | **Description** | **Coding** | **Notes** |
| --- | --- | --- | --- |
| DunsNumber | Unique DUNS ID number for merging data |  | Provided by Walls |
| Company | Name of the company |  | Provided by Walls |
| TradeName | Trade name of the company, many times this has the actual known business name |  | Provided by Walls |
| namefield | Company and TradeName combined into 1 variable |  |  |
| SIC00 | Primary Standard Industrial Classification (SIC) code for January 2000. This is the code for the full 8 digits. This actually represents SIC in the year 1999. |  | Provided by Walls. |
| SIC01 | Primary Standard Industrial Classification (SIC) code for January 2001. This is the code for the full 8 digits. This actually represents SIC in the year 2000. |  | Provided by Walls. |
| SIC02 | Primary Standard Industrial Classification (SIC) code for January 2002. This is the code for the full 8 digits. This actually represents SIC in the year 2001. |  | Provided by Walls. |
| SIC03 | Primary Standard Industrial Classification (SIC) code for January 2003. This is the code for the full 8 digits. This actually represents SIC in the year 2002. |  | Provided by Walls. |
| SIC04 | Primary Standard Industrial Classification (SIC) code for January 2004. This is the code for the full 8 digits. This actually represents SIC in the year 2003. |  | Provided by Walls. |
| SIC05 | Primary Standard Industrial Classification (SIC) code for January 2005. This is the code for the full 8 digits. This actually represents SIC in the year 2004. |  | Provided by Walls. |
| SIC06 | Primary Standard Industrial Classification (SIC) code for January 2006. This is the code for the full 8 digits. This actually represents SIC in the year 2005. |  | Provided by Walls. |
| SIC07 | Primary Standard Industrial Classification (SIC) code for January 2007. This is the code for the full 8 digits. This actually represents SIC in the year 2006. |  | Provided by Walls. |
| SIC08 | Primary Standard Industrial Classification (SIC) code for January 2008. This is the code for the full 8 digits. This actually represents SIC in the year 2007. |  | Provided by Walls. |
| SIC09 | Primary Standard Industrial Classification (SIC) code for January 2009. This is the code for the full 8 digits. This actually represents SIC in the year 2008. |  | Provided by Walls. |
| SIC10 | Primary Standard Industrial Classification (SIC) code for January 2010. This is the code for the full 8 digits. This actually represents SIC in the year 2009. |  | Provided by Walls. |
| SIC11 | Primary Standard Industrial Classification (SIC) code for January 2011. This is the code for the full 8 digits. This actually represents SIC in the year 2010. |  | Provided by Walls. |
| name | Supermarket name if record matched with the chain name list |  |  |
| name2 | Supermarket name if record matched with the chain name list if matched with more than one name |  |  |
| type | Type of food store |  |  |

# APPENDIX L: METHODS TO DETERMINE ZIP CODES FOR MESA AND COMMUNITY SURVEY

Created by Kari Moore: June 2012; repeated in Oct 2012 for CS3 participants

**Input data:**

1. Zip code files for entire country downloaded from <http://www.census.gov/cgi-bin/geo/shapefiles2010/layers.cgi> for years 2000 and 2010
2. Latitude/longitude from:
   1. U:\Secure\Diezroux\Projects\MESA\_geocoded\_Baseline\_and\_FollowUp\Baseline\_Addresses\Data\Final\_SAS\_Dataset\geo\_zips\_census.sas7bdat
   2. U:\Secure\Diezroux\Projects\MESA\_geocoded\_Baseline\_and\_FollowUp\Baseline\_Plus\_Follow\_Up\_Addresses\SAS\_Datasets\Final\_Datasets\final\_dataset\_with\_teleatlas\_and\_mappinganalytics\addresses\_monthlylong\_final\_2012.sas7bdat
   3. U:\Secure\Diezroux\Projects\MESA\_geocoded\_Baseline\_and\_FollowUp\Work\_Addresses\Data\workadd\_geocoded.sas7bdat; e5\_workadd\_geocoded.sas7bdat; fu8\_workadd\_geocoded.sas7bdat; fu9\_workadd\_geocoded.sas7bdat; fu10\_workadd\_geocoded.sas7bdat
   4. U:\Secure\Diezroux\Projects\Community\_Survey\community survey I\Data\FINAL\_SAS\_Dataset\cs1\_address.sas7bdat
   5. U:\Secure\Diezroux\Projects\Community\_Survey\community survey II\data\cs2\_address.sas7bdat
   6. U:\Secure\Diezroux\Projects\Community\_Survey\community survey III\Data\cs3\_address.sas7bdat

**Output data:**

1. zips2000\_5mile.dbf
2. zips2010\_5mile.dbf
3. cs3zips2000\_5mile.dbf
4. cs3zips2010\_5mile.dbf

**Steps:**

1. Download the zip code shape files for years 2000 and 2010
   1. Go to the website <http://www.census.gov/cgi-bin/geo/shapefiles2010/layers.cgi>
   2. Under “5-Digit ZIP Code Tabulation Area (year)” choose “All states in one national file” and click “Download”
   3. Save and unzip the shapefiles
2. Export the latitude/longitude from the SAS files into a DBF file. Set all of the latitude/longitude together for all studies.
3. Open ArcMap.
4. Open the 2000 Zip code shapefile.
5. Open the DBF file with the latitude/longitude DBF file.
6. Display the latitude/longitude points.
   1. Display X-Y in WGS84 coordinate system.
7. Create 5 mile buffers around the latitude/longitude points.
   1. Open ArcToolbox.
   2. Go to “Proximity”
   3. Click on “Buffer”
   4. Choose “check\_add.csv” Events for Input Features
   5. Enter “check\_add\_buffer” in Output Feature Class
   6. For Distance, click “Linear unit” then enter “5” and choose “Mile”
   7. Click “ok”
8. Select the zip codes that are touched by any 5 mile buffer.
   1. Go to “Selection”
   2. Choose “Select by location”
   3. In Selection method: Choose “select features from”
   4. In Target Layers: Choose “tl\_2010\_us\_zcta500” – the layer for the zip codes
   5. In Source Layer: Choose the layer with the 5-mile buffers
   6. In Spatial Selection method: Choose “Target layer(s) features intersect the Source layer feature”
   7. The zip codes that have any 5 mile buffer in them will be highlighted.
9. Export the selected zip codes
   1. Right click on the zip code layer.
   2. Choose “Open attribute table”
   3. Go to “Export”
   4. Choose “selected records”
   5. Click the folder next to the “Output Table” location
   6. Under “Save as type” choose dBase Table.
   7. Click “ok”
   8. This will output a DBF file (called “zips2000\_5mile.dbf”)
10. The above steps 6-9 were repeated using 2010 zip codes and also repeated later with the CS3 addresses (they were not available in Jun, had to include them in Oct).
11. The DBF files were then read into SAS, merged together, and only the fields needed were kept (FIPS ids for zip codes) and additional fields were created to indicate the year the zip code is in. This file was then exported into Excel (NETS\_zipcode\_list.xls). The JHS zip codes were added to this when they were made available.

# APPENDIX M: METHODS TO DETERMINE CENSUS TRACT AND BLOCK GROUPS IN COVERAGE AREA

Created by Melissa Zagorski: March 2013

**Input data:**

1. Excel worksheets containing ZCTAs of interest:

U:\EPID\CSEPH\Projects\Diez Roux\Built Environment II\NETS\_to\_be\_transferred\CreateBGID

**Output data:**

1. Shapefile containing the block groups of interest:

U:\EPID\CSEPH\Projects\Diez Roux\Built Environment II\NETS\_to\_be\_transferred\New\_Census\_NETS\BG\_2000\_NETS.shp

**Steps:**

1. Obtain a United States ZCTA polygon shapefile (I used the one that comes with the ESRI ArcGIS software installation package). This layer should contain a unique ZCTA identification number for each ZCTA.
2. Create a .dbf table from the Excel worksheets containing the ZCTAs of interest (A).
3. Within ArcMap, join the .dbf table to the US ZCTA polygon shapefile and select out those ZCTA polygons of interest and create a new shapefile.
4. Obtain a United States county polygon shapefile (I used the one that comes with the ESRI ArcGIS software installation package).
5. Select by location the US county polygons that intersect the ZCTA polygons of interest, and create a new shapefile of selected US county polygons; these will be the counties for which the Census block groups will be obtained. Export the selected county polygon attribute table to .dbf for Kari’s use.
6. From the following website, download the Census 2000 block groups for each of the counties selected in step 5 (make sure the county block group data was not previously downloaded): <http://arcdata.esri.com/data/tiger2000/tiger_county.cfm?sfips=01>
7. Unzip the downloaded county-level block groups and merge them into one shapefile, then merge them with any existing block group shapefiles already downloaded that pertain to the relevant study areas. This is the final 2000 block group shapefile that will be used in NETS calculations (B). Export the final 2000 block group attribute table to .dbf for Kari’s use.
8. This was repeated for census tracts.

# APPENDIX N: METHODS TO CALCULATE DISTANCE TO NEAREST NON-PURCHASE AREA

Created by Melissa Zagorski: Oct 2013

**Input data:**

1. Participant address locations:

U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\GIS\GIS\_Data\Participants\address\_points.gdb

1. Zip Code Tabulation Areas:

U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\GIS\GIS\_Data\Base\_Data\Zip\_Code\_Tabulation\_Areas.gdb\ZCTAs\_5\_general

**Output data:**

U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\GIS\Deliverables\Individuals\NETS\Euclid\_dist\_extra\_assessment\ZCTA\_empty\_near.dbf

**Steps:**

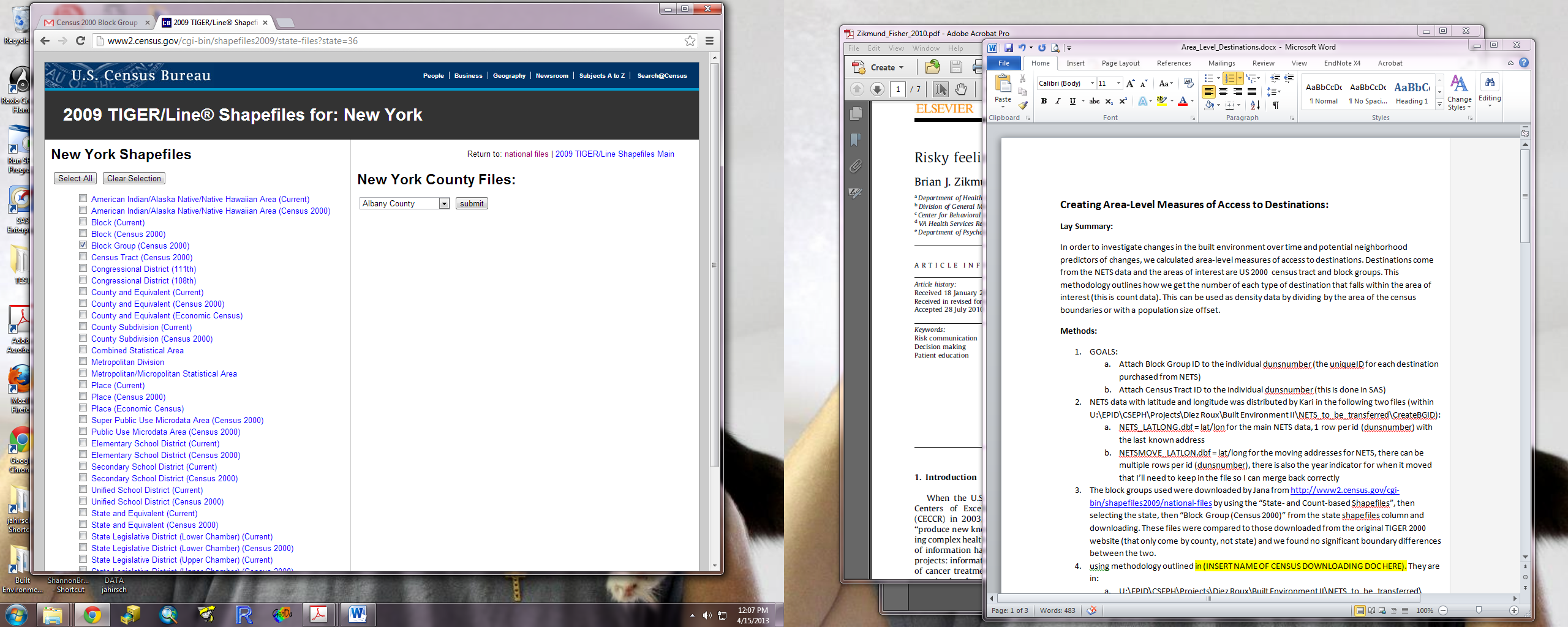
1. Selected out the Zip Code Tabulation Areas (ZCTAs) that were not purchased.
2. Projected A and output from step 1 to: (USA\_Contiguous\_Albers\_Equal\_Area\_Conic\_USGS).
3. Calculated the Euclidean Distance (in meters) from a participant address location to the nearest non-purchased ZCTA line using the Near tool (no search radius necessary).
4. Exported the results from step 3 to .dbf table.

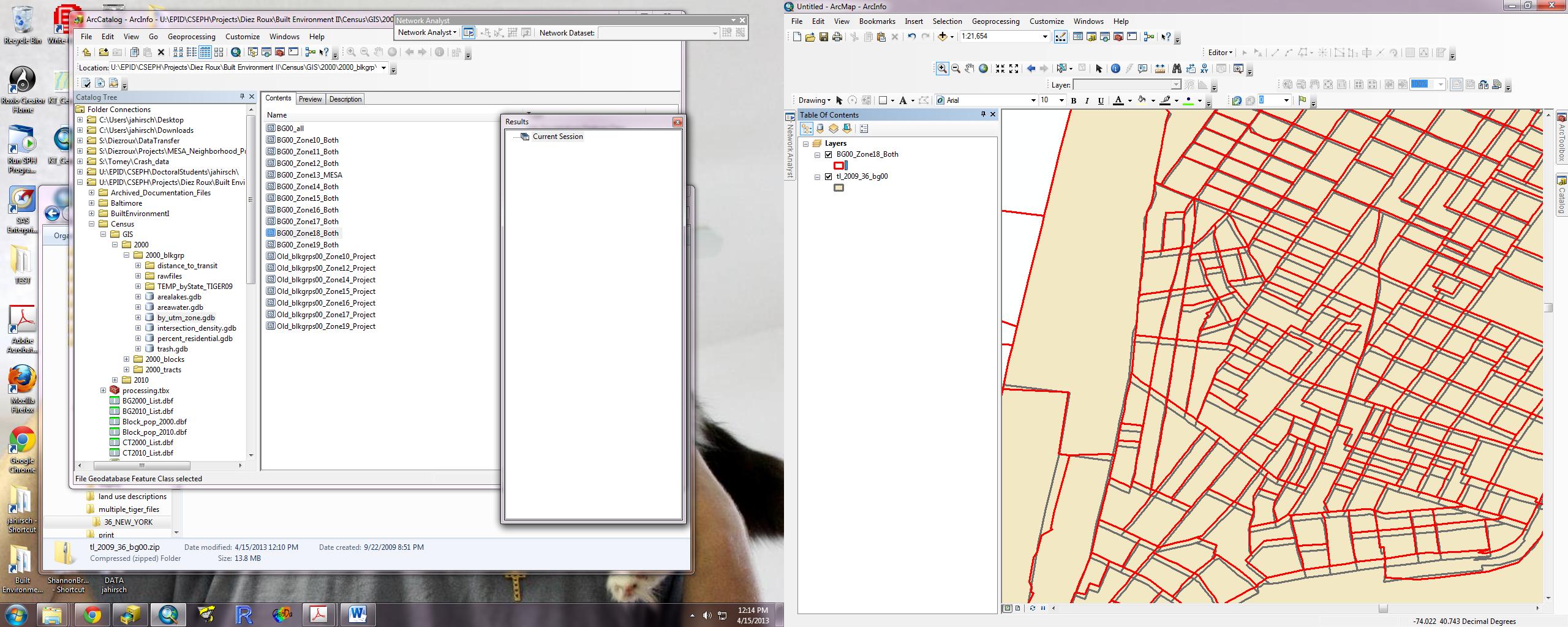
# APPENDIX O: METHODS TO DETERMINE CENSUS TRACT AND BLOCK GROUP ID

Created by Jana Hirsch and Kari Moore: March 2013

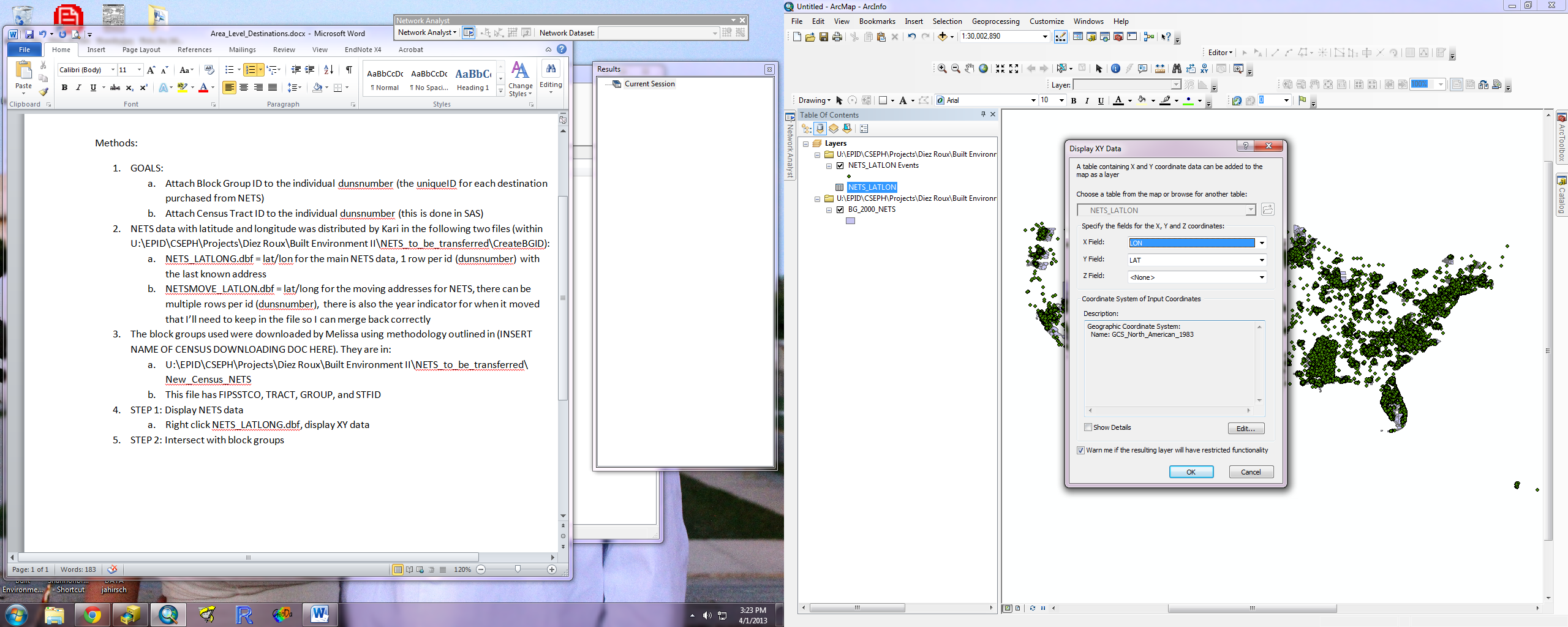
**Methods:**

1. GOALS:
   1. Attach Block Group ID to the individual dunsnumber (the uniqueID for each destination purchased from NETS)
   2. Attach Census Tract ID to the individual dunsnumber (this is done in SAS)
2. NETS data with latitude and longitude was distributed by Kari in the following two files (within U:\EPID\CSEPH\Projects\Diez Roux\Built Environment II\NETS\_to\_be\_transferred\CreateBGID):
   1. NETS\_LATLONG.dbf = lat/lon for the main NETS data, 1 row per id (dunsnumber) with the last known address
   2. NETSMOVE\_LATLON.dbf = lat/long for the moving addresses for NETS, there can be multiple rows per id (dunsnumber), there is also the year indicator for when it moved that I’ll need to keep in the file so I can merge back correctly
3. Originally, we tried using block groups downloaded by Jana from <http://www2.census.gov/cgi-bin/shapefiles2009/national-files> by using the “State- and Count-based Shapefiles”, then selecting the state, then “Block Group (Census 2000)” from the state shapefiles column and downloading. These files were compared to those downloaded from the original TIGER 2000 website (that only come by county, not state, found at U:\EPID\CSEPH\Projects\Diez Roux\Built Environment II\NETS\_to\_be\_transferred\ New\_Census\_NETS) and we found significant boundary differences between the two (see below). Therefore, we had to revert to downloading (by county) any location that covers a zipcode that we purchased from NETS.

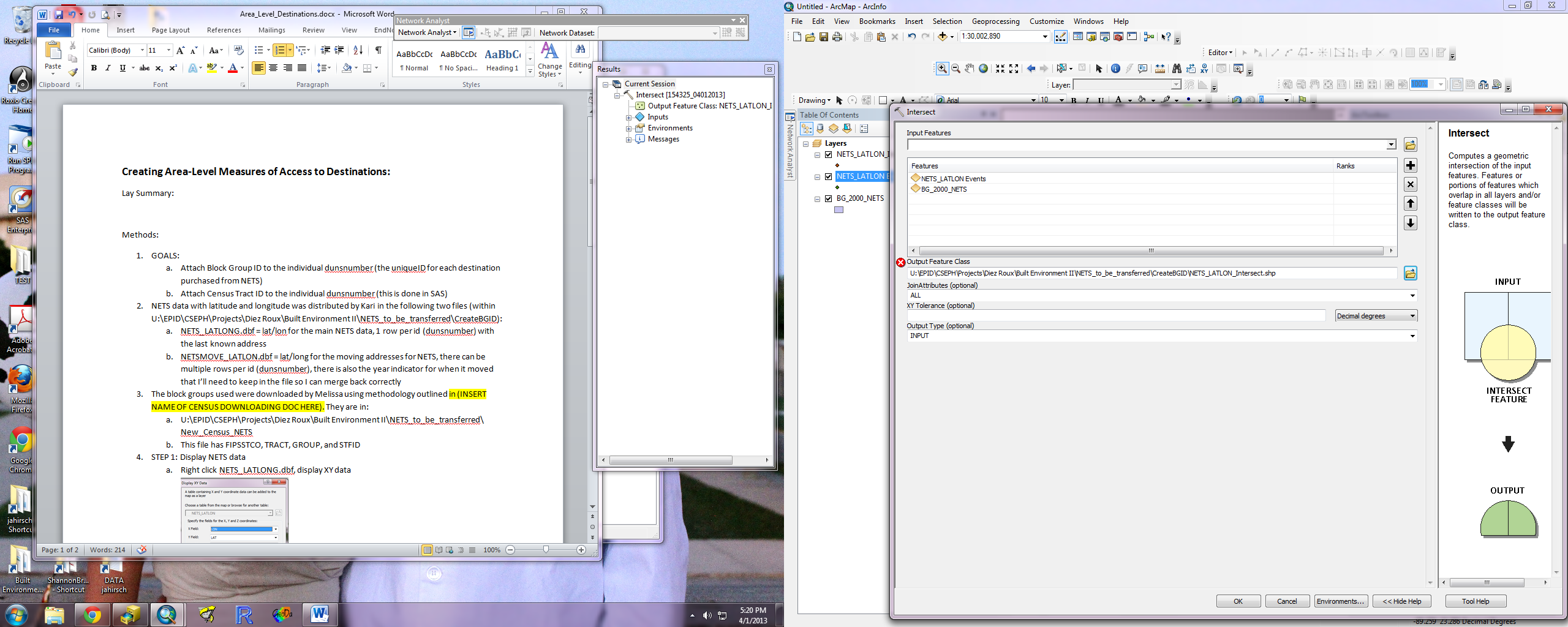




1. The census block group files are located in:
   1. U:\EPID\CSEPH\Projects\Diez Roux\Built Environment II\NETS\_to\_be\_transferred\ New\_Census\_NETS
   2. This file has FIPSSTCO, TRACT, GROUP, and STFID
2. STEP 1: Display NETS data
   1. Right click NETS\_LATLONG.dbf, display XY data

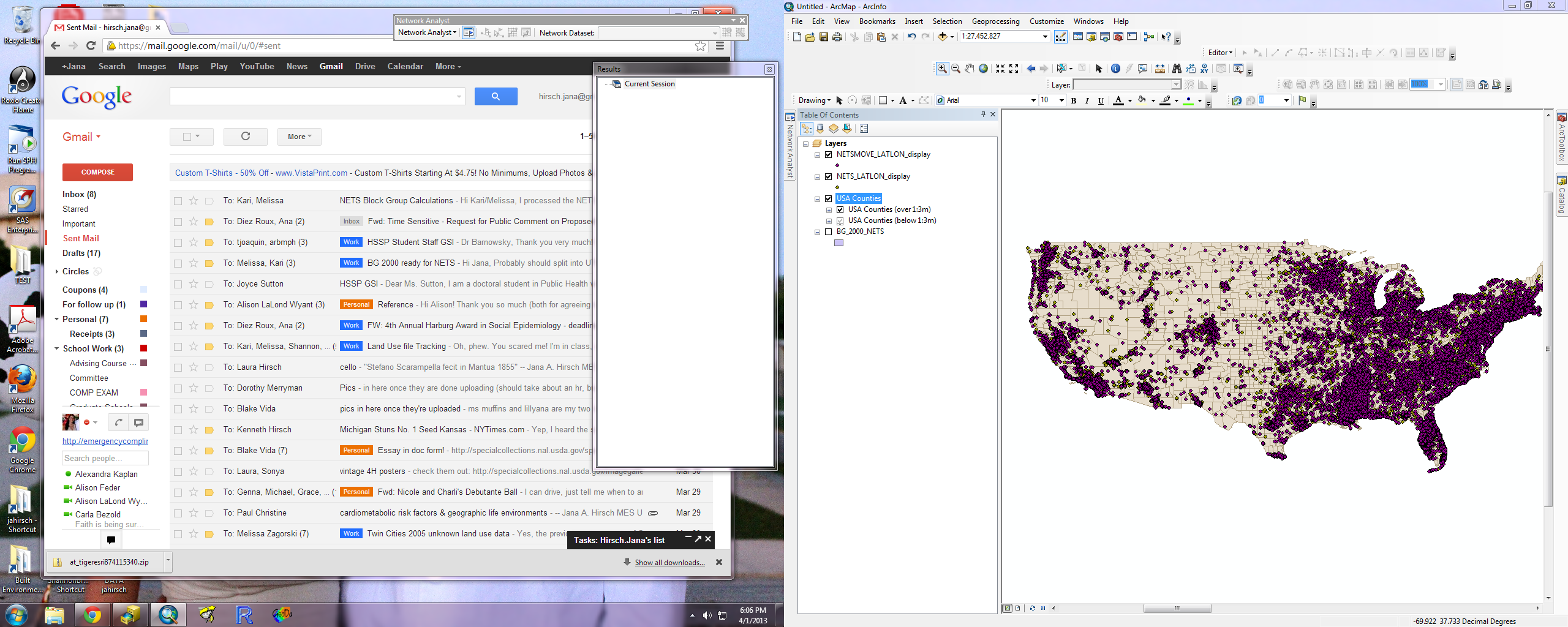


1. STEP 2: Intersect with block groups
   1. ArcToolbox>Analysis Tools>Overlay>Intersect
      1. Input features (NETS\_LATLONG Events & BG\_2000\_NETS).
      2. Output feature class: U:\EPID\CSEPH\Projects\Diez Roux\Built Environment II\NETS\_to\_be\_transferred\CreateBGID\NETS\_LATLON\_Intersect.shp
      3. Join attributes (ALL)
      4. XY tolerance (blank)
      5. Output type: INPUT



* 1. This creates a point file (NETS\_LATLON\_Intersect.shp) that has the points, plus the block groups they fall in.
  2. NOTE: originally 2859180 points, intersection only has 2847964

1. Repeat 4 and 5 above with the “NETSMOVE\_LATLON.dbf” file and output to NETSMOVE\_LATLON\_Intersect.shp
   1. NOTE: originally 278697 points, intersection only has 263962 points
2. FINAL GIS DATA:
   1. The steps above give you two datasets (NETS\_LATLON\_Intersect.dbf and NETSMOVE\_LATLON\_Intersect.dbf) in which we have the dunsnumber and the census block group ID. In SAS these can be summarized by census block group to get counts.
3. NOTE WHERE THE DATA FALLS:



1. Downloading the block groups would basically mean downloading all block groups for the entire country (the current base file shown above is counties).
2. Using the SAS program “U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\NETS\Code\ 10\_NETS\_BGID\_from\_GIS.sas”
   1. Import the files NETS\_LATLON\_Intersect.dbf and NETSMOVE\_LATLON\_Intersect.dbf into SAS.
   2. Create the census tract ID by using the substring (substr) of: stcotrk=substr(stcotrkbg,1,11).
   3. Separate out those that have duplicate values (if not(first.dunsnumber=last.dunsnumber))
   4. Create a random number (ranuni) for each record in the duplicates file.
   5. Choose the lower number of the random number generated for each duplicate.
   6. Delete those that are not going to be kept as the duplicate value.
   7. Merge these with the final datasets (nets.sas7bdat and nets\_move.sas7bdat)

# APPENDIX P: METHODS FOR CREATING DENSITIES

Created by Shannon Brines Jun 2013

**Summary:**  For this measure, a simple (point) density or kernel density surface is created with NETS points (using designated categories e.g. supermarket or bar) as the inputs and then the value of each surface at the point location of all individuals is extracted into a table output.

**Input data:**

1. NETS data for all sites of interest (years 2000-2010):

U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\GIS\GIS\_Data\NETS\NETS.gdb

1. New addresses

U:\Secure\Diezroux\Projects\MESA\_Neighborhood\_Project\_2\ShannonBrines\Addresses

**Output data (deliverable):**

1. kfooxxxx.dbf, knonxxxx.dbf, sfooxxxx.dbf, or snonxxx.dbf (where kfoo is kernel-food, knon is kernel-non-food, sfoo is simple-food, snon is simple-non-food, and xxxx is a radius of 402, 805, 1609, 4828, or 8047 meters)

U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\GIS\Deliverables\Individuals\NETS\2xxx (i.e. by year)

**Output data fields (deliverable):**

1. uniqid = the unique blind identifier for each individual in the analysis
2. FFFXXXX = the density surface value at the individual’s point location where FFF is the input variable used to make the density surface (see NETSxxxxxNOTES.doc with input data for input variables) and where XXXX is a radius of 402, 805, 1609, 4828, or 8047 meters.

**Steps:**

1. The NETS input data tables were imported into ArcGIS ArcMap as event themes by using the Display XY… function and Latitude and Longitude attributes from the table were specified as the Y and X coordinates respectively and Geographic WGS84 was specified as the spatial reference.
2. The event theme from previous step was saved as a separate feature class or shapefile (to help with next step).
3. A new NETS feature class/shapefile is created by projecting the one from previous step to an Albers projection (USA\_Contiguous\_Albers\_Equal\_Area\_Conic\_USGS\_version) using NAD83 datum.
4. The Selection tool is used to select all the NETS points within 6 miles of all the individuals in question (in the same Albers projection). These selected NETS points are exported to a new subset NETS feature class/shapefile that will be used for the analysis.
5. The Kernel Density tool (Spatial Analyst) is used for: one of the shapefiles created from previous steps (Input point features); and one of the NETS categories (Field). A new raster is created (Output raster) using a cell size of 100meter (Output cell size), a search radius of one of the five radii needed in map units e.g. 402 meters (Search radius), with Area units of Square\_Miles (Area units). (Highly recommended to set the Processing Extent (under Environments…) to the maximum extent of all NETS data for all time, although not completely necessary.)
6. Repeat previous step 4 until rasters for each of the categories (fields) have been created.
7. The Sample tool (Spatial Analyst) is used to make a summary for each individual for each raster created for each category. Input Rasters are all the rasters created in the previous 2 steps. Input point features are all the individuals for which a summary should be generated (in this case, individuals for each year). Output table is simply the location of the INFO table this tool generates. Resampling technique can be left as default since it will not be needed if all inputs and extents have been set accordingly. (NOTE: as of ArcGIS 10, the sample tool will only work for 10000 points at a time, so parsing of individuals into subset files of 10000 points or less may be necessary. Follow the same steps for the subset files and then merge after the join step if desired.)
8. Using the MASK field in the INFO table created in step 7, join the INFO table to the attribute table of the individual participant addresses feature class/shapefile using its FID field.
9. Export this newly joined virtual attribute table to its own data table (.dbf recommended)
10. For the table created in step 9, delete all non-essential fields (especially any coordinate fields) leaving only the uniqid and the summary/value for each of the category fields. This table is the deliverable table if you want a table for each radius (or a portion of the deliverable table if individual points greater than 10000 had to be parsed into separate files. Simply create similar tables with other subsets of individuals and then merge into one big table).
11. Repeat Steps 5-10 for each radius you would like and if you would like all radii to be in the same table for each time step (e.g. year) create all rasters for all radii and all categories first before running the sample command in Step 7. (Recommend to add descriptive radii numbers to the name of the raster.)
12. Repeat Steps 5-11 but substitute the Point Density command for the Kernel Density command. The Point Density command will require identical parameters as the Kernel Density above with the exceptions of: choose a “Circle” for the Neighborhood parameter, and make sure “Map” is selected for the Units parameter. (NOTE: instead of “search radius”, under Neighborhood Settings it will simply have a Radius input of one of the five radii needed in map units e.g. 402 meters (Search radius), and Area units should still be set to Square\_Miles (Area units). )

# APPENDIX Q: METHODS FOR CREATING EUCLIDEAN DISTANCE TO NEAREST

Created by Melissa Zagorski Oct 2013

**Summary:**  This measure is the Euclidean distance from a participant’s address location to the nearest NETS point for each category for values equal to 1 for years 2000-2010.

**Input data:**

1. NETS data for all sites of interest (years 2000-2010):

U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\GIS\GIS\_Data\NETS\NETS.gdb

1. Participant address locations:

U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\GIS\GIS\_Data\Participants\address\_points.gdb

**Output data (deliverable):**

1. foodxxxx.dbf, nonfoodxxxx.dbf,extrapaxxxx.dbf(where food is food, nonfood is non-food, extrapa is extra recreational for total stores, and xxxx is a year 2000-2010)

U:\Secure\Diezroux\Projects\EAC\_MESA\_JHS\GIS\Deliverables\Individuals\NETS\2xxx (i.e. by year)

**Steps:**

1. Converted lat/long .dbf tables to shapefiles.
2. Defined the coordinate system as GCS NAD83.
3. Projected data to USA\_Contiguous\_Albers\_Equal\_Area\_Conic\_USGS.
4. Used the Near tool to calculate the Euclidean distance from the participant address location to the nearest NETS point for each variable category for values equal to 1. Used a search radius of 300 miles.
5. Exported the results to .dbf table format.

1. Communication between Amy Auchincloss and Mark Goodfriend Sept 9 2010. “Regarding your question about what we call Chain, we can actually define this in a number of ways depending on client needs, but our default reflects where Owner or Banner Name is >10 stores.” [↑](#footnote-ref-1)
2. Hume, Scott (400 Editor). R&I Top 400 Chain Restaurants. Restaurants & Institutions. http://www.rimag.com. [↑](#footnote-ref-2)
3. This is a definition in Webster’s dictionary and was used in the IOM report. IOM (2006). Food Marketing to Children and Youth: Threat or Opportunity? Institute of Medicine of the National Academies. Committee on Food Marketing and the Diets of Children and Youth, J. M. McGinnis, J. A. Gootman and V. I. Kraak, National Academies Press. [↑](#footnote-ref-3)
4. Rundle, A., K. M. Neckerman, et al. (2009). "Neighborhood food environment and walkability predict obesity in New York City." Environ Health Perspect 117(3): 442-7. [↑](#footnote-ref-4)
5. http://www.mbpo.org/uploads/policy\_reports/Food\_Stat\_FINAL.pdf [↑](#footnote-ref-5)
6. http://www.mbpo.org/uploads/policy\_reports/Food\_Stat\_FINAL.pdf [↑](#footnote-ref-6)
7. The Availability of Local-Area Commercial Physical Activity–Related Facilities and Physical Activity Among Adolescents. American Journal of Preventive Medicine, Volume 33, Issue 4, Pages S292-S300. L. Powell, F. Chaloupka, S. Slater, L. Johnston, P. O’Malley [↑](#footnote-ref-7)
8. Inequality in the built environment underlies key health disparities in physical activity and obesity. PEDIATRICS, Vol. 117 No. 2, pp. 417-424. [Gordon-Larsen P](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Gordon-Larsen%20P%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVAbstract), [Nelson MC](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Nelson%20MC%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVAbstract), [Page P](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Page%20P%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVAbstract), [Popkin BM](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Popkin%20BM%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVAbstract) [↑](#footnote-ref-8)
9. [Med Sci Sports Exerc.](javascript:AL_get(this,%20'jour',%20'Med%20Sci%20Sports%20Exerc.');) 2003 Nov;35(11):1882-6. Change in the prevalence of leisure activity with the number of activities recalled. [Evenson KR](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Evenson%20KR%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVAbstract), [Huston SL](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Huston%20SL%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVAbstract), [Wood JL](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Wood%20JL%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVAbstract), [Bors P](http://www.ncbi.nlm.nih.gov/pubmed?term=%22Bors%20P%22%5BAuthor%5D&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed_RVAbstract). [↑](#footnote-ref-9)
10. Hoehner CM, Schootman M. Concordance of Commercial Data Sources for Neighborhood-Effects Studies. Journal of Urban Health, Volume 87, Issue 4, Pages 713-25 [↑](#footnote-ref-10)
11. <http://www.uvm.edu/giv/resources/WGS84_NAD83.pdf>, <http://mappingcenter.esri.com/index.cfm?fa=ask.answers&q=740> [↑](#footnote-ref-11)
12. <http://en.wikipedia.org/wiki/Smith's_Food_and_Drug> [↑](#footnote-ref-12)
13. Silverman, B.W. *Density Estimation for Statistics and Data Analysis*. New York: Chapman and Hall, 1986., Page 76, Equation 4.5 [↑](#footnote-ref-13)
14. <http://resources.esri.com/help/9.3/ArcGISDesktop/com/Gp_ToolRef/spatial_analyst_tools/how_point_density_works.htm> [↑](#footnote-ref-14)
15. <http://webhelp.esri.com/arcgisdesktop/9.3/index.cfm?TopicName=How%20Kernel%20Density%20works>, and

    <http://en.wikipedia.org/wiki/Kernel_density_estimation> [↑](#footnote-ref-15)