

**EPIDEMIOLOGY**

**RISE**  
**Resistome Project**

**Data Dictionary – Version 0.1 (2015.08.19)**



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C24010029	57
C24010030	57
C24010031	57
C24010032	57
C24010033	57
C24010034	57
C24010035	57
C24010036	57
C24010037	57
C24010038	57
C24010039	57
C24010040	58
C24010041	58
C24010042	58
C24010043	58
C24010044	58
C24010045	58
C24010046	58
C24010047	58
C24010048	58
C24010049	58
C24010050	58
C24010051	58
C24010052	58
C24010053	58
C24010054	58
C24010055	58
C24010056	58
C24010057	58
C24010058	58
C24010059	58
C24010060	58
C24010061	58

C24010062 .....	58
C24010063 .....	58
C24010064 .....	58
C24010065 .....	58
C24010066 .....	58
C24010067 .....	58
C24010068 .....	58
C24010069 .....	58
C24010070 .....	59
C24010071 .....	59
C24010072 .....	59
C24010073 .....	59
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## Useful Definitions

**Areal Weighting Interpolation** – Areal weighting interpolation is a data transfer procedure between incompatible zonal systems. There are diverse zonal systems used for aggregating and reporting spatial data, say, census tracts, administrative districts, school districts, and so forth. Since they are often geographically incompatible, integration of spatial data requires data transfer between zonal systems. This process is called areal interpolation, and the areal weighting interpolation method is one of the most popular interpolation methods in GIS (Markoff and Shapiro, 1973; Lam, 1983; Flowerdew and Green, 1991). Assuming a uniform distribution of spatial objects, the areal weighting interpolation divides the count of spatial objects according to area in each zone, and sums up the counts in another incompatible zone.

**Kernel Density Estimation (KDE)** – KDE is a GIS analysis technique that creates a continuous surface based on point data in a neighborhood as defined by a circular distance. Conceptually, a smoothly curved surface is fitted over each point. The continuous surface value is highest at the location of the point and diminishes with increasing distance from the point, reaching zero at the search radius distance from the point (i.e., distance decay function). Density surfaces are effective at identifying where features are concentrated – highlighting areas of intense activity. For a more thorough explanation of KDE, please see Appendix F.

**Network Analysis** – Network analysis incorporates a network dataset such as street centerlines into a spatial model which then allows for the representation of advanced connectivity models and scenarios. In doing so, a more accurate depiction of how people encounter and move around their real-work environment can be quantified.

**Point-in-Polygon Analysis** – Point and polygon analysis is also referred to, and known as, a spatial join. A spatial join is a geoprocessing method for combining information between GIS layers, and results in the attribute information from one layer being combined with the attribute table of another layer based on their relative X-Y location. This then makes further analysis possible, such as aggregating the number of point features or the length of polyline features within different geographies.

## Network Buffers Explained

Network buffers use the street network as the organizing geography. This type of buffer requires a point of origin and a travel distance to measure away from following the street network. Once those two parameters are defined, all points on the street network that are *n-distance* from the point of origin are found. Those points are then joined together using a sort of connect-the-dots method to create an irregular polygon. The basic idea behind network buffers is that people use the street network to move about and something that is a 0.50-mile as a straight line may be several times that far in an area with a winding or discontinuous street pattern. Prior to creating these network buffers all primary highways with limited access and access ramps would be removed since these street features are not used by pedestrians to move about the city.

As can be seen in the 3 figures below, the area that could be reached along the street network (the central, reddish-orange area) is smaller in the loop and long block road arrangements than in the more gridded street pattern. The three figures below each show two 0.50-mile buffers – a straight line or bird-flies buffer in green and 0.50-mile street-network buffer in reddish-orange. The point of origin is the red dot and the streets are the white lines. The left graphic was generated in The Bronx with many loops and longer blocks, the middle graphic in Manhattan with a more gridded area and smaller median block sizes, and the right in Queens with no loops but still longer blocks and larger median block sizes than found in Manhattan. As can be seen visually, the ratio of the area within a network buffer to area within the bird-flies buffer is much smaller in the looped and long block areas than in the gridded area, indicating that it is harder to get around.

Figures. – Comparison of bird-fly and network buffers in different borough neighborhoods.



## Geoprocessing Methods Explained

The process of characterizing neighborhoods with social and built environment variables is an ideal job for a Geographical Information System (GIS). A GIS is unique in that it harnesses the power of both relational databases and geographic space and place. Combined you have an efficient means of statistically aggregating and describing what lies within a specific measurement geography (e.g., state, county, community district, zip code, custom buffer). By overlaying spatial features from multiple layers (e.g., streets, census block groups, land-use, and crime) which are attached to descriptive variables (e.g., length, area, speed, total population, name, category) that task is achieved.

**Areal Weighting Interpolation** is a data transfer procedure between incompatible zonal systems. There are diverse zonal systems used for aggregating and reporting spatial data, say, census tracts, administrative districts, school districts, and so forth. Since they are often geographically incompatible, integration of spatial data requires data transfer between zonal systems. This process is called areal interpolation, and the areal weighting interpolation method is one of the most popular interpolation methods in GIS (Markoff and Shapiro, 1973; Lam, 1983; Flowerdew and Green, 1991). Assuming a uniform distribution of spatial objects, the areal weighting interpolation divides the count of spatial objects according to area in each zone, and sums up the counts in another incompatible zone.

Take for example Census block groups. Say you want to calculate census related variables for custom measurement geographies such as the 0.50-mile network buffers created for this project. Some census geographies [e.g., block groups] will fall completely within your buffers, while others, only portions will fall within your buffers. You therefore need to decide how to deal with those census geographies that do not fall completely within your buffers. You really only have four options:

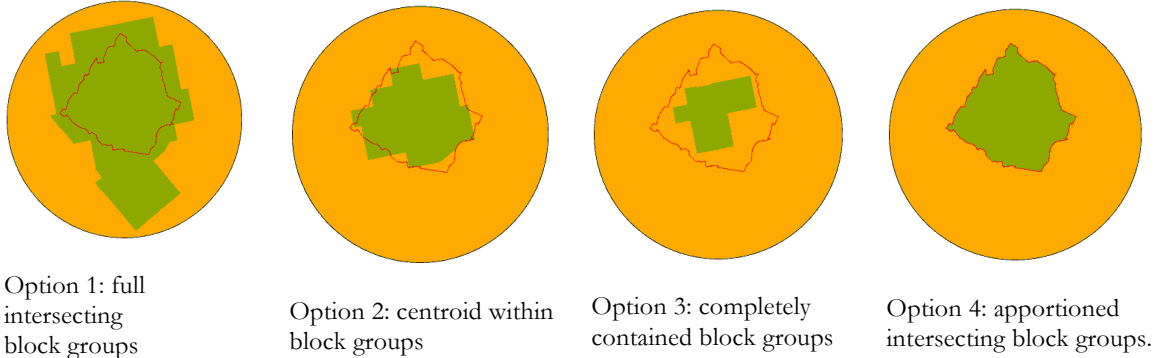
- 1) Include all full block groups that intersect your measurement geographies and their full variables.
- 2) Include all block groups with their centroid within the measurement geographies and their full variables.
- 3) Include all block groups completely contained within the measurement geographies and their full variables.
- 4) Include only those portions of block groups that intersect the measurement geographies and their apportioned variables.

The four figures on the following page demonstrate examples of these four options using a single network buffer and block group boundaries.

This analysis utilized option 4. Where block groups (or any other spatial feature) are cut by the end of the buffer measurement geographies, the census variables are apportioned according to the percentage of land area falling inside and outside the buffers before calculating the results. Take for example the total population variable. Since we do not know where the population actually lives within each block group, all we can do is assume a normal distribution of the population. Where census blocks are cut by the end of the buffer measurement geographies, the population needs to be apportioned according to the percentage of block group falling inside the buffer. So we should know or you can easily calculate the area of the original block in whatever unit of measure you wish. Next, INTERSECT (Figure, page 7) or compute the geometric

intersection of the input features (i.e., census block groups) where features or portions of features which overlap the intersect features (i.e., custom network buffers) will be written to the final output feature. Then, recalculate the area of the output, and find the ratio of each block group falling inside the buffer. Finally, take that ratio times your total population value of each block to get your apportioned value.

Figures. – Examples of how to deal with non-contiguous data overlapping your study area.



For example, where a block group falls completely within the buffer the ratio will be 1.00 which in turns means the total population will be accounted for. But say you have a block group with 1,300 people living in it that is 250-km<sup>2</sup> in total area but only 115-km<sup>2</sup> of the block falls within the buffer. You would take 115 / 250 to get 0.46, which you then multiple against the total population for the block 0.46 \* 1,300 to get 598 people. That is your apportioned population.

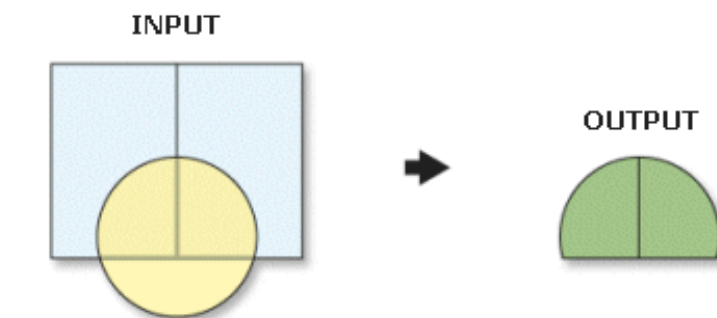


Figure. – Intersect overlay tool example.

$$\text{apportioned population} = (\text{new\_area} / \text{original\_area}) * \text{total\_population}$$

## Neighborhood Definitions

### Prefixes and Buffer Distances (r1, r2, n1, n2)

**Radial Buffer 0.5 km, abbrev - r1**

Radial (Euclidean) buffer of **0.5 km** from place point.

**Radial Buffer 1.0 km, abbrev – r2**

Radial (Euclidean) buffer of **1 km** from place point.

**Network Buffer 0.5 km, abbrev - n1**

Street network buffer of **0.5 km** from place point.

**Network Buffer 1.0 km, abbrev – n2**

Street network buffer of **1.0 km** from place point.

## Variables:

All data was projected into a common projection system;  
NAD\_1983\_StatePlane\_New\_York\_Long\_Island\_FIPS\_3104\_Feet - WKID: 2263 Authority: EPSG.  
See **Appendix C** for details.

All Variables will look like this (grey-bold):

**\*\*samplevariable1**

**\*\*** is the wildcard the geography type prefix (see above **Prefixes and Buffer Distances (r1, r2, n1, n2)**)

## Study Subject, Administrative and Neighborhood Geography Variables

### **uid**

A unique record identifier that was created by Daniel M. Sheehan of BEH for tracking records through geoprocessing events. The unique subject identification number created by BEH.

### **subjectid**

There are **98** unique SubjectIDs. These prefix signifies if it was a restaurant (RE) or a interview location (RB).

### **borocode**

NYC boro boundary identification from spatial join-intersection.

### **boroname**

NYC Borough Name.

### **borocd (Community District)**

Community District ID (for New York City) that each point falls inside.

### **cb2010gid**

Census Tract 2000 id of the address point.

### **cb2010gid**

Census Tract 2010 id of the address point.

### **ct2010gid**

Census Tract 2000 id of the address point.

### **ct2010gid**

Census Tract 2010 id of the address point.

### **zipcode**

ZIP code of the address point.

### **uhf34\_code**

UHF 34 code of the address point.

### **uhf42\_code**

UHF 42 code of the address point.

### **\*\*landareasqmeters**

Area of Neighborhood Geography (**\*\***) in square meters.

### **comdis (Community District)**

Community District ID (for New York City) that each point falls inside.

## Farmers Markets

2015 Farmers Markets from NYS Open Data – updated July 20, 2015. Text below Copied from accompanying document:

### Farmers Markets in New York State

Farmers Markets operate year round in all regions of New York State from North Tonawanda to the tip of Long Island and all points in between, providing consumers access to the highest quality farm fresh products along with the opportunity to interact with the farmers who grew and brought those products to market. The diversity of products at a typical market ranges from fruits and vegetables to value added products such as maple syrup, cheese and wine. In addition, many markets now have vendors selling unique foods ready to eat or to take home and enjoy with your family. Every year the number and types of markets and the diversity of products expands the choices local products available to consumers. The one common denominator is that the products will be the best money can buy from the finest producers in the world

### General Description

#### Farmers Market Nutrition Program (FMNP)

The New York State Farmers Market Nutrition Program, (FMNP) began as a \$100,000 state pilot project in 1988, operating at five farmers' markets and benefiting 61 farmers, 4,374 WIC families, and 2,000 Seniors. The WIC component of the program grew significantly following a \$509,600 USDA grant to New York State in 1989 under the three-year federal WIC Farmers' Market Coupon Demonstration Project. Enactment of the WIC Farmers' Market Nutrition Program (WIC FMNP) by Congress in 1992 made it possible for the FMNP to operate on a statewide basis and to reach an increasing number of WIC participants each year. Establishment of the Senior Farmers' Market Nutrition Program (SFMNP) by USDA in 2001, and its enactment by Congress as part of the 2002 Farm Bill, enabled the program to expand to serve all the county Area Agencies on Aging operating in New York State.

Both the Senior and WIC FMNPs served as vehicle for the expansion of the network of community farmers markets in New York State. The expansion in the number of farmers and markets has given customers greater access to a wider variety of fresh, locally produced products than was ever possible in the past.

In 2013, the FMNP operated at 511 farmers' markets in all 62 counties, benefiting 934 farmers, 237,248 WIC households, and 102,568 low-income Seniors and operating through hundreds of WIC local agency and Senior sites. In New York City it operates through 139 farmers' markets in all of the city's five boroughs. Under the FMNP, more than \$4.2 million in locally grown fresh produce was purchased at farmers' markets in 2013 by WIC families and Seniors (excluding cash sales) and added to the local farm economy -- over \$80 million since the program began in 1988.

#### EBT/Food Stamps/SNAP Program

In addition to FMNP customers can now use their federal Supplemental Nutrition Assistance Program (SNAP) benefits at community farmers markets using wireless technology refined in New York State. As of 2002, all states were required by the federal government to have an Electronic Benefits Transfer (EBT) program to deliver SNAP benefits electronically to food stamp recipients, replacing paper-based food stamps. In 2002, New York State implemented a pilot program in the NYC metro area with 18 individual farmers, generating \$3,000 in SNAP sales. With the evolution of more advanced technology, specifically the transition from analog to digital wireless terminal technology, both SNAP sales and the geographic distribution of the program at farmers markets have grown significantly. In 2012, SNAP sales totaled \$2.6 million and the program operated at 292 farmers markets, 9 mobile markets, 53 NYC Green Carts, and with 18 farmers and 10 Community Supported Agriculture programs (CSAs).

#### Data Collection Methodology

Data on farmers and community farmers markets is collected annually beginning in February and extending well into the summer and early fall. Mailings are sent to markets and farmers listed in the database from the previous year. In addition, any new markets are solicited through channels to register their markets and farmers for inclusion on the Department of Agriculture and Markets website and to participate in the various nutrition programs administered by the Department. Data provided is used to update a master database that is used to update the Department website and to administer the state and federal nutrition Programs.

#### Statistical and Analytic Issues.

Many of the market managers supplying data to the Department are part time volunteers. Data is not always provided in a timely fashion and often has inconsistencies that when discovered are investigated and cleared up. The main database is always a work in progress and requires considerable manpower to keep it accurate and up to date.

#### Limitations of Data Use

Information on the times and places of community farmers markets as well as contact information on market managers and their phone numbers are subject to continuous change. Every effort is made to keep the database up to date, but if the Department is not notified of changes taking place after the initial information is collected in the spring there is no way to know that a listing may need to be updated until the data is collected the following spring. Consumers are strongly encouraged to use the information posted on the Department's website if they have questions regarding a specific market.

**\*\*farmersmarkets**

Count of Farmers Markets in Neighborhood Geography (\*\*).

## Slaughterhouses

2009 Slaughterhouses in New York City. As FOILed and geocoded by BEH-GIS (James Quinn). More current Slaughterhouses data is available but would need additional time for geocoding.

**\*\*slaughterhouses**

Count of Slaughterhouses in Neighborhood Geography (\*\*).

## Census Demographic Variables

Census Tract ACS 2008-2012 variables were acquired from the US Census Bureau API [ <https://www.census.gov/developers/> ] at the 2010 Census Tract, Block unit or level of geography. These variables were created using areal weighting interpolation. The original census variable names were slightly modified in order to provide a systematic naming convention across all project neighborhood definitions and to provide an indicator of the type of variable being provided. The ACS census variable names use the following naming convention:

**\*\* (for Neighborhood Geography (r1, r2, n1, n2)) + ^^^ (Census Year-Type) + variable**

*Example: r1acsptage35up.* (Percent population 34 years of age and younger in neighborhood geography radial buffer 1 (264 foot radial distance from place point) using area weighted interpolation calculation).

**Census Year-Type (^^^)** ['acs']

acs = American Community Survey 2008-2012 5 Year

For a full list of all variables mined and calculated for each neighborhood using area-weighted interpolation see Appendix A for American Community Survey (ACS) 2008-2012 5 Year (Census Tract Level variables) and

## Total Population Variables

**\*\*acstotpop**

Area weighted total population derived from American Community Survey (ACS) 2008-2012 5 Year (Census Tract Level variables) in Neighborhood Geography (\*\*).

## Age-related Variables

**\*\*^^^pctage34nunder**

Percent population 34 years of age and younger in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
( df[geo+'B01001003E'] + df[geo+'B01001004E'] + df[geo+'B01001005E'] +  
df[geo+'B01001006E'] + df[geo+'B01001007E'] + df[geo+'B01001008E'] + df[geo+'B01001009E']  
+ df[geo+'B01001010E'] + df[geo+'B01001011E'] + df[geo+'B01001012E'] +  
df[geo+'B01001027E'] + df[geo+'B01001028E'] + df[geo+'B01001029E'] + df[geo+'B01001030E']  
+ df[geo+'B01001031E'] + df[geo+'B01001032E'] + df[geo+'B01001033E'] +  
df[geo+'B01001034E'] + df[geo+'B01001035E'] + df[geo+'B01001036E'] ) /  
df[geo+'B01001001E']
```

US Census 2010

```
( df[geo+'P0120003'] + df[geo+'P0120004'] + df[geo+'P0120005'] + df[geo+'P0120006'] +  
df[geo+'P0120007'] + df[geo+'P0120008'] + df[geo+'P0120009'] + df[geo+'P0120010'] +  
df[geo+'P0120011'] + df[geo+'P0120012'] + df[geo+'P0120027'] + df[geo+'P0120028'] +  
df[geo+'P0120029'] + df[geo+'P0120030'] + df[geo+'P0120031'] + df[geo+'P0120032'] +  
df[geo+'P0120033'] + df[geo+'P0120034'] + df[geo+'P0120035'] + df[geo+'P0120036'] ) /  
df[geo+'P0120001']
```

**\*\*^^^pctage35up**

Percent population 35 years of age and older in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
( df[geo+'B01001013E'] + df[geo+'B01001014E'] + df[geo+'B01001015E'] +  
df[geo+'B01001016E'] + df[geo+'B01001017E'] + df[geo+'B01001018E'] + df[geo+'B01001019E']  
+ df[geo+'B01001020E'] + df[geo+'B01001021E'] + df[geo+'B01001022E'] +  
df[geo+'B01001023E'] + df[geo+'B01001024E'] + df[geo+'B01001025E'] + df[geo+'B01001037E']  
+ df[geo+'B01001038E'] + df[geo+'B01001039E'] + df[geo+'B01001040E'] +  
df[geo+'B01001041E'] + df[geo+'B01001042E'] + df[geo+'B01001043E'] + df[geo+'B01001044E']  
+ df[geo+'B01001045E'] + df[geo+'B01001046E'] + df[geo+'B01001047E'] +  
df[geo+'B01001048E'] + df[geo+'B01001049E'] ) / df[geo+'B01001001E']
```

US Census 2010

```
( df[geo+'P0120013'] + df[geo+'P0120014'] + df[geo+'P0120015'] + df[geo+'P0120016'] +  
df[geo+'P0120017'] + df[geo+'P0120018'] + df[geo+'P0120019'] + df[geo+'P0120020'] +  
df[geo+'P0120021'] + df[geo+'P0120022'] + df[geo+'P0120023'] + df[geo+'P0120024'] +
```



```
df[geo+'P0120024'] + df[geo+'P0120025'] + df[geo+'P0120037'] + df[geo+'P0120038'] +
df[geo+'P0120039'] + df[geo+'P0120040'] + df[geo+'P0120041'] + df[geo+'P0120042'] +
df[geo+'P0120043'] + df[geo+'P0120044'] + df[geo+'P0120045'] + df[geo+'P0120046'] +
df[geo+'P0120047'] + df[geo+'P0120048'] + df[geo+'P0120049'] ) / df[geo+'P0120001']
```

#### **\*\*^^^pctage60up**

Percent population 60 years of age and older in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
( df[geo+'B01001018E'] + df[geo+'B01001019E'] + df[geo+'B01001020E'] +
df[geo+'B01001021E'] + df[geo+'B01001022E'] + df[geo+'B01001023E'] + df[geo+'B01001024E']
+ df[geo+'B01001025E'] + df[geo+'B01001042E'] + df[geo+'B01001043E'] +
df[geo+'B01001044E'] + df[geo+'B01001045E'] + df[geo+'B01001046E'] + df[geo+'B01001047E']
+ df[geo+'B01001048E'] + df[geo+'B01001049E'] ) / df[geo+'B01001001E']
```

US Census 2010

```
( df[geo+'P0120018'] + df[geo+'P0120019'] + df[geo+'P0120020'] + df[geo+'P0120021'] +
df[geo+'P0120022'] + df[geo+'P0120023'] + df[geo+'P0120024'] + df[geo+'P0120025'] +
df[geo+'P0120042'] + df[geo+'P0120043'] + df[geo+'P0120044'] + df[geo+'P0120045'] +
df[geo+'P0120046'] + df[geo+'P0120047'] + df[geo+'P0120048'] + df[geo+'P0120049'] ) /
df[geo+'P0120001']
```

#### **\*\*^^^pctage18\_24**

Percent population 18-24 years of age in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
( df[geo+'B01001007E'] + df[geo+'B01001008E'] + df[geo+'B01001009E'] +
df[geo+'B01001010E'] + df[geo+'B01001031E'] + df[geo+'B01001032E'] + df[geo+'B01001033E']
+ df[geo+'B01001034E'] ) / df[geo+'B01001001E']
```

US Census 2010

```
( df[geo+'P0120007'] + df[geo+'P0120008'] + df[geo+'P0120009'] + df[geo+'P0120010'] +
df[geo+'P0120031'] + df[geo+'P0120032'] + df[geo+'P0120033'] + df[geo+'P0120034'] ) /
df[geo+'P0120001']
```

#### **\*\*^^^pctage25\_34**

Percent population 25-34 years of age in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
( df[geo+'B01001011E'] + df[geo+'B01001012E'] + df[geo+'B01001035E'] +
df[geo+'B01001036E'] ) / df[geo+'B01001001E']
```

US Census 2010

```
( df[geo+'P0120011'] + df[geo+'P0120017'] + df[geo+'P0120035'] + df[geo+'P0120036'] ) /
df[geo+'P0120001']
```

#### **\*\*^^^pctage35\_44**

Percent population 35-44 years of age in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
( df[geo+'B01001013E'] + df[geo+'B01001014E'] + df[geo+'B01001037E'] +
df[geo+'B01001038E'] ) / df[geo+'B01001001E']
```

US Census 2010

```
( df[geo+'P0120013'] + df[geo+'P0120014'] + df[geo+'P0120037'] + df[geo+'P0120038'] ) /
df[geo+'P0120001']
```

#### **\*\*^^^pctage45\_54**

Percent population 45-54 years of age in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
( df[geo+'B01001015E'] + df[geo+'B01001016E'] + df[geo+'B01001039E'] +
df[geo+'B01001040E'] ) / df[geo+'B01001001E']
```

US Census 2010

```
( df[geo+'P0120015'] + df[geo+'P0120016'] + df[geo+'P0120039'] + df[geo+'P0120040'] ) /
df[geo+'P0120001']
```

#### **\*\*^^^pctage55\_64**

Percent population 55-64 years of age in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
( df[geo+'B01001017E'] + df[geo+'B01001018E'] + df[geo+'B01001019E'] +
df[geo+'B01001041E'] + df[geo+'B01001042E'] + df[geo+'B01001043E'] ) /
df[geo+'B01001001E']
```

US Census 2010

```
( df[geo+'P0120017'] + df[geo+'P0120018'] + df[geo+'P0120019'] + df[geo+'P0120041'] +
df[geo+'P0120042'] + df[geo+'P0120043'] ) / df[geo+'P0120001']
```

#### **\*\*\*pctage65up**

Percent population 65 years of age and older in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
( df[geo+'B01001020E'] + df[geo+'B01001021E'] + df[geo+'B01001022E'] +
df[geo+'B01001023E'] + df[geo+'B01001024E'] + df[geo+'B01001025E'] + df[geo+'B01001044E']
+ df[geo+'B01001045E'] + df[geo+'B01001046E'] + df[geo+'B01001047E'] +
df[geo+'B01001048E'] + df[geo+'B01001049E'] ) / df[geo+'B01001001E']
```

US Census 2010

```
( df[geo+'P0120020'] + df[geo+'P0120021'] + df[geo+'P0120022'] + df[geo+'P0120023'] +
df[geo+'P0120024'] + df[geo+'P0120025'] + df[geo+'P0120044'] + df[geo+'P0120045'] +
df[geo+'P0120046'] + df[geo+'P0120047'] + df[geo+'P0120048'] + df[geo+'P0120049'] ) /
df[geo+'P0120001']
```

## **Sex, Race, Economic, Etc. Variables**

#### **\*\*\*pctmale**

Percent population Male in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
df[geo+'B01001002E'] / df[geo+'B01001001E']
```

US Census 2010

```
df[geo+'P0120002'] / df[geo+'P0120001']
```

#### **\*\*\*pctwhite**

Percent population white in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
df[geo+'B02001002E'] / df[geo+'B02001001E']
```

US Census 2010

```
df[geo+'P0030002'] / df[geo+'P0030001']
```

#### **\*\*\*pcthisp**

Percent population Hispanic in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
df[geo+'B03002012E'] / df[geo+'B03002001E']
```

US Census 2010

```
df[geo+'P0040003'] / df[geo+'P0040001']
```

#### **\*\*\*pctblack**

Percent population Black in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
df[geo+'B02001003E'] / df[geo+'B02001001E']
```

US Census 2010

```
df[geo+'P0030003'] / df[geo+'P0030001']
```

#### **\*\*\*pctasian**

Percent population Asian in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
df[geo+'B02001005E'] / df[geo+'B02001001E']
```

US Census 2010

```
df[geo+'P0030005'] / df[geo+'P0030001']
```

#### **\*\*\*pctother**

Percent population Other (than Asian, Black or White) in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

```
( df[geo+'B02001004E'] + df[geo+'B02001006E'] + df[geo+'B02001007E'] +
df[geo+'B02001008E'] ) / df[geo+'B02001001E']
```

US Census 2010

```
( df[geo+'P0030004'] + df[geo+'P0030006'] + df[geo+'P0030007'] + df[geo+'P0030008'] ) /
df[geo+'P0030001']
```

**\*\*\*^pctforborn**

Percent population foreign born in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

( df[geo+'B05001005E'] + df[geo+'B05001006E'] ) / df[geo+'B05001001E']

**\*\*\*^pctlingiso**

Percent population linguistic isolation in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

( df[geo+'B16002004E'] + df[geo+'B16002007E'] + df[geo+'B16002010E'] +  
df[geo+'B16002013E'] ) / df[geo+'B16002001E']

**\*\*\*^pcthownocc**

Percent household owner in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

df[geo+'B25003002E'] / df[geo+'B25003001E']

US Census 2010

( df[geo+'H0040002'] + df[geo+'H0040003'] ) / df[geo+'H0040001']

**\*\*\*^pctsameh1y**

Percent population in same house 1 year ago in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

df[geo+'B07001017E'] / df[geo+'B07001001E']

**\*\*\*^pctpov**

Percent population in poverty in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

( df[geo+'C17002002E'] + df[geo+'C17002003E'] ) / df[geo+'C17002001E']

**\*\*\*^pctpub**

Percent population with public assistance in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

df[geo+'B19057002E'] / df[geo+'B19057001E']

**\*\*\*^pctfemheadhh**

Percent households with Female householder, no husband present in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

df[geo+'B11001006E'] / df[geo+'B11001001E']

**\*\*\*^pctearn50kup**

Percent population 15 years and over who work full-time in past 12 months that make \$50,000 and over in income in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

( df[geo+'B19325021E'] + df[geo+'B19325022E'] + df[geo+'B19325023E'] +  
df[geo+'B19325024E'] + df[geo+'B19325025E'] + df[geo+'B19325044E'] + df[geo+'B19325045E']  
+ df[geo+'B19325046E'] + df[geo+'B19325047E'] + df[geo+'B19325048E'] ) /  
df[geo+'B19325001E']

**\*\*\*^pctunemploy**

Percent population 16 years and over who are civilians in the labor force that are unemployed in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

( df[geo+'B23001008E'] + df[geo+'B23001015E'] + df[geo+'B23001022E'] +  
df[geo+'B23001029E'] + df[geo+'B23001036E'] + df[geo+'B23001043E'] + df[geo+'B23001050E']  
+ df[geo+'B23001057E'] + df[geo+'B23001064E'] + df[geo+'B23001071E'] +  
df[geo+'B23001076E'] + df[geo+'B23001081E'] + df[geo+'B23001086E'] + df[geo+'B23001094E']  
+ df[geo+'B23001101E'] + df[geo+'B23001108E'] + df[geo+'B23001115E'] +  
df[geo+'B23001122E'] + df[geo+'B23001129E'] + df[geo+'B23001136E'] + df[geo+'B23001143E']  
+ df[geo+'B23001150E'] + df[geo+'B23001157E'] + df[geo+'B23001162E'] +  
df[geo+'B23001167E'] + df[geo+'B23001172E'] ) / df[geo+'B23001001E']

**\*\*\*^pctjobmanagr**

Percent population 16 years and over in Management, business, science, and arts occupations in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

$(df[geo+'C24010003E'] + df[geo+'C24010039E']) / df[geo+'C24010001E']$

**\*\*\*^pctednohisch**

Percent population 25 years and over with no high school diploma or GED or alternative in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

$(df[geo+'B15002003E'] + df[geo+'B15002004E'] + df[geo+'B15002005E'] + df[geo+'B15002006E'] + df[geo+'B15002007E'] + df[geo+'B15002008E'] + df[geo+'B15002009E'] + df[geo+'B15002010E'] + df[geo+'B15002020E'] + df[geo+'B15002021E'] + df[geo+'B15002022E'] + df[geo+'B15002023E'] + df[geo+'B15002024E'] + df[geo+'B15002025E'] + df[geo+'B15002026E'] + df[geo+'B15002027E']) / df[geo+'B15002001E']$

**\*\*\*^pctedyeshisch**

Percent population 25 years and over with at least a high school diploma or GED or alternative in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

$(df[geo+'B15002011E'] + df[geo+'B15002012E'] + df[geo+'B15002013E'] + df[geo+'B15002014E'] + df[geo+'B15002015E'] + df[geo+'B15002016E'] + df[geo+'B15002017E'] + df[geo+'B15002018E'] + df[geo+'B15002028E'] + df[geo+'B15002029E'] + df[geo+'B15002030E'] + df[geo+'B15002031E'] + df[geo+'B15002032E'] + df[geo+'B15002033E'] + df[geo+'B15002034E'] + df[geo+'B15002035E']) / df[geo+'B15002001E']$

**\*\*\*^pctedcolgeup**

Percent population 25 years and over with at least Associate's degree, Bachelor's degree, Master's degree, Professional school degree or Doctorate degree in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

$(df[geo+'B15002014E'] + df[geo+'B15002015E'] + df[geo+'B15002016E'] + df[geo+'B15002017E'] + df[geo+'B15002018E'] + df[geo+'B15002031E'] + df[geo+'B15002032E'] + df[geo+'B15002033E'] + df[geo+'B15002034E'] + df[geo+'B15002035E']) / df[geo+'B15002001E']$

**\*\*\*^medhhinc**

Median Household Income in Neighborhood Geography (\*\*).

American Community Survey 2008-2012 (5-year)

$df[geo+'B19013001E'] / df[geo+'countrows']$

## Unmarried Partner Households Variables

**\*\*\*^pctunmarprhh**

Percent Unmarried partner households in Neighborhood Geography (\*\*).

$df[geo+'B11009002E'] / df[geo+'B11009001E']$

**\*\*\*^pctsamsexhh**

Percent Male Householder and male partner OR Female Householder and female partner Unmarried partner households in Neighborhood Geography (\*\*).

$(df[geo+'B11009003E'] + df[geo+'B11009005E']) / df[geo+'B11009001E']$

**\*\*\*^pctmalparhh**

Percent Male Householder and male partner Unmarried partner households in Neighborhood Geography (\*\*).

$df[geo+'B11009003E'] / df[geo+'B11009001E']$

**\*\*\*^pctfemparhh**

Percent Female Householder and female partner Unmarried partner households in Neighborhood Geography (\*\*).

$df[geo+'B11009005E'] / df[geo+'B11009001E']$

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## Appendix A: 2008-2012 5-Year American Community Survey (ACS) Variables:

Census Tract ACS 2008-2012 variables were acquired from the US Census Bureau API [ <https://www.census.gov/developers/> ] at the 2010 Census Tract, Block unit or level of geography. These variables were created using areal weighting interpolation. The original census variable names were slightly modified in order to provide a systematic naming convention across all project neighborhood definitions and to provide an indicator of the type of variable being provided. The ACS census variable names use the following naming convention:

**\*\* (for Neighborhood Geography (cb, ct, rl, n1, n2)) + variable (for ACS data an 'E' is appended to the variable name as all values are 'Estimates' – for example B01001001E for B01001001.)**

B01001			<b>SEX BY AGE</b>
B01001			<u>Universe: Total population</u>
B01001	1	<b>B01001001</b>	Total:
B01001	2	<b>B01001002</b>	Male:
B01001	3	<b>B01001003</b>	Under 5 years
B01001	4	<b>B01001004</b>	5 to 9 years
B01001	5	<b>B01001005</b>	10 to 14 years
B01001	6	<b>B01001006</b>	15 to 17 years
B01001	7	<b>B01001007</b>	18 and 19 years
B01001	8	<b>B01001008</b>	20 years
B01001	9	<b>B01001009</b>	21 years
B01001	10	<b>B01001010</b>	22 to 24 years
B01001	11	<b>B01001011</b>	25 to 29 years
B01001	12	<b>B01001012</b>	30 to 34 years
B01001	13	<b>B01001013</b>	35 to 39 years
B01001	14	<b>B01001014</b>	40 to 44 years
B01001	15	<b>B01001015</b>	45 to 49 years
B01001	16	<b>B01001016</b>	50 to 54 years
B01001	17	<b>B01001017</b>	55 to 59 years
B01001	18	<b>B01001018</b>	60 and 61 years
B01001	19	<b>B01001019</b>	62 to 64 years
B01001	20	<b>B01001020</b>	65 and 66 years
B01001	21	<b>B01001021</b>	67 to 69 years
B01001	22	<b>B01001022</b>	70 to 74 years

B01001	23	B01001023	75 to 79 years
B01001	24	B01001024	80 to 84 years
B01001	25	B01001025	85 years and over
B01001	26	B01001026	Female:
B01001	27	B01001027	Under 5 years
B01001	28	B01001028	5 to 9 years
B01001	29	B01001029	10 to 14 years
B01001	30	B01001030	15 to 17 years
B01001	31	B01001031	18 and 19 years
B01001	32	B01001032	20 years
B01001	33	B01001033	21 years
B01001	34	B01001034	22 to 24 years
B01001	35	B01001035	25 to 29 years
B01001	36	B01001036	30 to 34 years
B01001	37	B01001037	35 to 39 years
B01001	38	B01001038	40 to 44 years
B01001	39	B01001039	45 to 49 years
B01001	40	B01001040	50 to 54 years
B01001	41	B01001041	55 to 59 years
B01001	42	B01001042	60 and 61 years
B01001	43	B01001043	62 to 64 years
B01001	44	B01001044	65 and 66 years
B01001	45	B01001045	67 to 69 years
B01001	46	B01001046	70 to 74 years
B01001	47	B01001047	75 to 79 years
B01001	48	B01001048	80 to 84 years
B01001	49	B01001049	85 years and over

B02001 **RACE**

B02001 Universe: Total population

B02001	1	B02001001	Total:
B02001	2	B02001002	White alone
B02001	3	B02001003	Black or African American alone
B02001	4	B02001004	American Indian and Alaska Native alone
B02001	5	B02001005	Asian alone
B02001	6	B02001006	Native Hawaiian and Other Pacific Islander alone
B02001	7	B02001007	Some other race alone
B02001	8	B02001008	Two or more races:
B02001	9	B02001009	Two races including Some other race
B02001	10	B02001010	Two races excluding Some other race, and three or more races
B03002			HISPANIC OR LATINO ORIGIN BY RACE
B03002			Universe: Total population
B03002	1	B03002001	Total:
B03002	2	B03002002	Not Hispanic or Latino:
B03002	3	B03002003	White alone
B03002	4	B03002004	Black or African American alone
B03002	5	B03002005	American Indian and Alaska Native alone
B03002	6	B03002006	Asian alone
B03002	7	B03002007	Native Hawaiian and Other Pacific Islander alone
B03002	8	B03002008	Some other race alone
B03002	9	B03002009	Two or more races:
B03002	10	B03002010	Two races including Some other race
B03002	11	B03002011	Two races excluding Some other race, and three or more races
B03002	12	B03002012	Hispanic or Latino:
B03002	13	B03002013	White alone
B03002	14	B03002014	Black or African American alone
B03002	15	B03002015	American Indian and Alaska Native alone
B03002	16	B03002016	Asian alone
B03002	17	B03002017	Native Hawaiian and Other Pacific Islander alone
B03002	18	B03002018	Some other race alone



B03002	19	<b>B03002019</b>	Two or more races:
B03002	20	<b>B03002020</b>	Two races including Some other race
B03002	21	<b>B03002021</b>	Two races excluding Some other race, and three or more races

## B05001 **NATIVITY AND CITIZENSHIP STATUS IN THE UNITED STATES**

B05001 *Universe: Total population in the United States*

B05001	1	<b>B05001001</b>	Total:
B05001	2	<b>B05001002</b>	U.S. citizen, born in the United States
B05001	3	<b>B05001003</b>	U.S. citizen, born in Puerto Rico or U.S. Island Areas
B05001	4	<b>B05001004</b>	U.S. citizen, born abroad of American parent(s)
B05001	5	<b>B05001005</b>	U.S. citizen by naturalization
B05001	6	<b>B05001006</b>	Not a U.S. citizen

## B05002 **PLACE OF BIRTH BY NATIVITY AND CITIZENSHIP STATUS**

B05002 *Universe: Total population*

B05002	1	<b>B05002001</b>	Total:
B05002	2	<b>B05002002</b>	Native:
B05002	3	<b>B05002003</b>	Born in state of residence
B05002	4	<b>B05002004</b>	Born in other state in the United States:
B05002	5	<b>B05002005</b>	Northeast
B05002	6	<b>B05002006</b>	Midwest
B05002	7	<b>B05002007</b>	South
B05002	8	<b>B05002008</b>	West
B05002	9	<b>B05002009</b>	Born outside the United States:
B05002	10	<b>B05002010</b>	Puerto Rico
B05002	11	<b>B05002011</b>	U.S. Island Areas
B05002	12	<b>B05002012</b>	Born abroad of American parent(s)
B05002	13	<b>B05002013</b>	Foreign born:
B05002	14	<b>B05002014</b>	Naturalized U.S. citizen
B05002	15	<b>B05002015</b>	Not a U.S. citizen

GEOGRAPHICAL MOBILITY IN THE PAST YEAR BY AGE FOR CURRENT RESIDENCE IN THE UNITED STATES			
B07001			
B07001			<i>Universe: Population 1 year and over in the United States</i>
B07001	1	B07001001	Total:
B07001	2	B07001002	1 to 4 years
B07001	3	B07001003	5 to 17 years
B07001	4	B07001004	18 and 19 years
B07001	5	B07001005	20 to 24 years
B07001	6	B07001006	25 to 29 years
B07001	7	B07001007	30 to 34 years
B07001	8	B07001008	35 to 39 years
B07001	9	B07001009	40 to 44 years
B07001	10	B07001010	45 to 49 years
B07001	11	B07001011	50 to 54 years
B07001	12	B07001012	55 to 59 years
B07001	13	B07001013	60 to 64 years
B07001	14	B07001014	65 to 69 years
B07001	15	B07001015	70 to 74 years
B07001	16	B07001016	75 years and over
B07001	17	B07001017	Same house 1 year ago:
B07001	18	B07001018	1 to 4 years
B07001	19	B07001019	5 to 17 years
B07001	20	B07001020	18 and 19 years
B07001	21	B07001021	20 to 24 years
B07001	22	B07001022	25 to 29 years
B07001	23	B07001023	30 to 34 years
B07001	24	B07001024	35 to 39 years
B07001	25	B07001025	40 to 44 years
B07001	26	B07001026	45 to 49 years
B07001	27	B07001027	50 to 54 years
B07001	28	B07001028	55 to 59 years

B07001	29	<b>B07001029</b>	60 to 64 years
B07001	30	<b>B07001030</b>	65 to 69 years
B07001	31	<b>B07001031</b>	70 to 74 years
B07001	32	<b>B07001032</b>	75 years and over
B07001	33	<b>B07001033</b>	Moved within same county:
B07001	34	<b>B07001034</b>	1 to 4 years
B07001	35	<b>B07001035</b>	5 to 17 years
B07001	36	<b>B07001036</b>	18 and 19 years
B07001	37	<b>B07001037</b>	20 to 24 years
B07001	38	<b>B07001038</b>	25 to 29 years
B07001	39	<b>B07001039</b>	30 to 34 years
B07001	40	<b>B07001040</b>	35 to 39 years
B07001	41	<b>B07001041</b>	40 to 44 years
B07001	42	<b>B07001042</b>	45 to 49 years
B07001	43	<b>B07001043</b>	50 to 54 years
B07001	44	<b>B07001044</b>	55 to 59 years
B07001	45	<b>B07001045</b>	60 to 64 years
B07001	46	<b>B07001046</b>	65 to 69 years
B07001	47	<b>B07001047</b>	70 to 74 years
B07001	48	<b>B07001048</b>	75 years and over
B07001	49	<b>B07001049</b>	Moved from different county within same state:
B07001	50	<b>B07001050</b>	1 to 4 years
B07001	51	<b>B07001051</b>	5 to 17 years
B07001	52	<b>B07001052</b>	18 and 19 years
B07001	53	<b>B07001053</b>	20 to 24 years
B07001	54	<b>B07001054</b>	25 to 29 years
B07001	55	<b>B07001055</b>	30 to 34 years
B07001	56	<b>B07001056</b>	35 to 39 years
B07001	57	<b>B07001057</b>	40 to 44 years
B07001	58	<b>B07001058</b>	45 to 49 years

B07001	59	<b>B07001059</b>	50 to 54 years
B07001	60	<b>B07001060</b>	55 to 59 years
B07001	61	<b>B07001061</b>	60 to 64 years
B07001	62	<b>B07001062</b>	65 to 69 years
B07001	63	<b>B07001063</b>	70 to 74 years
B07001	64	<b>B07001064</b>	75 years and over
B07001	65	<b>B07001065</b>	Moved from different state:
B07001	66	<b>B07001066</b>	1 to 4 years
B07001	67	<b>B07001067</b>	5 to 17 years
B07001	68	<b>B07001068</b>	18 and 19 years
B07001	69	<b>B07001069</b>	20 to 24 years
B07001	70	<b>B07001070</b>	25 to 29 years
B07001	71	<b>B07001071</b>	30 to 34 years
B07001	72	<b>B07001072</b>	35 to 39 years
B07001	73	<b>B07001073</b>	40 to 44 years
B07001	74	<b>B07001074</b>	45 to 49 years
B07001	75	<b>B07001075</b>	50 to 54 years
B07001	76	<b>B07001076</b>	55 to 59 years
B07001	77	<b>B07001077</b>	60 to 64 years
B07001	78	<b>B07001078</b>	65 to 69 years
B07001	79	<b>B07001079</b>	70 to 74 years
B07001	80	<b>B07001080</b>	75 years and over
B07001	81	<b>B07001081</b>	Moved from abroad:
B07001	82	<b>B07001082</b>	1 to 4 years
B07001	83	<b>B07001083</b>	5 to 17 years
B07001	84	<b>B07001084</b>	18 and 19 years
B07001	85	<b>B07001085</b>	20 to 24 years
B07001	86	<b>B07001086</b>	25 to 29 years
B07001	87	<b>B07001087</b>	30 to 34 years
B07001	88	<b>B07001088</b>	35 to 39 years

B07001	89	<b>B07001089</b>	40 to 44 years
B07001	90	<b>B07001090</b>	45 to 49 years
B07001	91	<b>B07001091</b>	50 to 54 years
B07001	92	<b>B07001092</b>	55 to 59 years
B07001	93	<b>B07001093</b>	60 to 64 years
B07001	94	<b>B07001094</b>	65 to 69 years
B07001	95	<b>B07001095</b>	70 to 74 years
B07001	96	<b>B07001096</b>	75 years and over

**B11001** **HOUSEHOLD TYPE (INCLUDING LIVING ALONE)**

**B11001** *Universe: Households*

B11001	1	<b>B11001001</b>	Total:
B11001	2	<b>B11001002</b>	Family households:
B11001	3	<b>B11001003</b>	Married-couple family
B11001	4	<b>B11001004</b>	Other family:
B11001	5	<b>B11001005</b>	Male householder, no wife present
B11001	6	<b>B11001006</b>	Female householder, no husband present
B11001	7	<b>B11001007</b>	Nonfamily households:
B11001	8	<b>B11001008</b>	Householder living alone
B11001	9	<b>B11001009</b>	Householder not living alone

**B11009** **UNMARRIED-PARTNER HOUSEHOLDS BY SEX OF PARTNER**

**B11009** Universe: Households

B11009	1	<b>B11009001</b>	Total:
B11009	2	<b>B11009002</b>	Unmarried-partner households:
B11009	3	<b>B11009003</b>	Male householder and male partner
B11009	4	<b>B11009004</b>	Male householder and female partner
B11009	5	<b>B11009005</b>	Female householder and female partner
B11009	6	<b>B11009006</b>	Female householder and male partner
B11009	7	<b>B11009007</b>	All other households

LANGUAGE SPOKEN AT HOME BY ABILITY TO SPEAK ENGLISH FOR THE POPULATION 5 YEARS AND OVER			
B16001			<i>Universe: Population 5 years and over</i>
B16001			
B16001	1	B16001001	Total:
B16001	2	B16001002	Speak only English
B16001	3	B16001003	Spanish or Spanish Creole:
B16001	4	B16001004	Speak English "very well"
B16001	5	B16001005	Speak English less than "very well"
B16001	6	B16001006	French (incl. Patois, Cajun):
B16001	7	B16001007	Speak English "very well"
B16001	8	B16001008	Speak English less than "very well"
B16001	9	B16001009	French Creole:
B16001	10	B16001010	Speak English "very well"
B16001	11	B16001011	Speak English less than "very well"
B16001	12	B16001012	Italian:
B16001	13	B16001013	Speak English "very well"
B16001	14	B16001014	Speak English less than "very well"
B16001	15	B16001015	Portuguese or Portuguese Creole:
B16001	16	B16001016	Speak English "very well"
B16001	17	B16001017	Speak English less than "very well"
B16001	18	B16001018	German:
B16001	19	B16001019	Speak English "very well"
B16001	20	B16001020	Speak English less than "very well"
B16001	21	B16001021	Yiddish:
B16001	22	B16001022	Speak English "very well"
B16001	23	B16001023	Speak English less than "very well"
B16001	24	B16001024	Other West Germanic languages:
B16001	25	B16001025	Speak English "very well"
B16001	26	B16001026	Speak English less than "very well"
B16001	27	B16001027	Scandinavian languages:
B16001	28	B16001028	Speak English "very well"

B16001	29	<b>B16001029</b>	Speak English less than "very well"
B16001	30	<b>B16001030</b>	Greek:
B16001	31	<b>B16001031</b>	Speak English "very well"
B16001	32	<b>B16001032</b>	Speak English less than "very well"
B16001	33	<b>B16001033</b>	Russian:
B16001	34	<b>B16001034</b>	Speak English "very well"
B16001	35	<b>B16001035</b>	Speak English less than "very well"
B16001	36	<b>B16001036</b>	Polish:
B16001	37	<b>B16001037</b>	Speak English "very well"
B16001	38	<b>B16001038</b>	Speak English less than "very well"
B16001	39	<b>B16001039</b>	Serbo-Croatian:
B16001	40	<b>B16001040</b>	Speak English "very well"
B16001	41	<b>B16001041</b>	Speak English less than "very well"
B16001	42	<b>B16001042</b>	Other Slavic languages:
B16001	43	<b>B16001043</b>	Speak English "very well"
B16001	44	<b>B16001044</b>	Speak English less than "very well"
B16001	45	<b>B16001045</b>	Armenian:
B16001	46	<b>B16001046</b>	Speak English "very well"
B16001	47	<b>B16001047</b>	Speak English less than "very well"
B16001	48	<b>B16001048</b>	Persian:
B16001	49	<b>B16001049</b>	Speak English "very well"
B16001	50	<b>B16001050</b>	Speak English less than "very well"
B16001	51	<b>B16001051</b>	Gujarati:
B16001	52	<b>B16001052</b>	Speak English "very well"
B16001	53	<b>B16001053</b>	Speak English less than "very well"
B16001	54	<b>B16001054</b>	Hindi:
B16001	55	<b>B16001055</b>	Speak English "very well"
B16001	56	<b>B16001056</b>	Speak English less than "very well"
B16001	57	<b>B16001057</b>	Urdu:
B16001	58	<b>B16001058</b>	Speak English "very well"

B16001	59	<b>B16001059</b>	Speak English less than "very well"
B16001	60	<b>B16001060</b>	Other Indic languages:
B16001	61	<b>B16001061</b>	Speak English "very well"
B16001	62	<b>B16001062</b>	Speak English less than "very well"
B16001	63	<b>B16001063</b>	Other Indo-European languages:
B16001	64	<b>B16001064</b>	Speak English "very well"
B16001	65	<b>B16001065</b>	Speak English less than "very well"
B16001	66	<b>B16001066</b>	Chinese:
B16001	67	<b>B16001067</b>	Speak English "very well"
B16001	68	<b>B16001068</b>	Speak English less than "very well"
B16001	69	<b>B16001069</b>	Japanese:
B16001	70	<b>B16001070</b>	Speak English "very well"
B16001	71	<b>B16001071</b>	Speak English less than "very well"
B16001	72	<b>B16001072</b>	Korean:
B16001	73	<b>B16001073</b>	Speak English "very well"
B16001	74	<b>B16001074</b>	Speak English less than "very well"
B16001	75	<b>B16001075</b>	Mon-Khmer, Cambodian:
B16001	76	<b>B16001076</b>	Speak English "very well"
B16001	77	<b>B16001077</b>	Speak English less than "very well"
B16001	78	<b>B16001078</b>	Hmong:
B16001	79	<b>B16001079</b>	Speak English "very well"
B16001	80	<b>B16001080</b>	Speak English less than "very well"
B16001	81	<b>B16001081</b>	Thai:
B16001	82	<b>B16001082</b>	Speak English "very well"
B16001	83	<b>B16001083</b>	Speak English less than "very well"
B16001	84	<b>B16001084</b>	Laotian:
B16001	85	<b>B16001085</b>	Speak English "very well"
B16001	86	<b>B16001086</b>	Speak English less than "very well"
B16001	87	<b>B16001087</b>	Vietnamese:
B16001	88	<b>B16001088</b>	Speak English "very well"



B16001	89	<b>B16001089</b>	Speak English less than "very well"
B16001	90	<b>B16001090</b>	Other Asian languages:
B16001	91	<b>B16001091</b>	Speak English "very well"
B16001	92	<b>B16001092</b>	Speak English less than "very well"
B16001	93	<b>B16001093</b>	Tagalog:
B16001	94	<b>B16001094</b>	Speak English "very well"
B16001	95	<b>B16001095</b>	Speak English less than "very well"
B16001	96	<b>B16001096</b>	Other Pacific Island languages:
B16001	97	<b>B16001097</b>	Speak English "very well"
B16001	98	<b>B16001098</b>	Speak English less than "very well"
B16001	99	<b>B16001099</b>	Navajo:
B16001	100	<b>B16001100</b>	Speak English "very well"
B16001	101	<b>B16001101</b>	Speak English less than "very well"
B16001	102	<b>B16001102</b>	Other Native North American languages:
B16001	103	<b>B16001103</b>	Speak English "very well"
B16001	104	<b>B16001104</b>	Speak English less than "very well"
B16001	105	<b>B16001105</b>	Hungarian:
B16001	106	<b>B16001106</b>	Speak English "very well"
B16001	107	<b>B16001107</b>	Speak English less than "very well"
B16001	108	<b>B16001108</b>	Arabic:
B16001	109	<b>B16001109</b>	Speak English "very well"
B16001	110	<b>B16001110</b>	Speak English less than "very well"
B16001	111	<b>B16001111</b>	Hebrew:
B16001	112	<b>B16001112</b>	Speak English "very well"
B16001	113	<b>B16001113</b>	Speak English less than "very well"
B16001	114	<b>B16001114</b>	African languages:
B16001	115	<b>B16001115</b>	Speak English "very well"
B16001	116	<b>B16001116</b>	Speak English less than "very well"
B16001	117	<b>B16001117</b>	Other and unspecified languages:
B16001	118	<b>B16001118</b>	Speak English "very well"

B16001	119	B16001119	Speak English less than "very well"
<b>HOUSEHOLD LANGUAGE BY HOUSEHOLDS IN WHICH NO ONE 14 AND OVER SPEAKS ENGLISH ONLY OR SPEAKS A LANGUAGE OTHER THAN ENGLISH AT HOME AND SPEAKS ENGLISH "VERY WELL"</b>			
B16002			<u>Universe: Households</u>
B16002	1	B16002001	Total:
B16002	2	B16002002	English only
B16002	3	B16002003	Spanish:
B16002	4	B16002004	No one 14 and over speaks English only or speaks English "very well"
B16002	5	B16002005	At least one person 14 and over speaks English only or speaks English "very well"
B16002	6	B16002006	Other Indo-European languages:
B16002	7	B16002007	No one 14 and over speaks English only or speaks English "very well"
B16002	8	B16002008	At least one person 14 and over speaks English only or speaks English "very well"
B16002	9	B16002009	Asian and Pacific Island languages:
B16002	10	B16002010	No one 14 and over speaks English only or speaks English "very well"
B16002	11	B16002011	At least one person 14 and over speaks English only or speaks English "very well"
B16002	12	B16002012	Other languages:
B16002	13	B16002013	No one 14 and over speaks English only or speaks English "very well"
B16002	14	B16002014	At least one person 14 and over speaks English only or speaks English "very well"
<b>AGE BY LANGUAGE SPOKEN AT HOME FOR THE POPULATION 5 YEARS AND OVER IN HOUSEHOLDS IN WHICH NO ONE 14 AND OVER SPEAKS ENGLISH ONLY OR SPEAKS A LANGUAGE OTHER THAN ENGLISH AT HOME AND SPEAKS ENGLISH "VERY WELL"</b>			
B16003			<u>Universe: Population 5 years and over in households in which no one 14 and over speaks English only or speaks a language other than English at home and speaks English "very well"</u>
B16003	1	B16003001	Total:
B16003	2	B16003002	5 to 17 years:
B16003	3	B16003003	Speak only English
B16003	4	B16003004	Speak Spanish
B16003	5	B16003005	Speak other Indo-European languages
B16003	6	B16003006	Speak Asian and Pacific Island languages

B16003	7	<b>B16003007</b>	Speak other languages
B16003	8	<b>B16003008</b>	18 years and over:
B16003	9	<b>B16003009</b>	Speak Spanish
B16003	10	<b>B16003010</b>	Speak other Indo-European languages
B16003	11	<b>B16003011</b>	Speak Asian and Pacific Island languages
B16003	12	<b>B16003012</b>	Speak other languages

#### **SEX BY EDUCATIONAL ATTAINMENT FOR THE POPULATION 25 YEARS AND OVER**

*Universe: Population 25 years and over*

B15002	1	<b>B15002001</b>	Total:
B15002	2	<b>B15002002</b>	Male:
B15002	3	<b>B15002003</b>	No schooling completed
B15002	4	<b>B15002004</b>	Nursery to 4th grade
B15002	5	<b>B15002005</b>	5th and 6th grade
B15002	6	<b>B15002006</b>	7th and 8th grade
B15002	7	<b>B15002007</b>	9th grade
B15002	8	<b>B15002008</b>	10th grade
B15002	9	<b>B15002009</b>	11th grade
B15002	10	<b>B15002010</b>	12th grade, no diploma
B15002	11	<b>B15002011</b>	High school graduate, GED, or alternative
B15002	12	<b>B15002012</b>	Some college, less than 1 year
B15002	13	<b>B15002013</b>	Some college, 1 or more years, no degree
B15002	14	<b>B15002014</b>	Associate's degree
B15002	15	<b>B15002015</b>	Bachelor's degree
B15002	16	<b>B15002016</b>	Master's degree
B15002	17	<b>B15002017</b>	Professional school degree
B15002	18	<b>B15002018</b>	Doctorate degree
B15002	19	<b>B15002019</b>	Female:
B15002	20	<b>B15002020</b>	No schooling completed
B15002	21	<b>B15002021</b>	Nursery to 4th grade

B15002	22	B15002022	5th and 6th grade
B15002	23	B15002023	7th and 8th grade
B15002	24	B15002024	9th grade
B15002	25	B15002025	10th grade
B15002	26	B15002026	11th grade
B15002	27	B15002027	12th grade, no diploma
B15002	28	B15002028	High school graduate, GED, or alternative
B15002	29	B15002029	Some college, less than 1 year
B15002	30	B15002030	Some college, 1 or more years, no degree
B15002	31	B15002031	Associate's degree
B15002	32	B15002032	Bachelor's degree
B15002	33	B15002033	Master's degree
B15002	34	B15002034	Professional school degree
B15002	35	B15002035	Doctorate degree

#### **EDUCATIONAL ATTAINMENT FOR THE POPULATION 25 YEARS AND OVER**

B15003  
B15003 *Universe: Population 25 years and over*

B15003	1	B15003001	Total:
B15003	2	B15003002	No schooling completed
B15003	3	B15003003	Nursery school
B15003	4	B15003004	Kindergarten
B15003	5	B15003005	1st grade
B15003	6	B15003006	2nd grade
B15003	7	B15003007	3rd grade
B15003	8	B15003008	4th grade
B15003	9	B15003009	5th grade
B15003	10	B15003010	6th grade
B15003	11	B15003011	7th grade
B15003	12	B15003012	8th grade
B15003	13	B15003013	9th grade

B15003	14	B15003014	10th grade
B15003	15	B15003015	11th grade
B15003	16	B15003016	12th grade, no diploma
B15003	17	B15003017	Regular high school diploma
B15003	18	B15003018	GED or alternative credential
B15003	19	B15003019	Some college, less than 1 year
B15003	20	B15003020	Some college, 1 or more years, no degree
B15003	21	B15003021	Associate's degree
B15003	22	B15003022	Bachelor's degree
B15003	23	B15003023	Master's degree
B15003	24	B15003024	Professional school degree
B15003	25	B15003025	Doctorate degree

**MEDIAN HOUSEHOLD INCOME IN THE PAST 12 MONTHS  
(IN 2012 INFLATION-ADJUSTED DOLLARS)**

B19013  
B19013 *Universe: Households*

B19013	1	B19013001	Median household income in the past 12 months (in 2012 inflation-adjusted dollar
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**SOCIAL SECURITY INCOME IN THE PAST 12 MONTHS  
FOR HOUSEHOLDS**

B19055  
B19055 *Universe: Households*

B19055	1	B19055001	Total:
B19055	2	B19055002	With Social Security income
B19055	3	B19055003	No Social Security income

**SUPPLEMENTAL SECURITY INCOME (SSI) IN THE PAST  
12 MONTHS FOR HOUSEHOLDS**

B19056  
B19056 *Universe: Households*

B19056	1	B19056001	Total:
B19056	2	B19056002	With Supplemental Security Income (SSI)
B19056	3	B19056003	No Supplemental Security Income (SSI)

**PUBLIC ASSISTANCE INCOME IN THE PAST 12 MONTHS  
FOR HOUSEHOLDS**

B19057  
B19057 *Universe: Households*

B19057	1	B19057001	Total:
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B19057	2	B19057002	With public assistance income
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B19057	3	B19057003	No public assistance income
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B19058			<b>PUBLIC ASSISTANCE INCOME OR FOOD STAMPS/SNAP IN THE PAST 12 MONTHS FOR HOUSEHOLDS</b>
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B19058			<u>Universe: Households</u>
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B19058	1	B19058001	Total:
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B19058	2	B19058002	With cash public assistance or Food Stamps/SNAP
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B19058	3	B19058003	No cash public assistance or Food Stamps/SNAP
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B19067			<b>AGGREGATE PUBLIC ASSISTANCE INCOME IN THE PAST 12 MONTHS (IN 2012 INFLATION-ADJUSTED DOLLARS) FOR HOUSEHOLDS</b>
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B19067			<u>Universe: Households</u>
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B19067	1	B19067001	Aggregate public assistance income in the past 12 months (in 2012 inflation-adjusted dollars)
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B19101			<b>FAMILY INCOME IN THE PAST 12 MONTHS (IN 2012 INFLATION-ADJUSTED DOLLARS)</b>
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B19101			<u>Universe: Families</u>
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B19101	1	B19101001	Total:
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B19101	2	B19101002	Less than \$10,000
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B19101	3	B19101003	\$10,000 to \$14,999
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B19101	4	B19101004	\$15,000 to \$19,999
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B19101	5	B19101005	\$20,000 to \$24,999
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B19101	6	B19101006	\$25,000 to \$29,999
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B19101	7	B19101007	\$30,000 to \$34,999
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B19101	8	B19101008	\$35,000 to \$39,999
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B19101	9	B19101009	\$40,000 to \$44,999
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B19101	10	B19101010	\$45,000 to \$49,999
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B19101	11	B19101011	\$50,000 to \$59,999
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B19101	12	B19101012	\$60,000 to \$74,999
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B19101	13	B19101013	\$75,000 to \$99,999
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B19101	14	B19101014	\$100,000 to \$124,999
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B19101	15	B19101015	\$125,000 to \$149,999
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B19101	16	B19101016	\$150,000 to \$199,999
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B19101	17	B19101017	\$200,000 or more
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**SEX BY WORK EXPERIENCE IN THE PAST 12 MONTHS BY  
INCOME IN THE PAST 12 MONTHS (IN 2012 INFLATION-ADJUSTED  
DOLLARS) FOR THE POPULATION 15 YEARS AND OVER**

*Universe: Population 15 years and over*

B19325	1	B19325001	Total:
B19325	2	B19325002	Male:
B19325	3	B19325003	Worked full-time, year-round in the past 12 months:
B19325	4	B19325004	No income
B19325	5	B19325005	With income:
B19325	6	B19325006	\$1 to \$2,499 or loss
B19325	7	B19325007	\$2,500 to \$4,999
B19325	8	B19325008	\$5,000 to \$7,499
B19325	9	B19325009	\$7,500 to \$9,999
B19325	10	B19325010	\$10,000 to \$12,499
B19325	11	B19325011	\$12,500 to \$14,999
B19325	12	B19325012	\$15,000 to \$17,499
B19325	13	B19325013	\$17,500 to \$19,999
B19325	14	B19325014	\$20,000 to \$22,499
B19325	15	B19325015	\$22,500 to \$24,999
B19325	16	B19325016	\$25,000 to \$29,999
B19325	17	B19325017	\$30,000 to \$34,999
B19325	18	B19325018	\$35,000 to \$39,999
B19325	19	B19325019	\$40,000 to \$44,999
B19325	20	B19325020	\$45,000 to \$49,999
B19325	21	B19325021	\$50,000 to \$54,999
B19325	22	B19325022	\$55,000 to \$64,999
B19325	23	B19325023	\$65,000 to \$74,999
B19325	24	B19325024	\$75,000 to \$99,999
B19325	25	B19325025	\$100,000 or more
B19325	26	B19325026	Other:

B19325	27	B19325027	No income
B19325	28	B19325028	With income:
B19325	29	B19325029	\$1 to \$2,499 or loss
B19325	30	B19325030	\$2,500 to \$4,999
B19325	31	B19325031	\$5,000 to \$7,499
B19325	32	B19325032	\$7,500 to \$9,999
B19325	33	B19325033	\$10,000 to \$12,499
B19325	34	B19325034	\$12,500 to \$14,999
B19325	35	B19325035	\$15,000 to \$17,499
B19325	36	B19325036	\$17,500 to \$19,999
B19325	37	B19325037	\$20,000 to \$22,499
B19325	38	B19325038	\$22,500 to \$24,999
B19325	39	B19325039	\$25,000 to \$29,999
B19325	40	B19325040	\$30,000 to \$34,999
B19325	41	B19325041	\$35,000 to \$39,999
B19325	42	B19325042	\$40,000 to \$44,999
B19325	43	B19325043	\$45,000 to \$49,999
B19325	44	B19325044	\$50,000 to \$54,999
B19325	45	B19325045	\$55,000 to \$64,999
B19325	46	B19325046	\$65,000 to \$74,999
B19325	47	B19325047	\$75,000 to \$99,999
B19325	48	B19325048	\$100,000 or more
B19325	49	B19325049	Female:
B19325	50	B19325050	Worked full-time, year-round in the past 12 months:
B19325	51	B19325051	No income
B19325	52	B19325052	With income:
B19325	53	B19325053	\$1 to \$2,499 or loss
B19325	54	B19325054	\$2,500 to \$4,999
B19325	55	B19325055	\$5,000 to \$7,499
B19325	56	B19325056	\$7,500 to \$9,999



B19325	57	B19325057	\$10,000 to \$12,499
B19325	58	B19325058	\$12,500 to \$14,999
B19325	59	B19325059	\$15,000 to \$17,499
B19325	60	B19325060	\$17,500 to \$19,999
B19325	61	B19325061	\$20,000 to \$22,499
B19325	62	B19325062	\$22,500 to \$24,999
B19325	63	B19325063	\$25,000 to \$29,999
B19325	64	B19325064	\$30,000 to \$34,999
B19325	65	B19325065	\$35,000 to \$39,999
B19325	66	B19325066	\$40,000 to \$44,999
B19325	67	B19325067	\$45,000 to \$49,999
B19325	68	B19325068	\$50,000 to \$54,999
B19325	69	B19325069	\$55,000 to \$64,999
B19325	70	B19325070	\$65,000 to \$74,999
B19325	71	B19325071	\$75,000 to \$99,999
B19325	72	B19325072	\$100,000 or more
B19325	73	B19325073	Other:
B19325	74	B19325074	No income
B19325	75	B19325075	With income:
B19325	76	B19325076	\$1 to \$2,499 or loss
B19325	77	B19325077	\$2,500 to \$4,999
B19325	78	B19325078	\$5,000 to \$7,499
B19325	79	B19325079	\$7,500 to \$9,999
B19325	80	B19325080	\$10,000 to \$12,499
B19325	81	B19325081	\$12,500 to \$14,999
B19325	82	B19325082	\$15,000 to \$17,499
B19325	83	B19325083	\$17,500 to \$19,999
B19325	84	B19325084	\$20,000 to \$22,499
B19325	85	B19325085	\$22,500 to \$24,999
B19325	86	B19325086	\$25,000 to \$29,999

B19325	87	B19325087	\$30,000 to \$34,999
B19325	88	B19325088	\$35,000 to \$39,999
B19325	89	B19325089	\$40,000 to \$44,999
B19325	90	B19325090	\$45,000 to \$49,999
B19325	91	B19325091	\$50,000 to \$54,999
B19325	92	B19325092	\$55,000 to \$64,999
B19325	93	B19325093	\$65,000 to \$74,999
B19325	94	B19325094	\$75,000 to \$99,999
B19325	95	B19325095	\$100,000 or more

**SEX BY AGE BY EMPLOYMENT STATUS FOR THE  
POPULATION 16 YEARS AND OVER**

*Universe: Population 16 years and over*

B23001	1	B23001001	Total:
B23001	2	B23001002	Male:
B23001	3	B23001003	16 to 19 years:
B23001	4	B23001004	In labor force:
B23001	5	B23001005	In Armed Forces
B23001	6	B23001006	Civilian:
B23001	7	B23001007	Employed
B23001	8	B23001008	Unemployed
B23001	9	B23001009	Not in labor force
B23001	10	B23001010	20 and 21 years:
B23001	11	B23001011	In labor force:
B23001	12	B23001012	In Armed Forces
B23001	13	B23001013	Civilian:
B23001	14	B23001014	Employed
B23001	15	B23001015	Unemployed
B23001	16	B23001016	Not in labor force
B23001	17	B23001017	22 to 24 years:
B23001	18	B23001018	In labor force:
B23001	19	B23001019	In Armed Forces

B23001	20	B23001020	Civilian:
B23001	21	B23001021	Employed
B23001	22	B23001022	Unemployed
B23001	23	B23001023	Not in labor force
B23001	24	B23001024	25 to 29 years:
B23001	25	B23001025	In labor force:
B23001	26	B23001026	In Armed Forces
B23001	27	B23001027	Civilian:
B23001	28	B23001028	Employed
B23001	29	B23001029	Unemployed
B23001	30	B23001030	Not in labor force
B23001	31	B23001031	30 to 34 years:
B23001	32	B23001032	In labor force:
B23001	33	B23001033	In Armed Forces
B23001	34	B23001034	Civilian:
B23001	35	B23001035	Employed
B23001	36	B23001036	Unemployed
B23001	37	B23001037	Not in labor force
B23001	38	B23001038	35 to 44 years:
B23001	39	B23001039	In labor force:
B23001	40	B23001040	In Armed Forces
B23001	41	B23001041	Civilian:
B23001	42	B23001042	Employed
B23001	43	B23001043	Unemployed
B23001	44	B23001044	Not in labor force
B23001	45	B23001045	45 to 54 years:
B23001	46	B23001046	In labor force:
B23001	47	B23001047	In Armed Forces
B23001	48	B23001048	Civilian:
B23001	49	B23001049	Employed

B23001	50	<b>B23001050</b>	Unemployed
B23001	51	<b>B23001051</b>	Not in labor force
B23001	52	<b>B23001052</b>	55 to 59 years:
B23001	53	<b>B23001053</b>	In labor force:
B23001	54	<b>B23001054</b>	In Armed Forces
B23001	55	<b>B23001055</b>	Civilian:
B23001	56	<b>B23001056</b>	Employed
B23001	57	<b>B23001057</b>	Unemployed
B23001	58	<b>B23001058</b>	Not in labor force
B23001	59	<b>B23001059</b>	60 and 61 years:
B23001	60	<b>B23001060</b>	In labor force:
B23001	61	<b>B23001061</b>	In Armed Forces
B23001	62	<b>B23001062</b>	Civilian:
B23001	63	<b>B23001063</b>	Employed
B23001	64	<b>B23001064</b>	Unemployed
B23001	65	<b>B23001065</b>	Not in labor force
B23001	66	<b>B23001066</b>	62 to 64 years:
B23001	67	<b>B23001067</b>	In labor force:
B23001	68	<b>B23001068</b>	In Armed Forces
B23001	69	<b>B23001069</b>	Civilian:
B23001	70	<b>B23001070</b>	Employed
B23001	71	<b>B23001071</b>	Unemployed
B23001	72	<b>B23001072</b>	Not in labor force
B23001	73	<b>B23001073</b>	65 to 69 years:
B23001	74	<b>B23001074</b>	In labor force:
B23001	75	<b>B23001075</b>	Employed
B23001	76	<b>B23001076</b>	Unemployed
B23001	77	<b>B23001077</b>	Not in labor force
B23001	78	<b>B23001078</b>	70 to 74 years:
B23001	79	<b>B23001079</b>	In labor force:

B23001	80	<b>B23001080</b>	Employed
B23001	81	<b>B23001081</b>	Unemployed
B23001	82	<b>B23001082</b>	Not in labor force
B23001	83	<b>B23001083</b>	75 years and over:
B23001	84	<b>B23001084</b>	In labor force:
B23001	85	<b>B23001085</b>	Employed
B23001	86	<b>B23001086</b>	Unemployed
B23001	87	<b>B23001087</b>	Not in labor force
B23001	88	<b>B23001088</b>	Female:
B23001	89	<b>B23001089</b>	16 to 19 years:
B23001	90	<b>B23001090</b>	In labor force:
B23001	91	<b>B23001091</b>	In Armed Forces
B23001	92	<b>B23001092</b>	Civilian:
B23001	93	<b>B23001093</b>	Employed
B23001	94	<b>B23001094</b>	Unemployed
B23001	95	<b>B23001095</b>	Not in labor force
B23001	96	<b>B23001096</b>	20 and 21 years:
B23001	97	<b>B23001097</b>	In labor force:
B23001	98	<b>B23001098</b>	In Armed Forces
B23001	99	<b>B23001099</b>	Civilian:
B23001	100	<b>B23001100</b>	Employed
B23001	101	<b>B23001101</b>	Unemployed
B23001	102	<b>B23001102</b>	Not in labor force
B23001	103	<b>B23001103</b>	22 to 24 years:
B23001	104	<b>B23001104</b>	In labor force:
B23001	105	<b>B23001105</b>	In Armed Forces
B23001	106	<b>B23001106</b>	Civilian:
B23001	107	<b>B23001107</b>	Employed
B23001	108	<b>B23001108</b>	Unemployed
B23001	109	<b>B23001109</b>	Not in labor force

B23001	110	<b>B23001110</b>	25 to 29 years:
B23001	111	<b>B23001111</b>	In labor force:
B23001	112	<b>B23001112</b>	In Armed Forces
B23001	113	<b>B23001113</b>	Civilian:
B23001	114	<b>B23001114</b>	Employed
B23001	115	<b>B23001115</b>	Unemployed
B23001	116	<b>B23001116</b>	Not in labor force
B23001	117	<b>B23001117</b>	30 to 34 years:
B23001	118	<b>B23001118</b>	In labor force:
B23001	119	<b>B23001119</b>	In Armed Forces
B23001	120	<b>B23001120</b>	Civilian:
B23001	121	<b>B23001121</b>	Employed
B23001	122	<b>B23001122</b>	Unemployed
B23001	123	<b>B23001123</b>	Not in labor force
B23001	124	<b>B23001124</b>	35 to 44 years:
B23001	125	<b>B23001125</b>	In labor force:
B23001	126	<b>B23001126</b>	In Armed Forces
B23001	127	<b>B23001127</b>	Civilian:
B23001	128	<b>B23001128</b>	Employed
B23001	129	<b>B23001129</b>	Unemployed
B23001	130	<b>B23001130</b>	Not in labor force
B23001	131	<b>B23001131</b>	45 to 54 years:
B23001	132	<b>B23001132</b>	In labor force:
B23001	133	<b>B23001133</b>	In Armed Forces
B23001	134	<b>B23001134</b>	Civilian:
B23001	135	<b>B23001135</b>	Employed
B23001	136	<b>B23001136</b>	Unemployed
B23001	137	<b>B23001137</b>	Not in labor force
B23001	138	<b>B23001138</b>	55 to 59 years:
B23001	139	<b>B23001139</b>	In labor force:

B23001	140	<b>B23001140</b>	In Armed Forces
B23001	141	<b>B23001141</b>	Civilian:
B23001	142	<b>B23001142</b>	Employed
B23001	143	<b>B23001143</b>	Unemployed
B23001	144	<b>B23001144</b>	Not in labor force
B23001	145	<b>B23001145</b>	60 and 61 years:
B23001	146	<b>B23001146</b>	In labor force:
B23001	147	<b>B23001147</b>	In Armed Forces
B23001	148	<b>B23001148</b>	Civilian:
B23001	149	<b>B23001149</b>	Employed
B23001	150	<b>B23001150</b>	Unemployed
B23001	151	<b>B23001151</b>	Not in labor force
B23001	152	<b>B23001152</b>	62 to 64 years:
B23001	153	<b>B23001153</b>	In labor force:
B23001	154	<b>B23001154</b>	In Armed Forces
B23001	155	<b>B23001155</b>	Civilian:
B23001	156	<b>B23001156</b>	Employed
B23001	157	<b>B23001157</b>	Unemployed
B23001	158	<b>B23001158</b>	Not in labor force
B23001	159	<b>B23001159</b>	65 to 69 years:
B23001	160	<b>B23001160</b>	In labor force:
B23001	161	<b>B23001161</b>	Employed
B23001	162	<b>B23001162</b>	Unemployed
B23001	163	<b>B23001163</b>	Not in labor force
B23001	164	<b>B23001164</b>	70 to 74 years:
B23001	165	<b>B23001165</b>	In labor force:
B23001	166	<b>B23001166</b>	Employed
B23001	167	<b>B23001167</b>	Unemployed
B23001	168	<b>B23001168</b>	Not in labor force
B23001	169	<b>B23001169</b>	75 years and over:





C24010	10	C24010010	Life, physical, and social science occupations
C24010	11	C24010011	Education, legal, community service, arts, and media occupations:
C24010	12	C24010012	Community and social service occupations
C24010	13	C24010013	Legal occupations
C24010	14	C24010014	Education, training, and library occupations
C24010	15	C24010015	Arts, design, entertainment, sports, and media occupations
C24010	16	C24010016	Healthcare practitioners and technical occupations:
C24010	17	C24010017	Health diagnosing and treating practitioners and other technical occupations
C24010	18	C24010018	Health technologists and technicians
C24010	19	C24010019	Service occupations:
C24010	20	C24010020	Healthcare support occupations
C24010	21	C24010021	Protective service occupations:
C24010	22	C24010022	Fire fighting and prevention, and other protective service workers including supervisors
C24010	23	C24010023	Law enforcement workers including supervisors
C24010	24	C24010024	Food preparation and serving related occupations
C24010	25	C24010025	Building and grounds cleaning and maintenance occupations
C24010	26	C24010026	Personal care and service occupations
C24010	27	C24010027	Sales and office occupations:
C24010	28	C24010028	Sales and related occupations
C24010	29	C24010029	Office and administrative support occupations
C24010	30	C24010030	Natural resources, construction, and maintenance occupations:
C24010	31	C24010031	Farming, fishing, and forestry occupations
C24010	32	C24010032	Construction and extraction occupations
C24010	33	C24010033	Installation, maintenance, and repair occupations
C24010	34	C24010034	Production, transportation, and material moving occupations:
C24010	35	C24010035	Production occupations
C24010	36	C24010036	Transportation occupations
C24010	37	C24010037	Material moving occupations
C24010	38	C24010038	Female:
C24010	39	C24010039	Management, business, science, and arts occupations:

C24010	40	C24010040	Management, business, and financial occupations:
C24010	41	C24010041	Management occupations
C24010	42	C24010042	Business and financial operations occupations
C24010	43	C24010043	Computer, engineering, and science occupations:
C24010	44	C24010044	Computer and mathematical occupations
C24010	45	C24010045	Architecture and engineering occupations
C24010	46	C24010046	Life, physical, and social science occupations
C24010	47	C24010047	Education, legal, community service, arts, and media occupations:
C24010	48	C24010048	Community and social service occupations
C24010	49	C24010049	Legal occupations
C24010	50	C24010050	Education, training, and library occupations
C24010	51	C24010051	Arts, design, entertainment, sports, and media occupations
C24010	52	C24010052	Healthcare practitioners and technical occupations:
C24010	53	C24010053	Health diagnosing and treating practitioners and other technical occupations
C24010	54	C24010054	Health technologists and technicians
C24010	55	C24010055	Service occupations:
C24010	56	C24010056	Healthcare support occupations
C24010	57	C24010057	Protective service occupations:
C24010	58	C24010058	Fire fighting and prevention, and other protective service workers including supervisors
C24010	59	C24010059	Law enforcement workers including supervisors
C24010	60	C24010060	Food preparation and serving related occupations
C24010	61	C24010061	Building and grounds cleaning and maintenance occupations
C24010	62	C24010062	Personal care and service occupations
C24010	63	C24010063	Sales and office occupations:
C24010	64	C24010064	Sales and related occupations
C24010	65	C24010065	Office and administrative support occupations
C24010	66	C24010066	Natural resources, construction, and maintenance occupations:
C24010	67	C24010067	Farming, fishing, and forestry occupations
C24010	68	C24010068	Construction and extraction occupations
C24010	69	C24010069	Installation, maintenance, and repair occupations

C24010	70	C24010070	Production, transportation, and material moving occupations:
C24010	71	C24010071	Production occupations
C24010	72	C24010072	Transportation occupations
C24010	73	C24010073	Material moving occupations

## Appendix B: [Placeholder]

## Appendix C: Projected Coordinate System Information:

NAD\_1983\_StatePlane\_New\_York\_Long\_Island\_FIPS\_3104\_Feet  
WKID: 2263 Authority: EPSG

Projection: Lambert\_Conformal\_Conic  
False\_Easting: 984250.0  
False\_Northing: 0.0  
Central\_Meridian: -74.0  
Standard\_Parallel\_1: 40.66666666666666  
Standard\_Parallel\_2: 41.03333333333333  
Latitude\_Of\_Origin: 40.16666666666666  
Linear Unit: Foot\_US (0.3048006096012192)

Geographic Coordinate System: GCS\_North\_American\_1983  
Angular Unit: Degree (0.0174532925199433)  
Prime Meridian: Greenwich (0.0)  
Datum: D\_North\_American\_1983  
Spheroid: GRS\_1980  
Semimajor Axis: 6378137.0  
Semiminor Axis: 6356752.314140356  
Inverse Flattening: 298.257222101

## Appendix D: [Placeholder]

## Appendix E: [Placeholder]

## Appendix F: Network Buffer Process

The following steps were performed in ArcGIS 10.1 (ArcInfo – aka Desktop Advanced) using scripting in python. The Network Analyst extension is required.

### Radial Buffers

Radial Buffers are necessary to clip Network Buffer polygons as the Network Buffer polygons sometimes generate artifact slivers that extend past the set distance. For quality control purposes.

#### 1) Generate 264, 1320, 2640 feet radial buffers.

- a ) Create standard radial buffers for r1 geography and n1, n2 geographies for clip

### Network Buffers

#### 1) Check out Network Analyst extension.

Necessary for python script

#### 2) Create Detailed Network Buffer for 1320 & 2640 ft.

- a ) Make service area layer
  - 1320 Feet to meters is 402.336 Meters, the lion\_ped\_nd.nd (pedestrian network dataset) is in meters
  - 2640 Feet to meters is 804.672 Meters, the lion\_ped\_nd.nd (pedestrian network dataset) is in meters
- b ) Add locations
- c ) Solve
- d ) Feature class to feature class: polygons

#### 3) Create Line Network Buffer for 1320 & 2640 ft.

- a ) Make service area layer
- b ) Add locations
- c ) Solve
- d ) Feature class to feature class: lines
- e ) Buffer line network buffers by 50 feet with flat end-type
- f ) Merge **Detailed Network Buffers** along with **Line Network Buffers** output buffered 50 feet
- g ) Dissolve the merged **Detailed Network Buffers** along with **Line Network Buffers** output buffered 50 feet by unique FacilityID
- h ) Add uid text field to network buffers, these dont come thru network analysis so regenerate
- i ) Calculate uid text field for network buffers

#### 4) Select each Network Buffer feature and then clip by its corresponding radial buffer and append to new feature class.

- a ) Create empty feature classes for clip ouput to be appended to
- b ) Add ID fields so the append carries over the unique id (uid)
- c ) For n1 & n2 (1320 and 2640 ft) select each network buffer feature and then clip by its corresponding radial buffer.
  - Select Network Buffer and make into its own feature class
  - Select Radial Buffer and make into its own feature class
  - Clip Network Buffer by Radial Buffer
  - Append clipped feature to feature class from step 4a