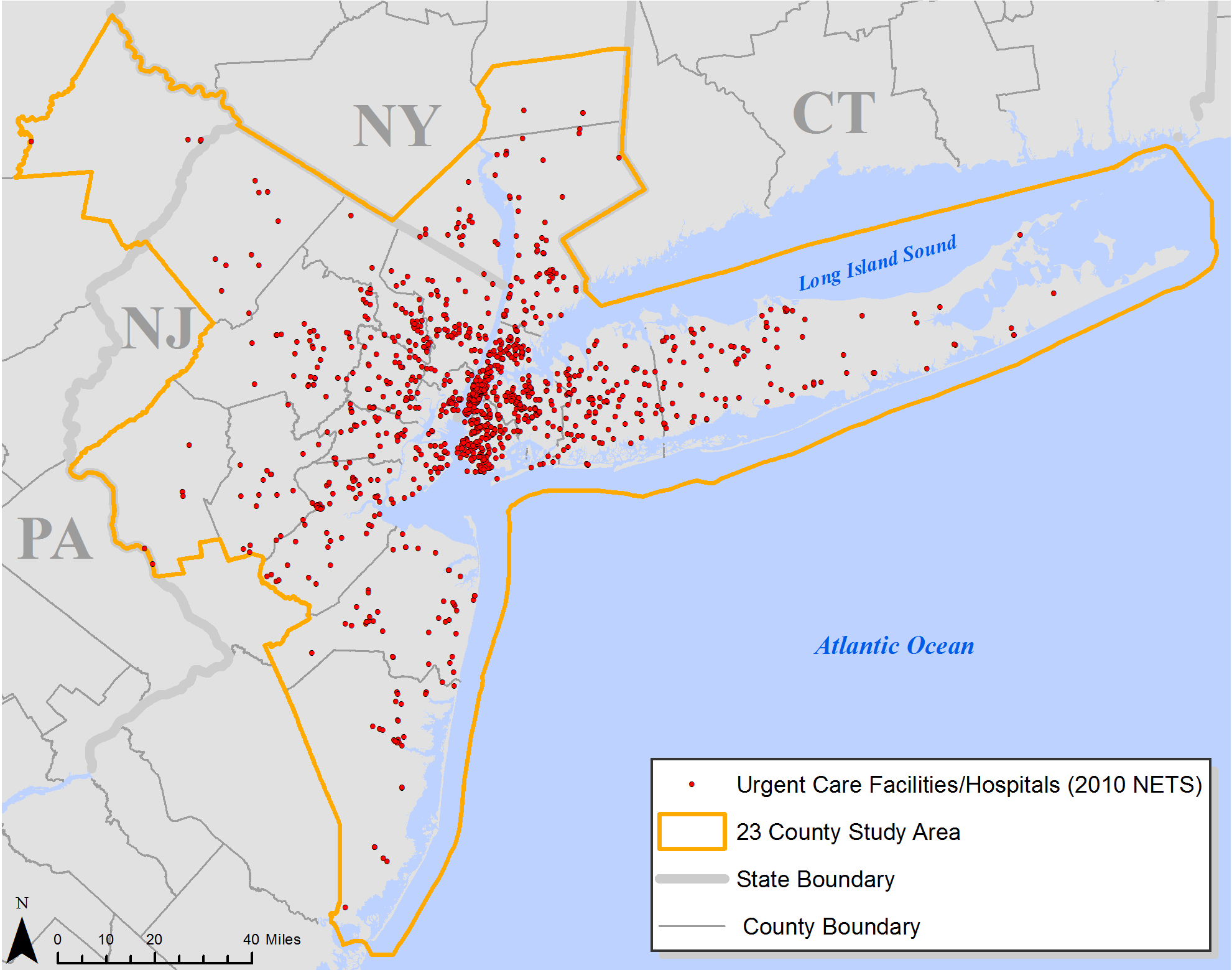
The National Establishment Time-series (NETS) Database for NY-NJ-PA CBSA

**Data Dictionary – Version 2.0 (2014.06.20)**



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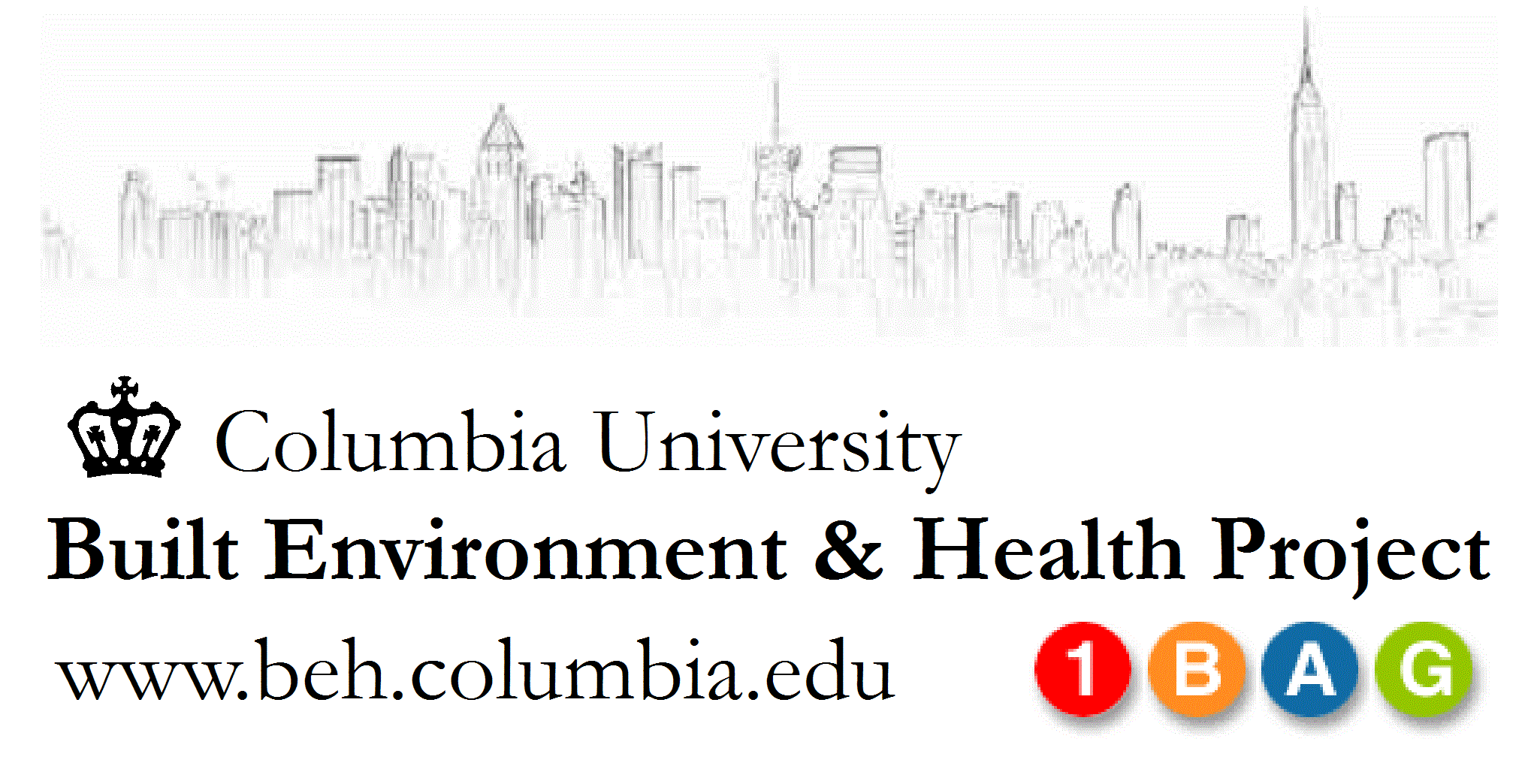
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# Overview

The National Establishment Time-Series (NETS) database is a commercially purchased longitudinal file derived from Dun & Bradstreet’s (D&B) register of business information from January of each year. NETS is considered one of the most comprehensive establishment sources available, serving as a census of American businesses. NETS provides annual microdata, beginning in 1990, for U.S. businesses and many nonprofit and government agency establishments. NETS variables include business characteristics (see page 14), address information (see page 16), and geospatial information (see page 19), all of which can be used to characterize the dynamic retail environment over time.

# Retail Environment

Businesses that we considered health-relevant and pertinent to current research interests were categorized into one of 27 mutually exclusive researcher-defined categories. Definitions were coded in SAS 9.4. An eight-digit Standard Industrial Classification (SIC) code and, where applicable, company name, trade name, sales volume, or employee count, were used to assign businesses to one researcher-defined category. The definitions below assign a business to one category uniform across all years (o). To enable category assignment to change year to year, use SIC instead of BEH\_SIC, Company instead of CompanyHere, TradeName in lieu of TradeNameHere, Sales in place of SalesHere and Emp in lieu of EmpHere. Visual comparisons show only micro-level fluctuations in the aggregate count of businesses per category per year between using the yearly versus the overall category assignment. Business characteristics are defined on page 14.

Many of the definitions we used to categorize businesses were based on prior work using D&B data ([Rundle et al., 2009](#_ENREF_11)), and informed by existing literature using commercial databases to identify food sources such as restaurants and supermarkets ([Bader et al., 2010](#_ENREF_5), [Auchincloss et al., 2007](#_ENREF_4), [Mehta and Chang, 2008](#_ENREF_8)), and physical activity facilities such as private gyms ([Abercrombie et al., 2008](#_ENREF_1), [Moore and Diez Roux, 2006](#_ENREF_9), [Gordon-Larsen et al., 2006](#_ENREF_7), [Powell et al., 2007](#_ENREF_10), [Auchincloss et al., 2008](#_ENREF_3), [Cradock et al., 2009](#_ENREF_6)).

Only business locations with a final prioritized address coordinate geocoded to the point level or street segment are included in our final dataset and in aggregate counts per category (see page 19).

## Anatomy of a Variable

@@@\*\*\*$x#YYYY

**@@@** is a placeholder for the geography type [tr\_, cy\_] to which the retail environment measures are aggregated, where:

**tr\_** = Census tract (based on US Census Tract 2010 boundary)

**cy\_** = County (based on US Census Tract 2010 boundary)

\*\*\*is a placeholder for the researcher-defined category to which a business belongs (see Retail Environment categories on page 6)

**$** indicates how the researcher-defined category was assigned [o, y], where:

**o** = Overall; assignment of a business to a researcher-defined category is uniform across all years, based on the BEH\_SIC and the business characteristics reported in the most recent year

**y** = Yearly; assignment of a business to a researcher-defined category is year-specific, based on the business characteristics reported in a given year

**x** is a placeholder for count type [r, c], where:

**r** = Raw count of all businesses in specified category in a given year

**c** = Count after collapsing businesses that belonged to the same researcher-defined category1, in the same year, at the same location [unique\_xy\_round]

We did not collapse businesses categorized as “other potential walking destinations” due to the heterogeneity of industries included in this category.

**#** is a placeholder for the value type [n, d, p], where:

**n** = Number of businesses in specified geography

**d** = Density of businesses in specified geography, per land area of specified geography

**p** = Density of business in specified geography, per population of specified geography

**YYYY** is a placeholder for the year [1990-2010]

## Food Outlet Categories

#### @@@WAR$x#YYYY

**Warehouse and discount department stores selling food.**

This definition is based on a text search for 4 companies. This definition is still under development, and may require use of headquarter information, or additional text searches or verification to establish whether foods are sold and whether the stores are accessible to the public without major barriers to entry.

if INDEX(TRADENAMEHERE, "SAMS CLUB")>0 OR INDEX(COMPANYHERE, "SAMS CLUB")>0 or INDEX(TRADENAMEHERE, "COSTCO WHOLESALE")>0 OR INDEX(COMPANYHERE, "COSTCO WHOLESALE")>0 or TRADENAMEHERE="PRICE CLUB" OR COMPANYHERE="PRICE CLUB" or INDEX(TRADENAMEHERE, "BJS WHOLESALE")>0 OR INDEX(COMPANYHERE, "BJS WHOLESALE")>0 OR COMPANYHERE="BJS"

#### @@@AFF$x#YYYY

**All fast food restaurants.**

Includes national-chain and local fast-food restaurants. National chains can be identified through text searches within SIC 5812 ‘Eating places’ for companies appearing in Technomic Inc.’s list of the top 100 limited-service chain brands ([Technomic Inc., 2006](#_ENREF_12)). Local fast food can be identified through SIC codes indicating fast food, as well as through text searches within SIC 5812 ‘Eating places’. This definition includes text searches for 62 companies and 78 SIC codes.

if BEH\_SIC in (58120300, 58120307, 58120308) OR (BEH\_SIC in (58120000:58129999) AND (INDEX(TRADENAMEHERE, "ARBYS")>0 OR INDEX(COMPANYHERE, "ARBYS")>0

OR INDEX(TRADENAMEHERE, "BASKIN ROBBINS")>0 OR INDEX(COMPANYHERE, "BASKIN ROBBINS")>0 OR INDEX(TRADENAMEHERE, "BLIMPIE")>0 OR INDEX(COMPANYHERE, "BLIMPIE")>0 OR INDEX(TRADENAMEHERE, "BOJANGLES")>0 OR INDEX(COMPANYHERE, "BOJANGLES")>0 OR INDEX(TRADENAMEHERE, "BOSTON MARKET")>0 OR INDEX(COMPANYHERE, "BOSTON MARKET")>0 OR INDEX(COMPANYHERE, "BURGER KING")>0 OR INDEX(TRADENAMEHERE, “BURGER KING")>0 OR INDEX(TRADENAMEHERE, "CHECKERS")>0 OR INDEX(COMPANYHERE, "CHECKERS")>0 OR INDEX(TRADENAMEHERE, "CHIPOTLE")>0 OR INDEX(COMPANYHERE, "CHIPOTLE")>0 OR INDEX(TRADENAMEHERE, "CHURCHS CHICKEN")>0 OR INDEX(COMPANYHERE, "CHURCHS CHICKEN")>0 OR INDEX(TRADENAMEHERE, "DAIRY QUEEN")>0 OR INDEX(COMPANYHERE, "DAIRY QUEEN")>0 OR INDEX(TRADENAMEHERE, "DOMINOS PIZZA")>0 OR INDEX(COMPANYHERE, "DOMINOS PIZZA")>0 OR INDEX(TRADENAMEHERE, "DUNKIN DONUTS")>0 OR INDEX(COMPANYHERE, "DUNKIN DONUTS")>0 OR INDEX(TRADENAMEHERE, "EL POLLO LOCO")>0 OR INDEX(COMPANYHERE, "EL POLLO LOCO")>0 OR INDEX(TRADENAMEHERE, "FUDDRUCKERS")>0 OR INDEX(COMPANYHERE, "FUDDRUCKERS")>0 OR TRADENAMEHERE="HARDEES" OR COMPANYHERE="HARDEES" OR INDEX(TRADENAMEHERE, "JAMBA JUICE")>0 OR INDEX(COMPANYHERE, "JAMBA JUICE")>0 OR INDEX(TRADENAMEHERE, "KENTUCKY FRIED CHICKEN")>0 OR INDEX(COMPANYHERE, "KENTUCKY FRIED CHICKEN")>0 OR TRADENAMEHERE="KFC" OR COMPANYHERE="KFC" OR INDEX(TRADENAMEHERE, "KRISPY KREME")>0 OR INDEX(COMPANYHERE, "KRISPY KREME")>0 OR INDEX(TRADENAMEHERE, "LONG JOHN SILVERS")>0 OR INDEX(COMPANYHERE, "LONG JOHN SILVERS")>0 OR INDEX(TRADENAMEHERE, "MCDONALDS")>0 OR INDEX(COMPANYHERE, "MCDONALDS")>0 OR INDEX(TRADENAMEHERE, "PANDA EXPRESS")>0 OR INDEX(COMPANYHERE, "PANDA EXPRESS")>0 OR INDEX(TRADENAMEHERE, "PAPA JOHN")>0 OR INDEX(COMPANYHERE, "PAPA JOHN")>0 OR INDEX(TRADENAMEHERE, "PIZZA HUT")>0 OR INDEX(COMPANYHERE, "PIZZA HUT")>0 OR INDEX(TRADENAMEHERE, "POPEYES")>0 OR INDEX(COMPANYHERE, "POPEYES")>0 OR INDEX(TRADENAMEHERE, "QUIZNOS")>0 OR INDEX(COMPANYHERE, "QUIZNOS")>0 OR INDEX(TRADENAMEHERE, "ROUND TABLE")>0 OR INDEX(COMPANYHERE, "ROUND TABLE")>0 OR TRADENAMEHERE="SBARRO" OR COMPANYHERE="SBARRO" OR TRADENAMEHERE="SONIC" OR COMPANYHERE="SONIC" OR INDEX(TRADENAMEHERE, "STARBUCKS")>0 OR INDEX(COMPANYHERE, "STARBUCKS")>0 OR TRADENAMEHERE="SUBWAY" OR COMPANYHERE="SUBWAY" OR TRADENAMEHERE="SUBWAY SANDWICHES" OR COMPANYHERE="SUBWAY SANDWICHES" OR TRADENAMEHERE="SUBWAY RESTAURANT" OR COMPANYHERE="SUBWAY RESTAURANT" OR INDEX(COMPANYHERE, "TACO BELL")>0 OR INDEX(TRADENAMEHERE, “TACO BELL")>0 OR INDEX(TRADENAMEHERE, "TCBY")>0 OR INDEX(COMPANYHERE, "TCBY")>0 OR INDEX(TRADENAMEHERE, "WENDYS")>0 OR INDEX(COMPANYHERE, "WENDYS OLD")>0 OR INDEX(TRADENAMEHERE, "WHITE CASTLE")>0 OR INDEX(COMPANYHERE, "WHITE CASTLE")>0 or INDEX(COMPANYHERE, "BEN & JERRYS")>0 OR INDEX(TRADENAMEHERE, "BEN & JERRYS")>0 or INDEX(COMPANYHERE, "BEN AND JERRYS")>0 OR INDEX(TRADENAMEHERE, "BEN AND JERRYS")>0 OR INDEX(COMPANYHERE, " CARVEL ICE CREAM CAKES")>0 OR INDEX(TRADENAMEHERE, “ CARVEL ICE CREAM CAKES")>0 OR INDEX(COMPANYHERE, "COLD STONE CREAMERY")>0 OR INDEX(TRADENAMEHERE, "COLD STONE CREAMERY")>0 OR INDEX(COMPANYHERE, "HAAGEN-DAZS")>0 OR INDEX(TRADENAMEHERE, "HAAGEN-DAZS")>0 OR INDEX(COMPANYHERE, "HAAGENDAZS")>0 OR INDEX(TRADENAMEHERE, "HAAGENDAZS")>0 OR INDEX(COMPANYHERE, "HAAGEN DAZS")>0 OR INDEX(TRADENAMEHERE, "HAAGEN DAZS")>0 OR INDEX(COMPANYHERE, "I CANT BELIEVE ITS YOGURT")>0 OR INDEX(TRADENAMEHERE, "I CANT BELIEVE ITS YOGURT")>0 OR INDEX(COMPANYHERE, "LITTLE CAESARS PIZZA")>0 OR INDEX(TRADENAMEHERE, "LITTLE CAESARS PIZZA")>0 OR INDEX(COMPANYHERE, "SCHLOTZSKYS DELI")>0 OR INDEX(TRADENAMEHERE, "SCHLOTZSKYS DELI")>0 OR INDEX(TRADENAMEHERE, “AU BON PAIN")>0 OR INDEX(COMPANYHERE, "A B P CORPORATION")>0 OR INDEX(COMPANYHERE, "AU BON PAIN")>0 OR INDEX(TRADENAMEHERE, "A B P CORPORATION")>0 OR INDEX(TRADENAMEHERE, “AUNTIE ANNES")>0 OR INDEX(COMPANYHERE, "AUNTIE ANNES")>0 OR INDEX(TRADENAMEHERE, “CHICKEN HOLIDAY")>0 OR INDEX(COMPANYHERE, "CHICKEN HOLIDAY")>0 OR INDEX(TRADENAMEHERE, “COFFEE SHOP NORTH CENTRAL HOSP")>0 OR INDEX(COMPANYHERE, "DIRECTORS METRO FOOD SERVICE")>0 OR INDEX(TRADENAMEHERE, “COSI SANDWICH")>0 OR INDEX(COMPANYHERE, "COSI SANDWICH")>0 OR INDEX(TRADENAMEHERE, "CROWN FRIED CHICKEN")>0 OR INDEX(COMPANYHERE, "CROWN FRIED CHICKEN")>0 OR INDEX(TRADENAMEHERE, “EVERYTHING YOGURT & SALAD")>0 OR INDEX(COMPANYHERE, "EVERYTHING YOGURT & SALAD")>0 OR INDEX(TRADENAMEHERE, “GRAYS PAPAYA")>0 OR INDEX(COMPANYHERE, "GRAYS PAPAYA")>0 OR INDEX(TRADENAMEHERE, "KENNEDY FRIED CHICKEN")>0 OR INDEX(COMPANYHERE, "KENNEDY FRIED CHICKEN")>0 OR INDEX(TRADENAMEHERE, "KOSHER DELIGHT CORP")>0 OR INDEX(COMPANYHERE, "KOSHER DELIGHT CORP")>0

OR INDEX(TRADENAMEHERE, “MANHATTAN BAGEL")>0 OR INDEX(COMPANYHERE, "MANHATTAN BAGEL")>0 OR INDEX(TRADENAMEHERE, “METROPOLITAN DELI")>0 OR INDEX(COMPANYHERE, "METROPOLITAN DELI")>0 OR INDEX(TRADENAMEHERE, "MIAMI SUBS & GRILL")>0 OR INDEX(COMPANYHERE, "MIAMI SUBS CORPORATION")>0 OR INDEX(TRADENAMEHERE, “NATHANS FAMOUS")>0 OR INDEX(COMPANYHERE, "NATHANS FAMOUS")>0 OR INDEX(TRADENAMEHERE, “PAPAYA KING")>0 OR INDEX(COMPANYHERE, "PAPAYA KING")>0 OR INDEX(TRADENAMEHERE, “PUDGIES FAMOUS CHICKEN")>0 OR INDEX(COMPANYHERE, "PUDGIES FAMOUS CHICKEN")>0 OR INDEX(TRADENAMEHERE, “ROY ROGERS")>0 OR INDEX(COMPANYHERE, "ROY ROGERS")>0 OR INDEX(TRADENAMEHERE, "EL POLLO SUPREMO")>0 OR INDEX(COMPANYHERE, "SUPREME CHICKEN OF NEW JERSEY")>0 OR INDEX(TRADENAMEHERE, “TOGOS")>0 OR INDEX(COMPANYHERE, "TOGOS")>0 OR INDEX(TRADENAMEHERE, “XANDO")>0 OR INDEX(COMPANYHERE, "XANDO")>0 OR INDEX(TRADENAMEHERE, “ZORN FAMOUS CHICKEN & RIBS")>0 OR INDEX(COMPANYHERE, "ZORN FAMOUS CHICKEN & RIBS")>0 OR INDEX(TRADENAMEHERE, “ZORNS FAMOUS CHICKEN")>0 OR INDEX(COMPANYHERE, "ZORNS FAMOUS CHICKEN")>0))

#### @@@PIZ$x#YYYY

**Pizza restaurants.**

This definition is based on 3 SIC codes or a text search within SIC 54 ‘Food stores’ and SIC 5812 ‘Eating places’ for companies whose name contains “PIZZA” or “PIZZERIA”, and excludes any businesses categorized as fast food restaurants ♠.

if AFFo=0 and BEH\_SIC in (58120600, 58120601, 58120602) or (AFFo=0 and BEH\_SIC in (54110000:54999999, 58120000:58129999) and (index(CompanyHere, "PIZZA")>0 or index(TradeNameHere, "PIZZA")>0 or index(CompanyHere, "PIZZERIA")>0 or index(TradeNameHere, "PIZZERIA")>0)

#### @@@EAT$x#YYYY

**Other restaurants.**

This definition is based on 78 SIC codes within the SIC 5812 ‘Eating places’, and excludes any businesses categorized as fast food or pizza restaurants ♠.

if BEH\_SIC in (58120000:58129999)

#### @@@BAK$x#YYYY

**Bakeries and candy/confectionary stores.**

This definition is based on 14 SIC codes, and excludes any businesses categorized as fast food or pizza restaurants ♠.

if BEH\_SIC in (54610000:54619999, 54419901, 54419902, 54419903, 54419905)

#### @@@MET$x#YYYY

**Meat markets.**

This definition is based on 3 SIC codes and excludes any businesses categorized as fast food or pizza restaurants ♠.

if BEH\_SIC in (54210200: 54210299)

#### @@@FVM$x#YYYY

**Fruit and vegetable markets.**

This definition is based on 4 SIC codes.

if BEH\_SIC in (54310000:54319999)

#### @@@NAT$x#YYYY

**Natural food markets and nut stores.**

This definition is based on 5 SIC codes.

if BEH\_SIC in (54990100: 54990199, 54990900:54990999, 54993500:54993599, 54419904)

#### @@@FSH$x#YYYY

**Fish markets.**

This definition is based on 3 SIC codes.

if BEH\_SIC in (54210100:54210199)

#### @@@CNV$x#YYYY

**Convenience stores and small grocery stores.**

This definition is based on 3 SIC codes identifying convenience stores, and excludes any businesses categorized as pizza restaurants ♠.

if BEH\_SIC in (54110200:54110299)

#### @@@BDS$x#YYYY

**Bodegas.**

This definition searches among 16 SIC codes within SIC 5411 ‘Food stores’ for businesses with fewer than 5 employees, and excludes any businesses categorized as convenience stores or warehouses and discount department stores selling food ♠.

if BEH\_SIC in (54110000:54119999) and (EmpHere<**5** and EmpHere ne **.**)

#### @@@SMK$x#YYYY

**Large supermarkets.**

This definition searches among 16 SIC codes within SIC 5411 ‘Food stores’ for businesses with at least $2 million in annual sales or at least 18 employees, and excludes any businesses categorized as convenience stores, bodegas or warehouses and discount department stores selling food ♠.

if BEH\_SIC in (54110000:54119999) and ((SalesHere>=2000000 and SalesHere ne .) or (EmpHere>=18 and EmpHere ne .))

#### @@@GRY$x#YYYY

**Grocery stores.**

This definition searches among 16 SIC codes within SIC 5411 ‘Food stores’ for businesses, and excludes any businesses categorized as convenience stores, bodegas, warehouses and discount department stores selling food, supermarkets, or pizza restaurants ♠.

if BEH\_SIC in (54110000:54119999)

## Alcohol Outlet Categories

#### @@@BAR$x#YYYY

**Bars and other public drinking places.**

This definition is based on 13 SIC codes

if BEH\_SIC in (58130000:58139999, 86410401)

#### @@@LIQ$x#YYYY

**Liquor stores.**

This definition is based on 6 SIC codes, and searches among 14 additional SIC codes within SIC 518 ‘Beer, Wine, and Distilled Beverages’ for businesses whose company name contains “LIQUOR”.

if BEH\_SIC in (59200000:59299999) or (BEH\_SIC in (51800000:51899999) and index(CompanyHere,'LIQUOR')>0))

## Medical Facility Categories

#### @@@URG$x#YYYY

**Urgent care and hospital facilities.**

This definition is based on 22 SIC codes, and excludes any businesses categorized as warehouses and discount department stores selling food ♠.

if BEH\_SIC in (80110200, 80110201, 80110204, 80620000:80629999, 80690000, 80690200, 80690201, 80690300, 80690301, 80699901, 80699902, 80699903, 80699904, 80699905)

#### @@@HPC$x#YYYY

**Offices or clinics of health practitioners.**

This definition is based on 91 SIC codes.

if BEH\_SIC in (80110000: 80110110, 80110202, 80110205, 80110500: 80119905, 80310000:80490201, 80499900, 80499902, 80499903, 80499904, 80499906, 80499908, 80499909, 80920000, 80930000, 80930200:80939901, 80939903, 80939905, 80990103, 80990104, 80990200, 80990201, 80990203, 80999905, 80999906, 80999907)

#### @@@RES$x#YYYY

**Residential facilities with health care (e.g., nursing homes).**

This definition is based on 21 SIC codes.

if BEH\_SIC in (80510000, 80519900, 80519901, 80519902, 80520000, 80529900, 80529902, 80590000, 80599901, 80599904, 80599905, 80599906, 83610000, 83610300, 83610400:83610499, 83619900, 83619901, 83619904)

#### @@@DRG$x#YYYY

**Pharmacies.**

This definition is based on 8 SIC codes, and excludes any businesses categorized as warehouses and discount department stores selling food ♠.

if BEH\_SIC in (51220000, 51220300, 51229900, 59120000:59129902, 80110203)

#### @@@MHC$x#YYYY

**Mental health care facilities.**

This definition is based on 28 SIC codes.

if BEH\_SIC in (80110400, 80110401, 80110402, 80110403, 80490400, 80490401, 80490402, 80490403, 80490404, 80519903, 80529901, 80599903, 80630000, 80639900, 80639901, 80690100, 80690101, 80690102, 80930100, 80930101, 80930102, 80930103, 80939902, 83610302, 83610304, 83619902, 83619903, 83619905)

#### @@@DDS$x#YYYY

**Dental care facilities.**

This definition is based on 16 SIC codes

if BEH\_SIC in (80210000, 80210100, 80210101, 80210102, 80210103, 80210104, 80210105, 80210106, 80210107, 80210108, 80210200, 80210201, 80210202, 80219901, 80219902, 80490501)

## Physical Activity Facility Categories

#### @@@MUL$x#YYYY

**Multi-use physical activity facilities.**

This definition is based on 11 SIC codes, or a text search for 3 organizations, and excludes any businesses categorized as medical facilities or food sources ♠.

if BEH\_SIC in (70110306, 70110307, 79910000, 79910100, 79910101, 79910102, 79910300, 79910302, 79970000, 79991127, 79999910) or INDEX(COMPANYHERE,'JCC OF')>0 or INDEX(COMPANYHERE,'JEWISH CMMN CTR')>0 or INDEX(COMPANYHERE,'JEWISH CMMNTY CTR')>0 or INDEX(COMPANYHERE,'JEWISH CMNTY CNTRE')>0 or INDEX(COMPANYHERE,'JEWISH CMNTY CTR')>0 or INDEX(COMPANYHERE,'JEWISH CMNTY HSE')>0 or INDEX(COMPANYHERE,'JEWISH CMTY CENTER')>0 or INDEX(COMPANYHERE,'JEWISH COMMNTY CTR')>0 or INDEX(COMPANYHERE,'JEWISH COMMUNITY CENTER')>0 or INDEX(COMPANYHERE,'JEWISH COMMUNITY CENTRE')>0 or

INDEX(COMPANYHERE,'JEWISH COMMUNITY CTR')>0 or INDEX(COMPANYHERE,'JEWISH CMNTY CTR')>0 or INDEX(COMPANYHERE,'JEWISH COMMUNTY CENTER')>0 or

INDEX(COMPANYHERE,'Y M & Y M H A')>0 or INDEX(COMPANYHERE,'Y M C A')>0 or INDEX(COMPANYHERE,'Y W C A')>0 or INDEX(COMPANYHERE,'YM C A')>0 or INDEX(COMPANYHERE,'YMHA')>0 or INDEX(COMPANYHERE,'YWHA')>0 or INDEX(COMPANYHERE,'YMCA')>0 or INDEX(COMPANYHERE,'YMWCA')>0 or INDEX(COMPANYHERE,'YWCA')>0 or INDEX(COMPANYHERE,'YNG MENS & YNG WOMENS HEBREW')>0 or INDEX(COMPANYHERE,'YOUNG MEN CHRISTIAN ASSOCIATON')>0 or INDEX(COMPANYHERE,'YOUNG MEN YUNG WNS HBREW ASSN')>0 or INDEX(COMPANYHERE,'YOUNG MEN YUNG WNS HEBREW ASSN')>0 or INDEX(COMPANYHERE,'YOUNG MENS & WOMENS ASSC')>0 or INDEX(COMPANYHERE,'YOUNG MENS & WOMENS CHRISTIA')>0 or INDEX(COMPANYHERE,'YOUNG MENS & YOUNG WOMENS')>0 or INDEX(COMPANYHERE,'YOUNG MENS AND YOUNG WOMENS')>0 or INDEX(COMPANYHERE,'YOUNG MENS CHRISTIAN')>0 or INDEX(COMPANYHERE,'YOUNG MENS CHRSTN ASSOC')>0 or INDEX(COMPANYHERE,'YOUNG MENS HEBREW ASSOCIATION')>0 or INDEX(COMPANYHERE,'YOUNG MENS YNG WMNS HBRW ASSN')>0 or

INDEX(COMPANYHERE,'YOUNG MENS/YOUNG WOMENS HEBREW')>0 or INDEX(COMPANYHERE,'YOUNG MNS CHRISTN ASSN')>0 or INDEX(COMPANYHERE,'YOUNG MNS CHRSTN ASSN')>0 or INDEX(COMPANYHERE,'YOUNG MNS YUNG WNS HEBREW ASSN')>0 or INDEX(COMPANYHERE,'YOUNG WNS CHRISTN ASSN')>0 or INDEX(COMPANYHERE,'YOUNG WOMANS CHRISTIAN ASSOC')>0 or INDEX(COMPANYHERE,'YOUNG WOMENS CHRISTIAN')>0 or INDEX(COMPANYHERE,'YWC ASSOC')>0 or index(TradeNameHERE,'J C C')>0 or index(TradeNameHERE,'JCC')>0 or index(TradeNameHERE,'JEWISH CMNTY CNTR')>0 or index(TradeNameHERE,'JEWISH CMNTY CTR')>0 or index(TradeNameHERE,'JEWISH COMMUNITY CENTER')>0 or index(TradeNameHERE,'JEWISH COMMUNITY CNTR')>0 or index(TradeNameHERE,'Y M C A')>0 or

index(TradeNameHERE,'Y W C A')>0 or index(TradeNameHERE,'YM & YW H A')>0 or index(TradeNameHERE,'YWHA')>0 or index(TradeNameHERE,'YMCA')>0 or index(TradeNameHERE,'YMWCA')>0 or index(TradeNameHERE,'YOUNG MENS CHRISTIAN ASSOCIAT')>0 or index(TradeNameHERE,'YOUNG MNS YUNG WNS HEBREW ASSN')>0 or index(TradeNameHERE,'YOUNG WOMENS CHRISTIAN ASSN')>0 or index(TradeNameHERE,'YOUNG WOMENS CHRISTIAN ASSOC')>0 or index(TradeNameHERE,'YWCA')>0

#### @@@VPA$x#YYYY

**Vigorous physical activity facilities.**

This definition is based on 38 SIC codes, and excludes any businesses categorized as a multi-use physical activity facility.

if (MUL=0 and (BEH\_SIC in (70110201, 79410104, 79410201, 79910301, 79970100, 79970102, 79970203, 79970402, 79970403, 79970500, 79970502, 79970503, 79970504, 79990100, 79990101, 79990102, 79990300, 79990301, 79990302, 79990303, 79990501, 79990600, 79990602, 79990603, 79991103, 79991107, 79991110, 79991111, 79991112, 79991113, 79991116, 79991118, 79991119, 79991120, 79991122, 79991412, 82999914)))

#### @@@MPA$x#YYYY

**Light/moderate physical activity facilities.**

This definition is based on 55 SIC codes, and excludes any businesses categorized as a multi-use physical activity facility ♠. These physical activity facilities are considered light/moderate based on a MET value of 1.6-5.9 METS assigned to each SIC per The Compendium of Physical Activity ([Ainsworth et al., 2000](#_ENREF_2)).

if (MUL=0 and (BEH\_SIC in (39490103, 70320301, 79110000, 79110100, 79110101, 79110200, 79110201, 79110202, 79110203, 79110204, 79330000, 79339903, 79920000, 79970101, 79970200, 79970201, 79970202, 79970204, 79970300, 79970301, 79970302, 79979904, 79979906, 79979908, 79990200, 79990202, 79990203, 79990204, 79990205, 79990601, 79990700, 79990701, 79990702, 79990703, 79990704, 79990705, 79991102, 79991104, 79991109, 79991115, 79991121, 79991123, 79991200, 79991201, 79991202, 79991205, 79991400, 79991402, 79991409, 79991411, 79991512, 79991601, 79991602, 79999903, 82999903)))

## Other Retail Categories

#### @@@BNK$x#YYYY

**Banks.**

This definition is based on 15 SIC codes.

if BEH\_SIC in (60210000, 60219900, 60219901, 60220000, 60229900, 60229901, 60290000, 60350000, 60359900, 60359901, 60359902, 60360000, 60369900, 60369901, 60369902)

#### @@@CRD$x#YYYY

**Credit unions.**

This definition is based on 4 SIC codes.

if BEH\_SIC in (60610000, 60620000, 60629900, 60629901)

#### @@@DES$x#YYYY

**Other potential destinations.**

This definition searches for businesses within 742 SIC codes with fewer than 250 employees, and excludes businesses categorized as alcohol outlets, food sources, medical facilities, physical activity facilities, and financial institutions ♠.

if ALC=0 and FOD=0 and MED=0 and PAF=0 and FIN=0 and BEH\_SIC in (53000000:53999999, 54000000:54999999, 58000000:58999999, 59000000:59999999, 78000000:78999999, 83000000:83999999, 84000000:84999999) and (EmpHere<250 and EmpHere ne .)

## Aggregate Retail Categories

#### @@@UHY$x#YYYY

**Unhealthy food sources.**

This category includes all fast food restaurants, pizza restaurants, bakeries and candy/confectionary stores, meat markets, convenience stores, and bodegas. This indicator of unhealthy food access was developed for an analysis in New York City, informed by previous literature linking restaurant type or food retail outlet type to obesity. This has been modified slightly from Rundle et al to avoid including nut stores (which were relatively uncommon in the NYC-based data).

if AFF=1 or PIZ=1 or BAK=1 or MET=1 or CNV=1 or BDS=1

#### @@@MOD$x#YYYY

**Modified healthy food sources.**

This category includes supermarkets, fruit and veggie markets, natural food stores, and fish markets. This indicator of healthy food access was developed for a BMI analysis, and has been modified slightly to include nut stores and fish markets for a fatty acids focus.

if SMK=1 or FVM=1 or NAT=1 or FSH=1

#### @@@FOD$x#YYYY

**Food sources.**

This category includes all fast food restaurants, pizza restaurants, convenience stores, bakeries and candy/confectionary stores, meat markets, supermarkets, fruit and veggie markets, natural food stores, other restaurants, and warehouses and discount department stores selling food.

if AFF=1 or PIZ=1 or BAK=1 or MET=1 or CNV=1 or BDS=1 or SMK=1 or FVM=1 or NAT=1 or FSH=1 or EAT=1 or WAR=1 or GRY=1

#### @@@ALC$x#YYYY

**Alcohol outlets.**

This category includes bars and other public drinking places, and liquor stores.

if BAR=1 or LIQ=1

#### @@@MED$x#YYYY

**Medical facilities.**

This category includes urgent care and hospital facilities, offices or clinics of health practitioners, residential facilities with health care, pharmacies, mental health care facilities, and dental care facilities.

if URG=1 or HPC=1 or RES=1 or DRG=1 or MHC=1 or DDS=1

#### @@@PAF$x#YYYY

**Physical activity facilities.**

This category includes light/moderate, vigorous, and multi-use physical activity facilities.

if MUL=1 or VPA=1 or MPA=1

#### @@@FIN$x#YYYY

**Financial institutions.**

This category includes banks and credit unions.

if BNK=1 or CRD=1

#### @@@NOT$x#YYYY

**Businesses that do not belong to any of the 27 mutually exclusive researcher-defined categories.**

if ALC=0 and FOD=0 and MED=0 and PAF=0 and FIN=0 and DES=0

♠ We developed the following hierarchy because we wanted mutually exclusive categories. The precedence was determined to prioritize SIC categorization over text searches, and after reviewing a random sample of businesses that fell into more than one category.

* All Fast Food [AFF] > Pizza [PIZ]
* All Fast Food [AFF] > Other restaurants [EAT]
* All Fast Food [AFF] > Bakeries and candy/confectionary stores [BAK]
* All Fast Food [AFF] > Meat markets [MET]
* Pizza [PIZ] > Other restaurants [EAT]
* Pizza [PIZ] > Bakeries and candy/confectionary stores [BAK]
* Pizza [PIZ] > Meat markets [MET]
* Pizza [PIZ] > Bodegas [BDS]
* Pizza [PIZ] > Convenience stores [CNV]
* Pizza [PIZ] > Grocery stores [GRY]
* Convenience stores [CNV] > Bodegas [BDS]
* Convenience stores [CNV] > Supermarkets [SMK]
* Convenience stores [CNV] > Grocery stores [GRY]
* Bodegas [BDS] > Supermarkets [SMK]
* Bodegas [BDS] > Grocery stores [GRY]
* Supermarkets [SMK] > Grocery stores [GRY]
* Warehouse and discount department stores selling food [WAR] > Bodegas [BDS]
* Warehouse and discount department stores selling food [WAR] > Grocery stores [GRY]
* Warehouse and discount department stores selling food [WAR] > Urgent care and hospital facilities [URG]
* Warehouse and discount department stores selling food [WAR] > Pharmacies [DRG]
* Medical Facility Categories [MED] > Multi-use physical activity facilities [MUL]
* Food sources [FOD] > Multi-use physical activity facilities [MUL]
* Multi-use physical activity facilities [MUL] > Light/moderate physical activity facilities [MPA]
* Multi-use physical activity facilities [MUL] > Vigorous physical activity facilities [VPA]
* Alcohol outlets [ALC] > Other potential destinations [DES]
* Food sources [FOD] > Other potential destinations [DES]
* Medical Facility Categories [MED] > Other potential destinations [DES]
* Physical Activity Facility Categories [PAF] > Other potential destinations [DES]
* Financial institutions [FIN] > Other potential destinations [DES]

## Other Descriptive Statistics of Retail Categories

#### @@@#BusinessesYYYY

**All businesses.**

#### @@@# Categorized\_$YYYY

**All categorized businesses.**

#### @@@#Categorized\_$\_noDES$xYYYY

**All categorized businesses, except for ‘Other destinations’.**

#### @@@diffCategorized\_$\_noDES$xYYYY

**Difference between raw and collapsed categorized businesses, except for ‘Other destinations’.**

#### @@@\*\*\*$#percentchangeYYYY

**Percent change between raw and collapsed categorized.**

# Business variables

#### DunsNumber

The unique D-U-N-S® business establishment identification number supplied by Dun & Bradstreet; provided in NETS.

#### Company

Business name in the specified year; provided in NETS.

**CompanyHere**

Business name in the most recent year establishment was in operation.

**TradeName**

Trade name provided in the specified year; provided in NETS.

**TradeNameHere**

Trade name in the most recent year establishment was in operation.

#### BEH\_LOC

An integer which signifies relative chronology of business locations and relocations, with 0 being the most recent location

**BEH\_ID**

Unique identifier for location at which an establishment was in operation. This unique 11-digit identifier begins with a 1, followed by the location indicator variable and the nine-digit DUNS number.

BEH\_ID = ((BEH\_loc\*1,000,000,000) + 10,000,000,000 + DunsNumber)

#### BEH\_Start

Starting year at this business location.

#### BEH\_End

Ending year at this business location.

#### Year

Year during which establishment was operating at this location. All NETS time-series data are labeled by the January in which they are collected. Walls suggests to researchers that they consider it to reflect the prior year’s economic performance.

#### SIC

Primary Standard Industrial Classification (SIC) code reported in the specified year; provided in NETS.

#### SIC8

Primary Standard Industrial Classification (SIC) code reported in most recent year establishment was in operation; provided in NETS.

#### BEH\_largestpercent

Represents the highest percent of years that any single SIC code was used, from among all yearly SIC codes used by this establishment for each year in operation (across a maximum of 21 years in business).

Percent = (TOTYRSPECSIC/TOTSICYRS)

#### BEH\_SIC

Consistent Standard Industrial Classification (SIC) code used to represent the business type across all years.

If BEH\_largestpercent >=75% then BEH\_SIC is the majority reported SIC.

If BEH\_largestpercent <75% then BEH\_SIC is equal to SIC8, the most recently reported primary SIC.

#### Sales

Establishment Sales in dollar amount for specified year; provided in NETS.

#### SalesHere

Establishment Sales in dollar amount for most recent year establishment was in operation; provided in NETS.

#### SalesC

Establishment Sales code indicating source of sales volume; provided in NETS.

0 = Actual

1 = Bottom of Range

2 = D&B Estimate

3 = Walls Estimate

#### SalesHereC

Establishment Sales code indicating source of sales volume in most recent year establishment was in operation; provided in NETS.

0 = Actual

1 = Bottom of Range

2 = D&B Estimate

3 = Walls Estimate

#### Emp

Number of employees at establishment in specified year; provided in NETS.

#### EmpHere

Number of employees at establishment in most recent year establishment was in operation; provided in NETS.

#### EmpC

Employees here code indicating source of number of employees; provided in NETS.

0 = Actual

1 = Bottom of Range

2 = D&B Estimate

3 = Walls Estimate

#### EmpHereC

Employees here code indicating source of number of employees at establishment in most recent year establishment was in operation; provided in NETS.

0 = Actual

1 = Bottom of Range

2 = D&B Estimate

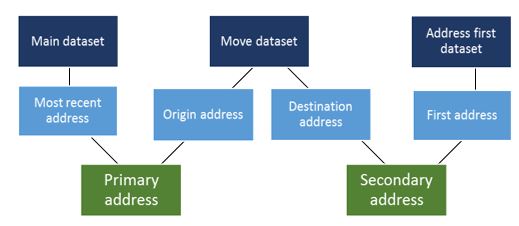
3 = Walls Estimate

#### NAICS

North American Industry Classification System (NAICS) code reported in the specified year; provided in NETS.

# Business Locations

Location information is contained in several of the NETS dataset files. We manipulated the address files such that for a given location we retained two addresses, which we arbitrarily named primary and secondary address that theoretically represent the same location.



**Source dataset**

**NETS variable**

**Created address variable**

**++++** as variable prefix specifies address type [Prim, Sec], where:

**Prim** = Location identifiers corresponding to the primary address, which is equal to the most recent

address provided in NETS, or the origin address of a move provided in NETS.

**Sec** = Location identifiers corresponding to the secondary address, which is equal to the first address

provided in NETS for the first year the establishment was in operation, or the destination address of a move provided in NETS.

#### ++++Address

Street address for specified establishment location.

**++++City**

City for specified establishment location.

#### ++++State

State for specified establishment location.

#### ++++ZIP

Zip code for specified establishment location.

#### ++++Latitude

Latitude for specified establishment location.

**++++Longitude**

Longitude for specified establishment location.

#### ++++LevelCode

Level associated with the latitude/longitude provided in NETS for a specified establishment location.

D = Block Face

S = Street Level

B = Block Group

T = Census Tract Centroid

Z = ZIP Code Centroid

#### Address\_First

Street address in first year establishment was in operation; provided in NETS.

#### City\_First

City name in first year establishment was in operation; provided in NETS.

#### State\_First

State postal abbreviation in first year establishment was in operation; provided in NETS.

#### ZipCode\_First

5-Digit postal ZIP code in first year establishment was in operation; provided in NETS.

#### OriginAddress

Street address at the origin location of a significant move; provided in NETS.

#### OriginCity

City name at the origin location of a significant move; provided in NETS.

#### OriginState

State postal abbreviation at the origin location of a significant move; provided in NETS.

#### OriginZIP

5-Digit postal ZIP code at the origin location of a significant move; provided in NETS.

#### OriginLatitude

Latitude at the origin location of a significant move; provided in NETS.

#### OriginLongitude

Latitude at the origin location of a significant move; provided in NETS.

#### OriginLevelCode

Level associated with the latitude/longitude provided in NETS for the origin location of a significant move; provided in NETS.

D = Block Face

S = Street Level

B = Block Group

T = Census Tract Centroid

Z = ZIP Code Centroid

#### DestAddress

Street address at the destination location of a significant move; provided in NETS.

#### DestCity

City name at the destination location of a significant move; provided in NETS.

#### DestState

State postal abbreviation at the destination location of a significant move; provided in NETS.

#### DestZIP

5-Digit postal ZIP code at the destination location of a significant move; provided in NETS.

#### DestLatitude

Latitude at the destination location of a significant move; provided in NETS.

#### DestLongitude

Latitude at the destination location of a significant move; provided in NETS.

#### DestLevelCode

Level associated with the latitude/longitude provided in NETS for the destination location of a significant move; provided in NETS.

D = Block Face

S = Street Level

B = Block Group

T = Census Tract Centroid

Z = ZIP Code Centroid

#### Address

Street address in the most recent year establishment was in operation; provided in NETS.

#### City

City name in the most recent year establishment was in operation; provided in NETS.

#### State

State postal abbreviation in the most recent year establishment was in operation; provided in NETS.

#### ZipCode

5-Digit postal ZIP code in first year establishment was in operation; provided in NETS.

#### Latitude

Latitude in the most recent year establishment was in operation; provided in NETS.

#### Longitude

Latitude in the most recent year establishment was in operation; provided in NETS.

#### LevelCode

Level associated with the latitude/longitude provided in NETS in the most recent year establishment was in operation; provided in NETS.

D = Block Face

S = Street Level

B = Block Group

T = Census Tract Centroid

Z = ZIP Code Centroid

#### MoveYear

Year of establishment’s significant move; provided in NETS.

#### FirstYear

First year establishment was in operation; provided in NETS.

#### LastYear

Last year establishment was in operation; provided in NETS.

# Geocoders

Three geocoding services were used to geocode both the primary and secondary address. All geocprocessing was performed by geographer/ GIS analyst Danny M. Sheehan of BEH.

**&** is a placeholder for the geocoder and address [1, 2, 3, 4, 5, 6, 0], where:

**1** = Geosupport, primary address

**2** = Geosupport, secondary address

**3** = ESRI 2010 Business Analyst point location (rooftop or tax parcel-based centroid), primary address

**4** = ESRI 2010 Business Analyst point location (rooftop or tax parcel-based centroid), secondary address

**5** = ESRI 2010 Business Analyst street segment (range-interpolated), primary address

**6**  = ESRI 2010 Business Analyst street segment (range-interpolated), secondary address

**0 =** NETS, primary address

#### g&p\_xy

Indicator of whether the address was able to be geocoded.

1 = Yes

0 = No

#### g&p\_x

X coordinate returned for given address by specified geocoder.

#### g&p\_xy

Y coordinate returned for given address by specified geocoder.

#### g&p\_ct1990

US Census Tract 1990 boundary identification (geoid) from spatial join-intersection.

#### g&p\_ct2000

US Census Tract 2000 boundary identification (geoid) from spatial join-intersection.

#### g&p\_ct2010

US Census Tract 2010 boundary identification (geoid) from spatial join-intersection.

#### g&p\_zt2000

Zip code tabulation area 2010 boundary identification (geoid) from spatial join-intersection.

#### g&p\_zt2010

Zip code tabulation area 2010 boundary identification (geoid) from spatial join-intersection performed by Danny Sheehan of BEH.

#### dg&g&

Distance in meters between the xy from the two indicated geocoders (utm z18 nad83).

#### final\_xy

Indicator of geocoder for the final prioritized coordinates. Geocoder returns prioritized in the following order:

1 = Geosupport, primary address

2 = Geosupport, secondary address

3 = ESRI 2010 Business Analyst point location (rooftop or tax parcel-based centroid), primary address

4 = ESRI 2010 Business Analyst point location (rooftop or tax parcel-based centroid), secondary address

5 = ESRI 2010 Business Analyst street segment (range-interpolated), primary address

6 = ESRI 2010 Business Analyst street segment (range-interpolated), secondary address

0 = NETS, primary address

*Note: We considered Business Analyst results to be valid only if the returned geocoded address coordinates were accompanied by a matched address (final\_match)*

Only business locations with a final prioritized address coordinate geocoded to the point level or street segment are included in our final dataset and in aggregate retail counts per category

drop if final\_xy==0 & (PrimLevelCode=="B" | PrimLevelCode=="T" | PrimLevelCode=="Z")

#### final\_x

Final prioritized x coordinate returned by final\_xy geocoder.

#### final\_y

Final prioritized y coordinate returned by final\_xy geocoder.

#### final\_match

Street address corresponding to final prioritized coordinates returned by final\_xy geocoder.

#### final\_ct1990

US Census Tract 1990 boundary identification (geoid) from spatial join-intersection of final prioritized coordinates.

#### final\_ct2000

US Census Tract 2000 boundary identification (geoid) from spatial join-intersection of final prioritized coordinates.

#### final\_ct2010

US Census Tract 2010 boundary identification (geoid) from spatial join-intersection of final prioritized coordinates.

#### final\_zt2000

Zip code tabulation area 2010 boundary identification (geoid) from spatial join-intersection of final prioritized coordinates.

#### final\_zt2010

Zip code tabulation area 2010 boundary identification (geoid) from spatial join-intersection of final prioritized coordinates.

#### utm\_x

Final\_x coordinate projected to UTM NAD 83 ZONE 18N (meters). Local projected coordinate systems ensure accurate distance calculations. See Appendix A.

#### utm\_y

Final\_y coordinate projected to UTM NAD 83 ZONE 18N (meters). Local projected coordinate systems ensure accurate distance calculations. See Appendix A.

#### utm\_x\_round

utm\_x rounded to the nearest 10 meters.

#### utm\_y\_round

utm\_y rounded to the nearest 10 meters.

#### unique\_xy\_round

Concatenation of utm\_x\_round and utm\_y\_round.

Unique rounded utm x and y values (10 meter grid) for collapsing by business type at given grid point location.

# Appendix

## Projected Coordinate System Information

NAD\_1983\_UTM\_Zone\_18N

WKID: 26918 Authority: EPSG

Projection: Transverse\_Mercator

False\_Easting: 500000.0

False\_Northing: 0.0

Central\_Meridian: -75.0

Scale\_Factor: 0.9996

Latitude\_Of\_Origin: 0.0

Linear Unit: Meter (1.0)

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

# References

ABERCROMBIE, L. C., SALLIS, J. F., CONWAY, T. L., FRANK, L. D., SAELENS, B. E. & CHAPMAN, J. E. 2008. Income and racial disparities in access to public parks and private recreation facilities. *Am J Prev Med,* 34**,** 9-15.

AINSWORTH, B. E., HASKELL, W. L., WHITT, M. C., IRWIN, M. L., SWARTZ, A. M., STRATH, S. J., O'BRIEN, W. L., BASSETT, D. R., JR., SCHMITZ, K. H., EMPLAINCOURT, P. O., JACOBS, D. R., JR. & LEON, A. S. 2000. Compendium of physical activities: an update of activity codes and MET intensities. *Med Sci Sports Exerc,* 32**,** S498-504.

AUCHINCLOSS, A. H., DIEZ ROUX, A. V., BROWN, D. G., ERDMANN, C. A. & BERTONI, A. G. 2008. Neighborhood resources for physical activity and healthy foods and their association with insulin resistance. *Epidemiology,* 19**,** 146-57.

AUCHINCLOSS, A. H., DIEZ ROUX, A. V., BROWN, D. G., RAGHUNATHAN, T. E. & ERDMANN, C. A. 2007. Filling the Gaps: Spatial Interpolation of Residential Survey Data in the Estimation of Neighborhood Characteristics. *Epidemiology,* 18**,** 469-478.

BADER, M. D., AILSHIRE, J. A., MORENOFF, J. D. & HOUSE, J. S. 2010. Measurement of the local food environment: a comparison of existing data sources. *Am J Epidemiol,* 171**,** 609-17.

CRADOCK, A. L., MELLY, S. J., ALLEN, J. G., MORRIS, J. S. & GORTMAKER, S. L. 2009. Youth Destinations Associated with Objective Measures of Physical Activity in Adolescents. *Journal of Adolescent Health,* 45**,** S91-S98.

GORDON-LARSEN, P., NELSON, M. C., PAGE, P. & POPKIN, B. M. 2006. Inequality in the built environment underlies key health disparities in physical activity and obesity. *Pediatrics,* 117**,** 417-24.

MEHTA, N. K. & CHANG, V. W. 2008. Weight status and restaurant availability a multilevel analysis. *Am J Prev Med,* 34**,** 127-33.

MOORE, L. V. & DIEZ ROUX, A. V. 2006. Associations of neighborhood characteristics with the location and type of food stores. *Am J Public Health,* 96**,** 325-31.

POWELL, L. M., CHALOUPKA, F. J., SLATER, S. J., JOHNSTON, L. D. & O’MALLEY, P. M. 2007. The Availability of Local-Area Commercial Physical Activity–Related Facilities and Physical Activity Among Adolescents. *American Journal of Preventive Medicine,* 33**,** S292-S300.

RUNDLE, A., NECKERMAN, K. M., FREEMAN, L., LOVASI, G. S., PURCIEL, M., QUINN, J., RICHARDS, C., SIRCAR, N. & WEISS, C. 2009. Neighborhood food environment and walkability predict obesity in New York City. *Environ Health Perspect,* 117**,** 442-7.

TECHNOMIC INC. 2006. *Sales and % Change for Top 100 Restaurants* [Online]. Available: <http://technomic.com/facts/Top100_page1.html> [Accessed 10 December 2006.