Consumer Spending

Consumer Expenditures, Retail Potential & Retail Gap

Version

Release 2026B

Purpose

The Consumer Spending datasets consist of both the Consumer Expenditure and Retail Potential databases. The consumer expenditures cover most major household expenditures for both current and projected year, and for retail-oriented expenditures, aggregated to retail store types.

The Retail Gap database measures the difference between consumer expenditures on retail (Retail Potential) and brick and mortar Retail Sales. A positive number, or Leakage," indicates that local consumers are spending their retail dollars out of the area where they live, and a negative number, or "Surplus," indicates that the area is drawing in (and selling to) consumers that are not local. The retail gap data is available at five, four and three-digit NAICS categories.

The Consumer Spending data is highly useful for demand estimation and market share analysis.

Base Geography

Census Block (Consumer Expenditures and Retail Potential)
Census Block Group (Retail Gap)

Content

For the 2024B release, the **Consumer Expenditure** (CEX) database was completely redesigned using the AGS Synthetic Household model, discussed below in the Methodology section. The content of the model, as well as the variable naming conventions, have changed to reflect this significant methodological change.

The data has been refreshed using the latest demographic characteristics from 2026A.

The major categories have been redesigned and expanded to include:

- Total Expenditure
- Food at home (Grocery)
- Food away from home
- Alcoholic Beverages
- Shelter
- Utilities
- Household Operations
- Household Furnishings/Equipment
- Apparel
- Transportation
- Health Care
- Entertainment
- Personal Care
- Education
- Tobacco Products
- Miscellaneous Expenses
- Cash Contributions
- Tax and Retirement Savings

The structure of the variable names has been modified slightly, but still readily permits an analysis of expenditures at any level of detail and between levels of detail. It is possible to analyze any individual category within the context of its parent category (e.g. cheese expenditures as a share of total dairy product expenditures or total food at home expenditures). It is also readily apparent that one should not add together certain categories (e.g. APP01 + APP0101 would double count APP0101)

The retail potential database consists of average household and total market potential estimates by each of sixty-four retail store

types. The store types are based on the NAICS classification and are listed below:

44111 New Car Dealers
44112 User Car Dealers
44121 Recreational Vehicle Dealers
44122 Motorcycle and Boat Dealers
44131 Auto Parts and Accessories
44132 Tire Dealers
44211 Furniture Stores
44221 Floor Covering Stores
44229 Other Home Furnishing Stores
44311 Appliances and Electronics Stores
44411 Home Centers
44412 Paint and Wallpaper Stores
44413 Hardware Stores
44419 Other Building Materials Stores
44421 Outdoor Power Equipment Stores
44422 Nursery and Garden Stores
44511 Grocery Stores
44512 Convenience Stores
44521 Meat Markets
44522 Fish and Seafood Markets
44523 Fruit and Vegetable Markets
44529 Other Specialty Food Markets
44531 Liquor Stores
44611 Pharmacy and Drug Stores
44612 Cosmetics and Beauty Stores
44613 Optical Goods Stores
44619 Other Health and Personal Care Stores
44711 Gasoline Stations with Convenience Stores
44719 Gasoline Stations without Convenience Stores
44811 Men's Clothing Stores
44812 Women's Clothing Stores

44813 Children's and Infant's Clothing Stores
44814 Family Clothing Stores
44815 Clothing Accessory Stores
44819 Other Apparel Stores
44821 Shoe Stores
44831 Jewelry Stores
44832 Luggage Stores
45111 Sporting Goods Stores
45112 Hobby, Toy, and Game Stores
45113 Sewing and Needlecraft Stores
45114 Musical Instrument Stores
45121 Book Stores
45211 Department Stores
45291 Warehouse Superstores
45299 Other General Merchandise Stores
45311 Florists
45321 Office and Stationary Stores
45322 Gift and Souvenir Stores
45331 Used Merchandise Stores
45391 Pet and Pet Supply Stores
45392 Art Dealers
45393 Mobile Home Dealers
45399 Other Miscellaneous Retail Stores
45421 Vending Machines
45431 Fuel Dealers
51213 Motion Picture And Video Exhibition
54194 Veterinary Services
62111 Offices of Physicians
62121 Offices of Dentists
62132 Offices of Optometrists
62151 Medical and Diagnostic Laboratories
62211 General Medical and Surgical Hospitals
62441 Child Care Services
71121 Spectator Sports

7211 Hotels and Other Travel Accommodations
7212 RV Parks
7213 Rooming and Boarding Houses
7221 Full Service Restaurants
7222 Limited Service Restaurants
7223 Special Food Services and Catering
7224 Drinking Places
81111 Automotive Mechanical and Electrical Repair and Maintenance
81112 Automotive Body, Paint, Interior, and Glass Repair
81119 Other Automotive Repair and Maintenance

Retail Gap is laid out like the Retail Potential variables shown above. For each NAICS classification, Retail Sales (from the BusinessCounts database) are deducted from Retail Potential. The Retail Gap variables have also been aggregated to three and four-digit NAICS levels as well. At the US level, most categories show a "leakage" based on the portion of retail sales estimated to go towards e-commerce. Note: For the accommodation industry categories (7211, 7212 & 7213), the sales amounts specifically refer to retail sales at these locations.

Consumer Expenditure Methodology

The 2024B redesign includes a two level modeling system undertaken at the household level in order to more accurately reflect consumer spending for small area geographic areas. The AGS Synthetic Household model is discussed in a separate document.

The model utilizes the latest two years of the Consumer Expenditure Survey, conducted by the US Census Bureau on behalf of the Bureau of Labor Statistics. Data were analyzed at the response (household) level by constructing two levels of statistical models. The top level model consists of 84 expenditure groups,

with each group having a separate model that accounts for differences in expenditure by:

- Age of householder (life stage)
- Size of household
- Household income
- Number of vehicles available
- Tenure (owner / renter)

Several of the expenditure groups are unique to subsets of the household base only – renters, homeowners, and vehicle owners. By modeling at the household level, we are able to capture the often dramatic differences in household expenditures. Most of the models predict either per person or per vehicle expenditures.

The second level model allocates expenditures within the 84 groups to a total of 402 categories based on differences in life stage (age and household size) and income.

The results were then aggregated across all households and standardized to the published averages for the 84 groups.

Coverage is significantly expended to include:

- Income tax payments (federal, state, local)
- Social security deductions
- 401k / IRA contributions
- Expanded charitable contributions to include type of charitable organization
- Food away from home classified by type of restaurant and meal

At the same time, the classification collapsed from 5 to 3 levels of hierarchy in order to simplify reports. Further, most gifts were

allocated to a separate gift category within the appropriate group. For example, gifts of infants' apparel were moved from the gift group to the apparel group.

Retail Potential Methodology

The primary data sources used in the construction of **Retail Potential** include:

- Current year AGS Consumer Expenditure Estimates
- 2022 Economic Census
- Annual Integrated Economic Survey
- Monthly and Quarterly Retail Trade and E-Commerce Sales
- 2022 Annual Retail Trade Survey

The Economic Census presents a table known as their Industries by Product summary, which relates approximately 3,500 products from the North American Product Classification System (NAPCS) to the industries (NAICS) in which they are sold. Products were further grouped into merchandise lines. For each merchandise line, the distribution of sales by store type was computed, yielding a conversion table which apportions merchandise line sales by store type. Suppressed values from the Economic Census were algorithmically unmasked.

The AGS Consumer Expenditure database was re-computed to these merchandise lines by aggregating both whole and partial categories, yielding, at the block group level, a series of merchandise line estimates which are consistent with the AGS Consumer Expenditure database.

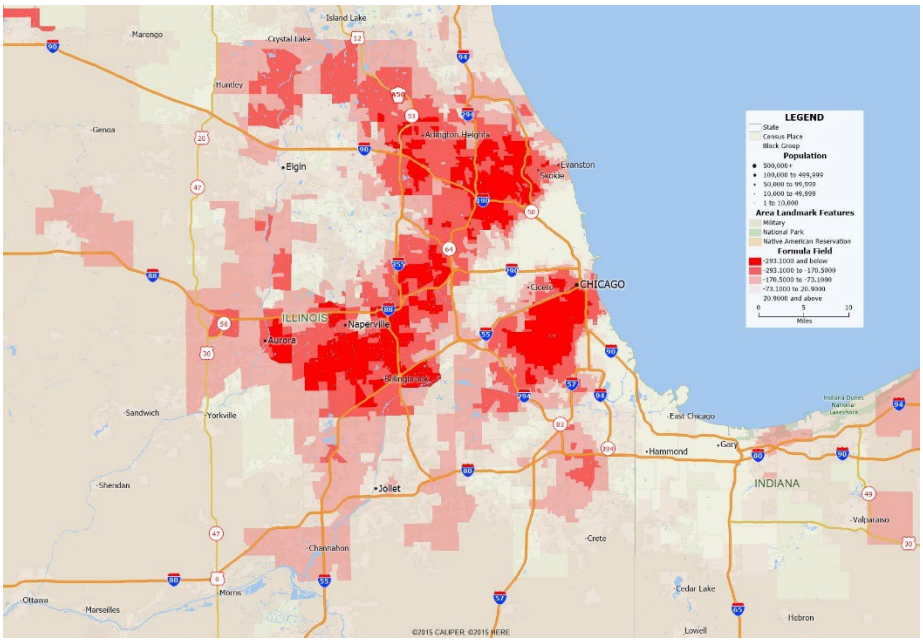
These two components were then combined in order to derive estimated potential by store type. The results were then compared to current retail trade statistics to ensure consistency and completeness.

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Retail Gap Methodology

Retail Gap is created using the Retail Potential database (above) and the Retail Sales database. The specific methodologies for Retail Sales can be found in the "Business Counts" documentation.



Grocery store retail gap map for Chicago, showing areas of red which are highly underserviced by the grocery store chains.

Data Sources

2021-2023 Bureau of Labor Statistics Consumer Expenditure Survey
2022 Economic Census
2023 Annual Integrated Economic Survey
Advance Monthly Retail Trade Surveys
Quarterly Retail E-Commerce Sales
2022 Annual Retail Trade Survey
2022 Services Annual Survey
2023 County Business Patterns
1998-2023 Estimated Annual U.S. Retail Sales - Total and E-commerce

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Further Information	Contact customer service at 877-944-4AGS or email support@appliedgeographic.com.