Accessing Census Data: The Census Bureau API and Census Business Builder

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U.S. Census Bureau
About the Census Bureau

• The U.S. Census Bureau is the federal government’s largest statistical agency.

• Our mission is to serve as the leading source of quality data about America’s people, places, and economy.

• We conduct more than 130 censuses and surveys each year, including
  - The Decennial Census – the once-a-decade population and housing count of the United States
  - The American Community Survey – the ongoing annual survey of the nation’s population
  - The Economic Census – the official five-year measure of American business
  - The Census of Governments – identifies the scope and nature of the nation's state and local government sector
  - Other Monthly, Quarterly, and Annual Business Surveys
Selected Census Bureau Geographic Areas

- Nation
  - Metropolitan and Micropolitan Areas
  - Urban Areas
  - Regions
    - American Indian/Alaska Native Areas/Hawaiian Home Lands
    - Zip Code Tabulation Areas
  - States
    - Congressional Districts
    - School Districts
    - Places
    - Counties
      - Public Use Microdata Areas (PUMAs)
      - Alaska Native Regional Areas
      - State Legislative Districts
    - Census Tracts
      - Block Groups
    - 930,000 Geographic Areas
    - 35,000+ Communities
Ways to Access Data

- QuickFacts
- My Congressional District
- Census Business Builder
- Industry Statistics Portal
- OnTheMap and OTM for Emergency Management
- American FactFinder
- Data.census.gov
- DataFerrett
- Application Programming Interface (API)
Census DataWeb API

Benefits:
- No need to curate our data
- Easy to update when new data released
- Potential performance upgrade

Accessing our API

- Request a Key
  - No charge
  - No throttling/limitations
- Browse the Discovery Tool
  - List of available datasets/endpoints (312 as of 10/11/2018)
  - Descriptions, etc.
- Review the Updates Periodically
  - Join the Mailing List
  - Check your Spam folder for alerts
- Share your Experiences
  - Developers Forum

Developers Home Page
https://www.census.gov/developers/
Census Programs in the API

**Demographic Programs**
- American Community Survey (2011-2017; varies)
- Decennial Census (1990, 2000, 2010)
- International DB (varies)
- Poverty stats (from CPS, Small Area Income & Poverty Estimates) (varies)
- The Planning Database (2015-2016)

**Economic (Business) Programs**
- Business Dynamics Statistics (1976-2014)
- County Business Patterns and Nonemployer Stats (1986-2016)
- Economic Census (2002, 2007, 2012) and Economic Indicators (varies)
- International Trade (2005-present)
- Quarterly Workforce Indicators (1990-present)
- Survey of Business Owners (2012)

**Other Services**
- Census Geocoding Service
- Census TIGERWeb GeoServices (REST API)
The API Discovery Tool

The Census Data API Discovery Tool provides a machine-readable dataset discovery service and is available in three formats:

- api.census.gov/data.html
- api.census.gov/data.xml
- api.census.gov/data.json

The content of api.census.gov/data.json is based largely on the Open Project Data Common Core Metadata Schema and is extended to include metadata specific to Census Bureau datasets. The api.census.gov/data.xml URI may be used to access the same information as XML.

In addition to the above URIs dataset discovery is available for the entire vintage/dataset hierarchy as well. For example, the following URIs may be used to discover all datasets within the 2010 vintage:

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>County Business Patterns</td>
<td>An annual series that provides economic data by industry at the U.S., State, County and Metropolitan Area levels. This series includes the number of establishments, employment during the week of March 12, first quarter payroll, and annual payroll. CBP provides statistics for businesses with paid employees for the U.S., Puerto Rico, and the Island Areas. Census Bureau staff identified a processing error that affects selected data from the 2014 County Business Patterns (CBP). As a result, we suppressed 2014 employment and payroll trends in the Health Care and Social Assistance sector (Sector 62) for the following geographies: U.S., Michigan, Battle Creek, MI metro area, Calhoun County, MI, and the 1st congressional district of Michigan. This processing error did not affect other sectors. While suppressed values can be derived by subtraction, we do not recommend using the derived values in any analyses. The Census Bureau plans to release revised statistics at a later date.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Vintage</th>
<th>Dataset Name</th>
<th>Geography List</th>
<th>Variable List</th>
<th>Group List</th>
<th>Tag List</th>
<th>Examples</th>
<th>Developer Documentation</th>
<th>API Base URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>CBP</td>
<td>geographic</td>
<td>variables</td>
<td>groups</td>
<td>X4</td>
<td>examples</td>
<td>documentation</td>
<td><a href="https://api.census.gov/data/1998/cbp">https://api.census.gov/data/1998/cbp</a></td>
</tr>
</tbody>
</table>
Census Business Builder

Guiding Principles

- Easy to use
- Customer focused
- Provide access to Census data and more
  - USDA & third party
- Leverage existing Census investments
  - Esri, API
- Use latest technology
  - Cloud
- Provide for free

CBB Home Page
https://www.census.gov/data/data-tools/cbb.html
Business Data:
- Employer and Nonemployers
- Number of Convenience Stores
- Revenue per employee
- Population per business

Customers Data:
- Median Household Income
- Educational Attainment
- Employment Status
- Consumer Spending

“My Variables”:
- Upload your own data

Reference Layers Upload tools
- Overlay a pre-defined reference layer or your own Shapefile or Map Service
https://cbb.census.gov/sbe/#industry0=44512&geoid=36103&geoType=county&view=report&reportType=summary
Define your region

What is the primary state, county, city/town, or ZIP Code in your region?

Select the primary state, county, city/town, or ZIP Code in your region by either clicking on the My Location button or by searching for it.

My Location

or

lindenhurst

==== City/Town =====
Lindenhurst Village, Illinois
Lindenhurst Village, New York
Summary

• Ease of access to data is not only good for entry-level users but power users too... check out CBB

• Stop downloading data... Connect to it via APIs

• Share your success stories (and challenges)

• Let us know what datasets you need/want that aren’t in the API right now
Thank You!

Contact me at:
andrew.w.hait@census.gov
(301)763-6747

For local assistance, visit:
https://www.census.gov/regions