Census Geocoder
Frequently Asked Questions (FAQ)

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Contents

What is the Census Geocoder?

- The Census Geocoder is an address look-up tool that converts your address to approximate coordinates (longitude and latitude) and returns information about the address range that includes the address and associated census geography.

How does the Census Geocoder obtain geocodes?

- When an address is submitted to the Census Geocoder, the U.S. Census Bureau's Master Address File/Topologically Integrated Geographic Encoding and Referencing (MAF/TIGER) System is determining if the address matches to an existing street and address range. If a match to an address range is obtained, the Census Geocoder will provide the location or geographic information associated with that address range.

My address(es) did not obtain a geocode. What are possible causes for not obtaining a geocode?

- The address or address range does not exist in our database. Reasons for this include:
  - Address is non-residential or commercial.
  - Housing unit may have been recently constructed and is not in our database yet.
  - Local Addressing Authority changed the address, and changes are not yet reflected in our database.
  - Address may be in a location where we are missing address range information.
  - Housing unit may have been destroyed/demolished.
- By geocoding the address, the Census Bureau would disclose or publish information that identifies an individual or business which is a violation of U.S. Code Title 13. This is rare, and usually occurs in sparsely populated areas where we have a limited number of addresses in our database. For more information on Title 13 click here.

What does each option in Benchmark do?

- The benchmark is the time period when a snapshot of our data was created (generally done twice a year). The geocoder allows a user to choose to geocode their single or batch addresses to different benchmarks that are related to different Census data products.

  The options listed below show examples of common benchmarks the user can choose from:

Benchmark	Description
Public_AR_Current	Most current address range data.
Public_AR_ACS####	American Community Survey contains the prior year address range data. These surveys are produced every year.
Public_AR_Census####	Address range data from the specified decennial census.

What does each option in Vintage do?

- The Vintage selection option enables users to select the geographies that were in place for a specific survey or Census within the FIND GEOGRAPHIES options of the Census Geocoder. For example, if a user selected "ACS2019_Current" the geocoding results returned by the geocoder would reflect geography in place at the time of the 2019 American Community Survey (ACS). In this example, any geography that did not exist or changed after the 2019 ACS benchmark (such as a city changing a boundary), would not be included in the results returned by the geocoder. For more information on Vintage, refer to Appendix B in the Census Geocoder User Guide.

How can you display additional Census Geographic information in the geocoder results?

- A user can access all available Census Geography for the matched address by adding &layers=all to the end of the URL associated with the results. The URL below displays how using &layers=all will produce expanded results.

  https://geocoding.geo.census.gov/geocoder/geographies/onelineaddress?address=101+Mariet ta+St%2C+Atlanta%2C%2C+30303&benchmark=4&vintage=4&layers=all

- Specific information can also be requested using the &layers=all functionality. The tables listed in Appendix C of the Census Geocoder User Guide provide names of layers along with an ID number for ACS or 2020 Census vintage. A user can choose layers by using the ID associated with the specific layer after &layers=. These features are available for One Line or Parsed Address Processing for Geographies and Geographic Coordinate options only.

Can I process more than 10,000 addresses using Batch Address Processing?

- Users who want to geocode more than 10,000 addresses using the Census Geocoder will need to split their data into multiple submissions that are 10,000 addresses or less.

Why is the Batch Address Processing capped at 10,000 addresses?

- The Census Geocoder batch size is capped at 10,000 to reduce processing time.
- Note for users processing large batches, more than one time:
  - When performing batch address geocoding multiple times on the same batch of addresses, you may experience an inconsistency with the number of addresses in your batch that successfully match and geocode.
  - For example, if you submit the same batch of 100 address records to the geocoder twice, you may get the following results:

    - First run: Match: 92, No_Match: 7, Tie: 1
    - Second run: Match: 91, No_Match: 9, Tie: 0

  - These inconsistent results are a known issue with the geocoder's address matching related to processing load, and we are working to resolve the issue. This issue affects the number of addresses in a batch that the geocoder can match and successfully geocode. **This issue does not affect the accuracy of the geocode results returned for each**

address that is successfully matched. Re-running the same batch multiple times is unlikely to improve the overall match rate and is not recommended as a strategy for overcoming this issue. Until a permanent solution for this issue is found, we suggest you create a separate batch of only the unmatched address records and resubmit them to the Census Geocoder to achieve the greatest number of positive match results.

Is there a difference between One Line and Parsed input options?

- No, the only difference between these two address input options is the way the user decides to submit the address. The information displayed in the output is the same for either option.

Where should Urbanization (URB) be entered in a batch file for a Batch Address Processing job?

- The URB should be placed in column F (the sixth column) as can be seen in the sample CSV file template available on the Batch Address Processing tabs.

Can addresses in the batch file contain both stateside and Puerto Rico addresses?

- Addresses in the batch file may be intermixed. Stateside addresses and Puerto Rico addresses without an URB should simply leave column F blank.

Where should Urbanization (URB) be entered for Puerto Rico when using One Line Address Processing?

- The URB must be placed after the house number and street name and before any city, state, Municipio or ZIP Code. If it is placed out of order, it will be ignored by the geocoder.