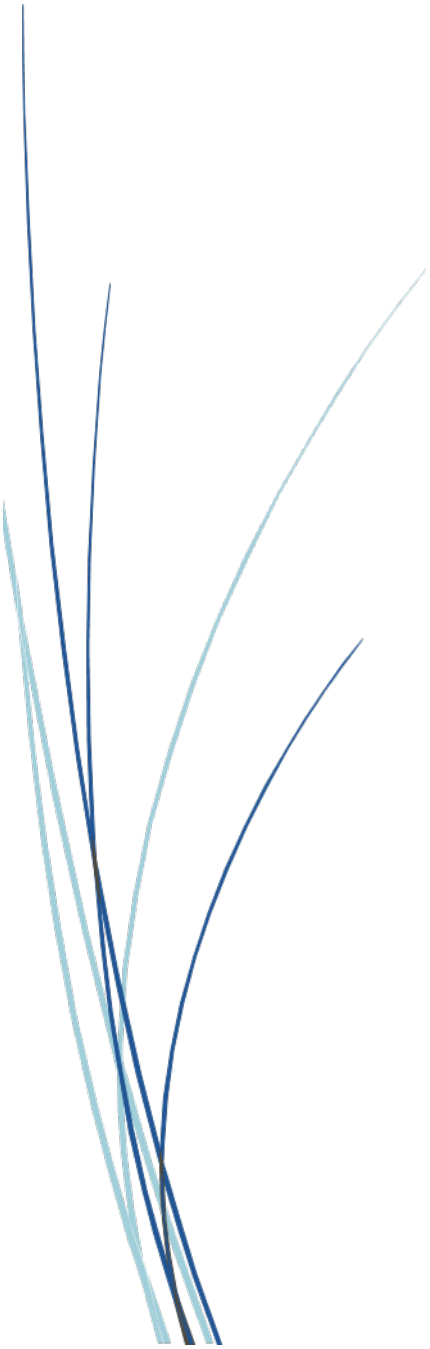
Census Geocoder User Guide

Instructions for using the Census Geocoder

June 2022



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census.gov

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INTRODUCTION

The Census Geocoder is an address look-up tool that converts your address to an approximate coordinate (longitude/latitude). Geocoded results are derived from address ranges within the Topologically Integrated Geographic Encoding and Referencing database (TIGER). Results returned to the user include information about the address range as well as Census geography. Address ranges within TIGER include all possible structure numbers even though actual structures may not exist. Coordinate results are interpolated, or approximated, based on the TIGER address ranges.

This user guide provides step by step instructions for how to use the Geocoder. This guide assumes users have some familiarity with Census geospatial terminology. If you encounter terms that are unfamiliar, refer to **Table 9: Acronyms and Terms**. All address examples in this User Guide are non-Title 13 data. More information about Title 13 can be found at **Title 13, U.S, Code History**.

USING THE CENSUS GEOCODER

The Census Geocoder allows the user to submit an address, batch of addresses, or location coordinates for geocoding. **Figure 1** shows the Geocoder landing page with address entry options for both Locations and Geographies shown as tabs across the top of the page.

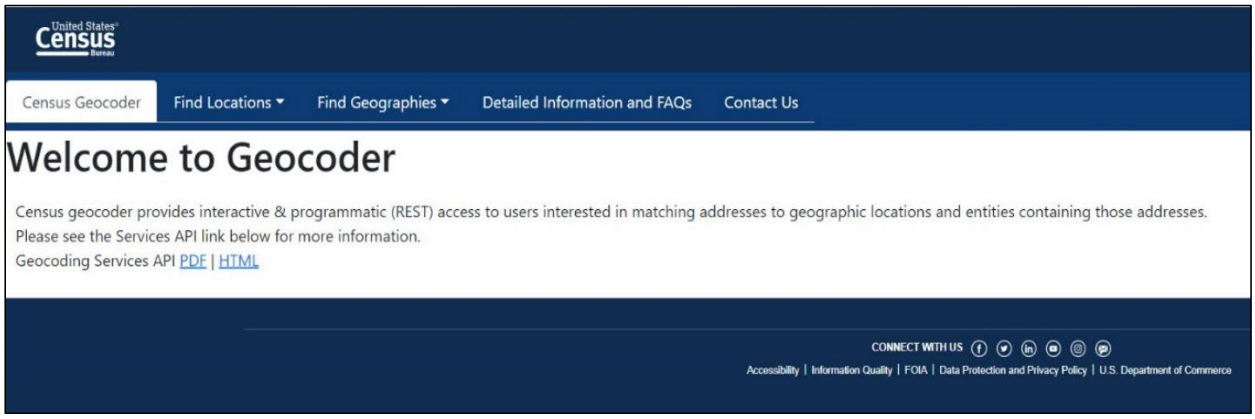


Figure 1: Geocoder Landing Page

1.1 Find Locations

The Find Locations drop down menu contains three options for geocoding. These options are: One Line Address Processing, Parsed Address Processing, and Batch Address Processing. **Figure 2** shows the contents of the Find Locations menu.

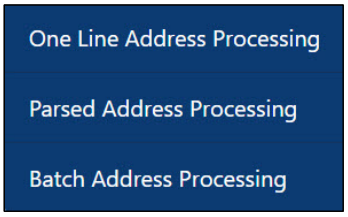


Figure 2: Find Locations Dropdown Menu Contents

1.1.1 Find Locations: One Line Address Processing Input

In the Find Locations input screen for one line address processing shown in **Figure 3**, the user enters the entire address, separated by commas, within a single text box. The city, state, or ZIP Code can be blank for this option. However, a comma should separate the missing data. For example: 101 Marietta St without the city and state information would be entered as 101 Marietta St, 30303. See **Figure 4** for an example. Please note that if a unit number is included, the geocoding results will not be affected. Geocoding results from the Census Geocoder are based on a basic street address shown in **Figure 3** and **Figure 4**. The user also selects the desired Census geographic data benchmark from which they want to derive the geocodes. There are multiple menu choices in the benchmark pull down menu. The benchmark options shown in all figures included in this user guide represent the options available at the time the user guide was created. Generally, the *Public_AR_Current* benchmark refers to the most current, or last released benchmark. Other selections contain a text string that refers to

the timing of the data benchmark, for example *Public_AR_Census2020* contains data from the 2020 Census benchmark. The available options may be different than what is shown in the figures. To process the geocoding request the *Get Results* button is selected.

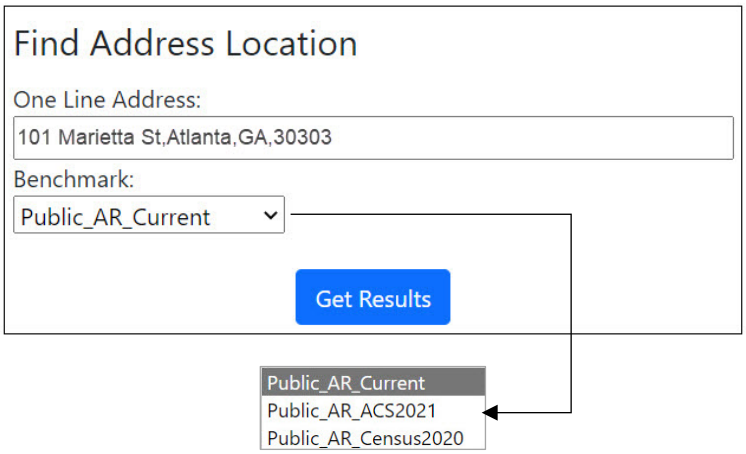


Figure 3: Find Locations – One Line Address Processing Input Screen

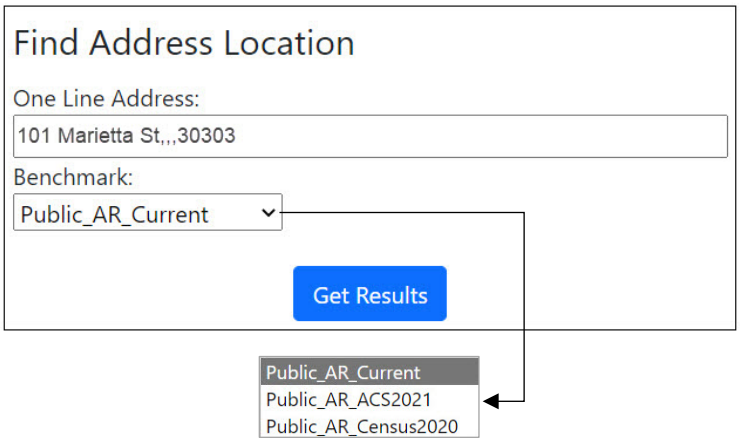


Figure 4: Find Locations – One Line Address Processing Input Screen with Missing Data

1.1.2 Find Locations: One Line Address Processing Output

The Find Locations one line address processing output includes the submitted and "matched" address, interpolated coordinates, Tigerline ID, and Tigerline ID Side of the matched address. The term "matched" refers to addresses, submitted by the user, that are geocoded or matched to address ranges within TIGER. The output returned includes address range information by field as shown in **Figure 5**.

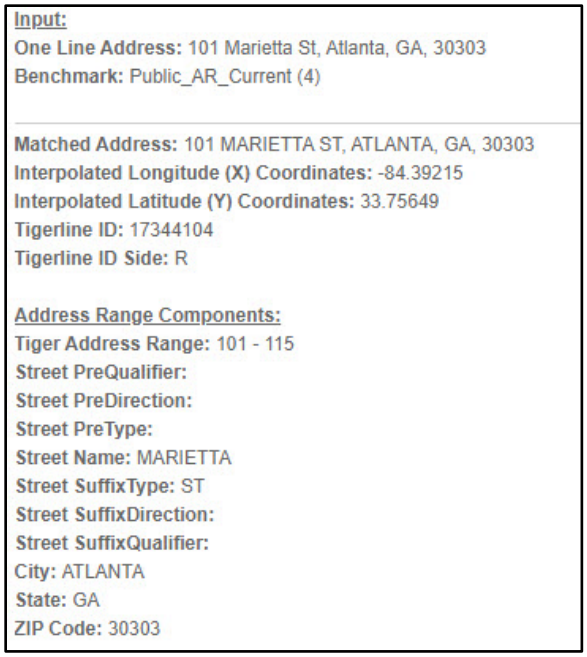


Figure 5: Find Locations – One Line Address Processing Output

1.1.3 Find Locations: Parsed Address Processing Input

In the Find Location input screen for parsed address location processing, shown in **Figure 6**, the user enters the House number with the street name, city, state, and ZIP Code into text boxes. The city, state, or ZIP Code can be blank for this option see **Figure 7**. The user selects the desired Benchmark. To process the request the *Get Results* button is selected.

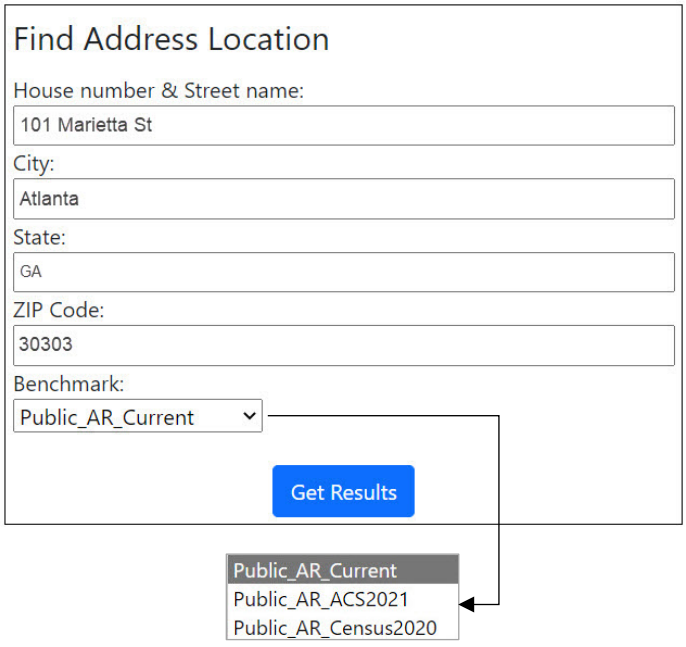


Figure 6: Find Locations – Parsed Address Processing Input Screen

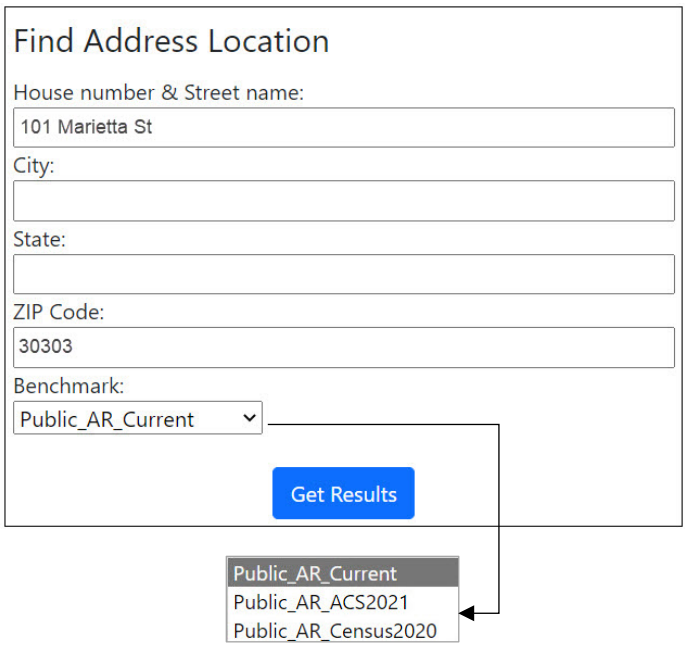


Figure 7: Find Locations – Parsed Address Processing Input Screen with Missing Data

1.1.4 Find Locations: Parsed Address Processing Output

The Find Locations parsed address processing output includes the submitted and matched address, interpolated coordinates, Tigerline ID, and Tigerline ID Side of the matched address. The term *matched* refers to addresses, submitted by the user, that are geocoded or matched to address ranges within TIGER. The output returned to the user also includes address range information by field as shown in **Figure 8**.

Figure 8: Find Locations – Parsed Address Processing Output

1.1.5 Find Locations: Batch Address Processing Input

In the Find Locations input screen for batch address processing shown in **Figure 9**, the user submits a batch of addresses up to 10,000. Acceptable batch file formats include CSV, XLS, XLSX, Text (TXT), and Data (DAT). The user selects an address file for submission by clicking the *Choose File* button. Then the user will select a benchmark. Batch file processing begins by selecting the *Get Results* button. The example shown in **Figure 9** may be slightly different depending on which internet browser is being used.

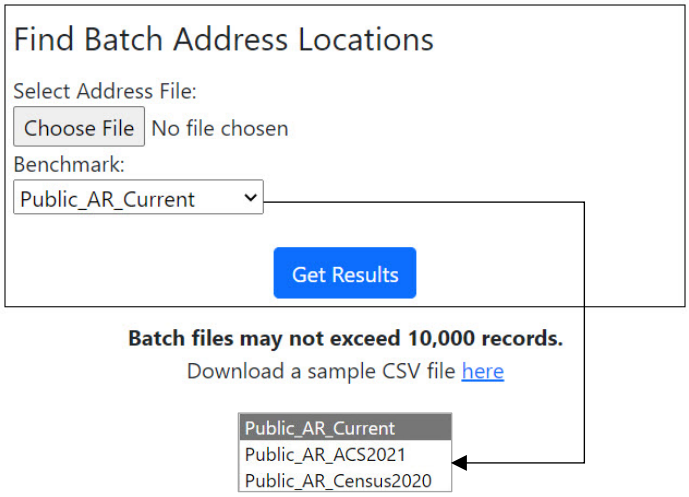


Figure 9: Find Locations – Batch Address Processing Input Screen

Once file processing completes, the results will appear as a downloaded file. Where the downloaded file appears is dependent on which internet browser is used to submit the address file. The results file will be in the same format as the input file, except for TXT and DAT files, where the results will be returned in CSV format.

1.1.6 Find Locations: Batch Address Processing Output

The Find Locations batch address processing output returns a spreadsheet of results. The format of the spreadsheet will be the same as the format in which the batch address data was submitted. For batches that were submitted in XLS and XLSX file formats, a spreadsheet containing headers will be returned as shown in **Figure 10**. Batches submitted in Data (DAT), or Text (TXT) are returned in CSV format with no headers. Regardless of the input format, the results include the following columns: Record ID Number, Input Address, TIGER Address Range Match Indicator, TIGER Match Type, TIGER Output Address, Interpolated Longitude and Latitude, Tigerline ID, and Tigerline ID Side.

	A	B	C	D	E	F	G	H
1	RECORD ID NUMBER	INPUT ADDRESS	TIGER ADDRESS RANGE MATCH INDICATOR	TIGER MATCH TYPE	TIGER OUTPUT ADDRESS	INTERPOLATED LONGITUDE AND LATITUDE	TIGERLINE ID	TIGERLINE ID SIDE
2								
3	1	101 Marietta St, Atlanta, GA, 30303	Match	Exact	101 MARIETTA ST, ATLANTA, GA, 30303	-84.39215,33.75649	17344104	R
4	2	1111 W 22nd St, Chicago, IL, 60523	Match	Non_Exact	1111 W 22ND ST, OAK BROOK, IL, 60523	-87.94593,41.846985	112548696	L
5	3	6950 W Jefferson Ave, Lakewood, CO, 80235	Match	Exact	6950 W JEFFERSON AVE, LAKEWOOD, CO, 80235	-105.08018,39.649918	177321993	L
6	4	2300 West Empire Ave, Burbank, CA, 91504	Match	Exact	2300 W EMPIRE AVE, BURBANK, CA, 91504	-118.33588,34.19183	141592402	L
7	5	32 Old Slip, New York, NY, 10005	Match	Exact	32 OLD SLIP, NEW YORK, NY, 10005	-74.00817,40.703686	59660710	L

Figure 10: Find Locations – Batch Address Processing Output

1.2 Find Geographies

The Find Geographies drop down menu contains four options for geocoding as shown in **Figure 11**. These options are: One Line Address Processing, Parsed Address Processing, Batch Address Processing, and Geographic Coordinates.

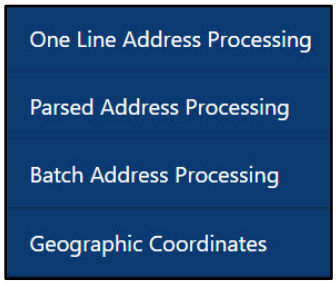


Figure 11: Find Geographies Dropdown Menu Contents

1.2.1 Find Geographies: One Line Address Processing Input

In the Find Geographies input screen for one line address processing, shown in **Figure 12**, the user enters the entire address, separated by commas, within a single text box. The city, state, or ZIP Code can be blank for this option. However, a comma should separate the missing data. For example: 101 Marietta St without the city and state information would be entered as 101 Marietta St, 30303. See **Figure 13** for an example. The user also selects the desired benchmark and vintage. There are three menu choices for benchmark. Public_AR_Current, Public_AR_ACS2021, and Public_AR_Census2020. Vintage selection options are dependent on the option that is chosen for benchmark. A complete list of the available vintage options at the time this user guide was created is listed in **Table 1**. To process the geocoding request the *Get Results* button is selected.

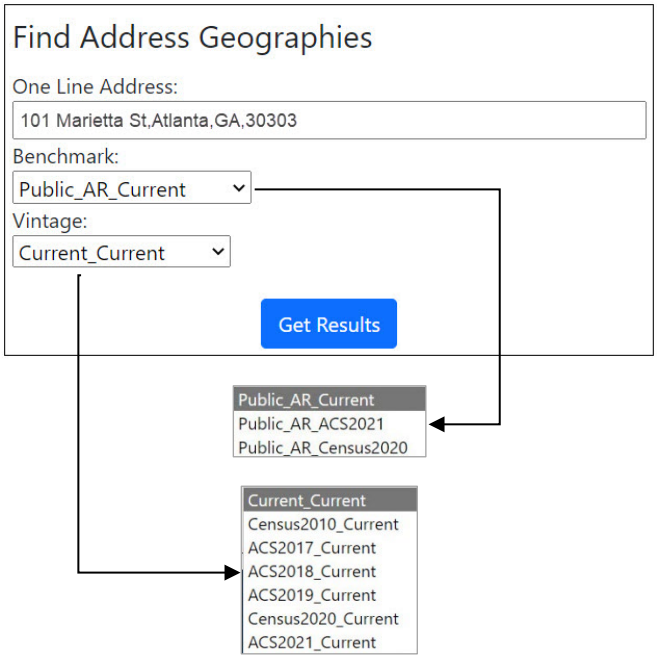


Figure 12: Find Geographies – One Line Address Processing Input Screen

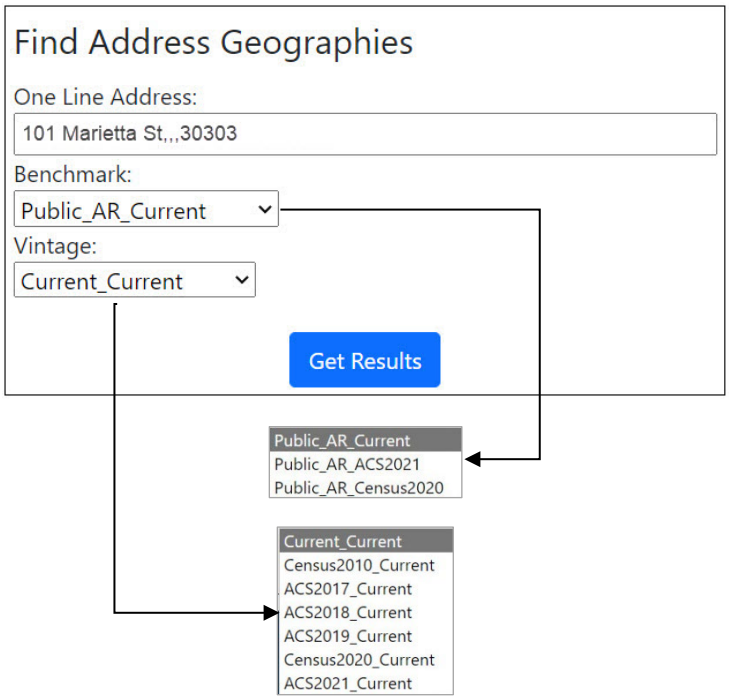
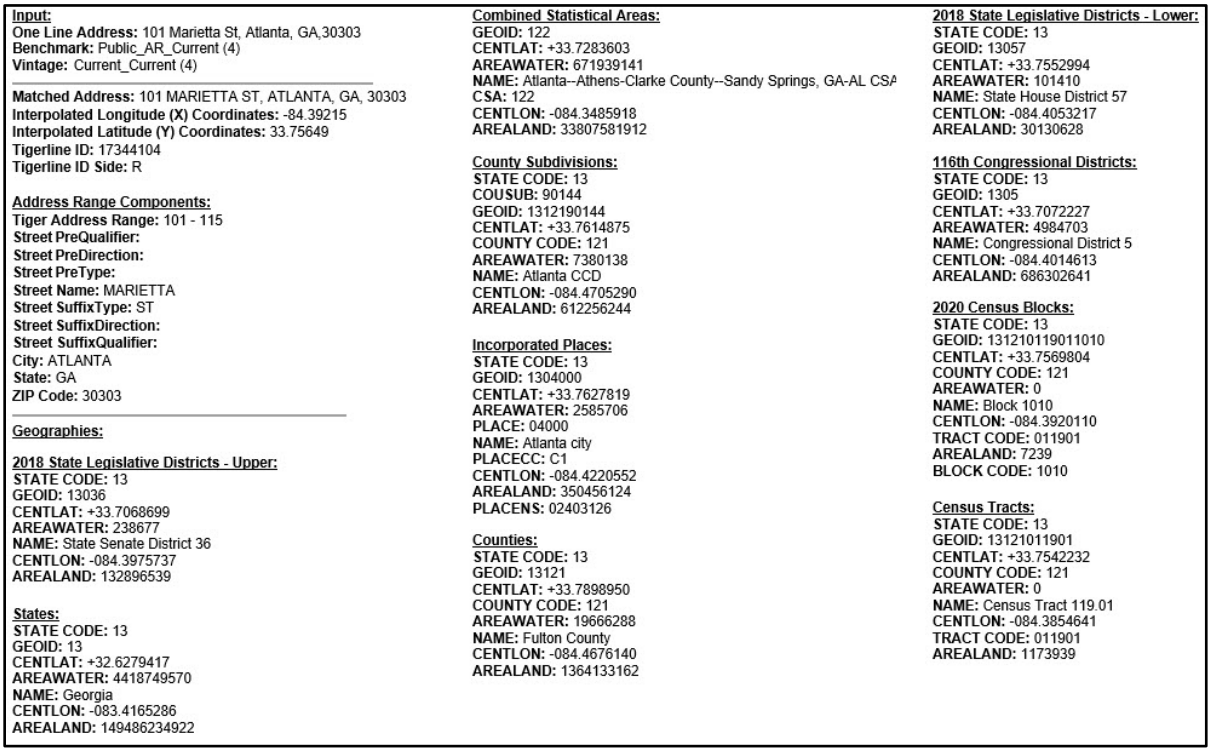


Figure 13: Find Geographies – One Line Address Processing Input Screen with Missing Data

1.2.2 Find Geographies: One Line Address Processing Output

The Find Geographies one line address processing output provides the same output as the find locations one line address processing and provides Census Geography associated with the submitted address. This additional Census Geography information includes the following: States, Counties, Census Tracts, Census Blocks, Combined Statistical Areas, Congressional districts, County Subdivisions, Incorporated Places, Census Designated Places (if applicable to

the geocoded address), State Legislative Districts - Upper, and State Legislative Districts - Lower. See **Figure 14** for an example of the information provided in this output. Keep in mind that the actual output will be displayed as a list on the screen.



Input:
One Line Address: 101 Marietta St, Atlanta, GA,30303
Benchmark: Public_AR_Current (4)
Vintage: Current_Current (4)

Matched Address: 101 MARIETTA ST, ATLANTA, GA, 30303
Interpolated Longitude (X) Coordinates: -84.39215
Interpolated Latitude (Y) Coordinates: 33.75649
Tigerline ID: 17344104
Tigerline ID Side: R

Address Range Components:
Tiger Address Range: 101 - 115
Street PreQualifier:
Street PreDirection:
Street PreType:
Street Name: MARIETTA
Street SuffixType: ST
Street SuffixDirection:
Street SuffixQualifier:
City: ATLANTA
State: GA
ZIP Code: 30303

Geographies:

2018 State Legislative Districts - Upper:
STATE CODE: 13
GEOID: 13036
CENTLAT: +33.7068699
AREAWATER: 238677
NAME: State Senate District 36
CENTLON: -084.3975737
AREALAND: 132896539

States:
STATE CODE: 13
GEOID: 13
CENTLAT: +32.6279417
AREAWATER: 4418749570
NAME: Georgia
CENTLON: -083.4165286
AREALAND: 149486234922

Combined Statistical Areas:
GEOID: 122
CENTLAT: +33.7283603
AREAWATER: 671939141
NAME: Atlanta--Athens-Clarke County--Sandy Springs, GA-AL CSA
CSA: 122
CENTLON: -084.3485918
AREALAND: 33807581912

County Subdivisions:
STATE CODE: 13
COUSUB: 90144
GEOID: 1312190144
CENTLAT: +33.7614875
COUNTY CODE: 121
AREAWATER: 7380138
NAME: Atlanta CCD
CENTLON: -084.4705290
AREALAND: 612256244

Incorporated Places:
STATE CODE: 13
GEOID: 1304000
CENTLAT: +33.7627819
AREAWATER: 2585706
PLACE: 04000
NAME: Atlanta city
PLACECC: C1
CENTLON: -084.4220552
AREALAND: 350456124
PLACENS: 02403126

Counties:
STATE CODE: 13
GEOID: 13121
CENTLAT: +33.7898950
COUNTY CODE: 121
AREAWATER: 19666288
NAME: Fulton County
CENTLON: -084.4676140
AREALAND: 1364133162

2018 State Legislative Districts - Lower:
STATE CODE: 13
GEOID: 13057
CENTLAT: +33.7552994
AREAWATER: 101410
NAME: State House District 57
CENTLON: -084.4053217
AREALAND: 30130628

116th Congressional Districts:
STATE CODE: 13
GEOID: 1305
CENTLAT: +33.7072227
AREAWATER: 4984703
NAME: Congressional District 5
CENTLON: -084.4014613
AREALAND: 686302641

2020 Census Blocks:
STATE CODE: 13
GEOID: 131210119011010
CENTLAT: +33.7569804
COUNTY CODE: 121
AREAWATER: 0
NAME: Block 1010
CENTLON: -084.3920110
TRACT CODE: 011901
AREALAND: 7239
BLOCK CODE: 1010

Census Tracts:
STATE CODE: 13
GEOID: 13121011901
CENTLAT: +33.7542232
COUNTY CODE: 121
AREAWATER: 0
NAME: Census Tract 119.01
CENTLON: -084.3854641
TRACT CODE: 011901
AREALAND: 1173939

Figure 14: Find Geographies – One Line Address Processing Output

1.2.3 Find Geographies: Parsed Address Processing Input

In Find Geographies input screen for parsed address processing, shown in **Figure 15** the user enters the address into appropriate text boxes. The user selects a benchmark and vintage. The vintage selection options are dependent on the option that is chosen for benchmark. A complete list of the vintage options by selected benchmark available at the time this user guide was created, is listed in **Table 1**. Available options for benchmark and vintage change as the Census Geocoder data is updated. To process the request the *Get Results* button is selected.

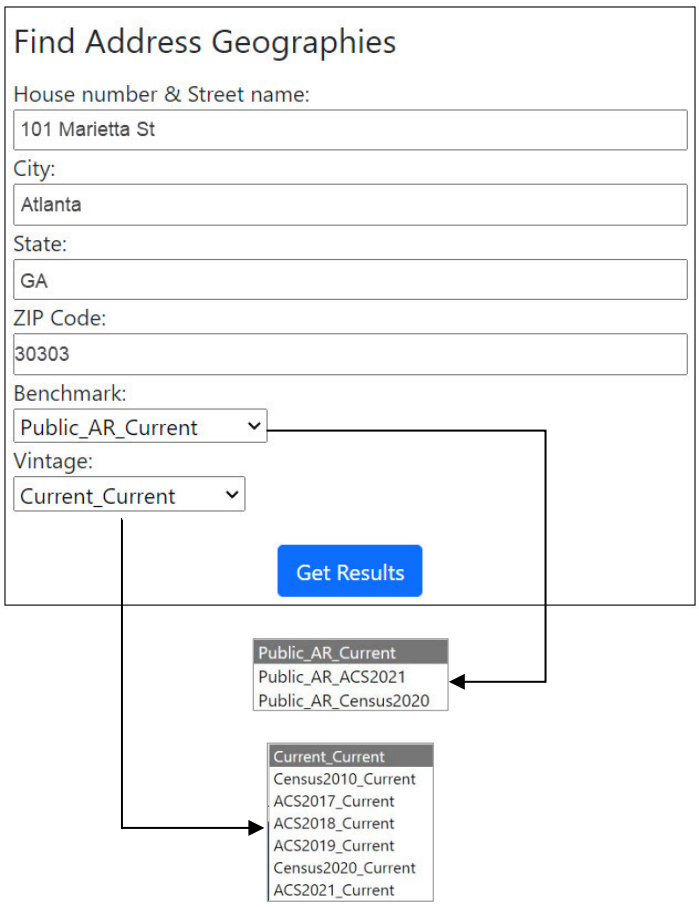


Figure 15: Find Geographies – Parsed Address Processing Input Screen

1.2.4 Find Geographies: Parsed Address Processing Output

The Find Geographies parsed address processing output provides the same results as the find locations one line and parsed address processing output, but also provides Census geography associated with the submitted address. Additional information includes States, Counties, Census Tracts, Census Blocks, Combined Statistical Areas, Congressional districts, County Subdivisions, Incorporated Places, Census Designated Places (if applicable to geocoded address), State Legislative Districts - Upper, and State Legislative Districts - Lower. See **Figure 16** for an example of the information provided in this output. Keep in mind that the actual output will be displayed as a list on the screen.

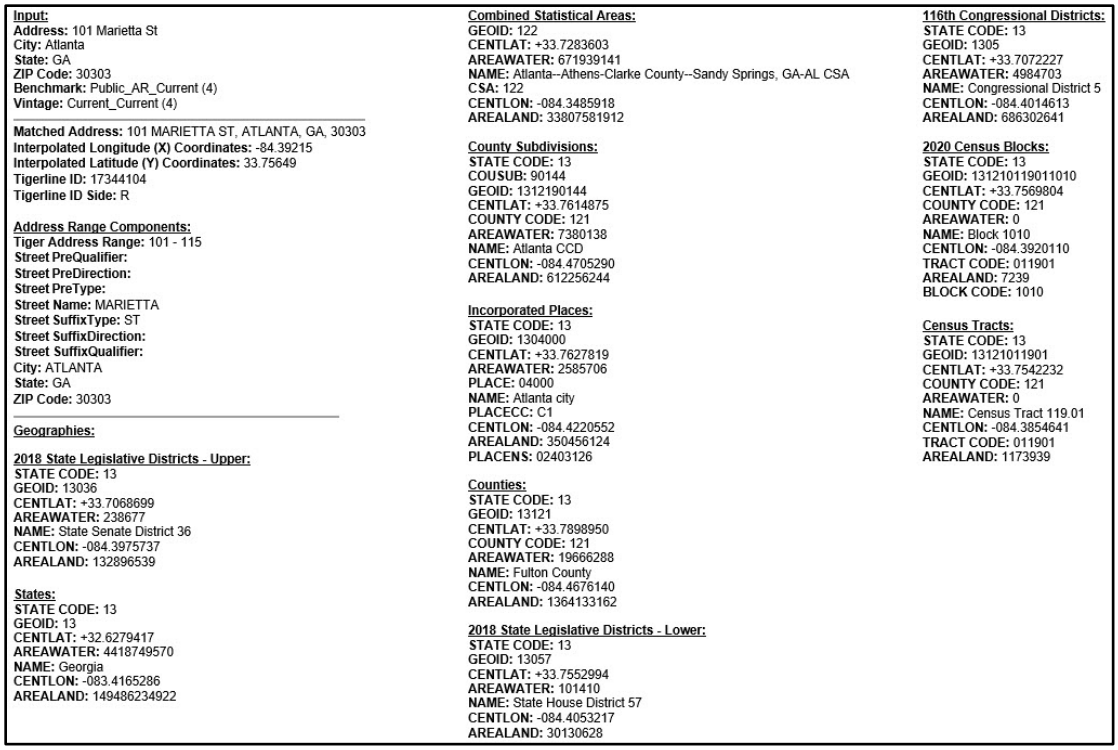


Figure 16: Find Geographies – Parsed Address Processing Output

1.2.5 Find Geographies: Batch Address Processing Input

In Find Geographies batch address processing input screen, shown in **Figure 17**, the user submits a batch of addresses up to 10,000. Accepted file formats include CSV, XLS, XLSX, Text (TXT), and Data (DAT). The user selects an address file by clicking the *Choose File* button. Then the user selects a benchmark and vintage. Vintage selection options are dependent on the option that is chosen for benchmark. A complete list of the vintage options is listed in **Table 1**. Available benchmark and vintage options may be different than what is shown in the figures. Find Geographies batch address processing begins by selecting the *Get Results* button.

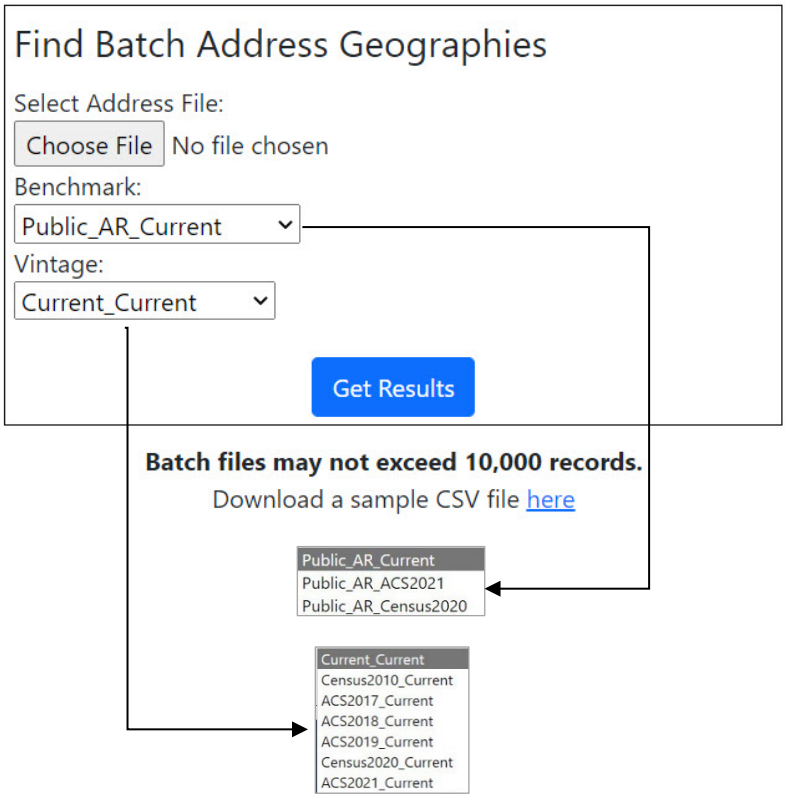


Figure 17: Find Geographies – Batch Address Processing Input Screen

Once file processing completes, the results will appear as a downloaded file. Where the downloaded file appears is dependent on which internet browser is used to process the address file. The results file and input file will be the same format as was submitted, except for TXT and DAT files, where the results are returned in CSV format.

1.2.6 Find Geographies: Batch Address Processing Output

The Find Geographies batch address processing returns a spreadsheet similar to the Find Batch Address Processing for Locations, with the addition of State, County, Tract and Block Codes. The results from batch processing are returned in a format that matches the format used to submit the batch data to the Geocoder. For batches that were submitted in XLS and XLSX file formats, a spreadsheet containing headers will be returned as shown in **Figure 18**. Batches submitted in Data (DAT) or Text (TXT) files are returned in CSV format with no headers. Regardless of the input format the results include the following columns: Record ID Number, Input Address, TIGER Address Range Match Indicator, TIGER Match Type, TIGER Output Address, Interpolated Longitude and Latitude, Tigerline ID, Tigerline ID Side, State, County, Tract and Block Codes.

	A	B	C	D	E	F	G	H	I	J	K	L
1	RECORD ID NUMBER	INPUT ADDRESS	TIGER ADDRESS RANGE MATCH INDICATOR	TIGER MATCH TYPE	TIGER OUTPUT ADDRESS	INTERPOLATED LONGITUDE AND LATITUDE	TIGERLINE ID	TIGERLINE ID SIDE	STATE CODE	COUNTY CODE	TRACT CODE	BLOCK CODE
2												
3	1	101 Marietta St, Atlanta, GA, 30303	Match	Exact	101 MARIETTA ST, ATLANTA, GA, 30303	-84.39215,33.75649	17344104	R	13	121	011901	1010
4	2	1111 W 22nd St, Chicago, IL, 60523	Match	Non_Exact	1111 W 22ND ST, OAK BROOK, IL, 60523	-87.94593,41.846985	112548696	L	17	043	844601	1063
5	3	6950 W Jefferson Ave, Lakewood, CO, 80235	Match	Exact	6950 W JEFFERSON AVE, LAKEWOOD, CO, 80235	-105.08018,39.649918	177321993	L	08	059	011904	2010
6	4	2300 West Empire Ave, Burbank, CA, 91504	Match	Exact	2300 W EMPIRE AVE, BURBANK, CA, 91504	-118.33588,34.19183	141592402	L	06	037	310501	1025
7	5	32 Old Slip, New York, NY, 10005	Match	Exact	32 OLD SLIP, NEW YORK, NY, 10005	-74.00817,40.703686	59660710	L	36	061	000700	7007

Figure 18: Find Geographies – Batch Address Processing Output

1.2.7 Find Geographies: Geographic Coordinates Input

The Find Geographies input screen for geographic coordinates shown in **Figure 19**, allows the user to submit Longitude (X) and Latitude (Y) coordinate values to determine the Census Geography associated with those coordinates. The user will then select a benchmark and vintage. Vintage selection options are dependent on the option that is chosen for benchmark. A complete list of the vintage options is listed in **Table 1**. To process the request the *Get Results* button is selected.

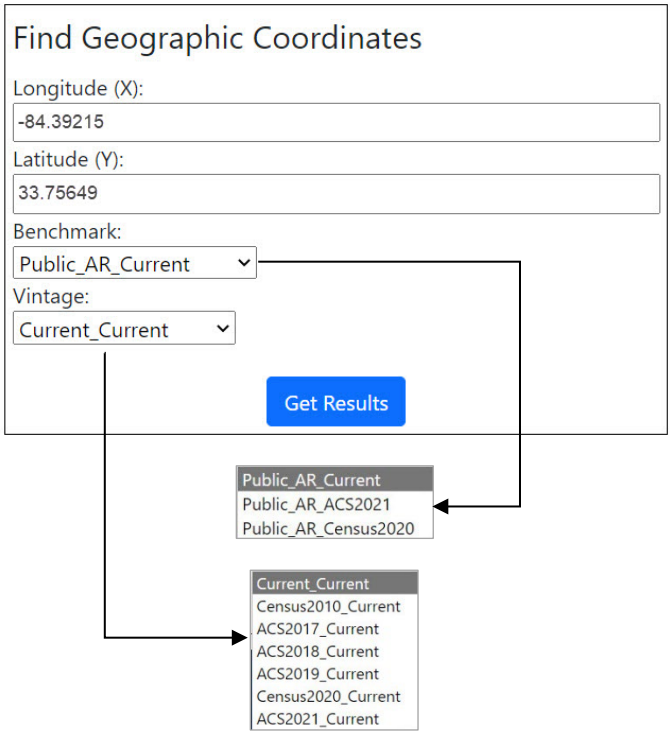
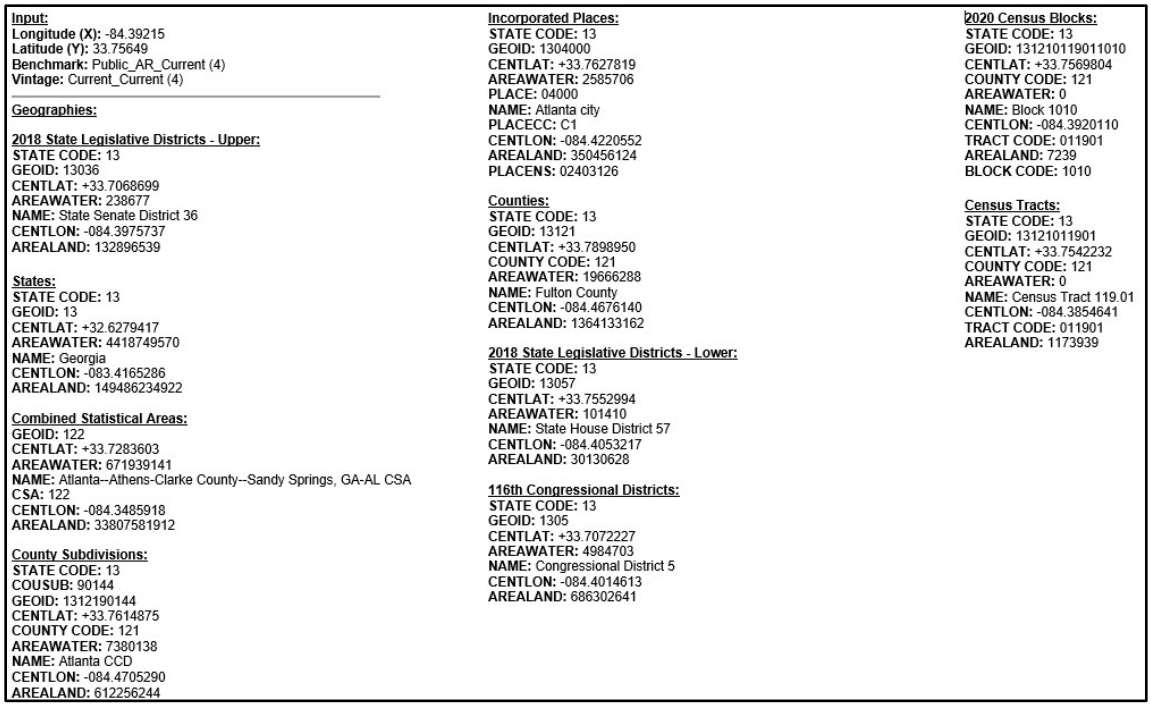


Figure 19: Find Geographic Coordinates Input Screen

1.2.8 Find Geographies: Geographic Coordinates Output

The Find Geographies output screen for geographic coordinates shown in **Figure 20** produces results based on the information entered by the user. Geography information returned includes the following: States, Counties, Census Tracts, Census Blocks, Combined Statistical Areas, Congressional Districts, County Subdivisions, Incorporated Places, Census Designated Places (if applicable to geocoded address), State Legislative Districts - Upper, and State Legislative Districts - Lower. **Figure 20** is an example of the information provided in this output. Keep in mind that the actual output will be displayed as a list on the screen.



Input:
Longitude (X): -84.39215
Latitude (Y): 33.75649
Benchmark: Public_AR_Current (4)
Vintage: Current_Current (4)

Geographies:

2018 State Legislative Districts - Upper:
STATE CODE: 13
GEOID: 13036
CENTLAT: +33.7068699
AREAWATER: 238677
NAME: State Senate District 36
CENTLON: -084.3975737
AREALAND: 132896539

States:
STATE CODE: 13
GEOID: 13
CENTLAT: +32.6279417
AREAWATER: 4418749570
NAME: Georgia
CENTLON: -083.4165286
AREALAND: 149486234922

Combined Statistical Areas:
GEOID: 122
CENTLAT: +33.7283603
AREAWATER: 671939141
NAME: Atlanta--Athens-Clarke County--Sandy Springs, GA-AL CSA
CSA: 122
CENTLON: -084.3485918
AREALAND: 33807581912

County Subdivisions:
STATE CODE: 13
COUSUB: 90144
GEOID: 1312190144
CENTLAT: +33.7614875
COUNTY CODE: 121
AREAWATER: 7380138
NAME: Atlanta CCD
CENTLON: -084.4705290
AREALAND: 612256244

Incorporated Places:
STATE CODE: 13
GEOID: 1304000
CENTLAT: +33.7627819
AREAWATER: 2585706
PLACE: 04000
NAME: Atlanta city
PLACECC: C1
CENTLON: -084.4220552
AREALAND: 350456124
PLACENS: 02403126

Counties:
STATE CODE: 13
GEOID: 13121
CENTLAT: +33.7898950
COUNTY CODE: 121
AREAWATER: 19666288
NAME: Fulton County
CENTLON: -084.4676140
AREALAND: 1364133162

2018 State Legislative Districts - Lower:
STATE CODE: 13
GEOID: 13057
CENTLAT: +33.7552994
AREAWATER: 101410
NAME: State House District 57
CENTLON: -084.4053217
AREALAND: 30130628

116th Congressional Districts:
STATE CODE: 13
GEOID: 1305
CENTLAT: +33.7072227
AREAWATER: 4984703
NAME: Congressional District 5
CENTLON: -084.4014613
AREALAND: 686302641

2020 Census Blocks:
STATE CODE: 13
GEOID: 131210119011010
CENTLAT: +33.7569804
COUNTY CODE: 121
AREAWATER: 0
NAME: Block 1010
CENTLON: -084.3920110
TRACT CODE: 011901
AREALAND: 7239
BLOCK CODE: 1010

Census Tracts:
STATE CODE: 13
GEOID: 13121011901
CENTLAT: +33.7542232
COUNTY CODE: 121
AREAWATER: 0
NAME: Census Tract 119.01
CENTLON: -084.3854641
TRACT CODE: 011901
AREALAND: 1173939

Figure 20: Find Geographic Coordinates Output

APPENDICES

APPENDIX A FORMATTING AN INPUT FILE FOR BATCH ADDRESS PROCESSING

The address input file must be in one of the following formats: CSV, XLS, XLSX, Text (TXT) or Data (DAT). Location and Geography addresses that are batch geocoded will have the same output format as the address input file submitted by the user; however, TXT and DAT formats results are in CSV output format. Before submitting an address file, the user must create a column in the address file that contains a unique ID number for each address. Header names must not be included in the batch input file. The output spreadsheet includes headers assigned by the geocoding process, except for submissions that are in the following formats: CSV, TXT, and DAT. **Figure 21** demonstrates the use of XLS, XLSX, and CSV file formats. It contains the following information: Record ID Number *(Column A)*, Street Address *(Column B)*, City *(Column C)*, State *(Column D)*, and ZIP Code *(Column E)*.

	A	B	C	D	E
1	1	101 Marietta St	Atlanta	GA	30303
2	2	1111 W 22nd St	Chicago	IL	60523
3	3	6950 W Jefferson Ave	Lakewood	CO	80235
4	4	2300 West Empire Ave	Burbank	CA	91504
5	5	32 Old Slip	New York	NY	10005

Figure 21: Batch Address Processing Input for XLS, XLSX, and CSV File Formats

Figure 22 shows the format for a Text (TXT) file. The user creates unique record IDs for each address in the file. A comma must be present between each part of the address.

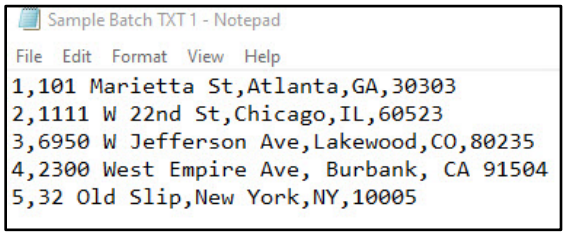


Figure 22: Batch Address Processing Input for a Text (TXT) File Format

The city, state, or ZIP Code fields can be blank; however, either the city and state fields or the ZIP Code field must be populated for each address. In **Figure 23**, for XLS, XLSX, or CSV format, when the ZIP Code field (column E) is blank, the city and state fields (columns C and D) must be populated. Conversely, when the city and state fields (columns C and D) are blank, the ZIP Code field (column E) must be populated. **Figure 24** shows the formatting for a Text (TXT) file where the city, state or ZIP Code fields are blank.

	A	B	C	D	E
1	1	101 Marietta St	Atlanta	GA	
2	2	1111 W 22nd St			60523
3	3	6950 W Jefferson Ave	Lakewood	CO	80235
4	4	2300 West Empire Ave	Burbank	CA	
5	5	32 Old Slip			10005

Figure 23: Batch Address Processing Input for XLS, XLSX, or CSV Format with Missing Data

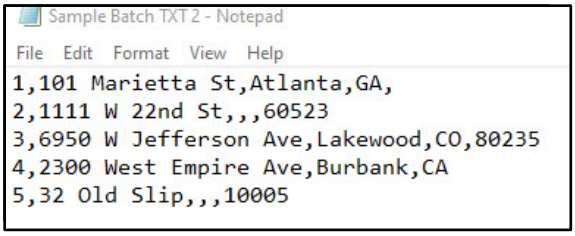


Figure 24: Batch Address Processing Input for Text (TXT) File Format with Missing Data

APPENDIX B AVAILABLE VINTAGE OPTIONS BASED ON BENCHMARKS

Table 1 represents options available at the time this User Guide was created. Both the Benchmark and Vintage options change when data is updated for the Census Geocoder. ACS versions change yearly, and census options are changed every ten years when the census is performed.

Table 1: Available Vintage Options

Benchmark	Current Options	Vintage Selection Options
Public_AR_Current	The most current benchmark	Current_Current
		Census2010_Current
		ACS2017_Current
		ACS2018_Current
		ACS2019_Current
		Census2020_Current
		ACS2021_Current
Public_AR_ACS2021	Coincides with data collected for the 2021 American Community Survey (ACS)	Current_ACS2021
		Census2010_ACS2021
		ACS2017_ ACS2021
		ACS2018_ ACS2021
		ACS2019_ ACS2021
		Census2020_ ACS2021
		ACS2021_ ACS2021
Public_AR_Census2020	Coincides with the geography in place at the time of 2020 Census Data Collection	Census2020_Census2020
		Census2010_Census2020

APPENDIX C CUSTOMIZING LAYERS RETURNED FOR AN ADDRESS

A user can access all available Census Geography for the submitted address by adding ***&layers=all*** to the end of the URL associated with the results. The URL below displays how using ***&layers=all*** function looks and produces the expanded results.

<https://geocoding.geo.census.gov/geocoder/geographies/onelineaddress?address=101+Marietta+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 (tables 2 – 8) listed below give names of layers along with an ID number for ACS or 2020 Census vintage. The information in these tables is the most current at the time this User Guide was created. The layer ID numbers may change as the Census Geocoder is updated with new data. A user can choose layers by using the ID associated with the specific layer after ***&layers=***. Examples of this feature are shown below. These features are available for One Line or Parsed Address Processing for Geographies and Geographic Coordinate options only.

Example 1:

If you wanted to return only County (84) and State (86), a user could specify ***&layers=86, 84*** as shown in the link below.

<https://geocoding.geo.census.gov/geocoder/geographies/onelineaddress?address=101+Marietta%2Catlanta%2Cga&benchmark=4&vintage=4&layers=86,84>

Example 2:

If 2018 State Legislative Districts - Upper (56) is the only information to be returned, you would specify ***&layers=56*** as shown in the link below.

<https://geocoding.geo.census.gov/geocoder/geographies/onelineaddress?address=101+Marietta%2Catlanta%2Cga&benchmark=4&vintage=4&layers=56>

Table 2: Census Specific Layer Information for &layers= function

Layer Name	ID # for ACS	ID # for Census 2020
Census Block Groups	10	8
Census Designated Places	30	28
Census Divisions	60	58
Census Regions	62	60
Census Tracts	8	6
Census Blocks	12	10
Public Use Microdata Areas	0	N/A
Urbanized Areas	64	N/A

Layer Name	ID # for ACS	ID # for Census 2020
Census Urban Clusters	66	N/A
ZIP Code Tabulation Areas	2	N/A
Voting Districts	N/A	N/A
Traffic Analysis Districts	N/A	N/A
Traffic Analysis Zones	N/A	N/A
Urban Growth Areas	N/A	0

Table 3: Legislative Districts Layer Information for &layers= function

Layer Name	ID # for ACS	ID # for Census 2020
116th Congressional Districts	54	52
113th Congressional Districts	N/A	N/A
111th Congressional Districts	N/A	N/A
2018 State Legislative Districts – Upper	56	54
2018 State Legislative Districts – Lower	58	56
2012 State Legislative Districts - Upper	N/A	N/A
2012 State Legislative Districts - Lower	N/A	N/A
2010 State Legislative Districts - Upper	N/A	N/A
2010 State Legislative Districts - Lower	N/A	N/A

Table 4: Metropolitan and Micropolitan Information Layer for &layers= function

Layer Name	ID # for ACS	ID # for Census 2020
Combined Statistical Areas	76	70
Metropolitan Divisions	78	72
Metropolitan New England City and Town Areas	72	66
Metropolitan Statistical Areas	80	74
Micropolitan New England City and Town Areas	74	68
Micropolitan Statistical Areas	82	76

Table 5: New England Layer Information for &layers= function

Layer Name	ID # for ACS	ID # for Census 2020
Combined New England City and Town Areas	68	62
New England City and Town Area Divisions	70	64

Table 6: Places Layer Information for &layers= function

Layer Name	ID # for ACS	ID # for Census 2020
Counties	86	80
County Subdivisions	22	20
Subbarrios	24	22
Estates	20	18
Consolidated Cities	26	24
Incorporated Places	28	26
States	84	78

Table 7: School Districts Layer Information for &layers= function

Layer Name	ID # for ACS	ID # for Census 2020
Elementary School Districts	18	16
Secondary School Districts	16	14
Unified School Districts	14	12

Table 8: Tribal Layer Information for &layers= function

Layer Name	ID # for ACS	ID # for Census 2020
Alaska Native Regional Corporations	32	30
Tribal Subdivisions	34	32
Federal American Indian Reservations	36	34
Off-Reservation Trust Lands	38	36
State American Indian Reservations	40	38
Alaska Native Village Statistical Areas	44	42
Oklahoma Tribal Statistical Areas	46	44
State Designated Tribal Statistical Areas	48	46
Tribal Designated Statistical Areas	50	48
American Indian Joint-Use Areas	52	50
Tribal Census Tracts	N/A	2
Tribal Block Groups	N/A	4

APPENDIX D GEOCODER TERMINOLOGY

Table 9: Acronyms and Terms

Term, Acronym, or Output Field	Definition
ACS	American Community Survey: is an ongoing survey that provides vital information on a 1, 3, or 5-year basis about our nation and its people.
AREALAND	This field provides land area in square meters for the geographic unit and is for statistical purposes only.
AREAWATER	This field provides water area in square meters for the geographic unit and is for statistical purposes only.
BENCHMARK	Refers to the time-period that corresponds to a snapshot of Census data.
BLOCK CODE	This field provides the census block number. Census blocks are uniquely numbered with a four-digit number (0001 to 9999).
CENTROID	The point at the center of any polygon. These points can include state, county, tract, block, or other spatial entity.
CENTLAT	Centroid Latitude: The latitude (Y) coordinate value of the Centroid.
CENTLON	Centroid Longitude: The longitude (X) coordinate value of the Centroid.
CENSUS BLOCKS	Statistical areas bounded by visible features, such as streets, roads, streams, and railroad tracks. Blocks can also be bounded by nonvisible boundaries, such as property lines and city, township, school district, and county limits and short line-of-sight extensions of streets and roads. Census blocks cover the entire territory of the United States, Puerto Rico, and the Island Areas. Census blocks nest within all other tabulated census geographic entities and are the basis for all tabulated data.
CENSUS TRACT	Census Tracts are small relatively permanent statistical subdivisions of a county. These tracts can have up to a six-digit integer number and may have an optional two-digit suffix (if a Census Tract is split or suffixed, each portion may keep the same 4-digit identifier but will be given a unique suffix [.01 to .98]).
CITY	This field provides the city name of the submitted address.
COUNTY CODE	This field provides a three-digit code that identifies each county.
CSA	Combined Statistical Area shows combined statistical areas, and identifies their component metropolitan, and micropolitan statistical areas.
GEOID	This field provides the Geographic Identifier. The GEOID consists of numeric values that uniquely identify geographic areas for which the Census Bureau tabulates data. For example, the GEOID for the address 101 Marietta St, Atlanta, GA, 30303 would be: 111210119002015. The first two digits (11) are the State Code, the next three digits (121) are the County Code, the next six digits (011900) are the Tract Code, and the final four digits (2015) are the Block Code.

Term, Acronym, or Output Field	Definition
ADDRESS	This field contains the original address that was submitted for geographies-based search.
INTERPOLATION	A way to find values between a pair of data points.
INTERPOLATED COORDINATES	This field contains the longitude (X) and latitude (Y) values based on interpolation of where the input address falls along an address range.
INTERPOLATED LONGITUDE	This field contains the longitude (X) coordinate value based on interpolation of where the input address falls along an address range.
INTERPOLATED LATITUDE	This field contains the latitude (Y) coordinate value based on interpolation of where the input address falls along an address range.
LOWER STATE LEGISLATIVE DISTRICT	Areas from which members are elected to House chambers of the state legislatures.
MATCHED ADDRESS	This field contains the address that matched the original input address. The matched address is based on where the submitted address falls along a Tigerline.
NAME	This field contains the corresponding name that is associated with the specific geography data field. For example, the NAME field for the 2018 State Legislative District – Upper is State Senate District 36.
ONE LINE ADDRESS	This field contains the original address that was submitted for location-based searches.
RECORD ID NUMBER	This field contains the Unique ID Number of each address submitted. The output file may return the records in a different order than submitted by the user.
STATE	This field provides the state abbreviation of the matched address
STATE CODE	This field contains the two-digit state code.
STREET NAME	This field contains the name of the street.
STREET PREDIRECTION	This field contains a word preceding the street name that indicates the directional taken by the thoroughfare or the sector where it is located. For example: “123 N MAIN ST E”, the street pre-directional would be “N”.
STREET PREQUALIFIER	A word or phrase in a complete street name that precedes and modifies the street name, but is separated from it by a street name, street pre-type, or a street pre-directional or both. For example: “123 Old Main St”, the Street Pre-qualifier would be “Old”.
STREET PRETYPE	A word or phrase that precedes the street name and identifies a type of thoroughfare in a complete street name. For example: “123 County Road 88”, the Street Pre-type would be “County Road”.

Term, Acronym, or Output Field	Definition
STREET SUFFIX DIRECTION	An abbreviation following the street name that indicates the directional taken by the thoroughfare or the sector where it is located. For example: “123 N MAIN ST E”, the Street Suffix Direction would be “E”.
STREEET SUFFIX QUALIFIER	A word or phrase in a complete street name that follows and modifies the name but is separated from it by a street suffix-type, street suffix direction and/or street suffix type. For example: “123 East End Avenue Extended”, the Street Suffix Qualifier would be the word “Extended”.
STREET SUFFIX TYPE	The element of the complete street name following the street name element that indicates the type of street. For example, “123 N MAIN ST E”, the Street Suffix Type would be “ST”.
TIGER	Topologically Integrated Geographic Encoding and Referencing: A digital (computer-readable) geographic database that automates the mapping and related geographic activities required to support the U.S. Census Bureau’s census and survey programs.
TIGER ADDRESS RANGE	This field contains the interpolated address range that the address is matched to.
TIGER ADDRESS RANGE MATCH INDICATOR	Results indicating if there was a match to an addressed road segment in TIGER for the address (Match, tie, no match)
TIGERLINE ID	A Tigerline ID is an assigned ID for a roadway. Based upon and dependent upon the 'side', also provided in the results, a geocode (Census Block) is assigned.
TIGERLINE ID SIDE	This field contains the side of the street that the address range lies on either L (Left) or R (Right).
TIGER MATCH TYPE	This field Indicates if the TIGER matched address was: Exact or Non-Exact.
TIGER OUTPUT ADDRESS	This field contains the standardized version of the input address that was used to match to the TIGER address range.
TRACT CODE	This field contains the Census Tract code.
UPPER STATE LEGISLATIVE DISTRICT	Areas from which members are elected to Senate chambers of the state legislatures. For states that have only one chamber of legislature, Census Bureau treats as Upper State Legislative District for data representation.
USPS	United States Postal Service is an independent agency of the executive branch of the United States federal government responsible for providing postal service in the United States, including its insular areas and associated states.
VINTAGE	Census or Survey that the data relates to.
ZIP CODE	A ZIP (Zone Improvement Plan) Code is a five-digit code assigned by the USPS to a section of a street, a collection of streets, an establishment, structure, or group of post office boxes, for the delivery of mail.