



2020 Census
Local Update of Census Addresses Operation
(LUCA)
Training
Introduction

Agenda

- The Decennial Census.
- Census Bureau terminology.
- Preparation for 2020 LUCA participation.

The 2020 LUCA materials and operational instructions are subject to change between the LUCA Training timeframe and the time you receive your materials for review in the spring of 2018; therefore, the examples shown in the various training modules may differ from the official materials.

The Decennial Census

The purpose is to **conduct** a census of population and housing and **disseminate** results to the President, the States, and the American People.

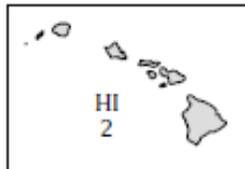
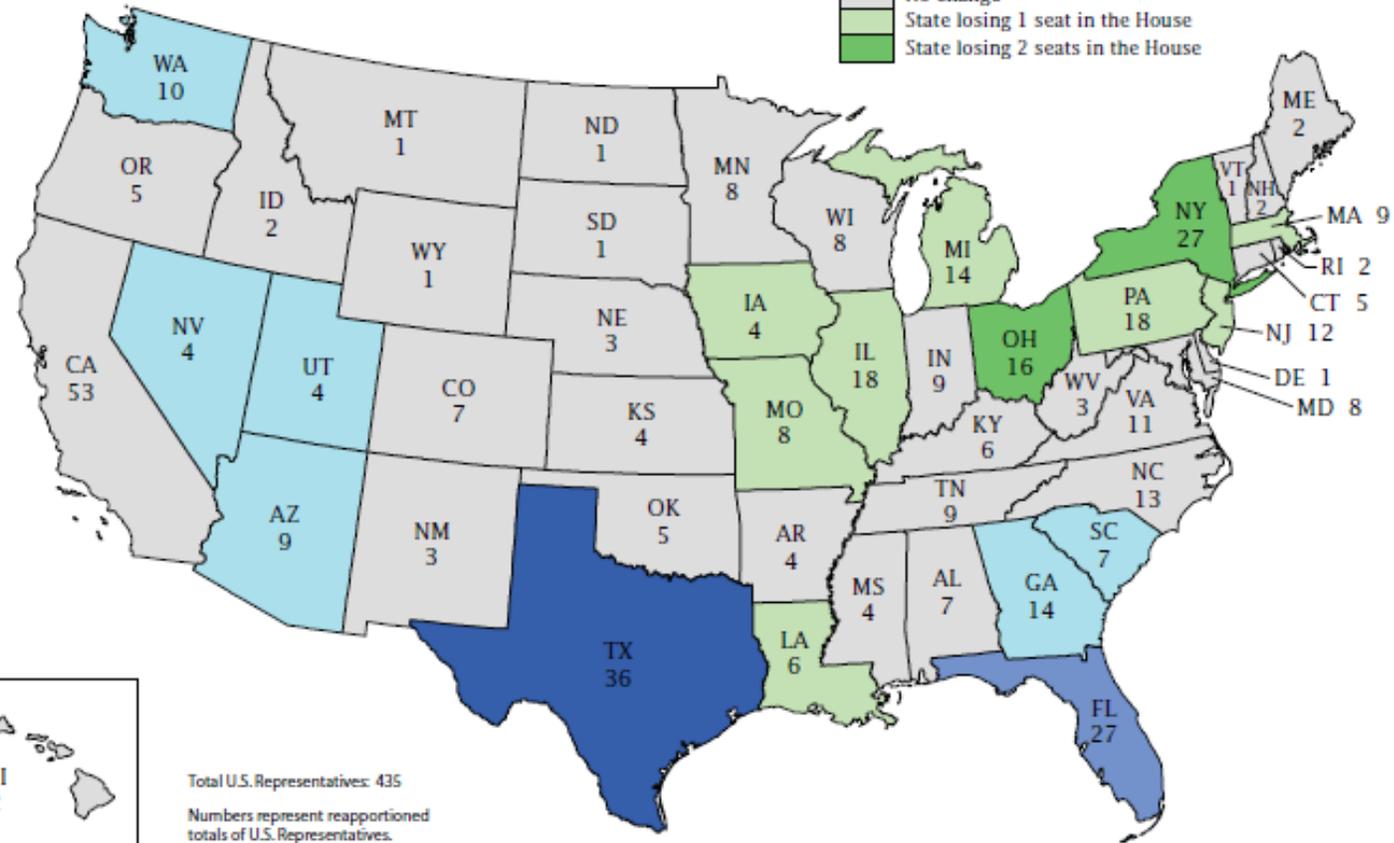
- Uses of Census data:
 - **Apportioning** representation among states as mandated by Article 1, Section 2 of the US Constitution.
 - **Drawing** congressional and state legislative districts, school districts and voting precincts.
 - **Enforcing** voting rights and civil rights legislation.
 - **Distributing** federal dollars.
 - **Informing** planning decisions of tribal, federal, state and local government and organizational decisions (e.g., where to locate, size of market, etc.) of businesses and non-profits.

Apportionment of the U.S. House of Representatives Based on the 2010 Census

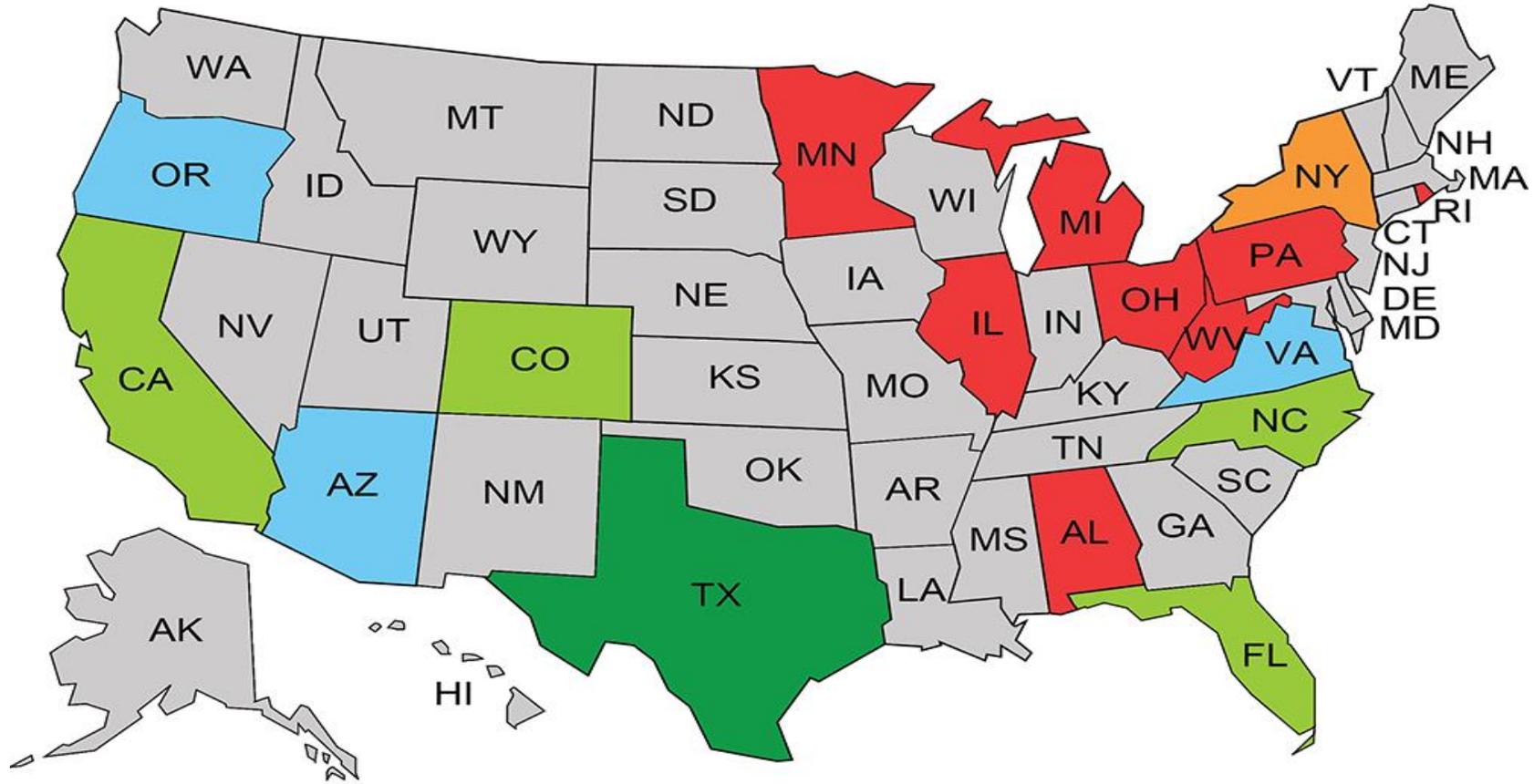


Change from 2000 to 2010

- State gaining 4 seats in the House
- State gaining 2 seats in the House
- State gaining 1 seat in the House
- No change
- State losing 1 seat in the House
- State losing 2 seats in the House



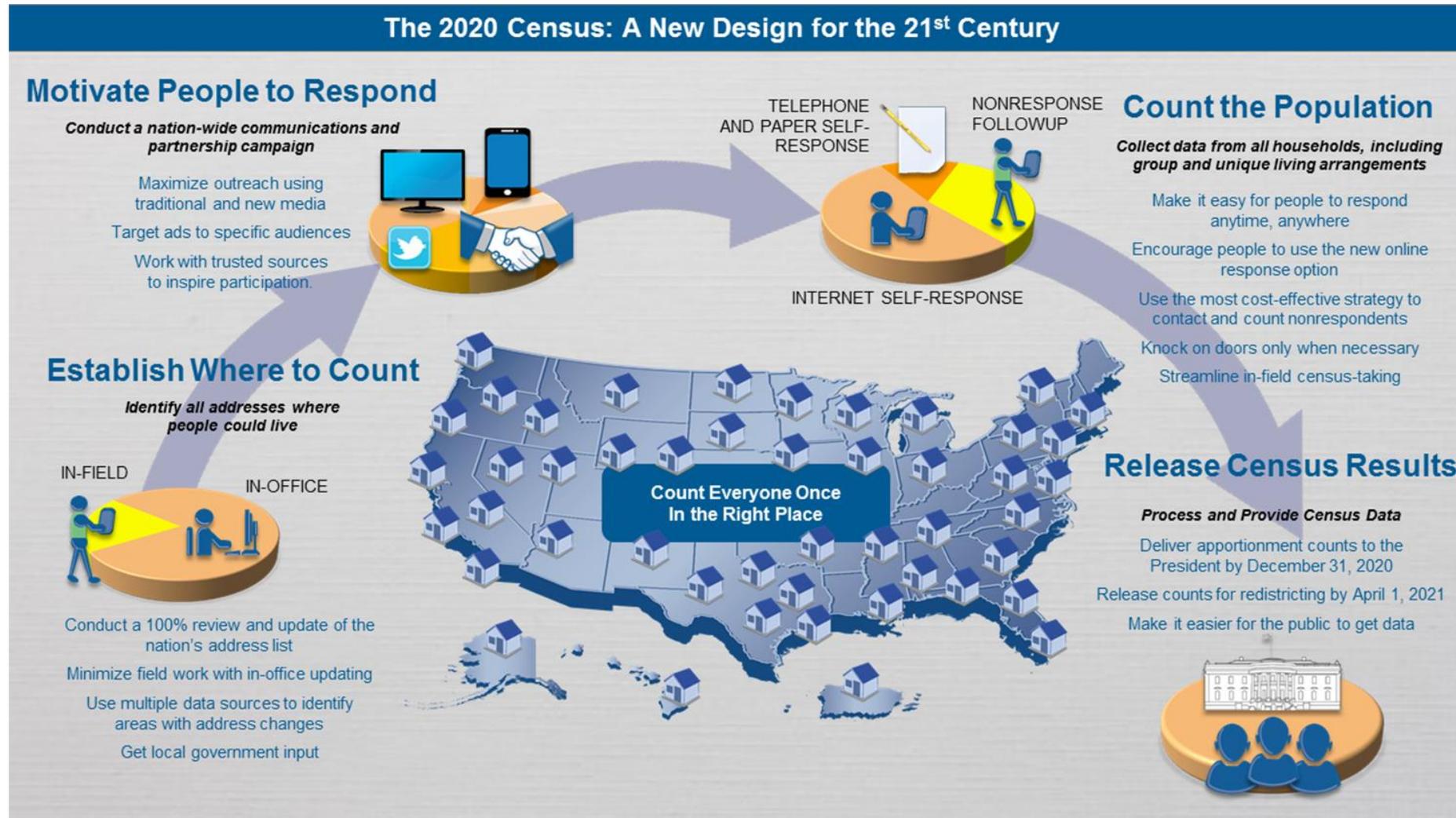
Total U.S. Representatives: 435
Numbers represent reapportioned totals of U.S. Representatives.



Legend for seat changes:

- Red square: Lost one seat in multiple projections
- Orange square: Lost one seat in one projection
- Grey square: No change
- Light blue square: Gained one seat in one projection
- Light green square: Gained one seat in multiple projections
- Dark green square: Gained three seats in multiple projections

2020 Census Design



Who Can Participate

- Federally recognized tribes with a reservation and/or off-reservation trust land.
- States and Counties.
- Incorporated places.
 - Cities, towns, boroughs, villages.

Title 13 U.S.C. – Confidentiality and Security

- Information provided to/from LUCA is covered under Title 13 of the United States Code which:
 - Requires the Census Bureau to ensure confidential treatment of census-related information, including individual addresses and map structure points.
 - Requires the Census Bureau maintain the confidentiality of all information it collects.
- LUCA operation requires all liaisons, reviewers, and anyone with access to Title 13 materials abide by *Confidentiality and Security Guidelines* and requires all LUCA participants sign the *Confidentiality Agreement Form (D-2005)*.

2020 LUCA Schedule

Timeframe	Activity
January 2017 ✓	Advance Notice mailing mailed to Highest Elected Officials (HEOs), Tribal Chairs (TCs), Governors and other potential 2020 LUCA contacts.
March 2017 ✓	2020 LUCA Promotional presentations began.
July 2017 ✓	2020 LUCA invitation and registration materials mailed to HEOs, TCs and Governors.
October 2017 ✓	2020 LUCA Training workshops began.
December 15, 2017	2020 LUCA registration deadline.
February - April 2018	Participants receive their 2020 LUCA materials.
March - September 2018	Census Bureau processes 2020 LUCA submissions.
April 2018 - May 2019	Census Bureau validates 2020 LUCA addresses.
Summer 2019	Census Bureau delivers 2020 LUCA feedback.
April 1, 2020	CENSUS DAY.

Census Bureau Terminology

- Census Bureau terminology.
 - Geocode.
 - Housing Unit.
 - Group Quarters.
 - City Style Address.
 - Non-city Style Address.

Geocode

- Geocoding is the process of taking an address and returning an actual or calculated latitude/longitude coordinate on the earth's surface.
- In terms of the Census Bureau, this includes assigning the proper state, county, census tract and census block codes that correspond to the physical location of the address.
- The Census Bureau requires every address is assigned a Census geocode before it can be processed and added to its inventory and included in the Census.

Housing Unit (HU)

- A single-family house, townhouse, mobile home, trailer, apartment, group of rooms, or a single room occupied as a separate living quarter or, if vacant, intended for occupancy as a separate living quarter.

Acceptable Housing Units for LUCA

- Houses, including townhouses, condominiums, and apartments.
- Living quarters within an otherwise nonresidential structure such as an apartment within a church, school, or business.
- Mobile homes or trailers occupied as separate permanent living quarters, or if vacant, intended for occupancy as separate permanent living quarters.
- Any housing units under construction that will be habitable (closed to the elements with final roof, windows, and doors) on Census Day, April 1, 2020.

Group Quarters (GQs)

- A place where people live or stay, in a group living arrangement, that is owned or managed by an entity or organization providing housing and/or services for the residents.

Acceptable Group Quarters for LUCA

- Correctional facilities.
 - Federal and state prisons.
 - Local jails and other municipal confinement facilities.
 - Correctional residential facilities.
- Group homes.
 - Halfway houses and homes for people with special needs.
- Juvenile facilities.
 - Group homes for juveniles (non-correctional).
 - Residential treatment centers for juveniles (non-correctional).
 - Correctional facilities intended for juveniles.
- Nursing homes.
 - Nursing facilities/skilled-nursing facilities.

Acceptable Group Quarters for LUCA (cont'd)

- Hospitals.
 - Mental (psychiatric) hospitals and psychiatric units in other hospitals.
 - Hospitals with patients who have no usual home elsewhere.
 - In-patient hospice facilities.
- College or university dormitories, fraternity houses, and sorority houses.
- Workers group living quarters or dormitories.
- Religious group quarters.
- Any group quarters under construction that will be habitable (closed to the elements with final roof, windows, and doors) on Census Day, April 1, 2020.

Unacceptable HUs and GQs for LUCA

- Condemned or scheduled for demolition.
- Under construction or remodeling for conversion to a nonresidential purpose.
- Used solely for nonresidential storage.
- Used solely as offices or businesses in which no one is living.
- Used solely for ceremonial purposes.
- Under construction and will **not** be habitable (closed to the elements with final roof, windows, and doors) on Census Day, April 1, 2020.

City Style Address

- Include a house number and street name (e.g., 212 Elm St or 137 Clark Ct Apt 3 or 35A Fourth Ave W).
 - For 2020 LUCA, participants adding multiunit addresses must provide unit identifiers (e.g., Apt 1, Apt 2, Unit A, Unit B).

Non-City Style Address

- Do not include a house number and/or a street name.
- May include **incomplete** house number and street name.
- Frequently used non-city style mailing addresses include:
 - Location Description with map spot.
 - Rural route and box number.
 - Highway contract route and box number.

Preparation for 2020 LUCA participation

- Early tools.
 - Address Block Counts.
 - Census Geocoder.
 - TIGERweb.
- Product Preference combinations.

Early tools

- Provide 2020 Census LUCA Address Block Count files.
- Provide Census Geocoder to geocode jurisdiction's address list:
<https://geocoding.geo.census.gov/geocoder/>
- TIGERweb:
<https://tigerweb.geo.census.gov/tigerweb/>

	A	B	C	D	E	F	G
1	State	County	Tract	BLOCK	BLOCK_GEOID	Total Residential	Total Group Quarters
158	48	209	0102.00	3007	482090102003007	96	1
159	48	209	0102.00	3008	482090102003008	1	1
160	48	209	0102.00	3009	482090102003009	1	1
161	48	209	0102.00	3010	482090102003010	122	0
162	48	209	0103.02	1000	482090103021000	0	0
163	48	209	0103.02	1001	482090103021001	0	0
164	48	209	0103.02	1002	482090103021002	0	0
165	48	209	0103.02	1003	482090103021003	43	0
166	48	209	0103.02	1004	482090103021004	20	0
167	48	209	0103.02	1005	482090103021005	22	0
168	48	209	0103.02	1006	482090103021006	114	0
169	48	209	0103.02	1007	482090103021007	21	0
170	48	209	0103.02	1008	482090103021008	13	0
171	48	209	0103.02	1009	482090103021009	25	0
172	48	209	0103.02	1010	482090103021010	0	0
173	48	209	0103.02	1011	482090103021011	3	0
174	48	209	0103.02	1012	482090103021012	0	0
175	48	209	0103.02	1013	482090103021013	0	0
176	48	209	0103.02	1014	482090103021014	2	0
177	48	209	0103.02	1015	482090103021015	0	0
178	48	209	0103.02	1016	482090103021016	0	0
179	48	209	0103.02	1017	482090103021017	0	0
180	48	209	0103.02	1018	482090103021018	4	0
181	48	209	0103.02	1019	482090103021019	0	0
182	48	209	0103.02	1020	482090103021020	3	0
183	48	209	0103.02	1021	482090103021021	0	0
184	48	209	0103.02	1022	482090103021022	28	0
185	48	209	0103.02	1023	482090103021023	33	0
186	48	209	0103.02	1024	482090103021024	18	0

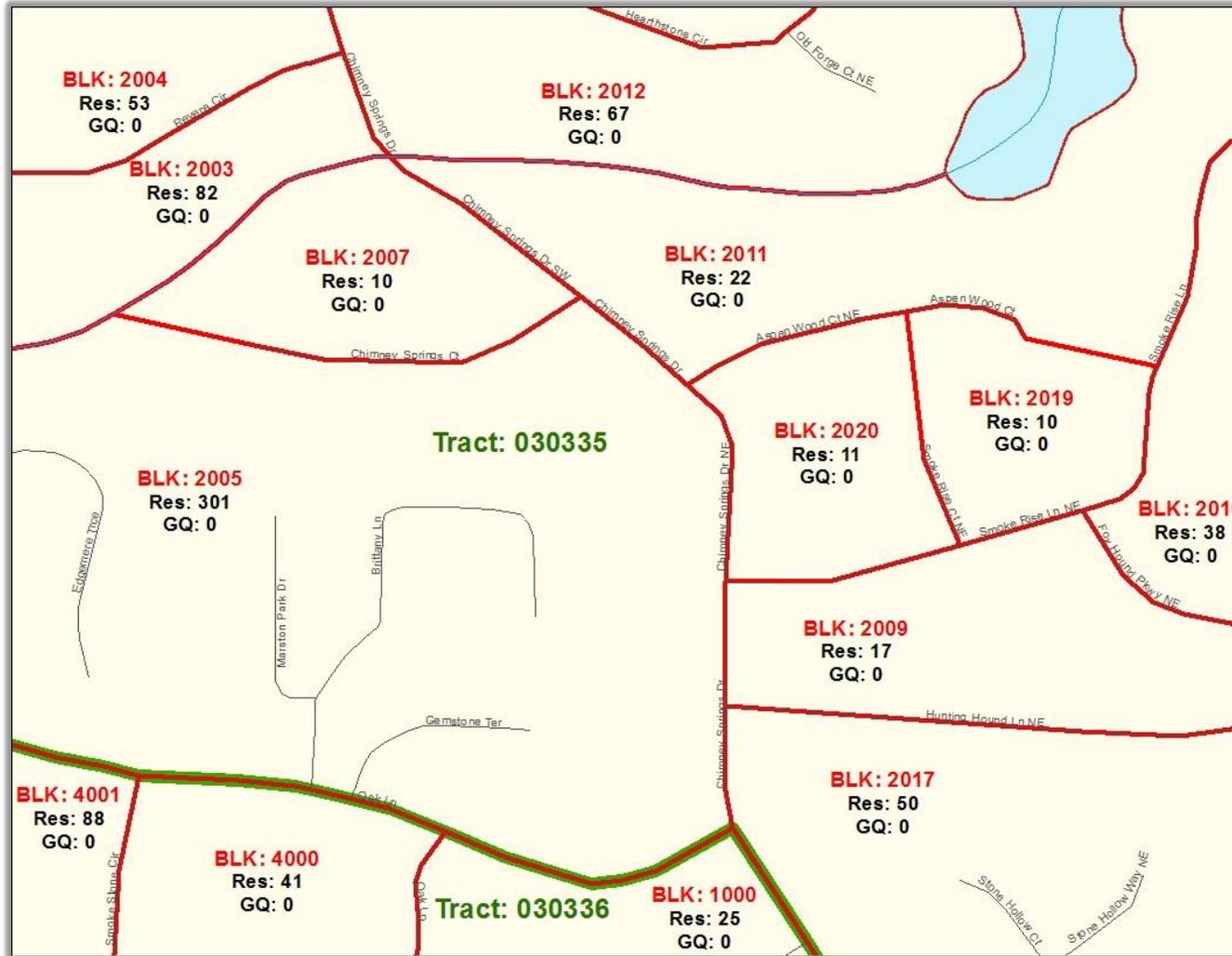
Early Tools For LUCA Partners

Early Address Block Count List

- Providing an early address block count list for partners in January 2017 (includes count of residential addresses and group quarters by block).
- Address Block Count lists can be linked/joined to 2016 TIGER/Line shape files.

	A	B	C	D	E	F	G
1	State	County	Tract	BLOCK	BLOCK_GEOID	Total Residential	Total Group Quarters
2	21	051	9501.00	1000	210519501001000	0	0
3	21	051	9501.00	1001	210519501001001	1	0
4	21	051	9501.00	1002	210519501001002	0	0
5	21	051	9501.00	1003	210519501001003	7	0
6	21	051	9501.00	1004	210519501001004	0	0
7	21	051	9501.00	1005	210519501001005	0	0
8	21	051	9501.00	1006	210519501001006	0	0
9	21	051	9501.00	1007	210519501001007	0	0
10	21	051	9501.00	1008	210519501001008	2	0
11	21	051	9501.00	1009	210519501001009	28	0
12	21	051	9501.00	1010	210519501001010	0	0
13	21	051	9501.00	1011	210519501001011	37	0

Linking Address Block Count Data

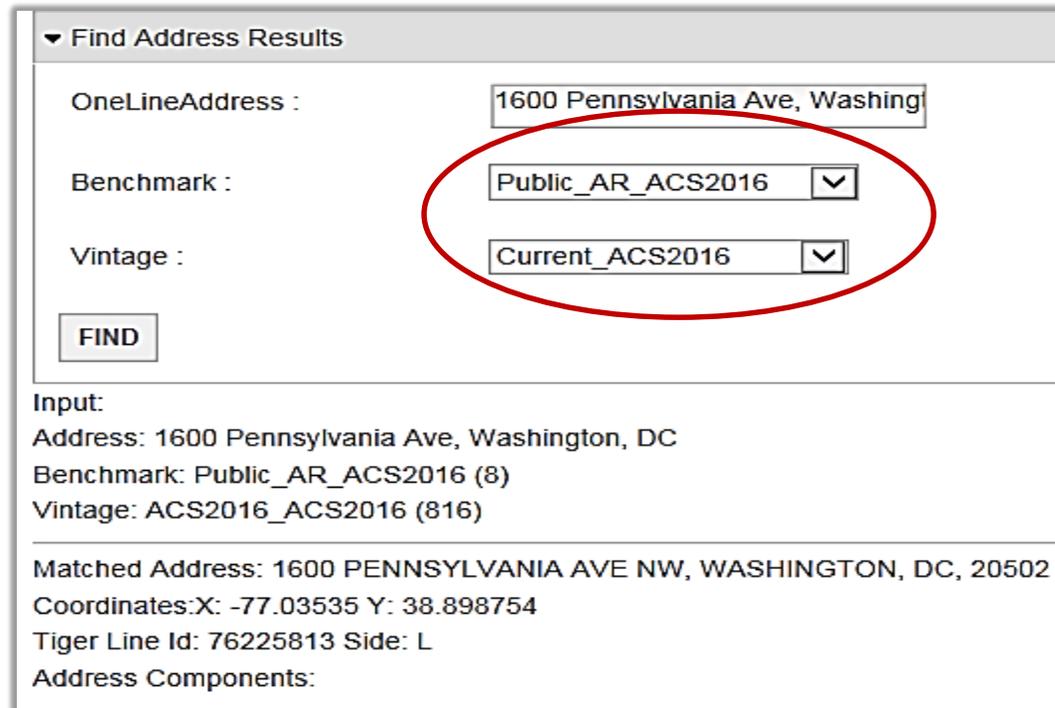


Early Address Block Count Lists can be linked/joined to 2016 TIGER/Line Shapefiles for overlay and analysis.

More Early Tools For LUCA Partners

Updated Census Geocoder Tool

- Takes individual addresses or a file of addresses and obtains approximate coordinates and census Geography.
- Increase the maximum number of records from 1,000 to 10,000.
- Provides an alternate path for larger governments to submit addresses to be geocoded when you have an address list that is not geocoded (not linked to points or parcels or any particular location.)
- 24 hour turnaround on the results.



The screenshot shows a web interface for finding address results. It includes a search bar with the text "1600 Pennsylvania Ave, Washing", a dropdown menu for "Benchmark" set to "Public_AR_ACS2016", and another dropdown menu for "Vintage" set to "Current_ACS2016". A red oval highlights these two dropdown menus. Below the search fields is a "FIND" button. The results section shows the input address, benchmark, and vintage, followed by the matched address, coordinates, tiger line id, and address components.

Find Address Results

OneLineAddress : 1600 Pennsylvania Ave, Washing

Benchmark : Public_AR_ACS2016

Vintage : Current_ACS2016

FIND

Input:
Address: 1600 Pennsylvania Ave, Washington, DC
Benchmark: Public_AR_ACS2016 (8)
Vintage: ACS2016_ACS2016 (816)

Matched Address: 1600 PENNSYLVANIA AVE NW, WASHINGTON, DC, 20502
Coordinates:X: -77.03535 Y: 38.898754
Tiger Line Id: 76225813 Side: L
Address Components:

Using The Census Geocoder

.TXT File Address List Format

- Format addresses in a single line with comma delimiters.
- Each record should consist of the following five fields:
Unique ID ♦ House Number and Street Name ♦ City ♦ State ♦ ZIP Code
- All fields (even blank fields) must be separated by a comma:
 - *Unique ID, House Number and Street Name, City, State, ZIP Code*
- Valid entries :
 - 1, 1600 Pennsylvania Ave NW, Washington, DC, 20502
 - 2, 1600 Pennsylvania Ave NW, Washington, DC,
 - 3, 1600 Pennsylvania Ave NW,, , 20502
- Invalid entries :
 - 4, 1600 Pennsylvania Ave NW, Washington, DC
 - 5, 1600 Pennsylvania Ave NW, 20502

.CSV, .XLSX & .XLS File Address List Format

- **Five fields:**
 - **Unique Field Identifier or Line Number (required)**
 - **House Number and Street Name (required)**
 - **City**
 - **State**
 - **Zip Code**
- **Headers Not Required (*but recommended*).**
- **The more detail provided (directional, city, state, zip code), the better the results.**

	A	B	C	D	E	F
1	ID	Address	City	State	Zip	
2	1	101 Decennial Way	Washington	DC	12345	
3	2	102 Decennial Way		DC		
4	3	103 Decennial Way	Washington		12345	
5	4	104 Decennial Way	Washington	DC		
6	5	105 Decennial Way			12345	
7	6	106 Decennial Way				

Batch Census Geocoder Output File

	A	B	C	D	E	F	G	H	I	J	K	L	M
745	647	1206 TIGER FOREST DR, DECENNIAL, GA,	Match	Non_Exact	1206 TIGER FOREST DR SW, DECENNIAL, GA, 72961	-64.59167,77.66096	17206769	R	13	67	33405	2003	
746	648	1207 TIGER FOREST DR, DECENNIAL, GA,	Match	Non_Exact	1207 TIGER FOREST DR SW, DECENNIAL, GA, 72961	-64.59167,77.66097	17206769	L	13	67	33405	2003	
747	649	1208 TIGER FOREST DR, DECENNIAL, GA,	Match	Non_Exact	1208 TIGER FOREST DR SW, DECENNIAL, GA, 72961	-64.59167,77.660965	17206769	R	13	67	33405	2003	
748	195	3229 GATER DR, DECENNIAL, GA,	Match	Non_Exact	3229 GATER DR SW, DECENNIAL, GA, 72961	-64.60767,77.667705	17177790	L	13	67	33405	3004	
749	642	2431 TIGER LN, DECENNIAL, GA,	Match	Non_Exact	2431 TIGER LN SW, DECENNIAL, GA, 72961	-64.60477,77.697456	17216574	R	13	67	30905	4002	
750	194	3226 GATER DR, DECENNIAL, GA,	Match	Non_Exact	3226 GATER DR SW, DECENNIAL, GA, 72961	-64.60776,77.667614	17177790	R	13	67	33405	3000	
751	643	2432 TIGER LN, DECENNIAL, GA,	Match	Non_Exact	2432 TIGER LN SW, DECENNIAL, GA, 72961	-64.604774,77.697476	17216574	L	13	67	30905	4002	
752	197	3231 GATER DR, DECENNIAL, GA,	Match	Non_Exact	3231 GATER DR SW, DECENNIAL, GA, 72961	-64.60794,77.667604	17177790	L	13	67	33405	3004	
753	644	2486 TIGER LN SW, DECENNIAL, GA, 72961	Match	Exact	2486 TIGER LN SW, DECENNIAL, GA, 72961	-64.604645,77.692902	17216574	L	13	67	30905	4002	
754	196	3230 GATER DR, DECENNIAL, GA,	Match	Non_Exact	3230 GATER DR SW, DECENNIAL, GA, 72961	-64.607925,77.667604	17177790	R	13	67	33405	3000	
755	645	2534 TIGER LN, DECENNIAL, GA,	Match	Non_Exact	2534 TIGER LN SW, DECENNIAL, GA, 72961	-64.604546,77.69166	17177776	R	13	67	30905	4002	
756	191	3218 GATER DR, DECENNIAL, GA,	Match	Non_Exact	3218 GATER DR SW, DECENNIAL, GA, 72961	-64.607414,77.667276	17177790	R	13	67	33405	3000	
757	193	3225 GATER DR SW, DECENNIAL, GA, 72961	Match	Exact	3225 GATER DR SW, DECENNIAL, GA, 72961	-64.607776,77.667045	17177790	R	13	67	33405	3004	
758	193	3225 GATER DR SW, DECENNIAL, GA, 72961	Match	Exact	3225 GATER DR SW, DECENNIAL, GA, 72961	-64.60777,77.667577	17177790	R	13	67	33405	3004	
759	640	2948 TIGER CT, DECENNIAL, GA,	No_Match										
199	3237	GATER DR, DECENNIAL, GA,	Match	Non_Exact	3237 GATER DR SW, DECENNIAL, GA, 72961	-64.606066,77.664407	17177624	L	13	67	33405	3004	
761	198	3233 GATER DR, DECENNIAL, GA,	Match	Non_Exact	3233 GATER DR SW, DECENNIAL, GA, 72961	-64.60794,77.66791	17177790	L	13	67	33405	3004	
763	199	3237 GATER DR, DECENNIAL, GA,	Match	Non_Exact	3237 GATER DR SW, DECENNIAL, GA, 72961	-64.606066,77.664407	17177624	L	13	67	33405	3004	
ID	639	2967 TIGER CT, DECENNIAL, GA,	Match	Match									
765	637	2957 TIGER CT, DECENNIAL, GA,	Tie	Type									
766	638	2966 TIGER CT, DECENNIAL, GA,	Tie										
767	635	2947 TIGER CT, DECENNIAL, GA,	No_Match										
768	636	2956 TIGER CT, DECENNIAL, GA,	No_Match										
769	631	2916 TIGER CT, DECENNIAL, GA,	No_Match										

*Our latitude and longitude coordinate system is NAD83.

**TIGER/Line ID is dependent upon which benchmark you choose.

(We recommend using Public_AR_ACS2016 Benchmark with Current_ACS2016 vintage.)

Product Preference Combinations

- Geographic Update Partnership Software (GUPS).
- Paper Address List & Large Format Paper Maps (Paper/Paper).
- Paper Address List & Large Format Paper Maps with PDF small format block maps (Paper/PaperPDF).
- Paper Address List & Digital Map (Paper/Digital).
- Digital Address List & Large Format Paper Maps (Digital/Paper).
- Digital Address List & Large Format Paper Maps with PDF small format block maps (Digital/PaperPDF).
- Digital Address List & Digital Map (Digital/Digital).



Review and Update Strategies

Agenda

- Strategies for LUCA review and update.
 - Things to consider.
 - Potential address sources.
 - Identify priorities.
 - Beginning your review.

Things To Consider

- How much time can we devote to LUCA review?
 - Only 120 calendar days to conduct review upon receipt of materials.
- Does your jurisdiction have an address list or access to an address list?
- Does the address list include multiunit structure identifiers (e.g., Apt 1, Unit A2, #4, etc.)?
- Does the address list include both residential and commercial addresses or include records that are not structures? If yes, are the residential records distinguishable?

Potential Address Sources

- E-911 address files.
- New housing construction or building permits.
 - Include only if final roof, doors, and windows will be in place on Census Day, April 1, 2020.
- Housing inspection records or occupancy permits.
- Planning and zoning records.
- Local utility records.
- School enrollment records.
- Driver's license files.
- Annexation records.
- Assessment or tax files (residential units).
- Voter registration files.

Identify Priorities

- Apartment buildings and/or areas of concentrated multi-unit housing.
- Areas along governmental boundaries and/or newly annexed land.
- Areas of new residential construction.
- Blocks with the greatest differences between the Census Bureau's address block count and your address block count.
- E-911 address conversion areas.
- Group Quarters (e.g., housing such as college dorms and nursing homes).
- Mobile home parks or new, scattered mobile homes.
- Single-family homes converted to multifamily homes, and vice versa.
- Warehouses converted to residential lofts.

Beginning Your Review

- Assemble local sources.
- Read the 2020 LUCA Respondent Guide.
- Review the Census Bureau's online training presentations.
- Familiarize yourself with LUCA materials.
 - Address List.
 - Address Count List.
 - Paper Maps/Digital Shapefiles.
 - Block to Map Sheet Relationship List (use with Large Format paper maps).
- Organize LUCA materials based on priority areas.
- Organized approach for review yields a successful LUCA submission.



Digital Address List and Digital Map *Product Preference*

Agenda

- Digital Product DVD Overview & Product Preferences.
- DVD Layout and Content by Product Preference
- Digital Address materials.
 - Address List – Title 13.
 - Address Count List – not Title 13.
- Digital Map Materials
 - TIGER Partnership shapefiles
 - Edits to the TIGER Partnership shapefiles

Digital Product DVD Overview

Product Preferences

- Paper Address List and **Paper/PDF** (1 DVD).
- Paper Address List and **Digital Map** (1 DVD).
- **Digital Address List** and Paper Large Format maps (1 DVD).
- **Digital Address List** and **Paper/PDF** (1 DVD).
- **Digital Address List** and **Digital Map** (3 DVDs).
- Geographic Updates Partnership Software (GUPS) (3 DVDs).

DVD Layout and Content:

Digital Address List and Large Format Paper maps (Digital/Paper)

One DVD with one folder:

- root directory of DVD.
 - 2020LUCA_<EntityID>_address_countlist.csv
 - 2020LUCA_digital_respondent_guide.pdf
 - 2020LUCA_header_file.txt
 - LUCA20_inventory.pdf
 - Readmefirst4.txt
- “shape” folder.
 - **2020LUCA_<EntityID>_DISK1of2.exe (**Title 13 material**).**
 - Includes the Digital Address List

DVD Layout and Content:

Digital Address List and Paper/PDF (Digital/PaperPDF)

One DVD with two folders:

- root directory of DVD.
 - 2020LUCA_<EntityID>_address_countlist.csv
 - 2020LUCA_digital_respondent_guide.pdf
 - 2020LUCA_header_file.txt
 - LUCA20_inventory.pdf
 - Readmefirst5.txt
- “maps” folder.
 - About_the_maps.pdf
 - LUCA20<EntType><EntCode>.pdf
 - LUCA20<EntType><EntCode>_BLK2MS.txt
 - Readme.txt
 - **Title13_BlockMaps.exe (**Title 13 material**).**
- “shape” folder.
 - **2020LUCA_<EntityID>_DISK1of2.exe (**Title 13 material**).**
 - Includes the Digital Address List

DVD Layout and Content:

Digital Address List and Digital Map (Digital/Digital) & GUPS

Three DVDs:

- DVD with GUPS installation software.
- DVD with non-Title 13 data.
- DVD with Title 13 data.
 - “shape” folder.
 - Includes the Digital Address List
 - 2020LUCA_<EntityID>_DISK1of2.exe (**Title 13 material**).
 - Includes the Digital Address List
 - Root directory of DVD.
 - 2020LUCA_digital_respondent_guide.pdf
 - 2020LUCA_GUPS_respondent_guide.pdf
 - 2020LUCA_header_file.txt
 - LUCA20_inventory.pdf
 - Readmefirst6.txt
 - “shape” folder.
 - 2020LUCA_<EntityID>_DISK2of2.exe
 - Includes the Digital Address County List

Digital Address Materials

Address List – Title 13

- Census residential addresses.
 - City style and non-city style.
- Contain census geographic codes.
 - State, county, census tract, and census block.
- Comma Delimited Text (.csv) format.
 - **MUST import not simply open or “double-click”.**
- 24 fields: Maximum 649 characters per record.
- First row = Header row.
 - Remove spaces from field names, if using Esri’s ArcGIS.

Digital Address Materials

Address List Record Layout

	Max Character Length	Field Name	Description	Editable
1	7	LINE_NUMBER	Sequential number for each address record in the file.	N
2	9	MAFID	Unique control number assigned to each MAF address.	N
3	12	ENTITY	Unique number assigned by the Census Bureau to each entity.	N-existing Y-adds
4	1	ACTION	Entered by the participant to indicate an action taken on the address.	Y
5	2	STATEFP	Two-digit State FIPS Code.	Y
6	3	COUNTYFP	Three-digit County FIPS Code.	Y
7	7	TRACT	The Census Tract Number consist of six digits with a decimal between the fourth and fifth digit corresponding to the basic census tract number and with leading zeroes for tracts that are not four digit and trailing zeroes for census tracts without a suffix.	Y
8	4	BLOCK	Four-digit 2010 Tabulation Census Block Number. Census blocks are numbered uniquely from 0000 to 9999 within census tract, which nest within state and county. The first digit of the census block number identifies the block group.	Y
9	15	GEOID	Concatenation of state, county, tract, and block fields for use in joining the block level data to the blocks in the TIGER partnership shapefiles.	N
10	1	GQ_FLAG	Displays a 'Y' if the address is a group quarters.	N

➤ Refer to Table 3 located in your Respondent Guide for complete record layout.

Digital Address Materials

Address List – Microsoft Excel Example

****No Title 13 Data Displayed****

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1	LINE_	MAFID	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEOID	GQ_	HOUSENUMBER	STREETNAME	APARTMENT	ZIP	GQ	FA	LO	NO	NO	MAPSPOT	USE	LAT	LONG	CITY_
	NUMBER									FLAG			UNIT		NA	CIL	CA	NC	NC					STYLE
2	124	000000505	PL5127200		51	610	5001.00	1030	516105001001030		1935	Eggman Rd	A	31407						0001		36.88574596	-67.17556610	Y
3	125	000000506	PL5127200		51	610	5001.00	1030	516105001001030		1935	Eggman Rd	B	31407						0001		36.88574596	-67.17556610	Y
4	126	000000507	PL5127200		51	610	5001.00	1030	516105001001030		1935	Eggman Rd	C	31407						0001		36.88574596	-67.17556610	Y
5	127	000000508	PL5127200		51	610	5001.00	1030	516105001001030		1935	Eggman Rd	D	31407						0001		36.88574596	-67.17556610	Y
6	224	000000599	PL5127200		51	610	5001.00	1034	516105001001034		3501	Leon Rd		31407						0010		36.43412557	-67.75415682	Y
7	454	99995555	PL5127200		51	610	5001.00	2001	516105001002001		3526	Pueblo Trl		31402										Y
8	688	989866571	PL5127200		51	610	5002.00	2000	516105002002000		202	Cassiopeia Dr		31402										Y
9	844	024510332	PL5127200		51	610	5002.00	3012	516105002003012		500	Donahue St		31408										Y
10	845	025468521	PL5127200		51	610	5002.00	3012	516105002003012		502	Donahue St		31408										Y
11	846	026347810	PL5127200		51	610	5002.00	3012	516105002003012		504	Donahue St		31408										Y
12	847	024598100	PL5127200		51	610	5002.00	3012	516105002003012		506	Donahue St		31408										Y
13	848	025531499	PL5127200		51	610	5002.00	3012	516105002003012		508	Donahue St		31408										Y
14	941	002200146	PL5127200		51	610	5003.00	1010	516105003001010		1201	Mount Rd		31405						0001		36.87726074	-67.16554319	Y
15	942	000040147	PL5127200		51	610	5003.00	1010	516105003001010		1203	Mount Rd		31405						0002		36.88249405	-67.18038156	Y
16	943	030900148	PL5127200		51	610	5003.00	1010	516105003001010		1207	Mount Rd		31405						0003		36.88848317	-67.18320951	Y
17	987	214554811	PL5127200		51	610	5003.00	2024	516115003002024		101	Court St		31402						0004		36.50212532	-67.24165884	Y

Digital Address Materials

Address Count List – Non-Title 13

- Residential address census block tallies.
 - Housing units and Group Quarters.
- Reference only.
 - Identify inconsistencies between census block counts and your jurisdiction's block counts.
- Comma Delimited Text (.csv) format.
 - **MUST import not simply open or “double-click”.**
- 13 fields: Maximum 140 characters per record.
- First row = Header row.
- “Unable to Geocode” tally for state and county participants.

Digital Address Materials

Address Count List Record Layout

	Max Character Length	Field Name	Description
1	2	STATE	Two-digit FIPS State code.
2	3	COUNTY	Three-digit FIPS County code.
3	7	TRACT	The Census Tract Number consist of six digits with a decimal between the fourth and fifth digit corresponding to the basic census tract number and with leading zeroes for tracts that are not four digit and trailing zeroes for census tracts without a suffix.
4	4	BLOCK	Four-digit 2010 Tabulation Census Block Number. Census blocks are numbered uniquely from 0000 to 9999 within census tract, which nest within state and county. The first digit of the census block number identifies the block group.
5	15	GEOID	Concatenation of state, county, tract, and block fields for use in joining the block level data to the 2010 tabulation blocks in the TIGER partnership shapefiles.
6	7	ORIGINAL_COUNT_OF_HUs	Total number of addresses in the entity count list identified as residential housing units by data in the MAF.
7	7	CURRENT_COUNT_OF_HUs	Total number of addresses in the entity count list identified as residential housing units by data in the MAF. This number will be the same as Original Count of Census HUs in product creation. (For use with GUPS.)

➤ Refer to Table 4 located in your Respondent Guide for complete record layout.

Digital Address Materials

Address Count List – Microsoft Excel Example

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	STATE	COUNTY	TRACT	BLOCK	GEOID	ORIGINAL_COUNT_OF_HUs	CURRENT_COUNT_OF_HUs	LOCAL_COUNT_OF_HUs	DIFFERENCE_IN_HUs	ORIGINAL_COUNT_OF_GQs	CURRENT_COUNT_OF_GQs	LOCAL_COUNT_OF_GQs	DIFFERENCE_IN_GQs
125	51	610	5002.00	2001	516105002002001	3	3	0	3	0	0	0	0
126	51	610	5001.00	2010	516105001002010	6	6	0	6	0	0	0	0
127	51	610	5002.00	4008	516105002004008	3	3	0	3	0	0	0	0
128	51	610	5003.00	2008	516105003002008	3	3	0	3	0	0	0	0
129	51	610	5001.00	1014	516105001001014	3	3	0	3	0	0	0	0
130	51	610	5003.00	1016	516105003001016	7	7	0	7	0	0	0	0
131	51	610	5001.00	1002	516105001001002	3	3	0	3	0	0	0	0
132	51	610	5002.00	1012	516105002001012	3	3	0	3	0	0	0	0
133	51	610	5002.00	3006	516105002003006	3	3	0	3	0	0	0	0
134	51	610	5002.00	2008	516105002002008	5	5	0	5	0	0	0	0
135	51	610	5002.00	1013	516105002001013	3	3	0	3	0	0	0	0
136	51	610	5002.00	4004	516105002004004	3	3	0	3	0	0	0	0
137	51	610	5003.00	2027	516105003002027	3	3	0	3	0	0	0	0
138	51	610	5003.00	1037	516105003001037	2	2	0	2	0	0	0	0
139	51	610	5003.00	1021	516105003001021	2	2	0	2	0	0	0	0
140	51	610	5001.00	2014	516105001002014	3	3	0	3	0	0	0	0
141					Unable to Geocode	33	33	0	33	2	2	0	2
142					TOTAL	1644	1644	0	1644	20	20	0	20

Digital Map Materials

TIGER Partnership Shapefiles

- Created from Master Address File/Topologically Integrated Geographic Encoding and Referencing (MAF/TIGER) System.
- Require use of a Geographic Information Software (GIS).
- County based shapefiles, regardless of entity.
- Do not contain structure points, so not Title 13 material.
 - Generate structure points using Census Bureau's digital address list (Title 13 material); refer to Respondent Guide Chapter 6.
- Retain vintage for use in feedback products.

Digital Map Materials

Edits to TIGER Partnership Shapefiles

- **Address focused operation**, but updates to address list may require updates to digital maps.
- Allow submission of linear feature updates electronically.
 - Importing shapefiles, editing features, and exporting shapefiles.
- Edges shapefile contains all linear features (road, rail, hydro).
 - Used to Add Lines, Delete Lines, or Change Attribution **for roads**.
- Tabblock2010 shapefile contains tabulation blocks used for 2020 LUCA.
 - Used to geocode addresses.
- More details in Respondent Guide Chapter 5.



Digital Materials

Initial Setup

Agenda

- Digital Materials Initial Setup Summary
- Digital Product DVD Overview
- Getting Started
 - DVD(s) of digital LUCA materials.
 - Suggested setup of local system.
 - Extracting files.
 - File naming convention and examples.
- Using Your LUCA Digital Materials
 - Opening .csv files in Microsoft Excel
 - Opening .shp files in Esri ArcGIS

Digital Materials Initial Setup Summary

- Ensure *Confidentiality and Security Guidelines* followed and Title 13 security in place prior to installation of DVD material to local drive.
- Review the “readmefirst#” txt file on DVD.
- Review presentation again upon receipt of materials.
- Use presentation in conjunction with Respondent Guide and the *2020 LUCA Quick Start Guide*.

Digital Product DVD Overview

- Paper Address List and **Paper/PDF** (1 DVD).
- Paper Address List and **Digital Map** (1 DVD).
- **Digital Address List** and Paper Large Format maps (1 DVD).
- **Digital Address List** and **Paper/PDF** (1 DVD).
- **Digital Address List** and **Digital Map** (3 DVDs).
- Geographic Updates Partnership Software (GUPS) (3 DVDs).

Getting Started

DVD(s) of LUCA Digital Materials

- Digital/Paper-PDF & Paper/Digital-PDF participants.
 - One DVD (*contains both Title 13 and non-Title 13 materials*).
 - root directory.
 - “maps” folder.
 - “shape” folder.
- Digital/Digital & GUPS participants.
 - Three DVDs.
 - One with Title 13 data in “shape” folder.
 - One with non-Title 13 data in “shape” folder.
 - One with GUPS installation software.

Getting Started

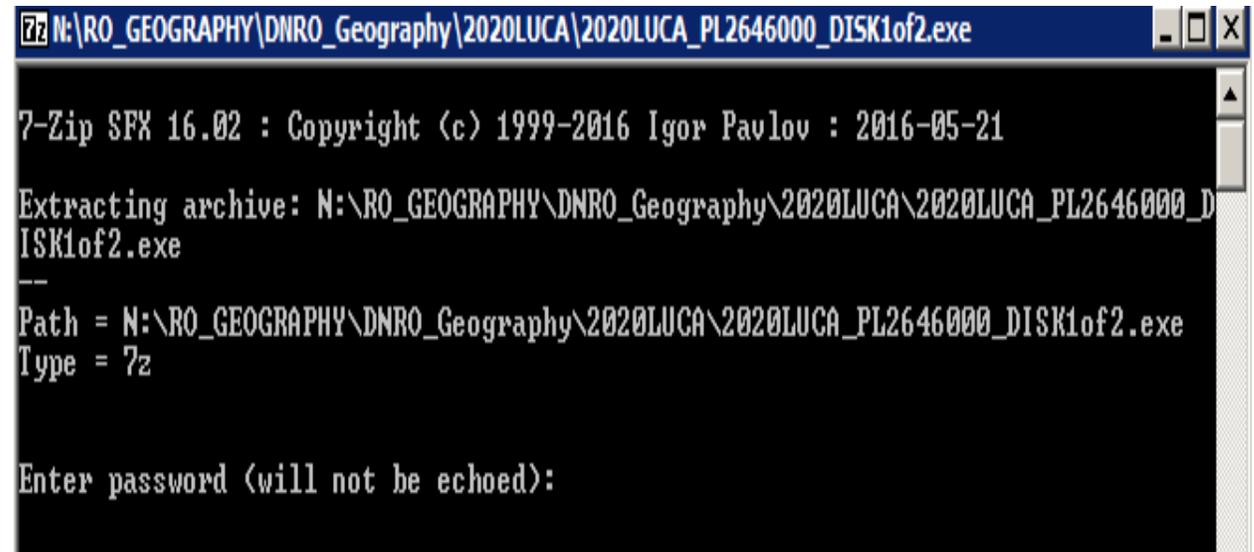
Suggested Setup of Local System

- Read the installation instructions included in your materials.
- **Inspect your DVD(s) immediately upon receiving:**
 - If DVDs damaged, incomplete, or files corrupted contact Geographic Programs Support Desk at: 1-844-344-0169.
 - If DVDs ok, create folder named “2020LUCA” on your hard drive.
- Copy contents of DVD into your new “2020LUCA” folder.
- Execute the various .exe files (if present).
- Review the other files on DVD for additional instructions.
- Review the 2020 LUCA Respondent Guides for instructions on use.

Getting Started

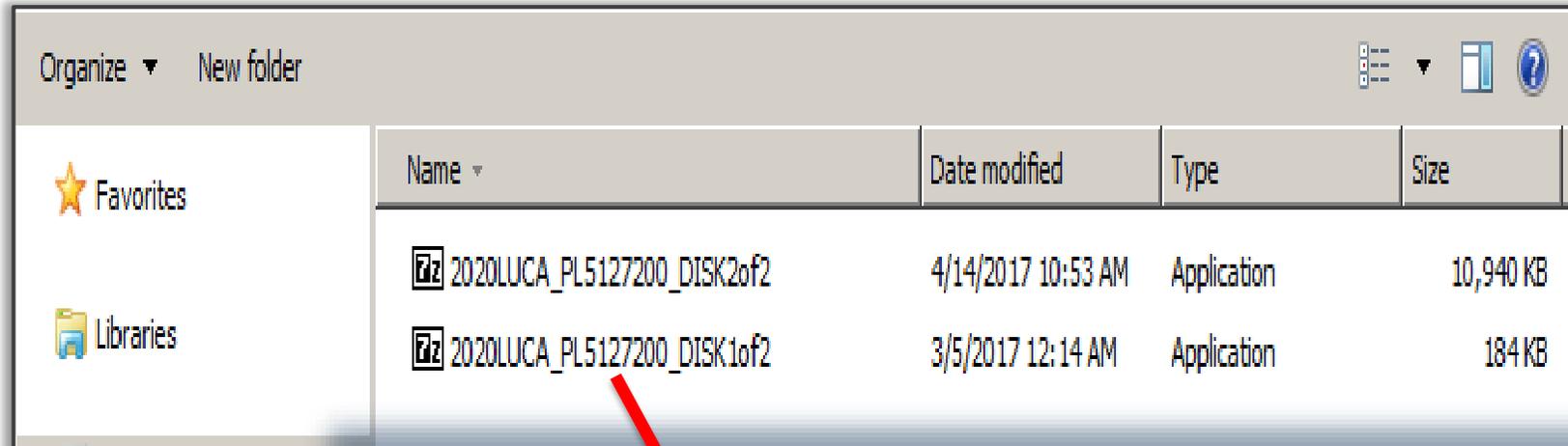
Extracting 2020LUCA_<EntityID>_DISK1of2.exe

- Navigate to the “2020LUCA” folder you created.
- If present, double click on the file named “2020LUCA_<EntityID>_DISK1of2.exe”.
- Command prompt opens, requests password & closes upon completion.

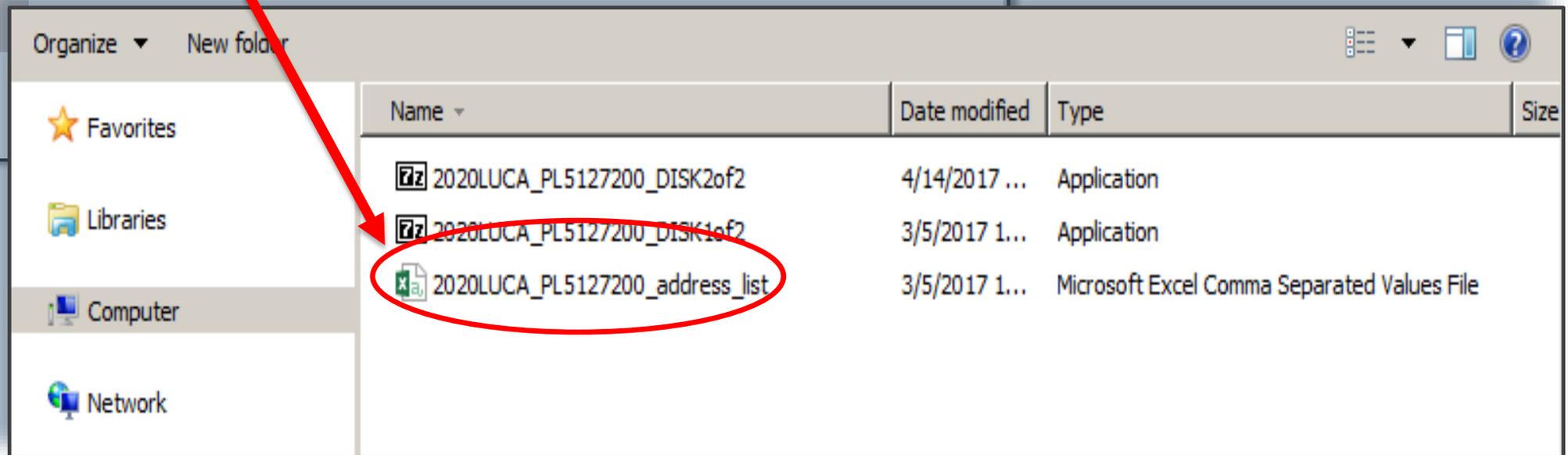


```
N:\RO_GEOGRAPHY\DNRO_Geography\2020LUCA\2020LUCA_PL2646000_DISK1of2.exe
7-Zip SFX 16.02 : Copyright (c) 1999-2016 Igor Pavlov : 2016-05-21
Extracting archive: N:\RO_GEOGRAPHY\DNRO_Geography\2020LUCA\2020LUCA_PL2646000_DISK1of2.exe
--
Path = N:\RO_GEOGRAPHY\DNRO_Geography\2020LUCA\2020LUCA_PL2646000_DISK1of2.exe
Type = 7z
Enter password (will not be echoed):
```

2020LUCA_<EntityID>_DISK1of2.exe – Visual



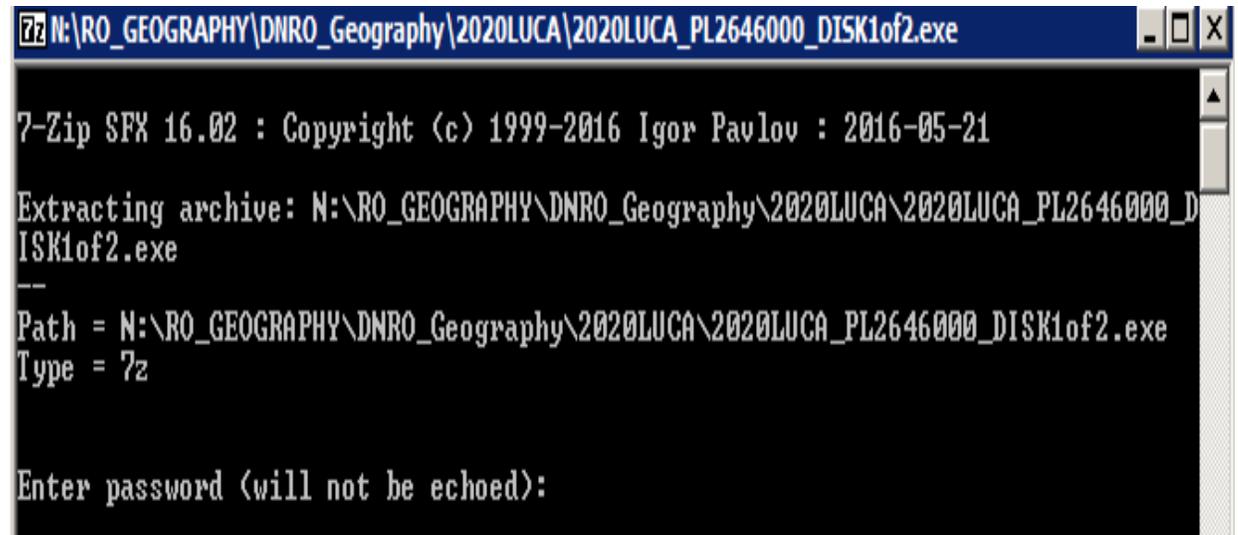
In this example for the Digital/Digital option - After executing the Disk1of2.exe file the resulting address list file appears in 2020LUCA folder.



Getting Started

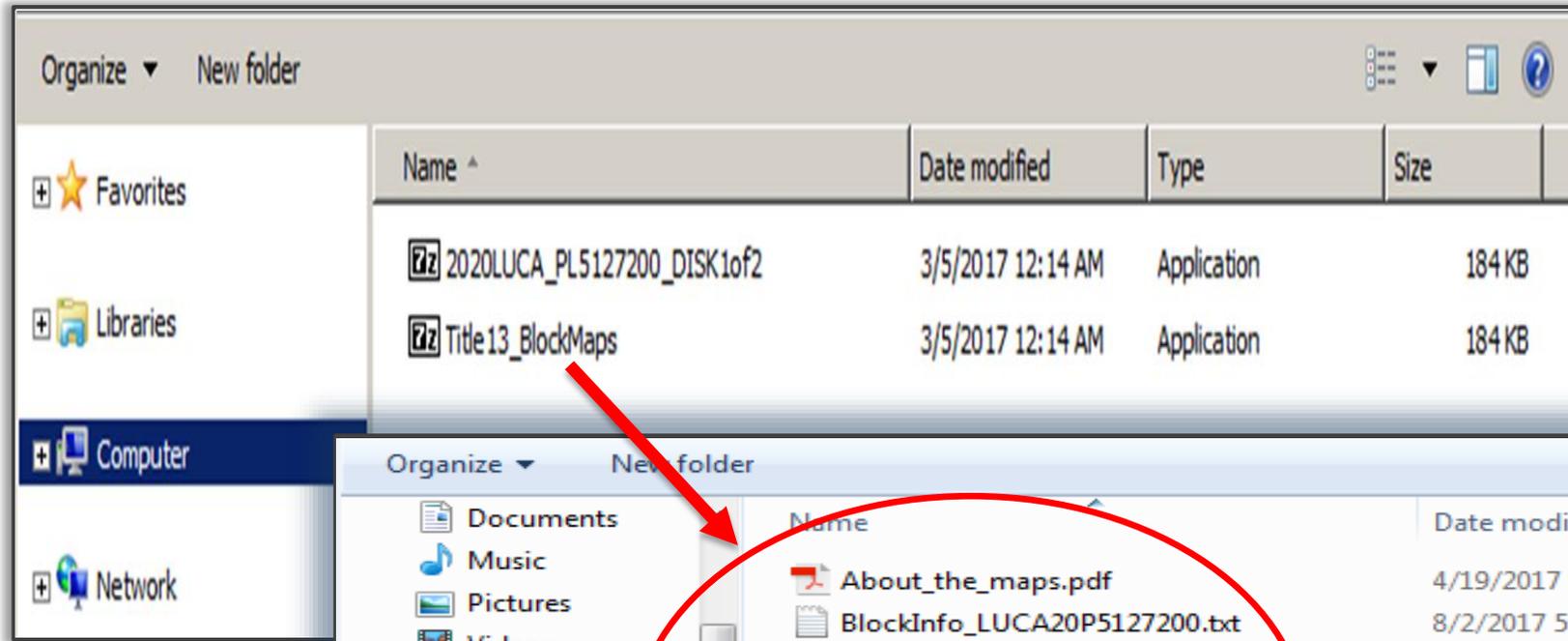
Extracting Title13_BlockMaps.exe

- Navigate to the “2020LUCA” folder you created.
- If present, double click on the file named “Title13_BlockMaps.exe”.
- Command prompt opens, requests password & closes upon completion.

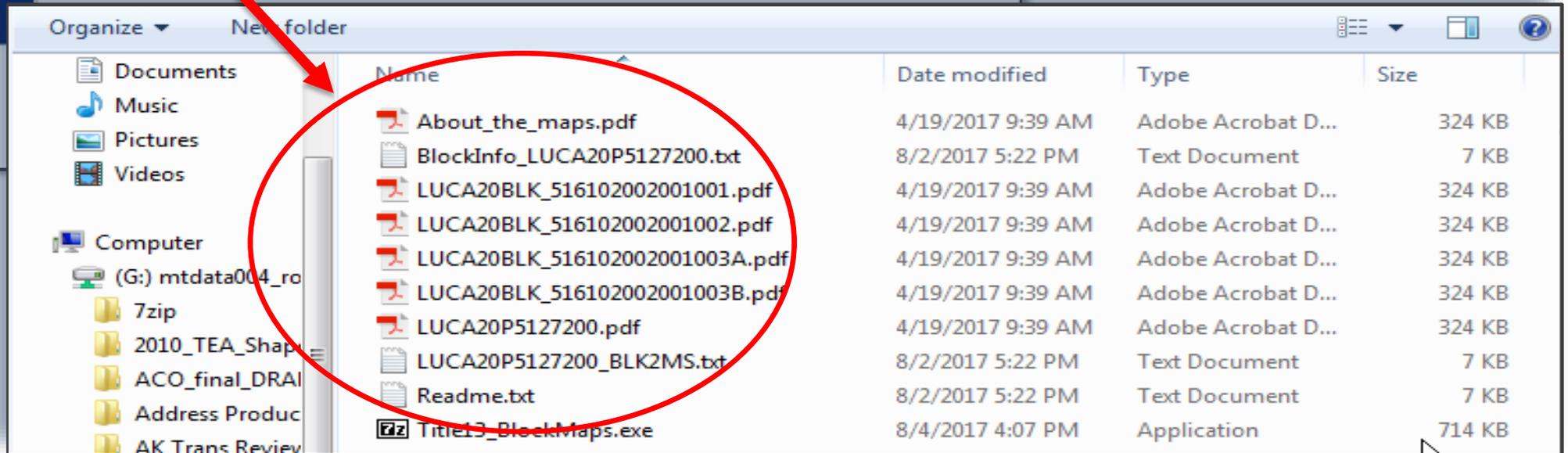


```
7z N:\RO_GEOGRAPHY\DNRO_Geography\2020LUCA\2020LUCA_PL2646000_DISK1of2.exe
7-Zip SFX 16.02 : Copyright (c) 1999-2016 Igor Pavlov : 2016-05-21
Extracting archive: N:\RO_GEOGRAPHY\DNRO_Geography\2020LUCA\2020LUCA_PL2646000_DISK1of2.exe
--
Path = N:\RO_GEOGRAPHY\DNRO_Geography\2020LUCA\2020LUCA_PL2646000_DISK1of2.exe
Type = 7z
Enter password (will not be echoed):
```

Title13_BlockMaps.exe – Visual



In this example for the Digital/PaperPDF option - After executing the Title13_BlockMaps.exe file the resulting block map PDFs appear in 2020LUCA folder.



File Naming Convention – Digital Materials

- Address List.
 - 2020LUCA_XXyyyyyyyyyyyy_address_list.csv
 - 2020LUCA_TRxxxxTAyyyy_address_list.csv
- Address Count List.
 - 2020LUCA_XXyyyyyyyyyyyy_address_countlist.csv
 - 2020LUCA_TRxxxxTAyyyy_address_countlist.csv
- TIGER Partnership shapefiles.
 - PVS_17_v2_<layername>_SSCCC.shp
 - PVS_17_v2_<layername>_SS.shp

File Naming Convention – Address List

- 2020LUCA_XXyyyyyyyyyyy_address_list.csv
 - 2020LUCA_ST01_address_list.csv (State of Alabama).
 - 2020LUCA_CO12001_address_list.csv (Alachua County, FL).
 - 2020LUCA_PL1378800_address_list.csv (Valdosta city, GA).
 - 2020LUCA_TR0016TA1555_address_list.csv (Immokalee Reservation).
 - TR0016 = Seminole Tribe of Florida .
 - TA2980 = Immokalee Reservation.

File Naming Convention – Address Count List

- 2020LUCA_XXyyyyyyyyyyy_address_countlist.csv
 - 2020LUCA_ST22_address_countlist.csv (State of Louisiana).
 - 2020LUCA_CO28001_address_countlist.csv (Adams County, MS).
 - 2020LUCA_PL3770540_address_countlist.csv (Wake Forest town, NC).
 - 2020LUCA_TR0035TA0525_address_countlist.csv (Catawba Reservation).
 - TR0035 = Catawba Indian Nation.
 - TA0525 = Catawba Reservation.

File Naming Convention – TIGER Partnership Shapefiles

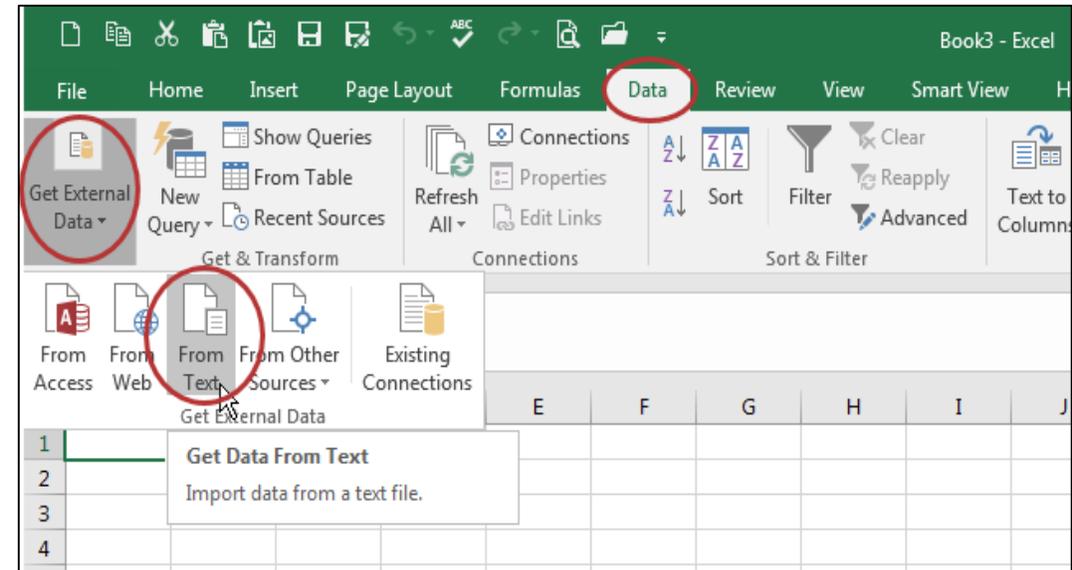
- PVS_17_v2_<layername>_SSCCC.shp
 - PVS_17_v2_edges_20001.shp (edges for Allen County, KS).
 - PVS_17_v2_tabblock2010_20001.shp (2010 Census tabulation blocks for Allen County, KS).
 - PVS_17_v2_place_20001.shp (place boundaries for Allen County, KS).
 - And numerous others.
- PVS_17_v2_<layername>_SS.shp **(for reference and query only)**.
 - PVS_17_v2_state_20.shp (Kansas state boundary).
 - PVS_17_v2_county_20.shp (county boundaries within Kansas).
 - PVS_17_v2_place_20.shp (place boundaries within Kansas).
 - And numerous others.

Using Your LUCA Digital Materials

- Opening .csv files in Microsoft Excel.
- Opening .shp files in Esri ArcGIS.

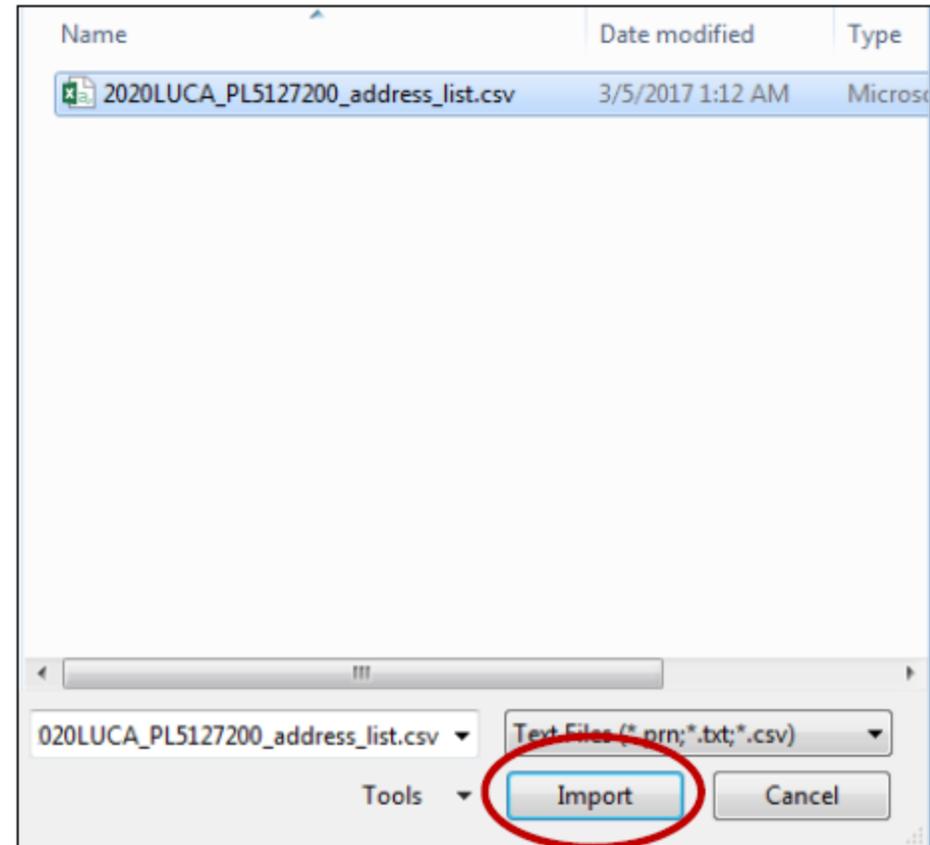
Opening .csv Files in Microsoft Excel: Data – Get External Data – From Text

- Launch Microsoft Excel and open a blank workbook.
- Choose **Data – Get External Data – From Text**.



Opening .csv Files in Microsoft Excel: Navigate – Import

- Navigate to the “2020LUCA” folder, choose the .csv and then choose *Import*.



Opening .csv Files in Microsoft Excel: Text Import Wizard

Text Import Wizard - Step 1 of 3

The Text Wizard has determined that your data is delimited. If this is correct, choose Next, or choose Cancel to stop.

Original data type

Choose the file type that best describes your data.

Delimited - Characters such as commas separate the data.

Fixed width - Fields are aligned to columns.

Start import at row: 1

My data has headers.

Preview of file H:\GUPS_Testing\GUPS_LUCA_Sample_Data\Shell_Beach_n...Testimport_ATRO.csv

LINE_NUMBE	STATEFP	COUNTYFP	TRACT	BLOCK	GQ	GQ_NAME	HOUSENUMBE	STREETNAME
1	51	610	500100	1023			2402	Jumping Junction
2	51	610	500100	1023		1151	1151	Ghost
3	51	610	500100	1023		2253	2253	Harrigan
4	51	610	500100	1023		329	329	Alliteration Aisle

Text Import Wizard - Step 2 of 3

This screen lets you set the delimiters your data contains. You can see how your text is previewed below.

Delimiters

Tab

Semicolon

Comma

Space

Other:

Treat consecutive delimiters as one

Text qualifier: (none)

Data preview

Text	Text	Text	Text	Text	Text	Text	Text	Text
LINE_NUMBE	STATEFP	COUNTYFP	TRACT	BLOCK	GQ	GQ_NAME	HOUSENUMBE	STREETNAME
1	51	610	500100	1023			2402	Jumping Junction
2	51	610	500100	1023		1151	1151	Ghost
3	51	610	500100	1023		2253	2253	Harrigan
4	51	610	500100	1023		329	329	Alliteration Aisle

Text Import Wizard - Step 3 of 3

This screen lets you select each column and set the Data Format.

Column data format

General

Text

Date: MDY

Do not import column (skip)

'General' converts numeric values to numbers, date values to dates, and all remaining values to text.

Advanced...

Data preview

Text	Text	Text	Text	Text	Text	Text	Text	Text
LINE_NUMBE	STATEFP	COUNTYFP	TRACT	BLOCK	GQ	GQ_NAME	HOUSENUMBE	STREETNAME
1	51	610	500100	1023			2402	Jumping Junction
2	51	610	500100	1023		1151	1151	Ghost
3	51	610	500100	1023		2253	2253	Harrigan
4	51	610	500100	1023		329	329	Alliteration Aisle

Import Data

Select how you want to view this data in your workbook.

Table

PivotTable Report

PivotChart

Only Create Connection

Where do you want to put the data?

Existing worksheet:

= \$A\$1

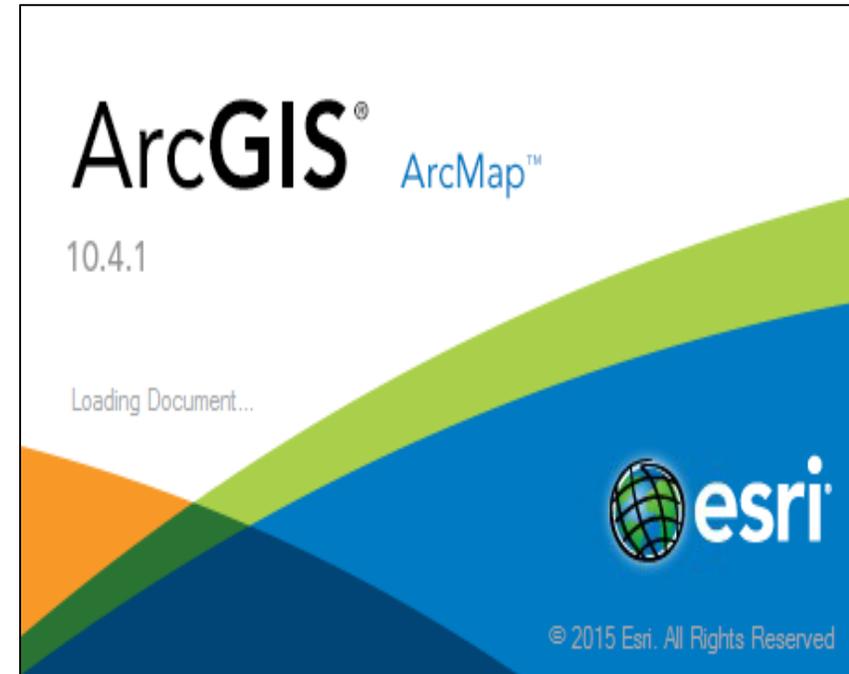
New worksheet

Add this data to the Data Model

- Text Import Wizard appears:
- Step 1/3 (Original data type=**Delimited** and choose **Next**).
 - Step 2/3 (Change Delimiters from Tab to **Comma** and choose **Next**).
 - Step 3/3 (**Select all fields** in Data preview, Change Column data format to **Text** & choose **Finish**).
 - Import Data choose **New worksheet** and **OK**.

Opening .shp Files In Esri ArcGIS: Launch ArcGIS – ArcMap

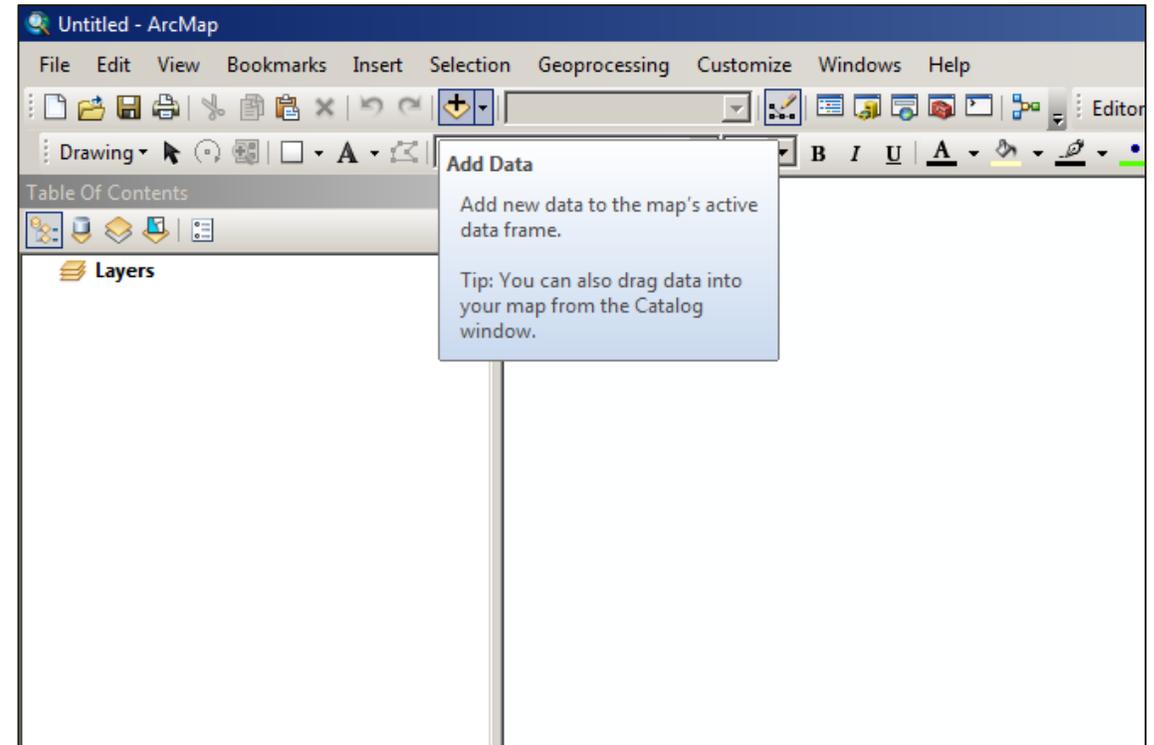
- From the Start Menu or a shortcut icon on desktop, launch ArcMap.
- A “Loading Document” window appears.



Opening .shp Files In Esri ArcGIS

Setting up .mxd

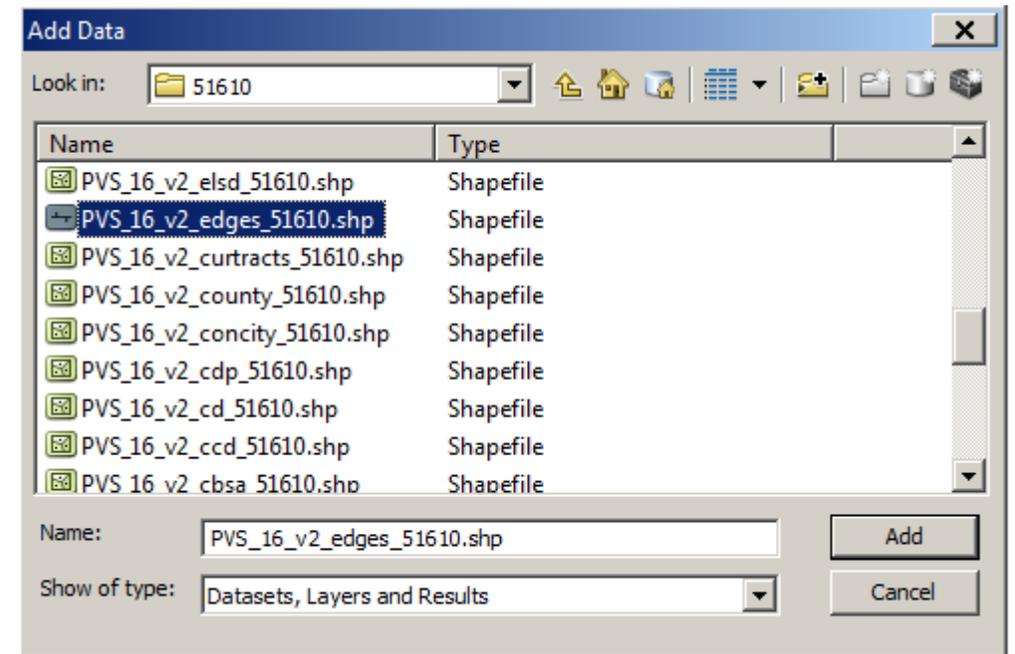
- A blank Map Document (.mxd) will open.
- Click the **Add** button to add your data to the blank .mxd.



Opening .shp files in Esri ArcGIS

Browse and add data

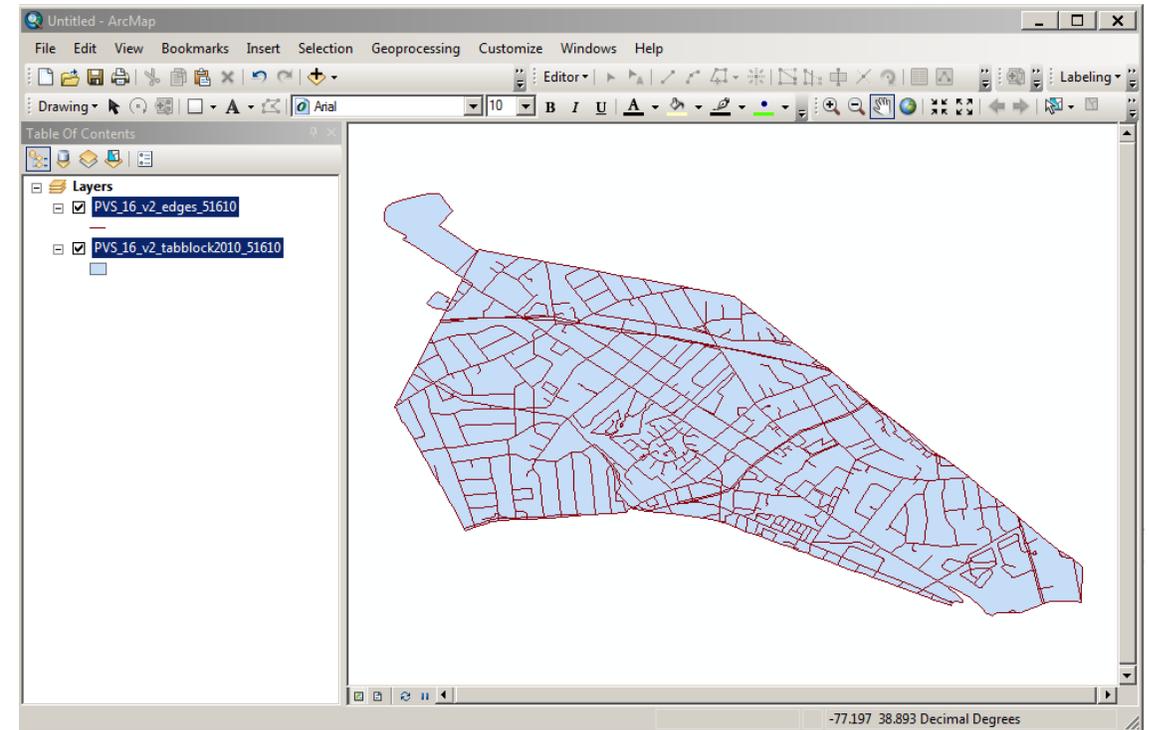
- Browse for your data.
- Select the edges shapefile and the tabblock2010 shapefile and click **Add**.



Opening .shp files in Esri ArcGIS

Add Data resulting visual

- Something similar to this image appears after successfully adding the edges and tabblock2010 shapefiles.





Digital Address List

Acceptable Updates

Agenda

Digital Address List and Digital Map Updates

- Digital Address List Action Code Updates
- Address List Add Updates
- Digital Map Updates
- Ungeocoded Addresses
- Non-City Style Addresses

Acceptable Updates and Examples

Address List action codes (ACTION):

- A – Add this address.
- C – Correct this address.
- D – Delete this address.
- J – Address is not in this jurisdiction.
- N – Address is nonresidential.

Edges shapefile change type codes (CHNG_TYPE):

- AL – Add Line.
- DL – Delete Line.
- CA – Change Attribute.

“A” Action Code – Address List:

City Style Addresses – HUs

No Title 13 Data Displayed

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	
1	LINE	MA	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEC	GQ	HOUSENUMBER	STREETNAME	TM	ZIP	AP NA ME	AR CIL ITY	LO CA TIO	NO CA ITY	NO CA ITY	MA	USE	LAT	LONG	CITY_ STYLE	
2			PL5127200	A	51	610	5002.00	1014			100	Crystal Ave		31402							B	36.22021258	-67.65562012		
3			PL5127200	A	51	610	5002.00	1014			101	Crystal Ave		31402								B	36.22022164	-67.69854001	
4			PL5127200	A	51	610	5002.00	1014			102	Crystal Ave		31402								B	36.21991998	-67.69953965	
5			PL5127200	A	51	610	5002.00	1014			103	Crystal Ave		31402								B	36.21893997	-67.70441114	
6			PL5127200	A	51	610	5002.00	1014			104	Crystal Ave		31402								B	36.21882126	-67.70402863	
7			PL5127200	A	51	610	5002.00	1014			105	Crystal Ave		31402								B	36.21879569	-67.70384974	
8			PL5127200	A	51	610	5002.00	1014			106	Crystal Ave		31402								B	36.21877321	-67.70361611	
9			PL5127200	A	51	610	5002.00	1014			107	Crystal Ave		31402								B	36.21869369	-67.70358951	
10			PL5127200	A	51	610	5002.00	1014			108	Crystal Ave		31402								B	36.21855741	-67.70349999	
11			PL5127200	A	51	610	5002.00	1014			109	Crystal Ave		31402								B	36.21851642	-67.70347657	
12			PL5127200	A	51	610	5002.00	1014			110	Crystal Ave		31402								B	36.21848999	-67.70274334	
13			PL5127200	A	51	610	5002.00	1014			111	Crystal Ave		31402								B	36.21800263	-67.69919058	
14			PL5127200	A	51	610	5002.00	1014			112	Crystal Ave		31402								B	36.21794225	-67.69914443	
15			PL5127200	A	51	610	5002.00	1014			113	Crystal Ave		31402								B	36.21794088	-67.69898816	

“AL” Change Type – Edges Shapefile: Adding A Street

The screenshot shows the ArcMap interface with a map of a residential area. A red circle highlights a specific street, 'Crystal Ave', which is highlighted in cyan. The map shows various streets and parcel boundaries with addresses. The table below the map shows the details for the selected street.

FID	Shape *	STATEFP	COUNTYF	TLID	TFIDL	TFIDR	FIDELITY	MTFCC	FULLNAME	CHNG_TYPE	SMID	SMIDTYPE	BBSPFLG	CBBFLG	BBSP_2020	JUSTIFY
104	Polyline			0	0	0		S1400	Crystal Ave	AL	0					

“A” Action Code – Address List: Non-City Style Addresses – HUs

No Title 13 Data Displayed

1	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	
LINE	MA	ENT	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEC	GQ	HOU	STREETNAME	AP	AR	ZIP	GQ	FA	LOCATION DESCRIPTION	NONCITYSTYLE ADDRESS	NONCITY STYLE ZIP	MA	USE	LAT	LONG	CITY_STYLE
2			PL5127200	A	51	610	5002.00	1001				Aca St						N on Aca St 2 story w/blk door .25 mile from intersection of James St		31402		L	36.19988566	-67.69891673	
3			PL5127200	A	51	610	5002.00	1001				Aca St						Red brick ranch w/carport down long driveway		31402		L	36.19996002	-67.69884699	
4			PL5127200	A	51	610	5002.00	1001											RR 3 Box 71	31402		M	36.18722842	-67.68851552	
5			PL5127200	A	51	610	5002.00	1001											RR 3 Box 89	31402		M	36.18723969	-67.68853849	

“A” Action Code – Address List: City Style Addresses – GQs

****No Title 13 Data Displayed****

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1	LINE	MA	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEC	GQ_FLAG	HOUSENUMBER	STREETNAME	AP AR TM	ZIP	GQ NAME	FACILITY NAME	LO CA TIO	NO NCI TYS	NO NCI TYS	MA	USE	LAT	LONG	CITY_ STYLE
2			PL5127200	A	51	610	5001.00	2001		Y	225	Achilles Dr		31402	Pandora Hall Bldg 1	Aristotle University					B	36.20156156	-67.70114884	
3			PL5127200	A	51	610	5001.00	2001		Y	225	Achilles Dr		31402	Pandora Hall Bldg 2	Aristotle University					B	36.20156201	-67.70115436	
4			PL5127200	A	51	610	5001.00	2001		Y	225	Achilles Dr		31402	Pandora Hall Bldg 3	Aristotle University					B	36.20157984	-67.70115996	

“C” – Action Code

Use a “C” action code for the following situations:

- Incorrect state code.
- Incorrect county code.
- Incorrect census tract number.
- **Incorrect census block number.**
- **Incorrect street name (including street directional and street type information).**
- Incorrect ZIP code.
- Incorrect latitude and/or longitude values.
- **Include tract and block numbers for ungeocoded address records*.**

*Ungeocoded address records are missing the tract and block geocode information. These records exist for state and county participants.

“C” Action Code – Address List:

City Style Address – Correcting Block Number

No Title 13 Data Displayed

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1	LINE_	MAFID	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEOID	GQ_	HOUSENUMBER	STREETNAME	AP	AR	GQ	FA	LO	NO	NO	MAPSPOT	USE	LAT	LONG	CITY_
2	NUMBER												TM	ZIP	ME	CIL	CA	NC	NC					STYLE
2	987	214554811	PL5127200		51	610	5003.00	2024	516115003002024		101	Court St		31402						0004		36.5023512	-67.24148856	Y
3																								
4																								
5																								
6	LINE_	MAFID	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEOID	GQ_	HOUSENUMBER	STREETNAME	AP	AR	GQ	FA	LO	NO	NO	MAPSPOT	USE	LAT	LONG	CITY_
7	987	214554811	PL5127200	C	51	610	5003.00	1036	516115003002024		101	Court St		31402						0004		36.50212532	-67.24165884	Y

“DL” and “AL” Change Type - Edges Shapefile: Correcting Block Number

The screenshot shows an ArcMap interface with a map of residential blocks. Two red circles highlight specific blocks: 500300 1036 and 500300 2024. The map shows streets like Parallax Ave, Court St, and Bass Alley. A table at the bottom shows data for these blocks, including FID, Shape, STATEFP, COUNTYF, TLID, TFIDL, TFIDR, FIDELITY, MTFCC, FULLNAME, CHNG_TYPE, SMID, SMIDTYPE, BBSPFLG, CBBFLG, BBSP_2020, and JUSTIFY.

FID	Shape *	STATEFP	COUNTYF	TLID	TFIDL	TFIDR	FIDELITY	MTFCC	FULLNAME	CHNG_TYPE	SMID	SMIDTYPE	BBSPFLG	CBBFLG	BBSP_2020	JUSTIFY
311	Polyline	51	610	7597	257249	210230	Y	S1400	Court St	DL	1595	A	4	4		
104	Polyline			0	0	0		S1400	Court St	AL	0					

“C” Action Code – Address List: City Style Addresses – Correcting Street Name

No Title 13 Data Displayed

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	
1	LINE_NUMBER	MAFID	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEOID	GQ	HOUSENUMBER	STREETNAME	AR	ZIP	NA	CIL	CA	NC	NC	MAPSPOT	USE	LAT	LONG	CITY_STYLE	
2	941	002200146	PL5127200		51	610	5003.00	1010	516105003001010		1201	Mount Rd		31405						0001		36.87726074	-67.16554319	Y	
3	942	000040147	PL5127200		51	610	5003.00	1010	516105003001010		1203	Mount Rd		31405						0002		36.88249405	-67.18038156	Y	
4	943	030900148	PL5127200		51	610	5003.00	1010	516105003001010		1207	Mount Rd		31405						0003		36.88848317	-67.18320951	Y	
5	944	000045149	PL5127200		51	610	5003.00	1010	516105003001010		1209	Mount Rd		31405						0004		36.88387679	-67.16884567	Y	
6	945	100000150	PL5127200		51	610	5003.00	1010	516105003001010		1211	Mount Rd		31405						0005		36.87874786	-67.16110508	Y	
7	946	360000151	PL5127200		51	610	5003.00	1010	516105003001010		1215	Mount Rd		31405						0006		36.88903151	-67.18160201	Y	
8	947	360000152	PL5127200		51	610	5003.00	1010	516105003001010		1217	Mount Rd		31405						0007		36.89118869	-67.18049403	Y	
9	948	375441153	PL5127200		51	610	5003.00	1010	516105003001010		1219	Mount Rd		31405						0008		36.87860859	-67.16937895	Y	
10	949	215541154	PL5127200		51	610	5003.00	1010	516105003001010		1221	Mount Rd		31405						0009		36.87580391	-67.16444391	Y	
11	950	241785155	PL5127200		51	610	5003.00	1010	516105003001010		1225	Mount Rd		31405						0010		36.88877500	-67.16657160	Y	
12																									
13																									
14																									
15	LINE_NUMBER	MAFID	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEOID	GQ	HOUSENUMBER	STREETNAME	AR	ZIP	NA	CIL	CA	NC	NC	MAPSPOT	USE	LAT	LONG	CITY_STYLE	
16	941	002200146	PL5127200	C	51	610	5003.00	1010	516105003001010		1201	Mountain St		31405						0001		36.87726074	-67.16554319	Y	
17	942	000040147	PL5127200	C	51	610	5003.00	1010	516105003001010		1203	Mountain St		31405						0002		36.88249405	-67.18038156	Y	
18	943	030900148	PL5127200	C	51	610	5003.00	1010	516105003001010		1207	Mountain St		31405						0003		36.88848317	-67.18320951	Y	
19	944	000045149	PL5127200	C	51	610	5003.00	1010	516105003001010		1209	Mountain St		31405						0004		36.88387679	-67.16884567	Y	
20	945	100000150	PL5127200	C	51	610	5003.00	1010	516105003001010		1211	Mountain St		31405						0005		36.87874786	-67.16110508	Y	
21	946	360000151	PL5127200	C	51	610	5003.00	1010	516105003001010		1215	Mountain St		31405						0006		36.88903151	-67.18160201	Y	
22	947	360000152	PL5127200	C	51	610	5003.00	1010	516105003001010		1217	Mountain St		31405						0007		36.89118869	-67.18049403	Y	
23	948	375441153	PL5127200	C	51	610	5003.00	1010	516105003001010		1219	Mountain St		31405						0008		36.87860859	-67.16937895	Y	
24	949	215541154	PL5127200	C	51	610	5003.00	1010	516105003001010		1221	Mountain St		31405						0009		36.87580391	-67.16444391	Y	
25	950	241785155	PL5127200	C	51	610	5003.00	1010	516105003001010		1225	Mountain St		31405						0010		36.88877500	-67.16657160	Y	

“CA” Change Type – Edges Shapefile: Correcting Street Name

The screenshot shows the ArcMap interface with a map of a residential area. A red arrow points to a street labeled 'Mountain St'. Below the map is a table with the following data:

FID	Shape *	STATEFP	COUNTYFP	TLID	TFIDL	TFIDR	FIDELITY	MTFCC	FULLNAME	CHNG_TYPE	SMID	SMIDTYPE	BBSPLFG	CBBFLG
57	Polyline	51	610	624917791	210230052	210230162	Y	S1400	Mountain St	CA	1595	A	4	4
175	Polyline	51	610	75979753	210230158	210230162	Y	S1400	Mountain St	CA	1595	A	4	4
309	Polyline	51	610	75979741	210230158	210230162	Y	S1400	Mountain St	CA	1595	A	4	4
315	Polyline	51	610	624917790	210230052	210230162	Y	S1400	Mountain St	CA	1595	A	4	4

“C” Action Code – Address List: City Style Addresses – Correcting Ungeocoded Records

No Title 13 Data Displayed

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1	LINE_	MAFID	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEC	GQ	HOUSENUMBER	STREETNAME	AP	ZIP	GQ	FA	LO	NO	NO	MA	USE	LAT	LONG	CITY_
	NUMBER												AR		NA	CIL	CA	NC	NC					STYLE
2	2090	100200301	CO51610	C	51	610	5003.00	1000			2501	Oliver Ave		31402								36.54239968	-67.98615562	Y
3	2091	100200302	CO51610	C	51	610	5003.00	1000			2505	Oliver Ave		31402								36.54235541	-67.98598865	Y
4	2092	100200303	CO51610	C	51	610	5003.00	1000			2507	Oliver Ave		31402								36.54226674	-67.98589156	Y
5	2093	100200304	CO51610	C	51	610	5003.00	1000			2509	Oliver Ave		31402								36.54213112	-67.98581426	Y
6	2094	100200305	CO51610	C	51	610	5003.00	1000			2515	Oliver Ave		31402								36.54200085	-67.98575532	Y
7	2095	100200306	CO51610	C	51	610	5003.00	1000			2517	Oliver Ave		31402								36.54198882	-67.98568756	Y
8	2096	100200307	CO51610	C	51	610	5003.00	1000			2523	Oliver Ave		31402								36.54185562	-67.98558104	Y
9	2097	100200308	CO51610	C	51	610	5003.00	1000			2525	Oliver Ave		31402								36.54149999	-67.98550019	Y
10	2098	100200309	CO51610	C	51	610	5003.00	1000			2531	Oliver Ave		31402								36.54123364	-67.98547774	Y
11	2099	100200310	CO51610	C	51	610	5003.00	1000			2537	Oliver Ave		31402								36.54119945	-67.98541971	Y

“D” – Action Code

Use a “D” **action code** for the following situations:

- Residential address no longer exists, is uninhabitable, or is a duplicate.
- **Street, or section of street, no longer exists (and addresses along street no longer exist).**
- **Incorrect house number or incorrect apartment/unit number.**
- **Housing Unit, Multiunit, or Group Quarters Conversions:**
 - **Housing unit converted to a multiunit structure or group quarters.**
 - Multiunit structure converted to a housing unit or group quarters.
 - Group quarters converted to a housing unit or multiunit structure.

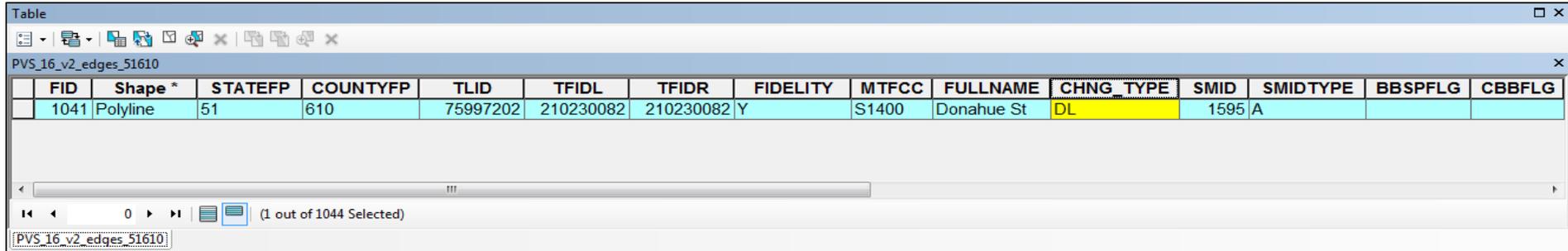
Do not modify any other columns.

“D” Action Code – Address List: City Style Addresses – Delete Addresses

No Title 13 Data Displayed

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	
1	LINE_NUMBER	MAFID	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEOID	GQ	HOUSENUMBER	STREETNAME	AP AR	ZIP	GQ NA	FA CIL	LO CA	NO NC	NO NC	MA	USE	LAT	LON	CITY_STYLE	
2	844	024510332	PL5127200	D	51	610	5002.00	3012	516105002003012		500	Donahue St		31408											Y
3	845	025468521	PL5127200	D	51	610	5002.00	3012	516105002003012		502	Donahue St		31408											Y
4	846	026347810	PL5127200	D	51	610	5002.00	3012	516105002003012		504	Donahue St		31408											Y
5	847	024598100	PL5127200	D	51	610	5002.00	3012	516105002003012		506	Donahue St		31408											Y
6	848	025531499	PL5127200	D	51	610	5002.00	3012	516105002003012		508	Donahue St		31408											Y

“DL” Change Type – Edges Shapefile: Delete A Street



The screenshot shows a table window titled "Table" with a sub-header "PVS_16_v2_edges_51610". The table contains one record with the following data:

FID	Shape *	STATEFP	COUNTYFP	TLID	TFIDL	TFIDR	FIDELITY	MTFCC	FULLNAME	CHNG_TYPE	SMID	SMIDTYPE	BBSPFLG	CBBFLG
1041	Polyline	51	610	75997202	210230082	210230082	Y	S1400	Donahue St	DL	1595	A		

At the bottom of the window, there is a status bar indicating "(1 out of 1044 Selected)" and a text box containing "PVS_16_v2_edges_51610".

“D” and “A” Action Codes – Address List: City Style Addresses – Incorrect Apartment Unit

****No Title 13 Data Displayed****

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1	LINE_	MAFID	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEOID	GQ	HOUSENUMBER	STREETNAME	APARTMENT	ZIP	NA	RA	LO	IN	NO	MAPSPOT	USE	LAT	LONG	CITY_
2	NUMBER												UNIT		ME	ITY	TI	ITY						STYLE
1	124	000000505	PL5127200	D	51	610	5001.00	1030	516105001001030		1935	Eggman Rd	A	31407						0001		36.88574596	-67.17556610	Y
3	125	000000506	PL5127200	D	51	610	5001.00	1030	516105001001030		1935	Eggman Rd	B	31407						0001		36.88574596	-67.17556610	Y
4	126	000000507	PL5127200	D	51	610	5001.00	1030	516105001001030		1935	Eggman Rd	C	31407						0001		36.88574596	-67.17556610	Y
5	127	000000508	PL5127200	D	51	610	5001.00	1030	516105001001030		1935	Eggman Rd	D	31407						0001		36.88574596	-67.17556610	Y
6			PL5127200	A	51	610	5001.00	1030			1935	Eggman Rd	101	31407						0001	M	36.88574596	-67.17556610	
7			PL5127200	A	51	610	5001.00	1030			1935	Eggman Rd	102	31407						0001	M	36.88574596	-67.17556610	
8			PL5127200	A	51	610	5001.00	1030			1935	Eggman Rd	103	31407						0001	M	36.88574596	-67.17556610	
9			PL5127200	A	51	610	5001.00	1030			1935	Eggman Rd	104	31407						0001	M	36.88574596	-67.17556610	

“D” and “A” Action Codes – Address List: City Style Addresses – HU Converted to Multiunit

****No Title 13 Data Displayed****

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1	LINE_	MAFID	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEOID	GO	HOUSENUMBER	STREETNAME	APARTMENT	ZIP	GO	PA	LO	NO	NO	MAPSPOT	USE	LAT	LONG	CITY_
2	NUMBER												UNIT		NA	CIL	CA	NC	NC					STYLE
2	224	000000599	PL5127200	D	51	610	5001.00	1034	516105001001034		3501	Leon Rd		31407						0010		36.43412557	-67.75415682	Y
3			PL5127200	A	51	610	5001.00	1034			3501	Leon Rd	Apt 101	31407							M	36.43412557	-67.75415682	
4			PL5127200	A	51	610	5001.00	1034			3501	Leon Rd	Apt 102	31407							M	36.43412557	-67.75415682	
5			PL5127200	A	51	610	5001.00	1034			3501	Leon Rd	Apt 103	31407							M	36.43412557	-67.75415682	
6			PL5127200	A	51	610	5001.00	1034			3501	Leon Rd	Apt 104	31407							M	36.43412557	-67.75415682	

“J” – Action Code

- Use a “J” action code to flag residential addresses that are not in your jurisdiction.
- Use for city style, non-city style, and ungeocoded address records.
- Do not make modifications to any other columns.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
1	LINE_	MAFID	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEO ID	GQ_	HOUSE	STREETNAME	APA	ZIP	GQ	FAC	LOC	NO	NO	MA		LO	CITY-	
	NUMBER									_FL	NUMBER		RT	NA	ILIT	ATI	NCI	NCI	PSP	USE	LAT	NG	STYLE	
2	454	99995555	PL5127200	J	51	610	5001.00	2001	516105001002001		3526	Pueblo Trl		31402										Y
3	455	99995556	PL5127200	J	51	610	5001.00	2001	516105001002001		3528	Pueblo Trl		31402										Y

“N” – Action Code

- Use an “N” action code to flag addresses used for purposes other than residential such as:
 - Businesses.
 - Schools.
 - Churches.
 - Government offices.
- Use for city style, non-city style, and ungeocoded address records.
- Do not make modifications to any other columns.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
	LINE_	MAFID	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEO ID	GQ_	HOUSE	STREETNAME	RT		GQ	ILIT	ATI	NCI	NCI	MA			LO	CITY-
1	NUMBER									AG	NUMBER		ME	ZIP	ME	NA	ON	TYS	TYS	PSP	USE	LAT	NG	STYLE
2	688	989866571	PL5127200	N	51	610	5002.00	2000	516105002002000		202	Cassiopeia Dr		31402										Y

Summary of Address List Updates

LINE_NUMBER	MAFID	ENTITY	ACTION	STATEFP	COUNTYFP	TRACT	BLOCK	GEOID	GQ_FLAG	HOUSENUMBER	STREETNAME	APARTMENT UNIT	ZIP	GQ_NAME	FACILITY NAME	LOCATION DESCRIPTION	NCITYSTYLE ADDR	NONCITYSTYLE ZIP	MAPSPOT	USE	LAT	LONG	CITY_STYLE
		PL5127200	A	51	610	5002.00	1014			100	Crystal Ave		31402							B	36.22021258	-67.65562012	
		PL5127200	A	51	610	5002.00	1014			101	Crystal Ave		31402							B	36.22022164	-67.69854001	
		PL5127200	A	51	610	5002.00	1014			112	Crystal Ave		31402							B	36.21794225	-67.69914443	
		PL5127200	A	51	610	5002.00	1014			113	Crystal Ave		31402							B	36.21794088	-67.69898816	
		PL5127200	A	51	610	5001.00	2001		Y	225	Achilles Dr		31402	Pandora Hall Bldg 1	Aristotle University					B	36.20156156	-67.70114884	
		PL5127200	A	51	610	5001.00	2001		Y	225	Achilles Dr		31402	Pandora Hall Bldg 2	Aristotle University					B	36.20156201	-67.70115436	
		PL5127200	A	51	610	5001.00	2001		Y	225	Achilles Dr		31402	Pandora Hall Bldg 3	Aristotle University					B	36.20157984	-67.70115996	
		PL5127200	A	51	610	5001.00	1034			3501	Leon Rd	Apt 103	31407							M	36.43412557	-67.75415682	
		PL5127200	A	51	610	5001.00	1034			3501	Leon Rd	Apt 104	31407							M	36.43412557	-67.75415682	
		PL5127200	A	51	610	5002.00	1001				Aca St					N on Aca St 2 story w/blk door .25 mile from intersection of James St		31402		L	36.19988566	-67.69891673	
		PL5127200	A	51	610	5002.00	1001				Aca St					Red brick ranch w/carport down long driveway		31402		L	36.19996002	-67.69884699	
		PL5127200	A	51	610	5002.00	1001										RR 3 Box 71	31402		M	36.18722842	-67.68851552	
		PL5127200	A	51	610	5002.00	1001										RR 3 Box 89	31402		M	36.18723969	-67.68853849	
941	002200146	PL5127200	C	51	610	5003.00	1010	516105003001010		1201	Mountain St		31405						0001		36.87726074	-67.16554319	Y
942	000040147	PL5127200	C	51	610	5003.00	1010	516105003001010		1203	Mountain St		31405						0002		36.88249405	-67.18038156	Y
943	030900148	PL5127200	C	51	610	5003.00	1010	516105003001010		1207	Mountain St		31405						0003		36.88848317	-67.18320951	Y
2096	100200307	CO51610	C	51	610	5003.00	1000			2523	Oliver Ave		31402								36.54185562	-67.98558104	Y
2097	100200308	CO51610	C	51	610	5003.00	1000			2525	Oliver Ave		31402								36.54149999	-67.98550019	Y
2098	100200309	CO51610	C	51	610	5003.00	1000			2531	Oliver Ave		31402								36.54123364	-67.98547774	Y
2099	100200310	CO51610	C	51	610	5003.00	1000			2537	Oliver Ave		31402								36.54119945	-67.98541971	Y
124	000000505	PL5127200	D	51	610	5001.00	1030	516105001001030		1935	Eggman Rd	A	31407						0001		36.88574596	-67.17556610	Y
125	000000506	PL5127200	D	51	610	5001.00	1030	516105001001030		1935	Eggman Rd	B	31407						0001		36.88574596	-67.17556610	Y
126	000000507	PL5127200	D	51	610	5001.00	1030	516105001001030		1935	Eggman Rd	C	31407						0001		36.88574596	-67.17556610	Y
127	000000508	PL5127200	D	51	610	5001.00	1030	516105001001030		1935	Eggman Rd	D	31407						0001		36.88574596	-67.17556610	Y
224	000000599	PL5127200	D	51	610	5001.00	1034	516105001001034		3501	Leon Rd		31407						0010		36.43412557	-67.75415682	Y
844	024510332	PL5127200	D	51	610	5002.00	3012	516105002003012		500	Donahue St		31408										Y
845	025468521	PL5127200	D	51	610	5002.00	3012	516105002003012		502	Donahue St		31408										Y
846	026347810	PL5127200	D	51	610	5002.00	3012	516105002003012		504	Donahue St		31408										Y
847	024598100	PL5127200	D	51	610	5002.00	3012	516105002003012		506	Donahue St		31408										Y
848	025531499	PL5127200	D	51	610	5002.00	3012	516105002003012		508	Donahue St		31408										Y
454	99995555	PL5127200	J	51	610	5001.00	2001	516105001002001		3526	Pueblo Trl		31402										Y
455	99995556	PL5127200	J	51	610	5001.00	2001	516105001002001		3528	Pueblo Trl		31402										Y
688	989866571	PL5127200	N	51	610	5002.00	2000	516105002002000		202	Cassiopeia Dr		31402										Y

Summary of Edges Shapefile Updates

The screenshot shows the ArcMap interface with a map of a residential area. Several streets are highlighted with colored lines: Crystal Ave (yellow), Oak St (orange), Donahue St (red), Mountain St (orange), and Court St (red). The Table of Contents on the left shows the 'luca20_ENTITTY_ID_in_changes' layer with a legend for 'CHNG_TYPE' (Add Line (AL), Change Attribute (CA), Delete Line (DL)).

FID	Shape	STATE	COUNTYFP	TLID	TFIDL	TFIDR	MTFCC	FULLNAME	CHNG_TYPE	FIDELITY	SMID	SMIDTYPE	BBSPLG	CBBF	JUSTIFY	LTOADD
4	Polyline	51	610	75979765	257249311	210230166	S1400	Court St	DL	Y	1595	A	4	4		
9	Polyline			0	0	0	S1400	Court St	AL		0					
8	Polyline			0	0	0	S1400	Crystal Ave	AL		0					
7	Polyline	51	610	75997202	210230082	210230082	S1400	Donahue St	DL	Y	1595	A				
0	Polyline	51	610	624917791	210230052	210230162	S1400	Mountain St	CA	Y	1595	A	4	4		
1	Polyline	51	610	75979753	210230158	210230162	S1400	Mountain St	CA	Y	1595	A	4	4		
3	Polyline	51	610	75979741	210230158	210230162	S1400	Mountain St	CA	Y	1595	A	4	4		
5	Polyline	51	610	624917790	210230052	210230162	S1400	Mountain St	CA	Y	1595	A	4	4		
2	Polyline	51	610	75979200	210230113	210230104	S1400	Oak St	CA	Y	1595	A	4	4		
6	Polyline	51	610	75979215	210230117	210230104	S1400	Oak St	CA	Y	1595	A	4	4		



LUCA Update Submissions

Digital Materials

Agenda

Preparing Updated Materials for Submission.

- Address Materials
- Map Materials
- Accompanying paperwork.

Submitting updated materials.

- Shipping Instructions
- Secure Web Incoming Module (SWIM).

Address Materials

- Digital
 - Keeping secure.
 - Assembling and organizing.

Digital Address Materials – Sorting and Saving

- Ensure complete with all updates.
- Re-sort address list by ACTION field.
- Save only records with entry in ACTION field to new file.
- Name the new file
“luca20_<EntityID>_changes_addresses.xxx” (where EntityID is entity identification code from LUCA materials and xxx is the file extension .csv, .txt, .xls, or .xlsx).
- Save to location for easy retrieval for submission and next steps.

Digital Address List – Keeping Secure

- Make copy of new file for use during the feedback phase.
- All address list materials (original and copy) are Title 13.
- Keep secure according to *Confidentiality and Security Guidelines (D-2004), Appendix A in LUCA Respondent Guide*.

Digital Address List– Assembling and Organizing

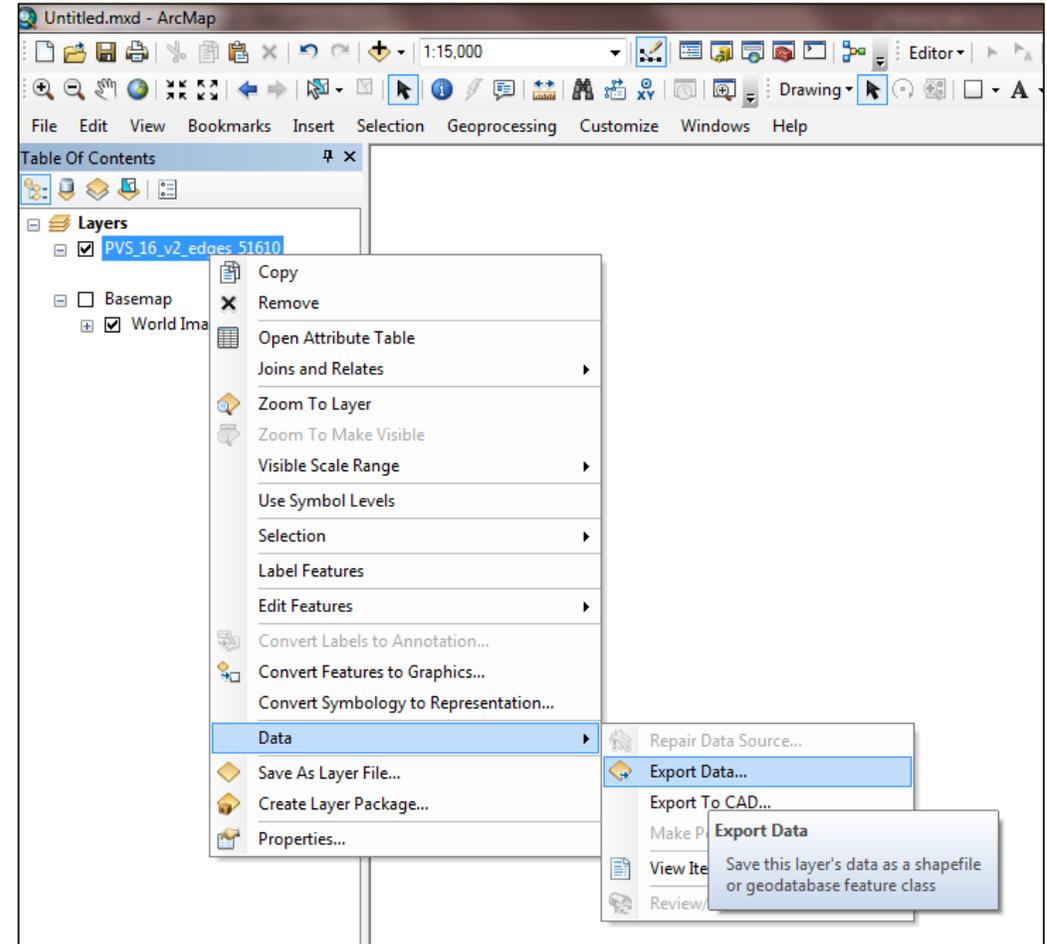
- Navigate to directory where “luca20_<EntityID>_changes_addresses.xxx” resides (where EntityID is entity identification code from LUCA materials and xxx is the file extension .csv, .txt, or .xls).
- Zip the changes address file, name the zip file “luca20_<EntityID>_changes_addresses_return.zip”.
 - Password protection required because Title 13 material.
 - Use case sensitive password provided with original materials.
- Copy the zip file to CD/DVD if shipping submission with paper map materials, or stage the zip file for submission via Census Bureau’s secure online web application.

Map Materials

- Digital
 - Exporting updates.
 - Saving updates.
 - Example
 - Assembling and organizing.

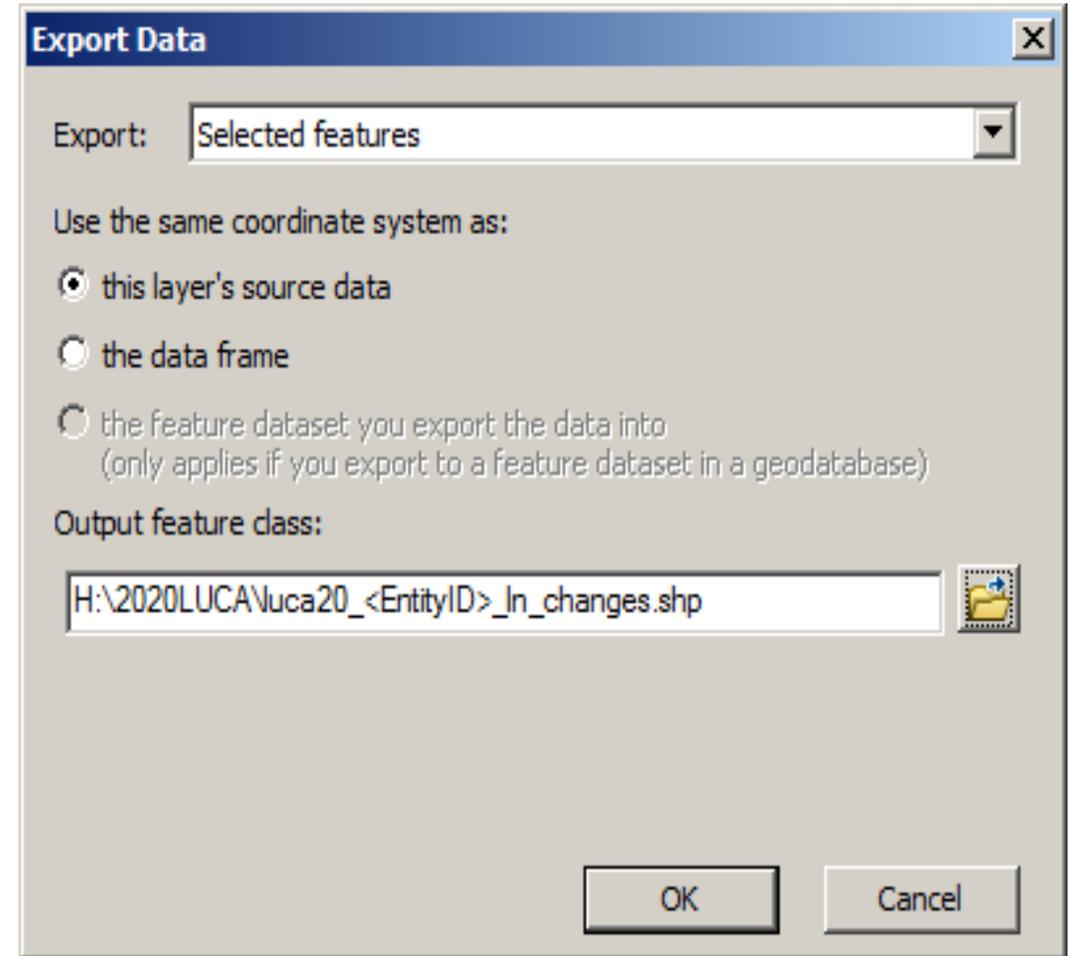
Map Materials – Digital: Exporting Updates

- Ensure complete with all updates.
- Select edges with value in CHNG_TYPE field.
- Export selected edges into new shapefile.



Map Materials – Digital: Saving Updates

- Ensure “Selected features” in “Export Data” window.
- Name new shapefile “luca20_<EntityID>_In_changes.shp”, where EntityID matches entity identification code in LUCA materials.
- Save to location for easy retrieval for submission and next steps.



Map Materials – Digital: Example – Updated Edges Shapefile

FID	Shape	STATE	COUNTYFP	TLID	TFIDL	TFDRL	MTFCC	FULLNAME	CHNG_TYPE	FIDELITY	SMID	SMIDTYPE	BBSPFLG	CBBF	JUSTIFY	LTOADD
4	Polyline	51	610	75979765	257249311	210230166	S1400	Court St	DL	Y	1595	A	4	4		
9	Polyline			0	0	0	S1400	Court St	AL		0					
8	Polyline			0	0	0	S1400	Crystal Ave	AL		0					
7	Polyline	51	610	75997202	210230082	210230082	S1400	Donahue St	DL	Y	1595	A				
0	Polyline	51	610	624917791	210230052	210230162	S1400	Mountain St	CA	Y	1595	A	4	4		
1	Polyline	51	610	75979753	210230158	210230162	S1400	Mountain St	CA	Y	1595	A	4	4		
3	Polyline	51	610	75979741	210230158	210230162	S1400	Mountain St	CA	Y	1595	A	4	4		
5	Polyline	51	610	624917790	210230052	210230162	S1400	Mountain St	CA	Y	1595	A	4	4		
2	Polyline	51	610	75979200	210230113	210230104	S1400	Oak St	CA	Y	1595	A	4	4		
6	Polyline	51	610	75979215	210230117	210230104	S1400	Oak St	CA	Y	1595	A	4	4		

Accompanying Paperwork

- D-2011 Inventory Form, paper or digital.
- Provide with submission either as hardcopy or zipped on CD/DVD or with SWIM.
- Keep copies for your records.

FORM D-2011 (2-16-2017) OMB No. 0607-0994; Approval Expires 12/31/2019

United States Census 2020 U.S. DEPARTMENT OF COMMERCE Economics and Statistics Administration U.S. CENSUS BUREAU Entity ID

**INVENTORY FORM FOR THE RETURN/
SUBMISSION OF MATERIALS
2020 CENSUS LOCAL UPDATE OF CENSUS
ADDRESSES OPERATION (LUCA)** Government Name

Please use this form to identify only the LUCA materials that you have updated and are returning to the Census Bureau.

A. Paper Address List:

Census Bureau Address List number of updated pages

Address List Add Page number of updated pages

B. Digital Address List:

Census Bureau Address List File -- Specify file name *z*

Number of updated address records

C. Paper Maps:

Number of updated map sheets

D. Government shapefile:

Submitting Updated Materials

- Shipping instructions.
 - Title 13 details.
- Secure Web Incoming Module (SWIM).
 - SWIM Introduction.
 - Numerous SWIM procedural screens.

Shipping Instructions:

Submissions With Updated Paper Map Materials

- Follow procedures for shipping Title 13 materials.
- Double wrap Title 13 printed materials (paper maps) using inner/outer envelope (or box/container). Label both sides of inner envelope with **“DISCLOSURE PROHIBITED BY Title 13, U.S.C.”**.
- Place inner envelope into the outer envelope (or box/container).
- Include CD/DVD of zipped address list and completed D-2011, either hardcopy or as its own zipped file on same CD/DVD.
- Use mailing label included with original materials to ship to National Processing Center in Jeffersonville, IN.
- For any shipping uncertainty, consult Respondent Guide or contact Census Bureau.

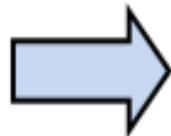
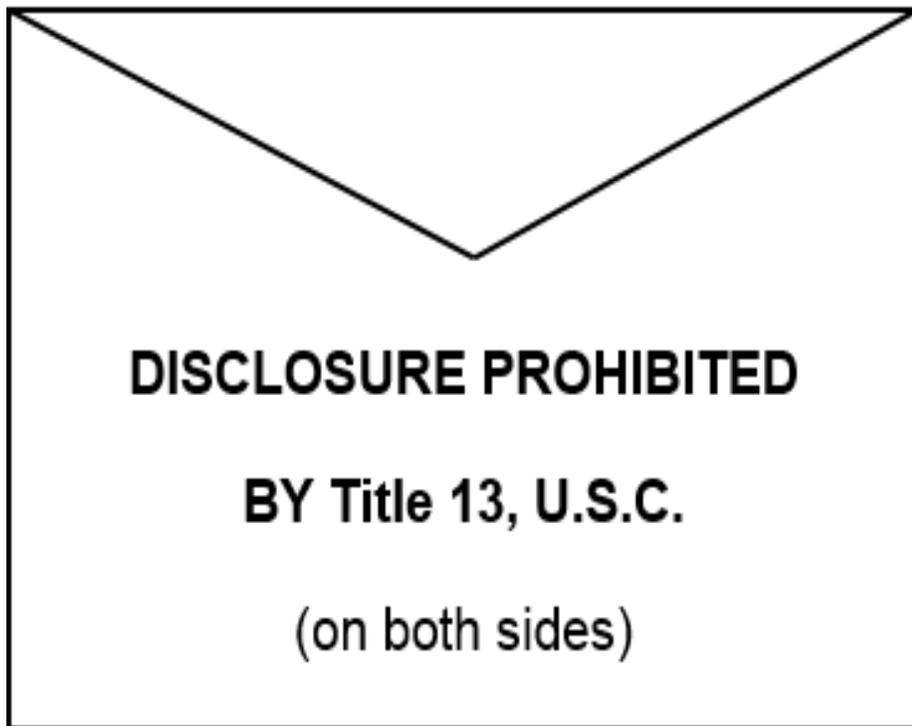
Shipping Instructions:

Submissions With Updated Digital Map Materials

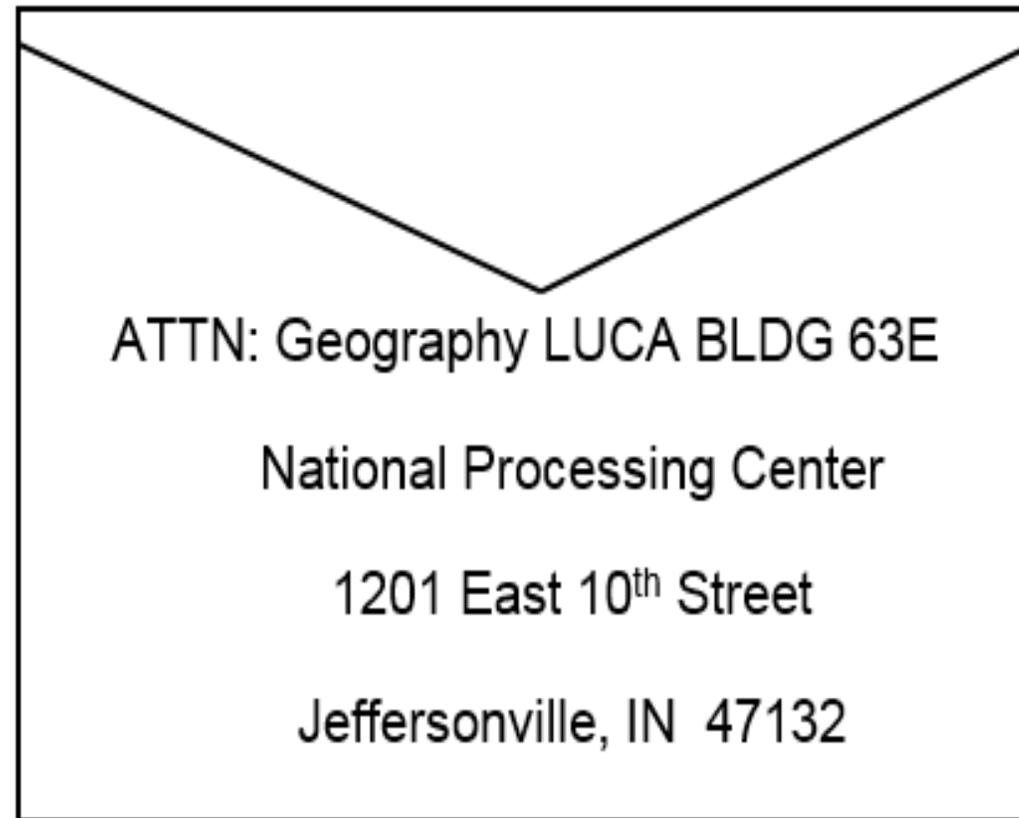
- Include CD/DVD of zipped updated address list and zipped updated edges shapefile.
- Include completed D-2011, either hardcopy or as its own zipped file on same CD/DVD.
- Use mailing label included with original materials to ship to National Processing Center in Jeffersonville, IN.
- For any shipping uncertainty, consult Respondent Guide or contact Census Bureau.

Shipping Instructions: Title 13 Details – Double Wrap Visual

INNER ENVELOPE



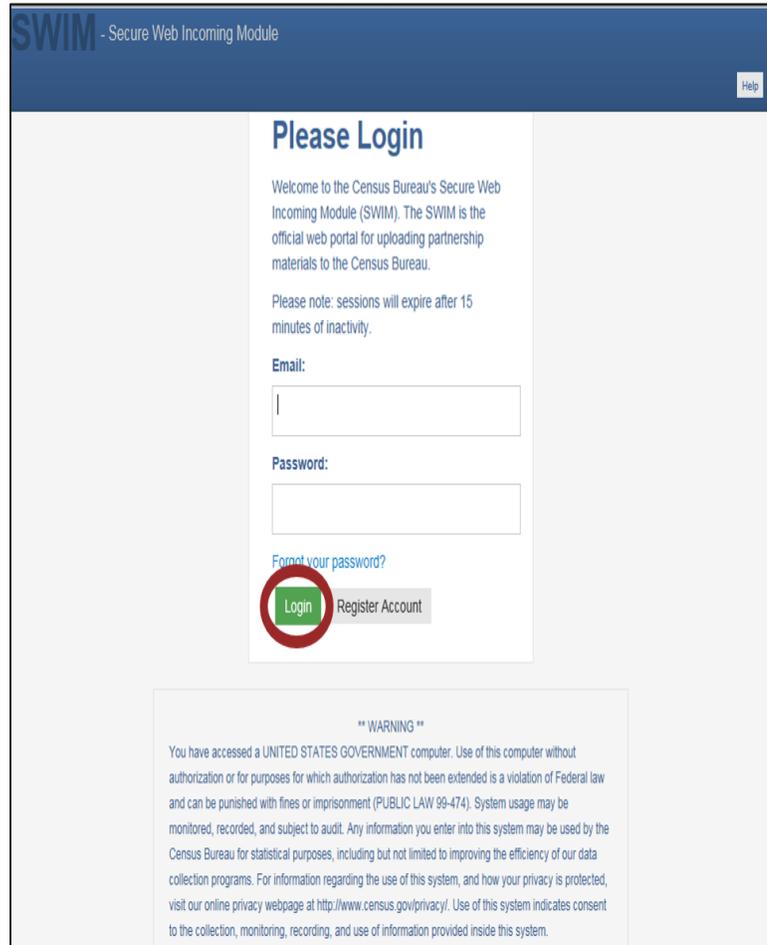
OUTER ENVELOPE



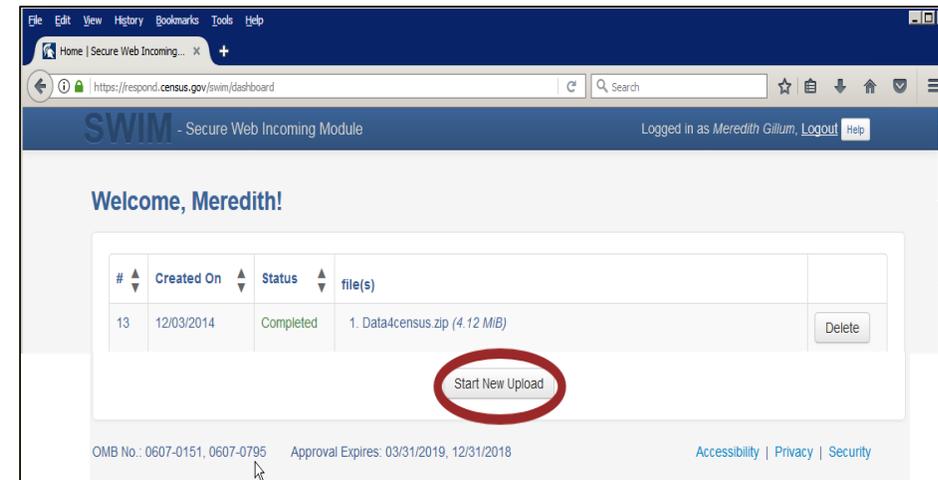
SWIM Introduction

- Official web portal for uploading materials to Census Bureau.
- Used for other programs besides LUCA.
- Accounts are people based, not entity based.
- 12 digit registration token to establish account provided by Census Bureau.
- Only accepts .ZIP files.
- Size limitation of 250 megabytes.

SWIM Account Login and Welcome Screens



[<https://respond.census.gov/swim/>](https://respond.census.gov/swim/)



SWIM Account Registration Screens

SWIM - Secure Web Incoming Module Help

Please Login

Welcome to the Census Bureau's Secure Web Incoming Module (SWIM). The SWIM is the official web portal for uploading partnership materials to the Census Bureau.

Please note: sessions will expire after 15 minutes of inactivity.

Email:

Password:

[Forgot your password?](#)

**** WARNING ****

You have accessed a UNITED STATES GOVERNMENT computer. Use of this computer without authorization or for purposes for which authorization has not been extended is a violation of Federal law and can be punished with fines or imprisonment (PUBLIC LAW 99-474). System usage may be monitored, recorded, and subject to audit. Any information you enter into this system may be used by the Census Bureau for statistical purposes, including but not limited to improving the efficiency of our data collection programs. For information regarding the use of this system, and how your privacy is protected, visit our online privacy webpage at <http://www.census.gov/privacy/>. Use of this system indicates consent to the collection, monitoring, recording, and use of information provided inside this system.

Account Registration

Registration Token:

First Name:

Last Name:

Phone Number: - - #

Agency:

Email:

Confirm Email:

Password:

Confirm Password:

Security Question:

Answer:

SWIM Start New Upload Screen

What Census program are you reporting data for?

Select the geographic program that you currently wish to submit data for the Census Bureau to review. This selection affects only your current upload. You may select a different option for future uploads. If you are unsure what program to select send an email to geo.swim@census.gov for more guidance.

- Geographic Support System Initiative (GSS-I)
- Boundary Annexation Survey (BAS)
- School District Review Program (SDRP)
- Boundary Quality Assessment and Reconciliation Project (BQARP)
- Federal Agency Updates (FDU)
- Redistricting Data Program - BBSP-VTD (RDP)
- Redistricting Data Program - CD-SLD (RDP)
- Local Update of Census Addresses (LUCA)
- Participant Statistical Areas Program (PSAP)

Next

SWIM Type of LUCA Entity Screen

What type of LUCA entity are you reporting for?

- State
- Place
- County
- Minor Civil Division (MCD)
- Tribal Area
- Consolidated City

SWIM Select a .ZIP to Upload Screen

Select a .ZIP file to upload.

File submissions must be in "zip format" Please group all related data together into one ZIP archive including any metadata or supporting documentation that you have available. Please include information about how your geographic data is projected if applicable. If you are submitting shapefiles, be sure to include all of the component files necessary to use the shapefile (at a minimum .shp, .prj, .dbf, .shx). If you are submitting a .MXD file please be sure to include all of the separate data files that are used in the Map (all of the layers, shapefiles, etc.). Please provide any additional information, as applicable, in the comments box below.

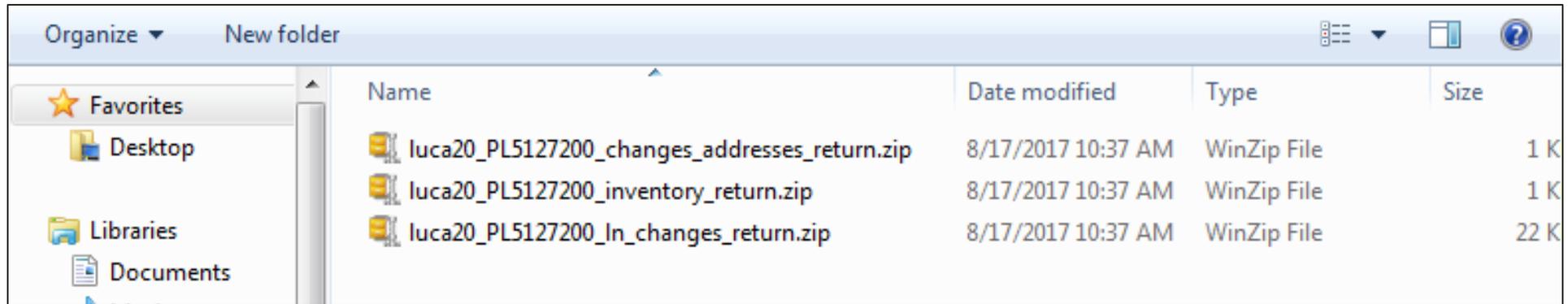
Choose File:

Status:

File(s):

Comments:

SWIM Choose .ZIP to Upload Screen



SWIM .ZIP File Upload Status Screen

SWIM - Secure Web Incoming Module Logged in as

Select a .ZIP file to upload.

File submissions must be in "zip format" Please group all related data together into one ZIP archive including any metadata or supporting documentation that include information about how your geographic data is projected if applicable. If you are submitting shapefiles, be sure to include all of the component files needed (at a minimum .shp, .prj, .dbf, .shx). If you are submitting a .MXD file please be sure to include all of the separate data files that are used in the Map (all of the Please provide any additional information, as applicable, in the comments box below.

Choose File:

Status: **Success**

File(s):

- luca20_PL5127200_changes_addresses_return.zip
- luca20_PL5127200_inventory_return.zip
- luca20_PL5127200_in_changes_return.zip

Comments:

SWIM Thank You Confirmation Screen

Thank You

Your files have uploaded successfully.

File(s):

1. luca20_PL5127200_changes_addresses_return.zip
2. luca20_PL5127200_inventory_return.zip
3. luca20_PL5127200_In_changes_return.zip

You may [Log Out](#) or return to the [upload form](#), to submit more files.



Next Steps

Next Steps – Census Bureau

- Census Bureau processes submission for validation.
- Census Bureau ships feedback materials in Summer 2019.
- Census Bureau begins outreach to close out LUCA operation.
 - Must confirm destruction or return of all Title 13 materials, including originals and copies.
 - Must receive signed *Destruction or Return of Title 13 Materials Form (D-2012)* that includes signatures from liaison and all reviewers.
 - Appendix H of 2020 LUCA Respondent Guide.
 - *Confidentiality and Security Guidelines (D-2004)*, Appendix A of 2020 LUCA Respondent Guide, outlines approved destruction methods and process for return of materials.

Next Steps – Participant

- Agree with feedback materials, then participation ends.
 - Send D-2012 to confirm destruction, or if choose to return materials, do so quickly.
- Notify OMB LUCA Appeals office of disagreement with feedback materials.
 - Appeals Office works with participant and Census Bureau to resolve disagreement.
 - Once appeals process concludes, participants must destroy or return materials and submit signed *Destruction or Return of Title 13 Materials* Form (D-2012) that includes signatures from liaison and all reviewers.
- Filing an appeal is optional.

Next steps – Destruction or Return of Title 13 Materials Form (D-2012)

FORM D-2012 (3-8-2017) OMB No. 0607-0994: Approval Expires 12/31/2019

U.S. DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. CENSUS BUREAU

Entity ID _____
Government Name _____

United States Census 2020
DESTRUCTION OR RETURN OF TITLE 13, UNITED STATES CODE MATERIALS FORM
2020 CENSUS LOCAL UPDATE OF CENSUS ADDRESSES OPERATION (LUCA)

Please complete this form and return it via email to GEO.2020.LUCA@census.gov or in the enclosed postage paid, preaddressed envelope.

All LUCA Operation liaisons, reviewers, and anyone with access to Title 13, United States Code LUCA materials must sign and date this form at the conclusion of your government's participation in LUCA. Should any liaison, reviewer, or anyone with access to Title 13, U.S.C. LUCA materials leave before the completion of LUCA, they must sign and date this form. If any liaison, reviewer, or anyone with access to Title 13 LUCA materials are unable to sign and date this form, the current liaison must sign and date on their behalf.

A. LUCA Liaison Destruction or Return of Title 13 Materials

I certify by my signature that I have properly destroyed or returned to the U.S. Census Bureau, the original LUCA Title 13 materials and any copies using the security requirements provided to my government by the Census Bureau.

Mark (X) one. Destroyed Title 13, LUCA materials (Preferred method)
 Returned Title 13, LUCA materials

Printed Name of the LUCA Liaison _____
Signature of the LUCA Liaison _____ Date _____
Month Day Year

B. LUCA Reviewers and Anyone With Access to Title 13 Materials

Printed Name _____
Signature _____ Date _____
Month Day Year

Printed Name _____
Signature _____ Date _____
Month Day Year

Printed Name _____
Signature _____ Date _____
Month Day Year

Printed Name _____
Signature _____ Date _____
Month Day Year

Section B continued on the reverse

B. LUCA Reviewers and Anyone With Access to Title 13 Materials - Continued

Printed Name _____
Signature _____ Date _____
Month Day Year

Printed Name _____
Signature _____ Date _____
Month Day Year

Printed Name _____
Signature _____ Date _____
Month Day Year

Printed Name _____
Signature _____ Date _____
Month Day Year

Printed Name _____
Signature _____ Date _____
Month Day Year

Printed Name _____
Signature _____ Date _____
Month Day Year

Printed Name _____
Signature _____ Date _____
Month Day Year

FORM D-2012 (3-8-2017)

If you require more signatures, you may duplicate this form.

Planned New Construction Program for 2020

- Non-Title 13.
- Decennial program designed to capture new addresses for housing units that will be habitable on Census Day (April 1, 2020).
- Address submissions will require either:
 - State/County/Tract/Block Geocodes or
 - Latitude/Longitude Coordinates
- Available in Self-Response Type of Enumeration areas.
 - New addresses in non-Self-Response areas will be captured during field operations.
- Tentatively scheduled: Summer 2019.



Geographic Updates Partnership Software (GUPS)

Agenda

- Intended audience.
- Introduction to GUPS and Title 13 U.S.C. refresher.
- GUPS setup and materials introduction.
- GUPS acceptable updates and examples.
- GUPS submission.

What is GUPS

- Customized geographic information system (GIS) provided by U.S. Census Bureau.
- Based on open-source platform known as QGIS.
- Replaces previous software known as MTPS (MAF/TIGER Partnership Software).
- Used for other geography programs (i.e., Boundary and Annexation Survey-BAS).

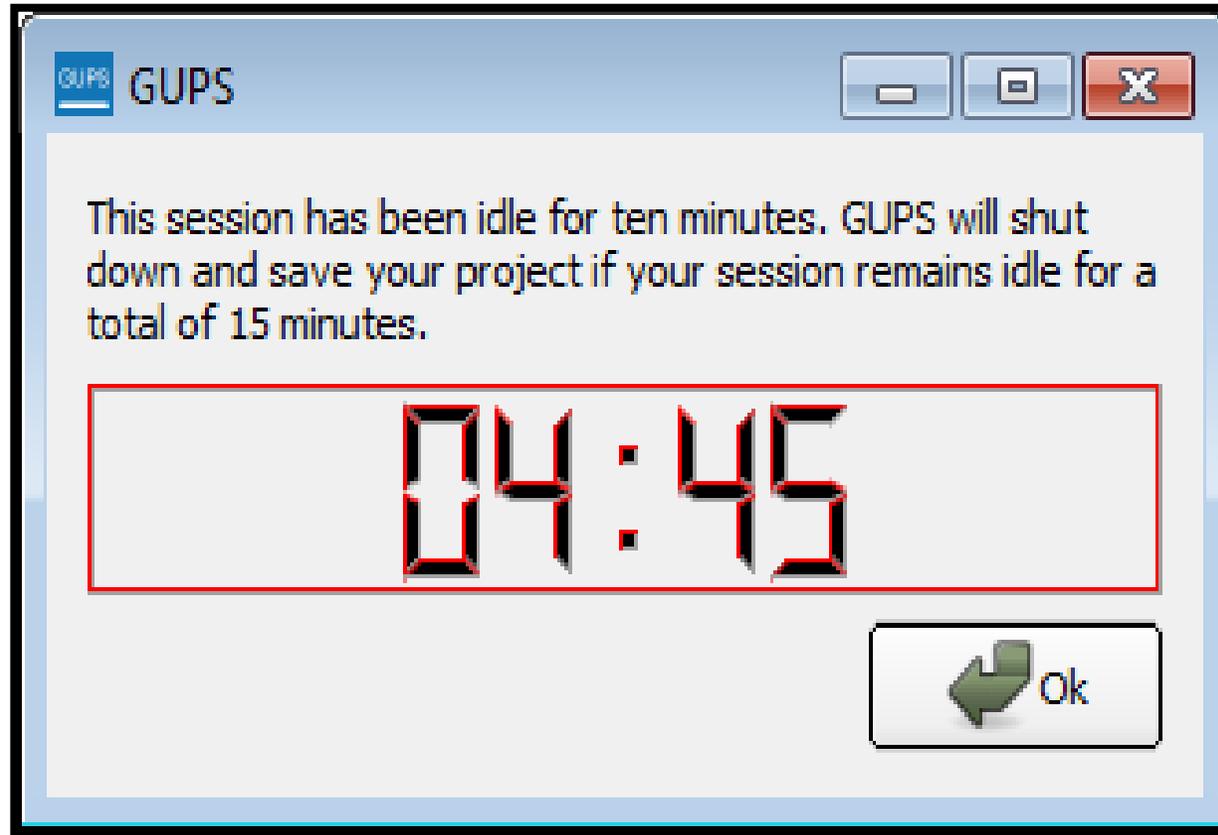
Why Use GUPS for 2020 LUCA

- Tailored to meet needs of those without extensive GIS experience.
- Specifically designed and developed by the Census Bureau for 2020 LUCA use.
- Reduces the complexity of LUCA with specific tools, including review and validation tools.
- Built-in security considerations.
- Standardizes submission process.
- However, NOT recommended for entities with more than 300,000 residential addresses.

Security Considerations

- Title 13 data is automatically encrypted within GUPS.
 - Need the password sent separately by the Census Bureau to the LUCA liaison to access the Title 13 data.
- Updated Census Address List files are automatically encrypted by GUPS when exporting for submission.

Security Considerations (cont'd): Automatic time-out



GUPS Demonstration Video

- <https://census.webex.com/census/lr.php?RCID=805ef5d40bb6617ce189d6d10a18ab25>

Delivery of Materials

- Three DVDs:
 - GUPS installation software.
 - Title 13 data.
 - Non-Title 13 data.
 - Root directory.
 - Respondent Guide(s) – digital and GUPS.
 - Header text file.
 - Inventory form.
 - Readmefirst6.txt file.

GUPS Installation: Example (Initial Screen With Data)

****No Title 13 Data Displayed****

The screenshot displays the GUPS software interface. At the top, the title bar reads "QGIS 2.8.3-Wien - PL5127200 - LUCA - GUPS *** Disclosure Prohibited by Title 13 U.S.C. ***". Below the title bar are two toolbars: the "Standard Toolbar" and the "LUCA Toolbar". The main area is a map labeled "Map" showing a street grid with various address labels and numerical values like 4710.00, 4713.04, 5001.00, 5003.00, and 4514.00. On the right side, there is an "Address Count List" window with a table of data. At the bottom, there is a "Census Address List" window with a table of data and a "User Address List Tab" highlighted with a red arrow.

Address Count List

	STATE	COUNTY	TRACT	BLOCK	
17	51	610	5001.00	1000	516
34	51	610	5001.00	1001	516
129	51	610	5001.00	1002	516
106	51	610	5001.00	1003	516
84	51	610	5001.00	1006	516
113	51	610	5001.00	1007	516
86	51	610	5001.00	1008	516
13	51	610	5001.00	1009	516
18	51	610	5001.00	1010	516
92	51	610	5001.00	1	516
77	51	610	5001.00	2	516
69	51	610	5001.00	1013	516
127	51	610	5001.00	1014	516
75	51	610	5001.00	1015	516
115	51	610	5001.00	1016	516
46	51	610	5001.00	1017	516
29	51	610	5001.00	1018	516
121	51	610	5001.00	1019	516
48	51	610	5001.00	1020	516
107	51	610	5001.00	1021	516
0	51	610	5001.00	1023	516
43	51	610	5001.00	1024	516
76	51	610	5001.00	1025	516
90	51	610	5001.00	1026	516
98	51	610	5001.00	1030	516
56	51	610	5001.00	1031	516
36	51	610	5001.00	1034	516
54	51	610	5001.00	1036	516
102	51	610	5001.00	1040	516
91	51	610	5001.00	2001	516
95	51	610	5001.00	2002	516
89	51	610	5001.00	2003	516
104	51	610	5001.00	2004	516
62	51	610	5001.00	2005	516
22	51	610	5001.00	2006	516
114	51	610	5001.00	2007	516

Census Address List

MAPID	Action	ST	COU	Tract	Block	GEOID	GQ	House #	Street Name	Apt/Unit #
228	C90230657	51	610	5003.00	1036	516105003001036		3	Red Bus	31
72	C72590490	51	610	5002.00	2000	516105002002000		1041	Brass Alley	31
75	C52919486	51	610	5002.00	2005	516105002002005		1954	George Mason Drive	31
378	C45975040	51	610	5002.00	1020	516105002001020		2820	Jumping Junction	31
761	C43109536	51	610	5003.00	1007	516105003001007		2409	Cuban	31
547	C29941070	51	610	5002.00	3009	516105002003009		1347	Dancing Rd	31
182	C27917468	51	610	5001.00	1024	516105001001024		1989	Bluegrass	31
227	C27073096	51	610	5003.00	1036	516105003001036		1403	Morrison Way	31

Viewing 783 of 783 Clear Edits Save Edits

User Address List Tab

Reviewing Records In GUPS: Sort By – Filter By – Selection Tool

****No Title 13 Data Displayed****

The screenshot shows the 'Census Address List' interface. A dropdown menu for 'Sort By' is set to 'GEOID (default)'. A red box highlights the 'Address List Sort Options' dropdown menu with the following items: GEOID (default), Street Name/House #/Apt #, GEOID/Street Name/House #/Apt #, ZIP/Street Name/House #/Apt #, Action Code/GEOID, and Action Code/Street Name/House #/Apt #.

The 'Address Selection Tool' is visible in the top right, with a red box highlighting its options: Select Feature(s), Select Features by Polygon, and Select Features by Radius. A red arrow points from this box to the selection tool icon.

The 'Address List Filter Options' dropdown is set to 'Select', with a red box highlighting the menu items: Show All Features, Show Selected Features, Column Filter, and Block Filter.

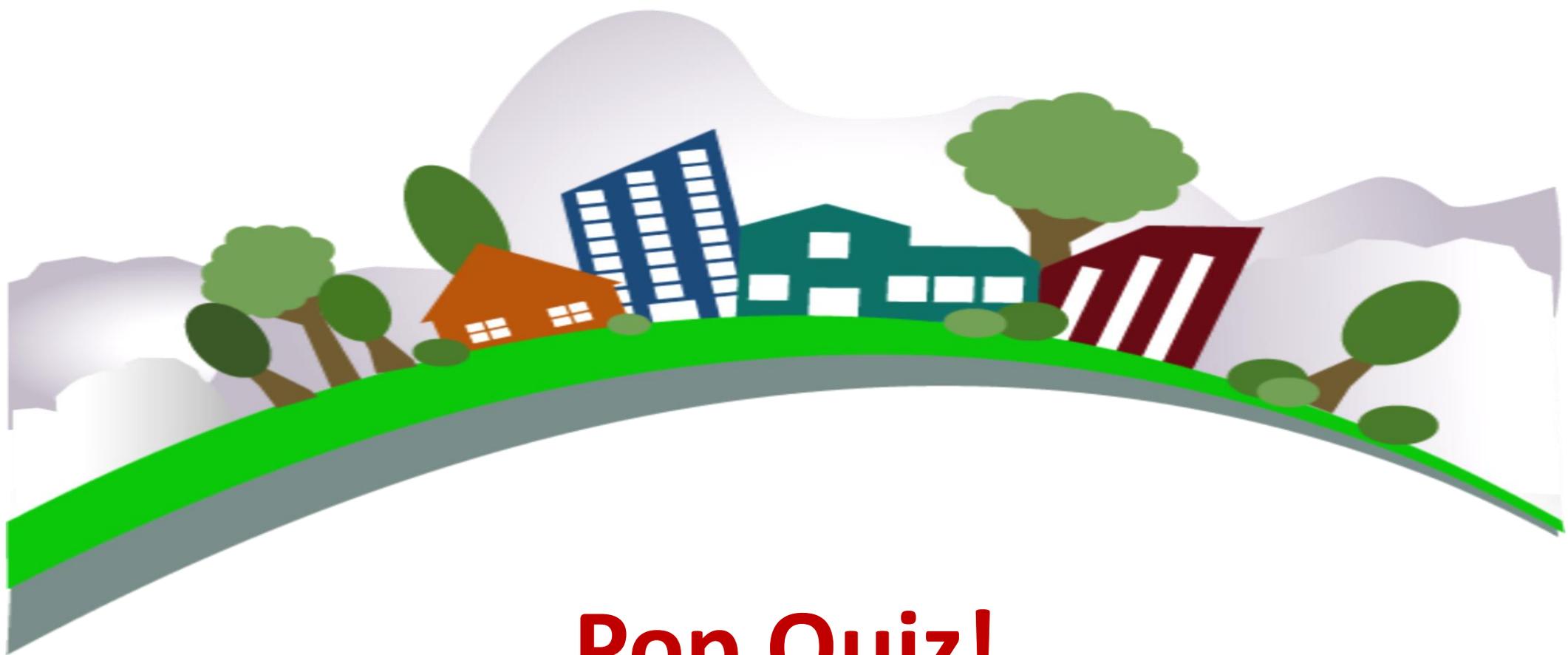
The table below shows the first six records of the address list:

	MAFID ^	Action	ST	COU	Tract	Block	GEOID	GQ	House #	Street Name	Apt/Unit #	ZIP	GQ Name	Facility Name	Location Description	Noncity-Style Address
779	000000799		51	610	5003.00	1021	516105003001021		631	May 77 Road		31409				
778	000000798		51	610	5003.00	1021	516105003001021		1334	Allegory Alley		31406				
777	000000797		51	610	5002.00	1017	516105002001017		240	Reading Railroad		31408				
776	000000796		51	610	5002.00	1017	516105002001017		2208	Stagger Lee Rd		31404				
775	000000795		51	610	5002.00	1017	516105002001017		2965	Red Bus		31404				
774	000000794		51	610	5003.00	1037	516105003001037		1194	Doors Bridge		31405				

At the bottom right, the status bar shows 'Addresses In the List View' and 'Viewing 785 of 785'.

Validating Records in GUPS

- Includes built-in validation tools when editing/adding records.
- Recommend executing throughout review and update.
- **Address Review Tool** checks records for valid content and ensures no duplicates.
 - If invalid data or duplicates discovered, listed in the **Census Address Error List** window.



Pop Quiz!

How Well Do You Know LUCA?

True or False

Question 1

- The Census Bureau does not require individual unit identifiers for multi-unit structures.

False – Multi-unit structures such as apartments, mobile homes, condominiums, etc., DO require individual unit identifiers.

Note: Unit identifiers are not required for individual units within a **group quarters**, such as individual dorm rooms in a college dorm or room numbers in a nursing home. HOWEVER, you must provide a group quarters name and a facility name if the group quarters are associated with a facility (e.g. Group Quarters Name – Pandora Hall; Facility Name – Aristotle University). The Census Bureau will not process an identified group quarters address record without a group quarters name.

True or False

Question 2

- The Census Bureau requires lat/lon or map spots for all non-city style addresses.

True – New for 2020, Participants can submit non-city style addresses as long as they are accompanied by corresponding map spots on paper maps and address lists, or lat/lon coordinates on digital address lists and GUPS.

True or False

Question 3

- In LUCA, participant focus should be on making map updates.

False – Focus should be on updating your entity’s address list.

True or False

Question 4

- In order to review the digital Address List, you can simply open the file in Excel.

False – It is important to following the proper steps for importing your .csv Address List into Excel. Improper opening of the .csv corrupts the data content of the digital address list.

True or False

Question 5

- If the mayor wants to view a map with Census Map Spots or address points, you can show him or her this data.

It depends – Only if he or she has signed the confidentiality agreement.

True or False

Question 6

- IT personnel who have access to any Title 13 materials do not need to sign the confidentiality form.

False – Anyone with access to Title 13 materials, their storage or backup must sign the Confidentiality Agreement.

True or False

Question 7

- If the *house number or apartment unit identifier* is wrong on the Address List, it can be changed by using the “C” action code and correcting the house number or apartment number on the address list.

False – In order to correct an incorrect house number and/or apartment unit identifier, a reviewer must use a “Delete/Add” combination. The address must first be deleted from the Address List using a “D” action code, then added to the paper Address Add page or the digital Address List using an “A” action code.

True or False

Question 8

- The Census Bureau wants to receive your entire address list as part of your LUCA submission.

False - LUCA is an opportunity for local governments to review and update the Census Bureau's address list. Your LUCA submission should only include the Census address records you edited, and the additional records that you added to the Census address list.

True or False

Question 9

- The Address List is the foundation of an accurate Census.

True - The accuracy and completeness of the Address List is critical to the success of the Census. An accurate Address List leads to an accurate Population Count.

True or False

Question 10

- If an address is ungeocoded, it will still be included in Census 2020 enumeration.

False - Ungeocoded addresses will not be included in the address list used for the 2020 Decennial. We cannot count the residents of a living quarters if we cannot geocode the living quarters.

Support and assistance

- Visit the 2020 LUCA Web site:

<https://www.census.gov/geo/partnerships/luca.html>

- Frequently Asked Questions document.

- Contact us:

- Geographic Programs Support Desk toll-free telephone number: 1-844-344-0169.

- E-mail: GEO.2020.LUCA@census.gov