

# 2020 Census Local Update of Census Addresses Operation (LUCA)

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# Agenda

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- LUCA
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# 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 to states
  - **Informing** planning decisions of federal, tribal, state and local government
  - **Informing** organizational decisions (e.g., where to locate, size of market, etc.) of businesses and non-profits

# 2020 Census Design

## The 2020 Census: A New Design for the 21<sup>st</sup> Century

### Motivate People to Respond

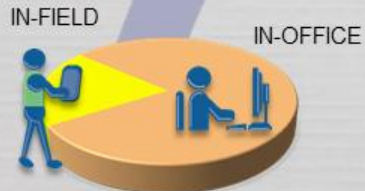
**Conduct a nation-wide communications and partnership campaign**

- Maximize outreach using traditional and new media
- Target ads to specific audiences
- Work with trusted sources to inspire participation.



### Establish Where to Count

**Identify all addresses where people could live**



- Conduct a 100% review and update of the nation's address list
- Minimize field work with in-office updating
- Use multiple data sources to identify areas with address changes
- Get local government input

TELEPHONE  
AND PAPER SELF-  
RESPONSE

INTERNET SELF-RESPONSE

### Count the Population

**Collect data from all households, including group and unique living arrangements**

- Make it easy for people to respond anytime, anywhere
- Encourage people to use the new online response option
- Use the most cost-effective strategy to contact and count nonrespondents
- Knock on doors only when necessary
- Streamline in-field census-taking

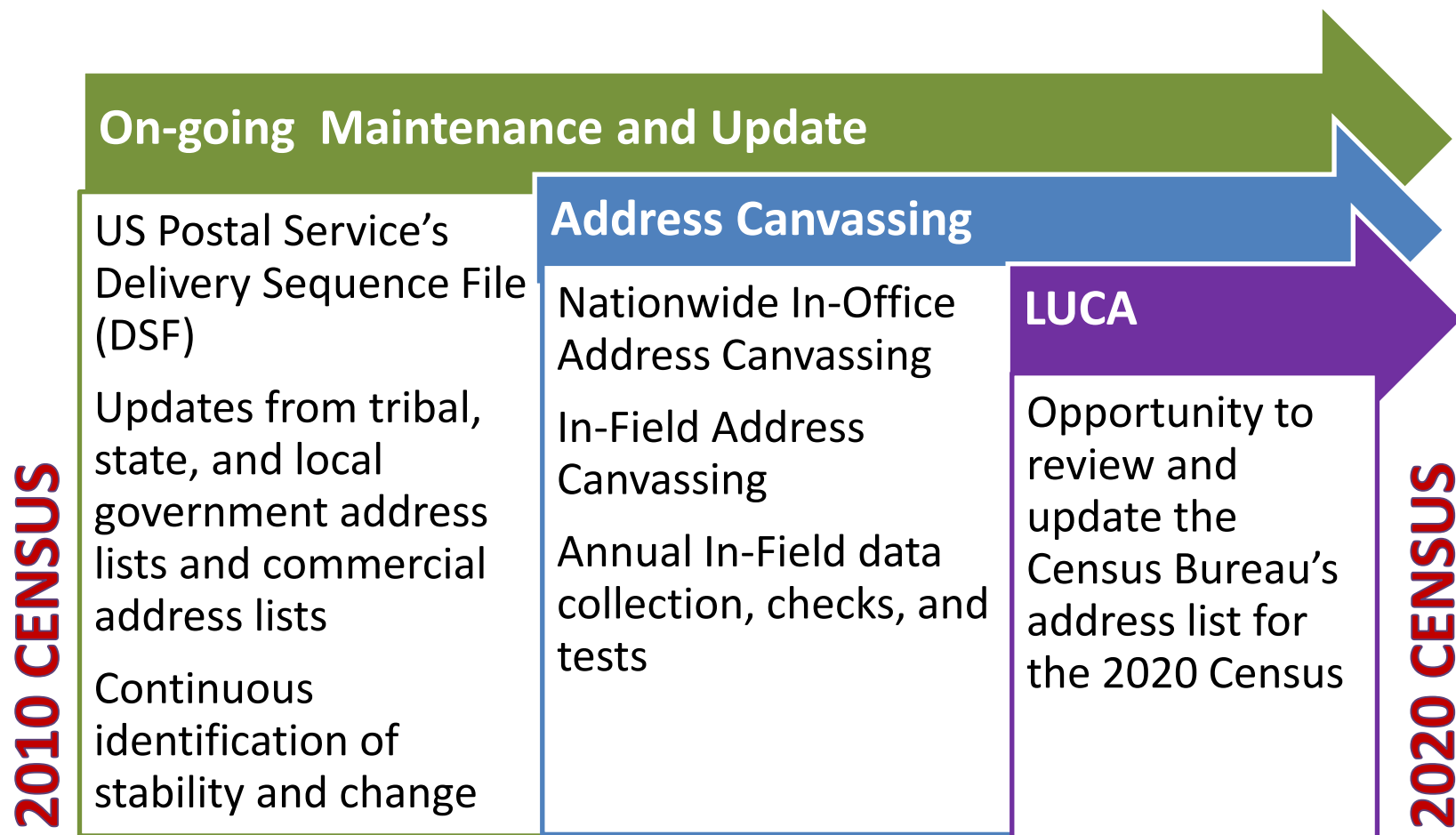
### Release Census Results

**Process and Provide Census Data**

- Deliver apportionment counts to the President by December 31, 2020
- Release counts for redistricting by April 1, 2021
- Make it easier for the public to get data



# Address List Maintenance 2010 - 2020



# Geographic Support System (GSS) Program

- Integrated program of improved address coverage, continual spatial and feature updates, and enhanced quality assessment and measurement
- Supports and maintains the geographic and cartographic infrastructure necessary for the Census Bureau's data collection, processing, tabulation, and dissemination programs for the United States and Puerto Rico
- Provides for continual updates throughout the decade to support current surveys and the 2020 Census



# LUCA Background

- Authorized by the Census Address List Improvement Act of 1994 (Public Law 103-430)
- Implemented in the support of the 2000 Census and refined to support the 2010 Census
- Provides a voluntary opportunity for designated representatives of tribal, state and local governments to review and comment on the addresses used to conduct the decennial census

# 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 all liaisons, reviewers, and anyone with access to Title 13 materials abide by Confidentiality and Security Guidelines
- Requires the Census Bureau maintain the confidentiality of all information it collects



# What's New for 2020 LUCA

- **Offers** streamlined participation – Full Address List Review
- **Provides** the digital address list in convenient standard software formats
- **Includes** ungeocoded address records for state and county participants
- **Requires** residential multi-unit structure identifiers (e.g., Apt 1, Unit A2, #3001, etc.)
- **Includes** residential structure coordinates, if available
- **Allows** participants to submit residential structure coordinates, if available
- **Allows** participants to submit non-city style addresses with corresponding map spot

# Who can participate in LUCA

- Federally recognized tribes with a reservation and/or off-reservation trust land
- States
- Counties
- Incorporated places
  - Cities, towns, boroughs, or villages
- Townships (Minor Civil Divisions)

# Preparation - Early Tools

## 2020 LUCA Address Block Count List

- Provides access to an address count list which includes the count of residential addresses and group quarters by block

	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

# Preparation - Early Tools

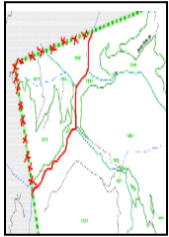
## Census Geocoder

- Takes individual addresses or file of addresses and obtains coordinates and census geography
- Geocoder updates include:
  - Increasing the maximum number of records for batch processing from 1,000 to 10,000
  - Providing larger governments another means to submit addresses to be geocoded

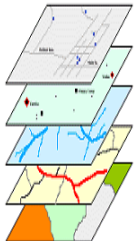
# Preparation - Participation Methods



Geographic Update Partnership Software (GUPS)



Paper Format - Address List and Maps



Digital Format - Address List and Maps

# GUPS – Participation Method

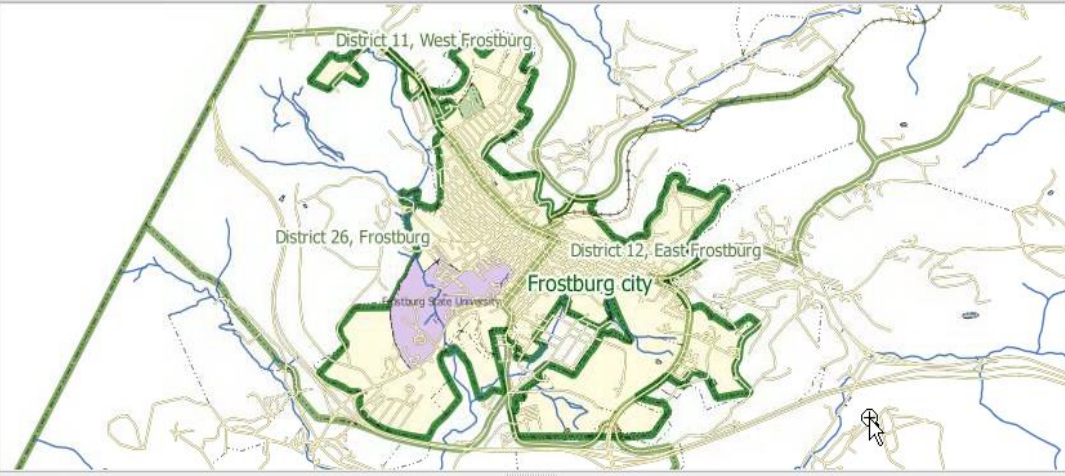
- Customized Geographic Information System (GIS) software for participation in 2020 LUCA
- Pre-packaged to include all components
- Designed for participants with no GIS experience
- Allows for simple to complicated reviews and edits
- Programmed with a review tool to validate LUCA edits
- No internet connection required



# GUPS screen example

QGIS 2.8.3-Wien - PL2430900 - GUPS \*\*\* Disclosure Prohibited by Title 13 U.S.C. \*\*\*

Project Edit View Layer Settings Vector Raster Processing Help GUPS



Address Count List

☒ Move Selection to top

	STATE	COUNTY	TRACT	BLOCK	GEOID
17	24	001	0016.00	1012	2400100160010
25	24	001	0016.00	1014	2400100160010
53	24	001	0016.00	1019	2400100160010
47	24	001	0016.00	1020	2400100160010
40	24	001	0016.00	1049	2400100160010
50	24	001	0016.00	1050	2400100160010
273	24	001	0016.00	1051	2400100160010
10	24	001	0016.00	1052	2400100160010
212	24	001	0016.00	1053	2400100160010
151	24	001	0016.00	1054	2400100160010
176	24	001	0016.00	1055	2400100160010
76	24	001	0016.00	1057	2400100160010
202	24	001	0016.00	1058	2400100160010
171	24	001	0016.00	1059	2400100160010
51	24	001	0016.00	1060	2400100160010
56	24	001	0016.00	1061	2400100160010
268	24	001	0016.00	1064	2400100160010
93	24	001	0016.00	1067	2400100160010
250	24	001	0016.00	1069	2400100160010
108	24	001	0016.00	1070	2400100160010
179	24	001	0016.00	1071	2400100160010
31	24	001	0016.00	1072	2400100160010
218	24	001	0016.00	1073	2400100160010
72	24	001	0016.00	1075	2400100160010

Census Address List

Add Import Deselect All Features ☐ Move Selection to top

GEOID Edit Copy Out of Jurisdiction Non-Residential Delete

	MAFID	Action	ST	COU	Tract	Block	GEOID	GQ	House #	Street Name	Apt/L
2504	000000001		24	001	0018.00	1055	240010018001055			Gold Fish HWY	
2505	000000002		24	001	0018.00	1055	240010018001055			Nemo HWY	
2506	000000003		24	001	0018.00	1055	240010018001055			HotdogBEER LANE	
2507	000000004		24	001	0018.00	1055	240010018001055			Gold Fish LANE	

Show All Features Clear Edits Save Edits

Census Address List User Address List

Coordinate: -78.8892,39.6369 Scale: 1:33,456



# GUPS screen example

\* Indicates required field

☐ This is a Group Quarters Address

STCOU : 24027

Tract : \* 6069.07

Block : \* 3000

House Number : \* 101

Street Name : \* ? Any Street Ave

Apartment/Unit # : ?

Zip Code : 20014

Address Use: M - Mailing

Longitude : -76.8427486128 Latitude : 39.1155212927

Add Map Spot Clear Map Spot OK Copy Cancel

# GUPS screen example

QGIS 2.8.3-Wien - CO24027 - GUPS \*\*\* Disclosure Prohibited by Title 13 U.S.C. \*\*\* (Not Responding)

Project Edit View Layer Settings Vector Raster Processing Help GUPS

Census Address List

Add Import Deselect All Features

GEOID

Move Selection to top

Edit Copy Out of Jurisdiction Non-Residential Delete

	MAFID	Action	ST	COU	Tract	Block	GEOID	GQ	House #	Street Name	Apt/Unit #	ZIP	GQ Name	Facility Name	Location Description	Noncity-Style
1	A14041961	A	24	027	6069.06	2003	240276069062003		101	Any Ave		20222				
0	A19734500	A	24	027	6069.07	3000	240276069073000		101	Any Ave		20014				

Show All Features

Clear Edits Save Edits

Census Address List User Address List

1 feature(s) selected on layer luca20\_CO24027\_censusaddr.

Coordinate: -76.843518, 39.114405 Scale: 1:1,473

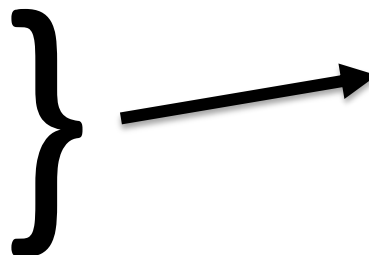
# Preparation – Address List Formats

- Paper
  - Available to governments with 6,000 or fewer addresses
  - Legal size (8.5” x 14”) – 6 addresses per page
  - Two sorts:
    - Street Name/House Number
    - Census Tract number/Block number/Street Name/House Number
  - Separate ‘Add Page’
- Digital
  - Available to all governments
  - Excel (.xlsx) or Comma Delimited Text (.csv) format
  - No separate ‘Add Page’

# Address List Structure

LUCA 2010 – 26 Fields

Entity ID
Line #
MAFID
Action
State
County
Tract
Block
GQ Flag
House Number
Street Name Prefix Qualifier
Street Name Prefix Direction
Street Name Prefix Type
Street Name
Street Name Suffix Type
Street Name Suffix Direction
Street Name Suffix Qualifier
Location Description or GQ Name
Apartment/Unit Number
ZIP Code
Non-city style Mailing Address
Non-city style ZIP Code
Structure Point
Latitude
Longitude
City-Style Flag



LUCA 2020 – 24 Fields

Line #
MAFID
Action
Entity ID
State
County
Tract
Block
GEO ID
GQ Flag
House Number
Street Name
Apartment/Unit #
ZIP Code
GQ Name
Facility Name
Location Description
Non-city style Mailing Address
Non-city style ZIP Code
Mapspot ID
Address Use
Latitude
Longitude
City-Style Flag

# Paper - Address List

Sort: Street Name/House Number  
Entity: Winter County C088009

Page: 5 of 20  
Date: 01/04/2018

**DISCLOSURE PROHIBITED BY TITLE 13, U.S.C.**

1 Line Number	2 MAFID	3 Action Code	4 Census Geographic Location of Address			5 GQ Flag	6 City Style Mail Delivery Address or E-911 Address or Physical Location Description and Road Name				7 Noncity-Style Mail Delivery Address (RR Number, HCR Number, PO Box Number)	8 Map Spot Number	9 City-Style Address Flag	10 Map Spot ID Coordinates	
			(4a) State County Code	(4b) Census Tract	(4c) Census Block		(6a) Complete Address Number	(6b) Complete Street Name	(6e) Apt/ Unit Number	(6f) City- Style ZIP Code	(7a) Noncity-Style Mailing ZIP Code			(10a) Latitude	
								(6c) Group Quarters Name							
								(6d) Facility Name or Physical Location Description							(10b) Longitude
25	999999993		88009	0045.00	1055		4007	AMPHORA ST		99997		3	Y	40.361373	
26	999999994		88009	0045.00	1055		4009	AMPHORA ST		99997		4	Y	40.361377	
															-73.543799
27	999999995		88009	0045.00	1058		5001	AMPHORA ST		99997		1	Y	40.361381	
															-73.543799
28	999999996		88009	0045.00	1058		5003	AMPHORA ST		99997		2	Y	40.3613785	
															-73.543799
29	999999997		88009	0045.00	1065		402	W CAMERON AVE		99997		11	Y	40.3613791	
															-73.543799
30	999999999		88009	0045.00	1065		404	W CAMERON AVE		99997		12	Y	40.3613796	
															-73.543799

Action Codes

C – Correction to this address    D – Delete this address    J – Address is not in this Jurisdiction    N – Address is Nonresidential

FICTITIOUS INFORMATION –FOR EXAMPLE ONLY

**NO TITLE 13 DATA DISPLAYED**

**DISCLOSURE PROHIBITED BY TITLE 13, U.S.C.**

# Paper – Address List Add Page

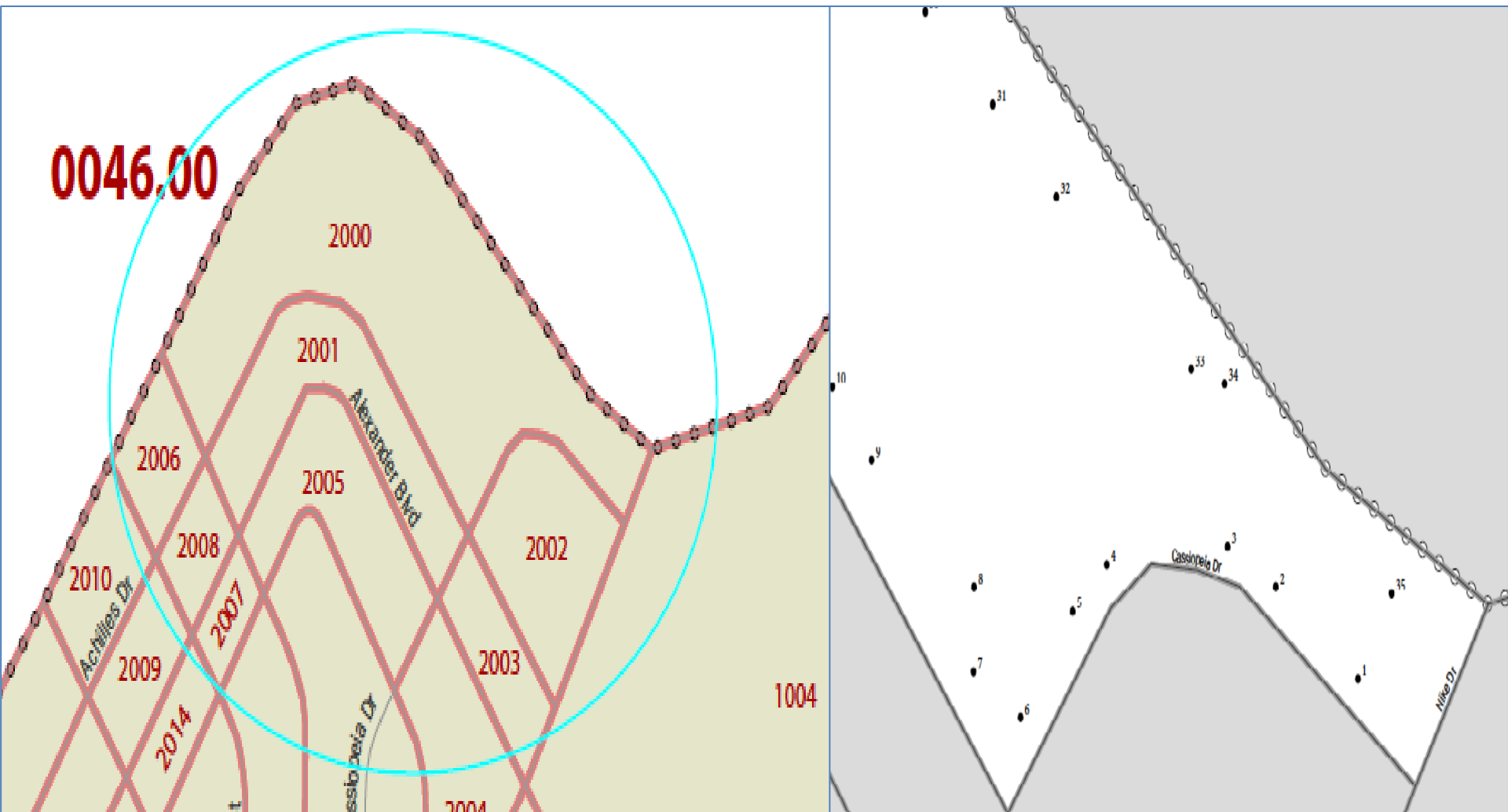
[illegible]

# Preparation – Map Formats

- Paper
  - Available to all governments
  - Two types of paper map materials:
    - Large format (42" x 36") maps
    - DVD of Adobe small format (8.5" x 14") census block maps
- Digital
  - Available to all governments
  - TIGER partnership shapefiles (LUCA specific)
  - Utilize GIS software



# Paper – Large & Small Format Maps



FICTITIOUS INFORMATION – FOR EXAMPLE ONLY

NO TITLE 13 DATA DISPLAYED

# Preparation – Next Steps (Participant)

- **Prepare** (now!)
- **Register** to participate (July 2017)
- **Attend** a training workshop (Fall/Winter 2017)
  - In-person workshops
  - Self-training aids and Webinars available online
- **Conduct** your LUCA review (Feb-April 2018)
  - **120** calendar days upon receipt of materials to complete review

# Preparation - 2020 LUCA Schedule

Timeframe	Activity
January 2017 ✓	Advance Notice mailed to Highest Elected Officials (HEOs), Tribal Chairs (TCs), Governors, and other LUCA contacts
March 2017 ✓	LUCA promotional presentations begin
July 2017	LUCA invitation and registration materials mailed to HEOs, TCs, and Governors
October 2017	LUCA training workshops begin
<b>December 15, 2017</b>	<b>Deadline for LUCA Registration</b>
February-April 2018	LUCA materials ship. Participants begin review and update the Census Bureau's address list
February-September 2018	Census Bureau processing of LUCA submissions begins
August-September 2019	Census Bureau delivers LUCA feedback
April 1, 2020	CENSUS DAY

# Questions about 2020 LUCA?

Visit our 2020 LUCA website:

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

Contact us:

Via telephone: 1-844-344-0169

Via Email: [GEO.2020.LUCA@census.gov](mailto:GEO.2020.LUCA@census.gov)

# Connect with Us



Sign up for and manage alerts at  
<https://public.govdelivery.com/accounts/USCENSUS/subscriber/new>



[facebook.com/uscensusbureau](https://facebook.com/uscensusbureau)



More information on the 2020 Census  
Memorandum Series:  
<http://www.census.gov/programs-surveys/decennial-census/2020-census/planning-management/memo-series.html>



[twitter.com/uscensusbureau](https://twitter.com/uscensusbureau)



[youtube.com/user/uscensusbureau](https://youtube.com/user/uscensusbureau)



More information on the 2020 Census:  
<http://www.census.gov/2020Census>



[instagram.com/uscensusbureau](https://instagram.com/uscensusbureau)



More information on the American  
Community Survey:  
<http://www.census.gov/programs-surveys/acs/>



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