The Local Update of Census Addresses (LUCA) Program is an integral part of the 2010 Decennial Census Program and utilizes the expertise of tribal, state, and local governments to improve the accuracy and completeness of the address list used to take the census. Tribal, state, and local governments can contribute to a complete enumeration of their communities by reviewing and commenting on the list of housing unit and group quarters addresses that the U.S. Census Bureau will use to deliver census questionnaires.

**Background**

Recognizing that a complete and accurate address list is essential to a complete and accurate census, Congress passed the Census Address List Improvement Act of 1994 (Public Law 103-430) authorizing the Census Bureau to provide the census address list for review and comment by tribal, state, and local government liaisons who agree to conditions of confidentiality. Title 13, United States Code (U.S.C.), provides for the confidential treatment of census-related information and protects the addresses contained on the Census Bureau's address list. Liaisons and reviewers appointed by local governments to review the Census Bureau's address list for their jurisdictions are required to sign a confidentiality agreement and abide by the Census Bureau's security guidelines. Each LUCA liaison is also required to perform a data security self-assessment check. After receiving signed and completed confidentiality agreements and security self-assessment checklists, the Census Bureau will send Title 13-protected LUCA materials to those governments that chose to receive the Option 1 or Option 2 materials described on the following pages.

**Why the LUCA Program Is Important to Your Community**

Accurate census data are important to your community in a number of ways. In addition to the constitutional requirement for the decennial census to apportion seats in the U.S. House of Representatives, census data are used to allocate federal monies to states and local governments. Additionally, significant amounts of state-generated funds are distributed on the basis of population data. Other statistical census data support grant applications that fund community, social, economic, and environmental programs and other needed improvements and enhancements. Census data also help communities plan for future needs.

If your government does not have the staff or financial resources to participate in the LUCA program, you can designate another level of government or an agency, such as a county planning department, regional planning agency, or state-level agency, that is willing to assist you or act as your agent in reviewing the LUCA materials.

**Training and Support**

Training workshops conducted by Census Bureau staff will provide you with "hands-on" experience using the LUCA program materials. Self-training aids will be available to participants who are unable to attend the workshops. In addition, the 2010 Census Local Update of Census Addresses (LUCA) Program User's Guide provides detailed instructions and examples for conducting the LUCA review.
The LUCA Participation Options

The 2010 Census LUCA program offers three participation options:

**Option 1**  
— Title 13 Full Address List Review

**Option 2**  
— Title 13 Local Address List Submission

**Option 3**  
— Non-Title 13 Local Address List Submission

Option 1 and Option 2 require participants to sign the confidentiality agreement in compliance with Title 13, U.S.C., and the data security self-assessment checklist. A signed confidentiality agreement is not required for Option 3 because Title 13 data are not provided.

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**What's New?**

The 2010 Census LUCA program offers a number of improvements:

- One review cycle for all address types.
- 120 calendar days for review.
- More advance notice.
- Comprehensive program communications, including periodic contact.
- Three program options.
- A MAF/TIGER® Partnership Software (MTPS) application that combines the census address list, address count list, and digital maps in a software package.

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**Option 1—Title 13 Full Address List Review**

Option 1 allows you to review the entire census address list for your jurisdiction. This includes both city-style addresses (for example, 101 Main Street) and noncity-style addresses (for example, P.O. box, rural route, etc.). This option allows you to update any city-style address on the census address list as well as add new city-style addresses. For census blocks containing all noncity-style addresses, you can only challenge the count of addresses on the address count list. If a census block has a mix of city-style and noncity-style addresses, you can update individual city-style addresses or challenge the count of addresses for the census block, but you **cannot** do both.

Each LUCA liaison and reviewer must sign and return the confidentiality agreement. The LUCA liaison is also required to perform a data security self-assessment and complete, sign, and return the self-assessment checklist.

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**The Census Bureau provides:**

- A complete Census Bureau address list for your jurisdiction.
- A count of addresses by census block within your jurisdiction.
- Census Bureau paper maps or digital shapefiles.
- MAF/TIGER® Partnership Software application (if requested).
- Training.

**You provide:**

- Updates (additions, deletions, corrections) to the Census Bureau’s city-style addresses.
- Challenges to the address counts in census blocks.
- Updates and corrections to the features and legal boundaries on the Census Bureau’s maps or digital shapefiles.

*Note—Use of digital shapefiles requires a geographic information system software package, such as the Census MAF/TIGER® Partnership Software.*

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This option allows you to update any **city-style address** on the census address list or challenge counts on the address count list.
Option 2—Title 13 Local Address List Submission

The Title 13 Local Address List Submission option allows you to submit your local computer-readable address file (city-style addresses only) in a predefined Census Bureau format. The Census Bureau will provide our address list and address count list (computer-readable files only) as a reference for your jurisdiction. Our address list includes both city-style and noncity-style addresses. You cannot update the census address list or challenge the address counts. The Census Bureau will match your local address file to ours and make corrections to our census address list.

Each LUCA liaison and reviewer must sign and return the confidentiality agreement. The LUCA liaison is also required to perform a data security self-assessment and complete, sign, and return the self-assessment checklist.

In this option you will receive a complete Census Bureau address list and an address count list by block as a reference for your jurisdiction.

The Census Bureau provides:

- A complete Census Bureau address list for your jurisdiction (computer-readable).
- A count of addresses by census block within your jurisdiction (computer-readable).
- Census Bureau paper maps or digital shapefiles.
- MAF/TIGER® Partnership Software application (if requested).
- Training.

You provide:

- Your local address file (containing only city-style addresses) in a predefined computer-readable format.
- Updates and corrections to the features and legal boundaries on the Census Bureau’s maps or digital shapefiles.

Note—Use of digital shapefiles requires a geographic information system software package, such as the Census MAF/TIGER® Partnership Software.

Option 3 allows you to only submit your local address file in a Census Bureau predefined computer-readable format.

A signed confidentiality agreement is not required for Option 3.

Option 3—Non-Title 13 Local Address List Submission

The Non-Title 13 Local Address List Submission option offers you an opportunity to submit your local computer-readable address file (city-style addresses only) to the Census Bureau. Under this option, you do not receive the census address list. However, you do receive, as a reference, an address count list (computer-readable only) that contains address counts for each of the census blocks within your jurisdiction. The Census Bureau will match your address file to ours and make corrections to our census address list.

The Census Bureau provides:

- A count of addresses by census block within your jurisdiction (computer-readable).
- Census Bureau paper maps or digital shapefiles.
- MAF/TIGER® Partnership Software application (if requested).
- Training.

You provide:

- Your local address file (containing only city-style addresses) in a predefined Census Bureau computer-readable format.
- Updates and corrections to the features and legal boundaries on the Census Bureau’s maps or digital shapefiles.

Note—Use of digital shapefiles requires a geographic information system software package, such as the Census MAF/TIGER® Partnership Software.
LUCA Program Materials for Local Governments

The Census Bureau provides the materials required to participate in the LUCA program. Depending on the option you choose, these materials include:

- **2010 Census LUCA Address List**
  Contains all of the census addresses within your jurisdiction known to the Census Bureau.

- **2010 Census LUCA Address List Add Page**
  Used to add addresses to the census address list by participants who request the paper format address list.

- **2010 Census LUCA Address Count List**
  Contains the counts of the number of addresses for each census block within your jurisdiction.

- **2010 Census Local Update of Census Addresses (LUCA) Program User’s Guide**
  Contains your instructions for updating the census address list, address count list, paper maps, or digital shapefiles.

- **2010 Census LUCA Paper Maps or Digital Shapefiles**
  Created from the Census Bureau's Topologically Integrated Geographic Encoding and Referencing (TIGER®) System, allows you to submit feature and boundary updates either on the paper maps or electronically.

- **MAF/TIGER® Partnership Software**
  Geographic Information System (GIS) software for use with digital shapefiles (see below).

**Media Formats**

**Paper Format**—The 2010 Census LUCA address list, address list add page, and address count list are available in paper printouts for Option 1 participants only. Participants who select paper materials can choose to receive either paper maps or digital shapefiles showing the features and boundaries of their jurisdictions. Paper address lists will not be provided to entities with over 6,000 addresses (1,000 pages).

**Computer-Readable Format (CD-ROM or DVD)**—
The Census Bureau offers pipe-delimited ASCII files for both the 2010 Census LUCA address list and the address count list on CD-ROM or DVD. These files are easily imported into a variety of commercial spreadsheet or database applications. Option 1 participants with more than 6,000 addresses will find the computer-readable format to be more flexible. Option 2 and Option 3 participants are eligible to receive only computer-readable files. Participants who select computer-readable lists can choose to receive either paper maps or digital shapefiles.

**MAF/TIGER® Partnership Software**—The MAF/TIGER® Partnership Software (MTPS) is a GIS application that combines the 2010 Census LUCA address list, address count list, and maps into an easy-to-use software package. The MTPS allows participants to update the address list, address count list, and maps and to import local address lists and digital shapefiles for comparison with the Census Bureau data. All address and map updates will meet the Census Bureau’s formatting requirements. This software is appropriate for any level of government and only requires a personal computer using a Windows 98 or newer operating system.

The MAF/TIGER® Partnership Software application is new for the 2010 Census LUCA Program.
### Address List

The information contained on the census address list includes census geographic codes, such as state and county codes, census tract and block numbers, address information, and group quarters identification. This list is provided only to those participants who choose Option 1, paper media.
**Address List Add Page**

The LUCA address list add page is used to add city-style addresses within a jurisdiction that do not appear on the census address list. This form is provided only to those participants who choose Option 1, paper media.
**Address Count List**

The LUCA address count list contains the count of housing unit and group quarters addresses for each census block within a jurisdiction. The list contains 50 census blocks per page. This list is provided only to those participants who choose Option 1, paper media.
## Computer-Readable Address List Record Layout

The information contained on each census address record includes census geographic codes, such as state and county codes, and census tract and block numbers, as well as address information and group quarters identification. Each address record has a maximum length of 462 characters and contains 26 fields of information. The character length for each record may vary. This list is sent to all Option 1 participants who choose computer-readable media and to all Option 2 participants.

<table>
<thead>
<tr>
<th>Maximum character length</th>
<th>Field name</th>
<th>Description/notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Entity ID code</td>
<td>Unique code assigned by the Census Bureau to each entity (variable length)</td>
</tr>
<tr>
<td>7</td>
<td>Line number</td>
<td>Unique number for each address record in the file</td>
</tr>
<tr>
<td>9</td>
<td>MAFID</td>
<td>Unique identification number assigned to each census address</td>
</tr>
<tr>
<td>1</td>
<td>Action code</td>
<td>Valid codes: A, C, D, J, or N; entered by participant</td>
</tr>
<tr>
<td>2</td>
<td>State code</td>
<td>2-digit current state code</td>
</tr>
<tr>
<td>3</td>
<td>County code</td>
<td>3-digit current county code</td>
</tr>
<tr>
<td>7</td>
<td>Census tract number</td>
<td>4-digit current census tract number, a period, plus a 2-digit numeric suffix</td>
</tr>
<tr>
<td>5</td>
<td>Census block number</td>
<td>4-digit current census block number, plus a 1-digit alpha character suffix, if applicable</td>
</tr>
<tr>
<td>1</td>
<td>Group quarters flag</td>
<td>Displays a “Y” if the unit is a group quarters</td>
</tr>
<tr>
<td>35</td>
<td>House number</td>
<td>Housing unit’s or group quarters’ assigned house number</td>
</tr>
<tr>
<td>3</td>
<td>Street name prefix qualifier</td>
<td>e.g., BUS, OLD, private, historic loop</td>
</tr>
<tr>
<td>2</td>
<td>Street name prefix direction</td>
<td>e.g., N, W, SE</td>
</tr>
<tr>
<td>14</td>
<td>Street name prefix type</td>
<td>e.g., HWY, RT, US</td>
</tr>
<tr>
<td>100</td>
<td>Street name</td>
<td>Full street or road name</td>
</tr>
<tr>
<td>14</td>
<td>Street name suffix type</td>
<td>e.g., ST, CT, AVE, DR</td>
</tr>
<tr>
<td>2</td>
<td>Street name suffix direction</td>
<td>e.g., N, W, SE</td>
</tr>
<tr>
<td>3</td>
<td>Street name suffix qualifier</td>
<td>e.g., Ext, loop, access</td>
</tr>
<tr>
<td>100</td>
<td>Location description or GQ name</td>
<td>Description of living quarters (e.g., red ranch w/white shutters) or name of group quarters (e.g., Dobbs Hall—University of Dobbs)</td>
</tr>
<tr>
<td>53</td>
<td>Apartment/unit number</td>
<td>Within structure descriptor or identifier, such as APT 5 or 1st FL FRNT</td>
</tr>
<tr>
<td>5</td>
<td>City-style mailing ZIP Code</td>
<td>5-digit ZIP Code for a city-style mailing address</td>
</tr>
<tr>
<td>50</td>
<td>Noncity-style mail delivery address</td>
<td>Rural route and box number, post office box number, etc.</td>
</tr>
<tr>
<td>5</td>
<td>Noncity-style mailing ZIP Code</td>
<td>5-digit ZIP Code for a noncity-style mailing address</td>
</tr>
<tr>
<td>5</td>
<td>Structure point</td>
<td>4-digit number, plus 1-digit alpha assigned by the Census Bureau to structures in areas that contain predominately noncity-style addresses (RR, P.O. box #, general delivery, etc.)</td>
</tr>
<tr>
<td>11</td>
<td>Structure latitude</td>
<td>The latitude coordinate in degrees, with 6 implied decimals</td>
</tr>
<tr>
<td>12</td>
<td>Structure longitude</td>
<td>The longitude coordinate in degrees, with 6 implied decimals</td>
</tr>
<tr>
<td>1</td>
<td>City-style address flag</td>
<td>Displays a “Y” if the address is city-style, “N” if noncity-style</td>
</tr>
</tbody>
</table>

## Computer-Readable Address Count List

The address count list file contains the count of housing unit and group quarters addresses for each census block within a participant’s jurisdiction. Each census block record is at least 57 characters in length and contains nine (9) fields of information. The character length of each record may vary. This file is sent to Option 1 participants who choose computer-readable media and to all Option 2 and Option 3 participants.

<table>
<thead>
<tr>
<th>Maximum character length</th>
<th>Field name</th>
<th>Description/notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Entity ID code</td>
<td>Unique code assigned by the Census Bureau to each entity (variable length)</td>
</tr>
<tr>
<td>2</td>
<td>State code</td>
<td>2-digit current state code</td>
</tr>
<tr>
<td>3</td>
<td>County code</td>
<td>3-digit current county code</td>
</tr>
<tr>
<td>7</td>
<td>Census tract and suffix</td>
<td>4-digit current census tract number, a period, plus a 2-digit numeric suffix</td>
</tr>
<tr>
<td>5</td>
<td>Census block and suffix</td>
<td>4-digit current census block number, plus a 1-digit alpha character suffix, if applicable</td>
</tr>
<tr>
<td>7</td>
<td>Census count of housing unit addresses</td>
<td>Census Bureau’s most recent count of housing unit addresses</td>
</tr>
<tr>
<td>7</td>
<td>Local count of housing unit addresses</td>
<td>Blank field to enter the local count of housing unit addresses</td>
</tr>
<tr>
<td>7</td>
<td>Census count of group quarters addresses</td>
<td>Census Bureau’s most recent count of group quarters addresses</td>
</tr>
<tr>
<td>7</td>
<td>Local count of group quarters addresses</td>
<td>Blank field to enter the local count of group quarters addresses</td>
</tr>
</tbody>
</table>
Census Bureau Paper Maps and Digital Shapefiles

Paper Maps

The Census Bureau provides one set of paper maps that displays roads, streets, and other physical features, along with the most recent jurisdictional boundaries known to the Census Bureau. Use the paper map to identify feature and/or legal boundary corrections.

Digital Shapefiles

The Census Bureau provides one set of digital shapefiles, created from the Census Bureau’s TIGER® System, that allows participants to submit feature and boundary updates electronically. Digital shapefiles require the use of GIS software. All shapefiles produced by the Census Bureau are in Environmental Systems Research Institute (ESRI) shapefile format. Participants must use the Census Bureau-supplied digital shapefiles to make digital submissions. The Census Bureau-supplied shapefiles are in a format that contains all of the current geographic codes necessary to correct addresses as well as submit feature corrections. The digital shapefiles do not contain Title 13 data.

Census Bureau Paper Maps

The Census Bureau paper maps display roads, streets, and other physical features within a jurisdiction and the most recent jurisdictional boundary known to the Census Bureau. Structure points identifying individual housing unit and group quarters locations may be displayed in areas of noncity-style addresses.
When Can Local Governments Participate?

Once the Census Bureau receives your completed registration materials, the LUCA program materials will be mailed to you. **You have 120 calendar days** from the receipt of your LUCA materials to conduct your review and return your submission. The period during which you can conduct your review and update is from August 2007 to April 2008.

Strategies for Review

Each participating government must decide for itself how to conduct its review of the LUCA materials. Consider your available time, the local address information you have readily available, and the staff or computer resources you have. If a complete review is not possible, the Census Bureau recommends that you focus your review on areas where addresses are more likely missed or incorrect.

Local governments are in the best position to identify areas with potentially missing or incorrect addresses.

Suggested Local Address Sources

Each LUCA participant will likely have different address sources. In addition, there may be a list of addresses within your jurisdiction maintained by another agency or level of government.

The following is a list of address sources that may be available to you:

- New housing construction or building permits
- E-911 address files
- Housing inspection records
- Planning and zoning records
- Local utility records
- School enrollment records
- Driver’s license files
- Annexation records
- Assessment or taxation files
- Voter registration files

Focus your review on areas where addresses are more likely missed or incorrect.
What Happens to Your Corrections?

Once you have reviewed and corrected the Census Bureau address list and/or the address count list and maps or digital shapefiles, you must return them to your Census Bureau regional office. The Census Bureau will then:

- Review and process the suggested address changes.
- Update the Census Bureau’s geographic database with the suggested map corrections.
- Conduct the Address Canvassing (field check) Operation to validate the census address list.

The Feedback Process

The Census Bureau will provide feedback materials after conducting the Address Canvassing Operation. The field checks will determine the validity of all the corrections you submit. In addition, field checks will ensure that the Census Bureau has complete address coverage as well as current map features for your jurisdiction, even if you decide not to participate in the LUCA program. Depending upon the participation option you choose, you will receive the following feedback materials:

Option 1—Title 13 Full Address List Review
An updated:
- Census address list with detailed feedback on each address commented on by your jurisdiction.
- Address count list.
- Map(s) or digital shapefile for your jurisdiction.

Option 2—Title 13 Local Address List Submission
An updated:
- Census address list with detailed feedback on each address provided by your jurisdiction.
- Address count list.
- Map(s) or digital shapefile for your jurisdiction.

Option 3—Non-Title 13 Local Address List Submission
An updated:
- Address count list.
- Map(s) or digital shapefile for your jurisdiction.

The feedback materials are available in computer-readable or paper format. The feedback materials you receive will be in the same format you requested for your initial review. Your Census Bureau regional office can answer questions regarding your feedback materials.

The feedback process provides an opportunity for you to examine the results of the Address Canvassing Operation.
**Summary of LUCA Program Activities**

In July 2007 you will receive your 2010 Census LUCA invitation and registration package. At that time, you will:

- Determine which participation option your government prefers.
- Designate a 2010 Census LUCA official liaison.
  - Indicate your government's media type preference (either paper or computer-readable) on which to receive LUCA materials.
  - Sign and return the confidentiality agreement and self-assessment checklist form (required for Option 1 and Option 2).
  - Sign and return the 2010 Census LUCA program registration form and product preference form.

Next, you will:

- Identify available local address source materials for your 2010 Census LUCA review.
- Plan your strategy for reviewing the 2010 Census LUCA materials.
- Obtain 2010 Census LUCA training.
- Review and correct 2010 Census LUCA materials.
- Submit corrected LUCA materials.

Finally, you will:

- Review feedback materials containing detailed comments on your address submissions.
- Appeal address discrepancies if you do not agree with your feedback (Option 1 and Option 2 participants only).
- Return all Title 13 materials to your Census Bureau regional office.

To find out more about the LUCA program, go to <www.census.gov/geo/www/programs.html>.

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**The 2010 Census LUCA Program Schedule**

<table>
<thead>
<tr>
<th>TIME FRAME</th>
<th>ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 2007</td>
<td>LUCA advance notice letters mailed to the highest elected official and other contacts in all active functioning governments.</td>
</tr>
<tr>
<td>July 2007</td>
<td>Invitation letters and registration materials mailed to the highest elected official and other contacts of each government.</td>
</tr>
<tr>
<td>July 2007 to January 2008</td>
<td>Invited governments register for LUCA, and the Census Bureau ships the LUCA review materials to each participating government.</td>
</tr>
<tr>
<td>August 2007 to April 2008</td>
<td>LUCA participants review and update the address list and return their comments to the Census Bureau’s regional office within 120 days of receipt of materials.</td>
</tr>
<tr>
<td>April 2008 to October 2008</td>
<td>Census Bureau reviews participants’ LUCA submissions and updates the Master Address File and TIGER® geographic database.</td>
</tr>
<tr>
<td>November 2008 to May 2009</td>
<td>Census Bureau prepares for and conducts the Address Canvassing Operation using global positioning system (GPS) equipped hand-held computers.</td>
</tr>
<tr>
<td>June 2009 to October 2009</td>
<td>LUCA participants receive feedback materials showing how the Census Bureau processed each government’s LUCA submissions.</td>
</tr>
<tr>
<td>September 2009 to December 2009</td>
<td>LUCA participants review their LUCA feedback and have the opportunity to appeal the results to the LUCA Appeals Office.</td>
</tr>
<tr>
<td>September 2009 to January 2010</td>
<td>LUCA Appeals Office reviews and adjudicates appeals.</td>
</tr>
</tbody>
</table>