

Population Estimates Program: LUCA 2020 Preparations

*Working to ensure accurate and
comprehensive population counts for
Massachusetts*

March 23, 2017

Susan Strate, Senior Program Manager

Pauline Zaldonis, Research Analyst

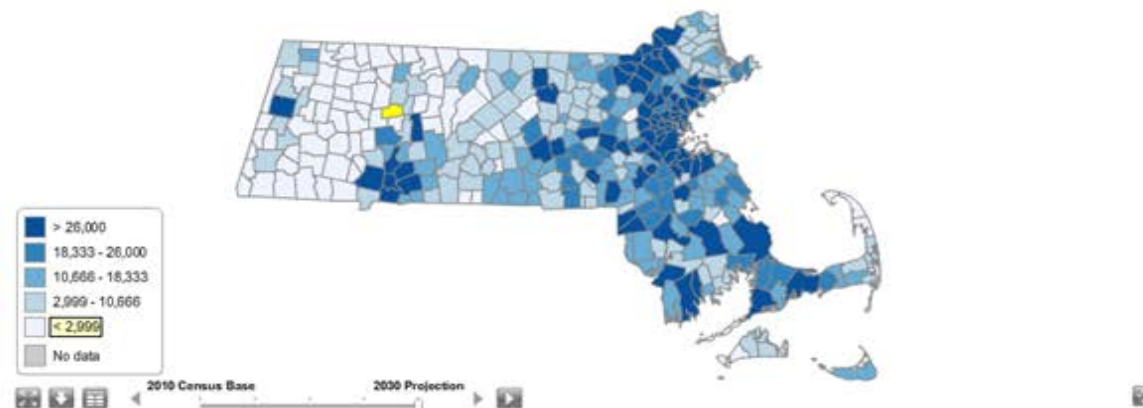
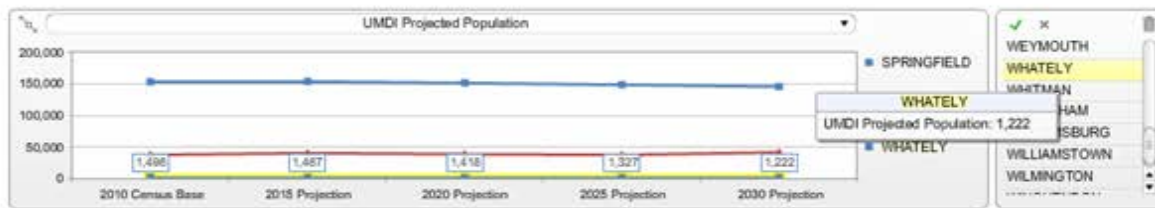
Matt Schlaikjer, Research Analyst

Meghan Flanagan, Research Analyst



UMASS DONAHUE INSTITUTE
ECONOMIC & PUBLIC POLICY RESEARCH

► Massachusetts Population Projections



■ Population Projections for Massachusetts Municipalities

By agreement with the [Massachusetts Secretary of The Commonwealth](#), the UMass Donahue Institute (UMDI) has produced population projections for all Massachusetts municipalities at 5-year intervals to 2030, using a model developed by [Dr. Henry Renski](#) of UMass Amherst. [Detailed projections](#) are available in this set by sex and 5-year age group for each city and town, along with a summary report on population growth in eight distinct Massachusetts regions. See the full list of downloads below.

■ Methods and Assumptions

■ Advisory Committee

■ Other Resources

■ Downloads

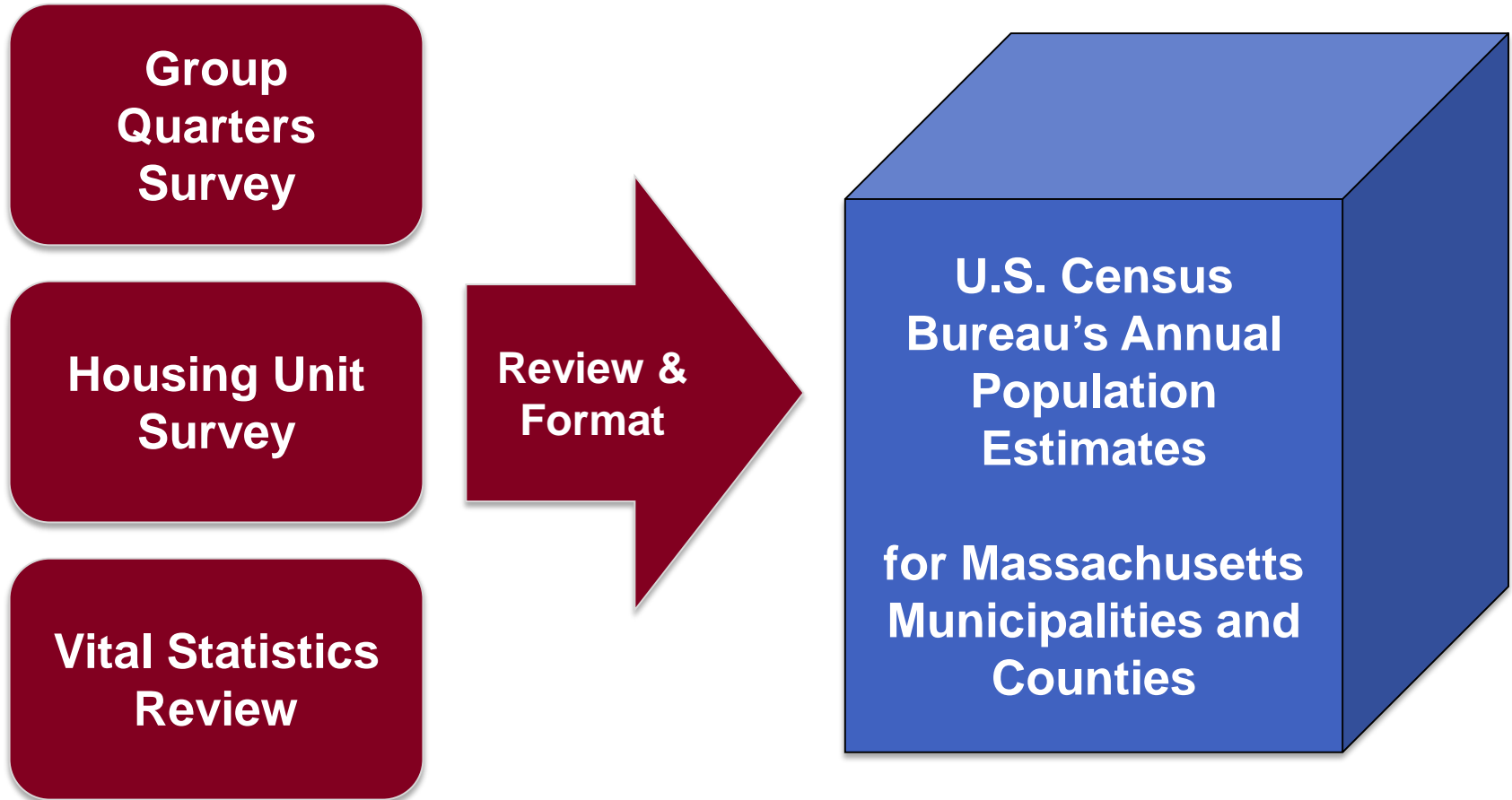
- [EXCEL City/Town Totals](#)
- [EXCEL Age/Sex Details](#)
- [PDF: Long-term Population Projections for Massachusetts Regions and Municipalities](#)
- [PDF Report Section II: State Level Summary](#)
- [PDF Report Section III: Long-Term Population Projections: Analysis by Region](#)
- [PDF Report Section IV: Methods and Assumptions](#)
- [PDF: UMDI Population Projections Advisory Committee](#)

Population Estimates Program Mission

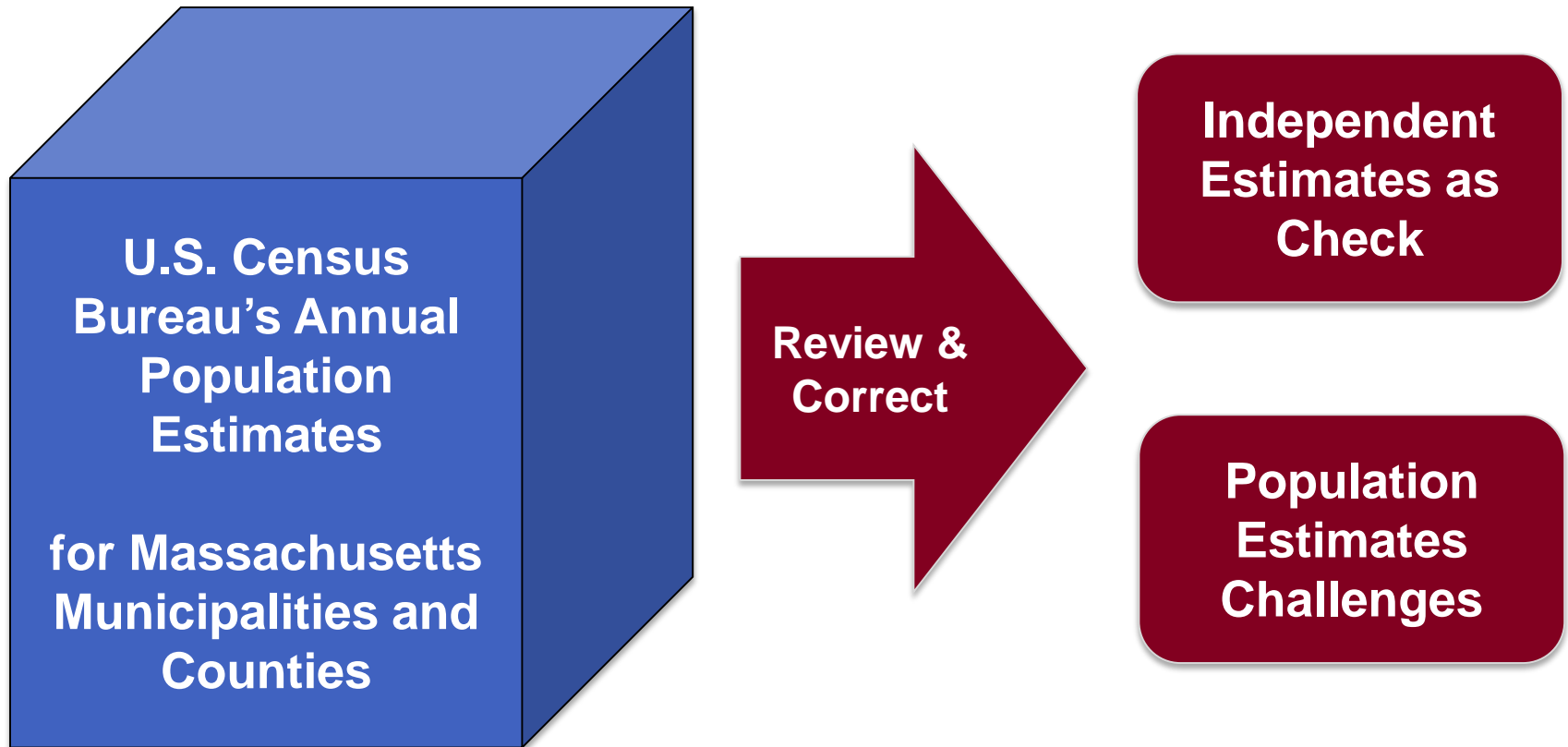
With support from the Massachusetts Secretary of the Commonwealth, the Population Estimate Program's goal is to ensure that the **population estimates** and **counts** produced by the U.S. Census Bureau for Massachusetts geographies are as **accurate** and **comprehensive** as possible.

- Estimates are produced for each year in between Census counts.
- Census counts happen every 10 years.

Supporting Accurate Census *Estimates*



Supporting Accurate Census *Estimates*



Supporting Accurate Census *Counts*

Pre-Census

2020 Census Count

Post-Census

2017

2018

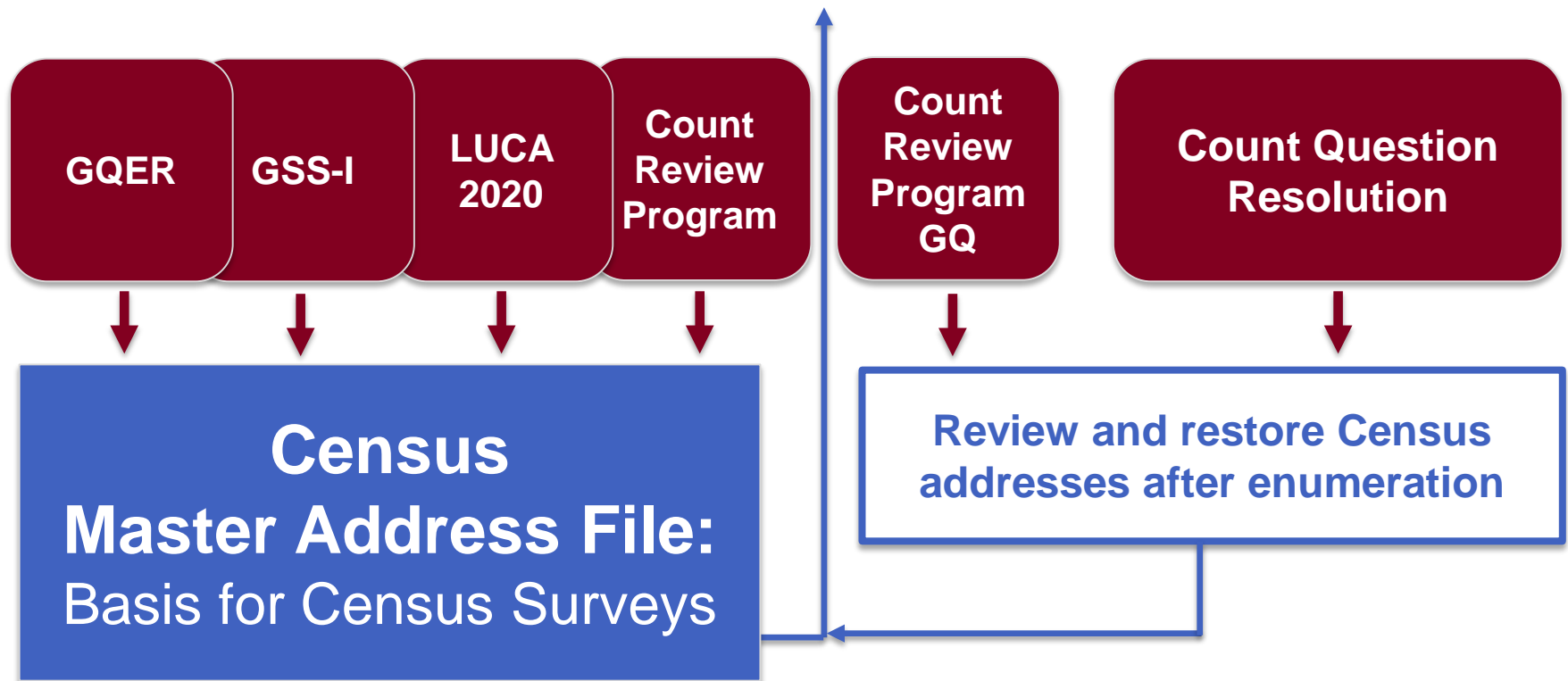
2019

2020

2021

2022

2023



Supporting Accurate Census *Counts*

Group Quarters Electronic Response Test

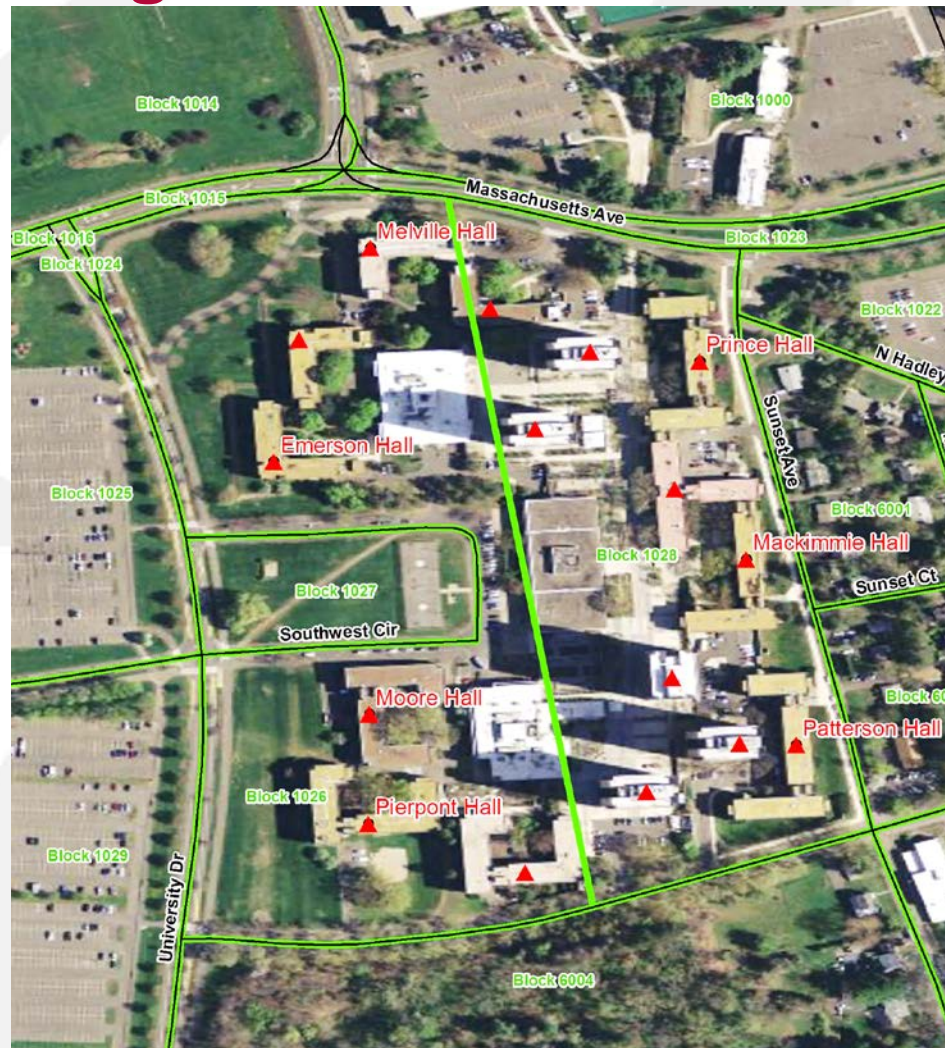
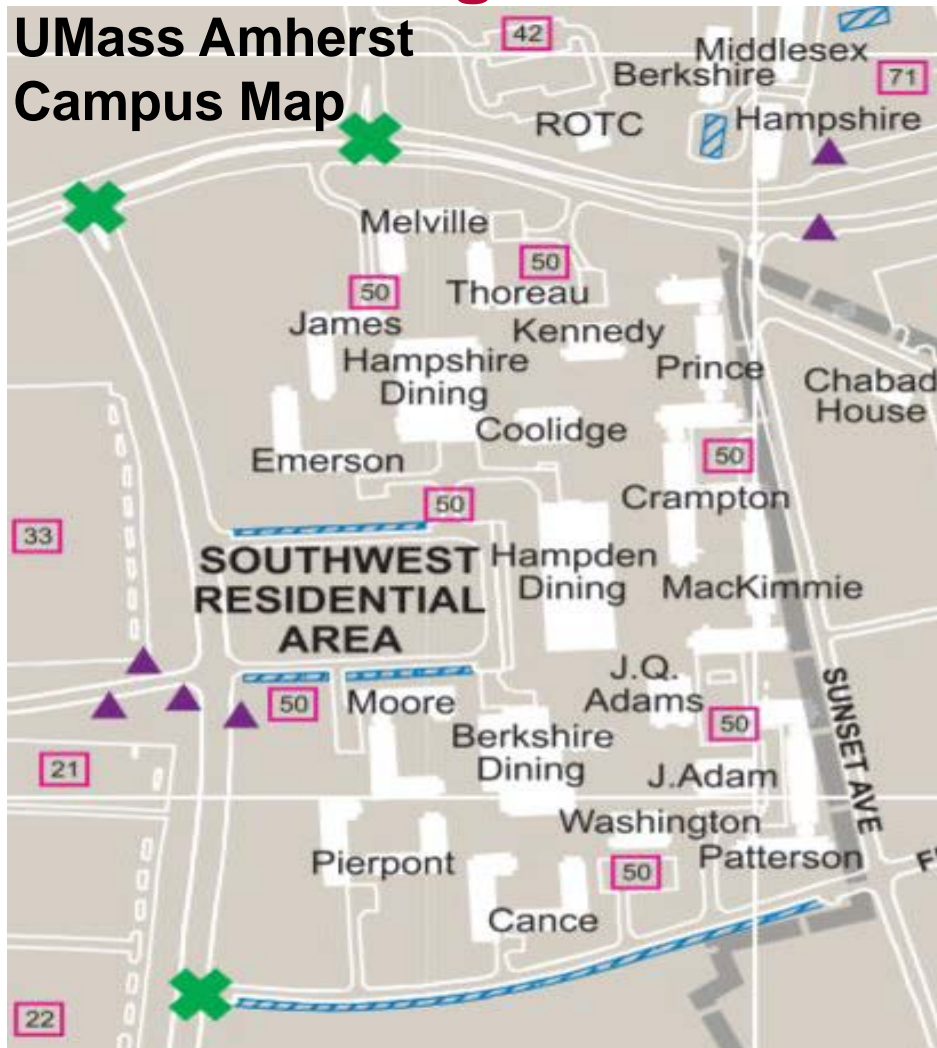
The Census Bureau is testing electronic file submission of GQ files as a primary method of data collection

GQER

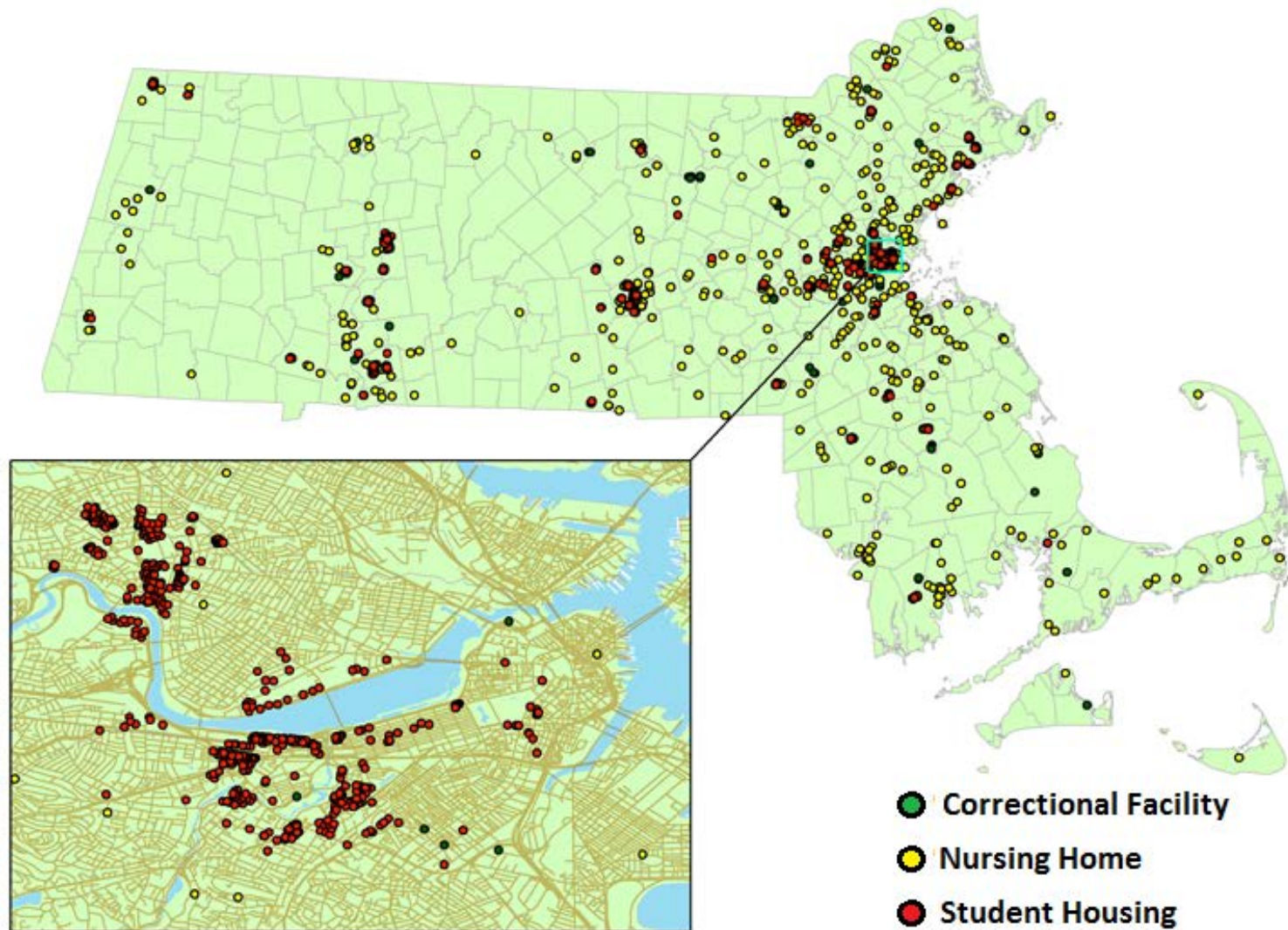
- Submit geocoded GQ data to Census
- Census tries to match submitted facilities to existing inventory
- “Unmatched” are researched, can be added to MAF
- **Massachusetts is the only state participating in the GQER test**
- So far, we have submitted **1,499 Dormitories, 412 Nursing Homes,** and sample of **7 Privately-Owned Student Housing: 1,918 total.**
- **Correctional Facilities and Shelters** to be submitted this Spring/Summer

Geocoding Student Housing: GQER & LUCA

UMass Amherst Campus Map



Geocoding Group Quarters: *GQER* & *LUCA*



Geographic Support System Initiative GSS-I

GSS-I

- UMDI submits residential addresses and address points to the Census Bureau's **GSS-I** project
- Submissions are reviewed by Census and valid addresses are added to the Bureau's **Master Address File**
- Submitted for **all Massachusetts counties** from November through March of this year
- **2.8 million address records**
- *2,882,141 compared to Census 2015 estimate of 2,845,699*
- *Process will be updated and expanded for LUCA 2020*

GSS-I and LUCA Address Sources

MassGIS MAD

- Most inclusive
- Spatial coordinates
- Specified Units

Level 3 Assessors Parcel Data L3

- Detailed Property Use Codes
- Additional Information (year built, tax year, etc.)

Voter Address List VRIS

- Very current
- Confirms residential status

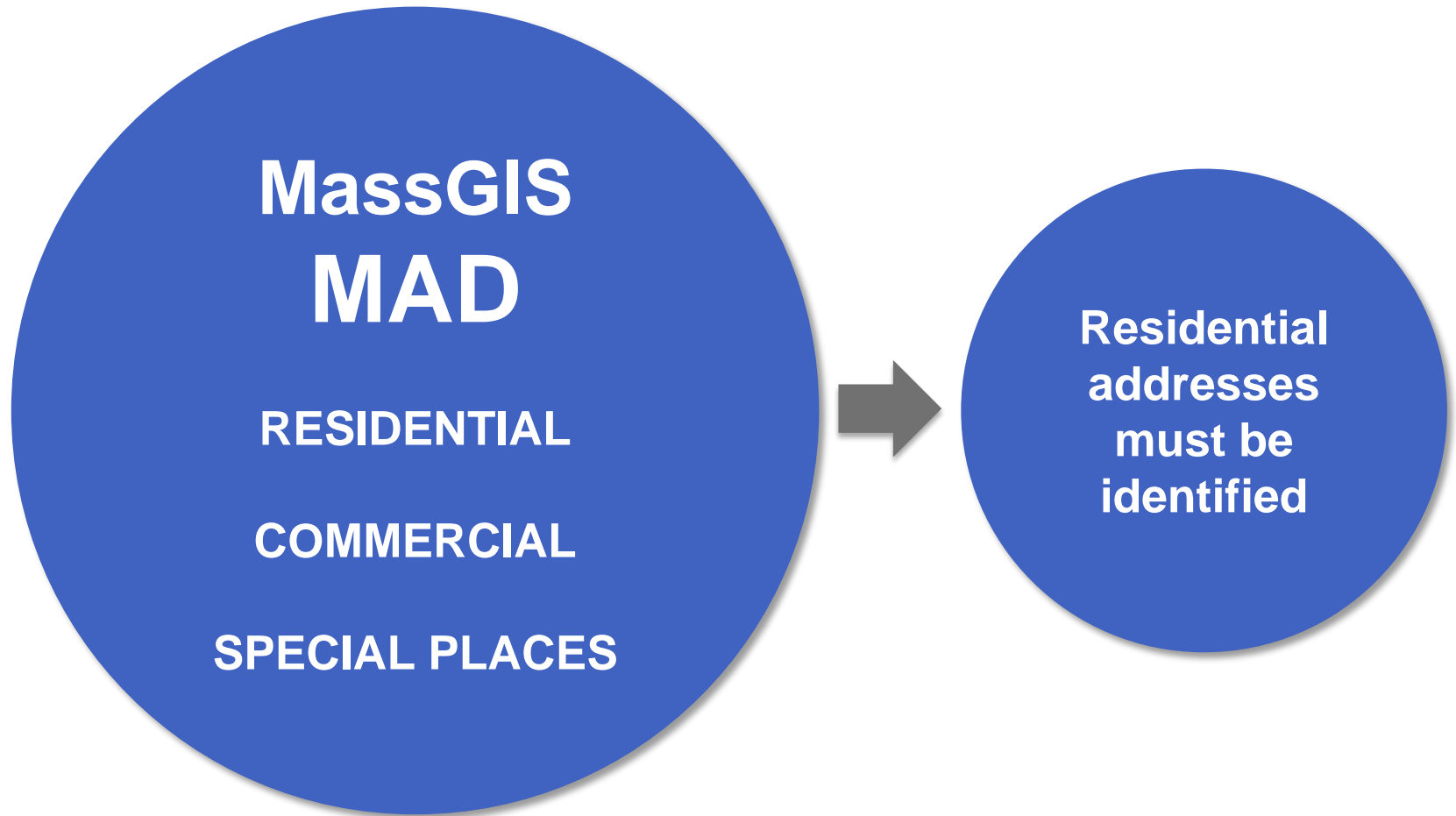
UMDI GQ
Inventory

Boston Parcel
& MAD

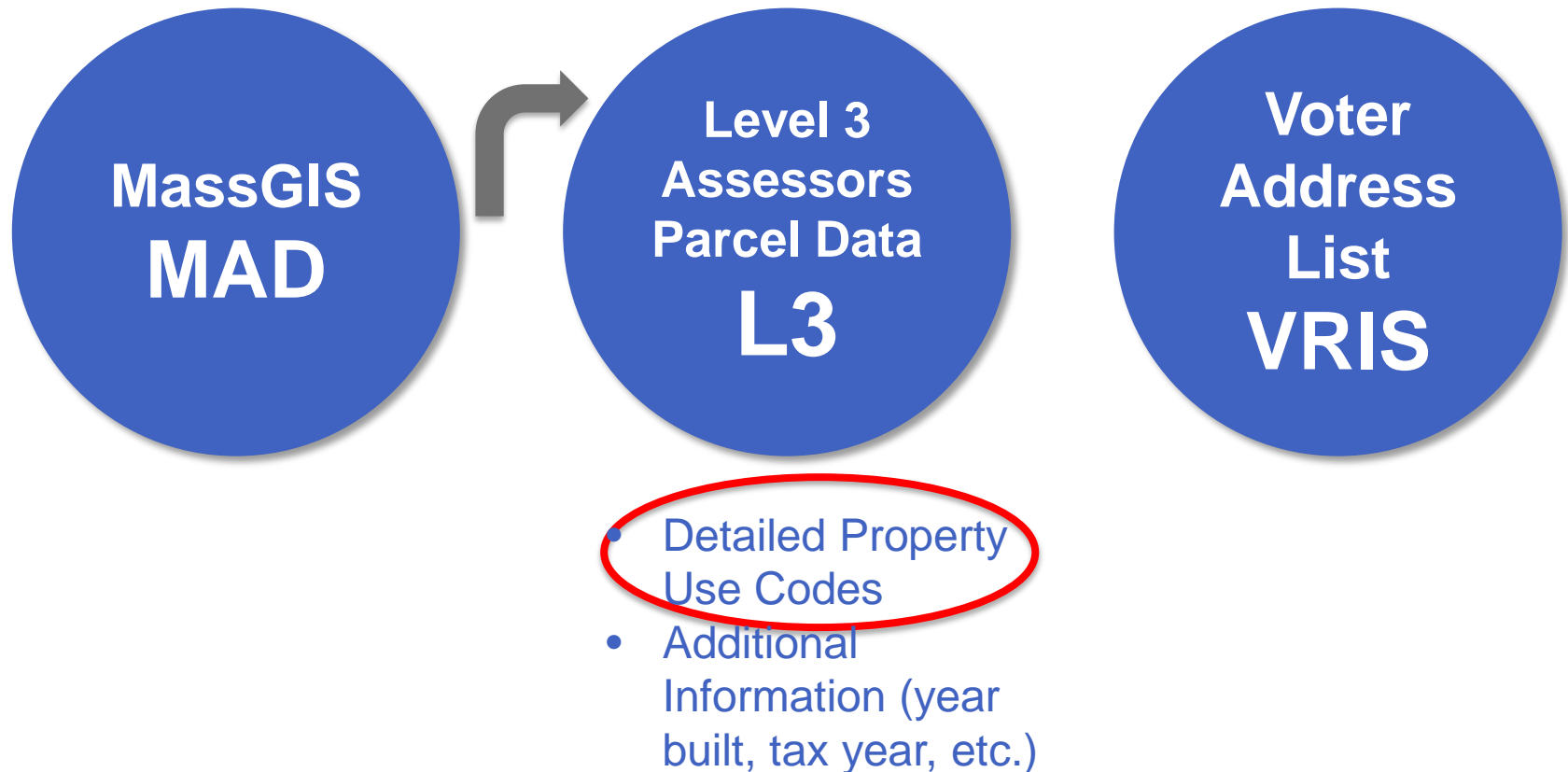
Assisted
Living
Facilities

Known
Conversions
Registry of Deeds,
Town Input

Processing Address Records

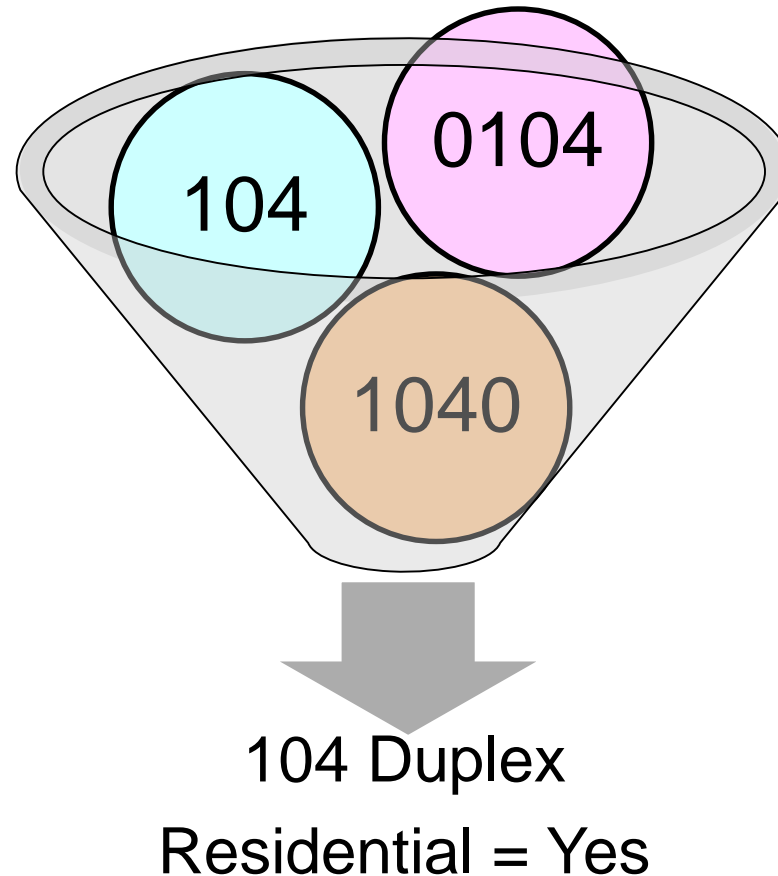


Processing Address Records

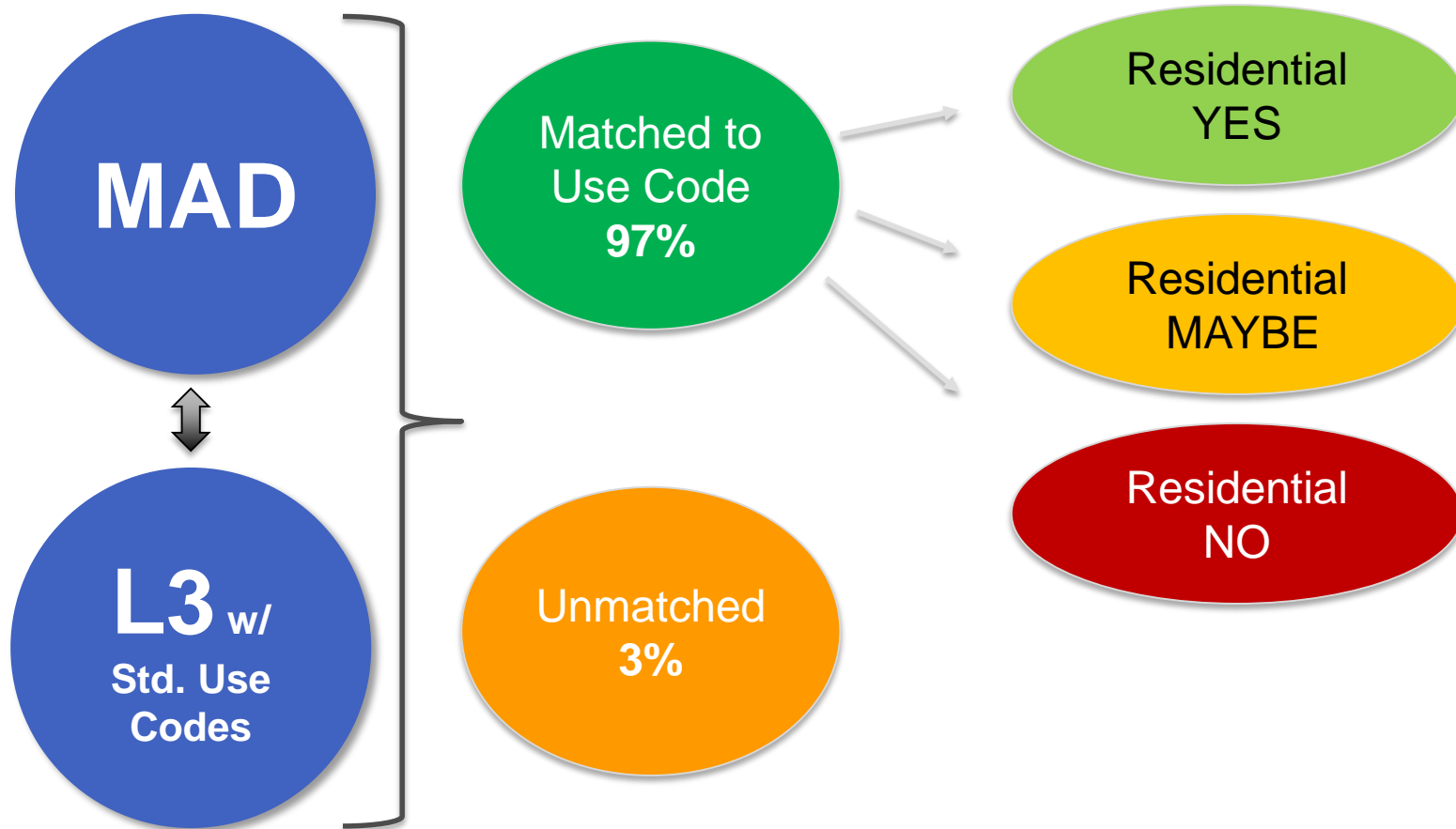


Standardize Land-Use Codes and Use Descriptions

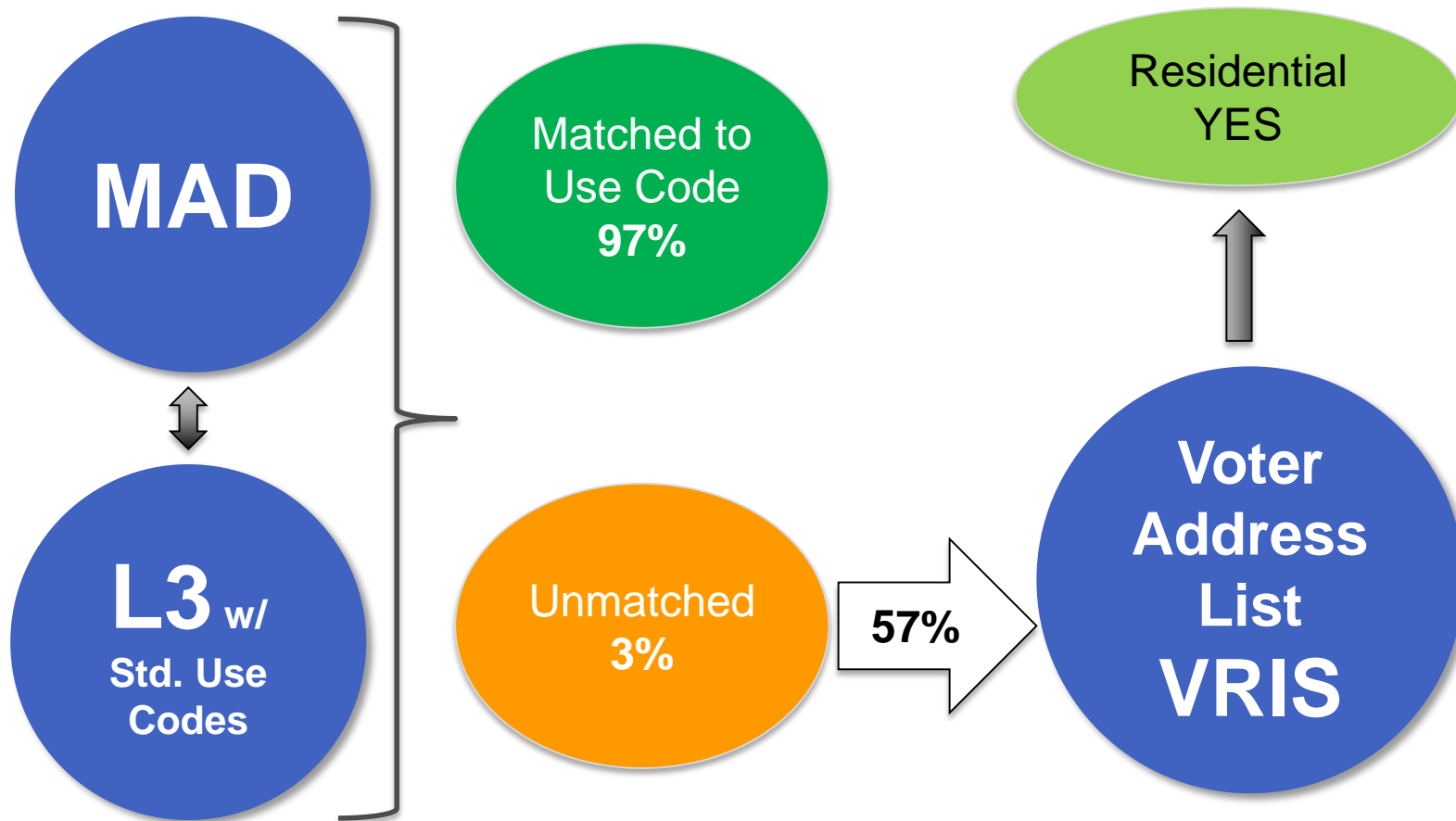
Standardizing Property-Use Codes in the L3



Processing Address Records

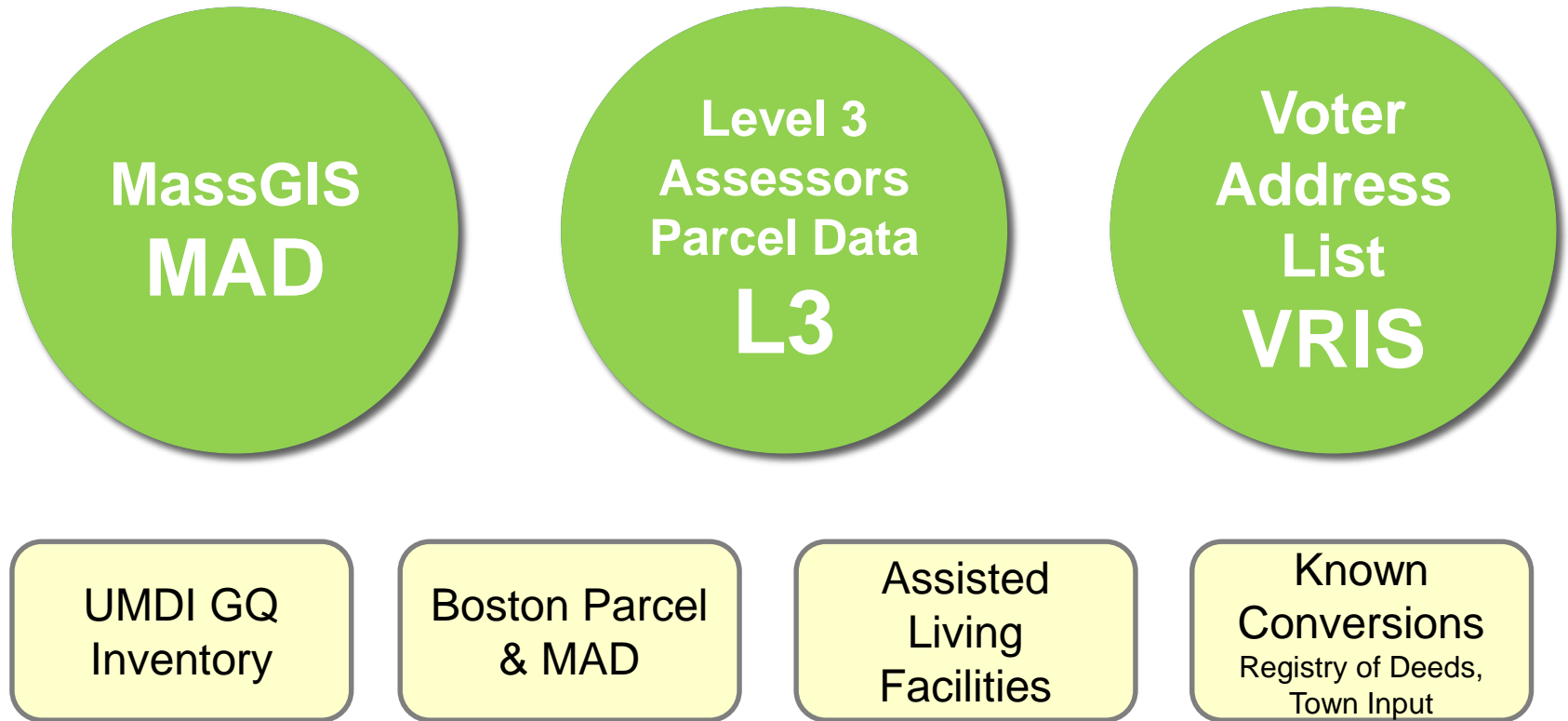


Processing Address Records

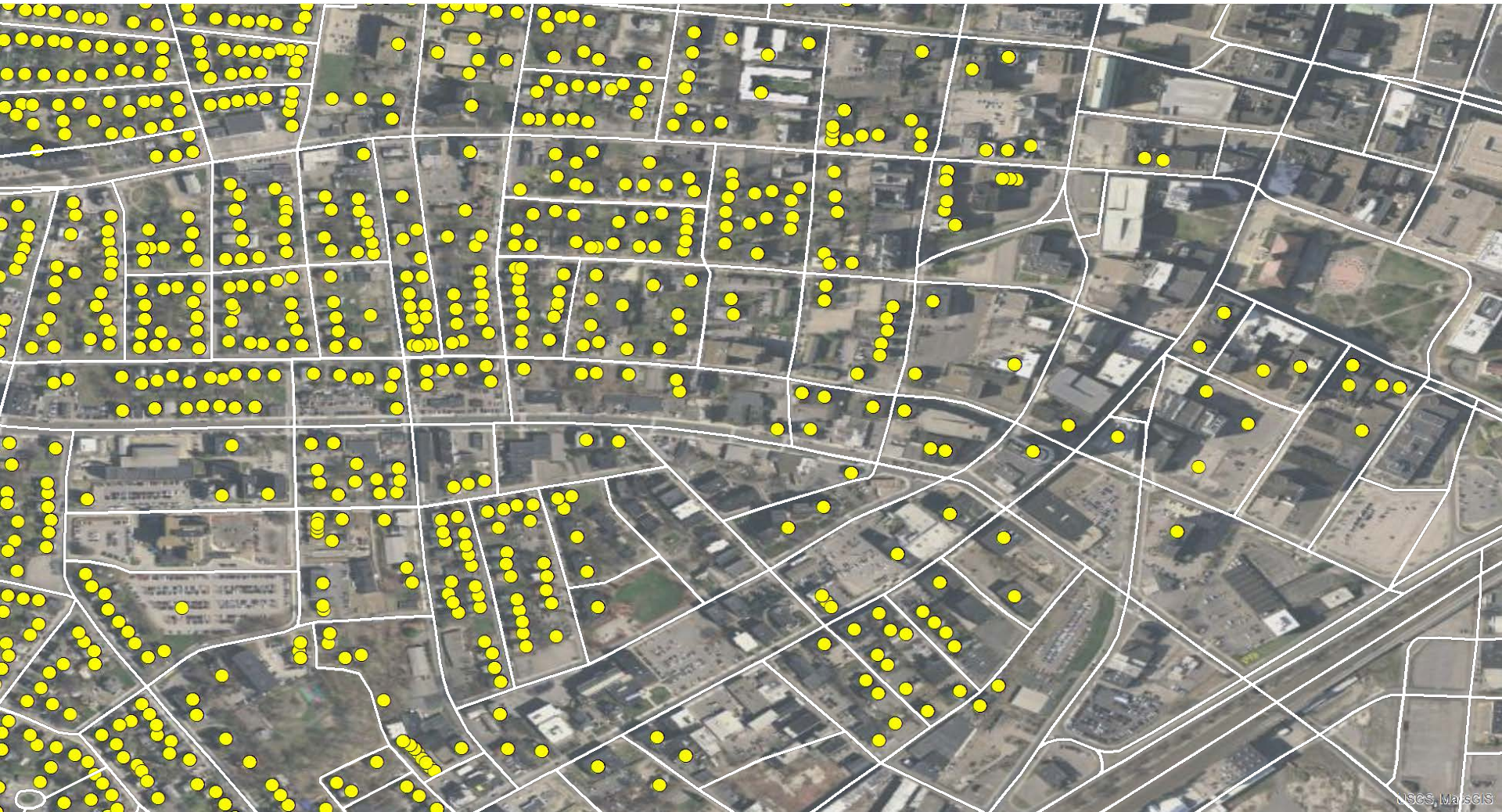


LUCA 2020 Processing

- Process like GSS-I with updated inputs



LUCA Processing: Residential Points by Block



USGS, Mapbox

Worcester, MA



Prioritize Greatest Differences

Census 2010 Blocks	UMDI Housing Units	MAF Housing Units	Difference
1000	193	175	18
1002	15	145	-130
1003	29	42	-13
1004	44	30	14
1005	22	129	-107
1051	0	59	-59
1054	0	2	-2
1058	116	113	3
1059	0	1	-1
1061	2	8	-6
1063	44	32	12
1066	92	38	54
1067	72	67	5
1068	193	197	-4
1069	48	46	2
1071	169	132	37
1072	246	39	207

-130 → ?

-107 → ?

207 → ?

LUCA Support to Cities and Towns

- SOC will distribute block comparisons to towns (UMDI counts vs. MAF counts by block)
- UMDI will conduct research on large discrepancies to identify actual issues*
- If large discrepancy identified, town will be notified and detailed information will be provided
- UMDI will assist SOC and Census with workshops

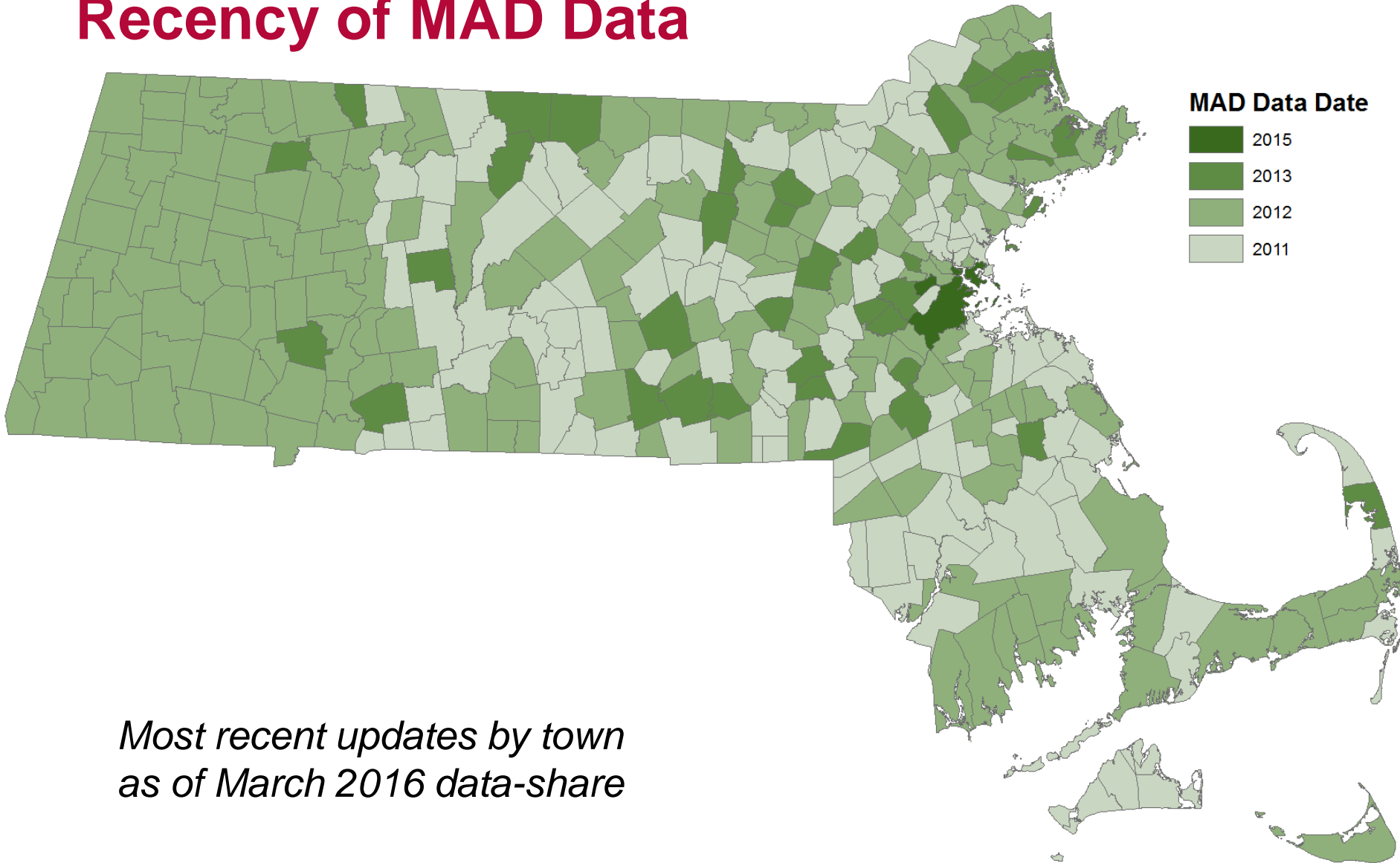
** MAF counts published in LUCA files tend to be inflated. Closer examination is needed at small level.*

Why should towns participate in LUCA?

Data lag!

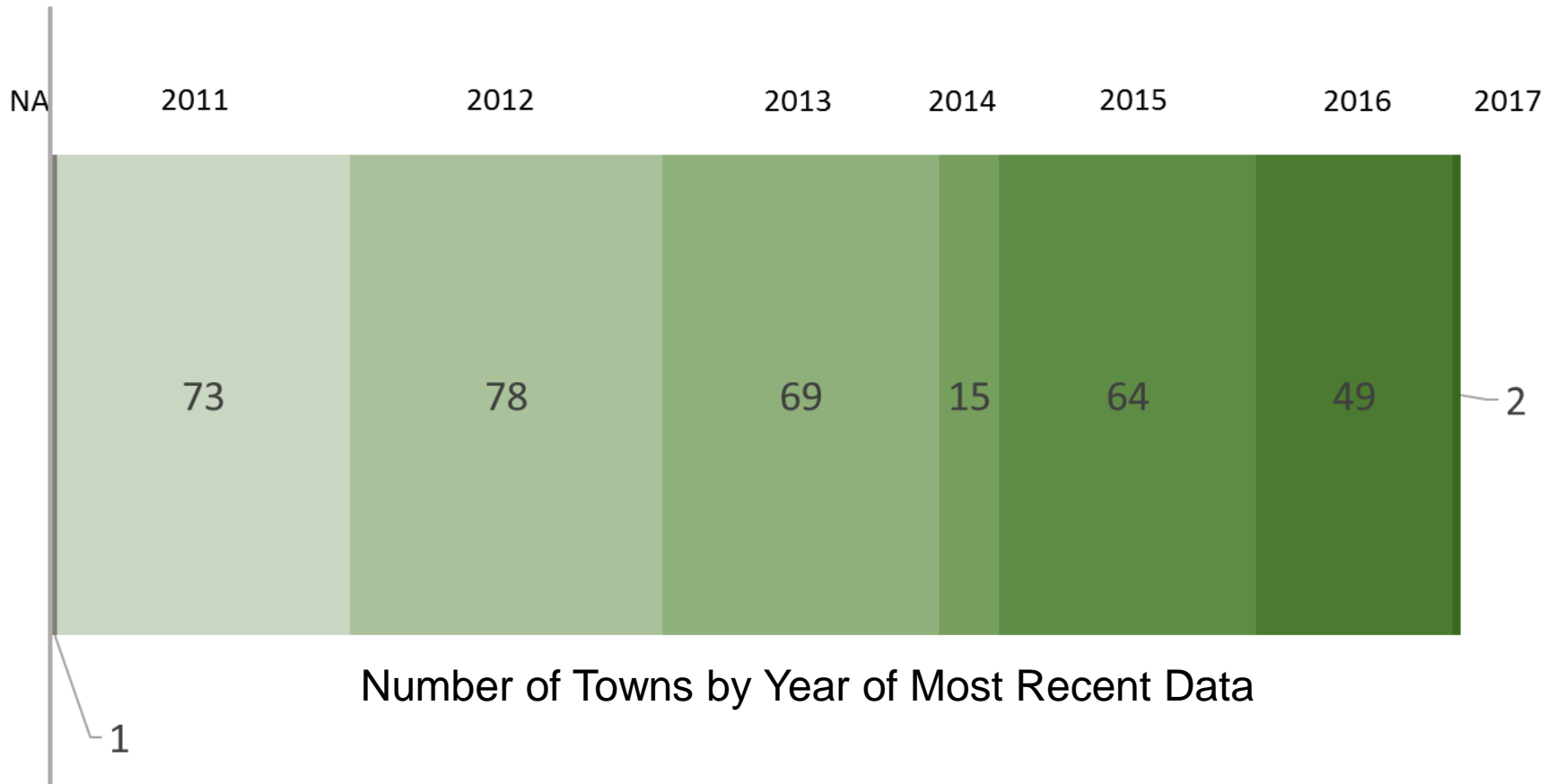
Local knowledge

Recency of MAD Data



*Most recent updates by town
as of March 2016 data-share*

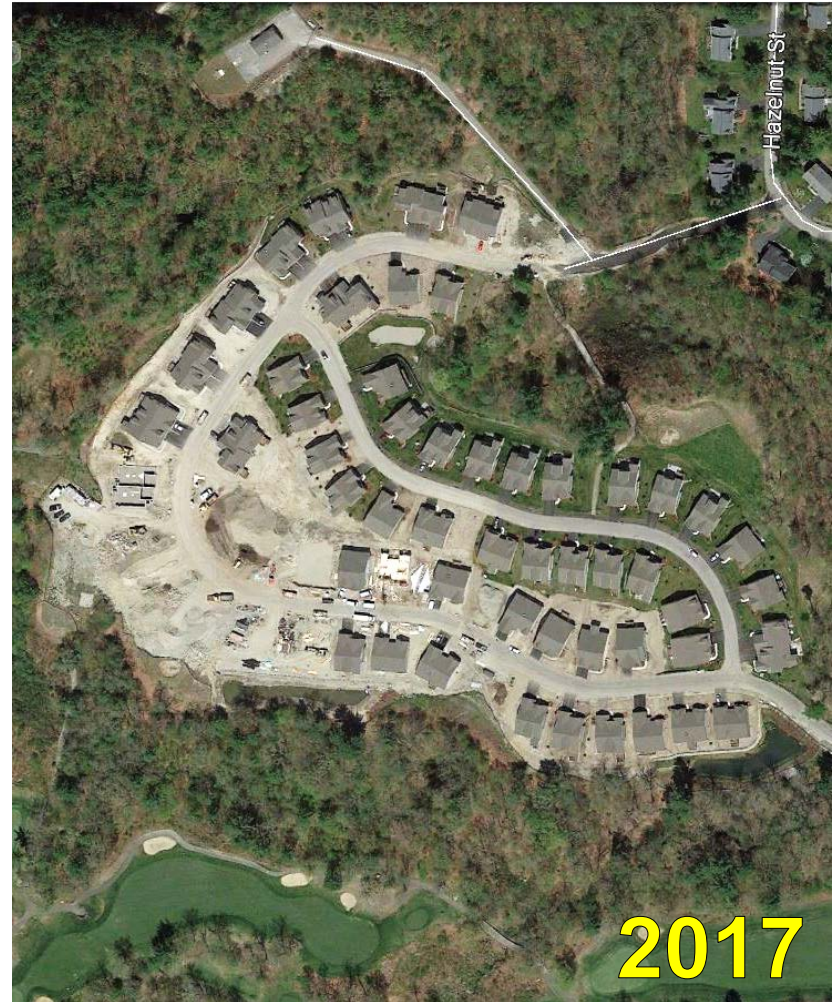
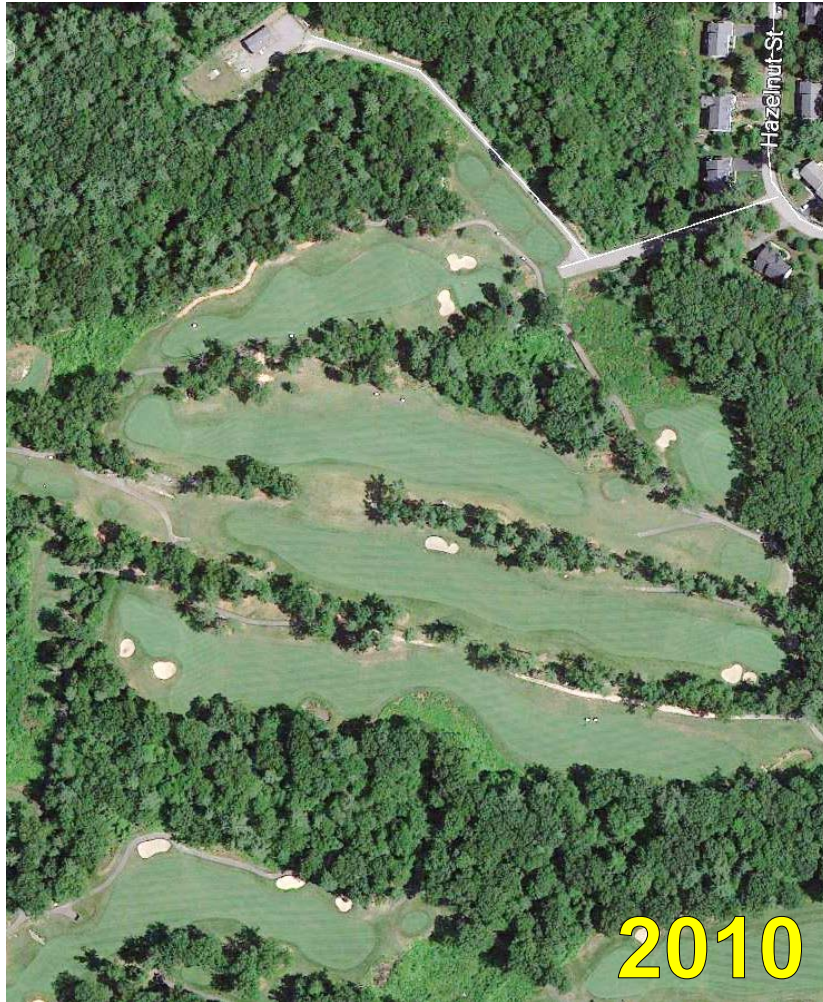
Recency of L3 Data



Local Knowledge

- New units and facilities
- Unit numbering: 1, 2, 3 vs. A, B, C
- **“Under the roof” changes**
 - Conversions
 - In-law apartments
 - Census 2020 operations are relying much more heavily on **in-office canvassing** vs. “boots-on-the-ground.” Testing still underway, but as little as 25% of addresses will be validated on the ground. *Example...*

In-Office Canvassing Example: Acton, MA



In-Office Canvassing Example: Under-the-Roof



Under-the-Roof Conversions



LIVE AND PLAY IN THE HEART OF HOLYOKE'S INNOVATION DISTRICT

The Cubit is a former factory building in the center of Holyoke, Massachusetts. This renovation will yield **18 Apartment Lofts** with salient features such as spacious floors, high ceilings, and large bright windows.



APARTMENT LOFTS



CANAL MARKET



PARKING

Next Steps

- Register for LUCA
- Attend a training workshop
- Stay current with MassGIS and SOC requests
- Locate current address lists
- Work on unit identifiers
- Tag new units or hard-to-find units

Can share these with UMDI

- SOC will contact you with the UMDI comparison files

But note that many discrepancies will require further research!

Thank you!

Susan Strate

Senior Program Manager, Population Estimates Program
Economic and Public Policy Research

UMass Donahue Institute

100 Venture Way, Suite 9

Hadley, MA 01035

(413) 577-0753

<http://www.donahue.umassp.edu>

sstrate@donahue.umassp.edu

