

Geographical Information Improvements

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Why Does Geography Matter?

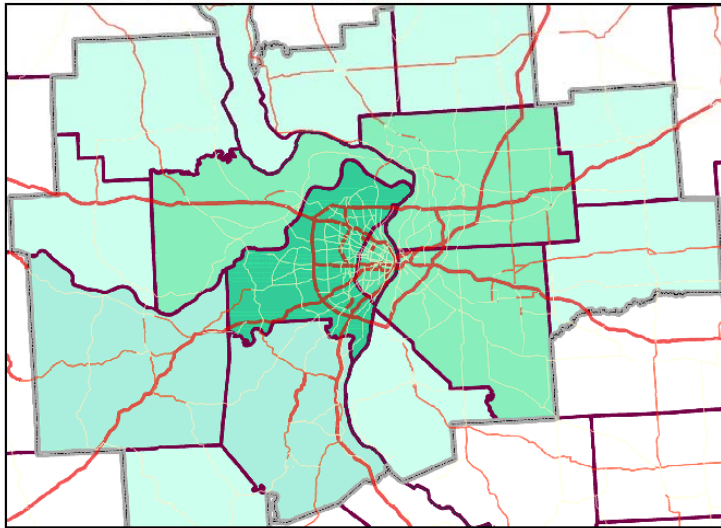
*Administrative record-based systems like OnTheMap use the universe of outcomes of interest measured directly at the geographical level of interest.**

** John M Abowd - APDU Newsletter Vol 33 No 2*

Why Does Geography Matter?

- County Level Detail

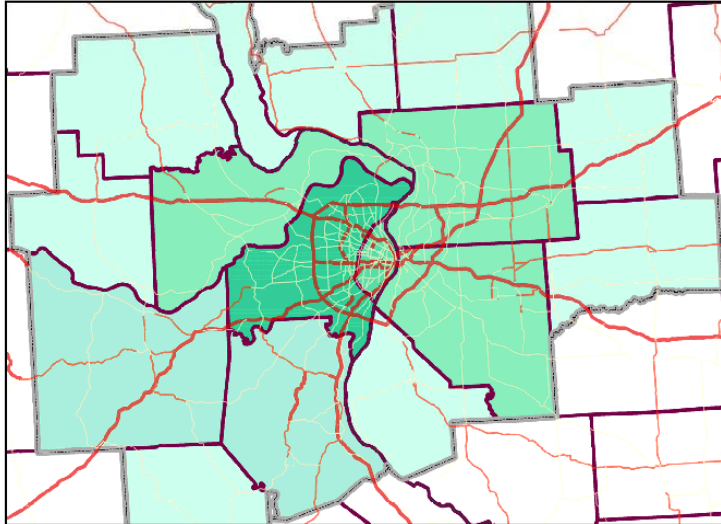
St Louis CBSA - Health Care and Social Assistance Industry 2009



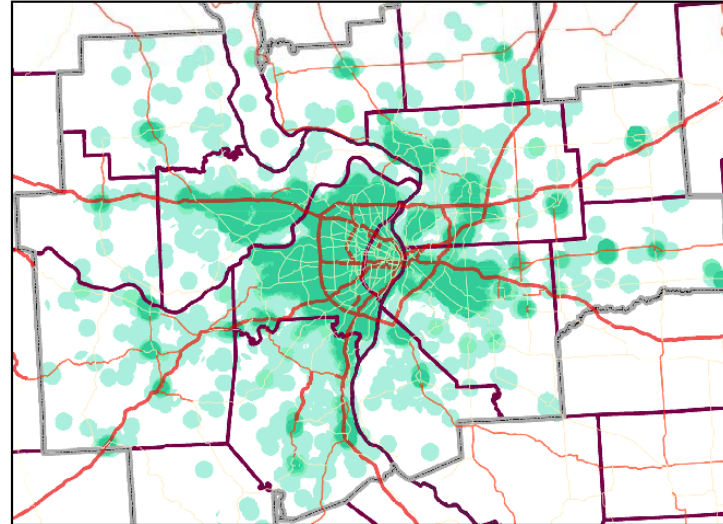
Why Does Geography Matter?

- More detailed Geography, Allows for **much** more useful detail

St Louis CBSA - Health Care and Social Assistance Industry 2009



St Louis CBSA - Health Care and Social Assistance Industry 2009



Why Does Geography Matter?

Local Employment Dynamics

Local = Geography

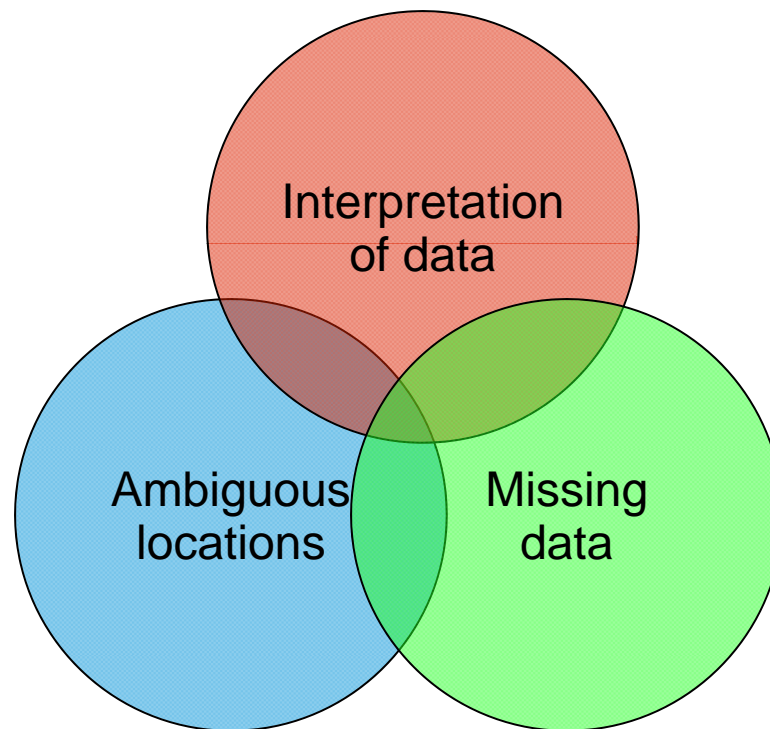
Addresses = Geography

**Worker/
Establishment = Geography**

Challenges in Addressing

- Jurisdictions that have no addresses
- Unusual addressing schemes
- Establishments located by ZIP code only
- Establishments located without ZIP code
- Changes in ZIP code vs the longitudinal data
- Timing of Changes – How and when do changes appear in administrative records

Causes of Addressing Challenges



Missing data

Longitudinal nature of the records

2006Q2	ABC Ltd	451 Maple St	Anytown		20789
2006Q3	ABC Ltd	451 Maple St			20789
2006Q4	ABC Ltd	451 Maple St	Anytown	OH	20789
2007Q1	ABC Ltd	451 Maple St	Anytown	OH	20789
2007Q2	ABC Ltd	451 Maple St	Anitown		20789
2007Q3	ABC Ltd	451 Maple St	Anytown	OH	
2007Q4	ABC Ltd	St Rte 65 & 451 Maple St	Anytown	MD	21789
2008Q1	ABC Ltd	451 Maple St		MD	21789
2008Q2	ABC Ltd	451 Maple St	Anytown	MD	21789

** Construed data, for use as an example only*

Interpretation of Addresses

- Postal vs Colloquial Addressing
- Develop strategies for specific unusual Address forms

Example:

40 Miles N of Sand Creek, Barrow Ak
US 4 & Rt 401 / 407 Westhill Road

Interpretation of Addresses Cont'd

- Requires Developing Careful Strategies

Example:

403-22A Main Street NW

West 403 Main Street North Apt 22A

N403W22 Main Street Apt A

Ambiguous Addresses

- Location may be indistinct unless all address elements are perfect
- Uncertain geography

Example:

2nd Ave SE, Atlanta GA, 30317

2nd Ave NE, Atlanta GA, 30030

2nd Ave, Atlanta GA, 30032

2nd St, Atlanta GA, 30360

2nd St NE, Atlanta GA, 30317

2nd St NW, Atlanta GA, 30318

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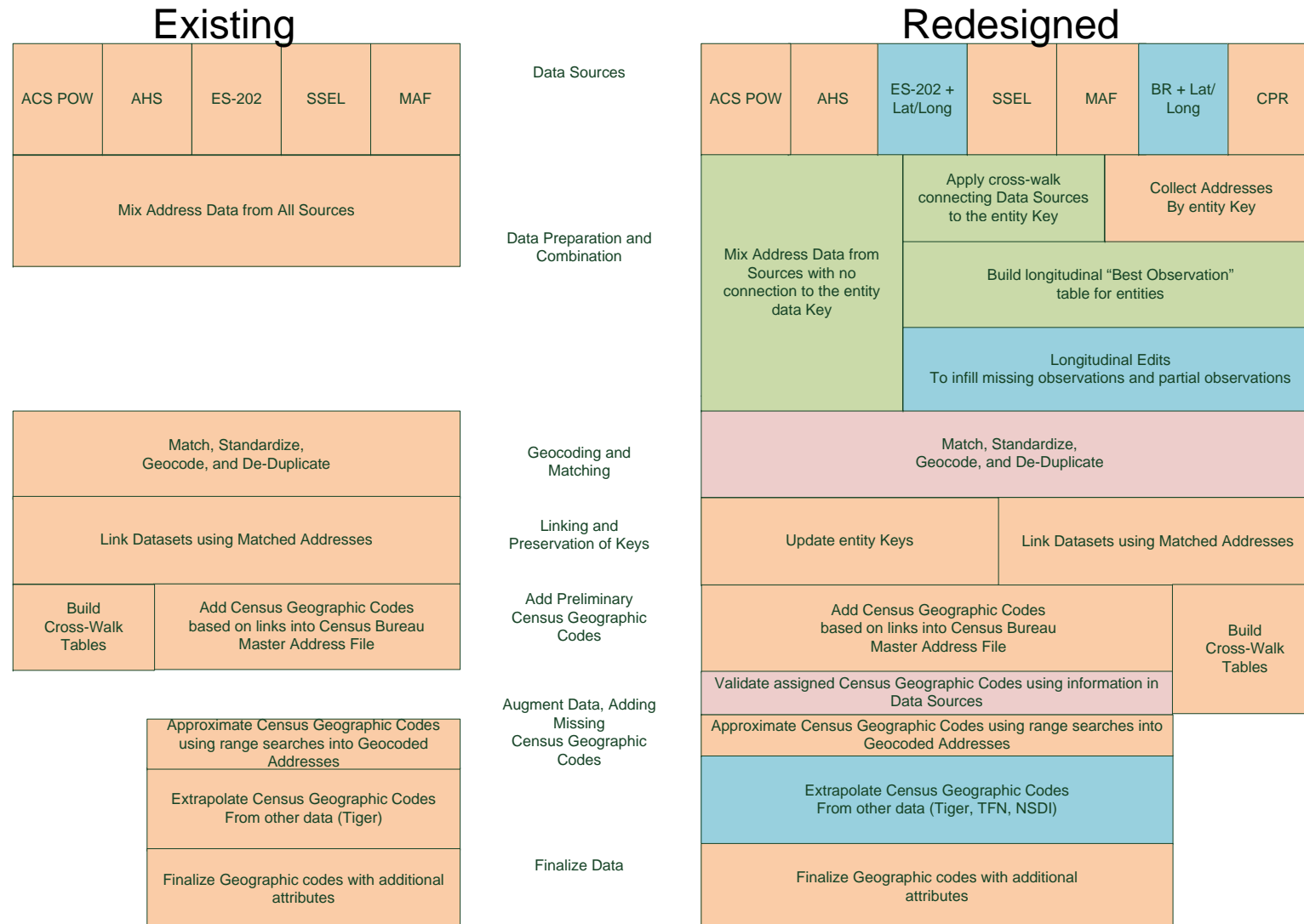
What is LEHD doing to improve Geography & Addressing?

1. Redesigning Address Geocoding Process:

- **Improve interpretation of varying address styles**
(formats, special cases etc.)
- **Improve handling of missing data**
- **Improve spatial accuracy**
- **Utilize longitudinal address review**
- **Utilize supplemental reference address data**

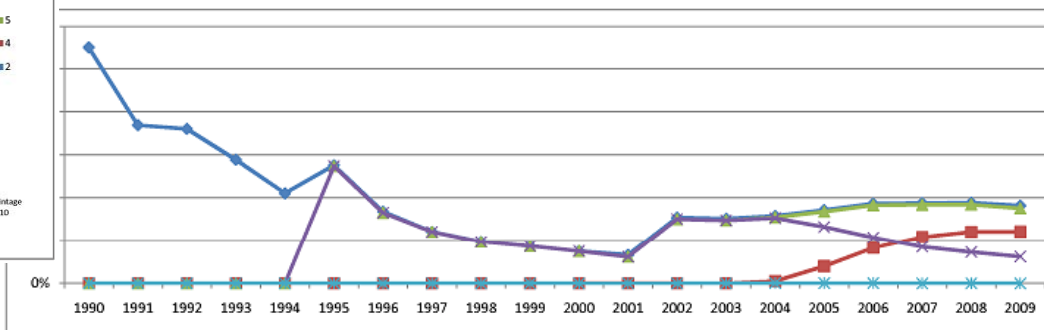
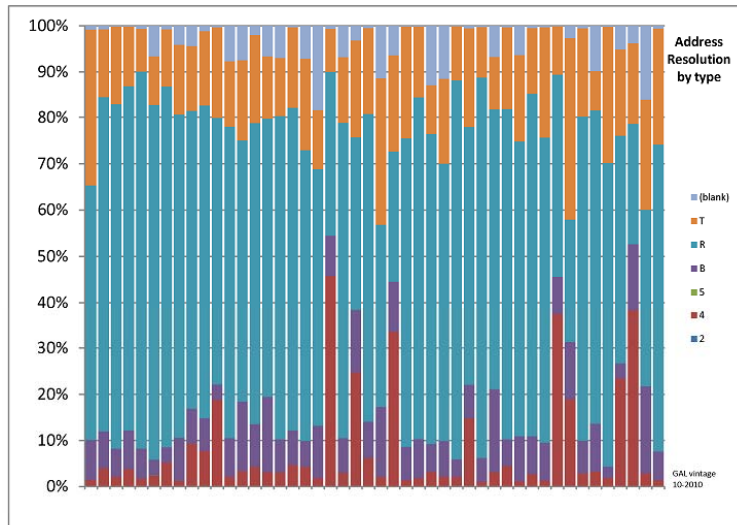
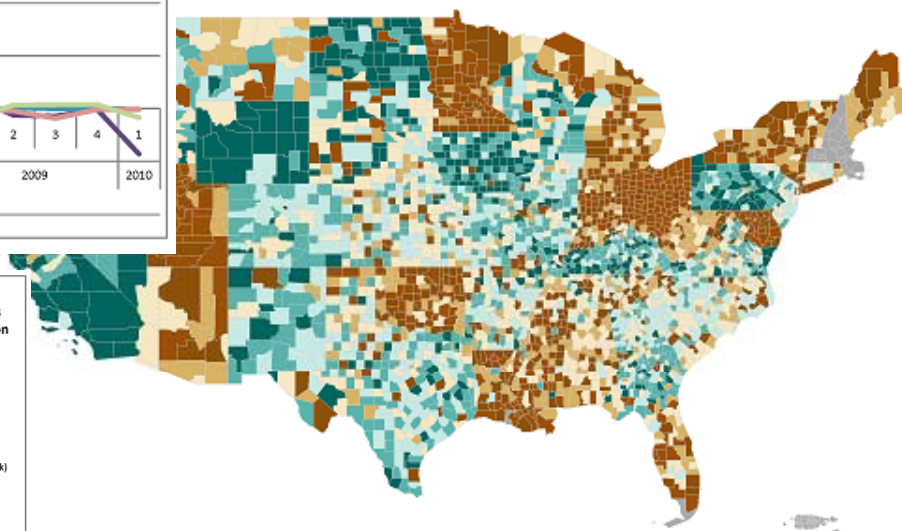
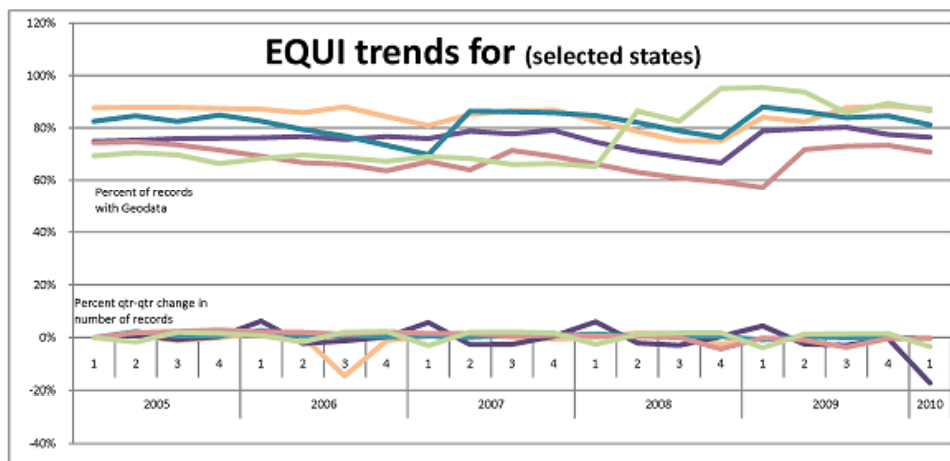
2. Building improved tools to monitor the quality of Addresses & Geography within LED

Geocoding Process Improvements



Quality Improvements & Visualization cont'd

q3 ■ Improved Quality Reports



USCENSUSBUREAU

How Can State LMI offices Help?

- Assist in understanding History of data submissions
- Participate in Data Quality Feedback Loops
- Act as Liaisons to other State offices who collect and record address data

Questions?

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