

# U.S. Census Bureau's GSS Initiative

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# Mission Need for the Data

- “The Census Bureau serves as the leading source of quality data about the nation's people and economy.”
- To fulfill this mission a complete and accurate MAF/TIGER System is necessary



# MAF Data is Temporal Data

- Addresses Between Censuses:
  - Approximately 80 million addresses in the 1990 Census ACF
  - 117.5 million addresses in Census 2000
  - 133,508,503 addresses in the 2010 Census
    - 166,827 of these were GQs





# What is the GSS Initiative?

- An integrated program that utilizes partnerships for:
  - Improved address coverage
  - Continual spatial feature updates
  - Enhanced quality assessment and measurement



# Current Status

- GSS Initiative was approved as part of the FY 2011 appropriation
- FY 11 plans for research and development are moving forward
- Continued planning for FY 12 and beyond



# Improving Our Address List

- Continuous update of the MAF
- Complete and current address coverage with emphasis in areas without city-style addresses
  - Focus on rural areas
  - Puerto Rico
  - Group Quarters
- Expanded address sources
  - Current primary sources for address updates are Local Update of Census Addresses (LUCA), the USPS Delivery Sequence File (DSF) and field updates from censuses and surveys
  - FY11 and beyond will focus on identifying and using best available data from partnership and commercial files



# Address Quality Indicators

- Mailable
- Deliverable
- Locatable
- Geocodable



# MAF Challenges

- No national addressing system
- Historical lack of address standards
- Data updates previously limited to:
  - US Postal Service Delivery Sequence File
  - Local of Census Addresses (LUCA)
  - Census field operations







# MAF Challenges

- MAF use under Title 13
  - Restricted access for viewing
  - Restricted access for updating
  - Sharing to improve address list significantly restricted
    - Requires Title 13 compliance by partner
    - Address information for census use only
    - Limited partner participation
    - Difficult to manage



# Maintaining Our Feature Network

- Continuous update of street network and attributes
  - Sharing results with USGS and DOT
- Like addresses, sources will focus on best available data from government partners and commercial files
- Extensive use of imagery
  - Source for spatial data
  - Used for data verification
  - Used for data quality assurance



# Boundary Improvements

- Continue to develop state and county level partnerships to ensure accurate boundaries
- Improve our training and outreach for the Boundary and Annexation Survey (BAS)





# How We Are Utilizing Partnerships

- Encouraging partners to update NSGIC's GIS Inventory – [www.gisinventory.net](http://www.gisinventory.net)
- Meeting with government officials and commercial vendors
  - Recently met with USPS, USGS, DHS, EPA, and others
- The Census Address Summit
- Taking a corporate view by coordinating address list review and development activities with other Census Bureau Divisions (sharing of sources and resources)



# Ongoing Work Research

- 5 reports by external geospatial experts
  - The State and Anticipated Future of Addresses and Addressing
  - Identifying the Current State and Anticipated Future Direction of Potentially Useful Developing Technologies
  - Measuring Data Quality
  - Use of Handheld Computers and the Display/Capture of Geospatial Data
  - Researching Address and Spatial Data Digital Exchange
- To download these reports:
  - <http://www.census.gov/geo/www/gss/reports.html>



# “Summer at Census” Research

- David Cowen; Distinguished Professor Emeritus
  - *Use of Parcel Data to Update and Enhance Census Bureau Geospatial Data*
- Steve Guptill; USGS Chief Scientist (Retired)
  - *Quantifying the Quality of the MAF/TIGER Database*
- To download these reports:
  - <http://www.census.gov/geo/www/gss/qaewg.html>



# Ongoing GSS Work

## Census Bureau Working Groups

Teams, comprised of GEO, staff from other Census Bureau divisions (ACQ, ACS, DID, DIR, DMD, DSCMO, DSD, DSSD, FLD, GOVS, NPC, OAES, POP, RDO, TMO), and other federal agencies (USGS, NOAA NGS, USPS) have been formed to address specific aspects of the GSS Initiative

- Address Coverage and Sources
- Feature Coverage and Sources
- Quality, Assessments/Evaluations
- Partnerships
- Research and Development
- Geocoding
- MAF/TIGER Integration/Linkage
- Global Positioning Systems (GPS)
- Project and Contract Management
- Policy



# Progress of GSS Working Groups

- FY2011 focus is research and development activities
- Working groups are:
  - Developing standards that reflect our requirements
  - Evaluating our current data
  - Determining how partners will contribute data
  - Exploiting technology







# For the Geographic Support System Initiative to be Successful

- Partners are important
  - Federal, state, local, and tribal governments
  - Commercial vendors (data providers)
- Working relationships must be:
  - Least intrusive
  - Most efficient
  - Ensure complete and quality data



# Questions?

