### **Best Practices**



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### **Success Factors**

Sound project management for any large scale project involves managing **cost**, **scope**, **and schedule**. Specific to GIS, I will talk about the following:

- Planning
- Experimentation and testing
- Prioritization
- Resource leveraging



# Planning

- Develop the timeline for each step in the mapping process based on reasonable calculations of the time required for each step
- Discuss, diagram, and disseminate the flow of key data through stages of the census mapping process
- Understand how the transition to digital mapping could affect other operations (e.g. field operations, universe/sample creation)



# Planning

- Who will work on which priorities and what training will they require?
- Evaluate statistical and administrative geography and identify potential problem areas
- Inter-governmental cooperation to develop agreements on responsibility where boundaries do not match



# **Experimentation and Testing**

- Develop a timeline with specific geospatial needs as far in advance as possible
- Use the intercensal period to improve your statistical geography, including integration of statistical and administrative geography
- Be specific with technical specification. Avoid temptation to outsource responsibility, rather than technical skills.



### Testing for Census 2020 at U.S. Census Bureau

#### 2014 Census Test

About the Test	The Census Bureau conducted a test in summer 2014 of new methods and advanced technologies that could significantly improve the upcoming 2020 Census.				2014 Concus Tost
Jobs					2014 Census Test
Participants	The 2014 Census Test took place in parts of Washington, D.C. and parts of Montgomery County, MD from the end of June through September, with "Census Day" on July 1, 2014. Whether through the Internet, telephone, or traditional paper questionnaires, the Census Bureau is committed to making the once-a-decade headcount quick, easy, and safe for all to participate. Additionally, the 2020 Census hopes to provide substantial taxpayer savings while maintaining our commitment to high quality and accuracy.				Preparing for the 2020 Census
Questions					
Test Activities					Montgomery County, MD
Español (Spanish)					Local Census Office
Français (French)					Silver Spring, MD
tiếng Việt (Vietnamese)					🧡 Washington, DC
በአማሪኛ (Amharic)					
中文 (Chinese)					
한국어 (Korean)	2020 Census FAQs	Why a Census Test?	Participant Info	News	
Access the 2014 Census Test Fact Sheet	What is the 2014 Census Test? How can I verify a census worker?				
	Where are you conducting the test?				

View All 2020 Census FAQs

### System development begging shortly after 2010 Census Small tests for non-ID households, collection methods, and system development begin in 2014



## **Operational Control Testing November 2014 for Census 2020**



- CAT is a DMZ facility
- Able to test new software and system with no risk
- Open to all census employees



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# Prioritization

- Pre-census possibilities
  - Digitization
  - Remote-sensing aided building identifcation
  - Mobile frame collection
  - Integrated geospatial database and operational control
- Post-census possibilities
  - Web-mapping
  - Web feature services
  - APIs for dissemination



# **Staff Skills**

- Core census geography expertise
  - Map-reading
  - Fieldwork experience
  - Statistical geography operations
- Desktop
  - Digitization
  - Workflow and analytical analysis
  - Model-building and automation
- Web and Application Development
  - Knowledge of services allowing for basic feature/attribute display (ArcOnline, MapBox, Google Maps)
  - Interactive web-map development (JavaScript)
  - Web application development (ArcObjects, APIs, Java, C++)



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### **Resource Use**

- Commitments should be appropriate to staff skill level, both actual and potential
- Sketch out training, other surveys, and census preparations. Don't over commit staff.
- Realistic training
  - GIS analyst->Geo Application Developer
  - Sketch cartographer->web map application design
  - Front-end vs. back-end expertise are not interchangable

