Best Practices
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.
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
Prioritization

- Pre-census possibilities
  - Digitization
  - Remote-sensing aided building identification
  - 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++)
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 interchangeable