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.

Testing for Census 2020 at U.S. Census Bureau

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

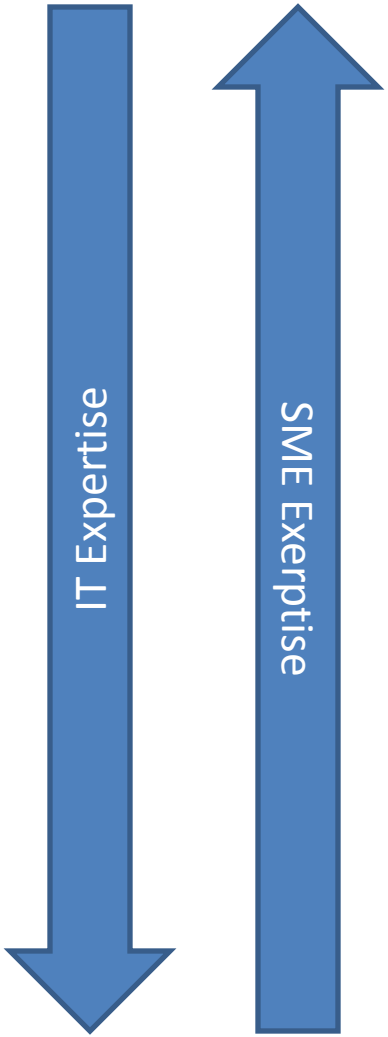
- CAT is a DMZ facility
- Able to test new software and system with no risk
- Open to all census employees

Prioritization

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



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