The 2020 Census Operational Plan

Introduction

November 4, 2015

Contents

- The Decennial Census
- The 2020 Census Goals and Key Innovation Areas
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  - Optimizing Self-Response
  - Utilizing Administrative Records
  - Reengineering Field Operations
- Cost and Quality Impacts
- Operational Overview
- Timeline
- Tests Planned in 2016-2019
- 2020 Census Operational Plan
The 2020 Census Goals and Key Innovation Areas

**Overarching Goal:** To count everyone once, only once, and in the right place.

**Challenge Goal:** Conduct a 2020 Census at a lower cost per household (adjusted for inflation) than the 2010 Census, while maintaining high quality results.

**Focus on Four Key Innovation Areas**

- Reengineering Address Canvassing
- Optimizing Self-Response
- Utilizing Administrative Records and Third-Party Data
- Reengineering Field Operations

Reengineering Address Canvassing

Reduce the nationwide In-Field Address Canvassing by developing innovative methodologies for updating and maintaining the Census Bureau’s address list and spatial database throughout the decade.
Optimizing Self-Response

Generate the largest possible self-response, reducing the number of households requiring follow-up.

Utilizing Administrative Records

Use information people have already provided to reduce expensive in-person follow-up.

- **Improve the quality of the Frame**
  - Update the Frame
  - Validate incoming data from tribal, federal, state, and local governments

- **Increase effectiveness of advertising and contact strategies**
  - Support the micro-targeted advertising campaign
  - Create the contact frame (e.g., email addresses and telephone numbers)

- **Validate Respondent Submissions**
  - Validate respondent addresses for those without a Census ID and prevent fraudulent submissions

- **Reduce Field Workload for Followup Activities**
  - Remove vacant and nonresponding occupied housing units from the nonresponse followup workload
  - Optimize the number of contact attempts

Make it Easy to Respond: Make it easy for people to respond. Provide multiple means of response: telephone, mail, internet, and face to face. Ensure respondents that their data are confidential and secure.
Reengineering Field Operations

Use technology to more efficiently and effectively manage the 2020 Census fieldwork.

Streamlined Office and Staffing Structure

- Area Manager of Operations
- Census Field Managers
- Census Field Supervisors
- Listers and Enumerators

Increased use of Technology

- Automated and optimized work assignments
- Automated recruiting, training, payroll and expense reporting
- Ability to conduct address updates and enumeration on same device
- Reduced paper and manual processing

Increased Management and Staff Productivity

- Increased visibility into case status for improved workforce management
- Redesigned quality assurance operations
- Improved communications

Operational Overview

The 2020 Census: A New Design for the 21st Century

Motivate People to Respond

- Conduct a reminder alert via email
- Post a reminder on social media

Count the Population

- Collect data from all households, including group and unique living arrangements
- Allow people to respond online or in person
- Encourage people to use the mail-in response option

Establish Where to Count

- Use the most recent, effective strategy to target
- Review and reassess partners

Release Census Results

- Release data for statistical use by July 1, 2021
- Release data for public use by April 1, 2021
- Release data for state law use by December 31, 2022
2020 Census Lifecycle and Operational Plan Timeline

- **Research and Test**
  - FY12-15
  - FY16-18
  - FY19-21

- **Operational Research**
  - Preliminary Design Decision
  - Final Version

- **Systems Design and Build**
  - Operational
  - Readiness Testing
  - Implementation

2016 Research and Testing

- Move from small scale individual tests using proof of concept and prototype systems to more refined tests and the building of systems
- Dependent on funding

<table>
<thead>
<tr>
<th>Date</th>
<th>2016 Census Test</th>
<th>2015 Address采集 Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 31</td>
<td>3/16</td>
<td>5/10</td>
</tr>
<tr>
<td>Aug 15</td>
<td></td>
<td>7/16</td>
</tr>
<tr>
<td>Sep 30</td>
<td></td>
<td>9/10</td>
</tr>
<tr>
<td>Oct 15</td>
<td></td>
<td>11/16</td>
</tr>
</tbody>
</table>
Operations and Systems to be Tested in 2016

<table>
<thead>
<tr>
<th>Key Innovation Area</th>
<th>Operations</th>
<th>Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reengineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Address Canvassing</td>
<td>Address</td>
<td>Enterprise Listing and Mapping System/Listing and Mapping Instrument</td>
</tr>
<tr>
<td>Optimising Self-Response</td>
<td>Internet</td>
<td>PRIMUS Prototype, using cloud infrastructure</td>
</tr>
<tr>
<td></td>
<td>Response</td>
<td>Census Bureau Call Centers</td>
</tr>
<tr>
<td></td>
<td>Paper</td>
<td>ICAD (Integrated Capture and Data Entry)</td>
</tr>
<tr>
<td></td>
<td>Non-ID</td>
<td>Real-time Non-ID processing using cloud infrastructure</td>
</tr>
<tr>
<td></td>
<td>Processing</td>
<td></td>
</tr>
<tr>
<td>Utilising Administrative Records and Third-Party Data</td>
<td>Identification of vacant and occupied units</td>
<td>HQ servers</td>
</tr>
<tr>
<td></td>
<td>Removal</td>
<td>CARDS (Control and Response Processing Data System)</td>
</tr>
<tr>
<td></td>
<td>from the NRFU workload</td>
<td></td>
</tr>
<tr>
<td>Reengineering Field Operations</td>
<td>Workload</td>
<td>MOJO (in-field operational control system) prototype begins interfacing with MOCS (Multi-mode Operational Control System)</td>
</tr>
<tr>
<td></td>
<td>Enumeration</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quality</td>
<td>COMPASS Prototype</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td></td>
</tr>
</tbody>
</table>

2016 Census Test (1 of 2)

Planned to be an operational study of both self-response and nonresponse followup procedures. Census Day of April 1, 2016. Includes approximately 225,000 housing units per site in Los Angeles County, California and Harris County, Texas.

### 2016 Census Test

#### Objectives

- **Self-Response**
  - Test provision of language support to Limited English Proficient populations through partnerships and bilingual questionnaires
  - Test ability to reach demographically diverse populations
  - Refine Real-Time Non-ID Processing methods, including respondent validation
  - Test cloud-based infrastructure for self-response and Non-ID Processing

- **Nonresponse followup**
  - Refine the reengineered field operations
  - Refine the field management staffing structure
  - Test enhancements to the Operational Control System and COMPASS
  - Refine the path in COMPASS to conduct proxy interviews
  - Test improved procedures for multi-unit accessibility and contact
### 2016 Census Test (2 of 2)

#### Objectives (Continued)
- Reengineered Quality Control
  - Evaluate the use of paradata and GPS points collected during interview
  - Test reinterview functionality
- Measure the systems' abilities to manage a significant number of concurrent users during self-response
- Test a combination of BYOD, Government Furnished Equipment, and "Device as Service" strategies for supplying enumerators with hardware devices
- Test scalability of Internet and Non-ID processing during self-response using enterprise solutions

#### Findings and Design Implications
- To be completed once the test is conducted

### 2016 Address Canvassing Test

Planned to be an operational study of In-Office and In-Field Address Canvassing procedures. Begin in the fall of 2016 and will continue into 2017. Will cover various sites across the nation with a specific focus on areas required to support the 2017 Census Test.

#### Objectives
- Test new In-Office and In-Field Address Canvassing methods
- Test the use of Listing and Mapping Instrument
- Test the use of the Basic Collection Unit instead of traditional collection geography
- Test updates to the MAF/TIGER System with address and spatial data
- Test reengineered methods for quality assurance
- Test address updating and matching software for Puerto Rico

#### Findings and Design Implications
- To be completed once the test is conducted
### 2017 Research and Testing

- A single test to understand the interactions of multiple operations and systems
- Collect workload, cost, and quality data to inform the 2018 Census End-to-End Test
- Dependent on funding

<table>
<thead>
<tr>
<th>2017 Census Test</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oct</td>
<td>Nov</td>
</tr>
<tr>
<td>Group Quarters</td>
<td>12/16</td>
<td></td>
</tr>
<tr>
<td>Update Enumerator</td>
<td></td>
<td>3/17</td>
</tr>
<tr>
<td>Internet Self Response</td>
<td></td>
<td>3/17</td>
</tr>
<tr>
<td>Nonresponse Follow-up</td>
<td></td>
<td>4/17</td>
</tr>
</tbody>
</table>

### 2018 Census End-to-End Test

- Test seven major “threads” for readiness of operations and systems for production
- Includes significant field data collection components
- Timing of field operations will mimic 2020
- Dependent on funding

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**Operation Name**
- Address canvass
- Group Quarters
- Internet Self Response
- Update Enumerator
- Nonresponse Follow-up
- Census Coverage Management
- Field Processing and Products End-to-End Functional Test

**Timeline**

- 2018: Jan 2018 - Dec 2018

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*U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau*
2019 Performance Testing

- Two types of tests:
  - Defect Resolution Testing (test fixes based on 2018 End-to-End Test)
  - Post End-to-End Performance Testing
- Dependent on Funding

Vision of the 2020 Census Operational Plan Moving Forward

- Annual updates through 2021
- Major decisions remain in FY16-FY18
- Stakeholder input now
Structure of Operational Plan

1. Introduction
2. The 2020 Census Overview
3. The Four Key Innovation Areas
4. Key Tests, Milestones, and Production Dates
5. 2020 Census Operations
6. Key Program Level Risks
7. Quality Analysis
8. Life-Cycle Cost Estimate (pending clearance)

Structure of Each Operation

Each operation in Section 5 has the following standard structure:

- Purpose
- Lessons Learned
- Opportunities to Innovate
- Description of Operation
- Research/Work Completed
- Decisions Made
- Design Issues to be Resolved
- Cost and Quality
- Risks
- Milestones
Decisions Made to Date
(1 of 3)

- The Address Canvassing Operation consists of:
  - In-Office Address Canvassing
  - In-Field Address Canvassing
  - Quality Assurance
  - MAF Coverage Study
- Administrative records and third-party data sources will be used to validate addresses within each block
- Group Quarters will be identified and classified during Address Canvassing
- Geographic areas (e.g., living quarters and features) which are included in downstream operations will no longer have to be canvassed in the field (e.g., Update Enumerate and Remote Alaska)
- At most twenty-five percent of the living quarters will be canvassed in the field
- Target as of September, 2015; continued study through additional testing
Decisions Made to Date
(2 of 3)

- Production Address Canvassing begins September 2015
- Address Canvassing provides training for both production and quality assurance processes for in-office work
- Address Canvassing relies on automated training for production and quality assurance processes for in-field work
- Address Canvassing updates the Census Bureau's address list using a dependent canvass (from ground to list)
- Address Canvassing validates and collects coordinates for every structure with a living quarter
- The MAF Coverage Study will be conducted throughout the decade
- In-Office Address Canvassing creates the universe for In-Field Address Canvassing
- In-Office Address Canvassing will review public lands

Decisions Made to Date
(3 of 3)

- Geographic areas designated for In-Office Address Canvassing can move to the In-Field Address Canvassing universe and vice versa
- In-Field Address Canvassing can identify additional in-field work
- Statistical modeling will not be used in Address Canvassing
- Imagery will be available on the Listing and Mapping Instrument to use during In-Field Address Canvassing
- Address Canvassing will validate LUCA submissions
- Validation of LUCA submissions will occur primarily during In-Office Address Canvassing, with minimal validation occurring early in the In-Field Address Canvassing operation
Design Issues to be Resolved (1 of 2)

- Is Partial Block Canvassing more cost-effective than Full Block Canvassing?
  - Approach: Researched in 2016 Address Canvassing Test
  - Decision by: January 2017
- How will the field reengineering concepts tested for NRFU be used for In-Field Address Canvassing?
  - Approach: Researched in 2016 Address Canvassing Test
  - Decision by: January 2017
- How will Quality Assurance be handled?
  - Approach: Researched in 2016 MAF Coverage Study and 2016 Address Canvassing Test
  - Decision by: January 2017
- What are the business processes for handling Transitory Locations during Address Canvassing?
  - Approach: Researched in 2016 Address Canvassing Test
  - Decision by: January 2017

Design Issues to be Resolved (2 of 2)

- Will the Census Bureau be able to meet the 25 percent In-Field Address Canvassing goal without sacrificing quality?
  - Approach: Researched in 2016 MAF Coverage Study and 2016 Address Canvassing Test
  - Decision by: January 2017
- How will ungeocoded addresses be resolved as part of Address Canvassing?
  - Approach: Researched in 2016 Address Canvassing Test
  - Decision by: March 2017
- What is the business process to meet spatial accuracy requirements for capturing features and living quarter coordinates during In-Field Address Canvassing if the devices are unable to meet these requirements?
  - Approach: Researched in 2016 Address Canvassing Test
  - Decision by: March 2017
- What feature data, if any, should be collected during an In-Field Address Canvassing?
  - Approach: Researched 2016 MAF Coverage Study and 2016 Address Canvassing Test
  - Decision by: March 2017
Cost Impacts
Investment in Address Canvassing will reduce the cost of the 2020 Census as compared with the 2010 Census through:
- Reduction in the amount of In-Field Address Canvassing and associated infrastructure by implementing In-Office Address Canvassing
- Use of additional sources of administrative records and third-party data to validate the frame
- Partial block canvass (under review)

In addition:
- Address Canvassing is expected to require additional people, process activities, data, technology and facilities to support In-Office Address Canvassing and the resolution of ungeocoded responses

Quality Impacts
- Continuous In-Field improvement process to:
  - Test In-Field methodologies
  - Verify In-Office methodologies
  - Update MAF with results
- Use of additional sources of administrative records and third-party data to validate the frame
- Missed changes in address list resulting from new Address Canvassing approach
Decisions Made to Date

- The 2020 Census will offer a Non-ID option for self-response and telephone agent-assisted response
- The 2020 Census Internet self-response instrument and the Census Questionnaire Assistance interviewer instrument will utilize the capabilities and requirements for the address collection interface as specified for Non-ID responses as used in the 2014 and 2015 Census Tests
- The Non-ID workflow will include real time matching and geocoding, post real-time processing that will utilize administrative records and third-party data, and manual (interactive) matching and geocoding

Design Issues to be Resolved (1 of 2)

- How can Non-ID respondents help confirm the location of their living quarters?
  - Decision by: September 2016 (Initial recommendations; evaluation will continue through 2018 testing)
- What methodology will be used to conduct Non-ID response validation?
  - Approach: Currently researching a solution that utilizes commercial and federal data sources; The Census Bureau will test alternate methods in the 2016 and 2017 Census Tests to determine methods to be used in the 2018 Census End-to-End Test
  - Decision by: September 2016 (Initial recommendations; evaluation will continue through 2018 testing)
- How will administrative records and third-party data be used to improve matching in Non-ID Processing?
  - Approach: Continue to refine methods in the 2016 and 2017 Census Tests in preparation for the 2018 Census End-to-End Test
  - Decision by: September 2017
Design Issues to be Resolved (2 of 2)

- At what proportion did office resolution confirm the existence and location of nonmatching addresses?
  - Approach: Currently conducting office-based address verification for eligible records from the 2014 and 2015 Census Tests. The Census Bureau will continue to test methods in the 2016 and 2017 Census Tests to determine specific methods to be used in the 2018 Census End-to-End Test
  - Decision by: September 2017
- If the proportion of Non-ID responses increases in the 2020 Census, can the Census Bureau accommodate the corresponding increase in workload for downstream operations such as manual matching and geocoding or address verification (office and field-based)?
  - Approach: Contributing to workload modeling efforts for upcoming tests as well as for the 2020 Census. Initial model available September 2015, but to be revisited each year following the 2016 and 2017 Census Tests, as well as after the 2018 End-to-End Test
  - Decision by: September 2018
- What is the expected scale of the 2020 Census Non-ID workload?
  - Approach: Contributing to workload modeling efforts for upcoming tests as well as for the 2020 Census. Initial model available September 2015, but to be revisited each year following the 2016 and 2017 Census Tests, as well as after the 2018 End-to-End Test
  - Decision by: September 2018

Cost Impacts

The investment in Non-ID Processing will reduce the cost of the 2020 Census as compared with the 2010 Census through:

- Increased self-response rates
- Improved coverage through self-response
Quality Impacts

 Ро́йулине йи́фта соло́ун про́нг фром тради́шуналлиб хард тод кант пулукчулук

 ‿ May increase self response from traditionally hard to count populations

 ‿ May increase overall self-response rates, which can contribute to higher quality for the overall Census

Summary of Census Test Response Rates Since 2010

<table>
<thead>
<tr>
<th>Test</th>
<th>Internet</th>
<th>Phone</th>
<th>Mail</th>
<th>Total</th>
<th>2010 Mail Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012 National Census Test (50 states and D.C.)</td>
<td>36.5</td>
<td>7.4</td>
<td>13.0</td>
<td>56.9</td>
<td>66.5</td>
</tr>
<tr>
<td>2014 Census Test (Montgomery County and Washington D.C.)</td>
<td>50.6</td>
<td>5.2</td>
<td>10.2</td>
<td>65.9</td>
<td>72.8</td>
</tr>
<tr>
<td>2015 Census Test (Maricopa County)</td>
<td>39.7</td>
<td>6.4</td>
<td>8.8</td>
<td>54.9</td>
<td>63.8</td>
</tr>
<tr>
<td>2015 Optimizing Self-Response Test (Savannah)</td>
<td>33.4</td>
<td>5.6</td>
<td>8.4</td>
<td>47.5</td>
<td>56.5</td>
</tr>
</tbody>
</table>
### Decisions Made to Date (1 of 2)

**Internet Self-Response:**

<table>
<thead>
<tr>
<th>Decision</th>
<th>Research to Support the Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invitation letters and mailed materials will encourage people to respond using a unique Census ID, however the Internet option will allow response without a unique ID</td>
<td>2014 and 2015 Census Tests</td>
</tr>
<tr>
<td>The Internet option will be available in multiple languages, including those requiring non-Roman alphabets</td>
<td>2012 National Census Test, 2014 and 2015 Census Tests, 2015 National Content Test</td>
</tr>
</tbody>
</table>

### Decisions Made to Date (2 of 2)

**Contact Strategy:**

<table>
<thead>
<tr>
<th>Decision</th>
<th>Research to Support the Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>An advance letter will not be used</td>
<td>2012 National Census Test</td>
</tr>
<tr>
<td>For most of the country, the first mailing (“Internet push”) will be a letter encouraging response to the Census online</td>
<td>2012 National Census Test, 2014 and 2015 Census Tests, 2015 National Content Test</td>
</tr>
<tr>
<td>For areas with lower Internet usage, the first mailing will be a paper questionnaire with online response still encouraged, sent to about 20 percent of addresses</td>
<td>2015 National Content Test</td>
</tr>
<tr>
<td>Alternative response options to respondents without Internet access will be available (Census Questionnaire Assistance, paper questionnaires, partnerships)</td>
<td>2012 National Census Test, 2014 and 2015 Census Tests, 2015 National Content Test</td>
</tr>
<tr>
<td>Housing units for whom a response is not received will be mailed a paper questionnaire</td>
<td>2012 National Census Test, 2014 and 2015 Census Tests, 2015 National Content Test</td>
</tr>
<tr>
<td>Messaging will be coordinated with the Integrated Partnership and Communications Campaign</td>
<td>2015 Census Test</td>
</tr>
<tr>
<td>A formal “Notify Me” option will not be offered</td>
<td>2014 and 2015 Census Tests</td>
</tr>
</tbody>
</table>
Design Issues to be Resolved (1 of 2)

Internet Self-Response:

- Will the Census Bureau provide a mobile application for Internet Self-Response?
  - Approach: Based on technical research and cost benefit analysis
  - Decision by: January 2016
- In what languages will Internet self-response be available?
  - Approach: Determined in conjunction with Language Services using ACS data and input from advisory committees, taking into consideration Census Enterprise Data Collection and Processing capabilities
  - Decision by: September 2017
- What type of Internet form design will facilitate high quality self-response data collection in group quarters?
  - Approach: Researched in the 2016 and 2017 Census Tests
  - Decision by: October 2017

Design Issues to be Resolved (2 of 2)

Contact Strategy:

- What is the optimal combination of mail contact strategies and how will these be tailored based on demographic and geographic areas?
  - Decision by: October 2016
- How can USPS barcode technology be used to optimize the respondent access to Internet in mail materials?
  - Decision by: October 2017

Other Self-Response:

- What are the response rate projections for all self-response modes?
  - Decision by: October 2017
Cost Impacts

The investment in Internet Self-Response will reduce the cost of the 2020 Census as compared with the 2010 Census through:

- Reduced amount of self-response via paper questionnaire and the infrastructure for paper data capture
- Increased self-response, which will decrease the Nonresponse Followup workload, thereby reducing field costs

In Addition:

- Internet Self-Response is expected to increase the workload for Census Questionnaire Assistance

Quality Impacts

- Increase in overall self-response rates
- Real-time edits to respondent data
- More complete self-response for large households
- Potential increase in self-response from traditionally hard-to-count populations
Key Decisions Made to Date
(1 of 3)

- The NRFU operation will consist of production and quality assurance components
- The NRFU operation will utilize automated tools and systems for:
  - Recruiting, onboarding, and training
  - Time and attendance and payroll
  - Case load management
  - Data collection
  - Cost and progress monitoring
- The NRFU operation will utilize a reengineered field management and staffing structure

Key Decisions Made to Date
(2 of 3)

- Administrative records and third-party data will be used to identify vacant units
- Administrative records and third-party data will be used to enumerate nonresponding housing units, as appropriate
- A contact attempt will be made prior to using administrative records or third-party data for enumeration of occupied units
- A final letter, encouraging self-response, will be mailed to NRFU cases that are removed from the workload based on the administrative records modeling.
- Telephone contact attempts from a central location (i.e., Census Questionnaire Assistance) will not be part of the initial NRFU contact strategy
- All administrative records and third-party data will be used in compliance with data use agreements
Key Decisions Made to Date
(3 of 3)

- The core set of administrative records and third-party data to support the 2020 Census Nonresponse Followup operation include:
  - Internal Revenue Service (IRS) Tax Returns
  - IRS Information Returns
  - Center for Medicare and Medicaid Statistics Medicare Enrollment Database
  - Indian Health Service Patient Database
  - Social Security Number Identification File
  - United States Postal Service Delivery Sequence File
  - United States Postal Service Undeliverable-As-Addressed Information
  - Targus Federal Consumer File
  - 2010 Census data
  - American Community Survey Data

Design Issues to be Resolved
(1 of 9)

- For each of the core administrative record and third-party datasets, what is the allowable use, required timing, and acquisition approach for the data?
  - Approach: Analysis and research of policies
  - Decision by: September 2016

- To what extent can the Census Bureau minimize the error associated with use of administrative records and third-party data for the removal of vacants and occupied housing units?
  - Decision by: September 2016
Design Issues to be Resolved
(2 of 9)

- What is the approach for ingest, initial processing, use, post processing and tabulation associated with administrative records or third-party data for enumeration?
  - Decision by: September 2016
- Will statistical modeling, a rules-based approach, or a combination be used for determination of housing unit status?
  - Decision by: September 2016
- When are proxy responses used in the Nonresponse Followup operation?
  - Approach: Research conducted in the 2014, 2015, and 2016 Census Tests
  - Decision by: September 2016

Design Issues to be Resolved
(3 of 9)

- What is the final field management staffing structure (including staffing ratios) for the Nonresponse Followup operation?
  - Approach: Research conducted in the 2015 and 2016 Census Tests, the 2014 Simulation Experiment; refinements may result from tests conducted in 2017
  - Decision by: September 2016
- What is the final approach for the use of variable contact strategies and stopping rules to balance the goal of reducing the number of attempts against having consistent response rates across demographic groups and geographic area?
  - Decision by: September 2016
Design Issues to be Resolved (4 of 9)

- Should decentralized telephoning (i.e., attempts made by an enumerator) and appointments be incorporated into the Nonresponse Followup contact strategy?
  - Approach: Research conducted as part of the 2016 Census Test
  - Decision by: September 2016
- What is the best approach for coordinating enumeration of nonresponding addresses in multi-units and gated communities?
  - Approach: Research conducted in the 2016 Census Test
  - Decision by: September 2016

Design Issues to be Resolved (5 of 9)

- How will any field verification of unmatched but geocoded Non-ID response be integrated into the Nonresponse Followup operation?
  - Approach: Research conducted in the 2017 Census Test
  - Decision by: September 2017
- Given potential for infusing quality throughout the Nonresponse Followup systems and procedures, what is the operational design for the NRFU quality assurance component?
  - Approach: Research conducted as part of the 2016 and 2017 Census Tests
  - Decision by: September 2017
To what extent and how will vacant addresses and addresses found to not exist, discovered during the in-field Nonresponse Followup, be verified?
- Approach: Research conducted as part of the 2017 Census Test
- Decision by: September 2017

To what extent and how can a last resort data collection be implemented within the controlled environment that exists with the reengineered workload optimization and management capabilities?
- Approach: Research conducted as part of the 2017 Census Test
- Decision by: September 2017

Will fieldworkers enumerate adds found during Nonresponse Followup and if so, how does the Census Bureau incorporate real-time Non-ID into the process?
- Approach: Research conducted as part of the 2017 Census Test
- Decision by: September 2017

What are the business rules for optimizing case assignments?
- Approach: Research conducted as part of the 2015, 2016, and 2017 Census Tests
- Decision by: September 2017
Design Issues to be Resolved (8 of 9)

- Given other aspects of the 2020 Census operational design, what is the operational timing for the 2020 Census Nonresponse Followup operation?
  - Approach: Coordination and integration with other relevant operations
  - Decision by: September 2017
- What are the sources that contribute to the Nonresponse Followup universe (e.g., LUCA Appeals, late DSF adds, nonresponding Update Enumerate addresses, etc.)?
  - Approach: Coordination and integration with other relevant operations
  - Decision by: September 2017
- What are the best enumerator performance indicators?
  - Approach: Review of existing indicators built into the operational control system to determine need for additional performance alerts
  - Decision by: September 2017

Design Issues to be Resolved (9 of 9)

- What is the final set of administrative records and third-party data (including state-level data sources) that are necessary to support the 2020 Census Nonresponse Followup operation?
  - Decision by: September 2018
- For each of the final administrative record and third-party datasets, what is the allowable use, required timing, and acquisition approach for the data?
  - Approach: Analysis and research of policies and due diligence
  - Decision by: September 2018
Cost Impacts

The investment in Nonresponse Followup, which includes administrative records usage and third-party data usage and field reengineering, will reduce the cost of the 2020 Census as compared with the 2010 Census through:

- Reduced field workload by:
  - Using administrative records and third-party data to remove vacant living quarters from the Nonresponse Followup workload
  - Using administrative records and third-party data to reduce the number of contact attempts
  - Using administrative records and third-party data to enumerate nonresponding occupied housing units
  - Removal of late self-responses

- Improved productivity of field staff by:
  - Streamlining staffing structure through the use of automation
  - Automating and optimizing the assignment process
  - Using language information from the planning database to determine work assignments
  - Using administrative records and third-party data to determine the best time of day for contact attempts

- Reduced reinterview workload through a reengineered quality assurance approach
- Reduced number of hours devoted to training through the use of automation

Quality Impacts

(1 of 2)

- Use of an improved contact strategy to increase the likelihood of self-response
- Use of an automated data collection application for conducting Nonresponse Followup
- Use of real-time paradata and editing capabilities to sanitize and quality check data
- Use of Best Time to Contact model in the assignment optimization to increase the likelihood of finding respondents at home
- Use of Notice of Visit to push to self-response
- Use of follow-up postcard mailing to push to self-response in the case of administrative records and third-party data vacant removal and occupied removal
Quality Impacts  
(2 of 2)

- Use of administrative records and third-party data to remove vacant and occupied housing units from the NRFU workload may impact housing unit coverage
- Use of administrative records and third-party data to reduce the number of contact attempts may decrease the quality of responses
- Use of new or revised methodologies will change results in ways not yet determined
- Use of adaptive design protocol and proxy rules may impact the quality of response data in ways not yet determined