

2020 Census Program Management Review

Program Status Reports

Program Management Projects

Systems Engineering and Integration Projects

Geographic Programs-Related Projects

Systems-Related Research Projects

Content and Outreach-Related Projects

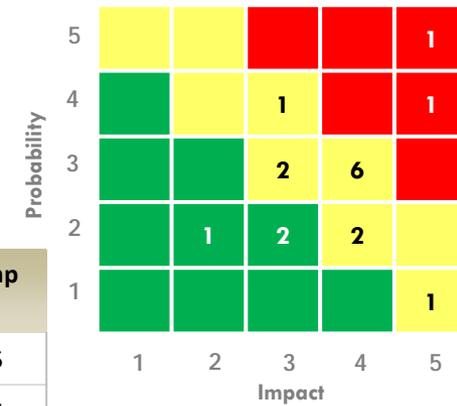
Evaluations and Experiments-Related Projects

September 24, 2013

2020 Census Program Status Report

- The following status slides were compiled from the Monthly Status Reports (MSR) with annotations by the 2020 Program Managers, where additional context would be helpful.
- Summary level information about program risks is provided on the following page and in the MSR. Project level risk information can also be obtained by contacting Charles Fowler III, Maria Birnkammer, or Michael Niosi of the 2020 Research and Planning Office and Decennial Management Division.
- Questions can be sent to 20rpo.program.management@census.gov. We will reply in writing to questions by October 15.

2020 Census Program-Level Life Cycle Risks (2 Red, 12 Yellow, 3 Green)



	WBS	Risk ID	Name	Level	Prior Month	Prob	Imp
1	1.106	LC-006	FY14 Funding	H	-	5	5
2	1.105	LC-020	Admin Records Usage Policy	H	-	4	5
3	1.106	LC-003	Budget Impact to Designs	M	-	4	3
4	1.110	LC-007	Skillset Shortage	M	-	3	4
5	1.106	LC-002	Cost Goal	M	-	3	4
6	2.101	LC-010	Enterprise IT Solutions	M	-	3	4
7	1.104	LC-011	Acquisition Lead Time	M	-	3	4
8	1.108	LC-012	External Support	M	-	3	4
9	1.105	LC-015	Program Life Cycle	M	-	3	4
10	1.105	LC-019	T13 Data Access	M	-	3	3
11	1.107	LC-021	Schedule Impacts	M	-	3	3
12	1.106	LC-001	Cost Model	M	-	2	4
13	1.105	LC-017	IRS Data Access	M	-	2	4
14	1.106	LC-004	ACS Funding	M	-	1	5
15	1.109	LC-008	PM/SE Resistance	L	-	2	3
16	2.101	LC-009	Requirements Engineering	L	-	2	3
17	1.104	LC-018	TAA Compliance	L	-	2	2

2020 Census Program Management Review

Program Management Project Status Reports
Ann Wittenauer, Program Management Area Lead

1.101 – Strategic Documents

1.102 – Program Management (Includes Document Management, Change Management, and Knowledge Management)

1.103 – Governance

1.104 – Sourcing and Acquisition Management

1.105 – Program Level Research and Testing Management

1.106 – Budget Management

1.107 – Schedule Management

1.108 – Communications and Stakeholder Engagement Management

1.109 – Performance Measurement and Management

1.110 – Human Capital Management

1.111 – Risk Management (Includes Issue Management)

September 24, 2013

1.101 – Strategic Documents

Project Description:

- Provides the strategic direction on goals, objectives, strategies, performance, and investment approaches for the 2020 Census Program and its projects.

Recent Accomplishments:

- Completed revisions to FY13 Business Plan to reflect impacts of enacted FY13 Budget
- Drafted a revised FY 14 Business Plan to reflect planned FY 14 program changes and impacts resulting from the enacted FY 13 budget.

Near-term Project Focus Items:

- Finalize FY14 Business Plan to reflect impacts of the enacted FY13 Budget.

1.102 – Program Management

Project Description:

- Establish the framework to efficiently and effectively manage 2020 Census Program through:
 - Use of a full lifecycle development approach
 - Common/corporate practices and processes
 - Budget aligned with schedule and scope, rigorous yet appropriate review processes, stakeholder engagement, and a transparent and inclusive team structure

Recent Accomplishments:

- Closed out the June 2020 Census Program Management Review and planned and coordinated the September 24, 2013 2020 Census PMR.
- Coordinated and completed an investment area 1.0-wide effort to revise, for 2013, all the program management process strategies and plans to reflect needed modifications collected from lessons learned data collection activities from process owners and process users, QA audit findings, and various general text revisions.
- Resumed document management baselining reviews for documents that had been awaiting the completion of the research and testing reassessment work, due to FY 13 budget implications, for review and approval
- Initiated review of active knowledge management recommendations dismissed by team leads
 - Dismissed recommendations include those team leads believed were out of scope for their project or should be closed as completed.
 - Review Board either concurred or specified further action be taken.
- Participated in quality management audit of program documentation and knowledge management processes.

1.102 – Program Management (Cont.)

Near-term Project Focus Items:

- Finalize the 2013 annual updates to the 2020 Program Management and Systems Engineering and Integration documentation in Q1 FY14.
- Initiate a change request to reflect revisions to the testing strategy due to enacted FY13 Budget and anticipated FY14 Budget.

1.103 – Governance

Project Description:

- Determine who is accountable, the most appropriate person to make decisions, and the forums for information exchange to discuss risk, issues, and changes to scope, budget, and schedule.

Recent Accomplishments:

- Identified a lead (for each project) to oversee expansion of project-level governance in the 2020 Program, to include portfolio management for selection, control, and evaluation.
- Convened the 2020 Executive Steering Committee to review the FY14 Budget Re-Assessment impact statements and related communications documents.
- Developed a draft charter for 2020 Census Program portfolio management, that will expand project-level governance for project selection, control, and evaluation and align with related initiatives at the directorate and agency level.

1.103 – Governance (Cont.)

Near-Term Focus Items:

- Convene the Decennial Leadership and 2020 Executive Steering Committee to review the FY 14 testing strategy.
- Conduct the first 2020 portfolio management governance board in October.

1.104 – Sourcing and Acquisition Management

Project Description:

- Identify what each project needs to acquire, resources necessary to satisfy those acquisitions, in-house resources available to satisfy the needs, and, if insufficient, completion of a sourcing assessment that supports a sourcing decision.

Recent Accomplishments:

- Decided to convene Milestone 2 Review in September/October of 2015 and present the preferred concept/design for 2020 Census
 - This decision was made with Department of Commerce (DOC) Office of Acquisition Management and other DOC representatives.
 - Presentation will include operations, systems, and advertising/communications.

1.104 – Sourcing and Acquisition Management (Cont.)

Near-term Project Focus Items:

- Continue a robust market research of potential 2020 capabilities, including:
 - Telephony – Held briefs with Nuance, GDIT and Verizon Enterprise
 - End to end Testing – IBM
 - Big Data – YarcData, and Denodo
 - Mobile – InZero Systems, and Appian
 - Technical Services – Accenture
- Participated in technical exchanges with USDA and FEMA.

1.105 – Program Level Research and Testing

Project Description:

- Plan, direct, and oversee the 2020 Census research and Testing activities for FY12-FY14
- Integrate research recommendations for decision-making on operational and system design solutions

Recent Accomplishments:

- No major activities since June PMR

Near-term Project Focus Items:

- Conduct a program integration workshop to understand and communicate the effects of:
 - Enacted FY13 Budget
 - Potential budgetary uncertainty in the future and its impacts on 2020 research and planning and field testing strategy

1.106 – Budget Management

Project Description:

- Defines the methods used to plan, allocate, and execute the 2020 program and project budgets.

Recent Accomplishments:

- Submitted FY 2015 budget to OMB

Near-term Project Focus Items:

- Continue to address FY 2014 funding scenarios

1.107 – Schedule Management

Project Description:

- Oversee methodologies, management practices, and tools that ensure proper development, dissemination, and usage of program schedules and related information.

Recent Accomplishments:

- Completed the documentation related to risks and implications of migrating to Microsoft Project Server for 2020 Census scheduling.
- Provided schedule concepts training to user community to include:
 - Four Scheduling Concepts Workshops
 - One Scheduling Software Training for new statusers
- Developed preparatory guidance to assist teams for schedule development sessions and integration forums.

1.107 – Schedule Management (Cont.)

Recent Accomplishments (continued):

- Engaged in further dialogue with Associate Directorate for IT and the Office of Risk Management and Program Evaluation regarding findings on risks and implications of migrating from Oracle Primavera to Microsoft Project Server for 2020 Census scheduling.
- Responded to GAO inquiries for their assessment of the Research and Testing program schedule.

Near-term Project Focus Items:

- Finalize recommendation for 2020 Census schedule management tool.
 - The tool will be used to further develop the decennial census lifecycle schedule
 - This is a new undertaking for the 2020 program to have one schedule for all phases of the census
- Lead multiple schedule integration forums to identify 2014 Site Test interdependencies between project areas.
- Continue to mature project schedules through cultivating project scheduling disciplines; developing expertise; and honing scheduling proficiency.

1.108 – Communications and Stakeholder Engagement Management

Project Description:

- Provide timely, accurate, and consistent information that is targeted and relevant to each audience/stakeholder's communications needs.

Recent Accomplishments:

- Baselined all Memoranda of Understanding for the 2020 Census Research and Test Phase between 2020 Research and Planning Office and participating divisions.
- Participated in an entrance meeting in July for Office of Inspector General's Audit of Process to Implement Census Budget Reductions initiative.
- Participated in an exit meeting in July for Office of Inspector General's 2020 Redesign Effort.
- Participated in an exit meeting in September with Government Accountability Office to discuss results of the Master Address File engagement.

1.108 – Communications and Stakeholder Engagement Management (Cont.)

Near-term Project Focus Items:

- Complete an international collaboration paper that will focus on:
 - 2020 Census planning efforts
 - Census Bureau’s collaboration with other countries to share ideas and gain insight/feedback on plans for the 2020 Census

1.109 – Performance Measurement and Management

Project Description:

- Monitor project scope, cost, and schedule performance baselines (individual projects and the program) using business and technical performance measures.

Recent Accomplishments:

- Developed and piloted a performance measurement template for research and testing projects, slated for roll-out in conjunction with regular Governance review of projects.
- Finalized requirements for and began three-phase development of Business Intelligence tool to automate regular reporting functions
- Resumed monthly reporting via management dashboard tool following 2020 reassessment.

1.109 – Performance Measurement and Management (Cont.)

Near-term Project Focus Items:

- Complete development and testing of Business Intelligence tool.
- Roll-out performance measurement template, and assist project teams with implementing related performance management practices.

1.110 – Human Capital Management

Project Description:

- Ensures human resources are tied effectively to all aspects of program/project requirements and inform the planning process for the 2020 Census.

Recent Accomplishments:

- No major activities.

Near Term Project Focus:

- No major activities.

1.111 – Risk Management

Project Description:

- Identify and mitigate potential problems that could negatively affect projects and 2020 Census program.

Recent Accomplishments:

- Reconvened the 2020 Project Risk and Issue Forum as a twice a month meeting following completion of the program reassessment.
- Implemented the enterprise risk management tool introduced by the Office of Risk Management and Program Evaluation.
- Convened the Risk Review Board in July to status and assess program-level risks, address program-level issues, and to begin developing contingency plans for program-level risks.
- Convened the Risk Review Board twice in August and four times in September to status and assess the program-level risks, assess and consider several new IT and non-IT related risks, and further develop contingency plans.
- Formalized the 2020 Project Risks and Issue Forum as a part of the integration of program and project level risks including developing an improved risk escalation process.

1.111 – Risk Management (Cont.)

Near-term Project Focus Items:

- Complete contingency plans for program-level risks.
- Approve new IT-related risks and ratings and develop mitigation plans.
- Expand management focus and integration of project-level risks to include:
 - ✓ Risk Registers -Twice a month status reviews by 2020 Research Teams and Program Managers at the Project Risk and Issues Users Forum
 - ✓ Training -“How to Escalate a Project Risk”

2020 Census Program Management Review

Systems Engineering and Integration (SE&I) Project Status Report Patricia McGuire, SE&I Area Lead

2.101 – Technical Integration

2.102 – Decennial Architecture

2.103 – Requirements Engineering

2.104 – SE&I Management Functions

2.105 – Enterprise IT Infrastructure and Architecture Integration

2.106 – Security and Privacy

September 24, 2013

2.101 – Technical Integration

Project Description:

- Develop standards and plans for design, development, integration, and testing.
- Ensure conformance with enterprise standards.
- Establish processes to ensure data integrity and data quality.
- Integrate SE&I related activities across the 2020 Census Research and Testing (R&T) Phase.

2.101 – Technical Integration

Recent Accomplishments:

- Worked with Information Technology Directorate to ensure enterprise-wide deployment of Hewlett Packard Application Lifecycle Management addresses Decennial business needs.
- Supported SE&I component of program metrics implementation, including the buildout of the Business Intelligence SharePoint tool.
- Baselined 2020 R&T Test and Evaluation Management Plan.
- Introduced templates for the System Engineering Management Plan and Test and Evaluation Management Plan to new systems added to 2014 Site Test.
- Provided input on the enterprise project and Software Development Lifecycle draft templates for the Project Plan, System Engineering Management Plan, and the Master Test Plan.
- Designed and developed a 2014 Site Test Configuration Control database to administer change requests.

2.101 – Technical Integration (Cont.)

Near-term Project Focus Items:

- Ensure field test system development teams understand the technical metrics they must report against.
- Continue assisting SE&I metrics implementation via the Business Intelligence SharePoint application.

2.102 – Decennial Architecture

Project Description:

- Facilitate the development of business/solution architecture.
- Ensure, align, and comply with the enterprise architecture.

Recent Accomplishments:

- Created a draft functional diagram and a draft business process diagram for the proposed 2013 Adaptive Design Test.
- Finalized the business process and functional diagrams for 2014 Site Test.

Risk Highlights:

- Risk information available via the MSR or by request to Charles Fowler III

Near-term Project Focus Items:

- Baseline the 2014 Site Test business process and functional diagrams.

2.103 – Requirements Engineering

Project Description:

- Define the processes and tools related to eliciting and managing requirements for the 2020 Census R&T phase and beyond.

Recent Accomplishments:

- Baselined 2020 Census mission-level business requirements.
- Submitted project charter for 2020 Census project-level business, capability, and solution requirements for baselining.
- Completed the migration from Hewlett Packard Quality Center to the enterprise instance of Hewlett Packard Application Lifecycle Management.
- Reviewed and validated with R&T teams on project-level and capability requirements for 2014 Site Test.

2.103 – Requirements Engineering (Cont.)

Near-term Project Focus Items:

- Validate 2020 function maps with stakeholders for completeness and accuracy.
- Baseline 2014 Site Test specific project level business requirements, capability-level requirements, and solution-level requirements.

2.104 – Management Functions

Project Description:

- Ensure technical management standards and SE&I functions are established and integrated to support program and project needs throughout the 2020 Census lifecycle.

Recent Accomplishments:

- Completed internal quality management audit of Test and Evaluation Management Plan process and began review of the Schedule Management Plan.
- Completed internal quality management audits of the System Engineering and Management Plan process and the Schedule Management Plan.

Near-term Project Focus Items:

- No major activities.

2.105 – Enterprise IT Infrastructure and Architecture Integration

Project Description:

- Facilitate, coordinate, and administer the provision of IT infrastructure and architecture services between the Information Technology Directorate, other IT providers, and the 2020 Census program.

Recent Accomplishments:

- No major activities since June PMR.

Near-term Project Focus Items:

- Present a proposal to work with National Institute of Standards and Technology on Census Bureau involvement in pilot studies related to the National Strategy for Trusted Identities in Cyberspace.

2.106 – Security and Privacy

Project Description:

- Align with Census Bureau's Risk Management Framework to maintain acceptable Security and Privacy controls for all IT systems while minimizing the burden on research and testing teams.
- Serve as conduit between IT Directorate, Office of Information Security, 2020 Research and Planning Office, and 2020 teams to develop Federal Information Security Management Act compliant Assessment and Authorization packages for 2020 R&T Phase systems.

Recent Accomplishments:

- Validated the Authorization and Accreditation status.
- Updated existing interconnection documents and interconnection security agreements.
- Created new ICD(s) and ISA(s), where needed, for systems participating in the October 2013 R&T test.

2.106 – Security and Privacy (Cont.)

Near-term Project Focus Items:

- Finalize charter for the privacy process area and obtain program management approval.
- Conduct presentations to operations area teams on the role of the security and privacy group.

2020 Census Program Management Review

Geographic Programs-Related Projects Maryann Chapin, Program Manager

3.101 – Master Address File (MAF) Error Model

3.102 – Independent MAF Quality Assessment

3.103 – Local Update of Census Address (LUCA) Program Improvement

4.107 – Non – ID Processing

8.101 – Improving Quality Control

8.108 – Field Staff Training

September 24, 2013

3.101 – Master Address File (MAF) Error Model

Project Description:

- Create a model that results in predictions of where MAF coverage error occurs and where it does not. This model will incorporate data that have been found to be correlated with coverage.

Recent Accomplishments:

- Presented and discussed MAF Error Model methodology with MAF Error Model Methodology Review Panel.
- Refined the model and received feedback from the joint 2020 MAF Analysis sub-team and the Targeted Address Canvassing Modeling team.

Near-term Project Focus Items:

- Finalize the report documenting the analysis conducted on data collected via field listing operations.

3.102 – Independent MAF Quality Assessment

Project Description:

- Create measures of coverage of the MAF that work in concert with related measures resulting from the Geographic Support System Initiative to create a picture of the quality of the MAF.

Recent Accomplishments:

- Worked on a joint design with Targeted Address Canvassing team for MAF Error Validation Test.
- Presented design options to Census Bureau methodologists for preliminary approval.

Near-term Project Focus Items:

- Finalize design and sample size for MAF Error Model Validation Test, including blocks where the test will occur.
 - The design will stratify by major components of coverage changes and allow for validation of the model's prediction of counts of added and deleted records.

3.103 – Local Update of Census Address (LUCA) Program Improvement

Project Description:

- Select a new LUCA operational design by September of 2014 based on recommendations resulting from research and feedback on those recommendations from tribal, state, and local governments.
- Incorporate improvements to the 2020 LUCA Program that are cost-effective and yield high data quality given the following:
 - Plans to implement intercensal address partnership activities as part of the Geographic Support Systems Initiative
 - Potential plans for a targeted address canvassing operation
 - Additional analysis from 2010
 - Input from local governments through focus groups on potential models for 2020 LUCA

3.103 – Local Update of Census Address (LUCA) Program Improvement (Cont.)

Recent Accomplishments:

- Received preliminary analysis that shows a link between the percent of records provided by a LUCA participant in relation to government size and their enumeration rate.
- Began sample review of 2010 LUCA addresses to determine feasibility of in-house validation for LUCA submissions.
- Completed data delivery for LUCA in-house validation analysis.
- Completed high-level review of five counties in order to develop a review methodology to perform a detailed review of all LUCA addresses submitted in sample area.

3.103 – Local Update of Census Address (LUCA) Program Improvement (Cont.)

Near-term Project Focus Items:

- Begin detailed review of LUCA addresses for five counties in two states to determine other approaches that may eliminate or greatly reduce costs associated with validating LUCA submissions.

4.107 – Non-ID Processing

Project Description:

- Determine options for enhancing automated address matching and geocoding processes for responses lacking a Census identification code.
- Establish options for operational cost savings by decreasing workload for Clerical Non-ID Processing and any associated field verification work.

Recent Accomplishments:

- Briefed 2020 Team Leaders on preliminary analysis of results for Non ID workload from 2013 National Census Contact Test.
- Briefed National Academy of Sciences Committee on National Statistics on research topics for 2020 Non-ID project and solicited input on methodology.
- Initiated usability testing for several versions of address collection screens, in collaboration with Optimizing Self Response team.
- Completed initial draft report of the analysis of Non-ID processing results from 2013 National Census Contact Test.

4.107 – Non-ID Processing (Cont.)

Near-term Project Focus Items:

- Complete address enhancement via administrative records data matching the Non-ID workload from the 2010 Census.
- Complete the report that documents the usability testing.
 - Testing focuses on address collection and respondent self-geocoding.
 - Testing includes three different designs of web-based interfaces to collect address information from respondents before completing their census questionnaire.
 - Results will influence the requirements for internet questionnaire for Non-ID responses during upcoming field testing.

8.101 – Improving Quality Control

Project Description:

- Research ways to improve Quality Control for field data collection, by:
 - Using administrative records to focus field work on suspicious cases and/or reduce field work for both listing and enumeration operations.
 - Using GPS data to spot potential falsification
 - Detecting falsification or deviations from procedures at the LCO level
 - Predicting falsification at the interviewer level, and
 - Automating Observation Checklists

8.101 – Improving Quality Control (Cont.)

Recent Accomplishments:

- Began research on quality control improvements for housing unit listing operations and enumeration operations.
- Began working with Technologies Management Office to develop data output requirements for Listing and Mapping Instrument.
- Issued a memo describing findings from Tests 9-12.

Near-term Project Focus Items:

- Develop and/or refine quality control requirements for the field data collection instruments.
- Issue report documenting summary findings from focus group/brainstorming sessions held to discuss methods to quickly detect potential LCO-wide falsification and deviations from procedures during future census operations.

8.108 – Field Staff Training

Project Description:

- Improve the efficiency of training field staff to better utilize advanced training techniques and obtain better data at lower costs.

Recent Accomplishments:

- Created and refined an audience analysis document that summarizes the different types of decennial positions and associated duties, which will be paired with recommended automated training products for each position.
- Attended presentation by Census Learning Center (CLC) on various capabilities, tools, and options for creating an automated training environment within the existing CLC.

8.108 – Field Staff Training (Cont.)

Near-term Project Focus Items:

- Obtain access to the full list of administrative records data.
- Finalize the audience analysis document to match training needs of various decennial positions with different types of automated training products.
- Document the main types of automated training tools and their basic capabilities/uses.

2020 Census Program Management Review

Systems-Related Research Projects

Andrea Brinson, Program Manager

4.101 – Automating Field Activities

4.102 – Reducing and Improving Person Follow-up Operations

4.104 – Workload Management Systems and Adaptive Design

8.109 – Logistics Management/Field Infrastructure Study

8.110 – Virtual Office Computing Environment and Field Office Test Bed

September 24, 2013

4.101 – Automating Field Activities

Project Description:

- Investigate how Census Bureau can modernize and increase the efficiency and utility of field operational infrastructure.
- Attempt to identify, develop, test, and refine options that:
 - Make field operations more efficient through enhanced use of technology
 - Improve data quality during field operations through enhanced use of technology
- Use the Agile software development methodology.

4.101 – Automating Field Activities (Cont.)

Recent Accomplishments:

- Developed draft business processes to accommodate all situations an enumerator could face when attempting an interview
- Developed the functionality to be able to remove a case from the field enumerator's instrument when a cases is completed
- Designed and developed a case management menu within the field enumeration application
- Completed questionnaire screens required by Tailoring Contact Strategies Sub-team that enable telephone contact attempts
- Completed development for capturing timestamps on all questionnaire screens
- Completed development of the geospatial tools within the operational (field) control system to show a visual indication of casework and the duty station of the field staff
- Completed key developmental work for 2014 Site Test
- Completed development of a Message Engine for the Listing and Mapping Application

4.101 – Automating Field Activities (Cont.)

Near-term Project Focus Items:

- Participate in Joint Application Development sessions to collect and modify solution requirements.
- Complete all listing and mapping application location and mailing address validations.
- Complete documentation of communication specifications and processes between the mobile enumerator system and the operations control system.
- Complete the incorporation of operations control system changes for Adaptive Design.
- Complete development of the process for loading the non-response follow up universe for 2014 Site Test into the operation control system.
- Review literature and meet with U.S. Postal Service to discuss their solution for Route Planning for their parcel delivery services to determine if we can be applied to routing field enumerators.

4.102 – Reducing and Improving Person Follow-Up Operations

Project Description:

- Research and test ways of reducing the cost of in-person follow-up on cases sent to the field by optimizing the number of visits, determining whether to use telephone or in-person contact, or tailoring operations to populations with special geographic and demographic characteristics.
- Review the field operations conducted during Census 2010 and develop recommendations for ways to streamline overall census field workflow.

4.102 – Reducing and Improving Person Follow-Up Operations (Cont.)

Recent Accomplishments:

- Conducted data analysis on operational alternatives for 2020, focusing on streamlining operational timelines, reducing time in the field, and reducing operational cost.
- Worked on determining what percentage of housing units will have valid phone numbers available to test nonresponse followup telephone contact strategy for 2014 Site Test.
- Met with Operations Control System developers, enumeration application developers, and adaptive design developers to confirm data layouts and definitions for 2014 Site Test.
- Completed draft summary of census field procedures used in other countries and developed a plan for evaluating the use of these procedures for the 2020 Census where applicable.
- Received Research and Methodology Directorate's task #1 of the report on recommendations for a new payroll methodology to be used for field staff for 2020 Census.

4.102 – Reducing and Improving Person Follow-Up Operations (Cont.)

Near-term Project Focus Items:

- Work with Operations Control System and enumeration application developers to finalize the data output for 2014 Site Test.
- Develop operation procedures for the enumerator manual.
- Document the justifications, assumptions, risk, and issues for consolidating or eliminating some field operations.
- Receive draft report for task #2 from Research and Methodology Directorate on recommendations for a new payroll methodology to be used for field staff.

4.104 – Workload Management

Project Description:

- Coordinate systems support for 2020 Research and Testing in order to enable research agenda of other teams through the reuse of current systems to support the tests.
- Coordinate support for all modes of data collection including paper, internet, telephone (inbound and outbound) as well as field data from the enumeration device.
- Identify and monitor testing and refine options that integrate and potentially consolidate response processing, universe control, cost and progress reporting, re-interview, and data capture as well as the operations control system for the modes into one integrated management architecture.
- Research alternative architectures to optimize efficiency, consistency, tracking and reporting of workload .
- Integrate with corporate Adaptive Design efforts to assist with development of adaptive design capabilities and to explore and define its application to 2020 operations.

4.104 – Workload Management (Cont.)

Recent Accomplishments:

- Held a scoping session for the 2020 Telephone solution for Telephone Questionnaire Assistance, Telephone assisted questionnaire response and outbound calling, and Nonresponse followup by telephone enumeration.
- Reviewed the proposed 2020 notional system architecture document with IT Directorate.
- Provided support to 2014 Site Test Integrated Product Team and the Optimizing Self Response Team in designing and developing the business process model.
- Workload Management team (Systems Reuse sub-team):
 - Provided/managed the delivery of one page system overviews for 2014 Site Test
 - Met with all current system providers to discuss the test status and requirements management for the systems providing support for 2014 Site Test
 - Reviewed additional data requirements provided by Center for Adaptive Design from 2014 Site Test
 - Conducted requirements sessions with 2020 Research teams to define capability requirements for 2014 Site Test

4.104 – Workload Management (Cont.)

Near-term Project Focus Items:

- Validate all 2014 Site Test capability and solutions requirements with all stakeholder Research and Testing teams and systems providers.
- Hold sessions with systems solution providers to evaluate new scope for 2014 Site Test and determine which systems will own the newly-scoped requirements.

8.109 – Logistics Management/Field Infrastructure

Project Description:

- Conduct analysis and research in order to develop design alternatives for a field office and staffing structure and associated logistics systems to support field operations for 2020 Census.*
- Project objectives:
 - Reduce the total cost and increase the efficiency of field office and staffing structure for the decennial census
 - Reduce the total cost and increase the efficiency of the logistics management and support solutions used to track, assemble, and deploy materials needed to support field operations

*For the purpose of this project, field structure is defined as office (including home office), warehouse, and other physical space used to support field operations and the regional and local organizational/staffing structure used to conduct field operations work.

8.109 – Logistics Management/Field Infrastructure (Cont.)

Recent Accomplishments:

- Gathered information on office structure, staffing structure, and office functions from 2010; then developed workflows for functional analysis of activities that occurred in Regional Census Centers and Local Census Offices.
- Met with Lifecycle Budget and Planning team to conduct analysis of data surrounding field supervisory structure from 2010.
- Refocused Logistics study plan to include looking at logistics distribution in other organizations, along with academic research and case studies to find distribution models similar to those needed by Census Bureau to support 2020 Census.
- Reviewed detailed information provided by other countries about their census field office and staffing structures.
- Met with a quality assurance subject matter expert to determine and discuss ways to measure quality impacts on changes in field staffing structure.
- Initiated development of 2020 alternative design scenarios for field supervisory and Local Census Office infrastructure.

8.109 – Logistics Management/Field Infrastructure (Cont.)

Near-term Project Focus Items:

- Present draft study plans to 2020 research and planning management.
- Conduct functional analysis workshops with subject matter experts related to field logistics.
- Conduct literature review on work-at-home subject matter.

8.110 – Virtual Office Computing Environment and Field Office Test Bed

Project Description:

- Identify, test, and refine options that:
 - Develop VOCE to support 2020 Census R&T Program
 - Deploy VOCE to a physical field office test bed to conduct field tests for 2020 Census R&T Program
 - Identify and test options for providing other IT infrastructure systems for field offices in support of 2020 Census R&T Program
- Provide office computing for users anywhere using a broadband Internet connection to perform Local or Regional Census Office IT.
- Use the existing and scalable Enterprise Virtual Desktop Infrastructure (VDI) solution.
- Deploy standard office hardware (PCs, printers, etc.) with access to VOCE for testing purposes.

8.110 – Virtual Office Computing Environment and Field Office Test Bed (Cont.)

Recent Accomplishments:

- Conducted web research on various mobile units in use by other government agencies for solutions that could best suit our needs.
- Developed a change request to update the scope of Virtual Local Census Office project due to reassessment.
- Developed risk mitigation and contingency plans for Virtual Local Census Office project.
- Updated Virtual Local Census Office project schedule to remove activities no longer in scope.
- Reviewed/updated Virtual Local Census Office IT Infrastructure high-level requirements.
- Researched options and costs between the application delivery method and the desk delivery method for VDI to be used in Local Census Offices during followup operations.
- Supported 2014 Site Test capability requirements work.

8.110 – Virtual Office Computing Environment and Field Office Test Bed (Cont.)

Near-term Project Focus Items:

- Develop Virtual Local Census Office IT Infrastructure solution-level requirements.

2020 Census Program Management Review

Content and Outreach Related Projects Adrienne Oneto, Program Manager

8.106 – Contact Frame

4.103 – Optimizing Self Response

8.104 – Privacy and Confidentiality Study

September 24, 2013

8.106 – Contact Frame

Project Description:

- Assess non-address methods of contact for persons and housing units.
- Identify, acquire, and validate alternate contact data and assemble into alternate contract frame.
- Utilize alternate contract frame for field tests and analyze data to assess the quality of the frame information.

Recent Accomplishments:

- Presented results of 2013 National Census Contact Test (NCCT) and American Community Survey (ACS) 2010-2011 webCATI phone contact data to ACS Research Group.
- Obtained additional data to continue research from two commercial vendors in order to:
 - Provide better data for upcoming field tests
 - Better understand the volatility of this information over time
- Obtained additional phone numbers from two vendors used by the ACS for use in the 2013 Census Test.
- Created a service to determine whether a phone number in the database is a cell or landline
 - This allows the use of autodialers with landlines to establish whether it is in service or to leave messages, and identify cell phone numbers to potentially send text messages to.

8.106 – Contact Frame (Cont.)

Near-term Project Focus Items:

- Work with designers of 2014 Site Test to incorporate use of phones and emails in contact strategy for self response and nonresponse.
- Participate in research with ACS to determine relative quality and quantity of contact frame compared to the two vendors from which ACS gets monthly phone number data using the August 2013 ACS sample.
- Continue analysis and report writing of 2013 NCCT and the ACS 2010-2012 webCATI phone contact data.
- Investigate ways to predict which of the multiple phone numbers associated with an address is most likely to be accurate using regressions and/or a rules based algorithm.
- Prepare to conduct an internal test of census employees – dependent interview, probing about phone/emails we have linked to their address.

4.103 – Optimizing Self Response

Project Description:

- Examine initial contact and self-response methods focusing on new modes and how response propensities differ by demographic and geographic groups.

Recent Accomplishments:

- Discussed authentication of e-mails and paper mail with e-postmarks with U.S. Postal Service and National Institute of Standards and Technology.
 - This is part of a Federal agency initiative for increasing levels of security and authentication for Internet data collection.
- Conveyed the scope of requirements for 2020 Telephone Questionnaire Assistance based on five prongs to Optimize Self Response.
 - This includes respondents making inbound telephone calls for information or to complete their questionnaire in all phases of 2020 outreach and operations with/without user ID.
- Attended NSTIC Pilot presentation by ID DataWeb to discuss scope of the pilot and its fit with Census Bureau's vision and design for pre-registration portal.

4.103 – Optimizing Self Response (Cont.)

Near-term Project Focus Items:

- Develop requirements for Preregistration Portal and eCount systems.
 - This allows the possibility of encouraging individuals to pre-register and indicate how they prefer to be contacted/enumerated and a system to push e-mails to individuals to respond.
- Continue the roll-out of the ID DataWeb pilot and solution for Open ID for the Pre-registration portal (planned for 2014 Site Test).

8.104 – Privacy and Confidentiality Study

Project Description:

- Understanding how new contact and response modes and the use of administrative records will impact the public's perception of the Census Bureau's commitment and ability to protect privacy and confidentiality.

Recent Accomplishments:

- Presented most recent findings from Gallup study to Interagency Council on Statistical Policy.
- Preparing full OMB package for generic clearance of small-scale split-ballot iterative testing.
- Gallup study
 - Developed and began pretesting questions about Bring Your Own Device
 - Began fielding another set of alternative contact questions
 - Completed collection of third major series of administrative records questions

8.104 – Privacy and Confidentiality Study (Cont.)

Near-term Project Focus Items:

- Begin social media research on public discussions now occurring about the Census Bureau and topics related to privacy, confidentiality, and administrative records usage.
- Field final set of questions in current contract of Gallup study.

2020 Census Program Management Review

Evaluations and Experiments-Related Projects

Kevin Deardorff, Program Manager

5.101 – Coding, Editing, and Imputation Study

8.102 – Administrative Records Fitness-For-Use

8.105 – Matching Process Improvement

8.107 – Administrative Records Modeling

September 24, 2013

5.101 – Coding, Editing, and Imputation Study

Project Description:

- Develop improved methods for missing data in the census.
- Improve methods for:
 - Count imputation – assign status of address (occupied, vacant, or delete) and, if necessary, number of people in house
 - Characteristic imputation (race, Hispanic origin, age, sex, relationship, tenure)
 - Editing characteristic data
 - Coding for write-ins of race and Hispanic origin
- Consider approaches that:
 - Include the use of available administrative records
 - Enhance current procedures without using administrative records

5.101 – Coding, Editing, and Imputation Study (Cont.)

Recent Accomplishments:

- Produced drafts of metrics for use in evaluating alternative procedures for coding and characteristic imputation.
- Presented the methodology and examples for statistical raking in several dimensions, an approach under consideration for characteristic imputation and editing.
- Received general information about several administrative record source files and detailed information on a specific Federal file.
- Decided to base the evaluation metrics primarily on Census 2010 data.
 - A "truth deck" will be constructed by appropriately blanking data from 2010 Census file.
 - Values imputed under competing procedures can be compared to the "truth" as reported in the census.
- Began efforts to shrink the list of key variables, weighing importance of many of them against the time it will take to analyze all.

5.101 – Coding, Editing, and Imputation Study (Cont.)

Near-term Project Focus Items:

- Complete the review and prepare documentation for appropriate statistical metrics to evaluate accuracy of administrative records, as they apply to count and characteristic imputation.
- Revise 2020 Research and Testing Study Plan for coding, editing, and imputation to better specify metrics to assess all research objectives.

8.102 – Administrative Records Fitness-For-Use

Project Description:

- Investigate administrative records (AR) sources to enhance data collection and processing methods for nonresponse followup (NRFU).
 - Explore agreement and disagreement in content across sources to develop approaches to resolution (such as modeling or business rules)
 - Produce recommendations for which AR sources are fit for operational uses (such as count imputation, characteristic imputation, and modeling for NRFU)
- Project objectives:
 - Describe NRFU addresses with AR available and those lacking AR
 - Identify AR data that could support count and characteristic imputation
 - Identify and address conflicting information across AR sources
 - Assess quality of AR by source for intended uses (specifically NRFU)
 - Assess best time of year to acquire data relevant to Census Day and NRFU

8.102 – Administrative Records Fitness-For-Use (Cont.)

Recent Accomplishments:

- Processed and conducted analysis of multiple administrative records which have been recently received to facilitate linkages across datasets, that include:
 - National Change of Address (NCOA) monthly files
 - Medicaid Statistical Information System (MSIS) State Summary Datasets
 - Selective Service files for 2013
- Created multiple reference files for use in person and address matching systems (including the person ID validation system).

Near-term Project Focus Items:

- No major activities.

8.105 – Matching Process Improvement

Project Description:

- Research and evaluate methodology, techniques, and technology to improve matching of addresses and persons for 2020 Census
 - Research and assess matching and unduplication techniques (including rule-based and probabilistic) to identify optimal methods by application
 - Determine how to select cutoffs for probabilistic matching to optimize each application (i.e., how much agreement is needed between records to determine that they are actually a match)
 - Research error measurement in matching techniques, including determination of error and assumptions about causes
 - Research and evaluate software to perform standardization and other processing to prepare data for matching
 - Identify what data are needed to improve the quality of matching

8.105 – Matching Process Improvement (Cont.)

Recent Accomplishments:

- Presented record linkage error measurement research at the 2013 Joint Statistical Meetings.
- Presented initial research on a Bayesian approach for decennial person matching applications at the 2013 Joint Statistical Meetings.
- Issued an initial *Address Standardization Evaluation* report documenting comparisons of six standardizer applications.
- Obtained approval, through the Administrative Records Tracking System, to use a few commercial administrative record files for address standardization and address matching research.
- Completed specification to Center for Administrative Records Research and Application Center for processing of 2010 Census Coverage Measurement data through their address and person matching systems.
- Began reviewing data to examine ways to improve administrative record linkage techniques for potential 2020 decennial processing applications.

8.105 – Matching Process Improvement (Cont.)

Near-term Project Focus Items:

- Conduct further evaluations of six address standardization applications using a variety of address patterns from commercial administrative records.
- Complete name standardization research (first name variant and invalid first/last name).
- Complete processing of 2010 Census data through existing error measurement software.
- Complete specifications to Geography Division and Decennial Statistical Studies Division to process 2010 Census Coverage Measurement data through their address matching systems.

8.107- Administrative Records Modeling

Project Description:

- Consolidate and conduct research efforts for examining optimal scenarios of curtailing contacts during NRFU field operations with the supplemental use of administrative record sources.
- Project objectives:
 - Simulate how administrative sources can be used to supplement curtailed NRFU data collection
 - Administrative records usage based on either a rule-based algorithm, model, or both
 - Count and characteristic imputation approaches that can possibly include the use of administrative records sources
 - Assess the coverage and cost of simulated scenarios
 - Compare resulting scenarios to identify possible combinations of NRFU visits and administrative records use to pursue

8.107- Administrative Records Modeling (Cont.)

Recent Accomplishments:

- Presented initial and detailed research findings at the National Academy of Sciences' Panel to Review the 2010 Census meeting
- Discussed possible usages of administrative records in characteristic imputation research with Center for Administrative Records Research and Applications staff
- Began integrating initial research findings into designs of 2013 Adaptive Design Test and 2014 Site Test

Near-term Project Focus Items:

- Document initial Research finding of using administrative records during NRFU operation.
- Estimate rough order of magnitude cost comparisons among strategies to reduce the number of nonresponse field contacts.
- Evaluate approaches for characteristic imputation methods.