

2020 Census Program Management Review

Decennial Census Programs

U.S. Census Bureau

October 27, 2017

Welcome

Albert E. Fontenot Jr.

Associate Director, Decennial Census Programs

Welcome

Housekeeping Items

- Meeting is being broadcast via a publicly available web broadcast
 - Consider all microphones live at all times when having sidebar conversations
- For questions, please remember to speak directly into the microphones for the benefit of other participants, including those watching via any external broadcast
 - 2020.census.pmr@census.gov
- There are legal requirements we must follow when talking with contractors or potential contractors
 - Information from Michael Palensky, Chief, Acquisition Division
- Location of restrooms – next to elevators in green (just outside the auditorium)
- Emergency exits

Programmatic and Staffing Changes

Moving the 2020 Census from Planning to Implementation

Ron Jarmin

Performing the Non-Exclusive Functions and Duties of the Director, U.S Census Bureau

Welcome

Today's Agenda

- Welcome and High-Level Program Updates
- Release of the 2020 Census Operational Plan
- Update on Testing
 - 2018 End-to-End Census Test
- 2020 Census Operations
 - Update on Area Census Office Locations
 - Update on the Redistricting Data Program
 - Integrated Partnership and Communications Plan
- 2020 Census Systems Readiness
- Wrap-up

Program Updates

FY 2018 Funding Update

2020 Census (Dollars in Millions)								
	FY12	FY13	FY14	FY15	FY16	FY17	FY18* Original Request	FY18** Adjusted Request
Congressional Request	\$67.0	\$131.4	\$244.8	\$443.2	\$662.5	\$778.3	\$800.2	\$987.0
Enacted Budget	\$66.6	\$94.0	\$232.7	\$344.6	\$625.3	\$754.4		

* Currently operating under Continuing Resolution through December 8, 2017 (PL 115-56). Amount references the FY 2018 President's Budget Request.

** Adjustment to FY 2018 President's Budget Request, as referenced publicly in the testimony by Secretary of Commerce to the House Committee on Oversight and Government Affairs on October 13.

Program Updates

Lifecycle Cost Estimates in Then Year Dollars (TY\$B)

Source	Date	Estimate*	Reference
2010 Decennial Census	Actual Lifecycle	\$12.1B	U.S. Census Bureau
Census Bureau Program Office Estimate	October 1, 2015	\$12.3B	2020 Census Operational Plan v1.0
Census Bureau Program Office Estimate	October 1, 2015	\$17.5B	Cost of Repeating 2010 Census Design in 2020
Department of Commerce Lifecycle Cost Estimate	September 6, 2017	\$15.6B	U.S. Department of Commerce
Census Bureau Program Office Estimate	October 1, 2017	\$15.6B	U.S. Census Bureau

*All figures in the table are comparable as all are inflated to the current 2020 Census time frame (FY 2012-2023).

Program Update

Department of Commerce 2020 Census Program Review

Path to Revised Estimate

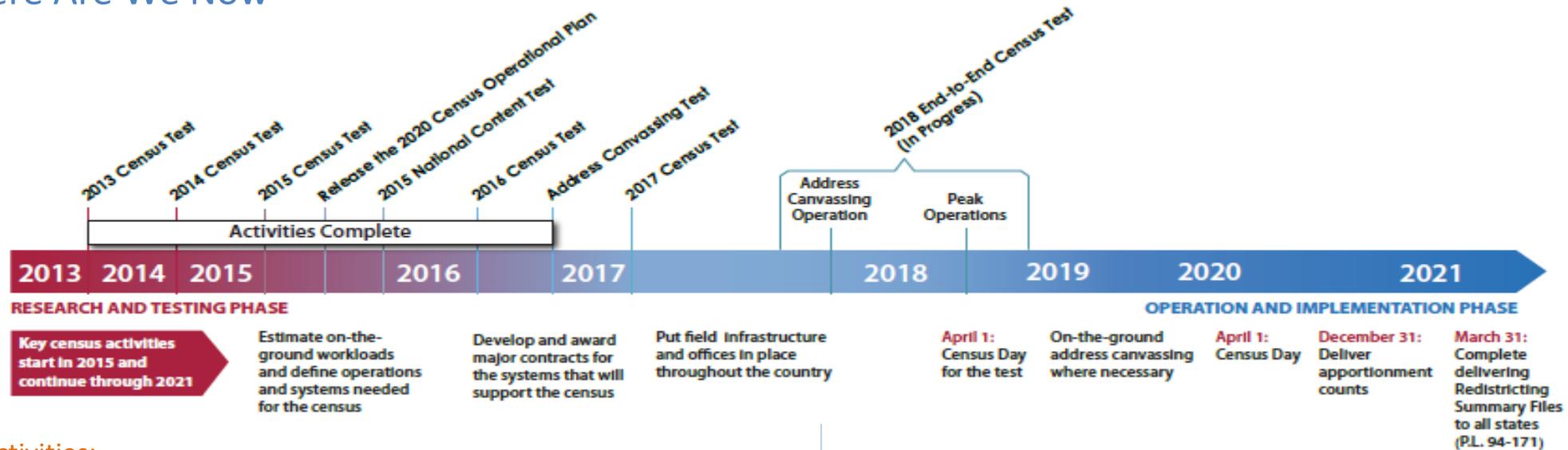
- Secretary Ross is committed to executing a complete and accurate 2020 Census.
- Since the spring, the Secretary's task force has conducted a full evaluation of the 2020 Census Program and costs, including producing an independent cost estimate.
- Independent cost estimate informed the finalization of an updated, reliable program office estimate.
- Task force made recommendations to be implemented by the Census Bureau.

Next Steps

- The details of the lifecycle cost estimate for the 2020 Census Program will be released first quarter FY18.
- Corrective actions are being implemented to address independent recommendations for best practices in program, contract, schedule, and cost management.
- Ongoing work with the Secretary's team ensures the program office estimate continues to be refined, regularly updated, and effectively utilized as a management tool
- The Census Bureau will manage the 2020 Census Program to the assumptions contained within the Lifecycle Cost Estimate, leaving contingency funding to be managed at the Secretarial level if those assumptions do not hold.

Program Updates

Where Are We Now



Key Activities:

- **Making Key Decisions:** Continuously make timely decisions based on research and evidence
- **Awarding Key Contracts:** Continue to award key contracts for the 2020 Census
- **Planning and Execution of the 2018 End-to-End Census Test:** Focuses on the overall integration of systems and operational procedures for 24 of the 35 operations of the 2020 Census
- **Area Census Office Delineation:** Identified number of and initial locations for early offices and initiated leasing and logistics processes. GSA initiated action on 40 early ACOs on July 13, 2017.

- **Delivery of Questions to Congress:** Title 13 requires the Census Bureau deliver to questions by March 31, 2018
- **Operational Readiness**
 - 2020 Census Operational Plan 3.0 (release date: October 2017)
 - Local Update of Census Addresses (LUCA) (began January 2017)
 - Field Infrastructure: Space, Decennial Logistics Management, Training, Recruiting, and Onboarding (planning underway)

Program Updates

Major Contracts*



Technical Integrator
Vendor: TREX (17 subcontractors)

Ensures 2020 Census System of Systems (SoS) integrates, performs, scales, is secure, and meets business objectives
Provides 2020 Census Cloud and On Premise Infrastructure
Provides systems integration and testing

CEDCaP - ECaSE
Vendor: ImmixGroup/Pega (subcontractor)

ECaSE development services support new data collection systems. These systems support the operational control systems for Address Canvassing and Nonresponse Followup, and the data collections systems for Nonresponse Followup and Self-Response which includes internet, telephone, and paper.

Census Questionnaire Assistance (CQA)
Vendor: GDIT (10 subcontractors)

Provides call center capability for self response, assist respondents with responding to and completing census questionnaire, and provides Interactive Voice Response

C-SHaRPS – Recruiting & Selection
Vendor: CSRA (5 subcontractors)

Provides recruiting and selection COTS for up to 400K Schedule A Field Staff

Decennial Device as a Service (dDaaS)
Vendor: CDW-G (8 subcontractors)

Provides Mobile Devices for Field Data Collection Operations

Software Integration, Cellular, Logistics, Shipping, Asset Management, Break/Fix and Disposition

Field IT Deployment (FITd)
Vendor: TBD

Provides the IT infrastructure for 2020 Census field sites

IT & Telecommunications Hardware, Image Integration, Logistics, Shipping, Installation, Break/Fix and Disposition

Regional Census Centers
Area Census Offices
Island Areas' Censuses Offices
Paper Data Capture Centers

Integrated Communications
Vendor: Y&R (19 Subcontractors)

Supports the advertising and partnership program

C-SHaRPS Fingerprinting
Vendor: TBD

Provides fingerprinting services for field staff

2020 Census Print and Mail
Vendor: TBD

Provide the majority of printing and mailing services for the 2020 Census

Decennial Service Center
Vendor: TBD

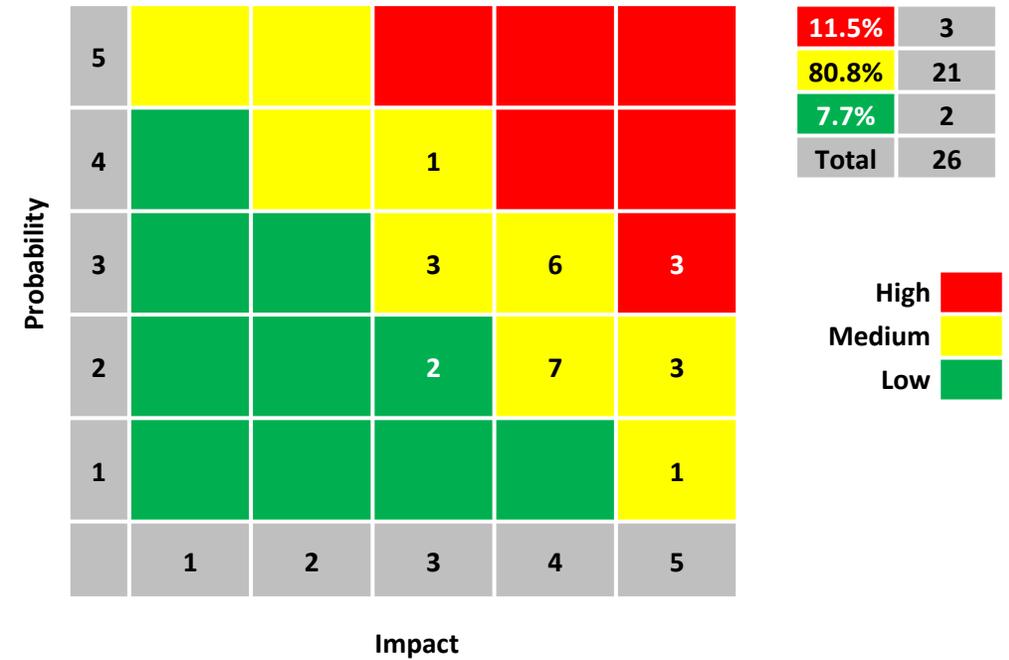
Provide help desk services for 2020 Census Operations

*This slide represents the status of major contracts for the 2020 Census and is not an exhaustive list of contracts or contract opportunities

Program Updates

Risks

The selected risks that follow represent the major concerns that could affect the design or the successful implementation of the 2020 Census.



- Administrative Records And Third-Party Data - External Factors ■ (Probability 3, Impact 5)
- Public Perception Of Ability To Safeguard Response Data ■ (Probability 3, Impact 5)
- Cybersecurity Incidents ■ (Probability 3, Impact 5)
- Enterprise IT Solutions ■ (Probability 3, Impact 4)
- Late Operational Design Changes ■ (Probability 3, Impact 4)
- Insufficient Levels Of Staff With Subject Matter Skillsets ■ (Probability 3, Impact 4)
- Cloud Implementation ■ (Probability 3, Impact 3)
- Systems Scalability ■ (Probability 3, Impact 3)

Program Updates

Schedule

Milestone	Date	
Begin 2020 Census Program	November 18, 2011	✓
Deliver 2020 Census Operational Plan	September 30, 2015	✓
Federal Register Notice of Proposed Residence Criteria and Residence Situations for the 2020 Census	June 30, 2016	✓
Conduct the Second Round of Tribal Consultations	September – November 2016	✓
Begin Local Update of Census Addresses (LUCA) Program	January 2017	✓
Deliver 2020 Census Topics to Congress	March 28, 2017	✓
Conduct the Block Boundary Suggestion Program	December 2015 – May 2017	✓
Deliver 2020 Census Questions to Congress	By March 31, 2018	
2020 Census Day	April 1, 2020	
Deliver Apportionment Counts to the President	By December 31, 2020	
Complete Delivery of Redistricting Counts to the States	By March 31, 2021	
Complete 2020 Census Program	September 29, 2023	

2020 Census Operational Plan, Version 3.0

Deb Stempowski

Decennial Census Management Division

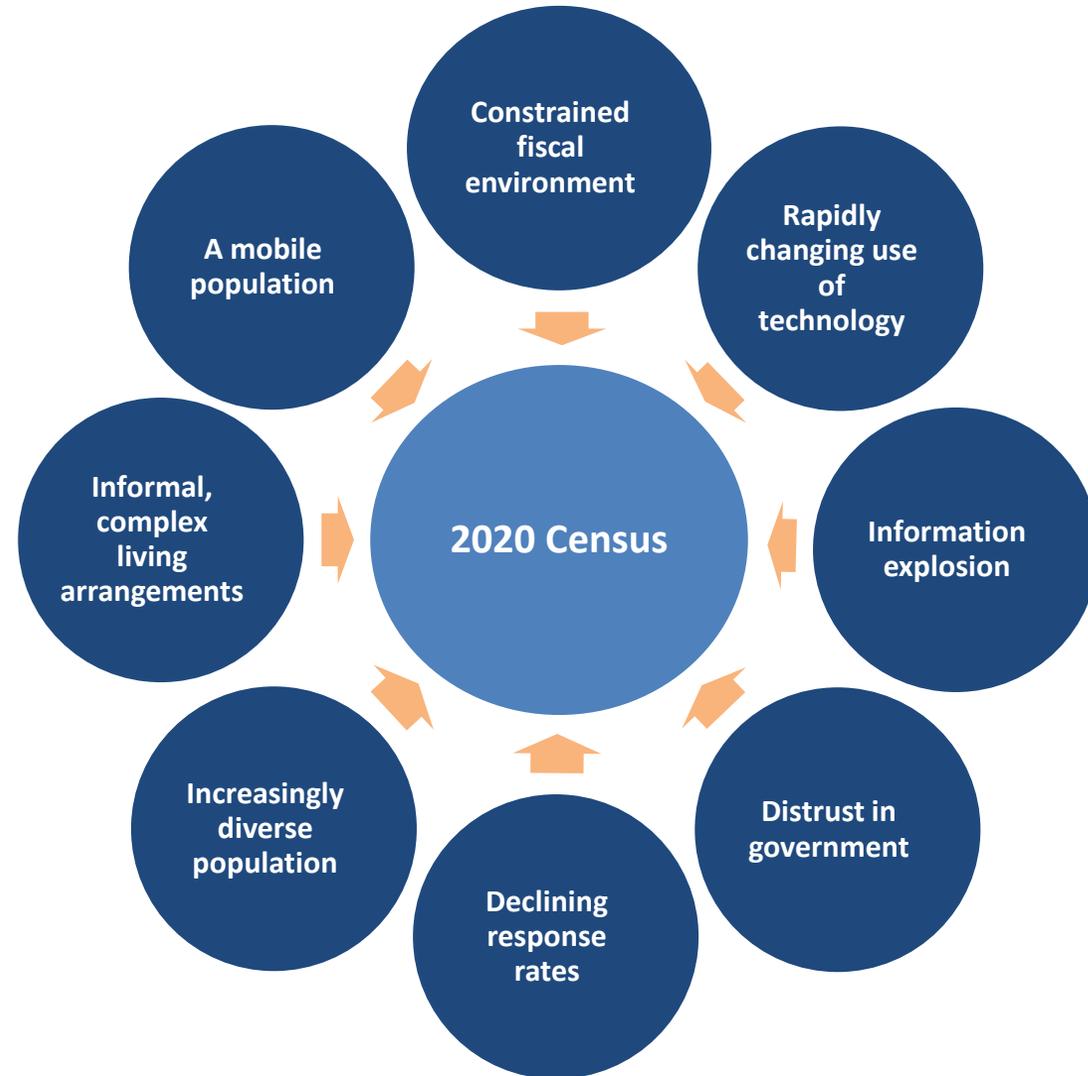
The 2020 Census Challenges

Each decade, planning for the decennial census requires balancing funding constraints and data accuracy against an official schedule fixed by statute.



Goal: Conduct a 2020 Census at a lower cost per housing unit (adjusted for inflation) than the 2010 Census, while maintaining high quality results and a fixed schedule of a Census Day of April 1, 2020.

Challenge: The 2020 Census is being conducted in a rapidly changing environment, requiring a flexible design that takes advantage of new technologies and data sources while minimizing risk to ensure a high quality population count.



The 2020 Census

Goal and Key Innovation Areas

To count everyone once, only once, and in the right place.

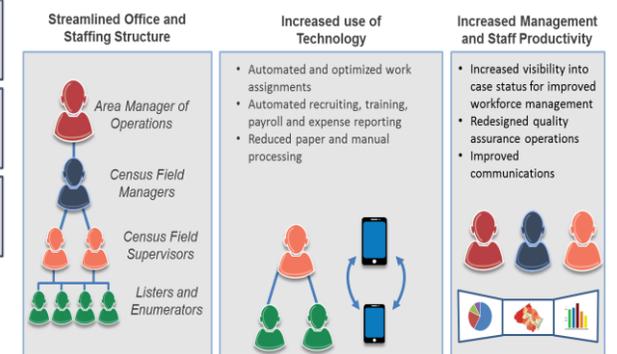
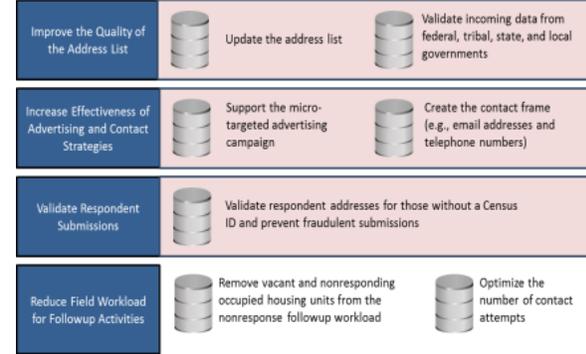
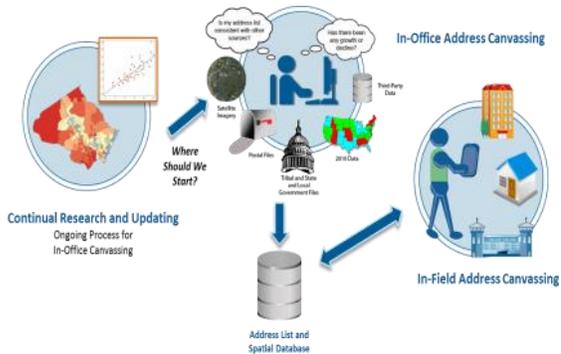
Focus on Four Key Innovation Areas

Reengineering
Address Canvassing

Optimizing
Self-Response

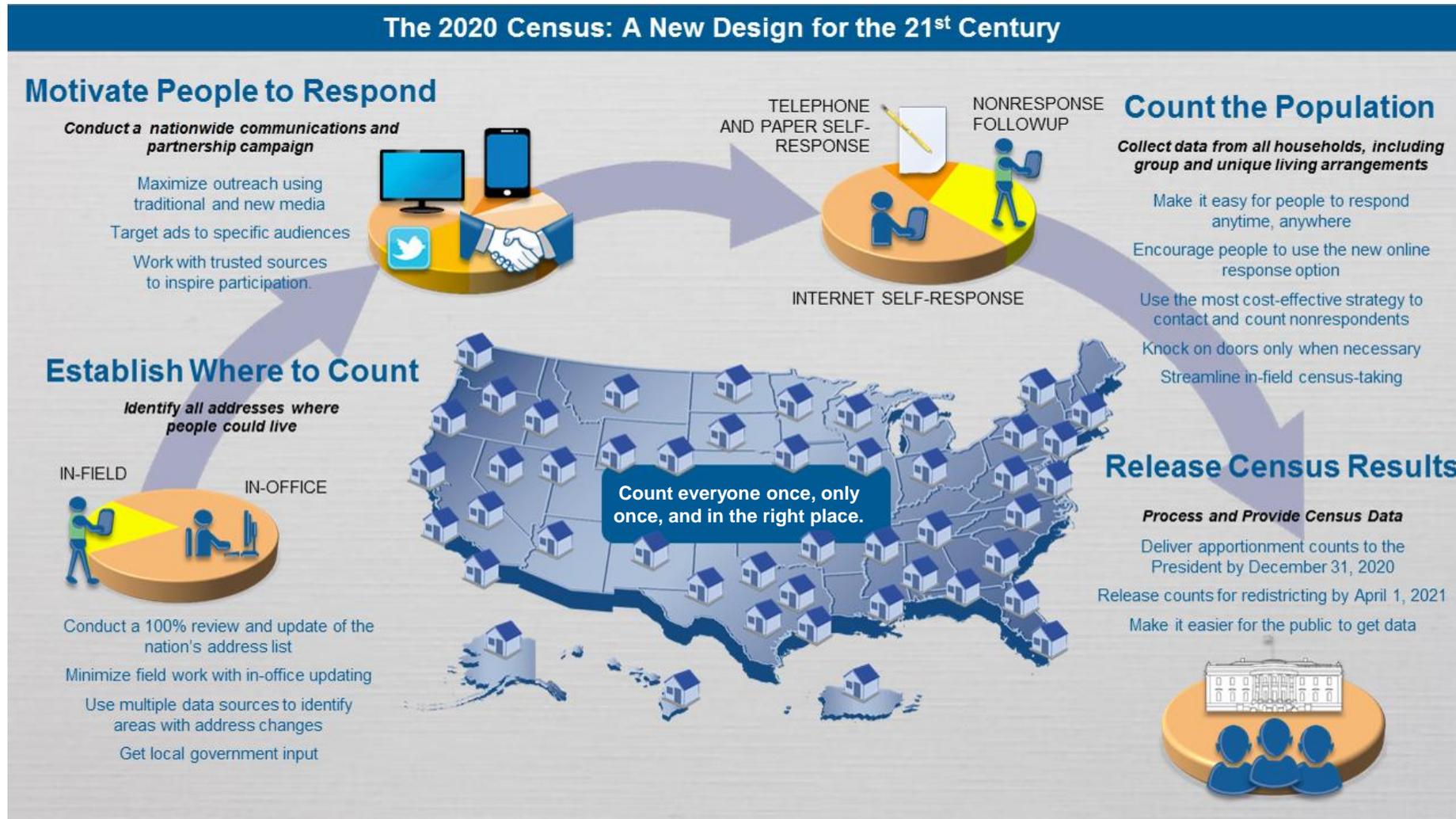
Utilizing
Administrative Records
and Third-Party Data

Reengineering
Field Operations



The 2020 Census

A New Design for the 21st Century



The 2020 Census

2020 Census Operational Plan

The 2020 Census Operational Plan documents the design for conducting the 2020 Census. It reflects and supports evidence-based decision-making by describing design concepts and their rationale, identifying any remaining decisions and describing remaining risks related to the implementation of the 2020 Census Operational Plan. This plan covers all operations to execute the 2020 Census, starting with precensus address and geographic updates, and ending once census data products are disseminated and coverage and quality are measured. It describes what will be done during the 2020 Census and, at a high-level, how the work will be conducted.

Version 1

Provides the initial design for the 2020 Census. This plan reflects and supports evidence-based decision making by describing the 2020 Census design, its rationale, identifying decisions still to be made, and describing significant issues and risks related to the implementation of the Operational Plan.

Version 2

The scope and design of the 2020 Census Operational Plan was reviewed and updated to reflect decisions and updates, however, the overall design did not change.

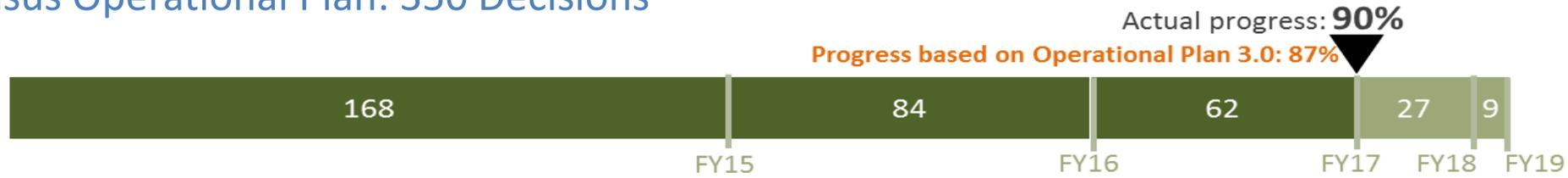
Version 3

Provides the design of the 2020 Census and is consistent with how it will be tested in the 2018 End-to-End Census Test. It was reviewed and updated to reflect decisions and updates, however, overall design did not change.

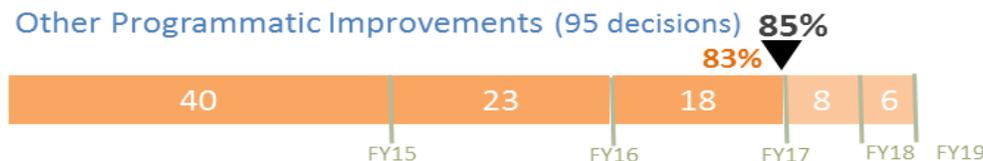
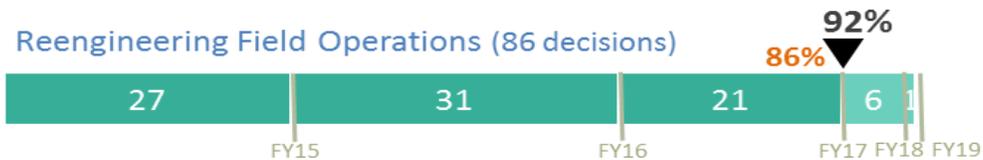
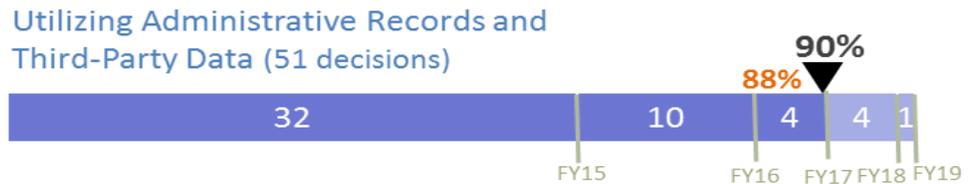
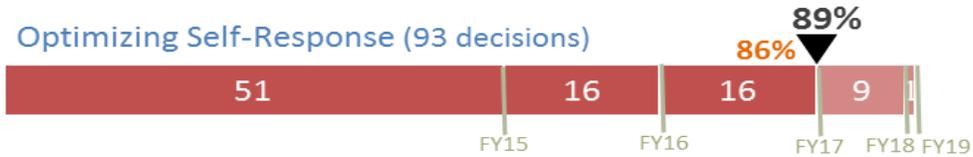
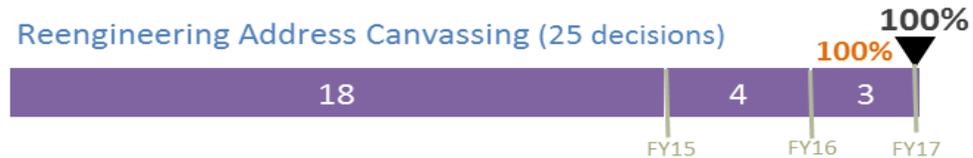
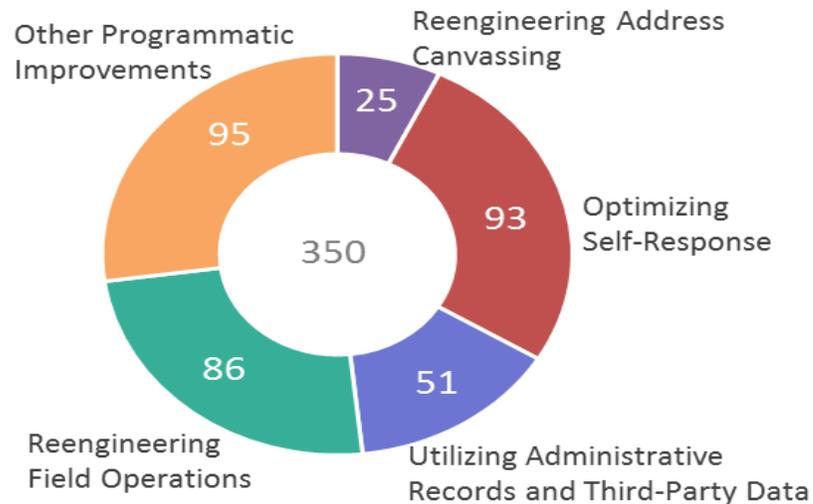


The 2020 Census

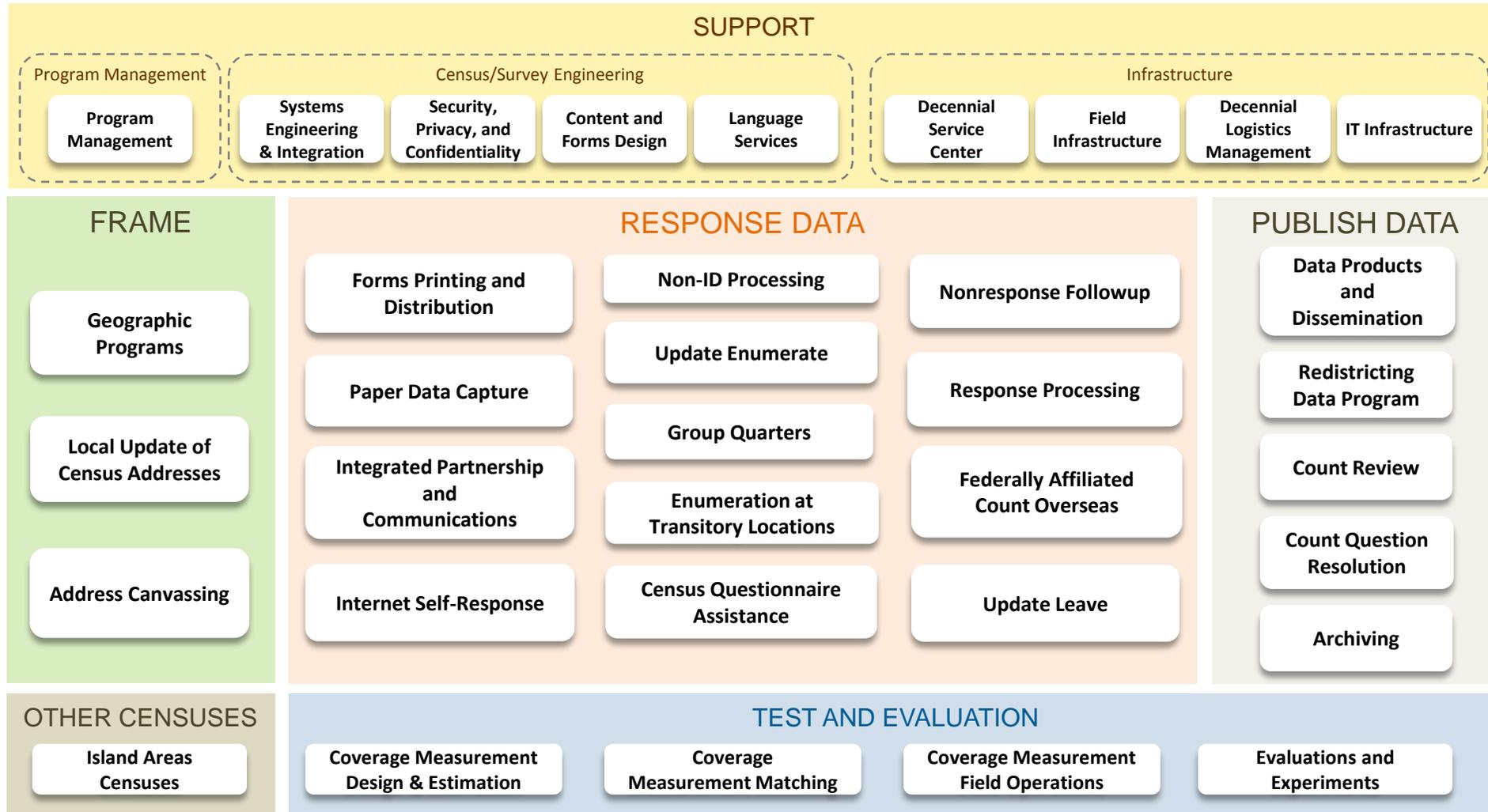
2020 Census Operational Plan: 350 Decisions



Decisions by Innovation Area



The 2020 Census Operations



The 2020 Census

2020 Census Operational Plan, Version 3.0: Support Operations



Program Management

The Program Management (PM) operation defines and implements program management policies, processes, and the control functions for planning and implementing the 2020 Census in order to ensure an efficient and well-managed program.

Systems Engineering & Integration

The Systems Engineering and Integration (SEI) operation is an IT operation that manages the delivery of a System of Systems that meets 2020 Census Program business and capability requirements.

Security, Privacy, and Confidentiality

The Security, Privacy, and Confidentiality (SPC) operation ensures that all operations and systems used in the 2020 Census adhere to laws, policies, and regulations that ensure appropriate systems and data security, and protect respondent and employee privacy and confidentiality.

Selected Accomplishments

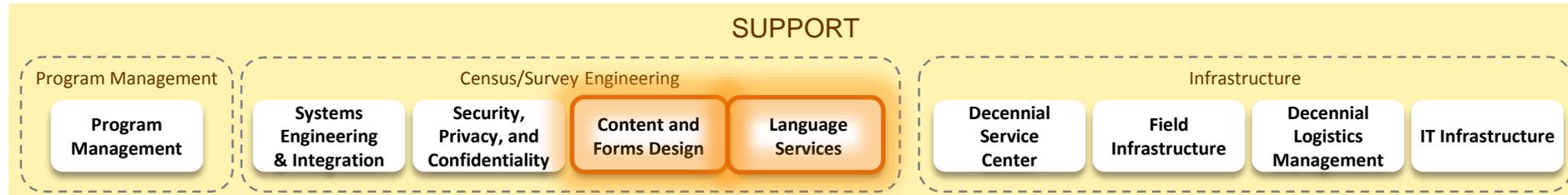
- Continued support of the 2020 Census Operational Plan, v.3.0
- Sixteen Detailed Operational Plans
- Awarded two new schedule contracts
- Continued Risk Management and Change Control Board support
- Developed new SEI framework for gateway reviews and testing

Key Design Changes

- No major design changes for these operations

The 2020 Census

2020 Census Operational Plan, Version 3.0: Support Operations



Content and Forms Design

The Content and Forms Design (CFD) operation identifies and finalizes content and design of questionnaires and other associated nonquestionnaire materials, ensures consistency across data collection modes and operations, and provides the optimal design and content of the questionnaires to encourage high response rates.

Language Services

The Language Services (LNG) operation assesses and supports language needs of non-English speaking populations, determines the number of non-English languages and level of support for the 2020 Census, optimizes the non-English content of questionnaires and associated nonquestionnaire materials across data collection modes and operations, and ensures cultural relevancy and meaningful translation of 2020 Census materials.

Selected Accomplishments

- Planned subjects for the 2020 Census were submitted to Congress on March 28, 2017, and are unchanged from the 2010 Census
 - Planned subjects for the 2020 Census include age, gender, race/ethnicity, relationship to householder, and tenure of occupied housing units
- Used 2016 American Community Survey data to update the list of languages in support of the 2020 Census

Key Design Changes

- No major design changes for these operations

The 2020 Census

2020 Census Operational Plan, Version 3.0: Support Operations



Decennial Service Center

The Decennial Service Center (DSC) will support 2020 Census Field operations for decennial staff (i.e., Headquarters, Paper Data Capture, Regional Census Centers, Area Census Offices, Island Areas Censuses, remote workers, and listers/enumerators).

Field Infrastructure

The Field Infrastructure (FLDI) operation provides the administrative infrastructure for data collection operations covering the 50 states, the District of Columbia, and Puerto Rico.

Decennial Logistics Management

The Decennial Logistics Management (DLM) operation coordinates space acquisition and lease management for the Regional Census Centers, Area Census Offices (ACO), and the Puerto Rico Area Office; and provides logistics management support services (e.g., kit assembly, supplies to field staff).

IT Infrastructure

The IT Infrastructure (ITIN) operation provides the IT-related Infrastructure support to the 2020 Census, including enterprise systems and applications, 2020 Census-specific applications, field IT infrastructure, mobile computing, and Cloud computing.

Selected Accomplishments

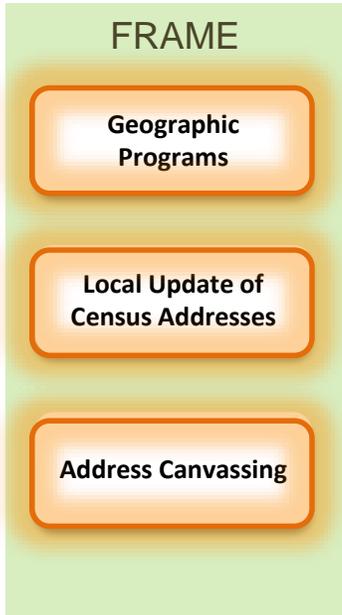
- Released 40 early ACOs to General Services Administration (GSA) to secure space acquisition and leasing
- Released 208 remaining ACOs to GSA
- Tested Cloud computing, as well as systems, for the 2017 Census Test

Key Design Changes

- Regional Census Centers are scheduled to open on or around April 1, 2018

The 2020 Census

2020 Census Operational Plan, Version 3.0: Frame Operations



Geographic Programs

The Geographic Programs (GEOP) operation provides the geographic foundation in support of the 2020 Census data collection and tabulation activities, within the Master Address File (MAF)/Topologically Integrated Geographic Encoding and Referencing (TIGER) System.

Local Update of Census Addresses

The Local Update of Census Addresses (LUCA) operation is the only opportunity offered to tribal, state, and local governments to review and comment on the Census Bureau's residential address list for their jurisdiction prior to the 2020 Census. The Census Bureau relies on a complete and accurate address list to reach every living quarters and associated population for inclusion in the census.

Address Canvassing

The Address Canvassing (ADC) operation delivers a complete and accurate address list and spatial database for enumeration and for determining the type of address characteristics for each living quarter.

Selected Accomplishments

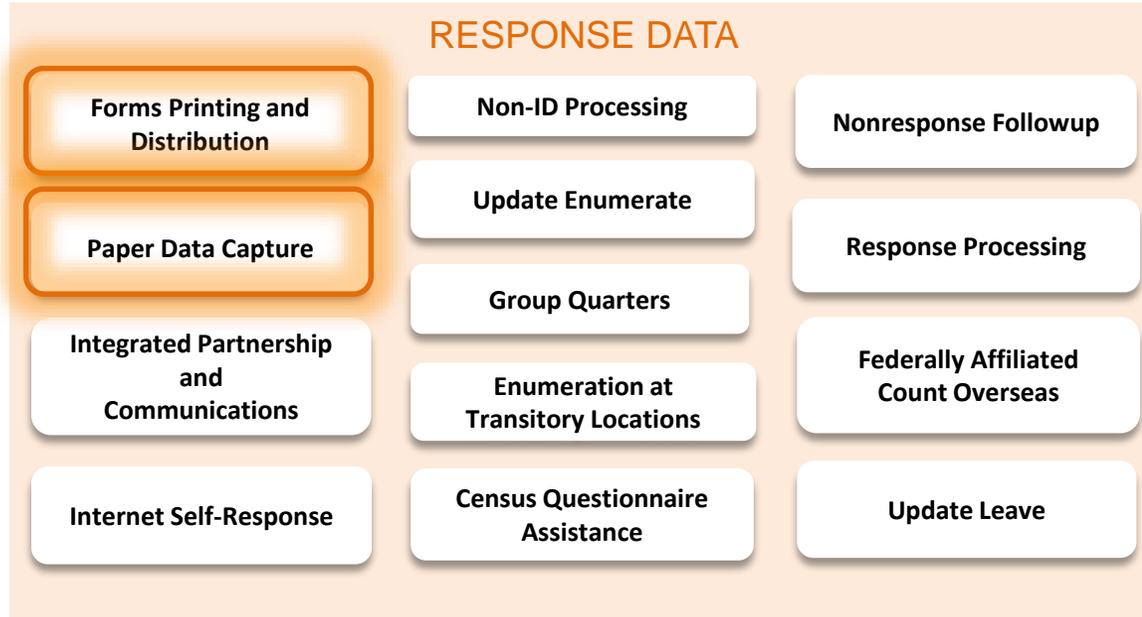
- Implementation of the 2020 LUCA operation began in January 2017
- LUCA invitation packages were mailed to over 39,000 elected officials and tribal chairs as well as courtesy copies to over 46,000 contacts in July 2017
- Address Canvassing operation tested in Address Canvassing Test as well as the 2018 End-to-End Census Test
- Added in Quality Control component to the Listing and Mapping Application (LiMA) for the 2018 End-to-End Census Test

Key Design Changes

- For the Geographic Programs operation, there were changes made to the TEA to accommodate the new Update Leave operation
- Based on funding uncertainty and reprioritization of critical components of the 2020 Census, Active Block Resolution (ABR) was discontinued for the Address Canvassing operation

The 2020 Census

2020 Census Operational Plan, Version 3.0: Response Data Operations



Forms Printing and Distribution

The Forms Printing and Distribution (FPD) operation prints and distributes internet invitation letters, reminder cards or letters or both, questionnaire mailing packages, and materials for other special operations, as required.

Paper Data Capture

The Paper Data Capture (PDC) operation captures and converts data from the 2020 Census paper questionnaires, including mail receipt, document preparation, scanning, Optical Character Recognition, Optical Mark Recognition, Key from Image, data delivery, checkout, and form destruction.

Selected Accomplishments

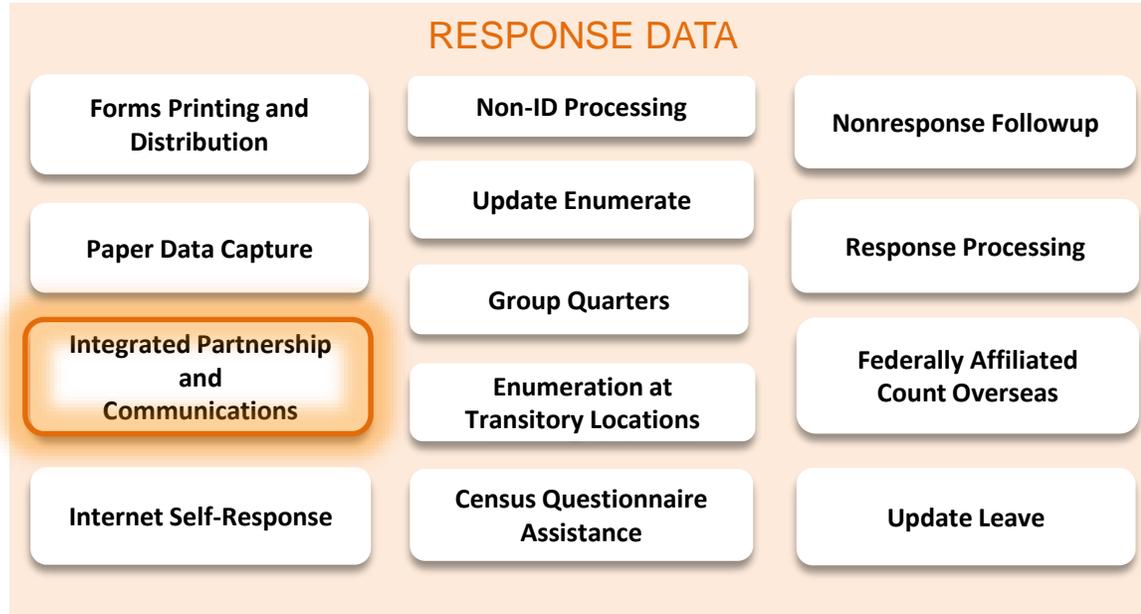
- Tested Forms Printing and Distribution operation in the 2017 Census Test
- Utilized Enterprise Censuses and Surveys Enabling–Operational Control System for the first time in the 2017 Census Test
- Tested Paper Data Capture operation in the 2017 Census Test

Key Design Changes

- In addition to supporting self-response, which includes Puerto Rico, the PDC operation will print materials for the Update Leave, Update Enumerate, Group Quarters, Nonresponse Followup, and Island Areas Censuses operations

The 2020 Census

2020 Census Operational Plan, Version 3.0: Response Data Operations



Integrated Partnership and Communications

The Integrated Partnership and Communications (IPC) operation communicates the importance of participating in the 2020 Census to the entire population of the 50 states, the District of Columbia, and Puerto Rico to support field recruitment efforts, engage and motivate people to self-respond (preferably via the internet), raise and keep awareness high throughout the entire 2020 Census to encourage response, and effectively support dissemination of census data to stakeholders and the public.

Selected Accomplishments

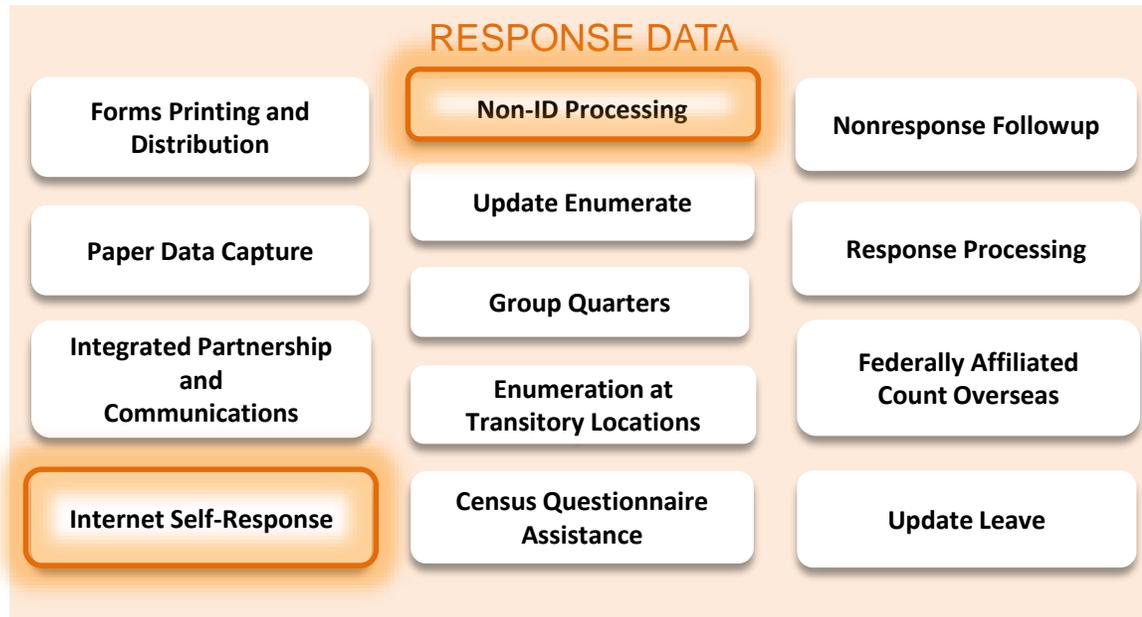
- Developed draft version 1.0 of the Communications Plan
- Published the Federal Register Notice (FRN) for conducting Census Barriers, Attitudes, and Motivators Survey

Key Design Changes

- Audience segmentation model will be done at the tract level rather than at the household level

The 2020 Census

2020 Census Operational Plan, Version 3.0: Response Data Operations



Internet Self-Response

The Internet Self-Response (ISR) operation maximizes online response to the 2020 Census via contact strategies and improved access for respondents while also reducing paper and Nonresponse Followup.

Non-ID Processing

The Non-ID Processing (NID) operation is focused on making it easy for people to respond by providing response options that do not require a previously assigned ID, maximizing real-time matching of non-ID respondent addresses to the census living quarters address inventory, and assigning nonmatching addresses to census blocks.

Selected Accomplishments

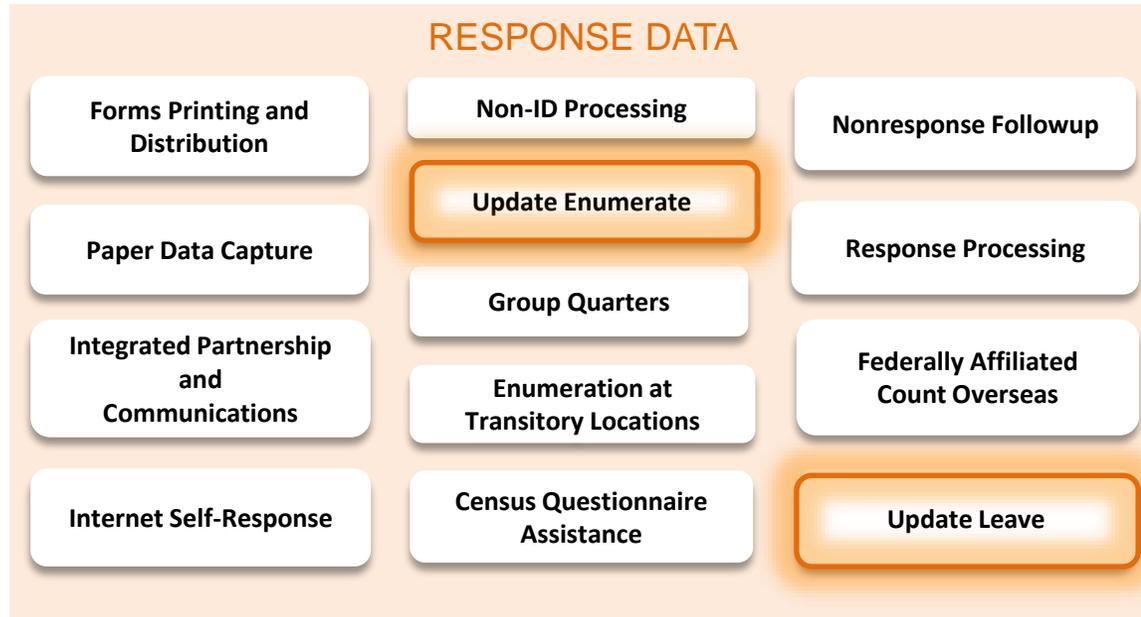
- Tested a new instrument as part of Enterprise Censuses and Surveys Enabling (ECaSE) platform during the 2017 Census Test
- Developed the mail strategy for the 2018 End-to-End Census Test
- Tested Non-ID Processing in the 2017 Census Test
- Integrated with ECaSE–Internet Self-Response solution

Key Design Changes

- The validation of NID responses is part of the scope of work for an overall self-response fraud detection activity

The 2020 Census

2020 Census Operational Plan, Version 3.0: Response Data Operations



Update Enumerate

The Update Enumeration (UE) operation is designed to update the address and feature data and enumerate respondents in person. UE is designated to occur in areas where the initial visit requires enumerating while updating the address frame, in particular in remote geographic areas that have unique challenges associated with accessibility.

Update Leave

The Update Leave (UL) operation is designed to update the address and feature data and leave a choice questionnaire package at every housing unit (HU) identified to allow the household to self-respond. UL is designed to occur in areas where the majority of HU do not have either mail delivered to the physical location of the housing unit, or the mail delivery information for the HU cannot be verified.

Selected Accomplishments

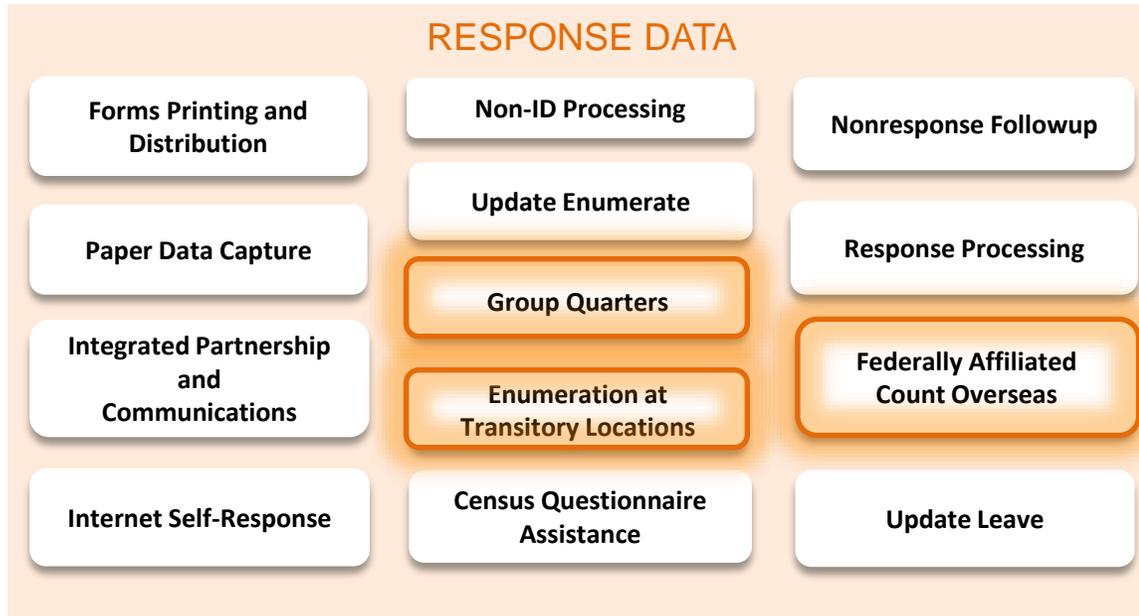
- Original Update Enumerate was split into two parts: Update Enumerate and Update Leave
- Creation of new Type of Enumeration Area (TEA)

Key Design Changes

- The UE Operation was modified in May 2017, when the new UL Operation was created. The majority of the living quarters that were originally designated in the UE TEA were moved to the UL TEA. UE will continue to update the address and feature data and enumerate respondents in person, but will deploy proven paper-based methodologies in the field.
- Remote Alaska will use the same listing and enumeration methodologies as in the 2010 Census

The 2020 Census

2020 Census Operational Plan, Version 3.0: Response Data Operations



Group Quarters

The Group Quarters (GQ) operation will enumerate people living in group quarters, and provides an opportunity for people experiencing homelessness and receiving service at service-based locations, such as soup kitchens, to be counted in the census.

Enumeration at Transitory Locations

Enumeration at Transitory Locations (ETL) operation is to enumerate individuals in occupied units at transitory locations who do not have a usual home elsewhere, such as recreational vehicle parks, campgrounds, racetracks, circuses, carnivals, marinas, hotels, and motels.

Federally Affiliated Count Overseas

The Federally Affiliated Count Overseas (FACO) operation obtains counts by home state of United States military and federal civilian employees stationed or deployed overseas and their dependents living with them.

Selected Accomplishments

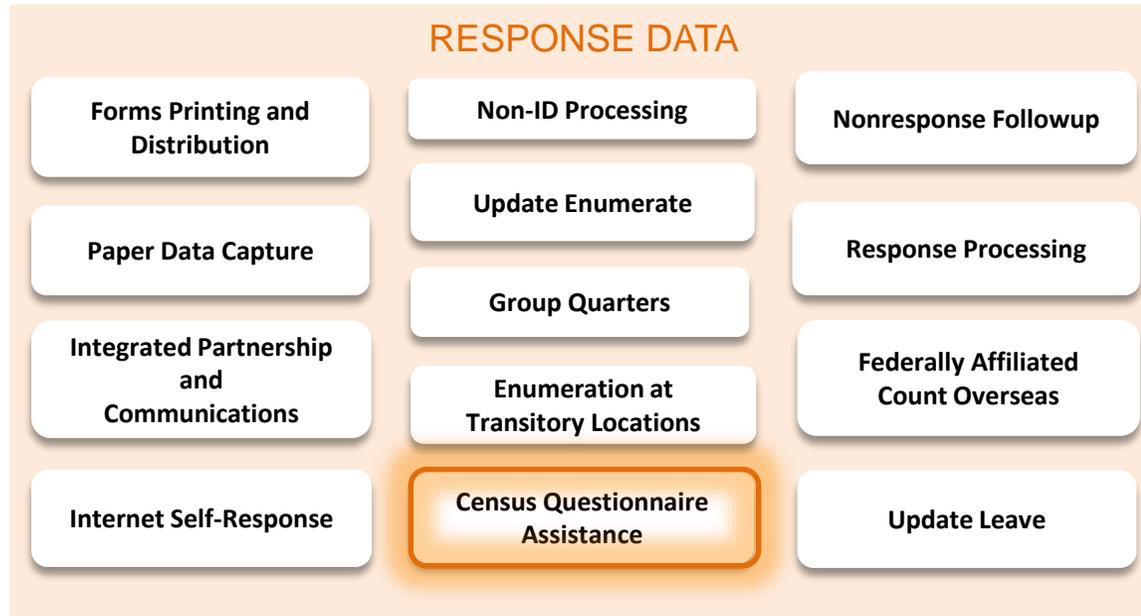
- Tested GQ eResponse in an independent 2016 and 2017 test
- Testing of military installations is also ongoing during 2017
- United States Marshalls Service and the Bureau of Prisons have agreed to provide eResponse for the 2020 Census

Key Design Changes

- In-Field Advance Contact component has been removed from the Group Quarters operation
- GQ Enumeration component will be mainly paper-based, but GQ contacts will be offered the option to provide electronic resident-level data (eResponse) via a secure server using a standardized template
- For the Federally Affiliated Count Overseas operation, the name and acronym of the operation have been changed to reflect that counts will not be exclusively for Americans, census counts include everyone who meets the residence criteria

The 2020 Census

2020 Census Operational Plan, Version 3.0: Response Data Operations



Census Questionnaire Assistance

The Census Questionnaire Assistance (CQA) operation provides questionnaire assistance for respondents by answering questions about specific items on the census form or other frequently asked questions about the 2020 Census. Additionally, CQA provides an option for respondents to complete a census interview over the telephone as well as provide outbound calling support of Nonresponse Followup Reinterview and Coverage Improvement.

Selected Accomplishments

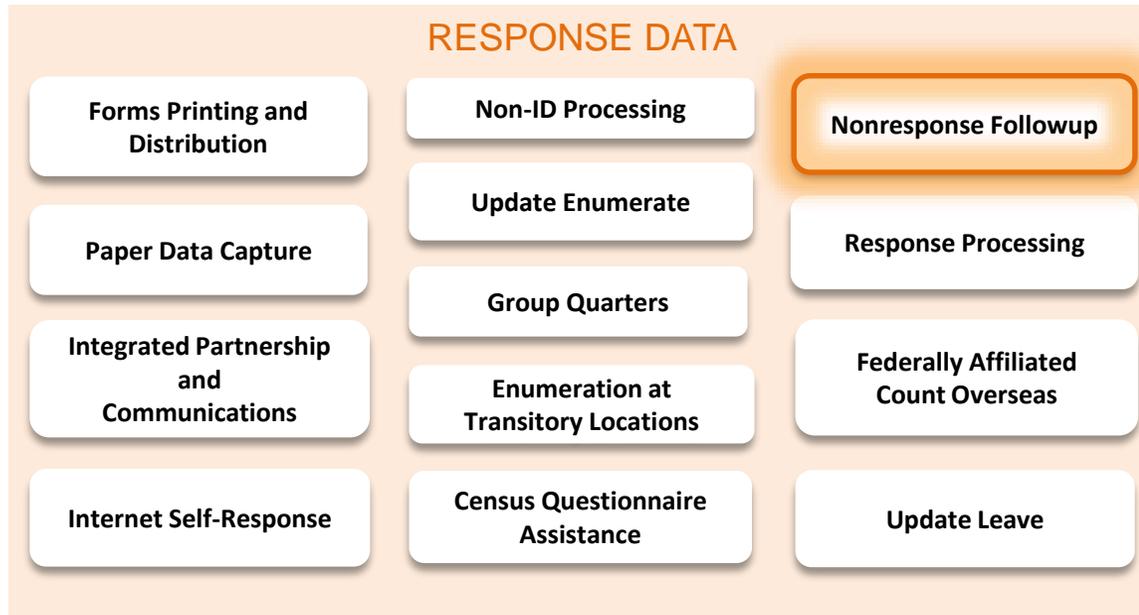
- Tested the new Census Questionnaire Assistance solution for Internet Self-Response inbound calls in the 2017 Census Test

Key Design Changes

- Census Questionnaire Assistance will support centralized outbound calling for Nonresponse Followup Reinterview and Coverage Improvement

The 2020 Census

2020 Census Operational Plan, Version 3.0: Response Data Operations



Nonresponse Followup

The Nonresponse Followup (NRFU) operation determines or resolves the housing unit status for addresses that do not self-respond to the 2020 Census and enumerates housing units that have a status of occupied.

Selected Accomplishments

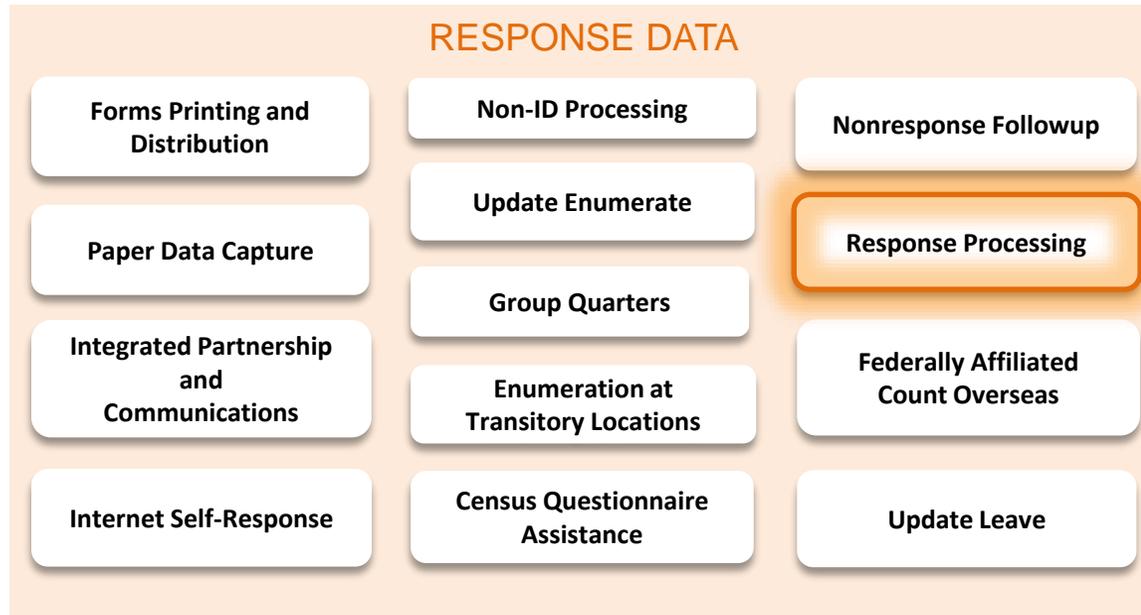
- Evolution and refinement of the operational design based on results from census tests, research, data analysis, development and integration of software, systems, and procedures

Key Design Changes

- Nonresponse Followup now includes follow-up to nonresponding housing units in Update Leave Type of Enumeration Areas (TEA 6)
- Nonresponse Followup now includes Coverage Improvement

The 2020 Census

2020 Census Operational Plan, Version 3.0: Response Data Operations



Response Processing

The Response Processing Operation (RPO) creates and distributes the initial 2020 Census enumeration universe, assign the specific enumeration strategy for each living quarter based on case status and associated paradata, create and distribute workload files required for enumeration operations, track case enumeration status, run postdata collection processing actions in preparation for producing the final 2020 Census results, and check for fraudulent returns.

Selected Accomplishments

- Tested response processing in the 2017 Census Test receiving output from the Enterprise Censuses and Surveys Enabling (ECaSE) platform

Key Design Changes

- The scope of the operation now includes processing of the Island Areas Censuses (IAC) response data and management of the operational functions of the Census Data Lake (CDL)

The 2020 Census

2020 Census Operational Plan, Version 3.0: Publish Data Operations

PUBLISH DATA

Data Products
and
Dissemination

Redistricting
Data Program

Count Review

Count Question
Resolution

Archiving

Data Products and Dissemination

The Data Products and Dissemination (DPD) operation prepares and delivers the 2020 Census population counts to the President of the United States for Congressional apportionment, tabulates and disseminates 2020 Census data products for use by the states for redistricting, and tabulates and disseminates 2020 Census data for use by the public.

Selected Accomplishments

- Determined the tabulation system supporting the American Community Survey (ACS) will be generalized and enhanced to support both the ACS and the 2020 Census
- Identified the enterprise data dissemination vehicle and began releasing beta versions on data.census.gov

Key Design Changes

- No major design changes for this operation

The 2020 Census

2020 Census Operational Plan, Version 3.0: Publish Data Operations

PUBLISH DATA

Data Products
and
Dissemination

Redistricting
Data Program

Count Review

Count Question
Resolution

Archiving

Redistricting Data Program

The purpose of the 2020 Census Redistricting Data Program (RDP), as required by P.L. 94-171, is to provide each state an opportunity to identify the geographic areas for which specific tabulations of population are desired and to deliver those tabulations by the mandated deadline of one year from Census Day: April 1, 2021.

Selected Accomplishments

- Successfully completed Phase 1 of the RDP, the Block Boundary Suggestion Project
 - This phase allowed states to provide suggestions to the upcoming 2020 Census tabulation blocks, as well as provide updates and corrections to features and areas in the census geographic database

Key Design Changes

- Phase 2 of the RDP has been modified
 - Original plan for Phase 2 included one round of voting district delineation and one round of verification of those updates
 - New plan adds a second round of verification, thereby extending the end of Phase 2 from May 2019 to March 2020

The 2020 Census

2020 Census Operational Plan, Version 3.0: Publish Data Operations

PUBLISH DATA

Data Products
and
Dissemination

Redistricting
Data Program

Count Review

Count Question
Resolution

Archiving

Count Review

The 2020 Census Count Review operation (CRO) enhances the accuracy of the 2020 Census through remediating potential gaps in coverage by implementing an efficient and equitable process to identify missing housing units and correct missing or geographically misallocated large group quarters and their population and positioning remaining count issues for a smooth transition to the Count Question Resolution operation.

Count Question Resolution

The Count Question Resolution (CQR) operation provides a mechanism for governmental units to challenge their official 2020 Census results.

Archiving

The Archiving (ARC) operation coordinates storage of the materials and data and provide 2020 Census records deemed permanent, including files containing individual responses, to the National Archives and Records Administration and to the National Processing Center to use as source materials to conduct the Age Search Service. Also store data to cover in-house needs.

Selected Accomplishments

- Recently started working on the Geographic Updates Partnership Software (GUPS) that will be used for the Count Review operation
- Started early participants program with four Federal State Cooperative for Population Estimates (FSCPE) partnership states
 - Early participants will assist with both the administrative and operational aspects of the Count Review program.
- Planning has not yet begun for Count Question Resolution operation
- Led discussions this year with National Archives and Records Administration to discuss plans and records schedule for archiving materials for the 2020 Census for the Archiving operation

Key Design Changes

- No major design changes for these operations

The 2020 Census

2020 Census Operational Plan, Version 3.0: Other Censuses

OTHER CENSUSES

Island Areas Censuses

Island Areas Censuses

The purpose of the Island Areas Censuses (IAC) operation is to enumerate all residents of American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the U.S. Virgin Islands; process and tabulate the collected data; and disseminate data products to the public.

Selected Accomplishments

- Decision to use paper questionnaires, paper address registers, and paper maps

Key Design Changes

- Field enumerators will list addresses using paper address registers and paper maps
- Enumerators will conduct interviews with household members who are at home or leave paper questionnaires for the households' self-response
- Master Address File of Island Areas' addresses will not be produced

The 2020 Census

2020 Census Operational Plan, Version 3.0: Test and Evaluation Operations



Coverage Measurement Design & Estimation

The Coverage Measurement Design and Estimation (CMDE) operation develops the survey design and sample for the Post-Enumeration Survey of the 2020 Census and produce estimates of census coverage based on the Post-Enumeration Survey.

Coverage Measurement Matching

The Coverage Measurement Matching (CMM) operation identifies matches, nonmatches, and discrepancies between the 2020 Census and the Post-Enumeration Survey for both housing units and people in the same areas. Both computer and clerical components of matching are conducted.

Coverage Measurement Field Operations

The Coverage Measurement Field Operation (CMFO) collects person and housing unit information (independent from the 2020 Census operations) for the sample of housing units in the Post-Enumeration Survey to help understand census coverage and to detect erroneous enumerations.

Selected Accomplishments

- Recently changed the name to Post-Enumeration Survey (PES) because the PES is well recognized, and Census.gov provides information on the post-enumeration surveys the Census Bureau has conducted prior to 2010 under the heading "Post-Enumeration Surveys"

Key Design Change

- The Coverage Measurement Survey has been renamed the 2020 PES
- Recently replanned the PES Program to include the automation of two of the five field data collection operations (Independent Listing and Person Interviewing)
 - Remaining operations will be paper based

The 2020 Census

2020 Census Operational Plan, Version 3.0: Test and Evaluation Operations



Evaluations and Experiments

The 2020 Census Evaluations and Experiments (EAE) operation documents the execution of the 2020 Census through the design and development of operational assessments that measure the success of each 2020 Census operation. The EAE operation coordinates the design and development of evaluations that analyze, interpret, and synthesize the effectiveness of census components along with their impact on data quality or coverage or both. The EAE operation formulates and executes an experimentation program to support early planning and inform the transition and design of the 2030 Census. And, the EAE operation produces an independent assessment of population and housing unit coverage.

Selected Accomplishments

- Development of selected 2018 End-to-End Census Test operational study plans and operational assessments

Key Design Changes

- No major design changes for this operation

The 2020 Census

A New Design for the 21st Century



Count everyone once,
only once, and in the right place.



ESTABLISH WHERE TO COUNT

Identify all addresses
where people could live.

Conduct a 100 percent review
and update of the nation's
address list.

Minimize in-field work
with in-office updating.

Use multiple data sources
to identify areas with
address changes.

Get local government input.



MOTIVATE PEOPLE TO RESPOND

Conduct a nationwide
communications and
partnership campaign.

Work with trusted sources
to increase participation.

Maximize outreach using
traditional and new media.

Target advertisements to
specific audiences.



COUNT THE POPULATION

Collect data from all
households, including
group and unique living
arrangements.

Make it easy for people to
respond anytime, anywhere.

Encourage people to use the
online response option.

Use the most cost-effective
strategy to contact and
count nonrespondents.

Streamline in-field
census taking.

Knock on doors only
when necessary.



RELEASE CENSUS RESULTS

Process and provide Census data.

Deliver apportionment counts
to the President by
December 31, 2020.

Release counts for
redistricting by April 1, 2021.

Make it easier for the public
to get information.

Questions?

2018 End-to-End Census Test

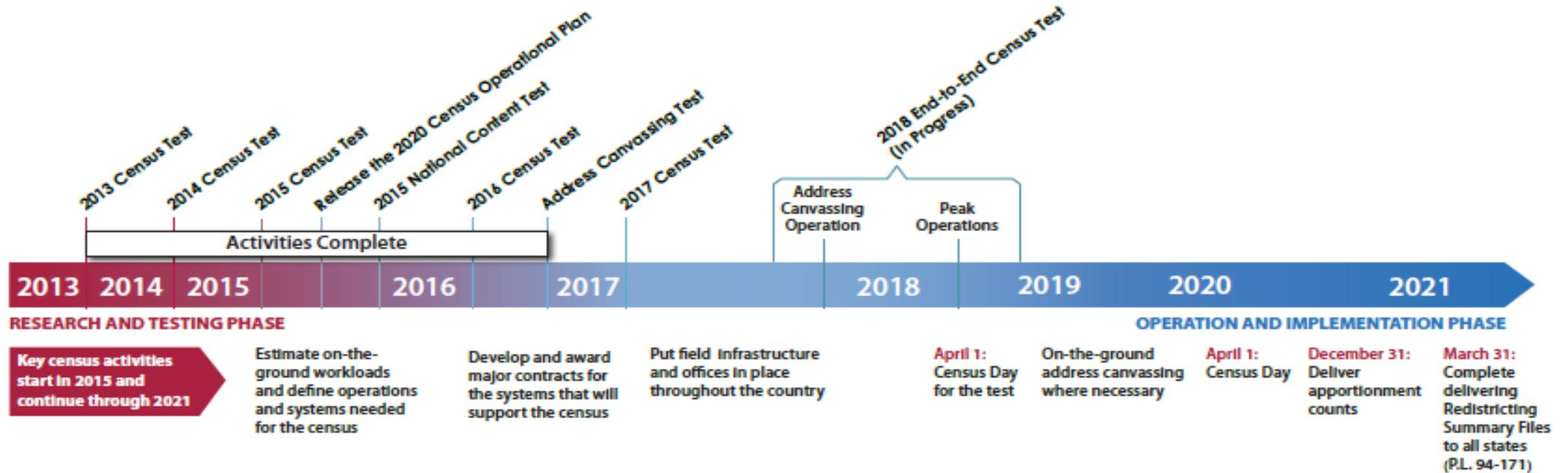
Deborah Stempowski
Decennial Census Management Division

Ian Hull
Decennial Census Management Division

Maryann Chapin
Decennial Census Management Division

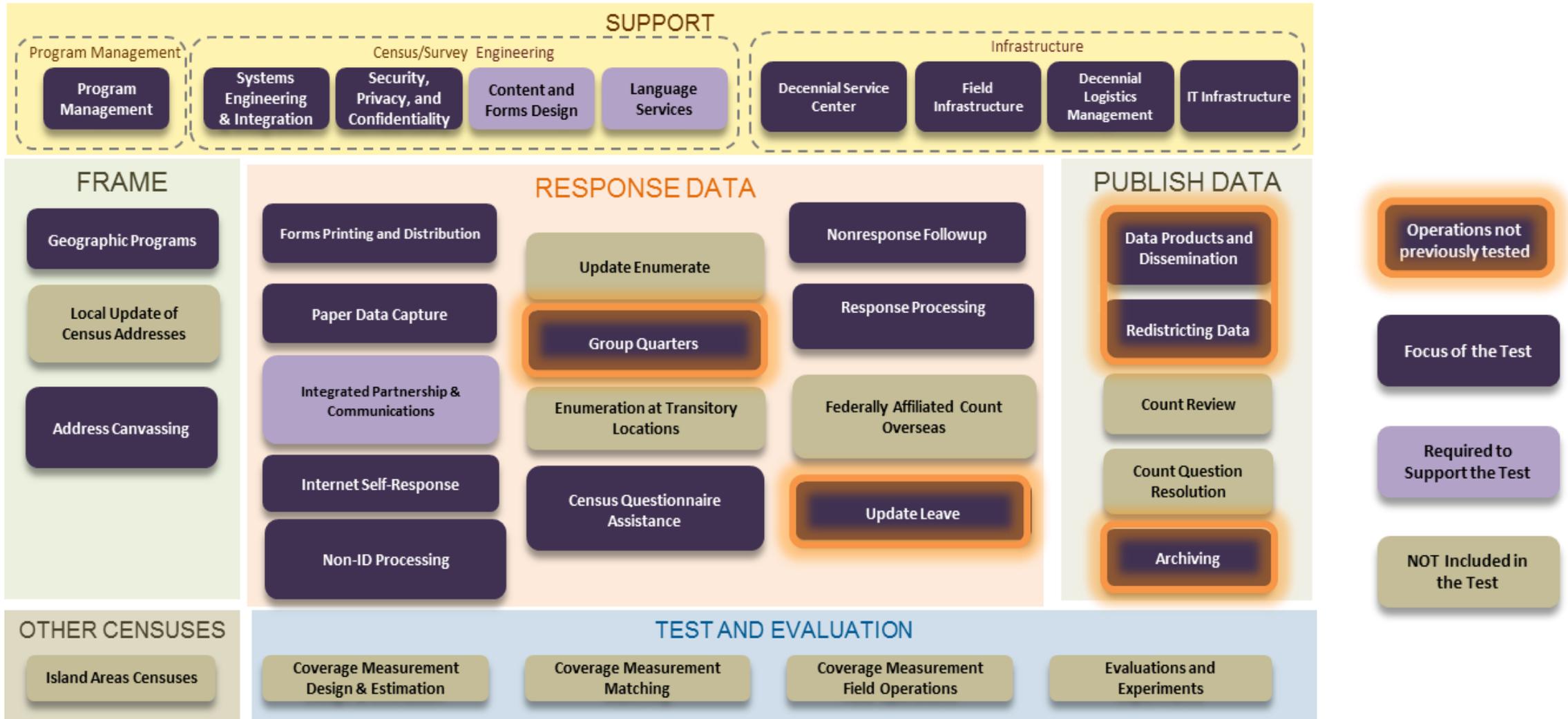
The 2020 Census

Where Are We Today?



2018 End-to-End Census Test

Operational Scope



2018 End-to-End Census Test Overview

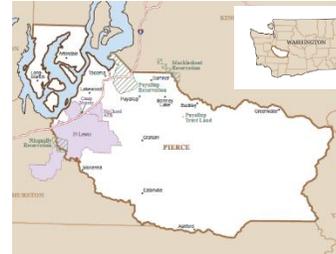
Address Canvassing

- Exercise final listing/mapping capabilities in the field
- Conduct in-field listing quality control

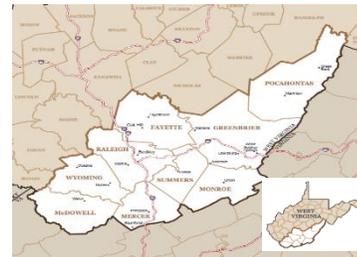
Providence County, RI



Pierce County, WA



Bluefield-Beckley-Oak Hill, WV



Peak Operations

- Validate that the operations in scope for the 2018 End-to-End Census Test are ready to go into production for the 2020 Census
- Test and validate major operational threads, procedures, systems, and infrastructure (IT and non-IT) together to ensure proper integration and conformance with functional and nonfunctional requirements
- Produce a prototype of geographic and data products

Providence County, RI



2018 End-to-End Census Test

Key Milestones

Activity	Date	
Conduct In-Office Address Canvassing	October 27, 2016 – February 2, 2017	✓
Open Regional Census Centers	January 3, 2017	✓
Begin Address Canvassing Field Staff Recruitment	March 10, 2017	✓
Open Area Census Offices	April – July 2017*	✓
Conduct In-Field Address Canvassing	August 28 – October 6, 2017	✓
Conduct Self-Response	March 16 – August 31, 2018	
Conduct Internet Self-Response, including Non-ID Processing	March 16 – July 31, 2018	
Conduct Census Questionnaire Assistance	March 16 – July 31, 2018	
Conduct Paper Data Capture	March 16 – August 31, 2018	
Census Day	April 1, 2018	
Conduct Update Leave	April 9 – May 4, 2018	
Conduct Nonresponse Followup	May 9 – July 24, 2018	
Conduct Nonresponse Followup Reinterview	May 10 – July 31, 2018	
Conduct Group Quarters Advance Contact	June 18 – July 10, 2018	
Conduct Group Quarters Enumeration	July 25 – August 24, 2018	
Publish Prototype P.L. 94-171 Data and Geographic Products	April 1, 2019	

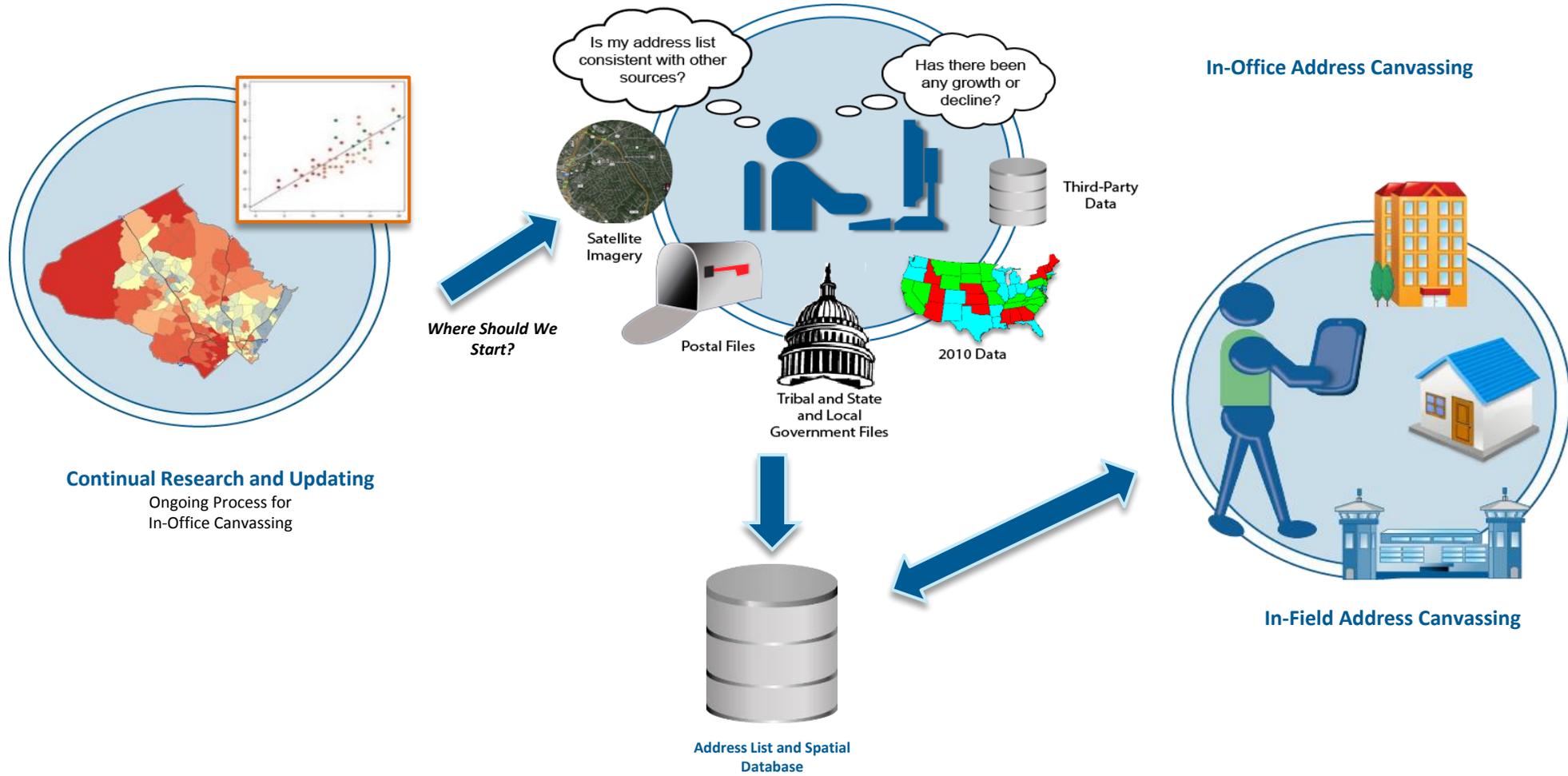
*Delayed the opening of the Area Census Offices.

2018 End-to-End Census Test

Address Canvassing

2018 End-to-End Census Test

Address Canvassing: Overview



2018 End-to-End Census Test

Address Canvassing: Overview

Objectives of the Test

- Test listing capabilities required by In-Field Address Canvassing
- Conduct Quality Control operation for In-Field Address Canvassing
- Validate the creation In-Field Address Canvassing workload by In-Office Address Canvassing operation

Methodology

- Conduct In-Field Address Canvassing in three test site locations
- Implementation of Independent Quality Control
- Workload inclusion
 - Active blocks
 - On-hold blocks (No resolution from Interactive Review)
 - Blocks resolved by Active Block Resolution (ABR currently suspended and will not be used in 2020)

Approach

- Use enhanced version of the Listing and Mapping Application (LiMA) that supports quality control operations
- Integrate with Enterprise Censuses and Surveys Enabling (ECaSE) Field Operational Control System using our Mobile Case Management (MCM) system
- ECaSE time and expense
- Use automated training solution

2018 End-to-End Census Test

Key Activities for Address Canvassing

Activity	Date	
Conduct Production Census Field Supervisor (CFS) Training	July 31, 2017	✓
Conduct Quality Control (CQ) CFS Training	August 8, 2017	✓
Conduct Production Lister Training	August 18, 2017	✓
Conduct QC Lister Training	August 25, 2017	✓
Start Production Listing	August 28, 2017	✓
Start QC Listing	September 5, 2017	✓
Conclude Production Listing	September 29, 2017	✓
Conclude QC Listing	October 6, 2017	✓

*Delayed the opening of the Area Census Offices.

2018 End-to-End Census Test

Address Canvassing: Operational Scope

Address Canvassing Operation

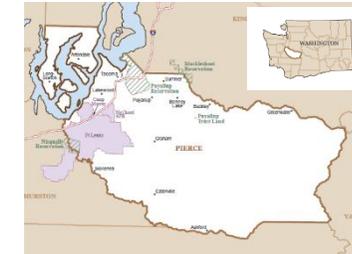
- Three sites: Providence County, Rhode Island; Pierce County, Washington; Bluefield-Beckley-Oak Hill, West Virginia

Operation	Workload Unit	Test Site			Total
		Pierce County, WA	Providence County, RI	Bluefield-Beckley-Oak Hill, WV	
Total Housing Units	-	338,000	273,000	165,000	776,000
In-Field Address Canvassing	HU	~175,000	~102,000	~64,000	~341,000

Providence County, RI



Pierce County, WA



Bluefield-Beckley-Oak Hill, WV



2018 End-to-End Census Test

Address Canvassing: Final Work Completed

Site	Block Workload	Original Addresses in Workload	Blocks Sampled into Quality Control
Bluefield-Beckley-Oak Hill, West Virginia	2,348	63,536	328
Providence County, Rhode Island	2,956	101,635	380
Pierce County, Washington	2,992	175,249	374
2018 End-to-End Census Test Total	8,296	340,420	1,082

2018 End-to-End Census Test

Successes/Lessons Learned

Successes

- Integration with Enterprise Censuses and Surveys Enabling (ECaSE) – Operational Control System
- Implementation of listing Quality Control component
- Implementation of field management alerts
- Assignment of large blocks at beginning of the operation

Lessons Learned

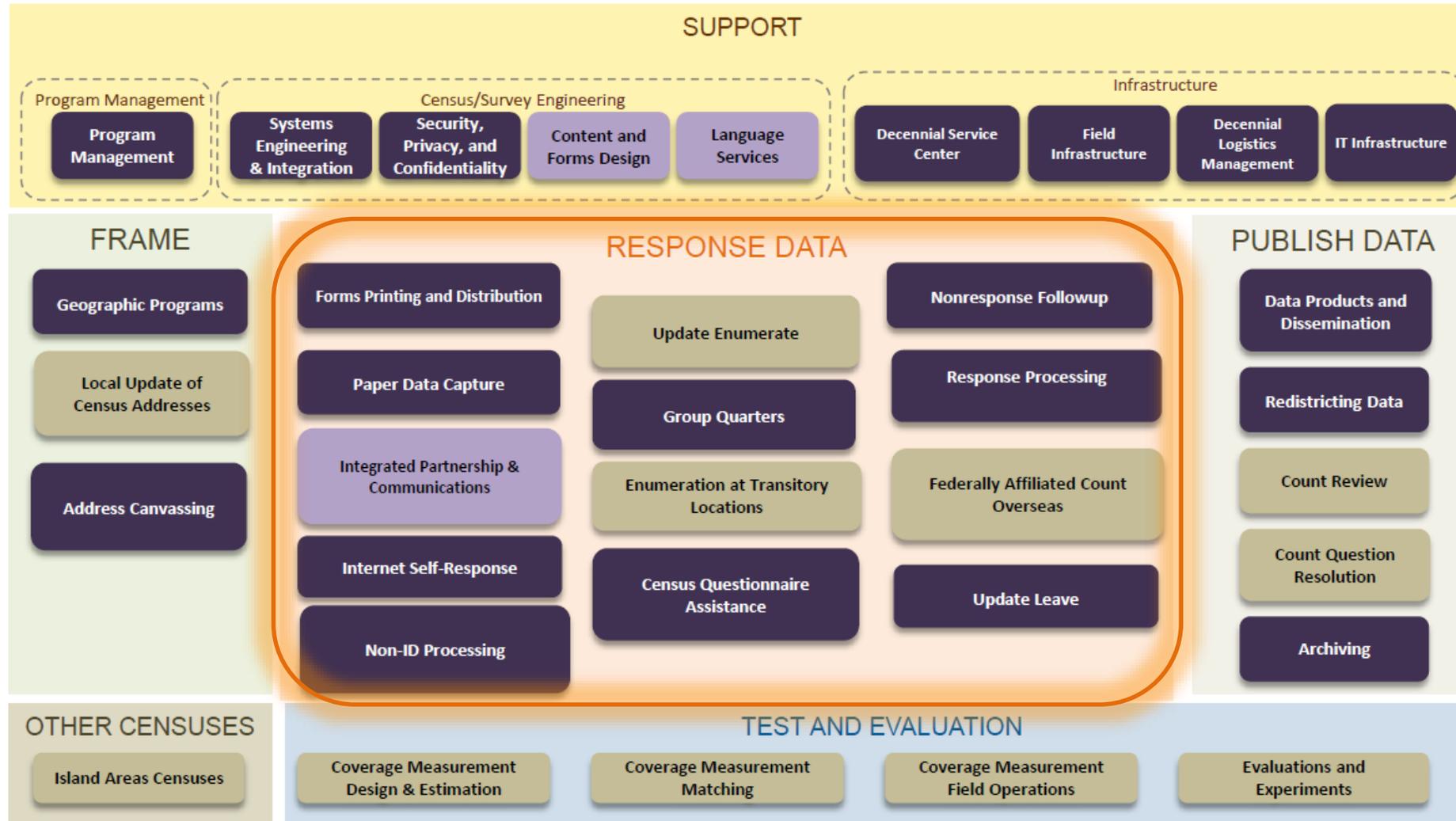
- Some aspects of technical training require improvement
- Encountered connectivity issues that will require remediation
- Revisit the business rules for optimizing assignments
- Develop operational constraints for working in a disconnected state

2018 End-to-End Census Test

Peak Operations

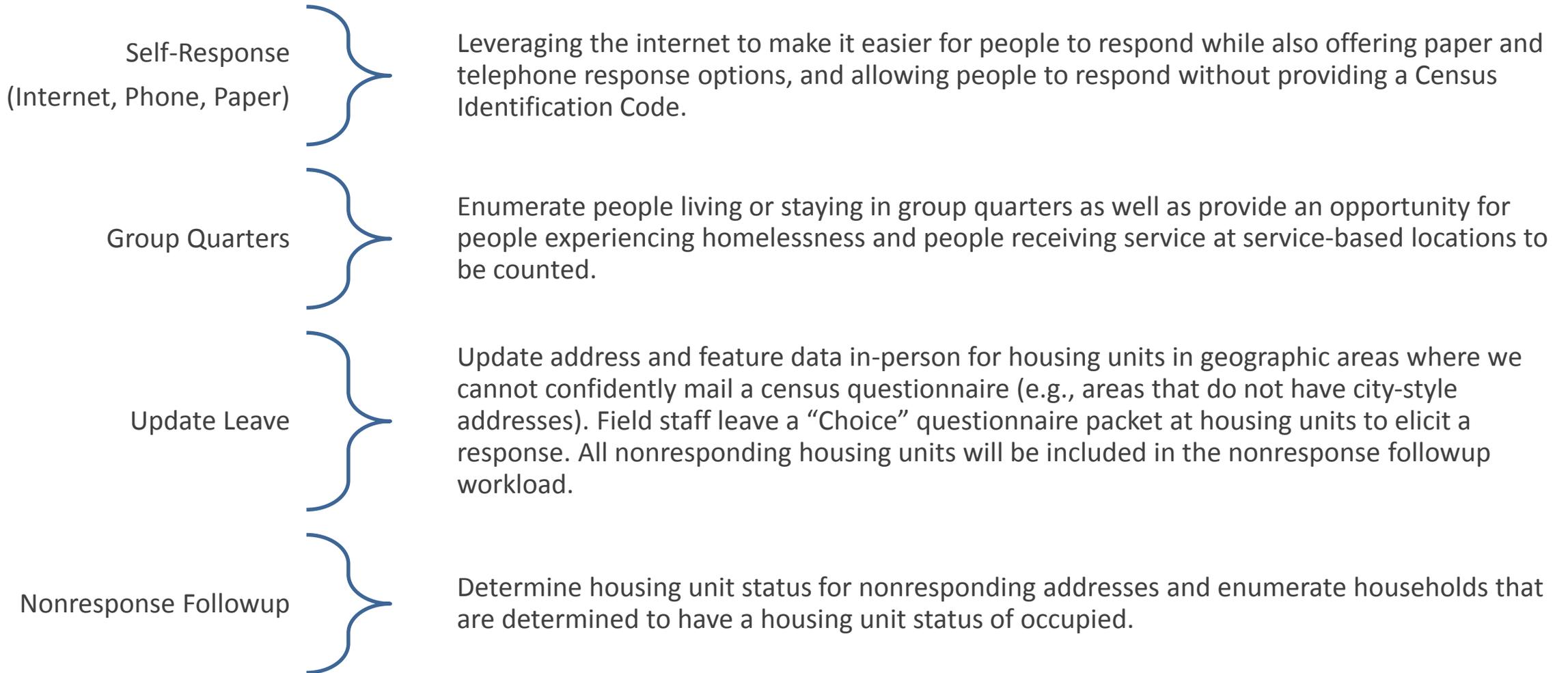
2018 End-to-End Census Test

Operational Scope



2018 End-to-End Census Test

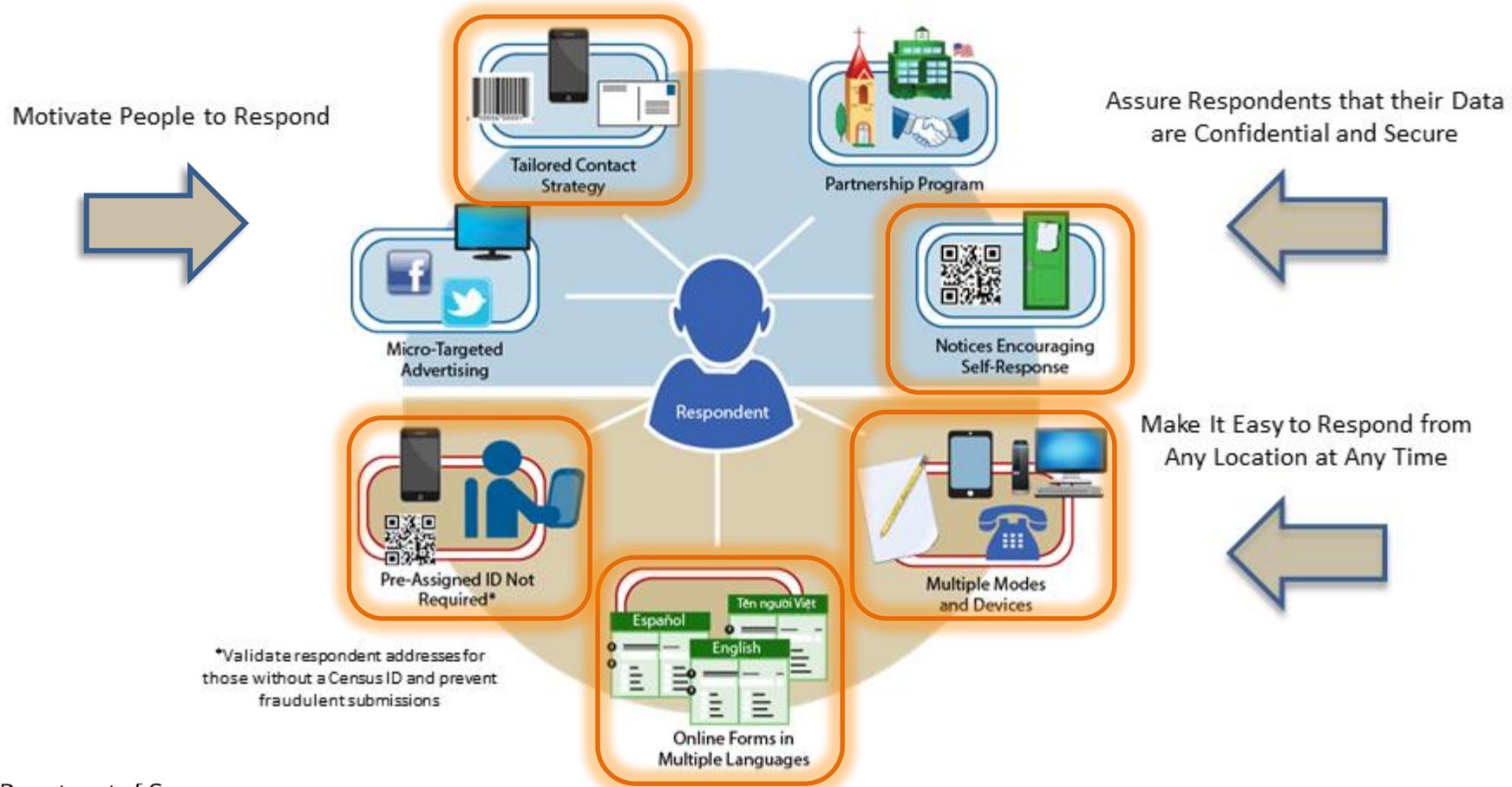
Peak Operations



The 2020 Census: Motivate People to Respond

Optimizing Self-Response

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



2018 End-to-End Census Test

Peak Operations: Self-Response

Objectives

- Maximize online response through contact strategies and improved access for respondents
- Validate the 2020 self-response contact strategy

Methodology

- Deploy a staggered mail strategy
- Collect response data via the Internet to reduce paper and in-person visits, and maximize online response via contact strategies and improved access to respondents
- Make it easy for people to respond anytime, anywhere to increase self response rates by providing response options that do not require a unique Census-assigned User ID
- Provide questionnaire assistance for respondents by answering questions about specific items or other frequently asked questions; provide an option for callers to complete an interview over the telephone

Approach

- Integrates Enterprise Censuses and Surveys Enabling (ECaSE) Internet Self-Response (ISR) application and the Census Questionnaire Assistance Solution
- Uses ECaSE Survey Operational Control System to control and manage workload
- Implements Real-Time Non-ID processing

2018 End-to-End Census Test Optimizing Self-Response

The 2010 Census

Only paper questionnaires

This is the official form for all the people at this address. It is quick and easy, and your answers are protected by law.

Start here

Use a blue or black pen.

The Census must count every person living in the United States on April 1, 2010.

Before you answer Question 1, count the people living in this house, apartment, or mobile home using our guidelines.

- Count all people, including babies, who live and sleep here most of the time.
- The Census Bureau also conducts counts in institutions and other places, so:
 - Do not count anyone living away either at college or in the Armed Forces.
 - Do not count anyone in a nursing home, jail, prison, detention facility, etc., on April 1, 2010.
 - Leave these people off your form, even if they will return to live here after they leave college, the nursing home, the military, jail, etc. Otherwise, they may be counted twice.

The Census must also include people without a permanent place to stay, so:

- If someone who has no permanent place to stay is staying here on April 1, 2010, count that person. Otherwise, he or she may be missed in the census.

1. How many people were living or staying in this house, apartment, or mobile home on April 1, 2010?

Number of people =

2. Were there any additional people staying here April 1, 2010 that you did not include in Question 1? Mark 'X' all that apply.

Children, such as newborn babies or baby children

Relatives, such as adult children, cousins, or in-laws

Nonrelatives, such as roommates or live-in baby sitters

People staying here temporarily

No additional people

3. Is this house, apartment, or mobile home — Mark 'X' ONE box.

Owned by you or someone in this household with a mortgage or loan? Include home equity loans.

Owned by you or someone in this household free and clear (without a mortgage or loan)?

Rented?

Occupied without payment of rent?

4. What is your telephone number? We may call if we don't understand an answer.

Area Code + Number - - -

OMB No. 0607-0919-C Approval Expires 12/31/2011.

Form **D-510-S-2010**

U.S. DEPARTMENT OF COMMERCE
Economic and Statistics Administration
U.S. CENSUS BUREAU

5. Please provide information for each person living here. Start with a person living here who owns or rents this house, apartment, or mobile home. If the owner or renter lives somewhere else, start with any adult living here. This will be Person 1.

What is Person 1's name? Print name below.

Last Name

First Name MI

6. What is Person 1's sex? Mark 'X' ONE box.

Male Female

7. What is Person 1's age and what is Person 1's date of birth? Please report babies as age 0 unless the child is less than 1 year old. Print numbers in boxes.

Age on April 1, 2010 (Month) Day Year of birth

→ NOTE: Please answer BOTH Question 8 about Hispanic origin and Question 9 about race. For this census, Hispanic origins are not races.

8. Is Person 1 of Hispanic, Latino, or Spanish origin?

No, not of Hispanic, Latino, or Spanish origin

Yes, Mexican, Mexican Am., Chicano

Yes, Puerto Rican

Yes, Cuban

Yes, another Hispanic, Latino, or Spanish origin — Print origin, for example, Argentine, Dominican, Dominican Republic, Salvadoran, Spanish, and so on.

9. What is Person 1's race? Mark 'X' one or more boxes.

White

Black, African Am., or Negro

American Indian or Alaska Native — Print name of enrolled or principal tribe

Asian Indian Japanese Native Hawaiian

Chinese Korean Guamanian or Chamorro

Filipino Vietnamese Samoan

Other Asian — Print race, for example, Filipin, Torgin, Pakistani, Cambodian, and so on.

Other Pacific Islander — Print race, for example, Fijian, Tongan, and so on.

Some other race — Print race

10. Does Person 1 sometimes live or stay somewhere else?

No Yes — Mark 'X' all that apply.

In college housing For child custody

In the military In jail or prison

At a seasonal or second residence In a nursing home

For another reason

→ If more people were counted in Question 1, continue with Person 2.

The 2020 Census

Internet, phone, and paper response options

2017 Census Test

Welcome to the 2017 Census Test

The U.S. Census Bureau is testing modern and cost-efficient methods for the population to meet its legal obligation to conduct the 2020 Census. Whether through the internet, telephone, traditional paper questionnaire, or in-person visit, the Census Bureau is committed to making the mandatory census quick, easy, and safe for all to participate.

Why should I respond?

- The information you provide will help determine the content and design of the 2020 census.
- It's quick, secure, and confidential. Your information and privacy are protected.
- It's quick and easy. This survey will take about 10 minutes to complete.

[Start Questionnaire](#)

What to expect?

The Census Bureau will generate questions about the household, including how many people live in the house and if the house is owned or rented. For each person, we will ask for the name, sex, date of birth, race, and relationship to the respondent.

On the Road to the 2020 Census

U.S. Census Bureau Notice and Consent Form

You are accessing a United States Government computer network. Any information you enter into this system is confidential and may be used by the Census Bureau for statistical purposes, as well as for other uses related to the operation and maintenance of the system, and for your privacy protection. Visit our online privacy webpage at <http://www.census.gov/2017census/privacy-policy.html> for this system network's privacy policy.

To help our website remain accurate and available to you and all other visitors, we monitor network traffic to identify and thwart attempts to upload or change information or otherwise cause damage to the website. You are not using the website computers for unlawful purposes, there is a violation of the law and can be punished with fines or imprisonment. PUBLIC LAW 115-191, which took effect on October 1, 2017.

OMB No. 0607-0919 | Approval Expiration Date: 12/31/2018



2017 Census Test

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OMB No. 0607-0919 | Approval Expiration Date: 12/31/2018

2018 End-to-End Census Test

Self-Response Mail Strategy

Self-Response

- Self-response contact strategy: two-panel design
- ~ 271,000 housing units in sample
 - ~ 184,000 (67.9 percent) Internet First (invitation letter on first contact)
 - ~ 87,000 (32.1 percent) Internet Choice (questionnaire on first contact)

March							April						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3	①	2	3	4	5	6	7
4	5	6	7	8	9	10	8	9	10	11	12	13	14
11	12	13	14	15	16	17	15	16	17	18	19	20	21
18	19	20	21	22	23	24	22	23	24	25	26	27	28
25	26	27	28	29	30	31	29	30					

Panel	Cohort	Mailing 1 <i>Letter (Internet First) or Letter + Questionnaire (Internet Choice)</i>	Mailing 2 <i>Letter</i>	Mailing 3* <i>Postcard</i>	Mailing 4* <i>Letter + Questionnaire</i>	Mailing 5* <i>"It's not too late" Postcard</i>
Internet First	1	March 16, 2018	March 20, 2018	March 30, 2018	April 12, 2018	April 23, 2018
	2	March 20, 2018	March 23, 2018	April 3, 2018	April 16, 2018	April 26, 2018
	3	March 23, 2018	March 27, 2018	April 6, 2018	April 19, 2018	April 30, 2018
Internet Choice	N/A	March 16, 2018	March 20, 2018	March 30, 2018	April 12, 2018	April 23, 2018

(*) Targeted only to nonrespondents

2018 End-to-End Census Test

Peak Operations: Nonresponse Followup

Objectives

- Use administrative records to inform and reduce the Nonresponse Followup (NRFU) workload
- Evaluate refined field operations, including a reengineered field staffing structure and a reengineered operational control system that optimizes case assignments and routing
- Measure the efficiency and effectiveness of the field staff structure and workload
- Evaluate the cost of the operation and quality of the response data obtained

Methodology

- Use of administrative records and third-party data to determine occupancy status and set contact strategies for nonresponding housing units
- Use of an automated and integrated case assignment, case management, and data collection
 - Replacing paper-based operations to provide a faster, more accurate, and more secure means of data collection

Approach

- Use Enterprise Censuses and Surveys Enabling (ECaSE) Enumeration Application to support both production and quality control components
- Integrate with ECaSE Field Operational Control System using our Mobile Case Management (MCM) system
- ECaSE Time and Expense
- Use Automated Training Solution

2018 End-to-End Census Test

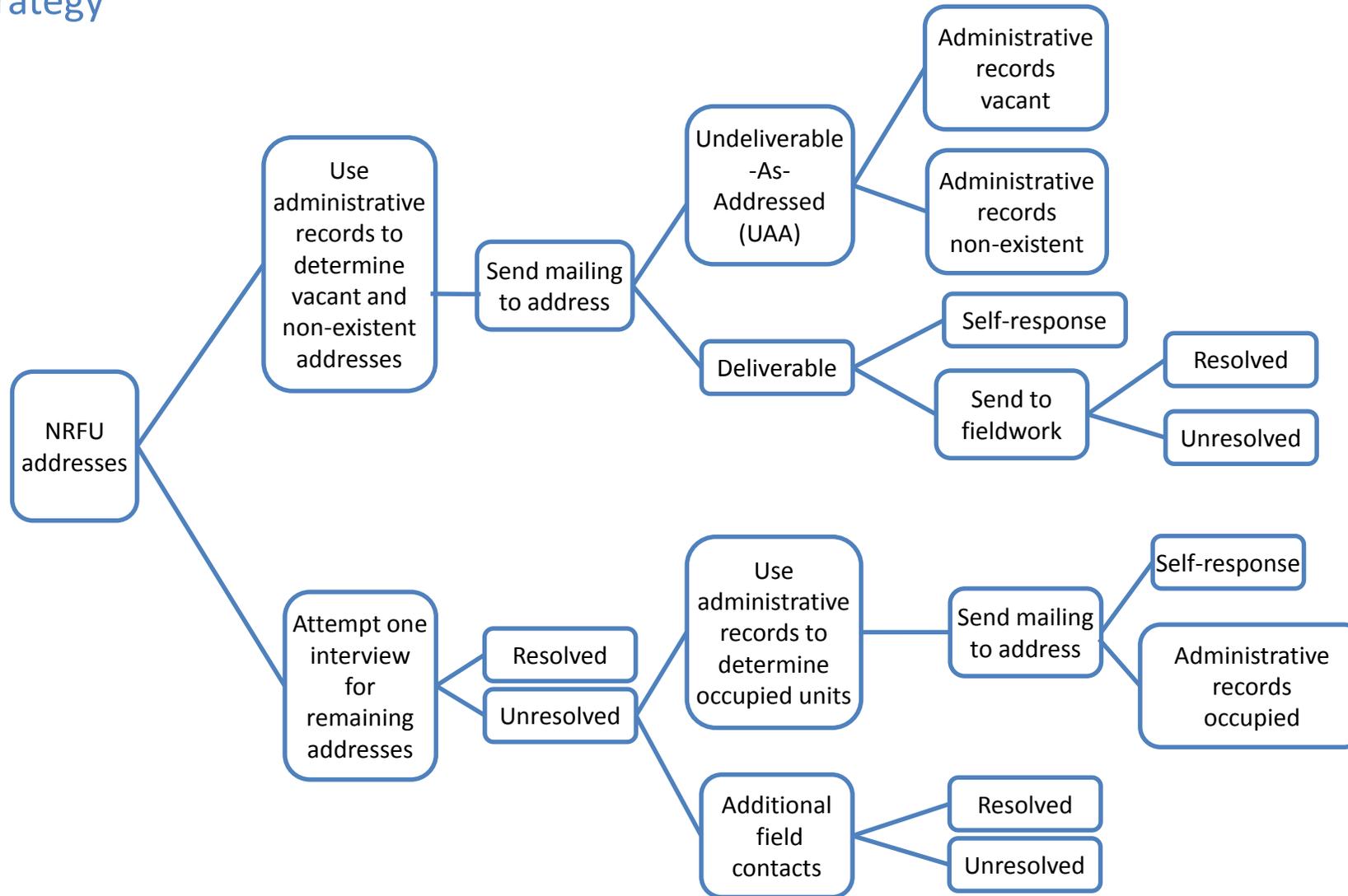
Utilizing Administrative Records and Third-Party Data

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

Improve the Quality of the Address List	 Update the address list	 Validate incoming data from federal, tribal, 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

2018 End-to-End Census Test

Contact Strategy

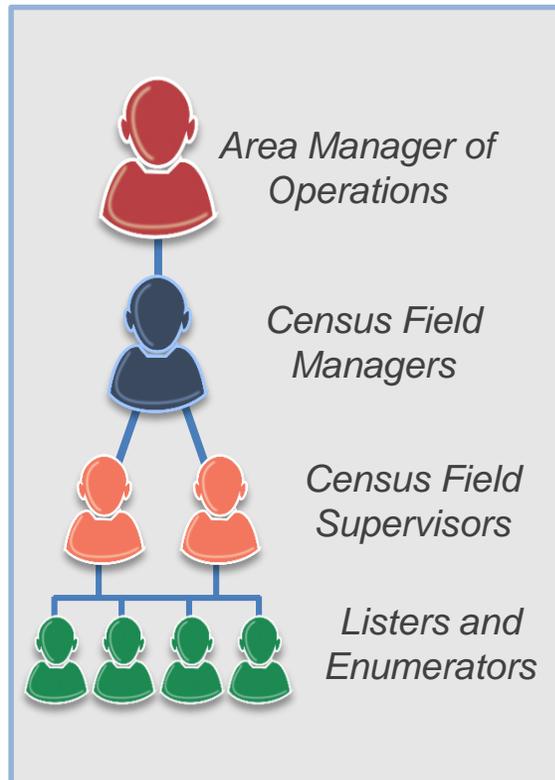


2018 End-to-End Census Test

Reengineering Field Operations

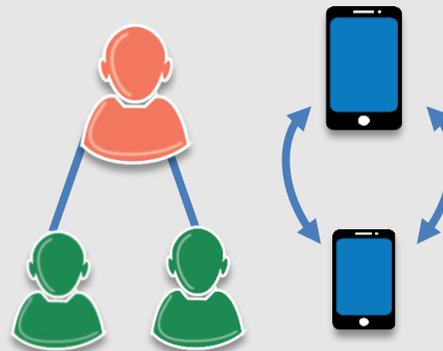
Use technology to more efficiently and effectively manage the 2020 Census fieldwork

Streamlined Office and Staffing Structure



Increased use of Technology

- Automated and optimized work assignments
- Automated recruiting, training, payroll and expense reporting
- 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



2018 End-to-End Census Test

Reengineering Field Operations

The 2010 Census

- Printed paper register listing each enumerator's caseload along with paper maps

This report is generated once daily

This report contains Personally Identifiable Information (PII), the release of which is protected by the Privacy Act of 1974

D-948A (NRFU) U.S. DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. CENSUS BUREAU

CASE STATUS REPORT BY ENUMERATOR
OPERATION: NONRESPONSE FOLLOWUP
2010 CENSUS

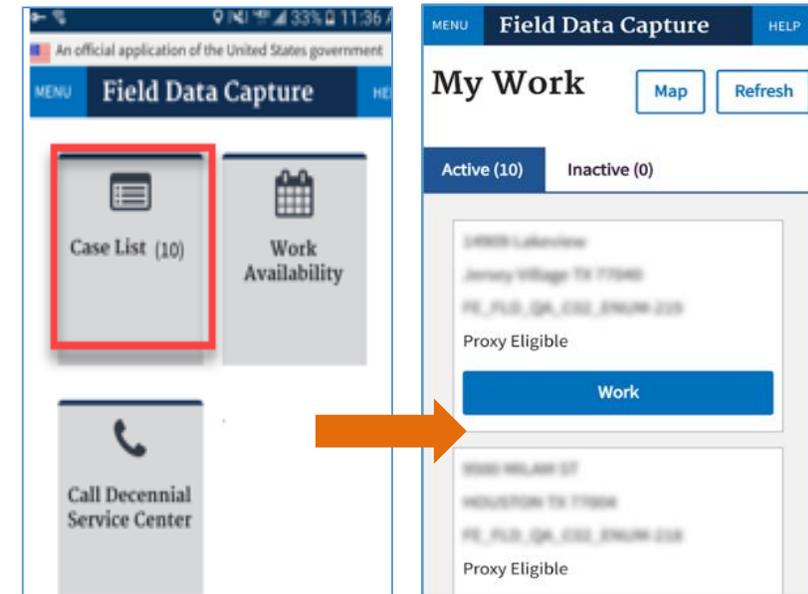
RCC: 33200 Metroville
LCO: 33200 Centerville
FOSD: 01
CLD: 0005

Create Date/Time 5/12/2010 5:30 am
Print Date/Time 5/12/2010 10:30 am

Employee Name	Applicant ID	# Total Cases Assigned	# HU Adds	# Cases CHKD In	% Cases CHKD In (7)	Outstanding Workld	# Cases POP = 1	% Cases POP = 1 (10)	# Non Interview	% Non Interview	# Close Out	% Close Out	# VAC	% VAC	# DEL	% DEL	# Proxy Cases	% Proxy Cases
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
Enum01		60		25	41.66	35	4	16%	2	8%								
Enum1_1		51		20	39.21	31												
Enum2_1		41		30	73.17	11	2	7%										
Enum4_1		70	3	39	55.71	34	3	8%	2	5%							3	
Enum5_1		56		29	51.78	27			5	17%			1	3%			3	1
Enum7_1		76	1	64	83.12	13	5	8%			1	2%			1	2%		2
Enum6_1		62		54	87.01	8			1	2%	3	6%			3	6%		6
Enum8_1		69		51	73.91	18	3	6%										
Enum9_1		70		52	74.28	18							2	4%	3	6%	2	5
Enum10_1		65	2	57	85.01	10	1	2%	4	8%			3	5%	1	2%	1	4
Enum3_1		68		32	47.05	36			3	9%					1	3%	3	1
Enum12_1		55		46	83.64	9	5	11%			1	2%					1	1
Enum13_1		70		43	61.43	27					3	7%			3	7%	3	
Enum14_1		66		35	53.03	31	5	14%			1	3%	3	9%				4
Enum15_1		70		26	37.14	44	3	12%			2	8%	2	8%	1	4%		5
CLD Totals		949	6	603	63.54%	352	31	5%	17	3%	11	2%	11	2%	13	2%	16	29

The 2020 Census

- Operational Control System
 - Delivers optimized routing
 - Sends alerts to focus managers on areas needing review
- Allows managers to oversee more enumerators than in 2010



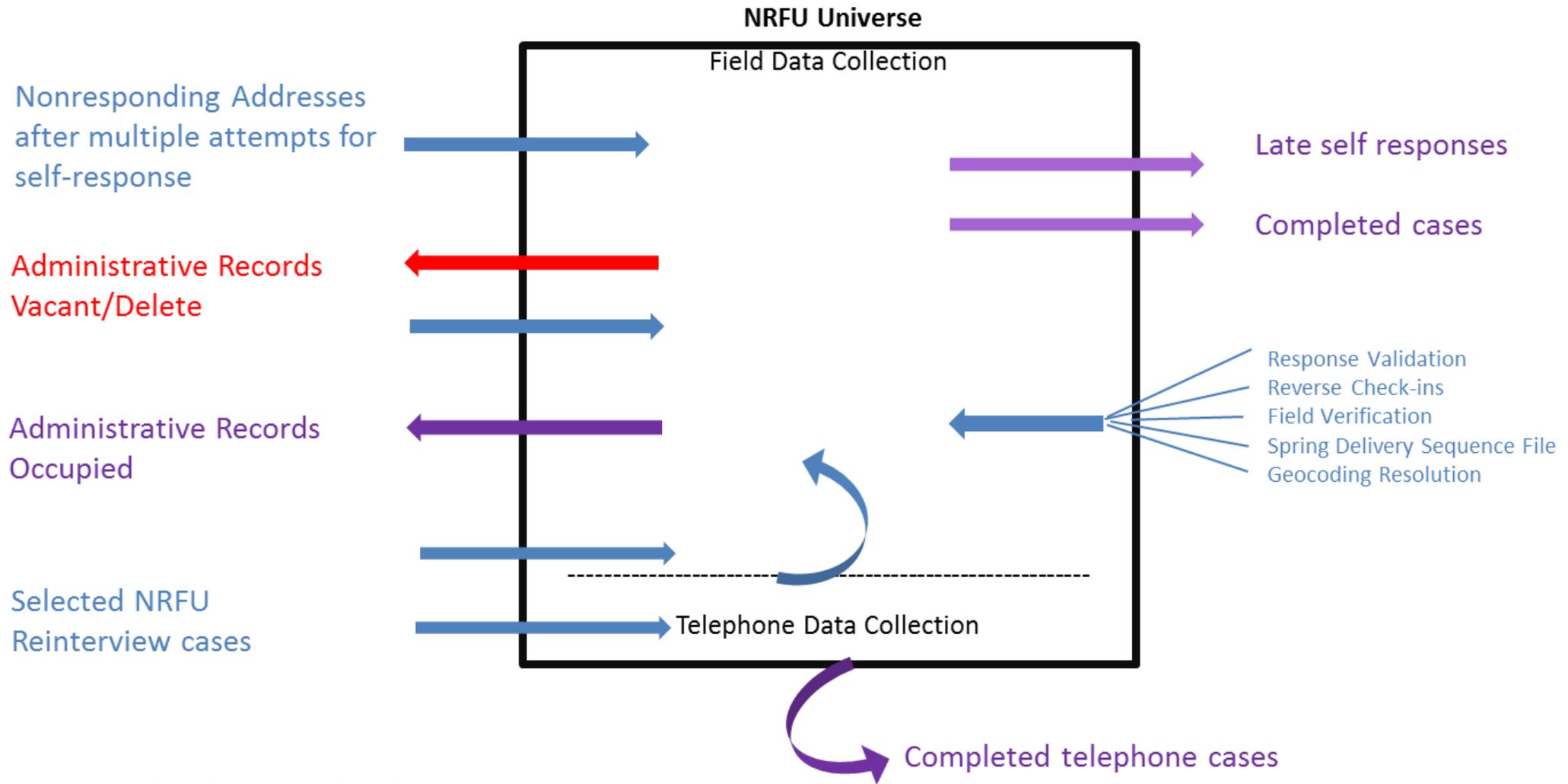
2018 End-to-End Census Test

Key Activities for Nonresponse Followup

Activity	Date	
Begin Recruiting for Nonresponse Followup (NRFU)	September 5, 2017	✓
Conduct Census Field Manager (CFM) Training	March 26, 2018	
Census Day	April 1, 2018	
Conduct Census Field Supervisor (CFS) Training	April 10, 2018 – April 18, 2018	
Conduct Enumerator Training	April 28, 2018 – May 10, 2018	
Start NRFU Enumeration	May 9, 2018	
Start NRFU Reinterview	May 10, 2018	
Conclude NRFU Enumeration	July 24, 2018	
Conclude NRFU Reinterview	July 31, 2018	

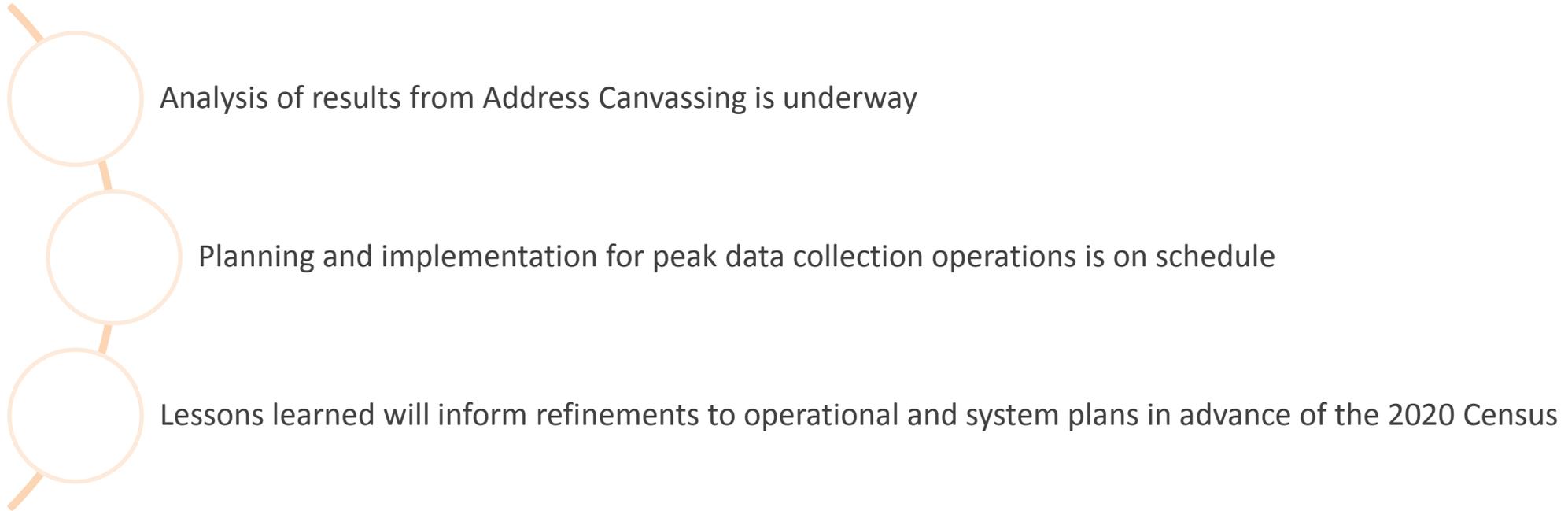
2018 End-to-End Census Test

Nonresponse Followup Estimated Workload



* Addresses not previously in the enumeration universe.

2018 End-to-End Census Test Summary



Questions?

Break

Area Census Office Locations

Burton Reist

Decennial Communications and Stakeholder Relations

Area Census Office Locations

Process Overview

Number of Offices

- Anticipated nonresponse followup workloads
- Management factors, including optimal number of census takers per office

Delineation of Offices

- Anticipated nonresponse followup workloads
- Demographic factors, including historical contact data, location of group quarters, location of Hard-to-Count population
- Geographic factors, including both political and physical boundaries

Office Location and Selection

- Anticipated nonresponse followup workloads
- Demographic factors, including population density, and location of Hard-to-Count population
- Geographic factors, including transportation infrastructure

Area Census Office Locations

Determining Number of ACOs

- Calculated the estimated field workload in each state, county, tract
- Data used:
 - Historical Census Data
 - Response rate projections
 - 2010 Nonresponse Followup (NRFU) contact history data
- Determined how many enumerators would be needed
- Determined how many enumerators each ACO could effectively manage
- Aimed to have about the same size workload and number of enumerators in each office
- Took into account geographic boundaries
- Included local knowledge from the regions

Area Census Office Locations

Delineation Comparison

United States[™]
Census
2010

Local Census Offices = 494

Early Local Census Offices = 150

NRFU Cases/Office = 95,618

Core NRFU Enumerators/Office = 651

United States[™]
Census
2020

Area Census Offices = 248

Wave 1 Area Census Offices = 40

NRFU Cases/Office = Approximately
200,000

Core NRFU Enumerators/Office =
Approximately 1100

Area Census Office Locations

2020 ACO Delineation Process

- Establish Criteria
- Conduct Initial Delineation
- Conduct Interactive Review (input from Regional Offices)
- Census Management Review

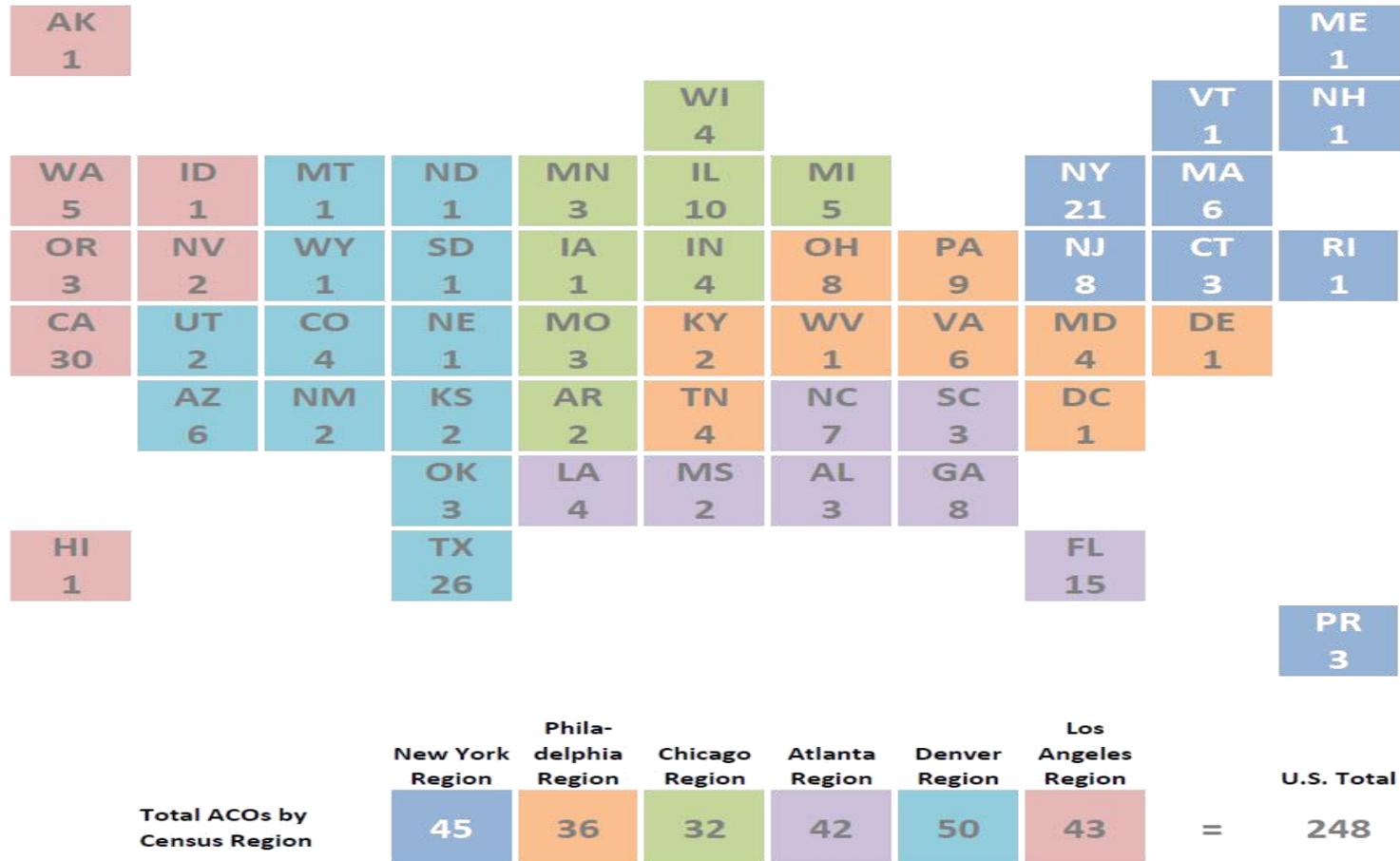
Area Census Office Locations

2020 ACO Delineation Criteria

- At least one ACO per state
- Must not split Indian Reservations, regardless of county, state or regional boundaries
 - Trust lands may differ, based on consultations with tribal governments
- Must not split military bases
- Must not cross state or regional boundaries, with noted exceptions above
- After the ACO boundaries were determined, identified tentative locations for ACOs by considering:
 - Closest major cities/towns
 - High population density
 - Hard-to-Count population
 - Availability of office space
 - Close to major transportation networks
 - Areas with a diverse labor force and applicant pool

Area Census Office Locations

Delineation by Region and State



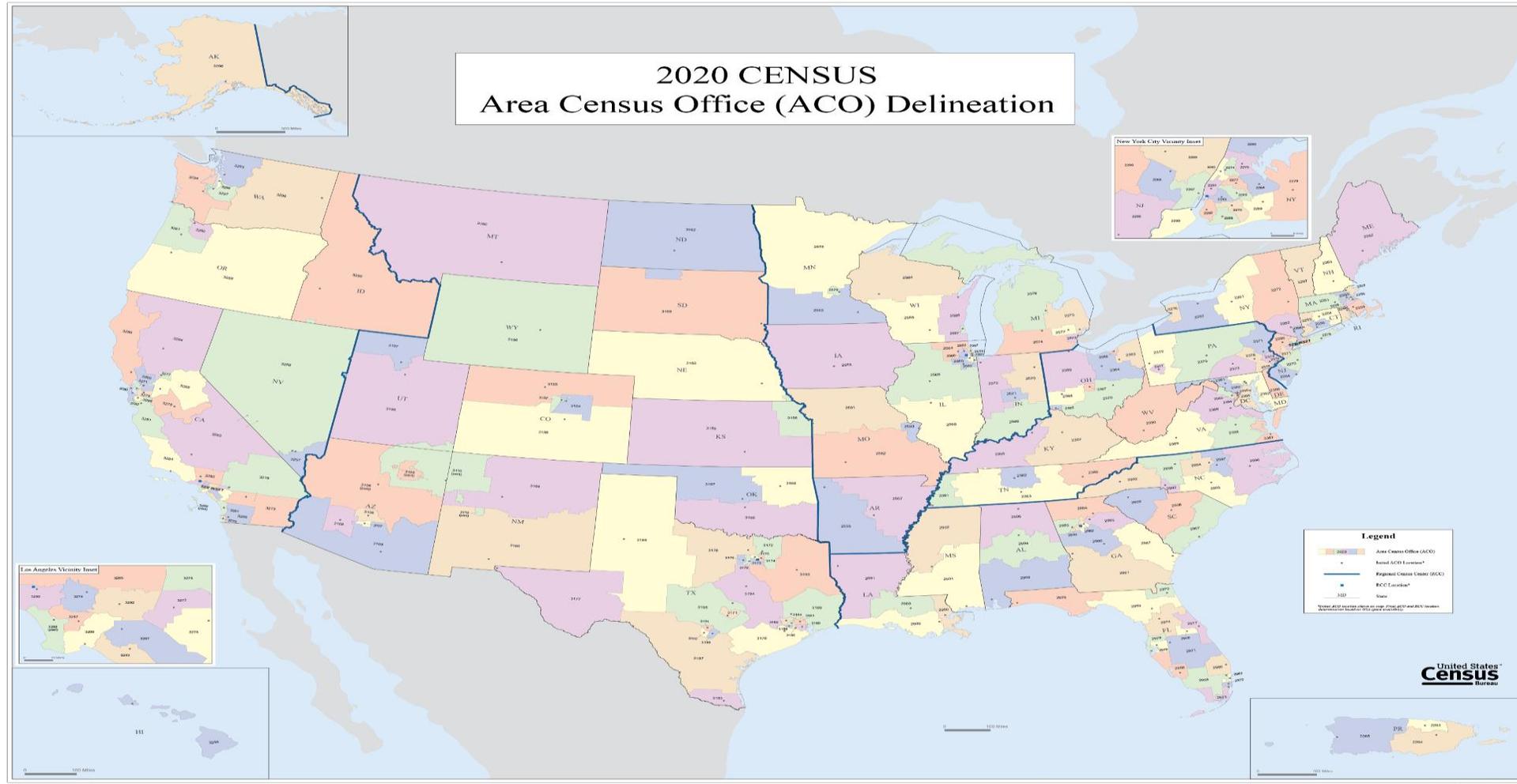
Area Census Office Locations

Delineation Summary by Region

Region	Total ACOs	Wave 1 ACOs	Average Estimated NRFU Workload	Total Number of Core Enum per Region	Average Number of Core Enum per ACO
New York	45	7	175,751	31,813	707
Philadelphia	36	6	228,240	26,553	738
Chicago	32	5	241,863	22,650	708
Atlanta	42	9	232,542	29,296	697
Denver	50	6	168,495	32,741	655
Los Angeles	43	7	216,806	29,967	696
Total	248	40	207,174	173,021	697

Area Census Office Locations

Proposed Area Census Office Delineation Map



The exact location of each office is yet to be finalized. The Census Bureau has determined areas of consideration and is working with GSA to determine suitable office locations. The exact location (including the area of consideration) could change during this process.

Area Census Office Locations

2020 Regional Census Center/Area Census Office Milestones

Activity	Date
Begin opening Regional Census Centers (RCCs)	April 2018
Wave 1 ACOs	January – March 2019
Open remaining ACOs	July – September 2019
Complete closing all ACOs	December 2020
Complete closing all RCCs	June 2021

* Locations are deemed preliminary until GSA leasing process is complete.

Questions?

Redistricting Data Program

James Whitehorne

Census Redistricting & Voting Rights Data Office

Redistricting Data Program

Mission:

Provide the officers or public bodies having initial responsibility for the legislative apportionment or districting of each state an opportunity to identify the geographic areas for which specific tabulations of population are desired and to deliver those tabulations in a timely manner.

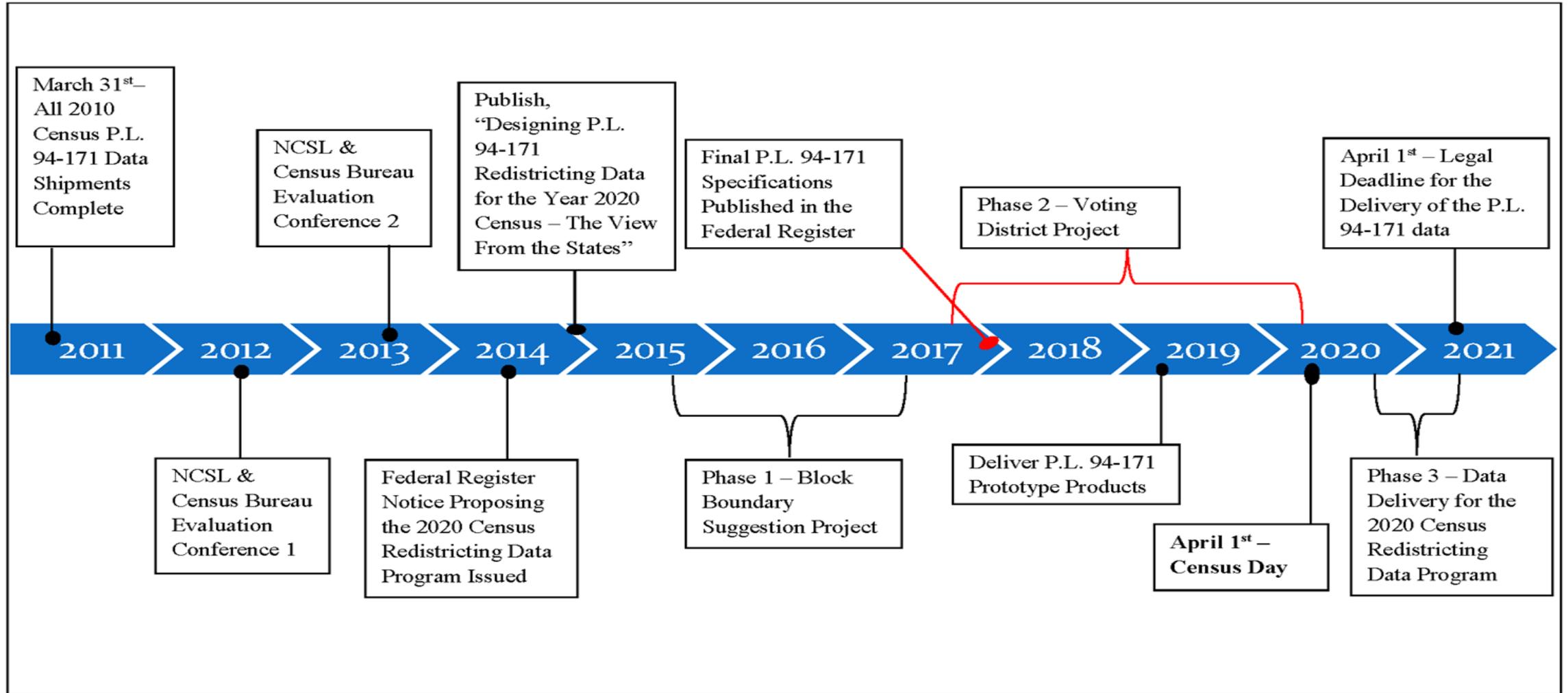
Requirements:

- Establish program criteria
- Identify required tabulations
- Conduct the program in a nonpartisan manner
- Deliver the tabulations to the governor and the officers or public bodies having initial responsibility for the legislative apportionment or districting of each State no later than one year from Census Day (April 1, 2021)

Identified “geographic areas desired”:

- Census Tabulation Blocks
- Voting Districts (e.g. precincts, wards, etc.)
- Legislative and Congressional Districts

Redistricting Data Program



Redistricting Data Program

Phase 1

Block Boundary Suggestion Project (BBSP)

Activity	Date
Initial Delineation	December 2015 – May 2016
Verification	December 2016 – May 2017

BBSP Participation

State	BBSP Initial	BBSP Verification
States Participating	36	34
States with changes for all counties	11	7
States with BAS Updates	17	19
County		
Participated – Submitted Updates	1150 (36 percent of nation)	966 (30 percent of nation)
Participated – No Updates	881 (27 percent of nation)	903 (28 percent of nation)
Did Not Participate	1,188 (37 percent of nation)	1,351 (42 percent of nation)

Redistricting Data Program

Phase 2 – Voting District Project (VTDP)

Activity	Date
Initial Delineation	January 3, 2018 – May 31, 2018
Verification I	January 2, 2019 – May 31, 2019
Verification II*	January 2, 2020 – March 31, 2020

*Added a short second round of verification for those states who participate in both the Initial Delineation and the first round of Verification

Redistricting Data Program

Phase 3 – Data Delivery

Activity	Date
Prototype Geographic Support Products	January 2019 – February 2019
Prototype P.L. 94-171 Redistricting Data	March 2019
Geographic Support Products	November 2020 – February 2021
P.L. 94-171 Redistricting Data	February 2021 – March 31, 2021

Geographic Support Products

- Shapefiles
- Maps (PDF only)
- Block Assignment Files
- Block to Block Relationship Files

Redistricting Data Program

Phase 3 – Data Delivery (continued)

P.L. 94-171 Redistricting Data

2010	2018 Prototype
Table P1 – Race	Table P1 – Race and Hispanic or Latino Origin
Table P2 – Race for Population 18 Year and Over	Table P2 – Race and Hispanic or Latino Origin for the Population 18 and Over
Table P3 – Hispanic or Latino, and not Hispanic or Latino by Race	
Table P4 – Hispanic or Latino, and not Hispanic or Latino by Race for the Population 18 and Over	
Table H1 – Occupancy Status (Housing)	Table H1 – Occupancy Status (Housing)
New Table	
Table P? – Group Quarters Population by Group Quarters Type	

Redistricting Data Program

Phase 4 – Congressional and State Legislative Districts Collection

Activity	Date
115 th Congress and 2016 State Legislative Districts	November 2015 – April 2016
116 th Congress and 2018 State Legislative Districts	November 2017 – April 2018
117 th Congress and 2020 State Legislative Districts	No Collection
118 th Congress and 2022 State Legislative Districts	November 2021 – April 2022

2010 115th Congress 100 percent Data

- Retabulation of the 2010 Census Summary File 1 Data
- Released October 19, 2017

Redistricting Data Program

Milestones

Activity	Date	
Federal Register Notice (FRN) announcing the 2020 Census Redistricting Data Program	July 15, 2014	✓
Publish “The View From the States” for the 2020 Census	January 5, 2015	✓
Establish 2020 Redistricting Data Program liaisons	April 2015 to February 2016	✓
FRN announcing Phase 1 – Block Boundary Suggestion Project (BBSP)	June 26, 2015	✓
BBSP Invitation to participate	August 31, 2015	✓
Collect boundaries for the 115 th Congress and 2016 State Legislative Districts	November 2015 to April 2016	✓
BBSP Completed	July 31, 2017	✓
FRN announcing Phase 2 – Voting District Project (VTDP)	June 28, 2017	✓
VTDP Invitation to participate	September 29, 2017	✓
FRN for comment on prototype data design from 2018 Census Test	October, 2017	
Collect boundaries for the 116 th Congress and 2018 State Legislative Districts	November 2017 to April 2018	
FRN final prototype data design from 2018 Census Test	March 2018	
Deliver prototype data and geographic files from the 2018 Census Test	March 2019	
VTDP Completed	March 2020	
Deliver official P.L. 94-171 Redistricting Geographic Files	November 2020 to February 2021	
Deliver official P.L. 94-171 Redistricting Data Summary Files	February 2021 to March 2021	

Questions?

Integrated Partnership and Communications Plan: Version 1.0

Maria Olmedo-Malagon

Decennial Communications Coordination Office

Integrated Partnership and Communications Outline

- Overview
- Research Roadmap
- 2020 Census Integrated Communications Plan

Integrated Partnership and Communications

Main Components

The Integrated Partnership and Communications operation communicates the importance of participating in the 2020 Census to the entire population of the 50 states, the District of Columbia, Puerto Rico and the Island Areas to:

- Engage and motivate people to self-respond, preferably via the internet
- Raise and keep awareness high throughout the entire 2020 Census to encourage response



Integrated Partnership and Communications

Research and Communications Integration

STEP 1



Predictive Models

STEP 2



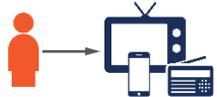
Conduct the Census Barriers, Attitudes, and Motivators Survey (CBAMS) 2020

STEP 3



Segmentation

STEP 4



Media Planning

STEP 5



Design Advertising

STEP 6



Deliver Advertising

STEP 7



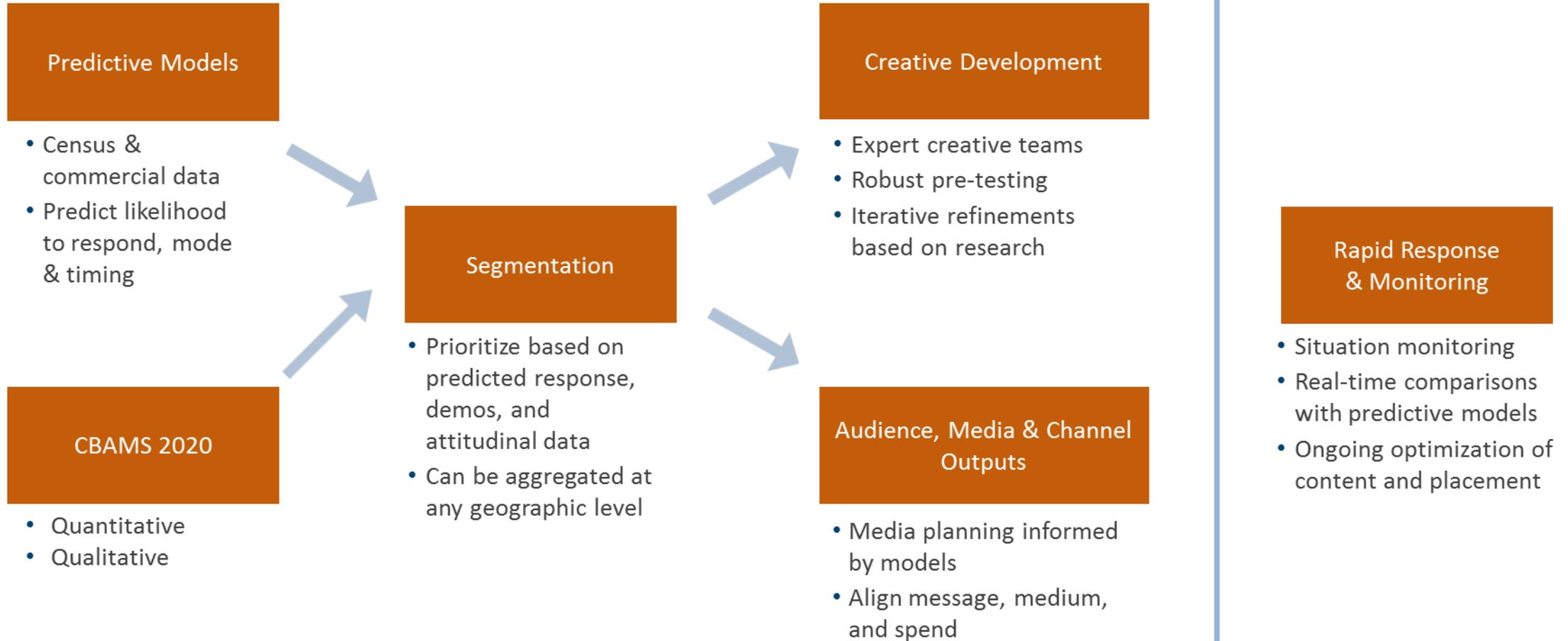
Optimize Resources

STEP 8



Rapid Response

Integrated Partnership and Communications Research Roadmap



Integrated Partnership and Communication

Predictive Models & Segmentation

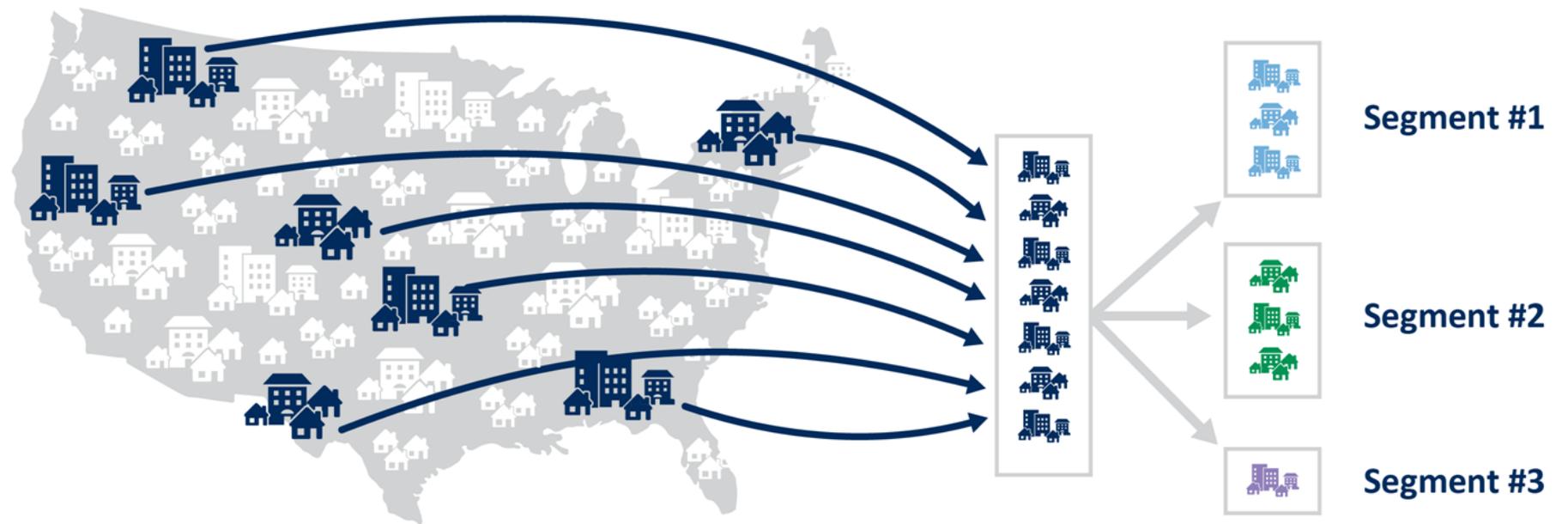
Key inputs

- Census data
- Research insights
- 3rd party data
- Media usage data

Predictive modeling

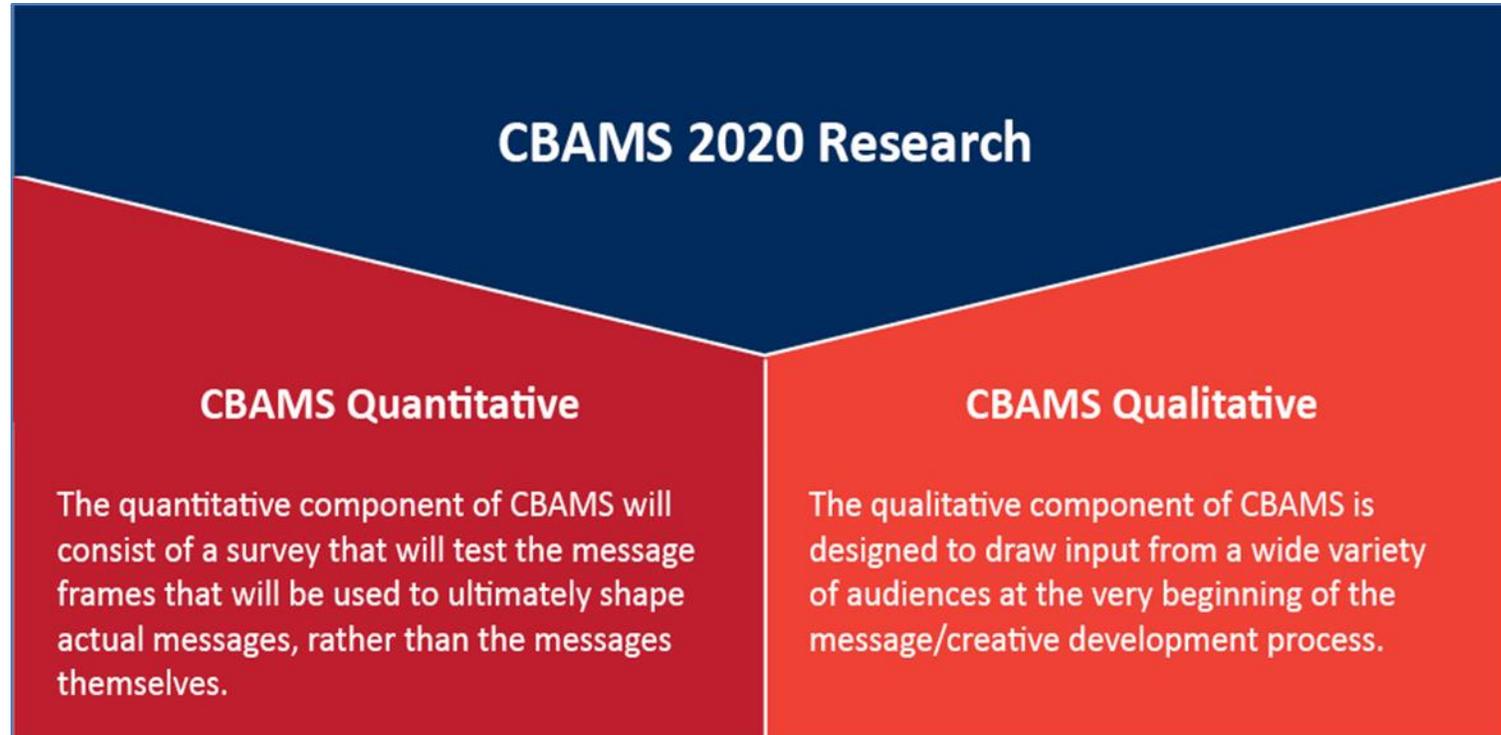
- Likelihood to respond
- Mode (online, paper)
- Timing of response
- Attitudes & messaging

Segmentation Sorts Low-Response Tracts into Distinct Clusters



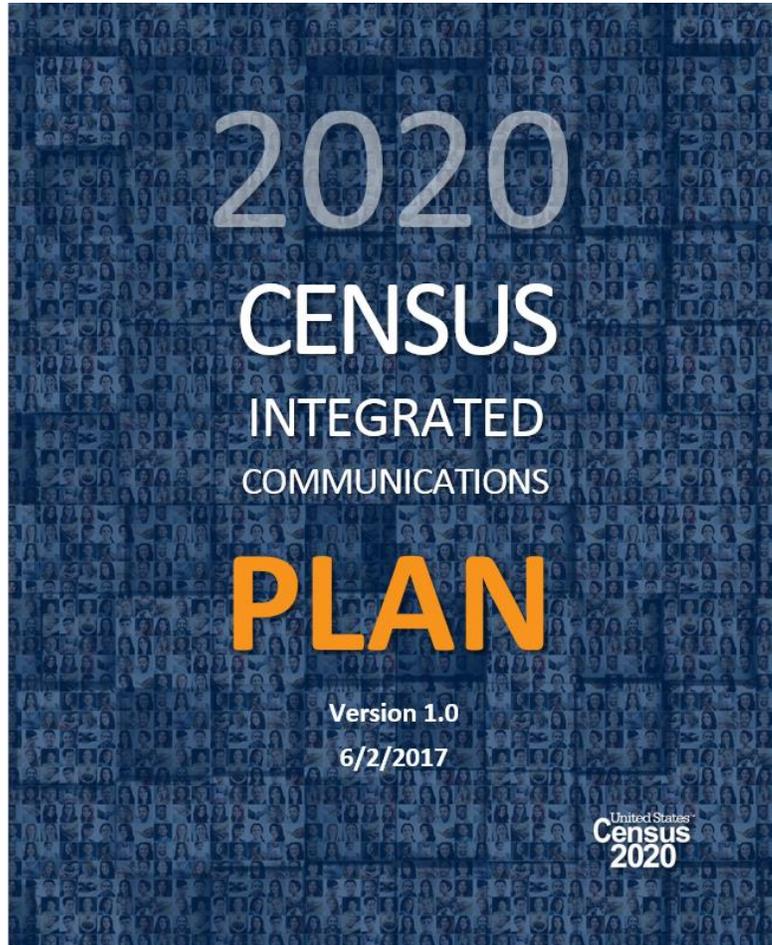
Integrated Partnership and Communications

Census Barriers, Attitudes, and Motivators Study (CBAMS) 2020 Research



Integrated Partnership and Communications

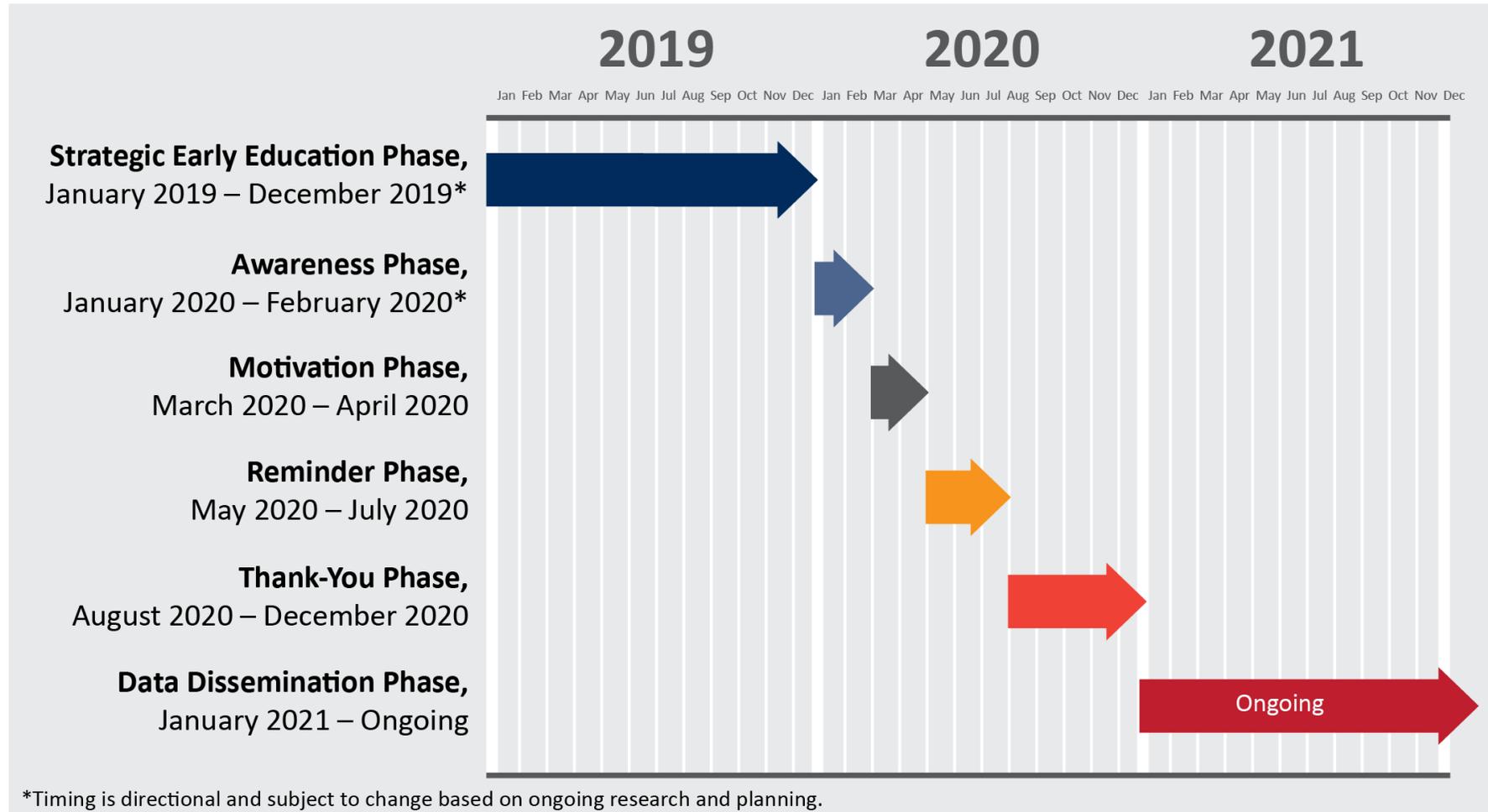
Key Elements of Integrated Communications Contract Plan



- Advertising and Media Buying
- Stakeholder Relations and Partnership Programs
- Website Development
- Social Media
- Public Relations and Events and Crisis Communications
- Rapid Response Activities
- Statistics in Schools Program
- Field Recruitment Advertising and Communications
- Data Dissemination

Integrated Partnership and Communications

Preliminary Phases of 2020 Census Communication*



*All upcoming activities are contingent upon approval of the 2020 Census Integrated Communications Plan v.1 and funding availability.

Integrated Partnership and Communications

Advertising and Media Buying

Key Considerations

- Competition with other 2020 events (elections, Olympics)
- Ongoing and rapid changes to media landscape
- Role of digital is key, but limitations for reaching some audiences
- Upfront media buy (May 2019) critical for securing majority of advertising inventory

Approach

- Monitor opportunities for emerging technologies
- Paid media/advertising 101 + Paid Media Review Team
- Research and data-driven planning at small geography level provided greater flexibility in managing and optimizing paid media
- Mix of digital and traditional media
- Streamlined, cross-team participation
- Optimize based on rapid response activities

Integrated Partnership and Communications

Stakeholder Relations and Partnership Programs

Stakeholder Relations

Key Considerations

- Early outreach and ongoing engagement
- Significant influence on campaign success – data users, connections to HTC groups
- Educate stakeholders on campaign processes (e.g., creative development, media buying)
- Localized engagement

Approach

- Enlist stakeholders to support the word among their own audiences
- Integrate closely with existing Census Bureau stakeholders relations effort
- Solicit stakeholder input throughout campaign
- Provide regular briefings and updates

Partnership Programs

Key Considerations

- Early start and ongoing engagement
- Integration and continuous coordination of local and national partners engagement
- Coordinated, audience-focused approach to identifying partners and activities

Approach

- Leverage trusted voices, both locally and nationally
- Tiers of support based on partner reach and interest
- Early engagement with national and corporate partners to accommodate longer planning cycles and maximize commitment
- Develop suite of customizable materials to increase reach and utility (digital and print)

Integrated Partnership and Communications

Website Development

Key Considerations

- Website is key to digital census (awareness, validation, conversion, dissemination)
- Consistent user experience across digital properties and survey tool
- Cybersecurity
- Rapid Response support
- Scaling data dissemination

Approach

- Mobile-First approach
- Tailor content and landing pages by audience
- Offer content in multiple languages
- Conduct full User Inference (UI)/User Experience (UX) testing early to optimize usability
- Ensure site provides ability to continuously refine landing page content and layout based on web analytics
- Continual integration with other program areas

Integrated Partnership and Communications

Social Media

Key Considerations

- Rapidly changing and crowded landscape
- Real-time customer service
- Alignment with other federal agencies' standards & protocols

Approach

- Determine mix of channels
- Develop rich content: multimedia, multilingual, user-generated
- Streamline content approval and deployment process
- Continually monitor to optimize media and respond to issues
- Engage partners & influencers to amplify messaging
- Supporting digital/in-person events and recruiting

Integrated Partnership and Communications

Public Relations and Events and Crisis Communications

Key Considerations

- Changing media landscape + evolving consumption habits
- Competition with other news/events
- Potential for cyber threats; concerns with security, validity of online content

Approach

- Phased execution, shifting messaging based on campaign timing and response data
- Host engagement events to drive response
- Establish central/regional crisis teams and develop scenario-based plans for key risks
- Conduct media/risk trainings for spokespeople

Integrated Partnership and Communications

Rapid Response Activities

Key Considerations

- Objective of rapid response is to maximize response and minimize cost (boost early response, digital response, and overall self-response)
- Includes reporting and program optimization across communications channels (includes PR and Crisis)
- Data-based decision making requires integration of response data and campaign activity data
- Current plans for modeling and executing at a small-geography level

Approach

- Build rapid response team and protocols
- Develop issue/response hierarchy to streamline decisions
- Actively monitor campaign data and respond to issues

Integrated Partnership and Communications

Statistics in Schools Program

Key Considerations

- Shorter, more flexible activities
- Alignment with school curriculums
- Outreach to home-school educators
- 2020 Census page on SIS website*

Approach

- Develop and distribute outreach materials (e.g., explanatory SIS toolkit)
- Develop new classroom materials:
 - Pre-K and bilingual activities
 - Games and digital tools
 - Take-home materials for parents
- Phased approach to engagement
 - Promotion through partners and conferences
 - Direct teacher and administrator outreach & materials fulfillment
- Possible new features (e.g., “Mock Census” events)

*tentative

Integrated Partnership and Communications

Field Recruitment Advertising and Communications

Key Considerations

- Largely digital recruiting effort
- Hyperlocal approach to recruiting in hard-to-count areas
- Alignment with overall 2020 campaign
- Lengthy federal hiring process can take several months

Approach

- Drive to single appropriately branded 2020 census job site, with custom landing pages by audience
- Test branded creative/messaging among audience segments
- Use of existing contacts and referrals
- Included detailed job description to encourage candidate fit



Example of Candidate Website

Integrated Partnership and Communications

Data Dissemination

Key Considerations

- Integrate data dissemination throughout campaign – from early awareness to post-collection
- New data platform in development at Center for Enterprise Dissemination Services and Consumer Innovation (CEDSCI) (<http://data.census.gov>)
- Opportunity to strengthen and maintain relationships with respondents, stakeholders, and partners

Approach

- Generate interest in the count with data from previous censuses
- Support “thank-you” phase with digital and print materials
- Reengage audiences with data products and materials following completion of the count

Integrated Partnership and Communications Milestones*

Milestones	Target Date(s)	
Award Contract	August 24, 2016	✓
Kick-Off Meeting for Contract	August 31, 2016	✓
Census 101 Training for contractor	September 19 – 20, 2016	✓
Regional Offices Listening Tour	November 9, 2016 – January 12, 2017	✓
Stakeholders Listening Tour	April 2017	✓
Delivery of Research Road Map	May 2017	✓
Delivery of 2020 Census Integrated Communications Plan Version 1.0	June 2017	✓
2020 Census Barriers, Attitudes and Motivators Study	February – April 2018 (planned)	

*All upcoming activities are contingent upon approval of the 2020 Census Integrated Communications Plan v.1 and funding availability.

Questions?

2020 Census Systems Readiness

Atri Kalluri

Decennial Information Technology Division

Patricia McGuire

Census Enterprise Data Collection and Processing

2020 Census Systems Readiness

Agenda

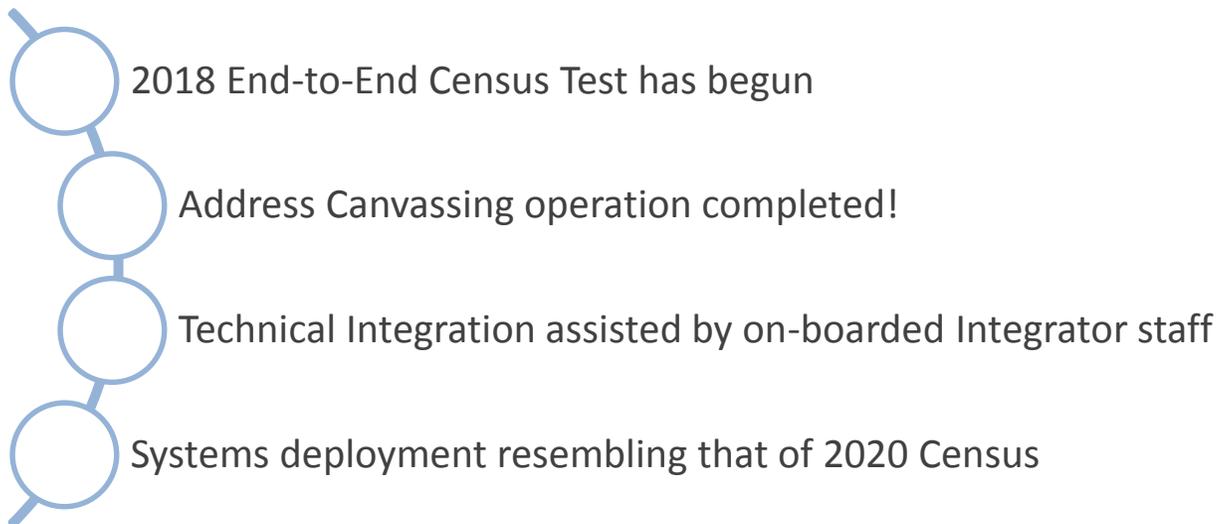
2018 End-to-End Census Test Systems Readiness

2020 Census Systems Readiness

Update on Census Enterprise Data Collection and Processing (CEDCaP) Systems

2020 Census Systems Readiness

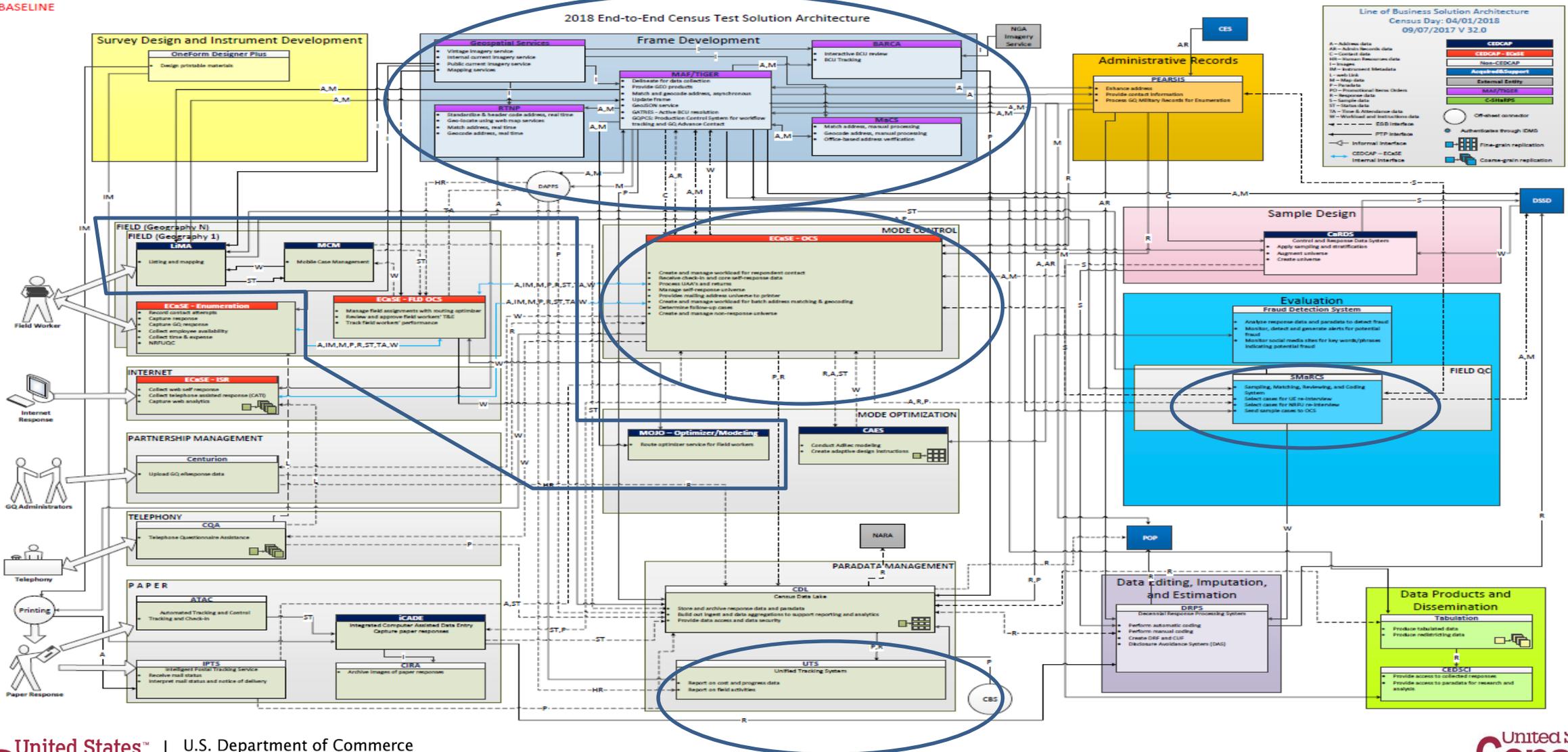
2018 End-to-End Census Test Systems Readiness



2020 Census Systems Readiness

2018 End-to-End Census Test Solution Architecture

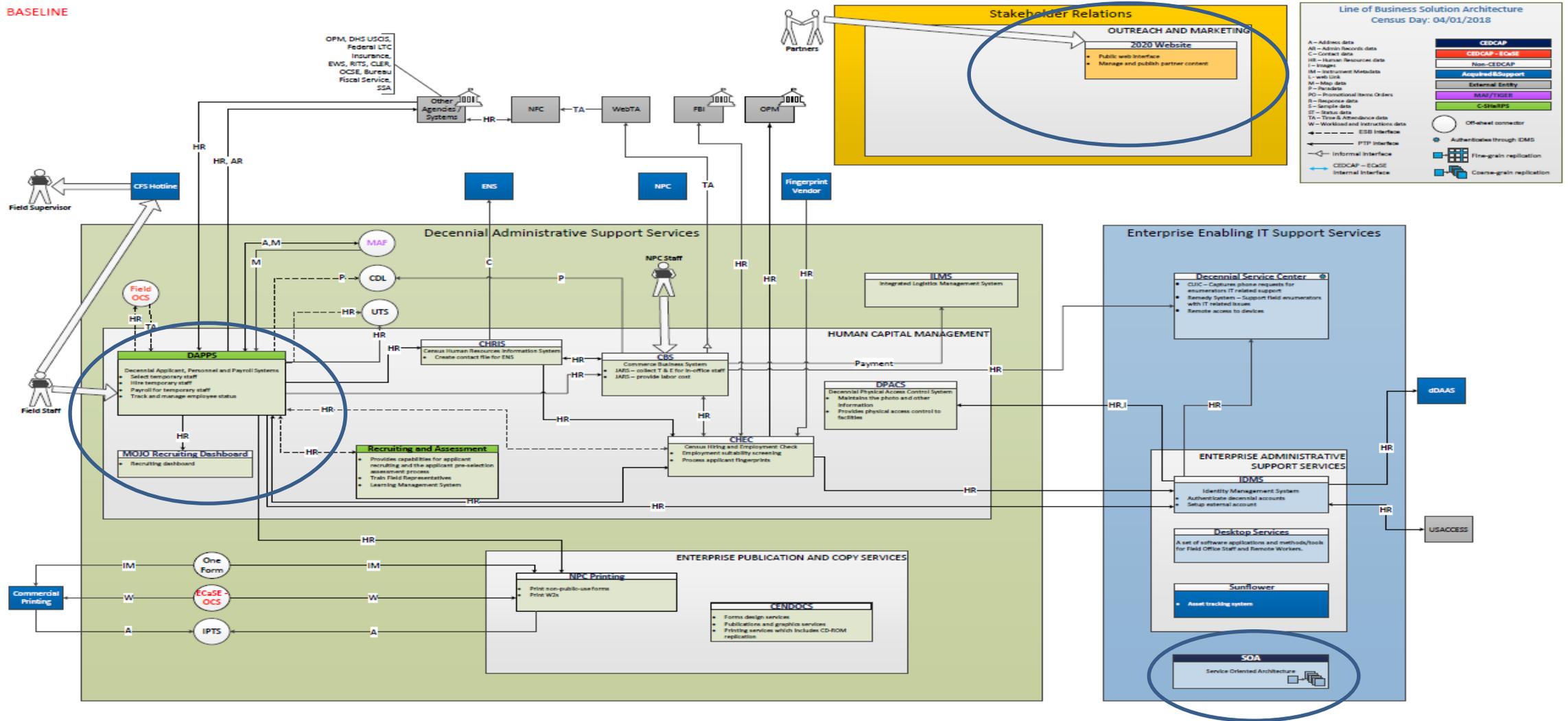
BASELINE



2020 Census Systems Readiness

2018 End-to-End Census Test Solution Architecture (continued)

BASELINE



2020 Census Systems Readiness

2018 End-to-End Census Test Systems

System	Key Efforts/Updates required for 2018/2020
CDL (Census Data Lake)	Capabilities for the 2018 End-to-End Census Test in progress.
CEДСCI (Center for Enterprise Dissemination Services and Consumer Innovation)	Capabilities for the 2018 End-to-End Census Test in progress.
CQA (Census Questionnaire Assistance)	Call center functionality successfully used in production for the first time during the 2017 Census Test. Developing enhancements for the 2018 End-to-End Census Test. Scalability updates are required to support 2020 Census.
DRPS (Decennial Response Processing System)	Successfully used in the 2017 Census Test. Enhancements in support of response processing operation for the 2018 End-to-End Census Test in progress. Scalability updates are required to support 2020 Census.
Fraud Detection System	Under development for the 2018 End-to-End Census Test.
IPTS (Intelligent Postal Tracking System)	Implementing enhancements for the 2018 End-to-End Census Test.
PEARSIS (Production Environment for Administrative Records Staging, Integration and Storage)	Implementing enhancements for the 2018 End-to-End Census Test.
Tabulation (Decennial Tabulation System)	Capabilities for the 2018 End-to-End Census Test in progress.

2020 Census Systems Readiness

2018 End-to-End Census Test Support Systems

System	Key Efforts/Updates required for 2018/2020
CBS (Commerce Business System)	As-Is system in production. Some updates may be required when interfacing systems (such as DAPPS) migrate to the 2020 data center and/or cloud.
CENDOCs (Census Document System)	As-Is system in production, no functionality updates are required for its 2018/2020 baseline scope.
CHEC (Census Hiring and Employment Check System)	Enhancements to support 2018 End-to-End Census Test in progress. Third party vendor interface needs to be implemented once the fingerprinting contract is awarded. Scalability updates are required to support 2020 Census.
CHRIS (Census Human Resources Information System)	In production. Some updates may be required when interfacing systems (such as DAPPS) migrate to the 2020 data center and/or cloud.
CIRA (Census Image Retrieval Application)	Enhancements to support 2018 End-to-End Census Test in progress. Scalability updates are required to support 2020 Census.
Decennial Service Center	In production for the 2018 End-to-End Census Test.
Desktop Services	In production for the 2018 End-to-End Census Test.

2020 Census Systems Readiness

2018 End-to-End Census Test Support Systems (continued)

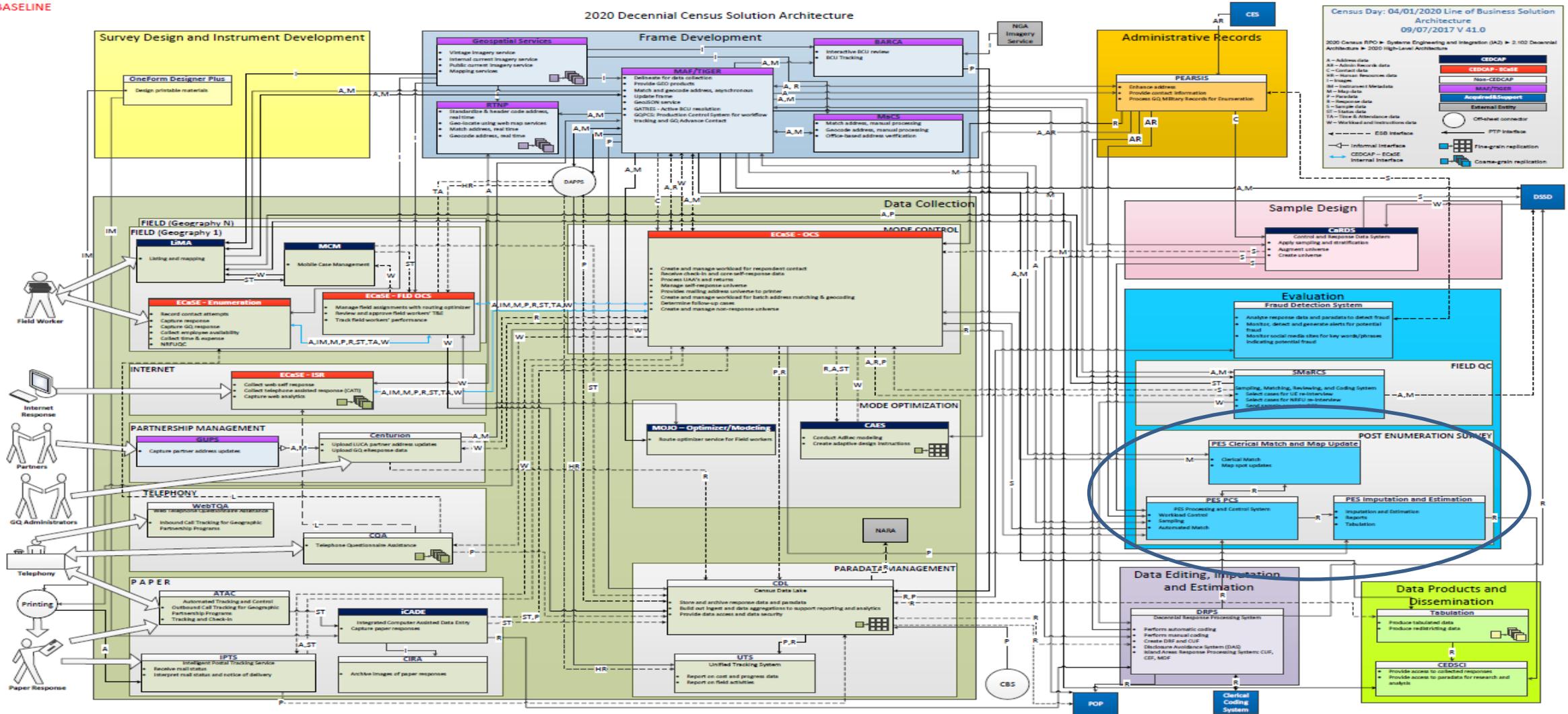
System	Key Efforts/Updates required for 2018/2020
IDMS (Identity Management System)	Enhancements for the 2018 End-to-End Census Test in progress. Integrate with 2020 data center/cloud environment. Scalability updates are required to support 2020 Census.
ILMS (Integrated Logistics Management System)	As-is system to support 2018 End-to-End Census Test. Possible scalability updates are required to support 2020 Census.
NPC Printing (Printing at the National Processing Center)	As-Is system, no functionality updates are required for its 2018/2020 baseline scope.
Sunflower	As-Is system, no functionality updates are required for its 2018/2020 baseline scope.

2020 Census Systems Readiness

2020 Census Solution Architecture

BASELINE

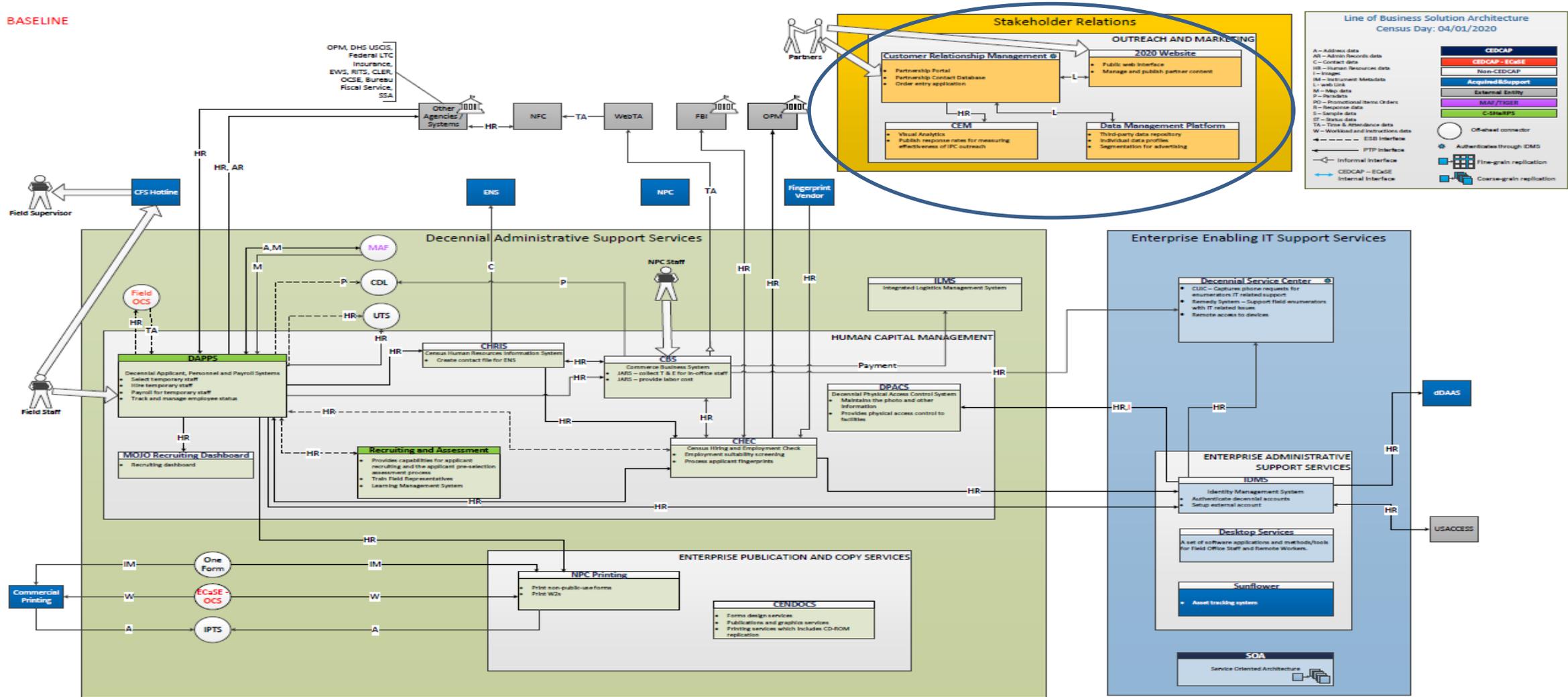
2020 Decennial Census Solution Architecture



2020 Census Systems Readiness

2020 Census Solution Architecture (continued)

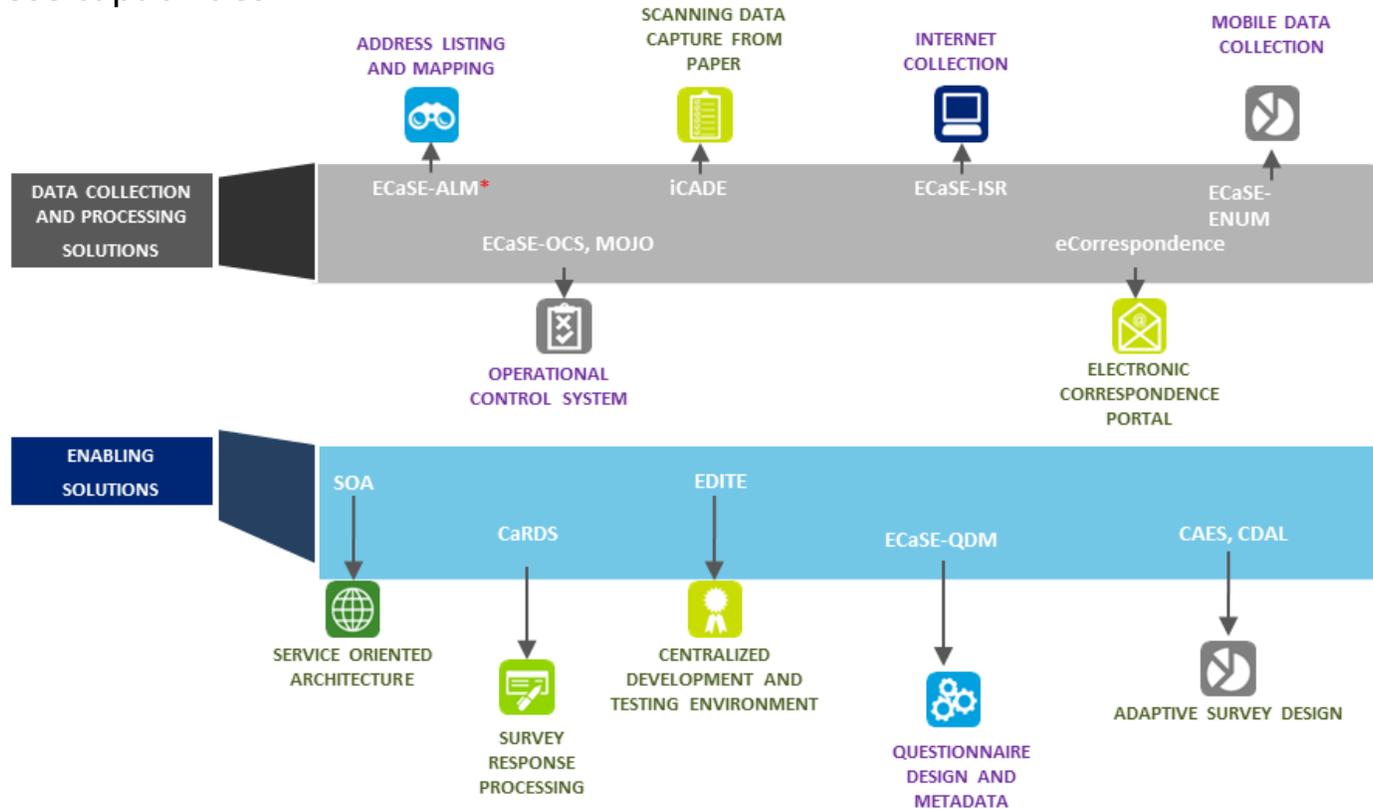
BASELINE



2020 Census Systems Readiness

Census Enterprise Data Collection and Processing (CEDCaP) Capabilities and Solutions

CEDCaP is comprised of delivery of enterprise capabilities and the solutions to provide those capabilities.



Capabilities shown in purple will be provided by the Enterprise Censuses and Surveys Enabling (ECaSE) Platform

* The long term enterprise solution for Address Listing and Mapping is expected to be ECASE; however, for the 2020 product releases the current enterprise solution (LiMA) will be used.

Census Enterprise Data Collection & Processing (CEDCaP)

CEDCaP Data Collection & Processing Capabilities and Solutions	
Delivered:	
CEDCaP Capability	CEDCaP Solution
1) Centralized Development and Testing Environment to CEDCaP projects	Enterprise Development, Integration, & Test Environment (EDITE)
2) Service Oriented Architecture for CEDCaP projects (Enterprise Service Bus (ESB), Manage File Transfer (MFT), Message Oriented Middleware (MOM), API Gateway)	Application Programming Interface (API) Infrastructure (API-I)
3 Adaptive Survey Design	ECaSE Operational Control System Census-Data Access Layer (C-DAL) Concurrent Analysis and Estimation System (CAES)
4) Operational Control System	ECaSE Operational Control System MOJO Optimizer/Modeling
5) Address Listing and Mapping	ECaSE Address Listing Mapping
6) Internet Data Collection	ECaSE Internet Self Response
7) Questionnaire Design and Metadata	ECaSE- Questionnaire Design Metadata
8) Mobile Data Collection	ECaSE – Enumeration
9) Electronic Correspondence Portal	eCorrespondence
10) Scanning Data Capture from Paper	Integrated Computer Assisted Data Entry (iCADE)
11) Survey Response Processing	CARDS (Pre-data collection, TBD (Post-data collection processing))

2020 Census Systems Readiness

CEDCaP Systems

CEDCaP System	Key Efforts/Updates required for 2018/2020
CaRDS (Control and Response Data System)	System successfully supported the 2015, 2016, and 2017 Census Tests. Developing enhancements to support the 2018 End-to-End Census Test. Scalability updates are required to support 2020.
iCADE (Integrated Computer Assisted Data Entry System)	Legacy system that successfully supported the 2015, 2016 and the 2017 Census Tests. Developing enhancements needed for the 2018 End-to-End Census Test. Scalability updates are required to support 2020.
SOA (Service Oriented Architecture)	Used in production to successfully support the 2016 and 2017 Census Tests. For the 2017 Census Test, supported the interfaces between ECaSE in the Cloud and those systems not in the Cloud. Will be used in the Technical Integrator environments for the 2018 End-to-End Census Test and 2020 Census.
ECaSE (Enterprise Censuses and Surveys Enabling)	Internet Self-Response and Survey Operational Control functionality successfully used in production for the first time during the 2017 Census Test. Developing enhancements for the 2018 End-to-End Census Test. Scalability updates are required to support 2020. Work underway to address recommendation from May 2016 COTS Capability Assessment and Analysis decision to conduct performance testing. Testing will be done by Technical Integrator using 2020 workload models and solutions developed to 2018 End-to-End Census Test requirements.

2020 Census Systems Readiness

CEDCaP Systems

CEDCaP System	Key Efforts/Updates required for 2018/2020
CAES (Concurrent Analysis and Estimation)	Models have supported previous census tests. First time use in the computing environment provided by TI in the 2018 End-to-End Census Test. Work will continue to finalize 2020 Census models that will run on CAES.
MOJO Optimizer/Modeling (Route Optimizer)	Successfully supported the 2015 and 2016 Census Tests. Developing enhancements needed for the 2018 End-to-End Census Test to apply business rules needed to reengineer field operations. Scalability updates are required to support 2020.
LiMA/MCM (Listing and Mapping/Mobile Case Management)	Legacy system in use on current surveys. Supported the 2016 Census Test. Developing enhancements needed for the 2018 End-to-End Census Test. Scalability updates are required to support 2020.

Questions?

Wrap-up

Albert E. Fontenot Jr.

Associate Director, Decennial Census Programs