

# 2020 Census Operational Plan

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# 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 design concepts and their rationale, identifying decisions still to be made, and describing significant issues and risks related to the implementation of the Operational Plan.

### Version 2

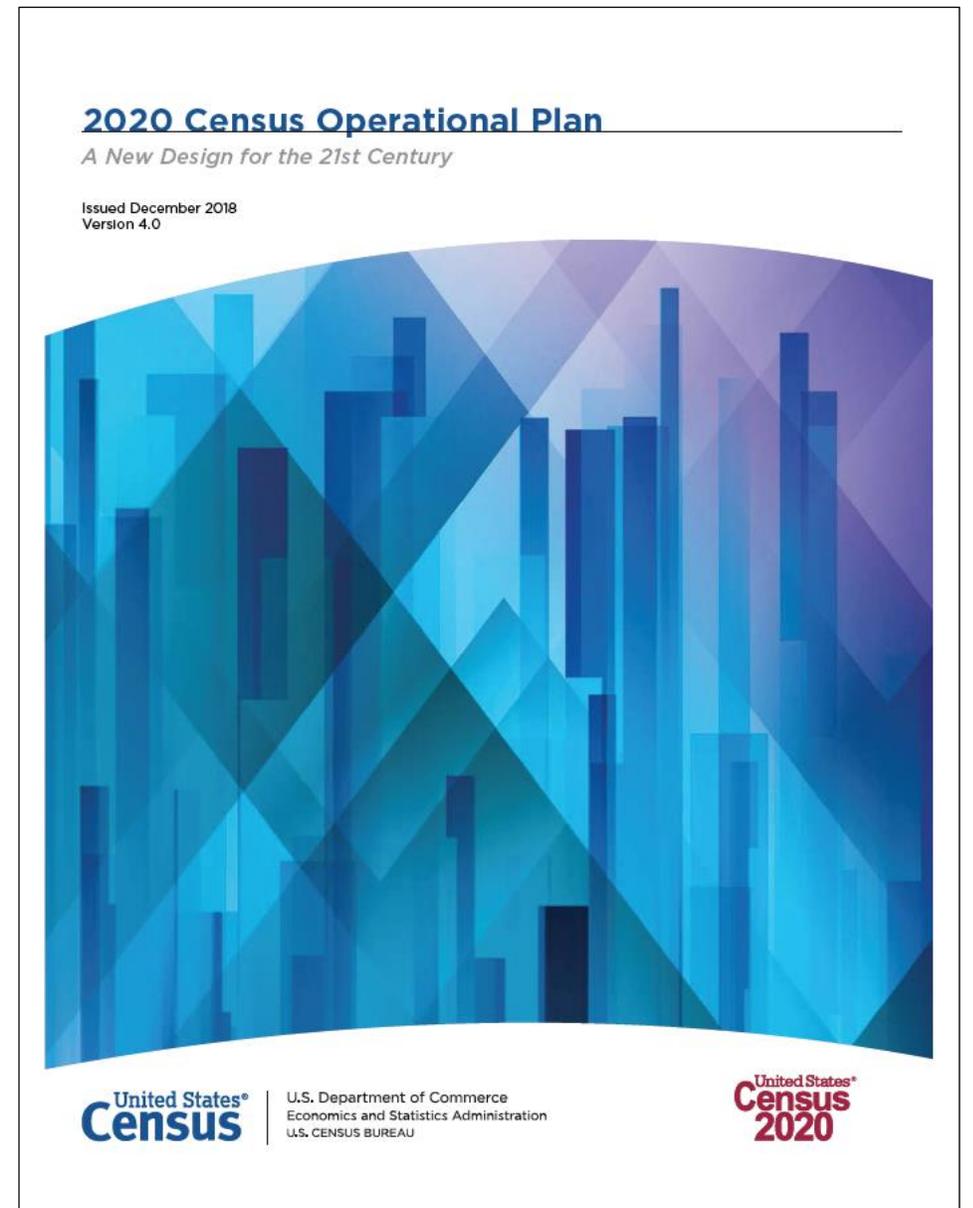
The scope and design of the 2020 Census Operational Plan was reviewed and updated to reflect decisions and updates, however, the key concepts of the design did not change.

### Version 3

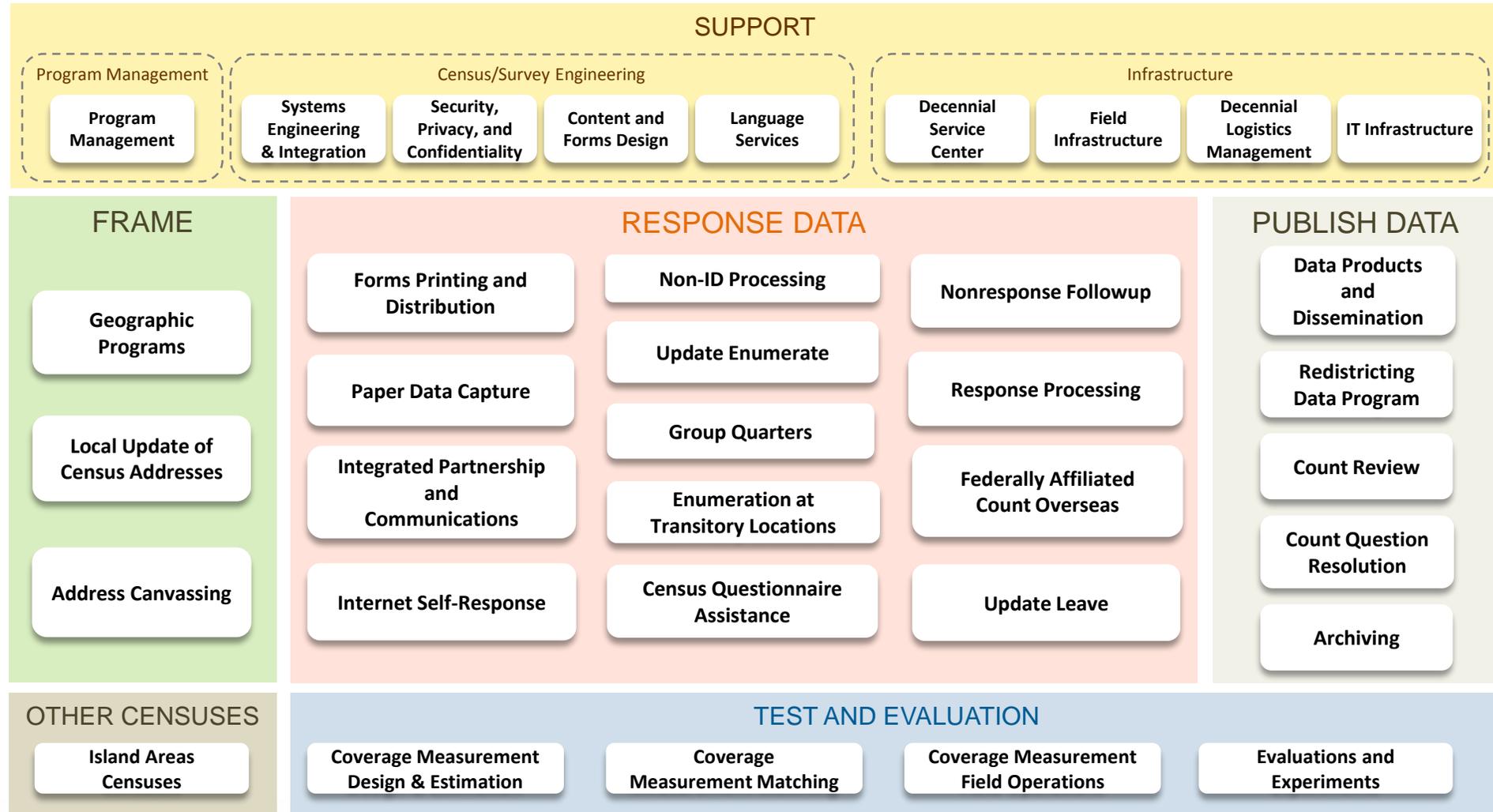
Provides the design of the 2020 Census and is consistent with how it will be tested in the 2018 End-to-End Census Test. It was reviewed and updated to reflect decisions and updates, however, the key concepts of the design did not change.

### Version 4

This is the final operational plan and reflects our final design which incorporates lessons learned from the 2018 End-to-End Census Test.

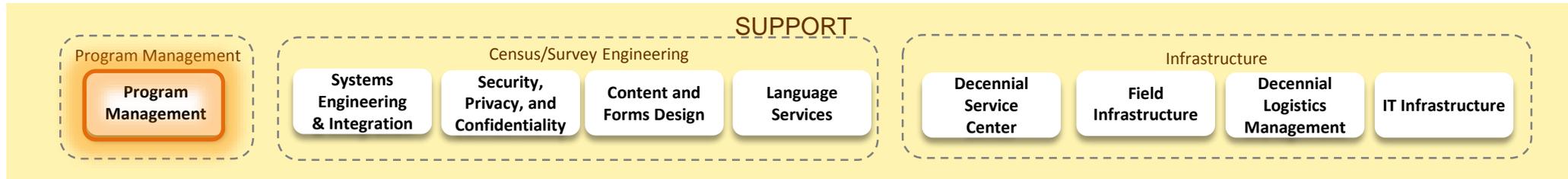


# 2020 Census Operations



# 2020 Census

## 2020 Census Operational Plan, Version 4.0: 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.

### Selected Accomplishments

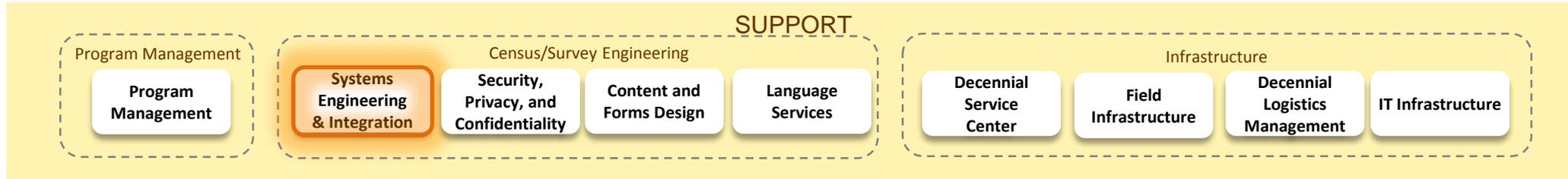
- 98% of all decisions have been made to date.

### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Support Operations



### 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.

### Selected Accomplishments

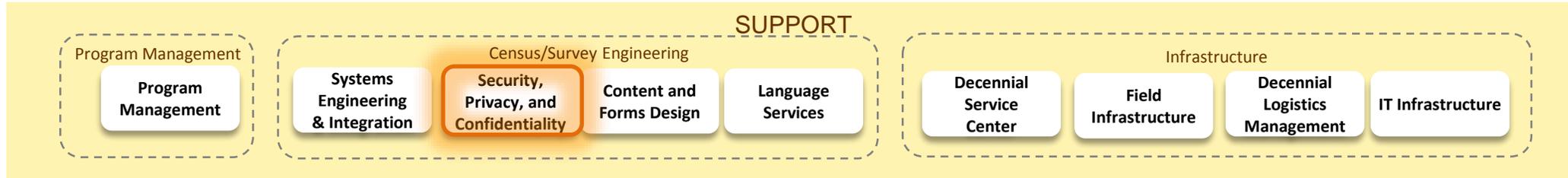
- Deployed and supported operations, such as Address Canvassing, Internet Self Response, Coverage Improvement, Update Leave, Non-Response Follow-Up, Group Quarters.
- Utilizing commercial Cloud Service Provider.
- Stood up internet-based application for recruiting applicants, Network Operations Centers and Security Operations Center, a software deployment process and testing framework, Service-Oriented Architecture based mechanism for transacting data between systems.

### Key Design Changes and Decisions

- The 2020 Census IIP was enhanced from the original four (4) releases into sixteen (16) Operational Deliveries. This provided better alignment between the detailed schedule for the various operations with delivery of the specific functionality needed to support each operation.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Support Operations



### 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

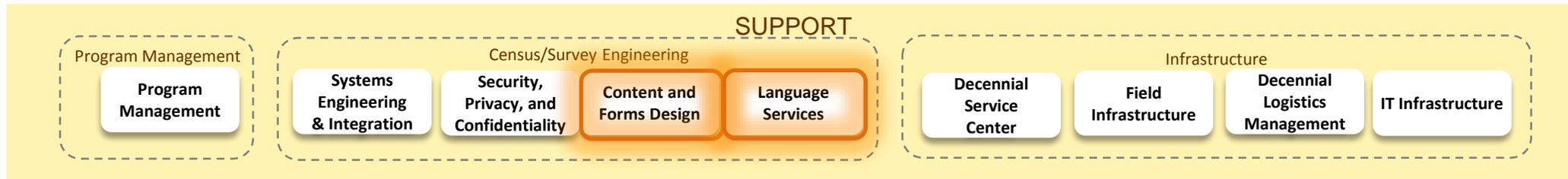
- Working closely with the Office of Information Security (OIS) as well as the Privacy Coordination Office (PCO) to ensure systems and infrastructure have the appropriate authorization to operate.
- Working with OIS on Risk Management Framework (RMF) related activities to ensure systems and data security, and respondent and employee privacy and confidentiality.

### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: 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 questionnaires and materials.

### Selected Accomplishments

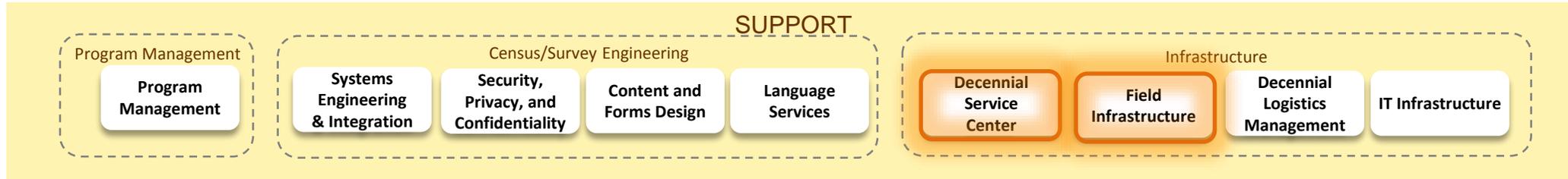
- Finalized the questions planned for the 2020 Census and submitted this documentation to Congress.
- Finalized paper and internet questionnaire content for the 2018 End-to-End Census Test.
- Issued the 2020 Census Non-English Language Support memorandum, specifying the non-English languages and level of support provided during the 2020 Census.
- Supported 2018 End-to-End Census Test ISR in Spanish and CQA in Spanish, Chinese, Vietnamese, Korean, Russian, Arabic, and Tagalog.

### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: 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 Centers, Regional Census Centers, Area Census Offices, Island Areas Census Offices, 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.

### Selected Accomplishments

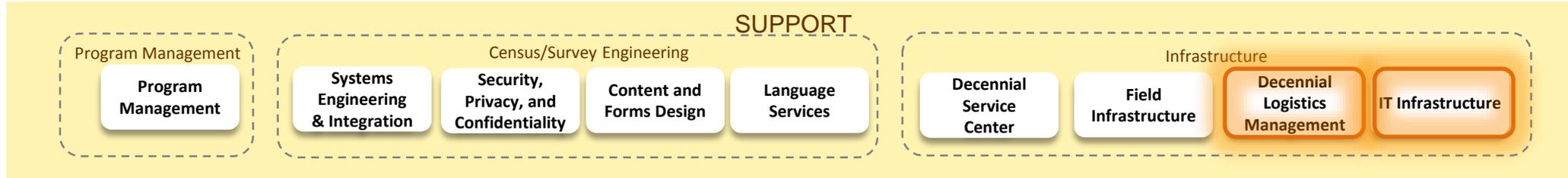
- Supported the 2018 End to End Census Test (including use of the online Learning Management System for training).
- Trained IT Support staff in all 6 Regional Census Centers and 3 Area Census Offices.
- Began DSC support for early Area Census Offices.
- Began DSC support for 2020 Census Recruiting.
- Recruiting Toll Free Jobs Line went live.
- 2020 online Jobs Website went live.
- Officially started recruiting and jobs application process for 2020 Census early operations positions.
- Officially started selections and fingerprinting for 2020 Census early operations positions.

### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Support Operations



### Decennial Logistics Management

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

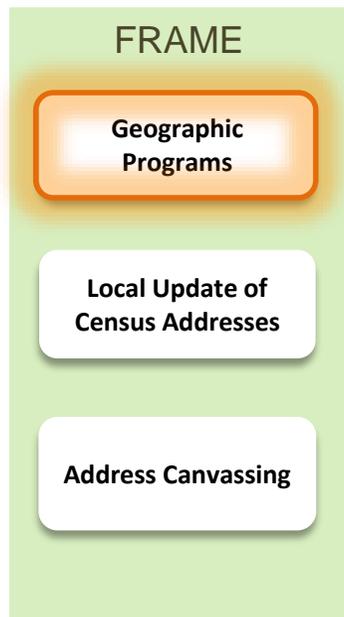
- Opened 6 Regional Census Center Offices.
- Signed leases for all Wave 1 Area Census Offices.
- Opened the additional Logistics support facility in Jeffersonville, IN.
- Began IT buildout of Wave 1 Area Census Offices.
- Began delivery of remote workers kits

### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: 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.

### Selected Accomplishments

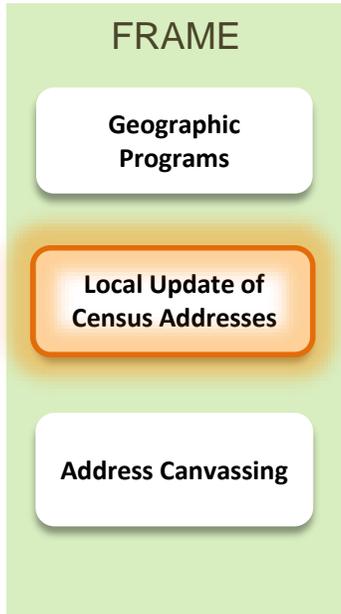
- Completed delineation of Type of Enumeration Areas for the 2020 Census
- Participant Statistical Areas Program registration

### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Frame Operations



### Local Update of Census Addresses

The Local Update of Census Addresses (LUCA) operation provides an opportunity for tribal, state, and local governments to review and improve the address lists and maps used to conduct the 2020 Census as required by Public Law (P.L.) 103-430.

### Selected Accomplishments

- 11,550 entities registered to participate in 2020 LUCA.
- The 2020 LUCA participant materials were shipped.
- 8,408 entities returned their participant materials covering 95.7% of the housing and 95.5% of the population, and of those 6,863 entities submitted changes.

### Key Design Changes and Decisions

- The New Construction Program will be conducted within the 2020 LUCA Operation. The New Construction Program utilizes the expertise of tribal, state and local governments to submit city-style addresses for newly built housing units in self-response areas.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Frame Operations



### FRAME

Geographic Programs

Local Update of Census Addresses

Address Canvassing

### 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

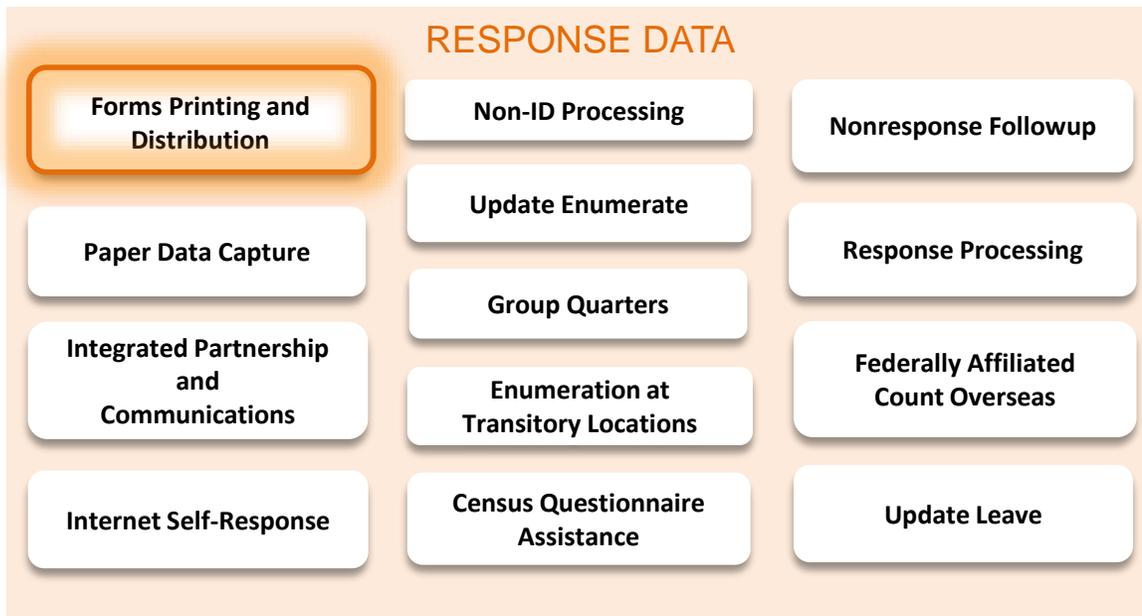
- Finalized plan to determine the In-Field Address Canvassing universe.

### Key Design Changes and Decisions

- To support the 2020 Census, In-Field Address Canvassing will begin 2 weeks early in select Area Census Offices (ACO) in each of the six regions. The early start will begin with Census Field Supervisor training and will be a full start to the operation in those select ACOs. All other ACOs will begin activities as scheduled.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: 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.

### Selected Accomplishments

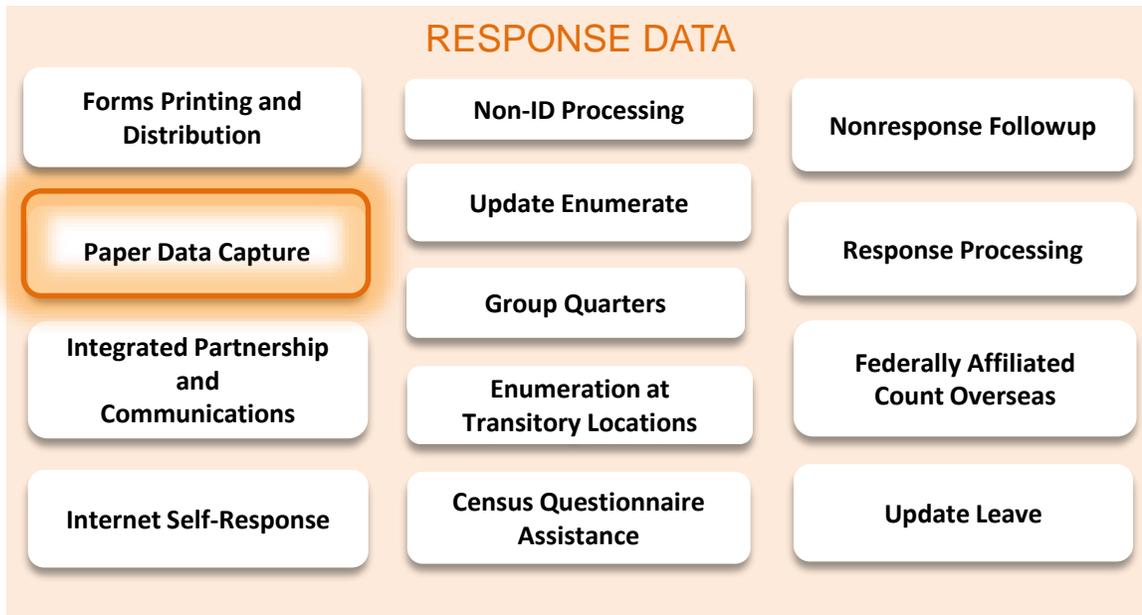
- Awarded main 2020 print/mail contract which will support self-response, Update Leave, and other operations.
- Printed and distributed 3.2 million pieces of mail in support of the 2018 End-to-End Census Test.
- Refined print/mail and quality control procedures.

### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Response Data Operations



### 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

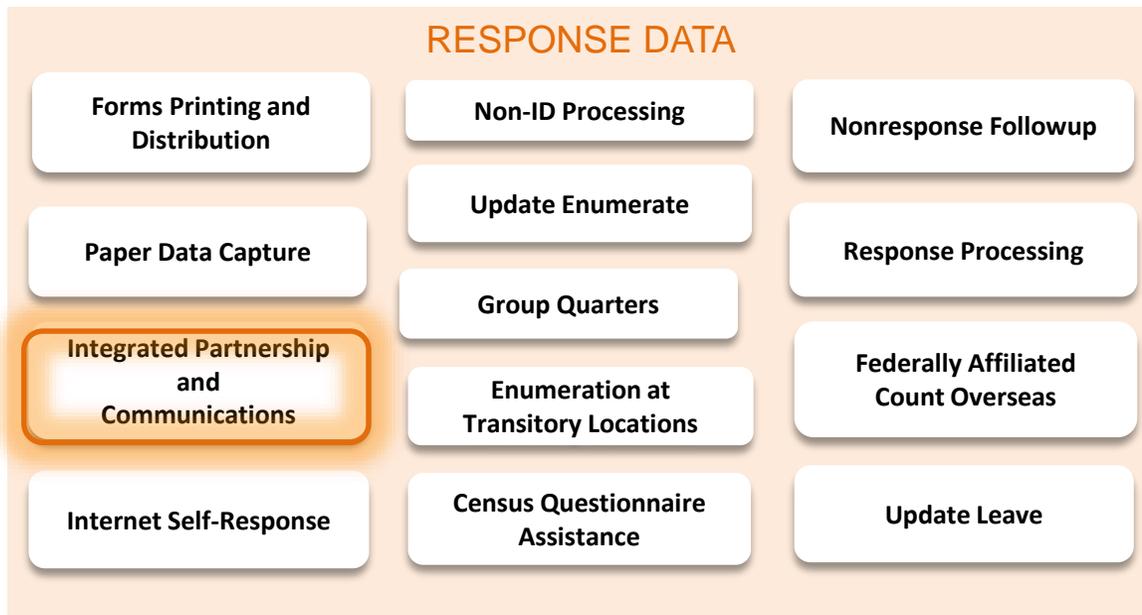
- Stood up a Paper Data Capture operation for the 2018 Test in preparation for the 2020 Census, integrating and utilizing a new scanner.
- Signed leases for PDCC East and PDCC West.

### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: 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 engage and motivate people to self-respond (preferably via the Internet), raise and keep awareness high throughout the entire 2020 Census to encourage response, support field recruitment efforts, and effectively support dissemination of census data to stakeholders and the public.

### Selected Accomplishments

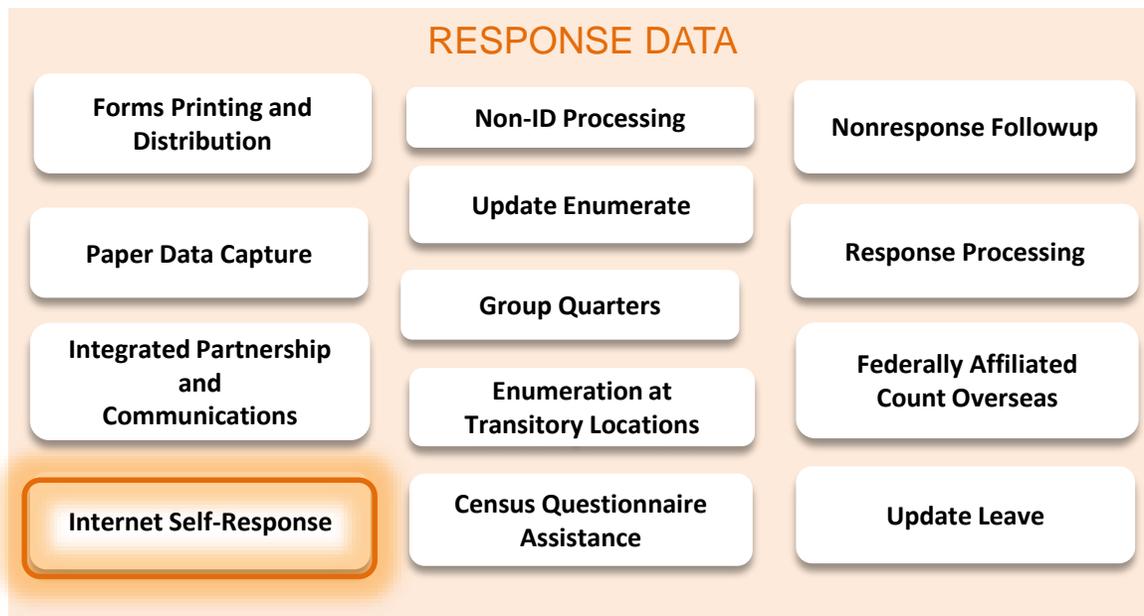
- Completed the data collection for the Census Barriers Attitudes and Motivators Study (CBAMS) and results were released .
- Census Bureau staff and Team Y&R have been working together in the development of a creative platform for the campaign, which will be released over the next couple of weeks.
- Phase 1 Recruitment Advertising was completed ahead of schedule and it currently includes, digital, radio and print advertisements and promotional materials available for our regional office to conduct localized recruitment outreach efforts.

### Key Design Changes and Decisions

- In response to how crucial local partnerships efforts have been to the Census Bureau through the years, we decided to increase the amount of partnerships specialists from 800 to 1,500.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: 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 and collect response data via the Internet to reduce paper and the Nonresponse Followup Operation workload.

### Selected Accomplishments

- Successfully re-deployed an Internet Self-Response data collection instrument in English and Spanish in support of the 2018 End-to-End Census Test.
- Successfully implemented a staggered mail strategy to multiple cohorts with conditional mailings to nonresponding households.

### Key Design Changes and Decisions

- Finalized 2020 Census Self-Response Mailing Strategy, including the final number of cohorts and the mail in-home dates.

# 2020 Census

## Self-Response Mail Strategy

### Self-Response

- Two-panel design: Internet First (invitation letter on first contact) and Internet Choice (questionnaire on first contact)
- Internet First panel is divided into four cohorts to best distribute calls to Census Questionnaire Assistance
- Internet Choice panel is in a single cohort, mailed on the same schedule as Internet First, Cohort 2

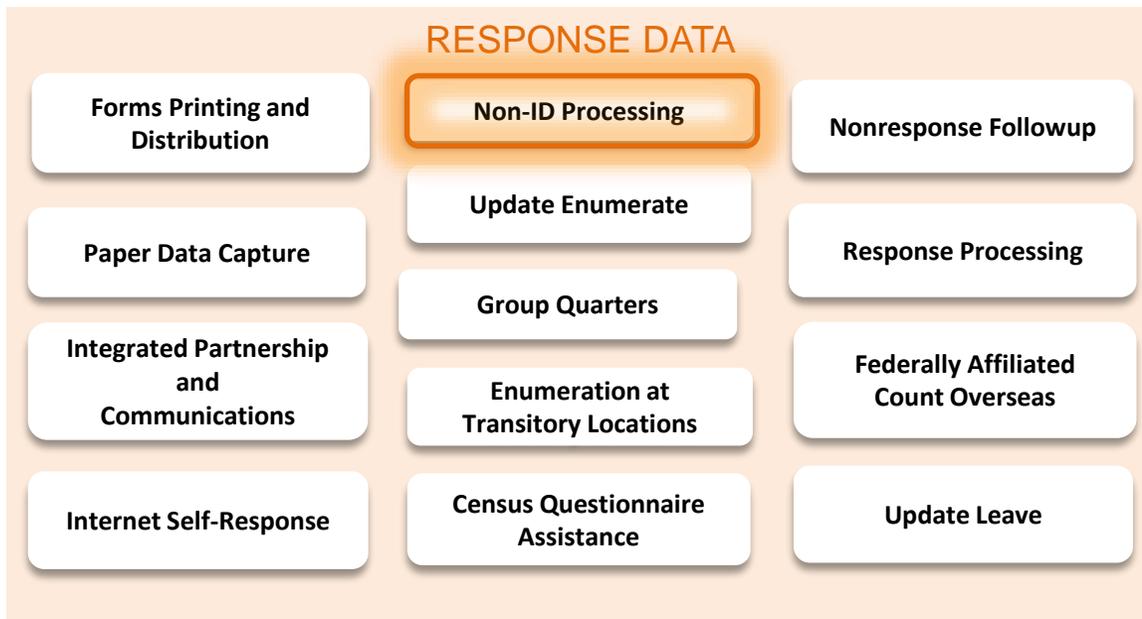
MARCH							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7				1	2	3	4
8	9	10	11	12	13	14	5	6	7	8	9	10	11
15	16	17	18	19	20	21	12	13	14	15	16	17	18
22	23	24	25	26	27	28	19	20	21	22	23	24	25
29	30	31					26	27	28	29	30		

Dates in the table below are in-home dates.

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 12, 2020	March 16, 2020	March 26, 2020	April 8, 2020	April 20, 2020
	2	March 13, 2020	March 17, 2020	March 27, 2020	April 9, 2020	April 20, 2020
	3	March 19, 2020	March 23, 2020	April 2, 2020	April 15, 2020	April 27, 2020
	4	March 20, 2020	March 24, 2020	April 3, 2020	April 16, 2020	April 27, 2020
Internet Choice	N/A	March 13, 2020	March 17, 2020	March 27, 2020	April 9, 2020	April 20, 2020

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Response Data Operations



### Non-ID Processing

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

### Selected Accomplishments

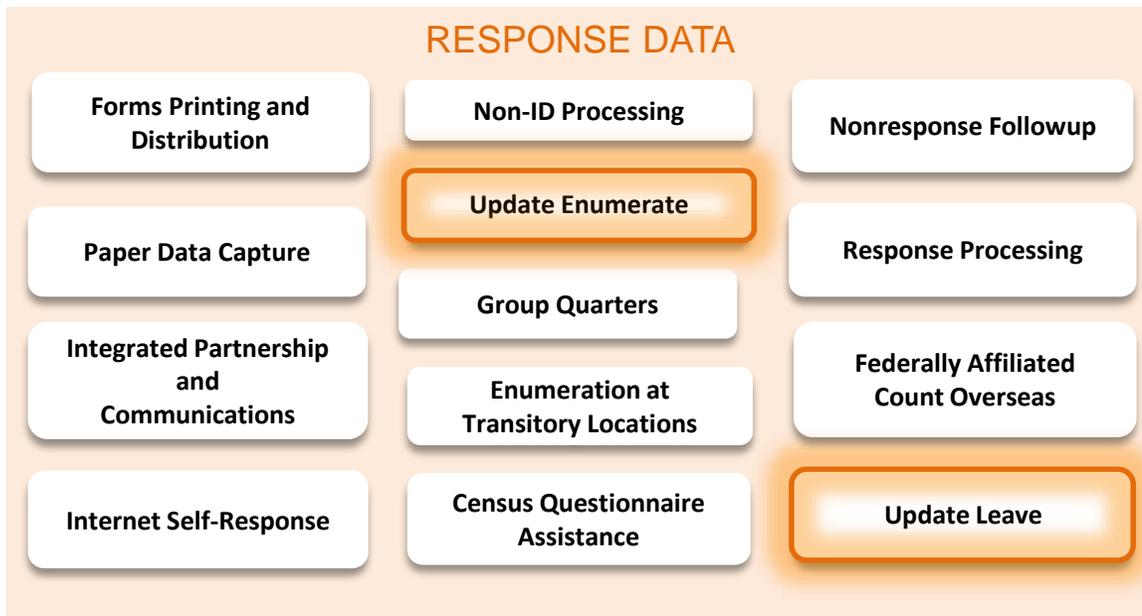
- Tested Clerical Non-ID Processing at the National Processing Center in the 2018 End-to-End Census Test.

### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: 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 identified to allow the household to self-respond. UL occurs in areas where the majority of housing units do not have a city-style address to receive mail.

### Selected Accomplishments

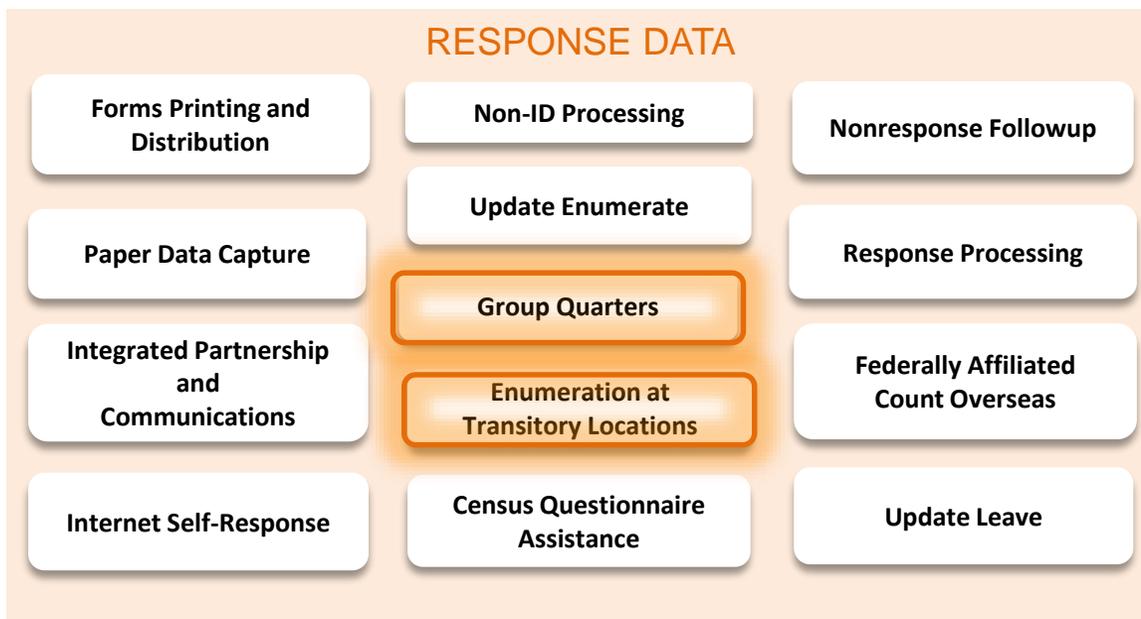
- Deployed the new Update Leave operation in the 2018 End-to-End Census Test.

### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Response Data Operations



### Group Quarters

The Group Quarters (GQ) operation will enumerate people living or staying 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.

### Selected Accomplishments

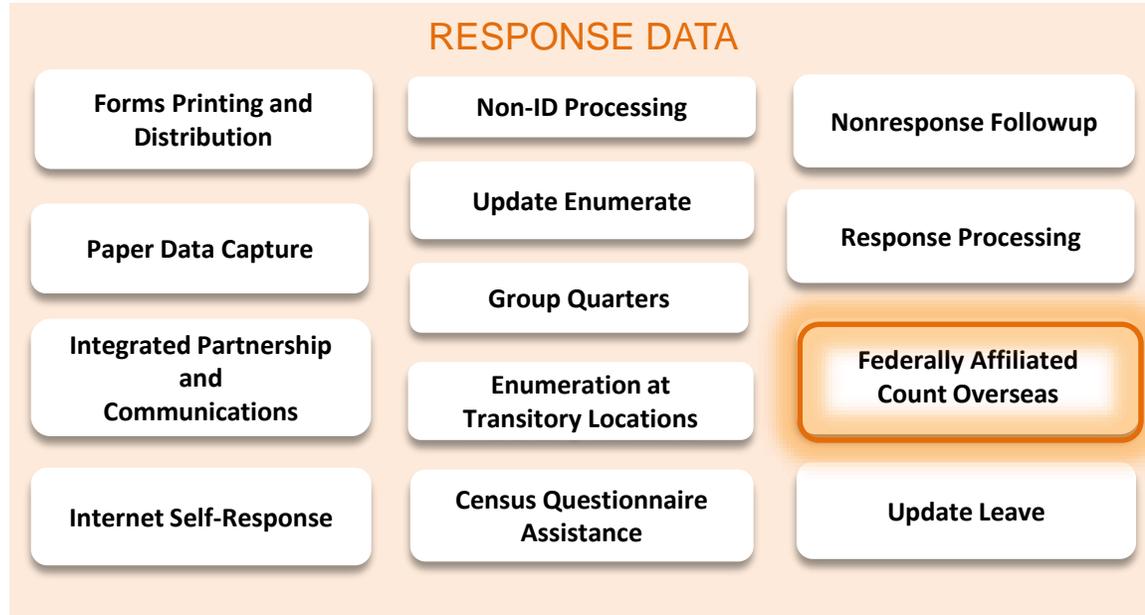
- Deployed the Group Quarters operation, including advanced contact, in the 2018 End-to-End Census Test.
- 2020 GQAC In-Office and In-Field for ACO training materials completed and circulated to internal stakeholders for review.
- 2020 TL Advance Contact for ACO training materials completed and circulated to internal stakeholders for review.

### Key Design Changes and Decisions

- The Advance Contact will have two components: In-Office Advance Contact and In-Field Advance Contact.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Response Data Operations



### 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

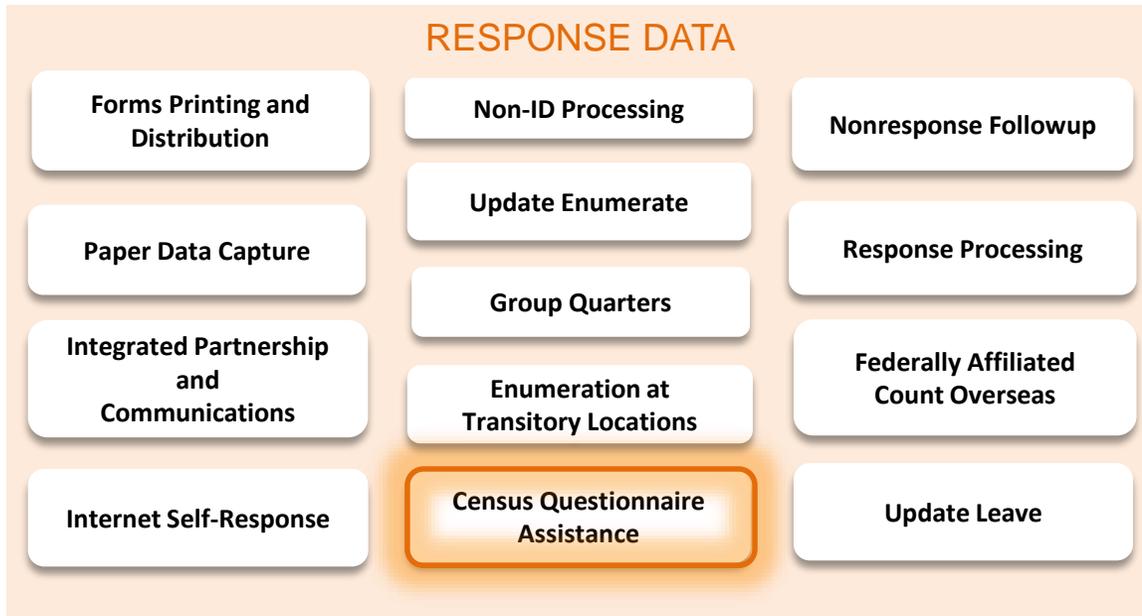
- Work began on the tool that will be used to ingest counts for military and federal civilian employees stationed or deployed overseas.

### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: 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, as well as an option for respondents to complete a census interview over the telephone. Additionally, CQA provides outbound calling in support of Coverage Improvement.

### Selected Accomplishments

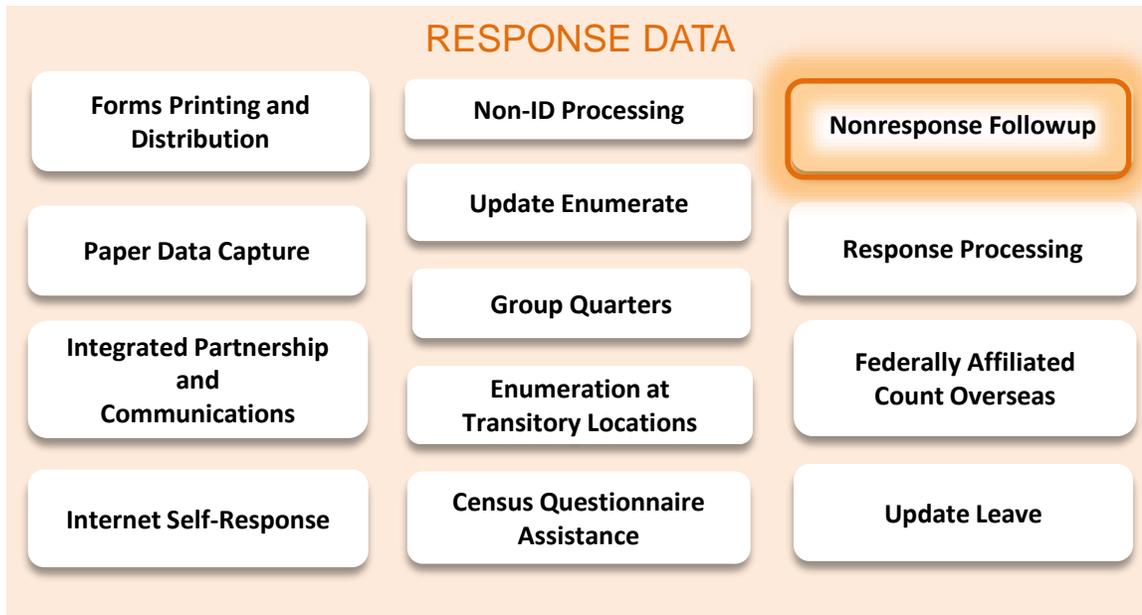
- Negotiated and signed the final phase of the CQA Contract for the 2020 Census.
- Progress is well underway for the Identification and property leasing of the 10 CQA contact center sites.
- Completed solution requirement validation and initial design reviews for the CQA telephony system build.

### Key Design Changes and Decisions

- Web chat, as a formal communication channel, was eliminated based on logistics and feasibility.
- Support for callers requesting information about 2020 Census jobs was moved out of the CQA Operation and into the Field Infrastructure Operation.
- Outbound telephone calling to collect Nonresponse Followup (NRFU) Reinterview data for NRFU quality control was eliminated. Findings in the 2018 End-to-End Census Test led to the decision.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: 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

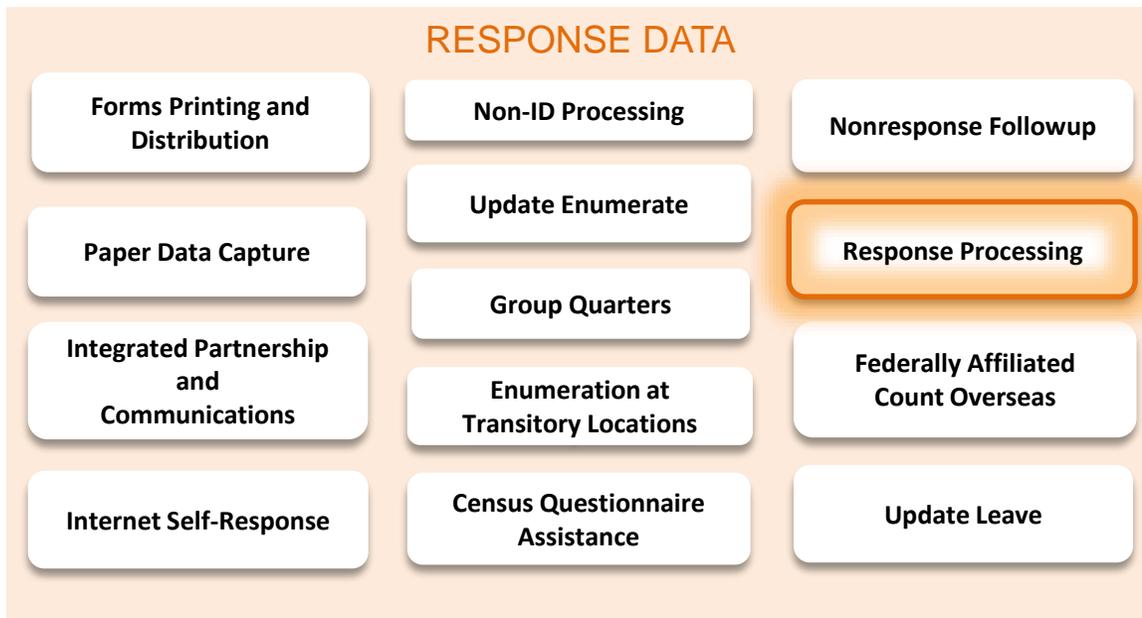
- Successfully completed 2018 End-to-End Census Test of NRFU procedures, applications, and systems.

### Key Design Changes and Decisions

- Use of a Three-Phase Contact Strategy, with each phase implementing more control and restrictions on case assignments and management to ensure effective and efficient completion of the operation.
- Administrative Record Vacant and Delete cases will receive at least one visit during the NRFU field operation, and are removed only if visit indicates housing unit is vacant or nonexistent.
- Eliminate telephone contact for NRFU Reinterview operation and complete all reinterview via personal visit.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Response Data Operations



### Response Processing

The Response Processing Operation (RPO) creates and distributes the initial 2020 Census enumeration universe, assigns the specific enumeration strategy for each living quarter based on case status and associated paradata, creates and distributes workload files required for enumeration operations, tracks case enumeration status, runs postdata collection processing actions in preparation for producing the final 2020 Census results, and identifies potential suspicious returns.

### Selected Accomplishments

- Created the 2018 End-to-End Census Test Census Unedited File.
- Created the initial 2018 End-to-End Census Test Census Edited File.

### Key Design Changes and Decisions

- The scope of the operation no longer includes the creation and delivery of the Microdata Detail File. This process is now being managed by the Data Products and Dissemination Operation.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Published Data Operations



### Data Products and Dissemination

The Data Products and Dissemination operation covers the preparation and delivery of the 2020 Census apportionment data to the President of the United States to provide to Congress, tabulation of 2020 Census data products for use by the states for redistricting, and tabulation and dissemination of 2020 Census data for use by the public.

### Selected Accomplishments

- The Census Bureau issued a Federal Register Notice for use cases for 2020 Census data using the 2010 data product framework (with revisions). We collected and analyzed the input since the 2020 design work is included in the implementation of the differential privacy system.
- The 2018 Prototype P.L. 94-171 (redistricting data) is planned for public release through CEDSCI in late March 2019. Currently, CEDSCI is running in parallel with American FactFinder for production releases of the American Community Survey.

### Key Design Changes and Decisions

- The Census Bureau is transitioning to a Modern Disclosure Avoidance System with the 2020 Census and future data products using a new privacy protection system known in scientific circles as “differential privacy,” designed specifically for the digital age.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Published Data Operations

**PUBLISH DATA**

- Data Products and Dissemination
- Redistricting Data Program**
- Count Review
- Count Question Resolution
- Archiving

### Redistricting Data Program

Through the 2020 Census Redistricting Data Program operation, the Census Bureau will provide to each state the legally required P.L. 94-171 redistricting data tabulations by the mandated deadline of April 1, 2021, 1 year from Census Day.

### Selected Accomplishments

- Completed initial collection of voting districts from the states as part of Phase 2 – the Voting District Project.
- Successfully started the first round of verification of voting districts with the states as part of Phase 2 – the Voting District Project.

### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Published 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 and incorporate housing units that are missing from the Census Bureau Master Address File, identify and include or correct large group quarters that are missing from the Master Address File or geographically misallocated, and position unresolved cases for a smooth transition to the Count Question Resolution Operation.

### Selected Accomplishments

- Awarded contracts for the 4 early participants states (NY, PA, WA, CO) and completed the onboarding activities, including access to VDI/VDesk accounts and Data Stewardship/T13 training.
- Completed GUPS testing by the FSCPEs early participants.
- Started drafting and awarding contract process for 31 states.
- Started development of the CCFR tool.

### Key Design Changes and Decisions

- The Data Stewardship Executive Policy Committee approved a remote review option for both Federal-State Cooperative for Population Estimates (FSCPE) Count Review events.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Published Data Operations

### PUBLISH DATA

Data Products  
and  
Dissemination

Redistricting  
Data Program

Count Review

Count Question  
Resolution

Archiving

### 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 materials and data and provide 2020 Census records deemed permanent, include files containing individual responses, to the National Archives and Records Administration and provide similar files 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

- Began preliminary planning of CQR by drafting Business Process Models and Capability Requirements.
- Continue to meet with National Archives and Records Administration to discuss plans, the records schedule, and the transferring of records for the 2020 Census.

### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: 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

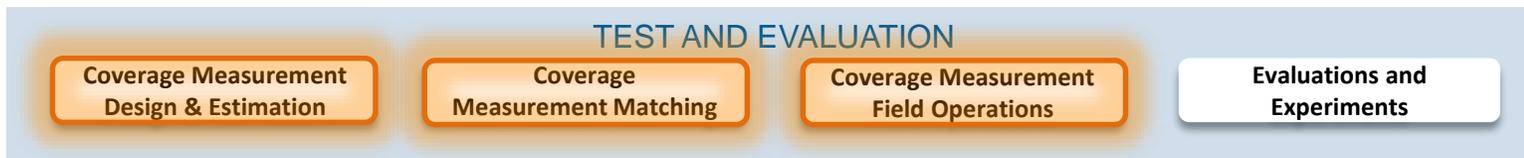
- Awarded contracts to the Island Area governments to conduct data collection activities.
- Finalized plans for the IAC operations.
- Determined which stateside systems will be used for the 2020 IAC operations.

#### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: 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 provide estimates of census net coverage error and components of census coverage for the United States and Puerto Rico, excluding Remote Alaska.

#### Selected Accomplishments

- Conducted test readiness review for Release 15.1 initial sample of basic collection units (BCUs) for independent listing (IL).

#### Key Design Changes and Decisions

- Independent Listing will use the Listing and Mapping Application automated listing instrument. Person Interview will use the BLAISE instrument. Initial Housing Unit Followup, Person Followup, and Final Housing Unit Followup will use paper maps.
- The Clerical Match and Map Update system will be developed for the Housing Unit Clerical Matching System.

# 2020 Census

## 2020 Census Operational Plan, Version 4.0: Test and Evaluation Operations



### Evaluations and Experiments

The 2020 Census Evaluations and Experiments (EAE) operation documents the execution of the 2020 Census was conducted, and analyze, interpret, and synthesize the effectiveness of census components and their impact on data quality, coverage, or both. Assess the 2020 Census operations. Formulate and execute an experimentation program to support early planning and inform the transition and design of the 2030 Census and produce an independent assessment of population and housing unit coverage.

#### Selected Accomplishments

- Finalized scope and inventory of studies for the 2020 Census Program for Evaluations and Experiments.

#### Key Design Changes and Decisions

- No major changes or decisions since Version 3.0.

# QUESTIONS?

# In-Office and In-Field Address Canvassing for the 2020 Census

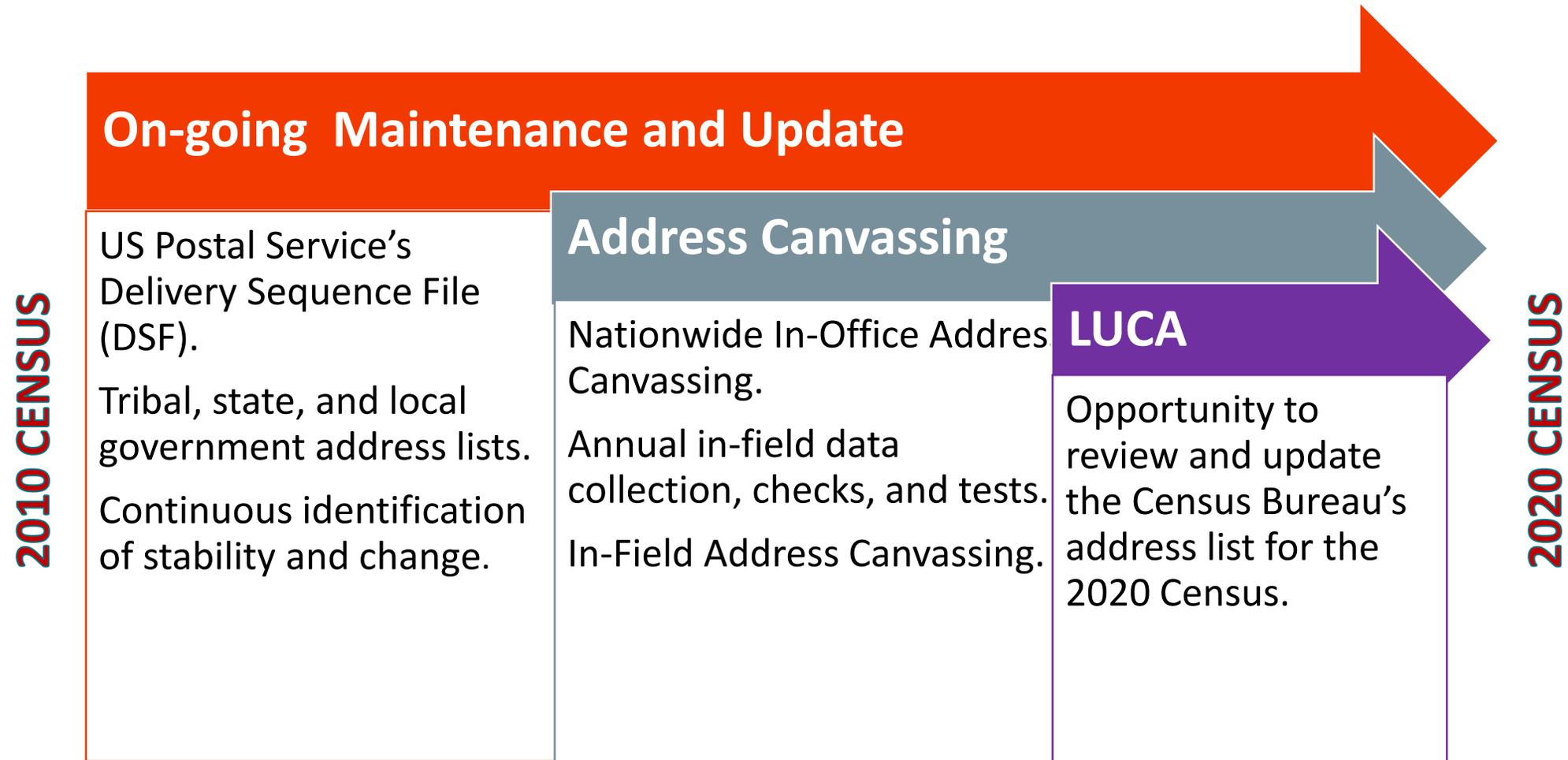
**Michael Ratcliffe**  
Geography Division

# In-Office and In-Field Address Canvassing

## Agenda

- Developing and Maintaining an Accurate Address List
- In-Office Address Canvassing Results
- Identifying the In-Field Address Canvassing Universe

# Developing and Maintaining an Accurate Address List



# Developing and Maintaining an Accurate Address List

## In-Office Process

- US Postal Service's Delivery Sequence File (DSF).
  - 5.3 million new residential addresses added to the Master Address File (MAF) since 2010.
  - 2.3 million residential addresses that were new to the DSF matched addresses already in the MAF.
- Tribal, state, and local government address lists provided through the Geographic Support System Program.
  - 106.7 million addresses acquired between 2012 and 2018.
  - 106.2 million (99.5 percent) matched addresses already in the MAF.
  - Geospatial locations improved and/or corrected for 75.1 million addresses.
- Ungeocoded Resolution Project.
  - 810,899 addresses (72 percent of addresses reviewed) that previously were not assigned to a census block have been geocoded since 2017.
- Local Update of Census Addresses (LUCA) Program.
  - 22 million addresses received from 8,395 entities.
  - 17.87 million (81.2 percent) matched to the MAF.
  - 3.46 million unmatched addresses.

# In-Office Address Canvassing

## Interactive Review-Initial Pass of the Nation

The goal of In-Office Address Canvassing is to manage as much of the review and validation of the address list as possible in the office, allowing resources to be focused on areas in which fieldwork is necessary to assure a complete and accurate address list.

- 100 percent review in the office.
- Started Execution: September 2015.
- Completed Initial Pass of the Nation: June 8, 2017.
- **Status in June 2017:** 11,155,486 - All US Blocks reviewed.

Status	Block Counts	Percent of Blocks
Active	1,893,310	17.0
Passive	7,921,288	71.0
On Hold	1,340,888	12.0
<b>Total</b>	<b>11,155,486</b>	<b>100.0</b>

# In-Office Address Canvassing

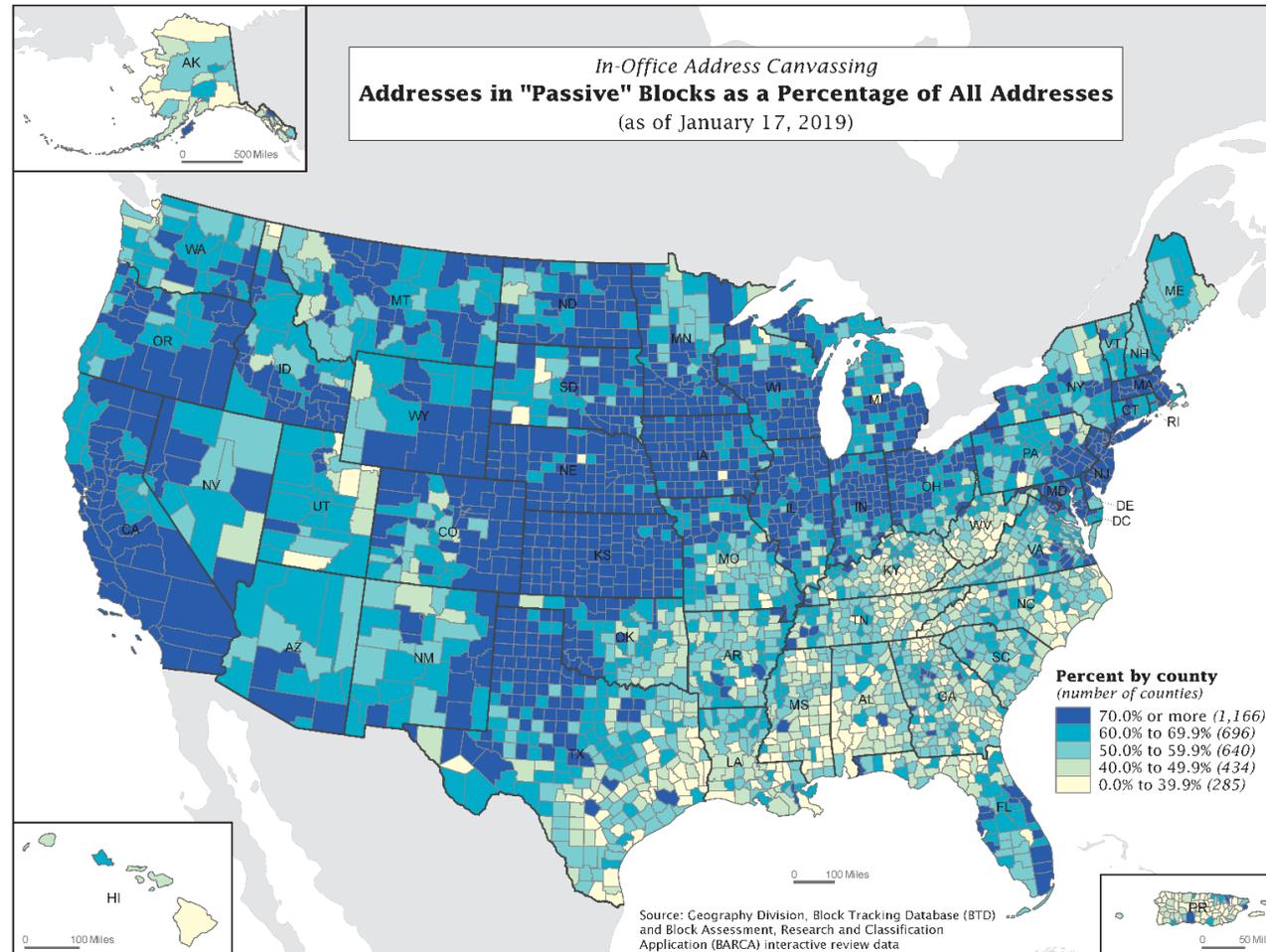
Interactive Review-Current Status (as of January 23, 2019)

Status	Census Blocks	Percentage of Census Blocks	Housing Units	Percentage of Housing Units
Active	1,076,166	9.6	29,765,961	20.7
Passive	9,645,344	86.5	102,119,166	70.9
On Hold	351,622	3.2	11,510,560	8.0
Triggered	82,354	0.7	656,468	0.4
<b>TOTAL</b>	<b>11,155,486</b>	<b>100.0</b>	<b>144,052,155</b>	<b>100.0</b>

- Triggered Blocks
  - A trigger is an “event” that provides information and/or data that suggest the need to send a block, or area of blocks, back through Interactive Review (IR).
- Triggers
  - To date, 48 trigger events have resulted in blocks returning to IR. For example:
    - Changes to the count of residential addresses in a block due to updates from the DSF or other address update process.
    - New imagery triggers blocks that had been placed on hold due to cloud cover or other issues affecting the clarity of imagery during an earlier review.

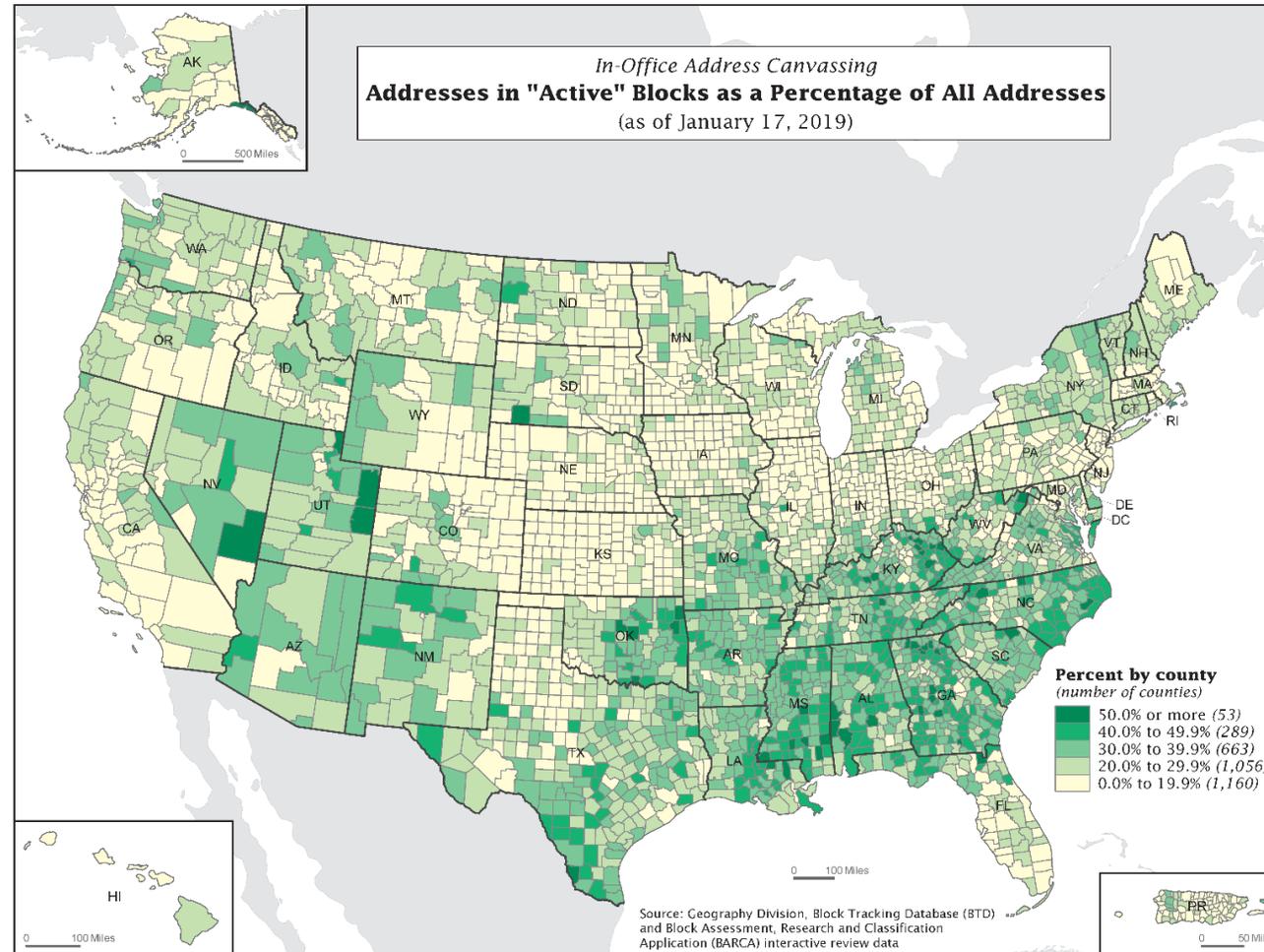
# In-Office Address Canvassing

## Analysis of Results



# In-Office Address Canvassing

## Analysis of Results



# Identifying the In-Field Address Canvassing Universe

- Geography Division will identify the final In-Field Address Canvassing (IFAC) workload at the end of March 2019.
- Will include all addresses in tabulation blocks that are identified as requiring verification in the field within the Self-Response Type of Enumeration Area (TEA 1).
- Because fieldwork is organized and conducted by Basic Collection Unit (BCU), IFAC-qualifying tabulation blocks are “translated” to BCU.
- Determination of the IFAC workload universe consists of two stages:
  - Identification of tabulation blocks that meet the criteria for inclusion in the IFAC workload.
  - Identification of BCUs containing qualifying IFAC blocks.

# Identifying the In-Field Address Canvassing Universe

## Changes to Block Statuses Requiring In-Field Address Canvassing (i.e., blocks that can be managed through ongoing in-office update processes)

- Undercoverage blocks that contain only single-family housing and have a Delivery Sequence File (DSF) Reliability Index of 1.0.
  - Blocks classified as single-family blocks are those that contain only single-family housing units.
  - DSF Reliable blocks are those in which 100 percent of the addresses have the DSF as the original source code or, if added to the MAF from another source, appeared on the DSF within 200 days.
  - Taking the two conditions together identifies a set of blocks that are easy to manage in the office using a reliable source of addresses.
- Blocks with overcoverage of only one housing unit (and no undercoverage).
  - There are 404,823 blocks in this category, containing 5,139,420 housing units. The cost of sending these blocks to IFAC, and their approximately 4.7 million valid housing units, outweighs the gain from correcting the overcoverage.
- Growth blocks with DSF Reliability Index of 1.0.
  - These are blocks in which IR reviewers observed growth between two vintages of imagery, but did not detect undercoverage in the MAF. Because these blocks also have a DSF Reliability Index of 1.0, we can rely on the DSF to continue to update the MAF if additional growth occurs.

# Identifying the In-Field Address Canvassing Universe

At the time the In-Field Address Canvassing workload is identified, any basic collection unit containing a block:

- With undercoverage detected in IR, with the exception of those that contain only single-family housing and have a DSF Reliability Index of 1.0.
- With observed overcoverage (and no undercoverage) of two or more housing units.
- With growth detected in IR (but no undercoverage) and DSF Reliability Index of less than 1.0.
- With decline detected in IR (but no overcoverage or undercoverage).
- That is in On-Hold status.
- That is in Triggered status.
- That is triggered for fieldwork status.

# Identifying the In-Field Address Canvassing Workload

## Estimated Universe as of January 18, 2019

	Basic Collection Units		Housing Units	
	Number	Percent	Number	Percent
<b>Total TEA 1 Universe</b>	5,022,177	100.0	138,375,323	100.0
<b>TEA 1 IFAC Universe</b>	1,156,852	23.0	48,292,005	34.9

# QUESTIONS?

# 2020 Census Nonresponse Followup Operation: Contact Strategy

**Jennifer W. Reichert**  
Decennial Census Management Division

# 2020 NRFU Contact Strategy

## Overview

- Primary issues to resolve from mid-decade testing
  - Low resolution rate for telephone reinterview operation
  - Occupied status for Administrative Record (AdRec) vacant/delete determinations
    - 18% of AdRec Vacants were found to be occupied
    - 30% of AdRec Deletes were found to be occupied
  - High unresolved rate-cases closed without minimal information
- Solution strategies
  - Eliminate telephone mode for reinterview and send all reinterview cases to field for personal visits
  - At least one visit for AdRec Vacant/Delete cases
    - If visit indicates the housing unit may be occupied, the case will remain in the NRFU for additional contact attempts
  - Phased contact strategy-Phase 1, Phase 2, Closeout

# 2020 NRFU Contact Strategy

## Phase 1 – Full Optimization

- 2018 End-to-End Census Test approach-full optimization through MOJO
- Remove most holds/sleep after the 2<sup>nd</sup> attempt-day
  - Hold/sleep for two days after 1<sup>st</sup> attempt-day
  - The 5-day hold for paper self-respondents that request an envelope from enumerators remains active throughout the Phase
- Best-time-to-contact only used for 1<sup>st</sup> and 2<sup>nd</sup> attempt-days
- Conduct one visit for all AdRec occupied, vacant, and delete cases
- All cases are put on hold after 4<sup>th</sup> attempt-day in preparation for Phase 2

# 2020 NRFU Contact Strategy

## Phase 2 – Semi-Permanent Assignment

- Criteria

- Census Field Supervisor (CFS) areas are eligible when 60% of cases have reached 4 attempt-days or are resolved
- June 5, 2020 is the earliest a CFS area can enter Phase 2
- All CFS areas will be eligible on June 17, 2020

- Details

- CFMs use Field Operations Control Systems (FOCS) to put a CFS area into Phase 2 and designate the enumerators that will work that area
- Enumerators' assignment will be semi-permanently assigned (case assignments will be re-balanced nightly so some cases may move between enumerators)
- MOJO will optimize all cases within a CFS area using enumerator-based clusters
- Reinterview and Self-Response Quality Assurance cases will continued to be prioritized

# 2020 NRFU Contact Strategy

## Closeout – Get to done

- Criteria
  - CFS Area eligible when 85% of cases are closed (resolved and unresolved)
  - June 23, 2020 is the earliest a CFS area can enter Closeout
  - All CFS areas will be eligible on July 10, 2020
- Details\*
  - CFMs use FOCS to put a CFS area into Closeout and designate the enumerators that will work that area
  - Cases are assigned and optimized using the same methodology as in Phase 2
  - Unresolved cases are re-opened and the maximum attempt-days are extended (unlimited) for all cases
  - Cases will close once they get the minimal information to support apportionment

\*Details continued on the next slide

# 2020 NRFU Contact Strategy

## Closeout – Get to done

- Details-continued
  - Loosened administrative record modeling criteria are used to reduce the NRFU Closeout workload
    - Cases modeled as occupied, vacant, or delete with the loosened criteria will be closed if they have had at least one contact attempt-day
- CFS Areas close out upon 100% completion or on July 24. The operation may be extended to reach acceptable completion

# 2020 NRFU Contact Strategy

## Key Milestones

### Early NRFU

Activity	Dates
Begin Census Field Supervisor Training	03/10/2020
Begin Enumerator Training	03/27/2020
<b>Census Day</b>	<b>04/01/2020</b>
Begin Early NRFU	04/09/2020
Begin Early NRFU RI	04/10/2020

### NRFU

Activity	Dates
Begin Census Field Supervisor Training	04/14/2020
Begin Enumerator Training	04/30/2020
Begin NRFU	05/13/2020
Begin NRFU RI	05/14/2020
NRFU Supplemental Workload Added	06/01/2020
Eligible CFS Areas May Begin Phase 2 Contact Strategy	06/05/2020
All CFS Areas will be Eligible to Begin Phase 2 Contact Strategy	06/17/2020
Eligible CFS Areas May Begin Closeout Phase	06/23/2020
All CFS Areas will be Eligible to Begin Closeout Phase	07/10/2020
NRFU Production Ends	07/24/2020
NRFU RI Ends	07/31/2020

# QUESTIONS?