

2017 Census Test Preliminary Findings

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2017 Census Test

Overview

- April 1, 2017 Census Day
- A nation-wide self-response test of 80,000 housing units

Purpose

- Test the integration of operations and systems for Self-Response
- Test the feasibility of collecting tribal enrollment information

National Sample: 80,000 housing units

- Housing units in mailable areas
- Remove housing units from recent decennial tests and the American Community Survey
- Stratified to oversample housing units in:
 - Alaska
 - Areas with relatively higher populations of American Indian and Alaska Natives
 - Areas with lower propensity to respond online

Reinterview: 15,000 housing units

- Conducted by phone
- Heavy oversample:
 - Alaska
 - People who identify as American Indian and Alaska Native
 - People who indicate they are enrolled in a tribe
 - People responding initially without a Census ID

2017 Census Test

Mail Strategy

Self-Response

- Self-response contact strategy: Internet First (invitation letter on first contact) and Internet Choice (questionnaire on first contact)
- Languages: English and bilingual (English/Spanish)
- 80,000 total housing units in sample

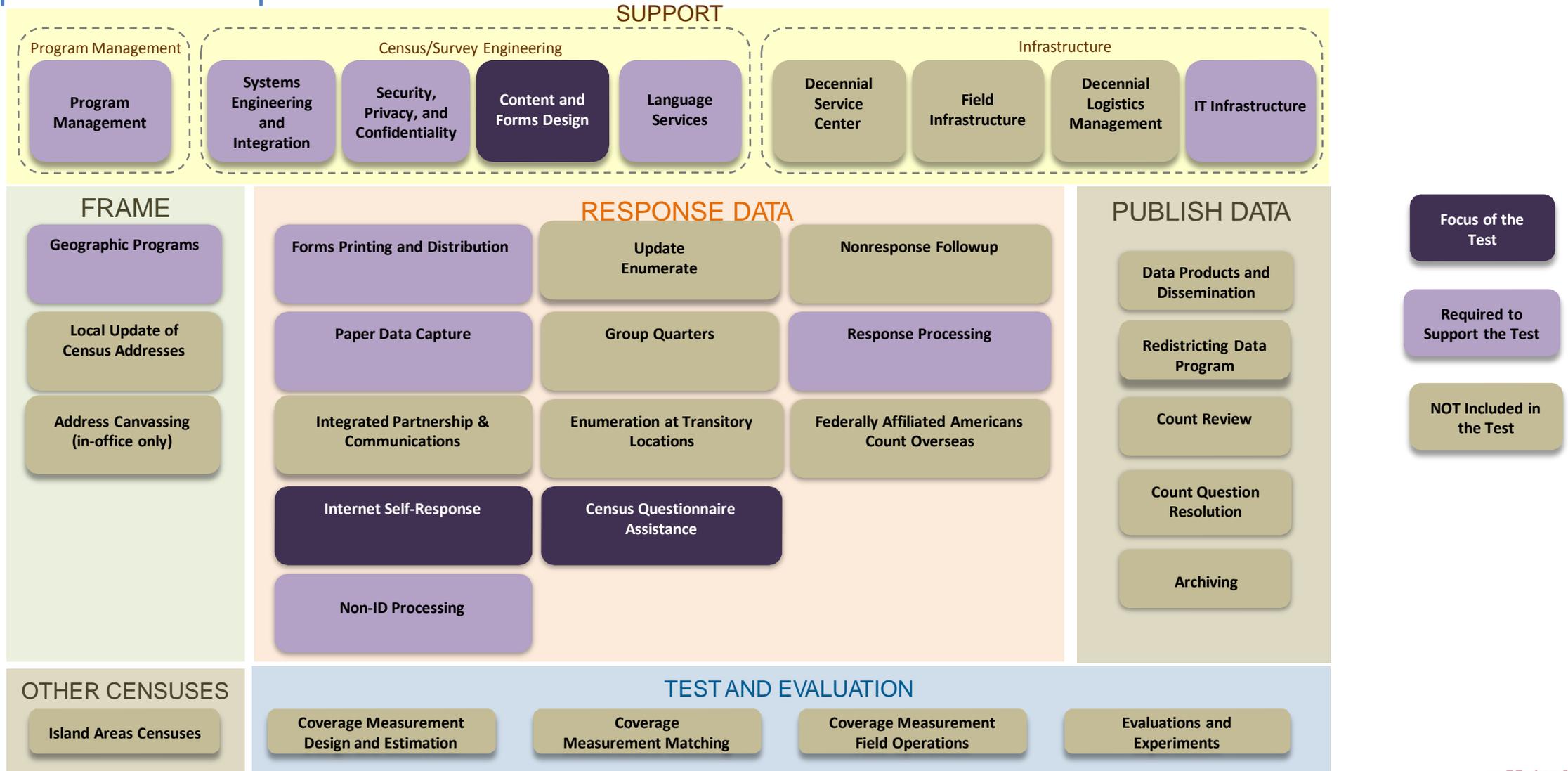
Panel	Number of Housing Units	Percent of Total Housing Units
Internet First	48,900	61.1
Internet Choice	31,100	38.9

Language	Number of Housing Units	Percent of Total Housing Units
English	69,824	87.3
Bilingual (English/Spanish)	10,176	12.7

2017 Census Test Language Services

- Provided the ability for non-English speakers to respond by:
 - Internet Self-response Instrument: Spanish
 - Paper Questionnaire: Spanish
 - Census Questionnaire Assistance (CQA): Spanish, Chinese (Cantonese, Mandarin), Vietnamese, Korean, Russian, and Arabic
- Included a language insert in all mailing panels
 - Explaining how to reach a CQA agent in each language

2017 Census Test Operational Scope



2017 Census Test

Key Activities

Activity	Date	
First Mailing	March 20, 2017	✓
Conduct Internet Self-Response, Including Non-ID Processing	March 20 – May 12, 2017	✓
Conduct Census Questionnaire Assistance (CQA)	March 20 – May 12, 2017	✓
Conduct Paper Data Capture	March 20 – June 2, 2017	✓
Census Day	April 1, 2017	✓
Conduct Reinterview	April 10, 2017 – July 10, 2017	✓
Last Mailing	April 20, 2017	✓

2017 Census Test

Preliminary Weighted Self-Response Rates

	Panel	Internet	Telephone	Mail	Total*
1	Internet First	37.4%	2.8%	13.0%	53.2%
		(0.33)	(0.11)	(0.24)	(0.34)
2	Internet Choice	9.0%	0.6%	28.9%	38.5%
		(0.21)	(0.06)	(0.34)	(0.36)
	Overall	31.7%	2.4%	16.2%	50.3%
		(0.27)	(0.09)	(0.20)	(0.28)

*Individual components may not add to total due to rounding.

2017 Census Test Systems

Successfully fielded the public facing production systems for the Census which included:

- In the Cloud
- Internet Self-Response
 - Real-Time Non-ID Processing
 - ECaSE Operational Control System
 - Census Questionnaire Assistance (Two Call Centers)

2017 Census Test

Lessons Learned

Internet Self-Response

- Rapid response mechanisms (e.g., escalation procedures, issue resolution Points of Contact) were refined during the test and will be further refined and documented
- User testing schedule will be further refined

Forms Printing and Distribution

- Quality Control procedures will be updated and improved to ensure consistent quality of printed forms
- Printed address check procedure worked well but needs adjustments to scale for 2020

Paper Data Capture

- New paper handling processes need refinement

2017 Census Test Preliminary Findings: Census Questionnaire Assistance (CQA)

2017 Census Test: Census Questionnaire Assistance

Scope

- General questionnaire assistance was provided via two tiers:
 1. Interactive Voice Response
 2. Live Customer Service Representative (CSR)
- CQA scope for the 2017 Census Test was inbound call assistance only.
- CSRs completed questionnaires over the phone for respondents

2017 Census Test

Final CQA Operational Metrics

Key Metrics: 3/22 - 5/12

	Calls Entering IVR	Deflected Calls	Deflection Rate	IVR Calls Offered to CSRs	CSR Calls that Bypassed the IVR	Calls Offered to CSRs	Abandon Rate	Abandoned Calls*	CSR Handled Calls	Avg. Handle Time (min)
PTD	5,737	2,496	43.5%	3,241	66	3,307	1.3%	44	3,267	10.3

Skill Name	Calls Offered to CSRs	Service Level - 30 Seconds	Avg. Handle Time (min)	Avg. Time to Abandon (s)	Abandoned Calls*	Abandon Rate	CSR Handled Calls
Arabic	6	66.7%	6.5	0	0	0.0%	6
Chinese Cantonese	3	100.0%	11.1	0	0	0.0%	3
Chinese Mandarin	3	100.0%	19.4	0	0	0.0%	3
English	3,154	98.3%	10.3	412	40	1.3%	3,118
Korean	7	85.7%	4.1	875	1	14.3%	6
Russian	5	60.0%	7.7	94	1	20.0%	4
Spanish	118	95.8%	12.1	79	1	0.8%	117
Vietnamese	11	81.8%	10.9	18	1	9.1%	10
Grand Total	3,307	98.0%	10.3	399	44	1.3%	3,267

*NOTE: 18 calls marked as "abandoned" are likely handled by CSRs, but MRS cannot link the call to the agent. This is caused by a Transverse call condition which causes a status 3 error in the GeneSys Infomart - ETL process.

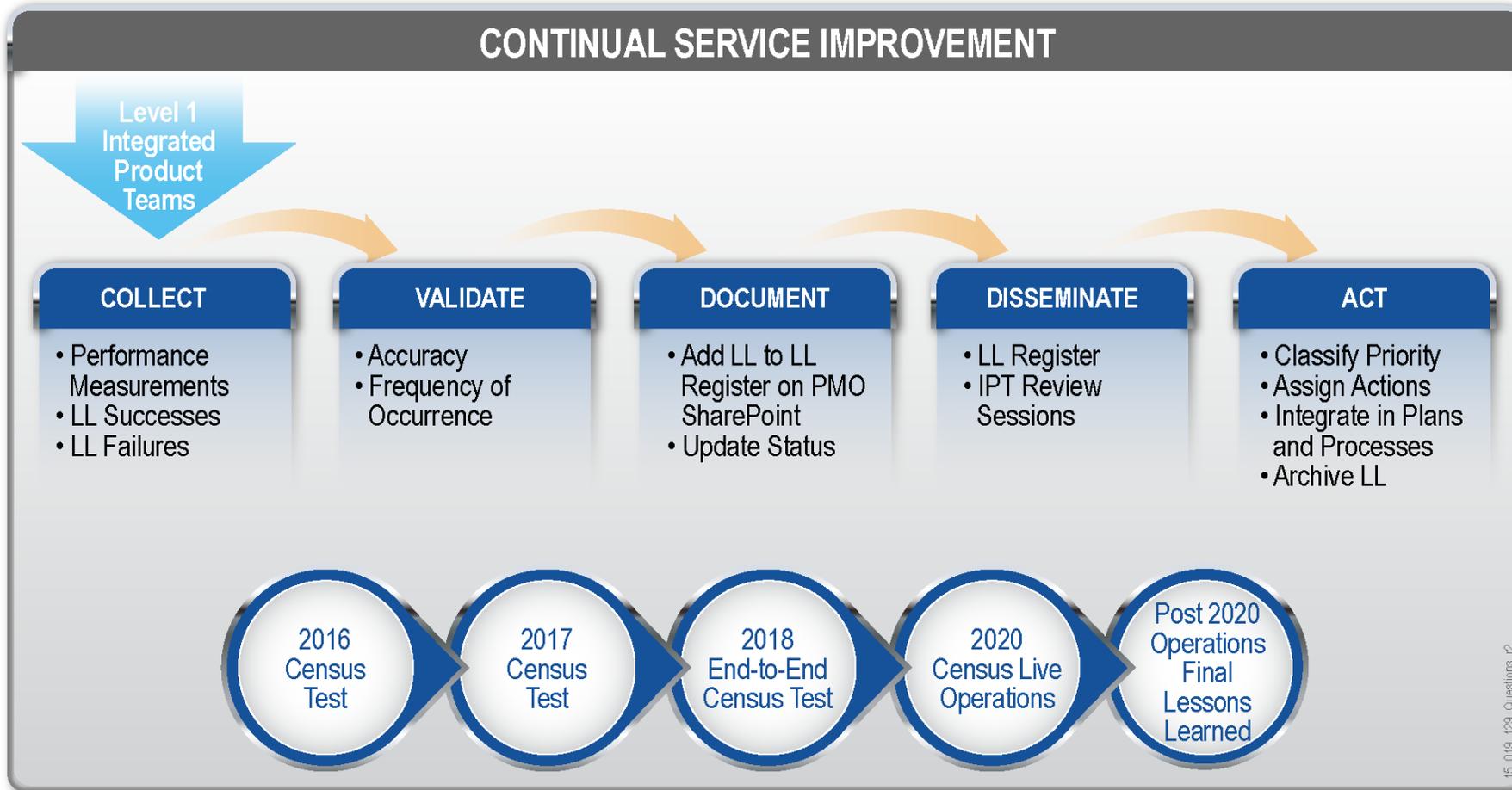
Daily CQA Briefing Report | May 13, 2017

2017 Census Test: Census Questionnaire Assistance

CQA Key Performance Metrics

Metric	Forecast/Plan	Actual	Difference
Average Handle Time	585 Seconds	618 seconds	+33 seconds
Weekly Staff Attrition %	1.0%	1.9% Weekly Average	+0.9%
Average QA score	97%	DQA: 82.7% QAE: 84.9% Aggregate: 85.5%	DQA: -14.3% QAE: -12.1% Aggregate: -11.2%
% of Call Evaluations Completed per Week (Based on CSR Headcount)	95%	DQA: 28% QAE: 101% Aggregate: -65%	DQA: -67% QAE: +4% Aggregate: -32%
% of Call Evaluations Completed per Week (Based on Available Screen Capture Recordings)	95%	145%	+50%
Schedule	95%	100%	+5%
Service Level	80% of Calls Handled Within 30 Seconds	98% of Calls Handled Within 30 Seconds	+18.0%
Percent of Trainees Certified	100%	100%	0
Total # of Contact Center Operations (CCO) Staff On the Job	138	138	0

2017 Census Test: Census Questionnaire Assistance Continual Service Improvement Process



2017 Census Test: Census Questionnaire Assistance Successes/Lessons Learned

Functional Area
Call Center Operations
Training
Systems, Architecture, and Security
Quality Management
Program Management

2017 Census Test: Census Questionnaire Assistance Lessons Learned

Call Center Operations

Successes:

1. Validated the CQA operational concept of operations
2. Validation of Standard Operating Procedures, except EXCEPTION processing

Lessons Learned:

1. Suitability process for hiring CQA Customer Service Representatives was manual and may not be scalable for the 2020 Census
2. Account creation process for CSRs was manual and may not be scalable

2017 Census Test: Census Questionnaire Assistance Lessons Learned Training

Successes:

1. Rapid development of New Hire Training materials for a variety of roles
2. Rapid development and deployment of Ongoing Training to close knowledge/skill gaps uncovered during operations
3. Successful use of software that emulated the CQA and ISR tools, for delivery of both on-site and cross-site virtual instructor-led training, as well as for delivery of on-demand eLearning

Lessons Learned:

1. Improve methods and timing of incorporating trainee feedback during trainings
2. CQA systems need early access in the training development process
3. Standard operating procedures are essential early in the training development process

2017 Census Test: Census Questionnaire Assistance Lessons Learned

Systems, Architecture, and Security

Successes:

1. The primary call processing system components were proven in and will be used in 2018
2. IVR - The effective deflection rate of the IVR solution was greater than the plan of 30 percent
3. Implementation of the CQA Secure Private Cloud platform was completed on time and in an effective manner

Lessons Learned:

1. Business processes were initially not aligned
2. Need cross-functional collaboration for integration of different technologies

2017 Census Test: Census Questionnaire Assistance Lessons Learned

Quality Management

Successes:

1. QA scorecards and scoring standards met requirements successfully to provide an independent evaluation of the CSR's quality measurements
2. QA team availability and time investment to report CQA system errors and assist the technology team on daily troubleshooting and testing efforts

Lessons Learned:

1. Low call volume during the test impacted meeting the monitoring completion metric for Data Quality Audits
2. Need additional effort to define critical fail rate parameters

2017 Census Test: Census Questionnaire Assistance Lessons Learned

Program Management

Successes:

1. Strong, collaborative relationship between the Census Bureau's Government Program Management Office (GPMO), the contracting officer's representative, and the contracting officer
2. Dedicated, transparent, and flexible contractor and GPMO Integrated Project Teams (IPTs) demonstrated the CQA program has an open and communicative environment where all information is shared
3. Collaborative change control board

Lessons Learned:

1. Challenge with document management emphasized the need for a central repository for documents

Questions?

2018 End-to-End Census Test

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Decennial Census Management Division

2018 End-to-End Census Test

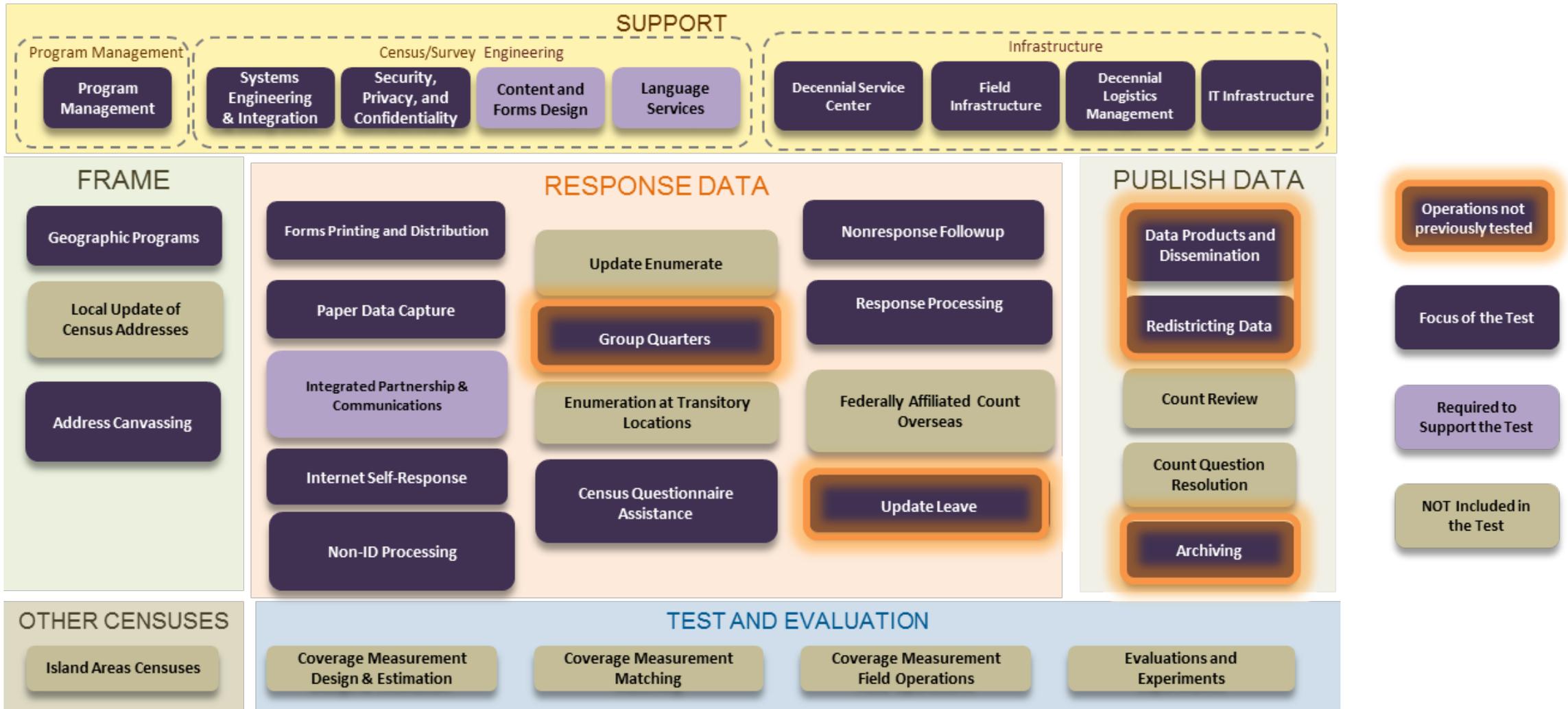
Overview

- April 1, 2018 Census Day

Goals:

- 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 non-functional requirements
- Produce a prototype of geographic and data products

2018 End-to-End Census Test Operational Scope

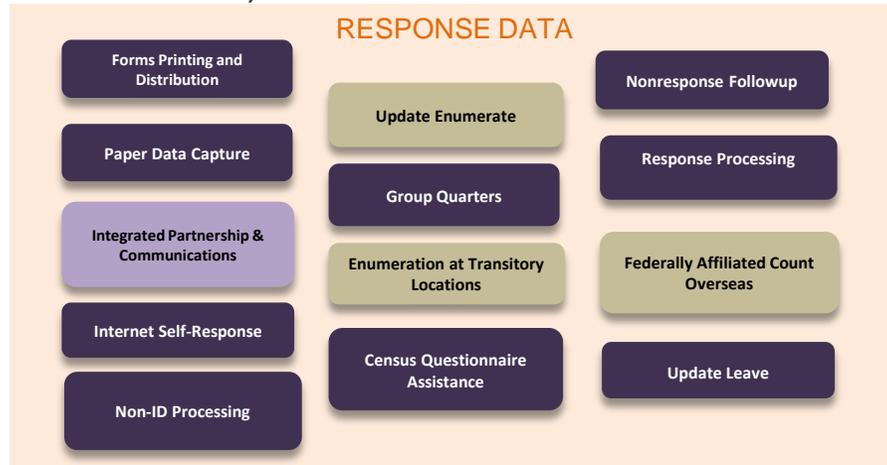


2018 End-to-End Census Test: Peak Operations

Operational Scope

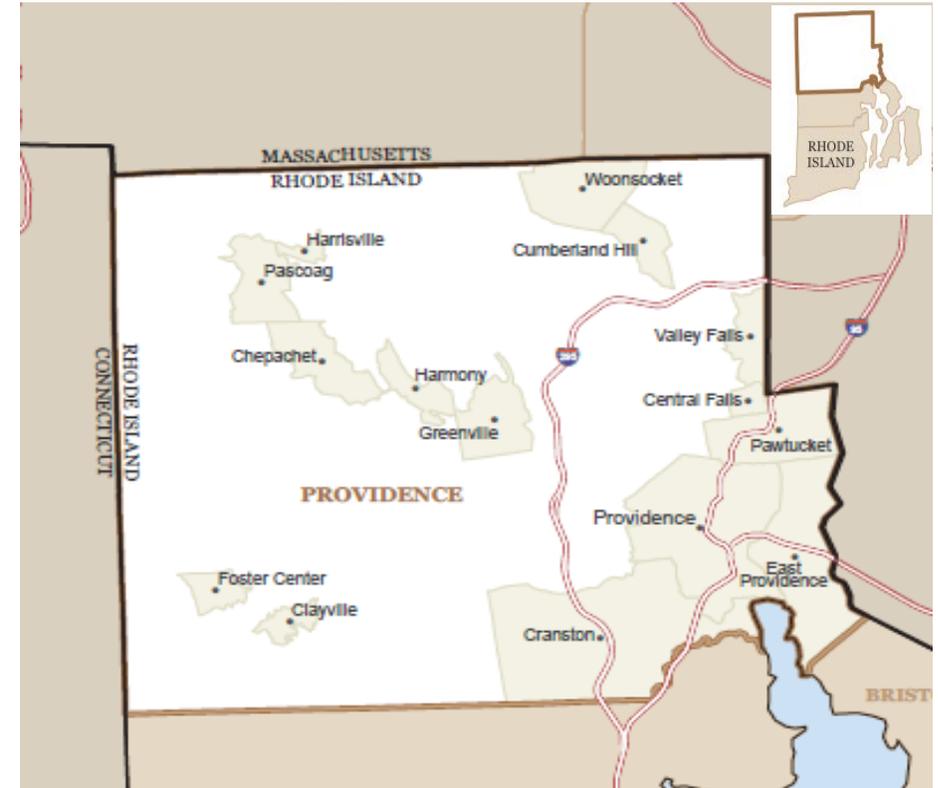
Peak Operations

- One site: Providence, Rhode Island



Operation	Workload Unit	Test Site Providence County, RI
Total Housing Units	-	273,000
In-Field Address Canvassing	HU	~80,000
Update Leave	HU	~2,000
Self-Response	HU	~271,000
Nonresponse Followup	HU	~163,000
Group Quarters	GQ	500

Providence County, RI



2018 End-to-End Census Test

Address Canvassing: Overview

Methodology

- Conduct In-Field Address Canvassing in Three Test Site Locations
- Implementation of Independent Quality Control

Approach

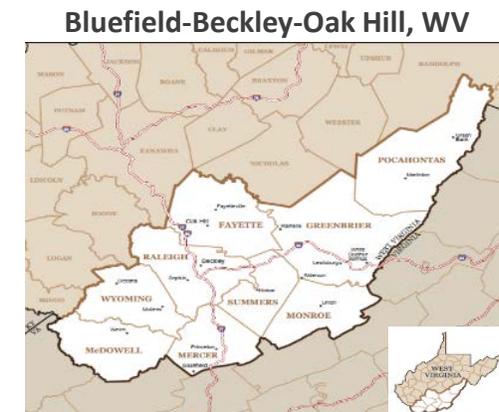
- Use Enhanced Version of LiMA that Supports Quality Control Operations
- Integrate with ECaSE Field Operational Control System using our Mobile Case Management (MCM) system
- ECaSE Time and Expense
- Use Automated Training Solution

2018 End-to-End Census Test: 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	~120,000	~80,000	~55,000	~255,000



2018 End-to-End Census Test

Address Canvassing: Estimated Staffing Per Site Location

Site	Production		Quality Control	
	Invite to Training	Production Staff	Invite to Training	Production Staff
Providence County, Rhode Island	80	70	17	15
Pierce County, Washington	133	117	33	28
Bluefield-Beckley-Oak Hill, West Virginia	91	80	28	24

2018 End-to-End Census Test

Key Activities

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 – September 29, 2017	
Conduct Group Quarters Advance Contact	January 5 – March 9, 2018	
Conduct Self-Response, Including Non-ID Processing	March 19 – August 31, 2018	
Conduct Group Quarters Enumeration	March 28 – June 12, 2018	
Census Day	April 1, 2018	
Conduct Early Nonresponse Followup	April 3 – June 9, 2018	
Conduct Nonresponse Followup Reinterview	April 4 – August 31, 2018	
Conduct Update Leave	March 19 – April 20, 2018	
Conduct Nonresponse Followup	May 10 – August 20, 2018	
Publish Prototype P.L. 94-171 Data and Geographic Products	April 1, 2019	

*Delayed the opening of the Area Census Offices.

Questions?