

2020 Census Update

Presentation to the Census Scientific Advisory Committee
September 12, 2019

**Albert E. Fontenot, Jr., Associate Director
Decennial Census Programs**

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2020 Census Update

Where Are We Now

Milestone	Date	
Begin 2020 Census Program	November 18, 2011	✓
Begin Local Update of Census Addresses (LUCA) Program	January 2017	✓
Deliver 2020 Census Topics to Congress	March 28, 2017	✓
Deliver 2020 Census Questions to Congress	By March 31, 2018	✓
Open Regional Census Centers	April 2018	✓
Conduct 2018 End-to-End Census Test	August 28, 2017 – August 31, 2018*	✓
Begin Opening Area Census Offices	January 7, 2019	✓
Begin In-Field Address Canvassing	August 18, 2019 – October 11, 2019	
Launch Advertising Campaign	January 2020	
Begin Remote Alaska	January 21, 2020	
Begin Group Quarters – Advance Contact	February 3, 2020	
Begin Self-Response	March 12, 2020	
Begin Update Leave	March 16, 2020	
Begin Update Enumerate	March 16, 2020	
Begin Group Quarters – Service Based Enumeration	March 30, 2020	
2020 Census Day	April 1, 2020	
Begin Group Quarters Enumeration	April 2, 2020	
Begin Coverage Improvement	April 7, 2020	
Begin Early Nonresponse Followup	April 9, 2020	
Begin Enumeration at Transitory Locations	April 9, 2020	
Begin Nonresponse Followup	May 13, 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	

2018 End-to-End Census Test Preliminary Analysis



- Overall, 52.3% of response data came from one of the self-response modes.
 - Internet – 61.2%
 - Paper – 31.3%
 - Phone – 7.5%
- 33.2% of response data came from Nonresponse Followup.
- 14.5% of response data came from Other¹

¹Other includes enumeration by Administrative Records and Count Imputation
Note: Actual percentages may not sum to 100 due to rounding.

2018 End-to-End Census Test

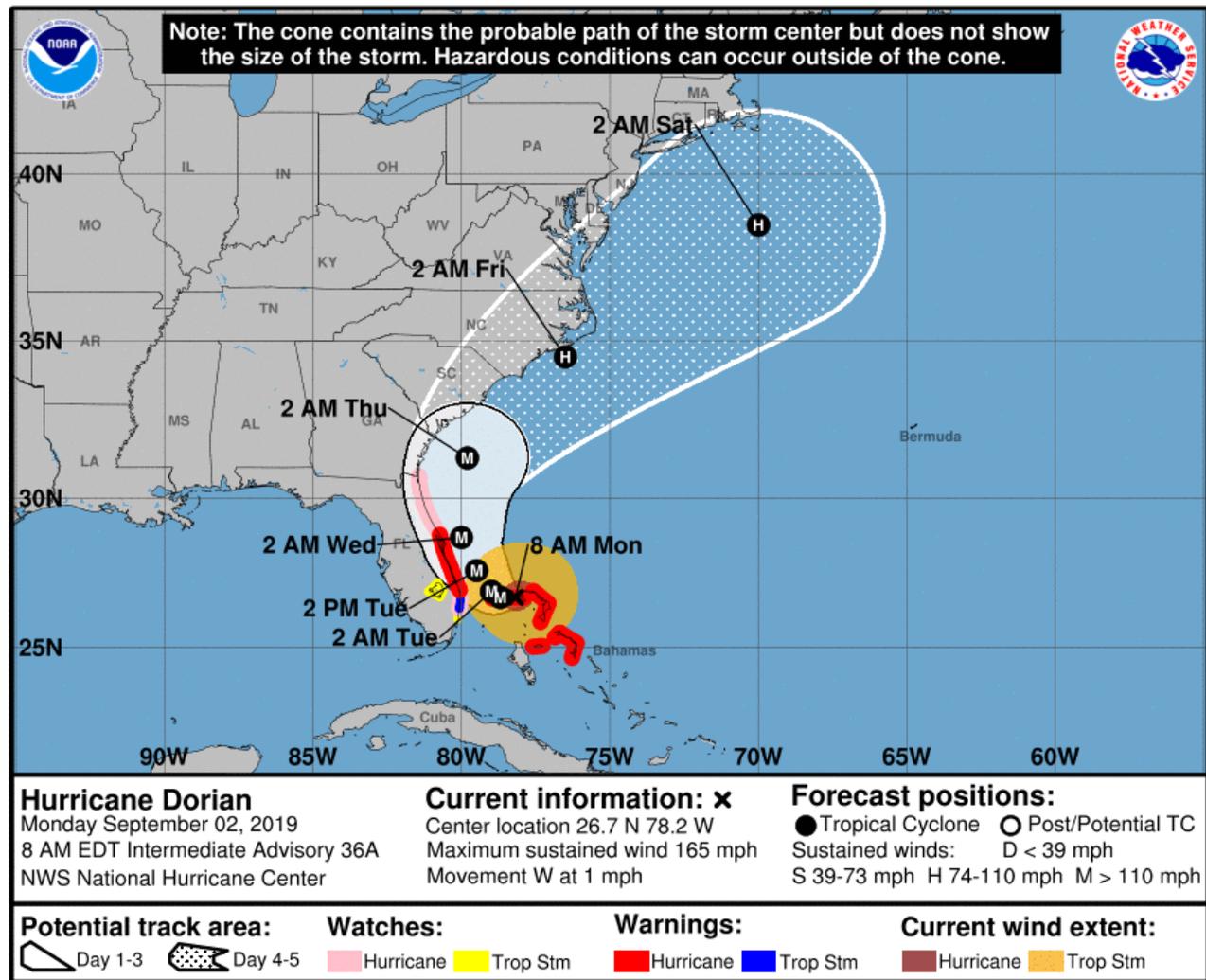
Preliminary Analysis



- Of respondents who started the questionnaire, 85.0% submitted a response.
- Of the 15.0% of respondents started the questionnaire but did not submitting the questionnaire:
 - 22.6% brokeoff at the “Confirm” screen
 - 14.8% exited at “Other Complete” screen
 - 13.9% brokeoff at the “Residence” screen
- Overall, 96.9% of respondents who submitted a response used an ID.
 - PC – 98.1% with an ID
 - Tablet – 97.8% with an ID
 - Mobile – 96.1% with an ID
- Respondents using the ID path spent the most time on the screen where they are asked to provide the name of each person living or staying at the address on April 1, 2018.
- Respondents using the NONID path spent the most time on the screen where they are asked to provide the city style address (Street number, Street Name, Apt/Unit, City, State, Zip).

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Impact of Hurricane Dorian



- No Field personnel have reported injury or property damage to any ACO/RCC as a result of Hurricane Dorian.
- Two Wave 1 ACOs closed (Orange County, FL and Savannah, GA), both have since reopened.
- Three Wave 2 ACOs closed (Charleston, SC, Seminole, FL, and Virginia Beach, VA) closed. All have since reopened.

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Address Canvassing Overview



- The Address Canvassing operation delivers a complete and accurate address list and spatial database for enumeration.
- Address Canvassing has been reengineered to include both In-Office and In-Field Address Canvassing, increasing efficiency of the operation.
- In-Office review, using aerial imagery and validated sources, substituted field work in residentially stable areas.
- In-Field Address Canvassing is taking place in those areas In-Office could not resolve.
- Listers will attempt contact at every structure to determine the type and address characteristics for each living quarter.
- In-field operation began in August 2019 and concludes in October 2019.

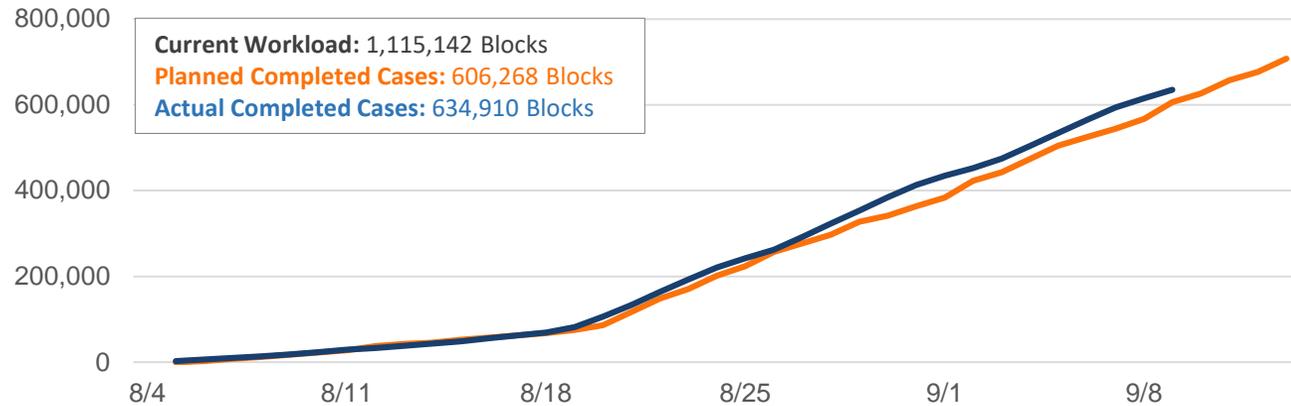
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In-Field Address Canvassing Update

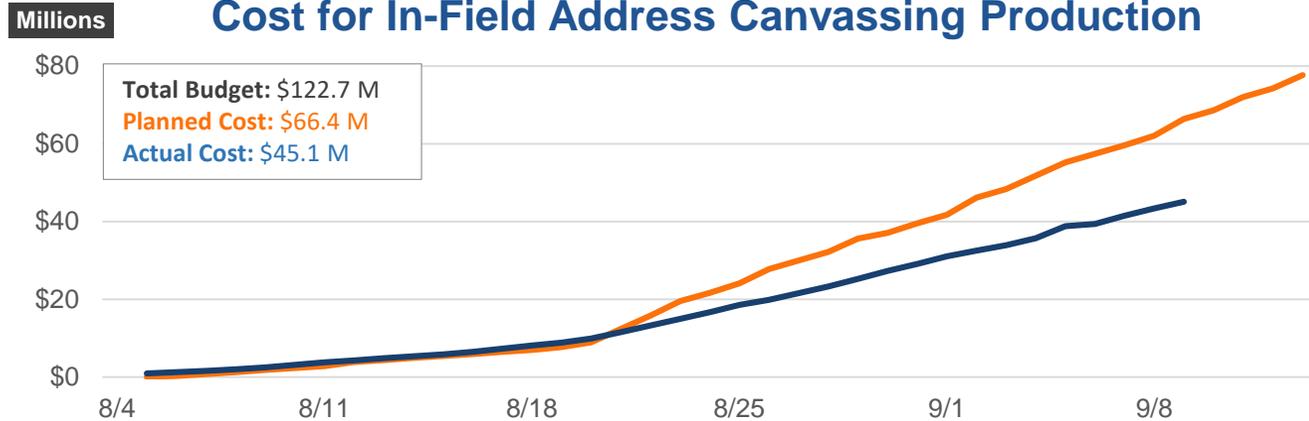
As of September 9, 2019

- Production listing activities began on August 4, 2019 in the seven early ACOs with the balance of the Wave 1 ACOs beginning production listing on August 18, 2019.

Progress for In-Field Address Canvassing Production



Cost for In-Field Address Canvassing Production



Source: Unified Tracking System

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In-Field Address Production Metrics

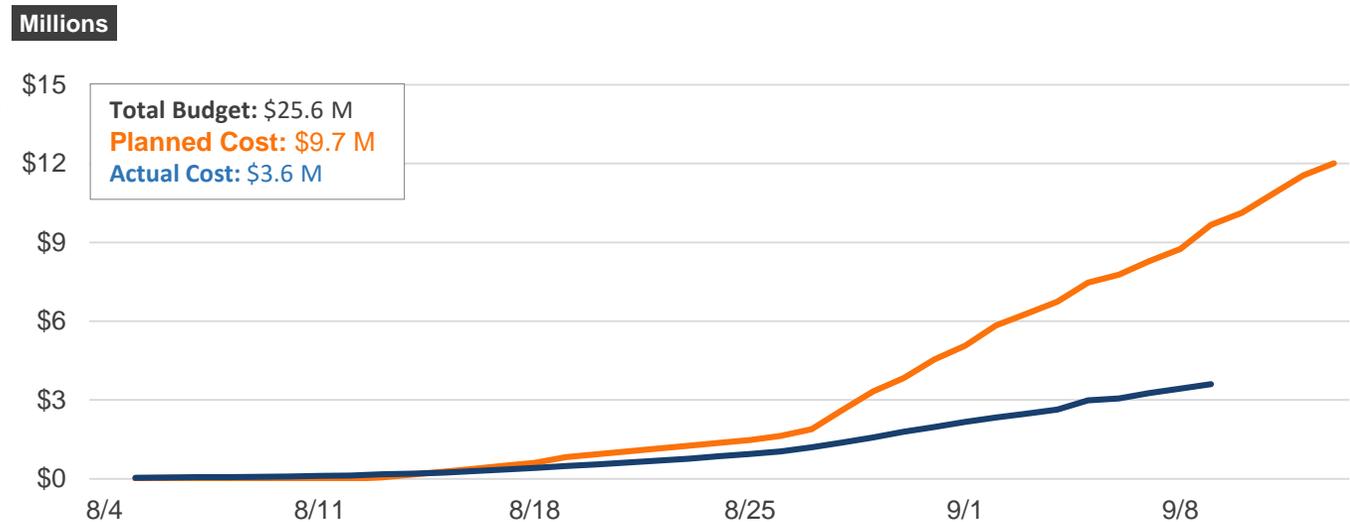
As of September 9, 2019

- Quality Control (QC) listing activities began on August 11, 2019 in the seven early ACOs with the balance of the Wave 1 ACOs beginning production listing on August 25, 2019.
- The failure rate for 2020 is higher than 2010 due to three factors:
 - Listing BCUs that are more likely to have changes.
 - Selecting BCUs for QC that are more likely to have errors.
 - Standards for passing a BCU in QC are more stringent.

Key Quality Control Metrics

Total <u>Production Workload</u>	<u>Production Blocks Complete</u>	Selected for QC to Date	Completed QC	Proportion Failed
1,115,142 <i>Blocks</i>	634,910 <i>Blocks</i>	81,298 <i>Blocks</i>	53,943 <i>Blocks</i>	32.7%

Cost for In-Field Address Canvassing QC



Source: Unified Tracking System

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Recruiting and Hiring

As of September 9, 2019

2020 Census Applicant Status

- Over 845,000 applicants have created a profile in our online hiring tool.
- Over 675,000 of those have completed an application and assessment – surpassing our goal for this time by over 25,000.

Peak Operations Staffing – Recruiting Assistants, Office Operation Supervisor, and Clerks

- Over 10,000 Recruiting Assistants, 1,900 Office Operations Supervisors, and 8,100 Clerks have been selected.
- Of those over 1,700 Recruiting Assistants, 320 Office Operations Supervisors, and 1,300 Clerks have been hired.
- Selection for Nonresponse Followup enumerators will begin in March 2020.



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Field Infrastructure

As of September 9, 2019

All Wave 1 ACOs are fully operational in support of Address Canvassing.

Wave 2 ACOs

- All Wave 2 ACOs have a Notice to Proceed, completed Design Intent Drawings, and completed Construction Drawings.
- 150 Wave 2 ACOs are currently Ready for Business.
- All Wave 2 ACOs will be ready for business by November 29, 2019.

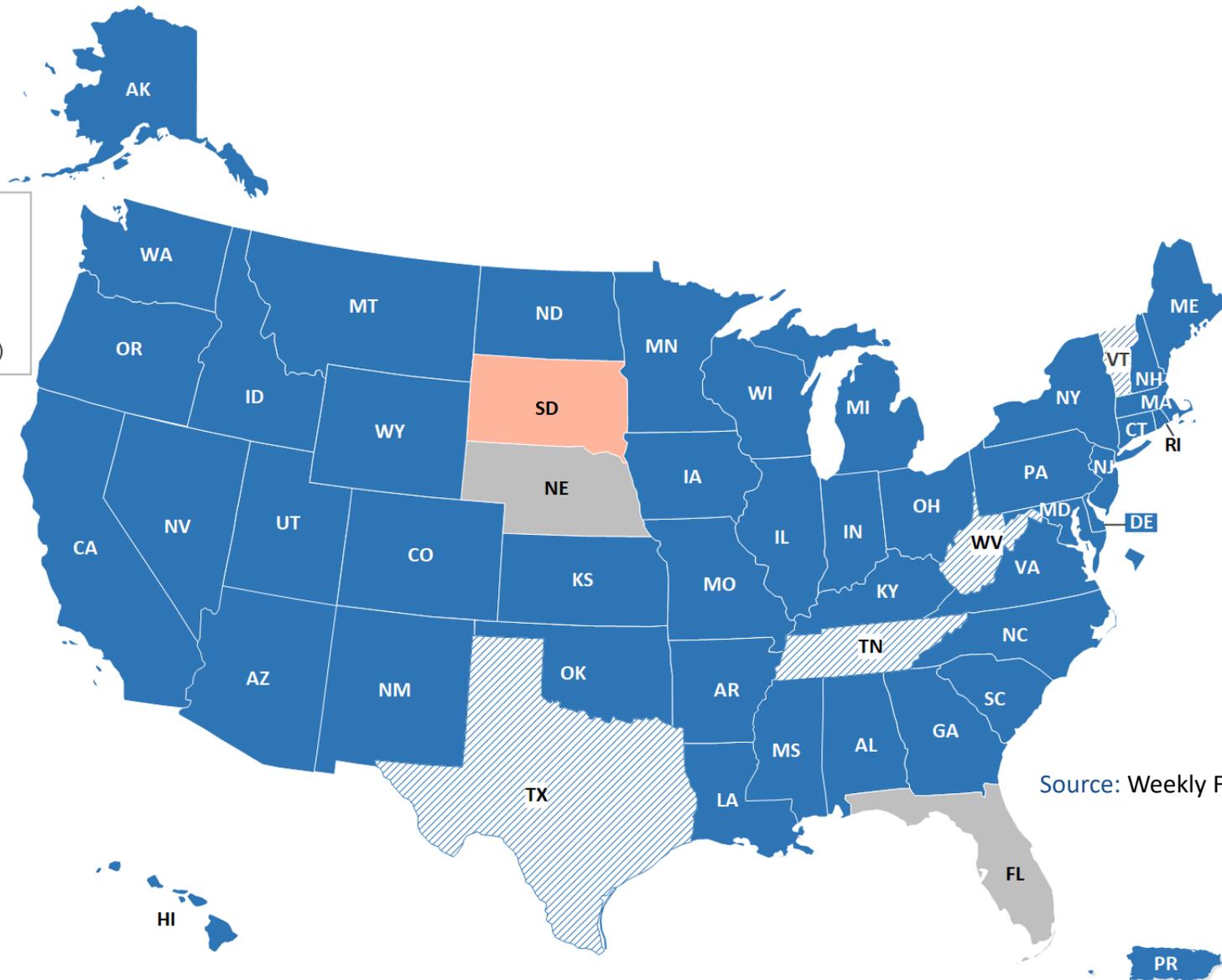
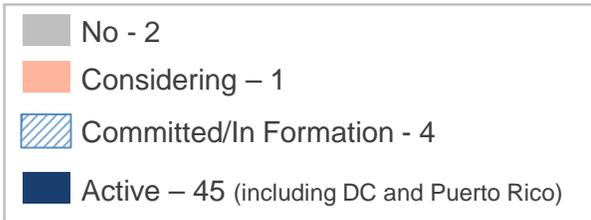


Source: Field Division Reports—Lease Management and ACO Forecast

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State Complete Count Commissions (SCCC)

As of September 6, 2019



Source: Weekly Field Division Reports

2020 Census Update

Local Complete Count Committees within States without a State Complete Count Commission

As of September 6, 2019

Notes:

There are 4,523 Local Complete Count Committees nationwide:

- 3,314 Government
- 104 Tribal
- 1,105 Community

State	Government	Community	Tribal	Total
Florida	147	45	0	192
Nebraska	14	10	0	24
South Dakota	9	0	2	11
Tennessee	97	7	0	104
Texas	283	96	0	379
Vermont	7	5	0	12
West Virginia	31	0	0	31
Total	588	163	2	753

Source: Weekly Field Division Reports

2020 Census Update

Increasing Awareness



Partnering With Census

- Partners are trusted voices in their community and educate their community and members on the importance of the Census
- Together with Census, partners develop solutions to effectively reach everyone and encourage them to respond to the 2020 Census.
- Partnerships help ensure that communities and members are accurately counted and represented in the 2020 Census.



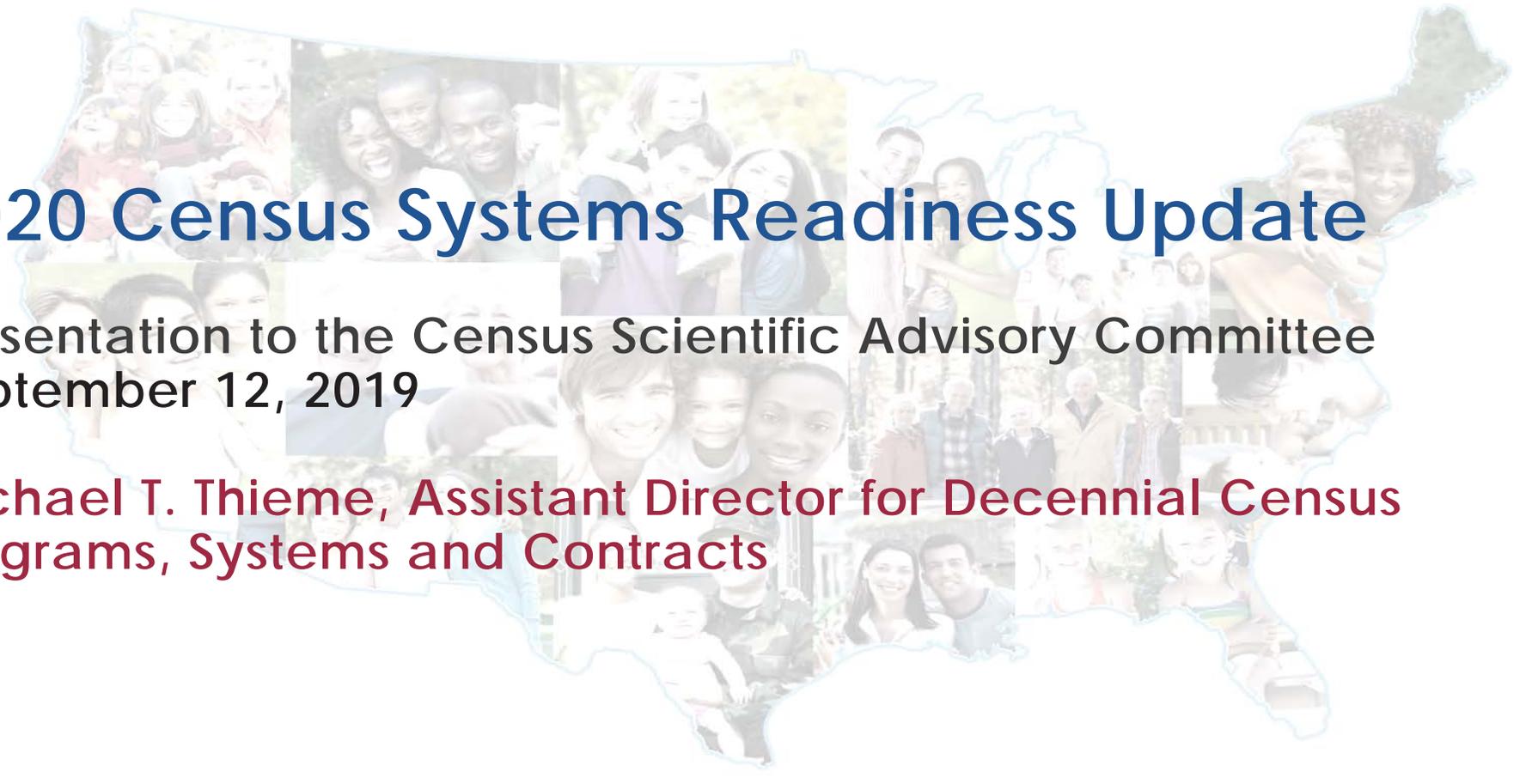
Media and Advertising

- Using traditional media (print, TV, radio), as well as digital and social media to tailor messages to specific geographic and demographic groups.
- Real-time response information will allow for rapid adjustments to areas with low response rates.



How can I learn more?

- Visit <www.census.gov/partners>.
- For the latest updates on the 2020 Census, visit <www.2020census.gov>.



2020 Census Systems Readiness Update

Presentation to the Census Scientific Advisory Committee
September 12, 2019

Michael T. Thieme, Assistant Director for Decennial Census Programs, Systems and Contracts

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2020 Census Systems Readiness Operational Delivery Framework

Operational deliveries reflect a logical grouping of functionality to support Census business operations. The 2020 Census is broken down into 16 operational deliveries.

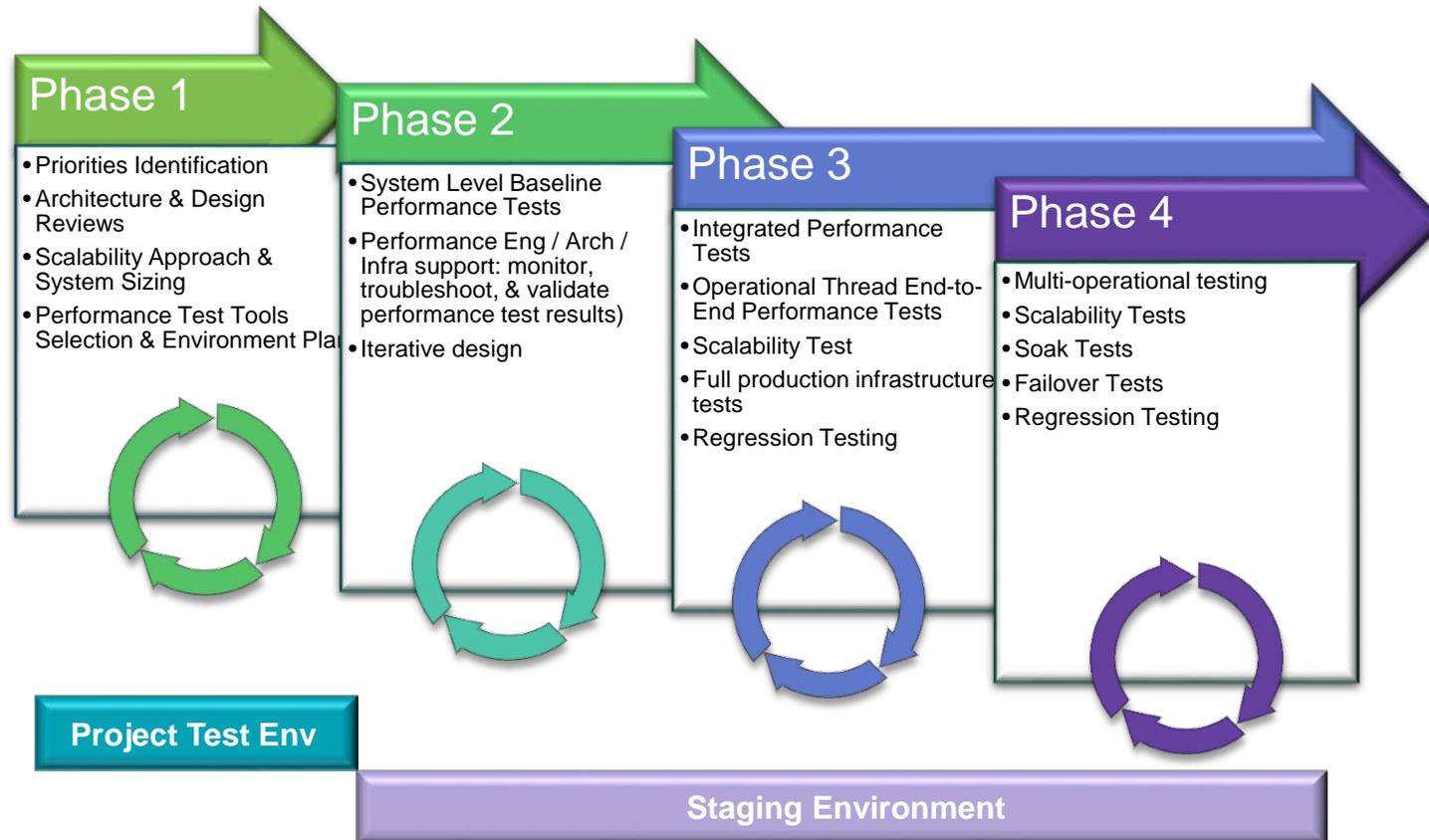
2020 CENSUS OPERATIONAL DELIVERY		Test Readiness Review	Production Readiness Review	Conduct Operation
D1	2020 Census Early Ops Preparation	07/23/2018	10/19/2018	10/23/2018
D2	Address Canvassing	01/04/2019	05/17/2019	08/19/2019
D3	Peak Recruiting & Hiring	01/18/2019	06/07/2019	09/03/2019
D4	Self-Response	06/28/2019	12/13/2019	03/09/2020
D5	Integrated Partnership and Communications (IPC)	05/17/2019	11/01/2019	01/15/2020
D6	Count Review (CR) & Remote Alaska (RA)	05/10/2019	10/25/2019	01/21/2020
D7	Group Quarters Advance Contact (GQAC) & ETL Advance Contact (ETLAC) & Federally Affiliated Count Overseas (FACO)	05/24/2019	11/08/2019	02/03/2020
D8	GQ Enumeration (GQE) & Service Based Enumeration (SBE) & Enumeration at Transitory Locations (ETL)	06/17/2019	01/24/2020	03/30/2020
D9	Update Enumerate (UE) & Update Leave (UL)	07/12/2019	01/03/2020	03/16/2020
D10	Nonresponse Followup (NRFU)	07/19/2019	01/17/2020	04/09/2020
D11	Archiving & Count Question Resolution (CQR)	09/18/2020	03/05/2021	06/01/2021
D12	Response Processing	04/27/2020	06/17/2020	09/15/2020
D13	Data Products / Dissemination	06/15/2020	10/05/2020	11/25/2020
D14	Redistricting	08/28/2020	12/18/2020	02/17/2021
D15	Post Enumeration Survey (PES)	03/05/2021	05/28/2021	07/23/2021
D16	Island Areas	10/16/2020	04/02/2021	06/30/2021

Address Canvassing Operational Readiness

- Mobile solutions are successfully supporting Address Canvassing Operations
- Reporting and Dashboard systems are functioning as designed
- Operations Support processes and personnel are 100% functional
 - Network Operations Center (NOC)
 - Security Operations Center (SOC)
 - Decennial Service Center (DSC)

2020 Census Systems Readiness

Performance and Scalability Testing



Performance and Scalability Testing

Address Canvassing Phase 3 Results

Legend
Not Part of the Test
Completed Successfully

Business Thread	LiMA/MCM	ECaSE FOCs	SMaRCS	Geo Service	M/T Ingest	MOJO Opt	CDL/UTS	IDMS	SOA	ECaSE OCS	Overall Status*	Steps			Key Targets	Results	Comments
												Plan	Exec	Pass			
Multi-factor Authentication	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Complete	3	3	3	<ul style="list-style-type: none"> • 624 peak concurrent • 154K cases 	<ul style="list-style-type: none"> • Achieved 200% of targets • 1200 peak concurrent • 320K cases 	All systems were well below KPI targets
Initialize	Completed	Completed	Completed	I/F	Completed	Completed	Completed	Completed	Completed	Completed	Complete	6	6	6	• 1.2M BCUs.	• Performed within target timeframes	All systems were well below KPI targets
Assign	Completed	Completed	Completed	I/F	Completed	Completed	Completed	Completed	Completed	Completed	Complete	3	3	3	• 90K BCUs	• Achieved 158K BCUs	All systems were well below KPI targets
Lister Ops	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Complete	3	3	3	• 11K cases uploaded	<ul style="list-style-type: none"> • Achieved 200% of targets • 20K cases 	All systems were well below KPI targets
QC Ops	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Completed	Complete	5	5	5	• Transfer 10% of workload	• Performed within target timeframes	All systems were well below KPI targets

Performance and Scalability Testing

Address Canvassing Phase 4 Results

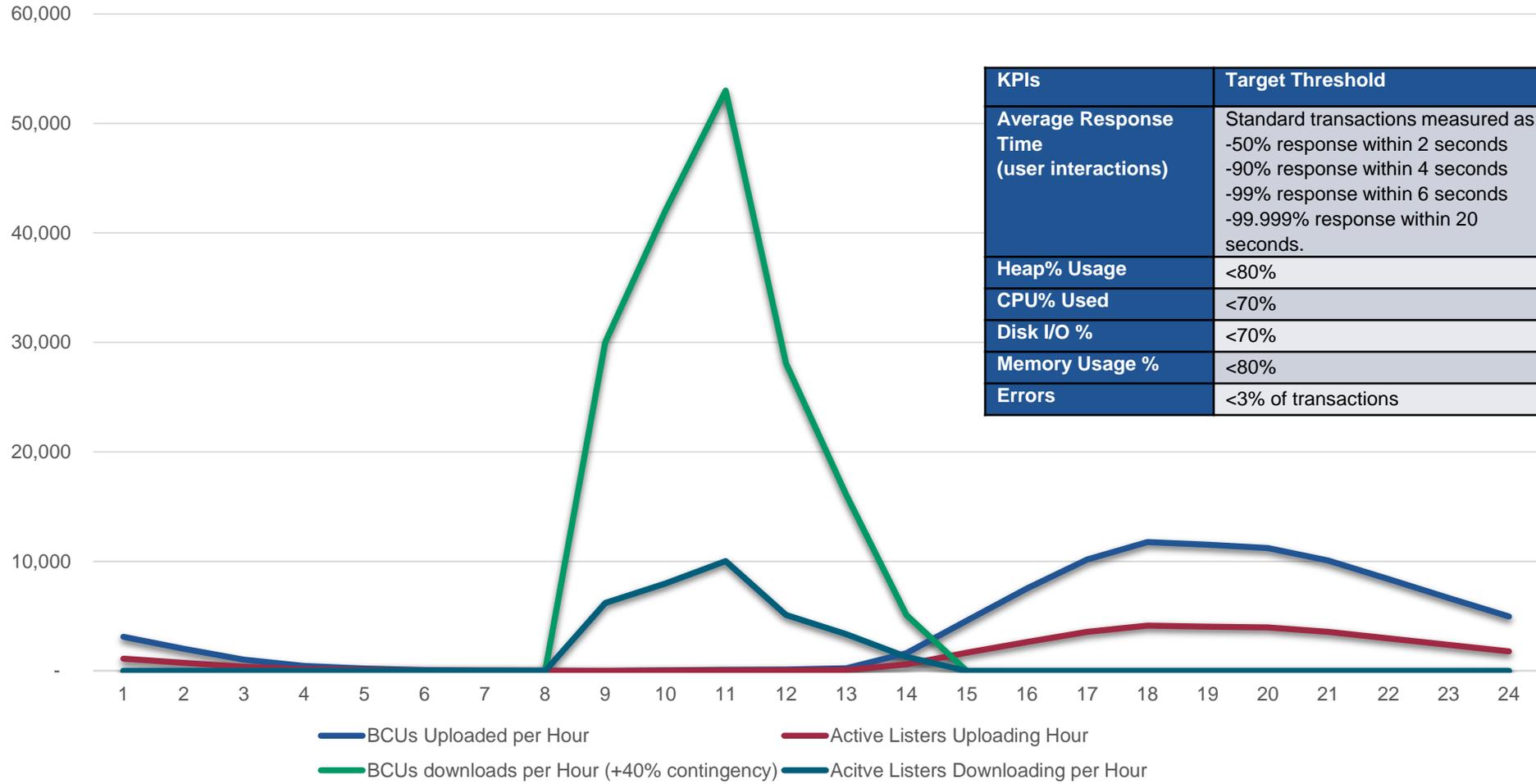
Legend
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Business Thread	LIMA/MCM	ECaSE FOCs	SMaRCS	Geo Service	M/T Ingest	MOJO Opt	CDL/UTS	IDMS	SOA	ECaSE OCS	Overall Status	Steps			Key Targets	Results	Key Results / Comments
												Plan	Exec	Pass			
Stress Tests											Complete	3	3	3	• 70% CPU	• Achieved 6X concurrent user target	Nominal performance issues even at 70% CPU
Soak Tests											Complete	1	1	1	• 12 hours	• 8 and 12 hour active runs were successful	Systems generally not restarted between tests. I.e. Constantly in operation. During testing.
Failover Test											Complete	2	2	3	• Successful degraded operation	• Passed	After removal of resources, load was properly distributed and then redistributed once resources recovered.

2020 Census Systems Readiness

Performance and Scalability Testing

Modeled Peak Day AdCan Demand (Hourly)



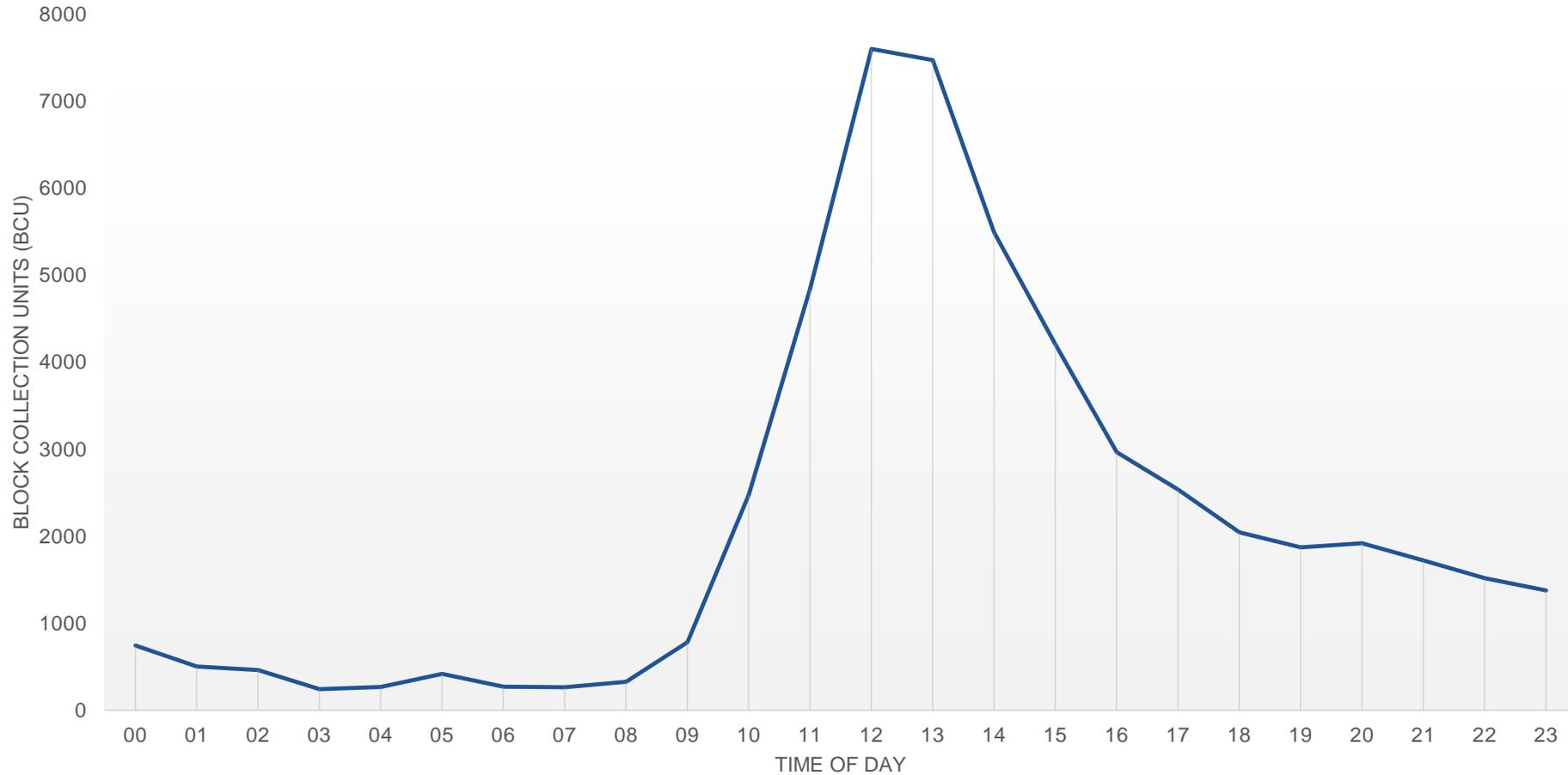
— BCUs Uploaded per Hour — Active Listers Uploading Hour
— BCUs downloads per Hour (+40% contingency) — Active Listers Downloading per Hour

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Pre-decisional

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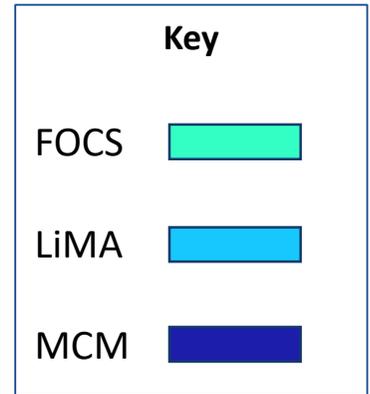
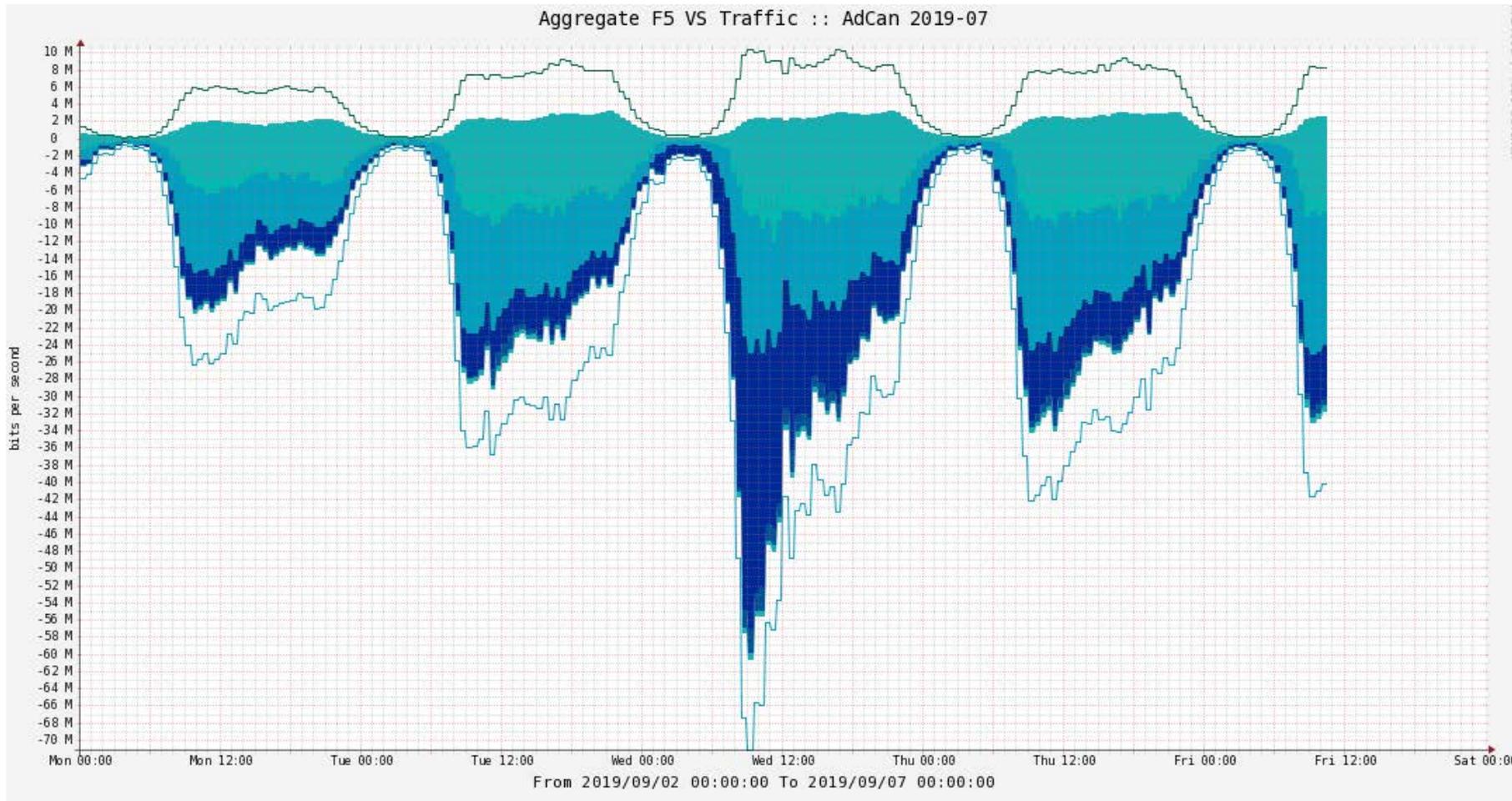
Actual BCU's Downloaded

Address Canvassing Hourly Workload Transmissions



2020 Census Systems Readiness

Actual Network Traffic for Address Canvassing



Peak Traffic on Wednesday, midday:
70Mb/s (download to client devices)

Current Network Capacity: 10Gb/s

Address Canvassing production is using less than 1% of current network capacity

Thank You

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U.S. Department of Commerce

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