

# 2020 Census Real Time Analysis of Data (RTAD)

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The views expressed are those of the author and not those of the Census Bureau.

# Purpose of RTAD

- RTAD was intended to:

- Monitor issues during data collection
  - data quality
  - outliers or anomalies
- Get ahead of possible problems
- Support operations and management to provide additional metrics in a quick, dynamic manner as needed

- RTAD was not intended to:

- Use processed data for analysis
- Produce final data tabulations
- Release public metrics

# Operations Monitored by RTAD

- Address Canvassing
- Self-response
- Update Leave
- Nonresponse Followup (NRFU)
- Coverage Improvement

# Self-Response RTAD

- Metrics were produced daily/weekly
- Included Self-response and Update Leave Type of Enumeration Areas (TEA)
- Response rates by:
  - Mode, overall
  - Several levels of geography
  - Other characteristics
- Mail delivery status
  - Difference in mail delivery date and expected delivery date
  - Undeliverable as Addressed (UAA) rates by county
- Internet instrument paradata:
  - Break-off rates
  - Device type
- Demographic distributions by mode

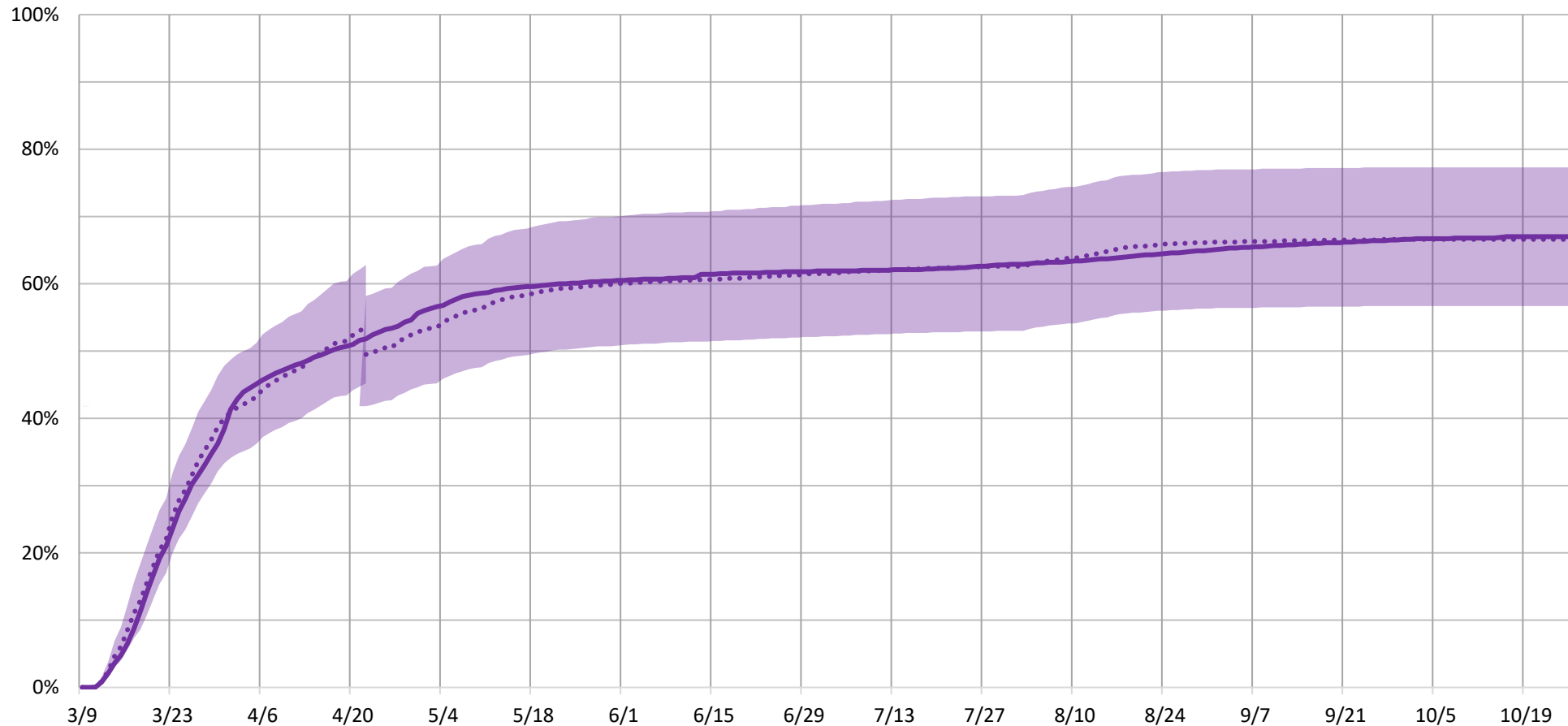
# Self-Response RTAD Metrics

## Response Rates

	Total self-response rate	Internet	Phone	Paper		Change since yesterday	Projections
Total (TEA 1 + 6)	67.0%	53.5%	1.2%	12.3%		0.002%	66.6%
Mailout areas (TEA 1)	68.2%	54.7%	1.3%	12.2%		0.002%	67.0%
Internet Choice	57.9%	27.7%	1.0%	29.2%		0.001%	54.9%
Internet First	71.0%	62.0%	1.3%	7.6%		0.002%	70.3%
Cohort 1	68.4%	58.7%	1.4%	8.3%		0.002%	66.2%
Cohort 2	69.6%	60.1%	1.5%	8.1%		0.002%	66.1%
Cohort 3	79.1%	71.0%	1.1%	7.0%		0.001%	82.1%
Cohort 4	66.3%	58.0%	1.3%	7.1%		0.002%	66.2%
English	69.0%	55.7%	1.2%	12.1%		0.002%	68.8%
Bilingual	60.6%	45.0%	1.6%	14.0%		0.002%	49.5%
Update leave (TEA 6)	33.5%	19.2%	0.8%	13.4%		0.002%	55.2%

# Self-Response RTAD Metrics

## Response Rates Compared to Projections



Actual Response	67.0%
Projection	66.6%
Lower Bound	56.7%
Upper Bound	77.4%

### Legend

Actual Self-Response Rate	
Projected Self-Response Rate	
Lower & Upper Bound	

# Self-Response RTAD Metrics

## College Towns vs Non-College Towns

### Response Rates and Projections

TEA 1 Only	Response Rate	Projected Response Rate	Actual - Projection	HU Count in These Areas
College Towns	54.7%	62.4%	-7.7	7,354,000
Non-College Towns	64.4%	63.0%	1.4	135,492,000
Total	63.9%	63.0%	0.9	142,847,000

# Self-Response RTAD Metrics

## Demographic Distribution: Sex

Sex	Mode				Total	Benchmark
	Internet	Paper	Phone	NRFU		
Female	50.4%	51.9%	52.9%	45.1%	49.7%	50.6%*
Male	47.4%	47.1%	45.7%	46.9%	47.2%	49.2%*
Male and Female****	.	0.04%	.	.	0.0%	
Missing	2.2%	1.0%	1.4%	8.1%	3.1%	0.9%** 1.7%***
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	

\*National Distribution: From 2018 Population Estimates

\*\* Benchmark based on ACS estimates

\*\*\* Benchmark based on 2010 Census Self Response Item Nonresponse Rates

\*\*\*\* 'Male and Female' response only possible for paper responses



Mid-data collection, not final

CBDRB-FY21-DSEP-002

Sex ID Status				
Sex	Internet		Phone	
	ID	Non-ID	ID	Non-ID
Female	85.4%	14.6%	76.7%	23.3%
Male	86.1%	13.9%	76.1%	23.9%
Missing	51.2%	48.8%	62.6%	37.4%
<b>Total</b>	84.9%	15.1%	76.2%	23.8%

2015 National Content Test			
Sex	Mode		
	Internet	Paper	Phone
Female	51.2%	52.0%	55.1%
Male	48.4%	46.8%	44.7%
Missing/ Invalid	0.4%	1.1%	0.1%

NRFU Missing Rate Benchmarks
<b>2010 Missing Rate (From DRF)</b>
1.2%



# Self-Response RTAD Metrics

## Ad Hoc/Other Metrics

- Mailing delivery status for specific addresses or areas
- Response rates for Mobile Questionnaire Assistance (MQA) by RCC
- Response rates by Rural/Urban flag
- Response and mailing mis-timings
- Large households

# Future of RTAD

- 2030 RTAD research project
  - Evaluate the effectiveness of 2020 RTAD metrics
  - Documenting response patterns in 2020 for 2030 benchmarking
  - Dashboards with maps and metrics
  - Alerts
  - Group Quarters metrics
  - Administrative records metrics
- Mid-decade test monitoring

Questions?

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