

Mapping Response Rates for a Fair and Accurate Census

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2020 Census Response Rate Analysis through Sept. 18

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Response rate trends during the Nonresponse Follow-up (NRFU) door-knocking operation

- Self-response rates
- “Total” response rates
- Nonresponse Follow up (NRFU) “completion” rates
- Response rates on the map

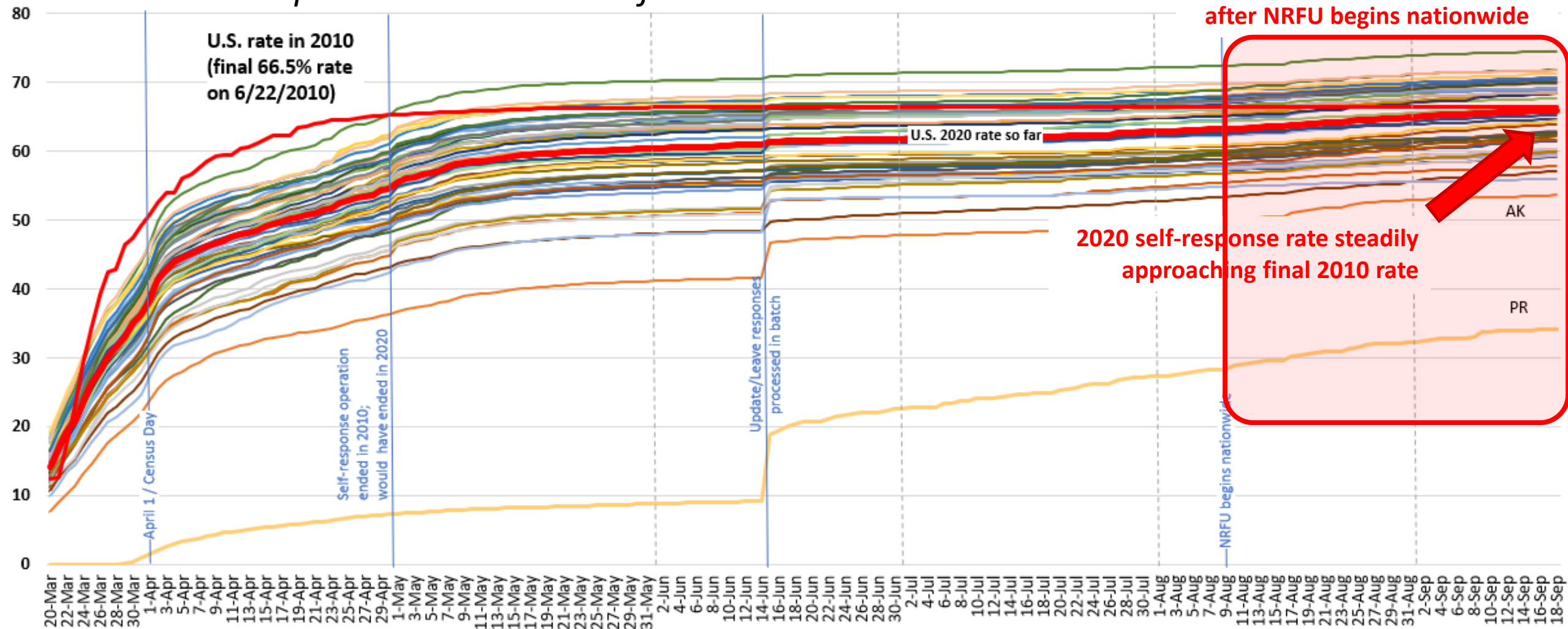
Self-response rate trends post-August 9 (when NRFU began nationwide)

- Self-response rates are rising during door-knocking operation
 - NRFU helps boost self-response (“Notices of Visit”)
 - Census stakeholder outreach has continued, also helping to boost rates
- **66.1% nationwide self-response rate** as of Sun., Sept. 20
 - Less than half a percentage point away from the final 2010 rate
- With more time, U.S. could exceed its 2010 rate even as door-knocking continues
 - Low self-response rates are correlated with poorer data quality; surpassing 2010 self-response rates nationally and locally would be a boost to accuracy.

(**Reminder:** self-response analyses from March to Aug. are online at www.gc.cuny.edu/CUR-research-initiatives)

2020 state-by-state response trends (plus DC & PR) thru Sept 18

*compared with U.S. rate of increase in 2010**



***NB:** Remember the differences in census operations b/w 2010 & 2020 when viewing graph.

In nation's 10 largest cities*, notable self-response rate increases during NRFU

City	Final 2010 Self-Response Rate (%)	Self-Response Rate as of Aug 9, 2020 (%)	Difference (percentage points)
Chicago, Illinois	62.4	56.3	-6.1
Dallas, Texas	61.9	54.8	-7.1
Houston, Texas	63.5	54	-9.5
Los Angeles, California	68	53.1	-14.9
New York, New York	64	55.1	-8.9
Philadelphia, Pennsylvania	62.4	52	-10.4
Phoenix, Arizona	62.9	61.1	-1.8
San Antonio, Texas	67.2	60.3	-6.9
San Diego, California	69.3	69.3	0
San Jose, California	74.6	71.4	-3.2

Percentage point increase since NRFU began (Aug 9)	Self-Response Rate as of Sept 18, 2020 (%)	Difference (percentage points)
3.1	59.4	-3
3.6	58.4	-3.5
3.5	57.5	-6
4.1	57.2	-10.8
4.9	60	-4
3.1	55.1	-7.3
3.5	64.6	1.7
4.3	64.6	-2.6
3.8	73.1	3.8
4.4	75.8	1.2

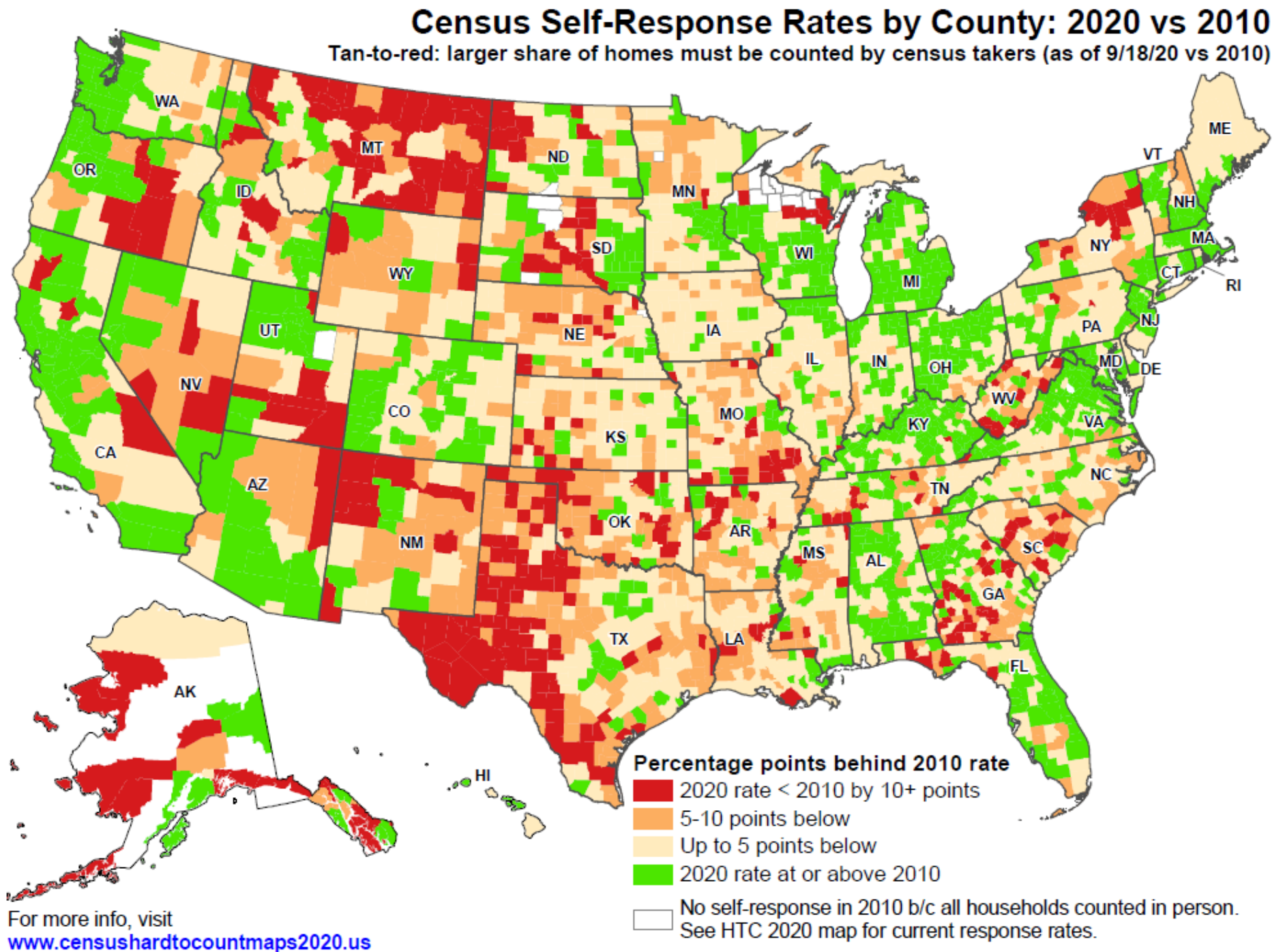
* Cities with population of 1 million or more.

Uneven geographic pattern of 2020 rates compared w/2010

Areas that have not met their 2010 self-response rate need greater amount of NRFU in a shorter amount of time.

Even if an area has met or surpassed its 2010 rate, if the current rate is still low it will still have substantial need for NRFU.

Map link: <https://bit.ly/30sa0lV>



7th mailing

- Before August, all housing units had received up to 6 mailings from the Census Bureau.
- In late August, after stakeholders urged a 7th mailing, the Bureau decided to mail the paper questionnaire to *non-responding housing units in tracts that met the following criteria:*
 - response rates in late July less than 65%, and
 - received the “Internet First” mailing in March.
- We’ve mapped these tracts and have begun to analyze the results.

7th mailing impact

- Methodology:
 - Compared self-response rates for tracts nationwide & by state that **received the mailing** vs **those that did not**.
 - Calculated average daily response rate increase in both groups of tracts for:
 - period between start of NRFU (Aug. 9) and when mailing was sent out (Aug. 21) vs
 - time period of mailing (Aug. 22 to Sept 18).

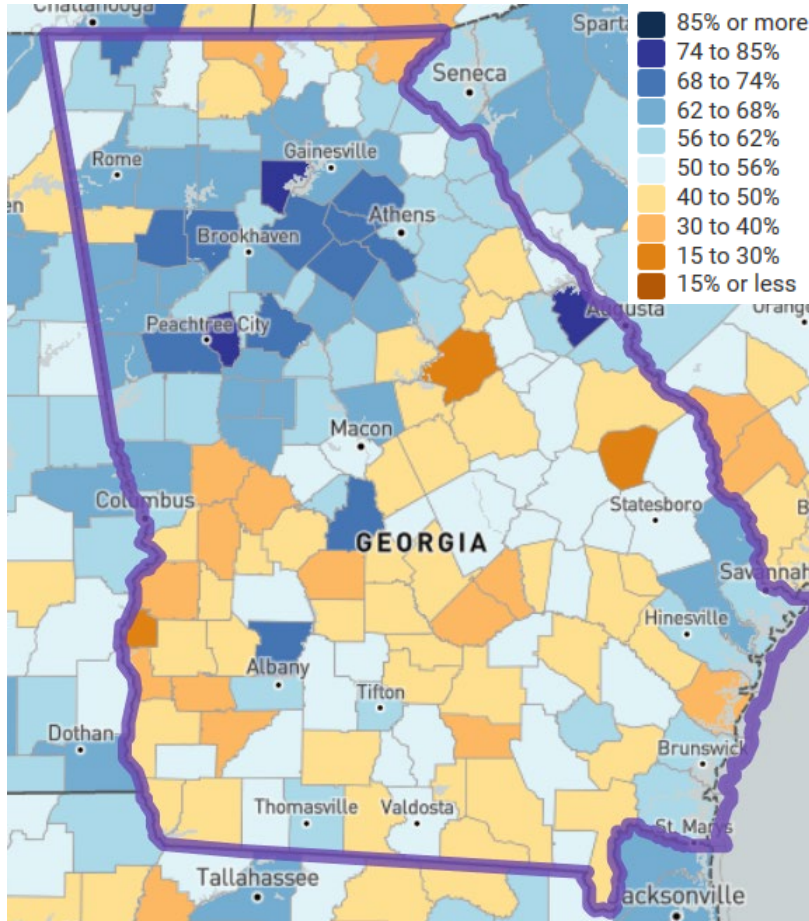
7th mailing impact

- Findings:
 - Nationwide, average daily response rate in **tracts that received mailing** was *greater during time period of mailing than before*
 - In **tracts not receiving the mailing**, average daily rate increase during time period of mailing was *less than the average rate before the mailing*.
- During the time period of the mailing, **average daily rate in tracts receiving the mailing was *almost twice*** the average daily rate in tracts not receiving the mailing.
 - In some states (CT, HI, ID, IN, MA, MS, WA, WV, WI) it was more than twice.

However, the mailing was not targeted solely toward low self-response communities. These maps of Georgia, for example, show overlap of “7th mailing tracts” with response rates by county and patterns of the Census Bureau’s initial mailing.

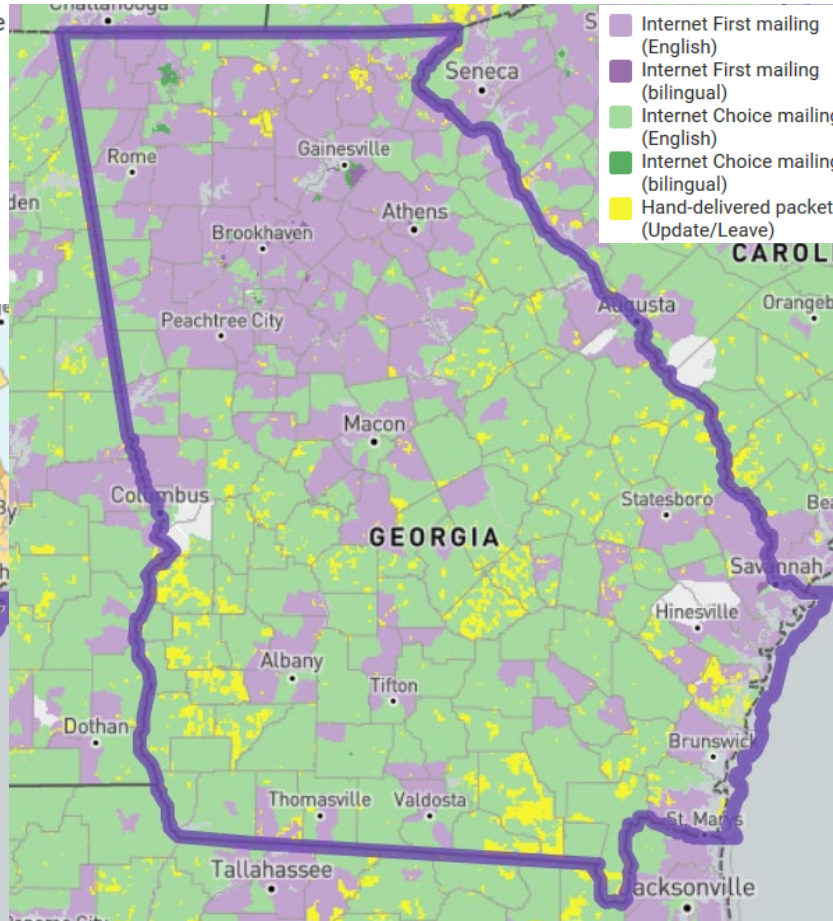
Self-Response Rate by
County (2020)

(as of Sept 18)



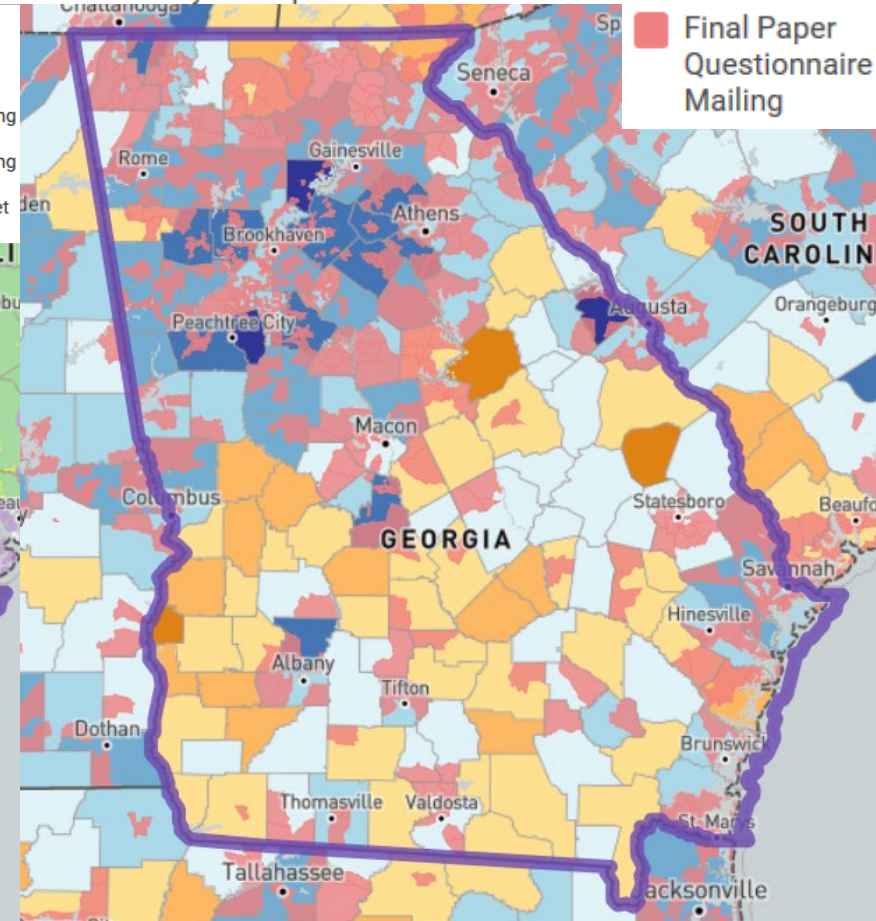
Map link: <https://bit.ly/32oYlvt>

2020 Census Initial
Contact



Map link: <https://bit.ly/2FXWa9a>

Tracts where households are
expected to receive a paper
census form by mid-Sept.



Map link: <https://bit.ly/3cn2UcT>

“Total” response rates

- Self-response rate + NRFU “enumeration” rate
- NRFU “enumeration” = share of housing units *accounted for* by census enumerators
- “Total” rates published by Census Bureau every day, but only at state level & nationwide

99% total response: what about accuracy/data quality?

- Census Bureau says it's on track to achieve at least 99% total response. But that may not mean the count is complete or accurate.
- Rushing to finish the count by Sept. 30 could mean:
 - more reliance on counting by "proxy" (relying on someone else for a household's data);
 - counting more households & filling in missing answers with administrative records (which can systematically omit groups already likely to be missed, such as kids or young adult men of color);
 - designating units as vacant without confirming whether people lived there on April 1 (Census Day).

Note about our Total Response Rate map compared with the Census Bureau's map: we use finer percentage gradations (now that most states have total rates upwards of 85-90%), and a different color scheme to differentiate from earlier versions.

Map link: <https://bit.ly/2YRuI9e>

2020 Census Total Response Rates (as of Sept. 20)

The Census Bureau says it's on track to count at least 99% of U.S. households. But that may not mean the count is complete or accurate.

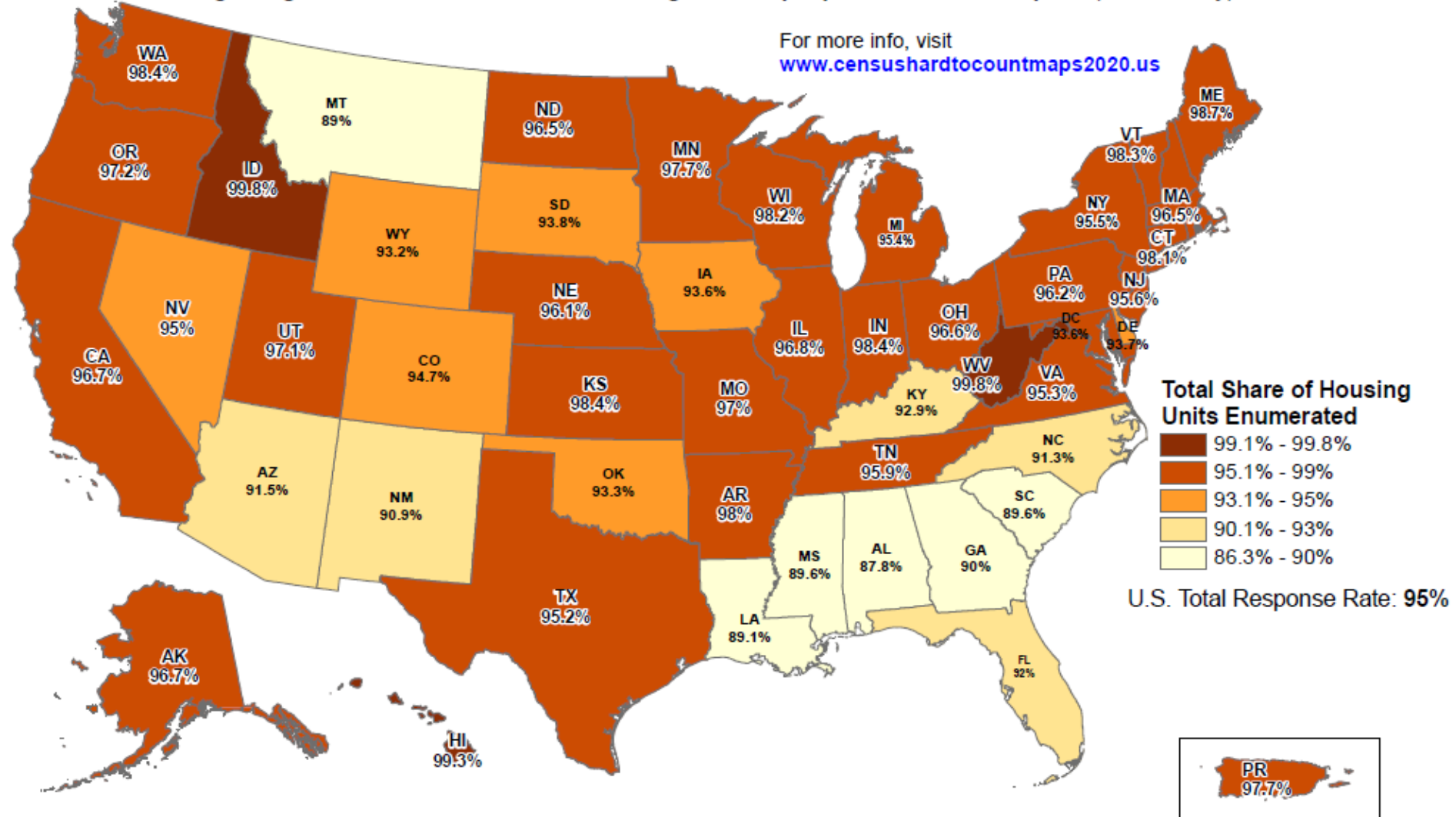
Why? Rushing to finish the count by Sept. 30 could mean:

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NRFU “completion” rates

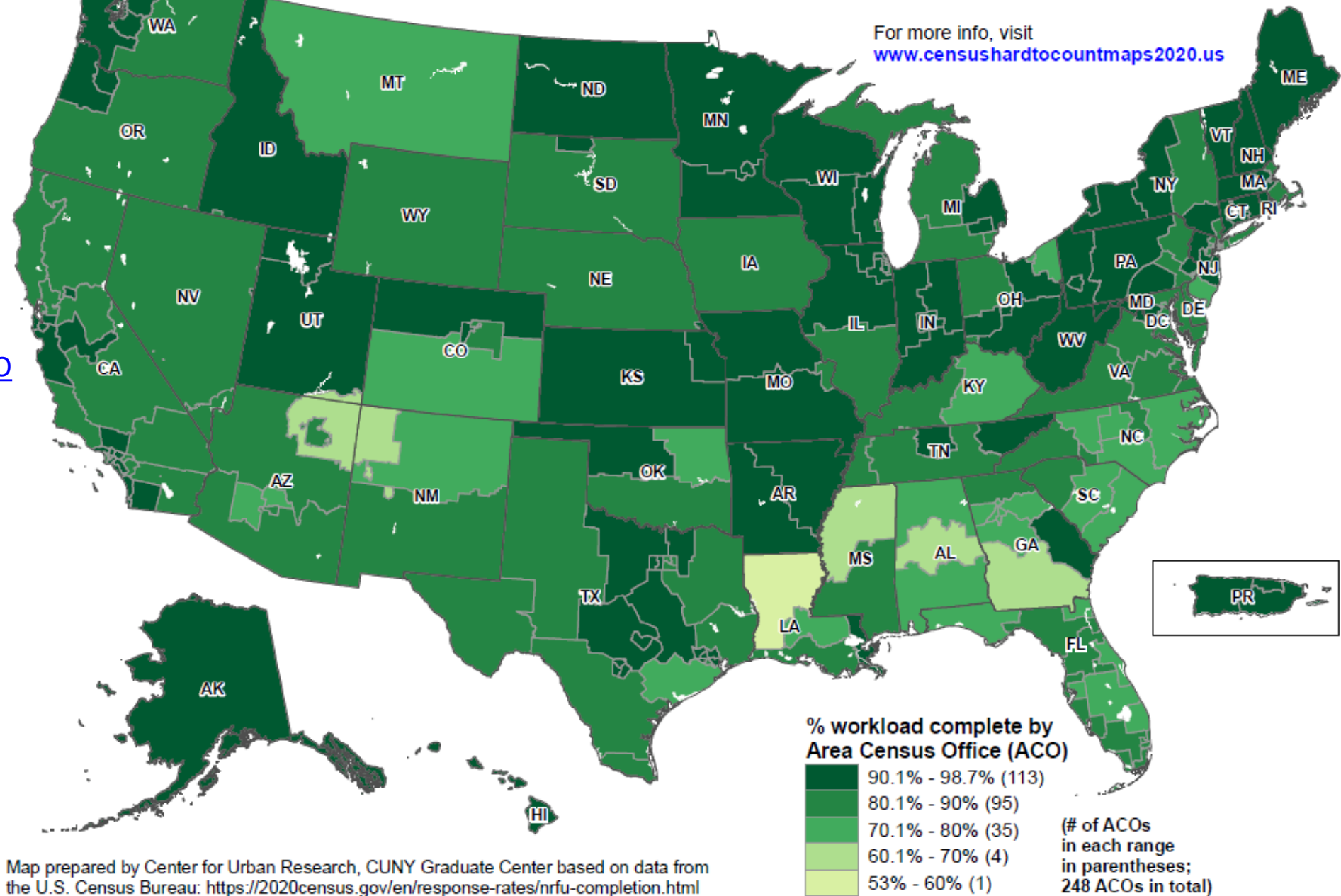
- Share of NRFU “workload” that has been completed
- **Workload** is *different* from universe of non-responding housing units:
 - Also includes revisiting housing units to double-check responses, and other quality checking activity.
- Published by Census Bureau every day, and available below state level by *Area Census Office (ACO)*.
- *Kudos to the Census Bureau* for publishing this (unprecedented?) level of detail. But still doesn’t tell us about quality or accuracy of the count.

2020 Census NRFU Completion Rates (as of Sept. 20)

(NB: Completion rates are the % of Nonresponse Followup workload that is complete, by Area Census Office. According to the Census Bureau, "[t]he workload includes households that have not self-responded as well as other case types that are used to improve the accuracy of the census, such as quality control cases." In other words, this is different than the share of housing units 'enumerated' via NRFU.)

Note about our NRFU completion rate map compared with the Census Bureau's map: we use different percentage gradations to highlight the variation in the rates.

Map link: <https://bit.ly/3cmsAGO>



Completion rates don't always go up

On September 3, the NRFU completion rate in the Minneapolis ACO fell by 1.2 points from 83.6% the day before to 82.4% on Sept 3.

On Sept. 12, the Oswego, IL ACO completion rate decreased 0.2 points from 87.4% to 87.2%.

The next day, completion rates decreased across 16 ACOs. The range of decreases was 0.1 point in several ACOs up to 1.1 percentage point in the Seattle, WA ACO (whose completion rate fell from 93.7% to 92.6%).

This completion rate decrease across so many ACOs (as well as a total response rate decline in the State of Washington) caused the Census Bureau to add a note of explanation to their webpage.

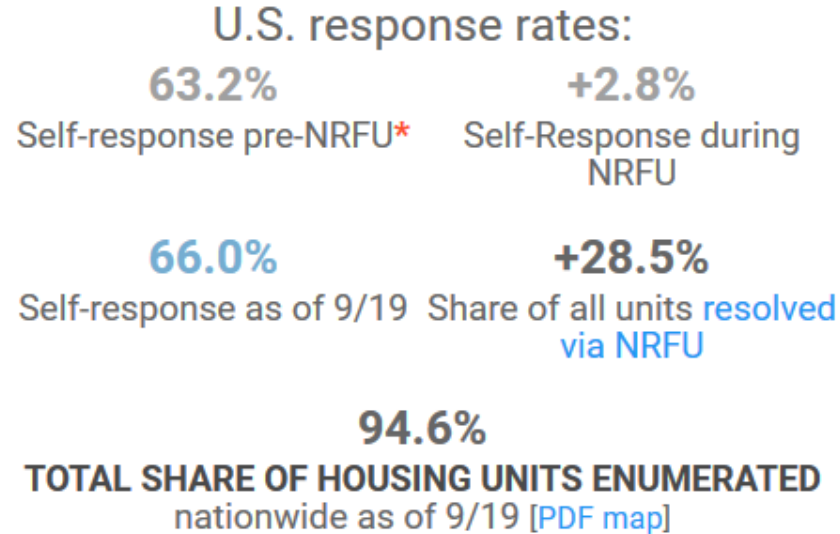
Completion rates again decreased in another ACO (Santa Clarita, CA) by 0.1 point from 91.4% to 91.3%.

Finally, over the weekend (9/18 to 9/19), completion rates declined in two ACOs: Beckley, WV decreased 0.1 point from 98.7% to 98.6%, and Fort Worth, TX decreased by 0.4 points from 93.1% to 92.7%.

CUNY HTC/Response Rate map now shows all types of response:

- self-response (at all geographic levels)
- NRFU
“enumerations” &
total response
(statewide and U.S.)
- NRFU “completions”
(by ACO).

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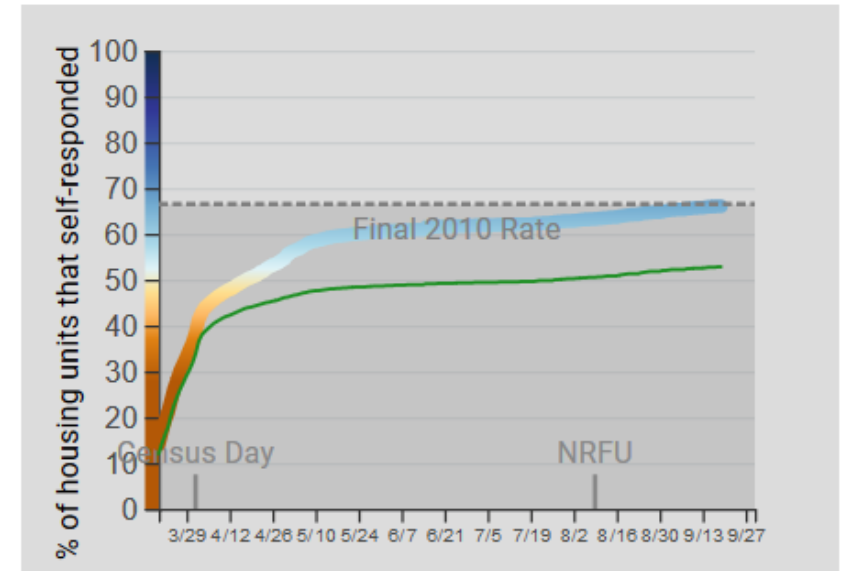
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* **NRFU** = **nonresponse followup**, the Census Bureau's door-knocking operation to enumerate households in-person or via other records, for households that did not fill out the census form on their own.

Daily 2020 Self-Response
(compared with 2010 self-response rate: **66.5%**)



Mapping Response Rates for a Fair and Accurate 2020 Census

1. self-response **before** NRFU began
2. self-response increase **since** NRFU began
3. **latest overall self-response rate**
4. **share of housing units completed** (enumerated or otherwise resolved) via NRFU
5. **total response rate** (self-response + NRFU)
6. the map still shows the **2010 self-response rate for comparison**, displayed above the trendline graph of daily self-response rates.
7. Cautions regarding what “total response” rates can’t tell us.

U.S. response rates:

1 **63.2%**
Self-response pre-NRFU*

2 **+2.8%**
Self-Response during NRFU

3 **66.0%**
Self-response as of 9/19

4 **+28.5%**
Share of all units **resolved** via NRFU

5 **94.6%**
TOTAL SHARE OF HOUSING UNITS ENUMERATED nationwide as of 9/19 [PDF map]

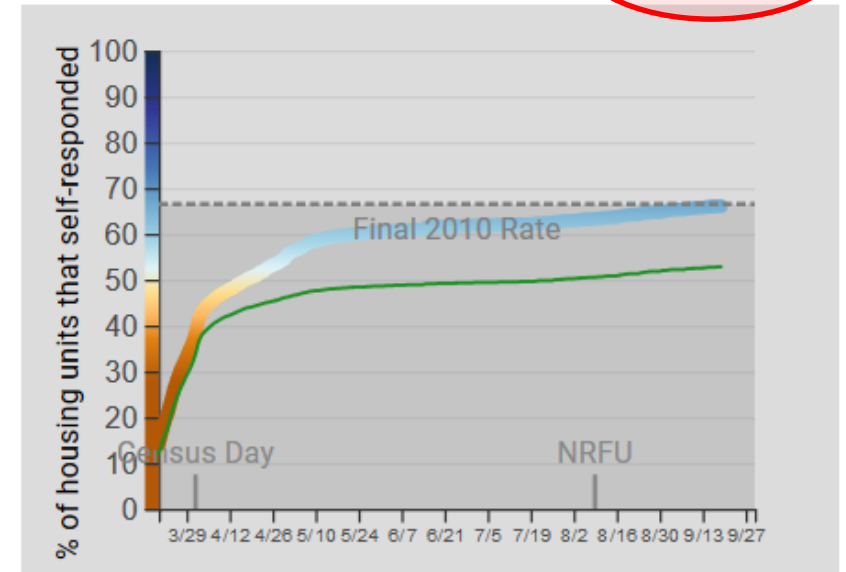
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Daily 2020 Self-Response **6**
(compared with 2010 self-response rate: **66.5%**)



Interpreting response & completion rates: one example (of many)

- **Good news:** Alabama's self-response rate (Sept 18) is almost 62.6%; it surpassed its 2010 rate of 62.5% on Sept 16.
- **Of concern:** the NRFU workload in one of its ACOs (Birmingham) is **only 2/3 complete**, and the other two ACOs are three-quarters complete. Its ACOs are in the bottom 15 (out of 248) ranked by NRFU completion rate.
- **Worrisome:** AL's total response is the lowest of all states and DC & PR.
- **Will history repeat?** In 2010, AL had one of the nation's lowest self-response & highest rates of omissions in the census (people who should've been counted but were not). Will this worsen in 2020?

Contact for questions, additional information:

www.CensusHardtoCountMaps2020.us

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