

## Using COVID-19 Data as Input for Planning 2020 Census Field Operations

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### Abstract

2020 Census field operations were temporarily halted in March 2020 as the COVID-19 pandemic grew. The Census Bureau's Fusion Center was created for the purpose of anticipating and monitoring cross-channel risks to the 2020 Census and to the Census Bureau. In February 2020, Fusion Center staff began monitoring COVID-19 data. Once field operations were revised to minimize contact, provide field staff personal protective equipment, and allow for electronic submission of data in additional group quarters, field enumerations resumed. Analysis of a variety of threads of COVID-19 data was incorporated into decisions about when and where to open field offices and begin enumeration activities. These included analysis of local risks and state-level Stay at Home orders and Phased Reopening guidance, as well as local jurisdiction policies. Of particular note, the Nonresponse Followup operation, in which nonresponding households are enumerated in person, used a phased approach for opening offices and beginning enumerations, incorporating the COVID-19 analysis into decisions about where to open. We will show how COVID-19 data were factored into these critical decisions.

**Key Words:** Area Census Office, phased operation start, administrative COVID-19 data

**Disclaimer:** The views presented here are those of the authors and not necessarily those of the U.S. Census Bureau.

### 1.0 Crisis Management in the 2020 Census

In the year 2020, hardly any facet of life in any corner of the world was left unaffected by the coronavirus pandemic. Despite the complications, the United States 2020 Census (census) data collection needed to be completed in 2020, with an April 1, 2020 Census Day. Just after 2020 Census self-response options had opened to the majority of the country in March of 2020, the Associate Director for Decennial Census Program, as the head of the crisis management team, declared COVID-19 a crisis for the census and put all active census field data collection operations on pause. The reasons for pausing field operations were manifold. Originally, the scale and scope of the pandemic needed to be understood. Additionally, some adaptations to field data collection operations and training were required in order to minimize face-to-face contact. Finally, the impacts on public confidence in the census of trying to forge ahead in the midst of COVID-19 case growth were expected to be deleterious to the goal of counting every person living in the United States. Field operations were ultimately paused for approximately three months throughout most of the country.

While the Census Bureau didn't plan specifically for a pandemic, we did have a Fusion Center team prepared to manage any events that could potentially disrupt the mission of the 2020 Census. The Fusion Center was created as a centralized information-sharing center to assess disruptions with the potential to impact the delivery of the 2020 Census or Census Bureau activities. Therefore, when news events started to circulate about COVID-19, the Fusion Center monitored the events as they unfolded and kept the Census Bureau executives comprising the Crisis Management Team informed of the status. The Crisis Management Team eventually declared the COVID-19 pandemic an official crisis for the 2020 Census on March 10, 2020. This was just two days prior to the start of self-response options being fully open to the public. Events started to cascade after that, with the Office of Management and Budget (OMB) encouraging telework, the entire Census Bureau moving to mandatory telework, all the while with many 2020 Census operations well underway. By late April, the country had additional guidance from the

White House as well as the Office of Personnel Management and OMB. This guidance allowed the Census Bureau to start the planning process for conducting the rest of the 2020 Census operations.

While the Crisis Management Team was managing agency response to the COVID-19 pandemic, the Census Fusion Center was responsible for providing information to the Crisis Management Team and other operational areas to ensure they could make data-driven decisions. The Fusion Center was planned to be a key part of supporting the 2020 Census, but the support provided related to COVID-19 provided timely information to help ensure completion of the 2020 Census.

Some small-scale field operations—such as in-person enumeration in Remote Alaska and other Update Enumerate areas—had already begun and had to be paused in March, 2020. Self-response through the internet, telephone, or mailing back of completed questionnaires could still proceed, although staffing in the receiving offices was reduced. However, a primary concern was when to begin the field enumeration in the Nonresponse Followup (NRFU) operation. The NRFU operation is the largest and most critical field data collection for the census, as this is the operation where the data is collected for all households that do not self-respond. The planned start date for the NRFU operation was May 4, 2020.

The Fusion Center was responsible for gathering all relevant Federal, State, and local mandates related to the COVID-19 pandemic and assisting with the crafting of guidance of how we could safely restart operations in order to complete the mission of the 2020 Census. The pandemic was a significant event during operations, but there was no shortage of events that needed to be monitored during the 2020 Census, including wildfires, hurricanes, tropical storms, and civil unrest. In response to the pandemic, while fieldwork was paused, training and fieldwork procedures were reviewed for changes that would make less of the training occur in person, minimize face-to-face contact within field operations, and incorporate the latest guidance from the Centers for Disease Control and Prevention (CDC) for those contacts that needed to be face-to-face. For face-to-face contacts, in particular, the Census Bureau needed to provide personal protective equipment for all staff. The focus of this paper is on what COVID-19 data were used as decisions were made about when census field offices were opened and operations were started (or in some smaller operations, restarted). Operations incorporated the safety measures noted above. Opening decisions also accounted for the other categories of challenges.

## **2.0 Census Geography**

These decisions were made for local levels, defined as census geographic levels. Therefore, an understanding of census geography is required. The Census Bureau maintains regional offices for field management of ongoing survey data collections. These cover the entire contiguous United States, Hawaii, Alaska, and Puerto Rico. During decennial censuses, the Census Bureau traditionally creates regional census centers to cover the same territory as the regional offices and provide this regional management of field operations. In 2020, there were six regional census centers (RCCs), corresponding to the six regional office areas. The offices were located in Atlanta, GA; Chicago, IL; Dallas, TX; Los Angeles, CA; New York, NY; and Philadelphia, PA. Within these RCCs were delineated smaller Area Census Offices (ACOs). ACOs allow for on-the-ground management of field data collections and logging and shipping of any hard copy materials that may be needed for an operation. There were 248 ACOs in the 2020 Census, delineated using specific criteria and managed by the RCC that contains them. Figure 1 shows a color-coded map of the RCC areas, as well as the outlines of the ACOs for the 2020 Census.

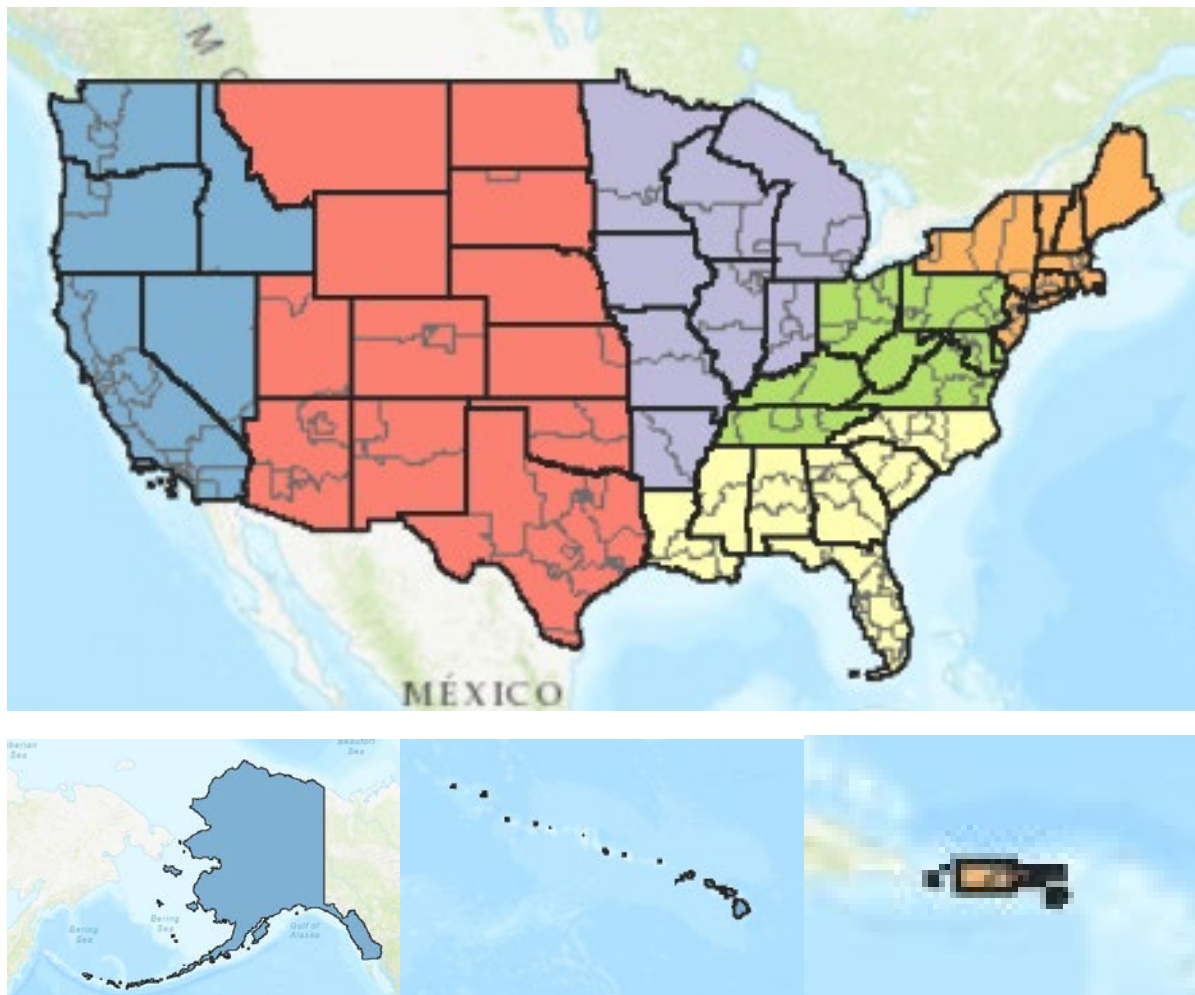


Figure 1: Regional Census Center and Area Census Office Delineations

### 3.0 COVID-19 Data for Census Planning

In order to make decisions about proceeding with field operations, a variety of data about the COVID-19 pandemic were analyzed at the RCC and ACO levels. Figure 2 shows output from the Federal Emergency Management Agency (FEMA) regarding the seven-day county-level virus spread and undersupply risk. This FEMA risk assessment is defined as “a county-level seven day forecast of the potential impacts of COVID-19, where the goal of this information is to assist with resource prioritization/allocation based on identified need and the forecasted potential of spread of the virus and undersupply of resources at the county level.” The Fusion Center analyzed the data in the underlying file from FEMA, which was not available to the general public. The profile for RCCs incorporating the FEMA data file for May 1, 2020 is shown in Table 1.

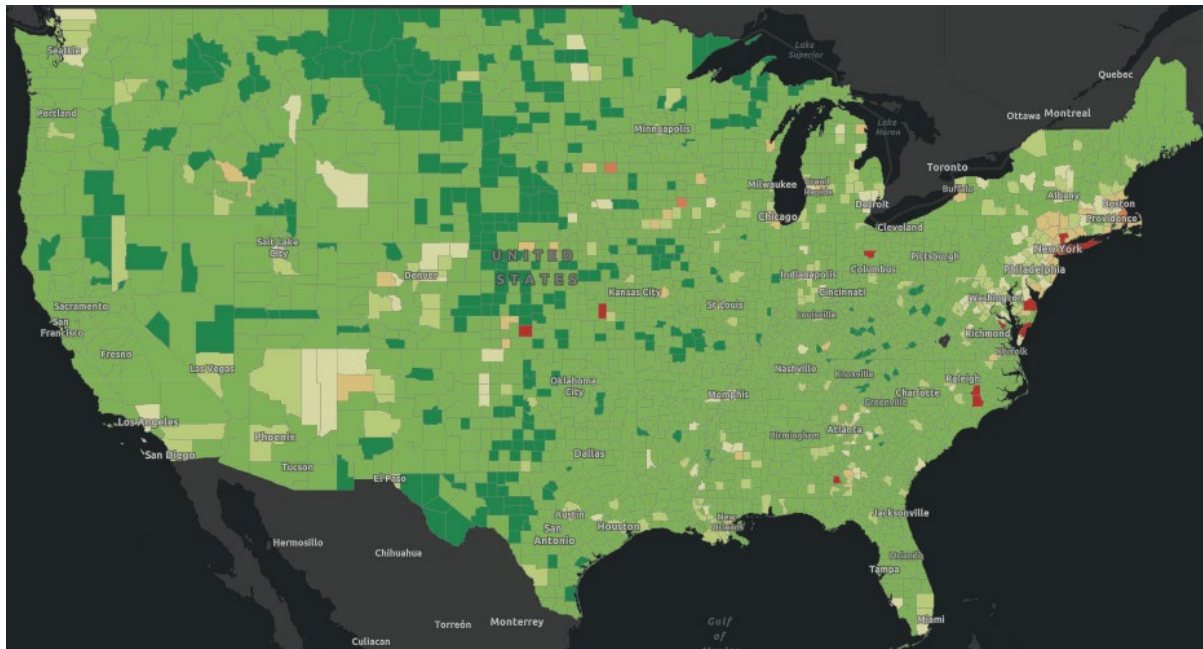


Figure 2: May 1, 2020 FEMA COVID-19 Risk Model (Seven Day County-level Virus Spread and Undersupply Risk) – only contiguous states shown

| RCC                  | Population in High Risk (HR) Counties | Population in Medium Risk (MR) Counties | Population in Low Risk (LR) Counties |
|----------------------|---------------------------------------|---|--------------------------------------|
| ATL                  | 188,937                               | 4,230,999                               | 56,925,989                           |
| CHI                  | 21,924                                | 8,140,800                               | 45,137,403                           |
| DAL                  | 55,668                                | 2,150,850                               | 52,527,455                           |
| LA                   | 0                                     | 10,128,119                              | 48,101,759                           |
| NY                   | 4,283,227                             | 27,739,796                              | 11,280,996                           |
| PHI                  | 270,736                               | 3,935,866                               | 52,046,910                           |
| <b>Total for 5/1</b> | <b>4,820,492</b>                      | <b>56,326,430</b>                       | <b>266,020,512</b>                   |

Table 1: May 1, 2020 FEMA risks summarized to RCC

The FEMA risk data were not completely sufficient for determining which areas of the country could safely conduct census field data collection operations; additional information was needed. With the incorporation of the CDC guidance into all aspects of the training and data collection, data collection operations could proceed safely. However, various other considerations also factored into decisions about when to open ACOs and commence field operations. The Census Bureau Fusion Center staff had access to a wealth of administrative and case data regarding the COVID-19 pandemic. One valuable stream of information was current governor and local official statements about opening status. These were accumulated and summarized for the Census Bureau Crisis Management Team executives.

With the new objective of determining where it would be best to open ACOs, the focus of the Fusion Center COVID-19 reports shifted to reporting where risks were lower. For this, a newly identified data

set was used, provided through the Health and Human Services (HHS) government portal. Johns Hopkins University (JHU) proved to be an early source of reliable data on the spread of COVID-19 worldwide. This data was given at various levels of geography, depending on what country was being shown and what levels the data existed at. As a worldwide source, these data were also updated at various points throughout the day. USAFacts data were found to be consistent with the JHU data but were easier to use and updated at more standard intervals. It was also believed that USAFacts data would continue to be produced and available throughout the course of the pandemic. HHS provided versions of these files that were corrected for obvious errors from one day to the next. At the county level, this was the file the Fusion Center used to produce county-level and ACO-level risk assessments. Note that the Fusion Center was not attempting epidemiological modeling or estimates of future COVID-19 case growth, but rather providing a picture of the current situation for all counties and ACOs. The Fusion Center created two estimates of risk in addition to the FEMA summary. The first depended on day-to-day percentage growth for every county, which was then grouped into risk categories. The second depended on case growth per 100,000 people over the prior two weeks. The report for July 10, 2020 of the second risk calculation, mapped for ACOs and summarized in the table at the RCC level for ACOs and counties, is shown in Figure 3.

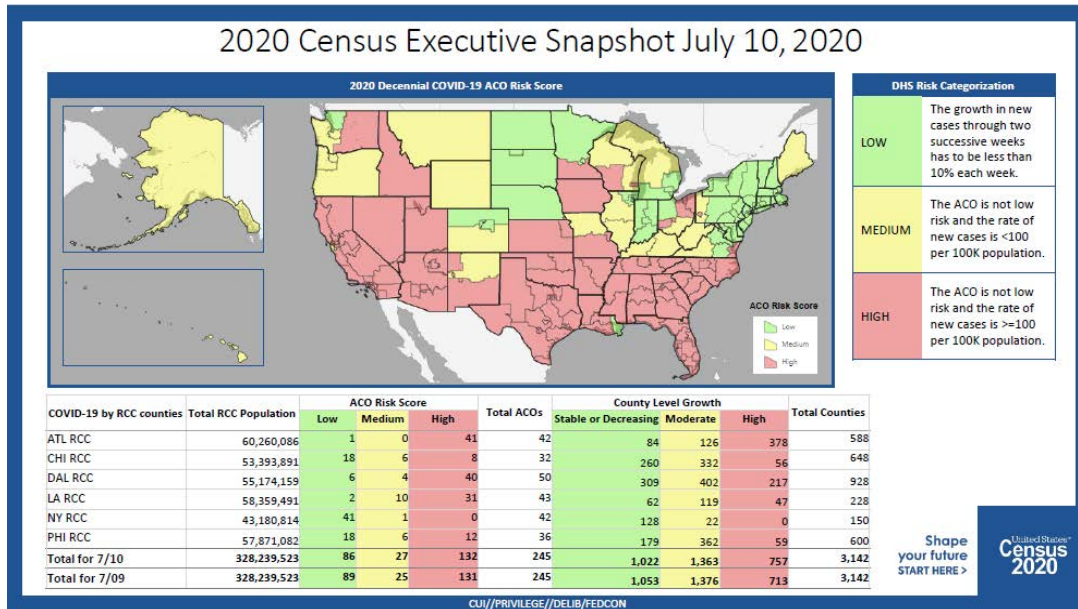


Figure 3: 2020 Census COVID-19 Executive Snapshot for July 10, 2020

Additionally, it was possible using the available administrative data to identify areas that would likely be more receptive to the resumption of census field activities. Area Census Offices in areas where the local conditions showed no or only limited closures were included for selection of the initial offices to open. Among the offices in such areas, various indicators summarized to ACO levels were examined for the potential to open under revised procedures.

#### 4.0 Office Opening and the Completion of NRFU

After incorporating all these various inputs, the Census Bureau announced on July 1, 2020 the first six ACOs to reopen and prepare to perform NRFU starting July 16, 2020. There was one ACO in every RCC, allowing each RCC an opportunity to become familiar with the automated NRFU instrument and all the integrated efforts that allowed field operations to proceed. The first six ACOs were Boise, ID; New

Orleans, LA; Gardiner, ME; Kansas City, MO; Oklahoma County, OK; Beckley, WV. The July 1, 2020 news release link is here: Census Takers to Start Follow Up with Nonresponding Households:

<https://www.census.gov/newsroom/press-releases/2020/nonresponding-households.html>

On July 8, 2020, a second set of six ACOs to open was announced, again with one ACO selected for every RCC. In these offices NRFU would begin in the field on July 23, 2020. These six ACOs were Hartford, CT; Evansville, IN; Wichita, KS; State College, PA; Crystal City, VA; Tacoma, WA. This news release link is here: Follow Up With Nonresponding Households in Select Locations:

<https://www.census.gov/newsroom/press-releases/2020/nonresponding-households-follow-up.html>

Along with the July 8, 2020 announcement, a map was published that provided the planned NRFU opening dates for every remaining ACO. Users could click on an ACO to learn when that office would be starting NRFU.

<https://public.tableau.com/app/profile/us.census.bureau/viz/StatusofCurrentOperations/ACOMap>

The Census Bureau Fusion Center staff continued to monitor and report on COVID-19 status and other risks through the publication of the apportionment data for the 2020 Census on April 26, 2021.

### **Acknowledgements**

COVID-19 data came from many sources. After investigation and comparison, the primary sources of public data are listed below. Output from these sources changed over time.

Johns-Hopkins University: <https://coronavirus.jhu.edu/map.html>

USAFacts: <https://usafacts.org/visualizations/coronavirus-covid-19-spread-map/>

FEMA: <https://www.fema.gov/disaster/coronavirus>

Health and Human Services: <https://protect-public.hhs.gov/>