

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF OHIO
WESTERN DIVISION AT DAYTON

STATE OF OHIO,

Plaintiff,

v.

GINA RAIMONDO, in her official ca-
pacity as Secretary of Commerce,* *et al.*,

Defendants.

Case No. 3:21-cv-00064-TMR

District Judge Thomas M. Rose

DECLARATION OF MICHAEL THIEME

* Gina Raimondo was recently confirmed as the Secretary of Commerce and has been automatically substituted for Wynn Coggins, the former Acting Secretary of Commerce, under Federal Rule of Civil Procedure 25(d).

I, Michael Thieme, make the following Declaration pursuant to 28 U.S.C. § 1746, and state that under penalty of perjury the following is true and correct to the best of my knowledge and belief:

1. I am the Assistant Director for Decennial Census Programs, Systems, and Contracts at the U.S. Census Bureau. I have occupied this position since November 2017. The 2020 Census is my third Decennial Census. For the 2010 Census, I was the Chief of the Decennial Systems and Contracts Management Office, providing the primary technology and contract management support for that census. For the 2000 Census, I was the Special Assistant to the Assistant Director for Field Operations working at the national level directing field data collection. In my current role as Assistant Director I am responsible for three Census Bureau divisions: the Decennial Information Technology Division, the Geography Division, and the Decennial Contracts Execution Office. With over 2,000 employees and contractors, these divisions provide all the information technology, geography, and contract management support for the 2020 Census. I am knowledgeable about the progress of the 2020 Census in general and the processing of census data in particular.

2. I am making this Declaration in support of Defendants' Opposition to Ohio's preliminary-injunction motion. All statements in this Declaration are based on my personal knowledge or knowledge obtained in the course of my official duties. In this declaration I:

- Provide background about the progress of the 2020 Census and delays;
- Stress the Census Bureau's commitment to producing high quality, usable, data products from the 2020 Census; and
- Provide background on how the Census Bureau processes data for the 2020 Census.

I. Background on the 2020 Census

3. The Census Bureau goes to extraordinary lengths to count everyone living in the country once, only once, and in the right place. The Census Bureau's goal in conducting the decennial census is to count everyone living in the United States, including the 50 states, the District of Columbia, and the territories of Puerto Rico, American Samoa, Commonwealth of the Northern Mariana Islands, Guam, and U.S. Virgin Islands. To that end, we expend significant funds, efforts, and resources in capturing an accurate enumeration of the population, including those who are hard to count.

4. The planning, research, design, development, and execution of a decennial census is a massive undertaking to count over 330 million people across 3.8 million square miles. The 2020 decennial census consisted of 35 operations using 52 separate systems. We monitored and managed the status and progress of the 2020 Census in large part using a master schedule, which has over 27,000 separate lines of census activities. Thousands of staff at Census Bureau headquarters and across the country supported the development and execution of the 2020 census operational design, systems, and procedures. In addition, the 2020 Census required the hiring and management of hundreds of thousands of field staff across the country to manage operations and collect data in support of the decennial census.

5. The complexity and inter-related nature of census operations is echoed in the budget for the 2020 Census. The overall budget estimate for the 2020 Census – covering fiscal years 2012 to 2023 – was \$15.6 billion. The Government Accountability Office (GAO) determined that, as of January 2020, this estimate substantially or fully met GAO's standards and best practices for a reliable cost estimate in terms of credibility, accuracy, completeness, and documentation quality. It is rare for civilian agencies to be so designated, and we are proud that the Census Bureau has achieved this status. As of this writing, the Census Bureau has been appropriated in aggregate just over \$14.2 billion to use for the 2020 Census, covering fiscal years 2012 through 2021.

6. The operational design of the 2020 Census was subjected to repeated and rigorous testing. Given the immense effort required to conduct the census, the importance of the results, and the decade of work by thousands of people that goes into planning and conducting the decennial census, the Census Bureau expends a significant amount of effort to evaluate its planning and design to ensure that its operations will be effective in coming as close as possible to a complete count of everyone living in the United States. Design and testing of the 2020 Census was an iterative process: after each test, we revised our plans and assumptions as necessary.

7. The [2020 Census Operational Plan](#) explains the overall operations of the 2020 Census, including the integration of numerous sub-operations. Further details on most of these sub-operations can be found [on our website](#). A partial list of the major operations for which we have posted detailed operations plans includes:

- a. Local Update of Census Addresses
- b. Address Canvassing
- c. Geographic Delineations
- d. Field Infrastructure and Logistics
- e. Forms Printing and Distribution
- f. Integrated Communications Plan
- g. Count Review
- h. Intended Administrative Data Use
- i. Internet Self-Response
- j. Counting Federally Affiliated Americans Overseas
- k. Non-ID Processing
- l. Update Enumerate
- m. Update Leave
- n. Nonresponse Followup (NRFU)
- o. Response Processing

- p. Formal Privacy Methods
- q. Redistricting Data Program
- r. Post Enumeration Survey (PES)
- s. Count Question Resolution
- t. Data Products and Dissemination
- u. Evaluations and Experiments
- v. Archiving

Census Step 1: Locating Every Household in the United States

8. The first operational step in conducting the 2020 Census was to create a Master Address File (MAF) to represent the universe of addresses and locations to be counted in the 2020 Census. A national repository of geographic data—including addresses, address point locations, streets, boundaries, and imagery—is stored within the Census Bureau’s Master Address File/Topologically Integrated Geographic Encoding and Referencing (MAF/TIGER) System, which provides the foundation for the Census Bureau’s data collection, tabulation, and dissemination activities. It is used to generate the universe of addresses that will be included in a decennial census. Those addresses are then invited to respond, typically through an invitation in the mail. The MAF/TIGER System provides the address and geographic base used by our operational control systems to control responses as they are returned to the Census Bureau. The MAF/TIGER data are used to ensure that each person is tabulated to the correct geographic location as the final 2020 Census population and housing counts are prepared.

9. The Census Bureau continually updated this address list in preparation for the 2020 Census. For the third decade, as mandated by the Census Address List Improvement Act of 1994, the Census Bureau implemented the Local Update of Census Addresses (LUCA) Program to provide tribal, state, and local governments an opportunity to review and update the Census Bureau’s address list for their respective jurisdictions. Between

September 2015 and June 2017, the Census Bureau conducted a 100 percent in-office review of every census block in the nation (11,155,486 blocks).¹ During the in-office review, clerical staff had access to satellite and aerial imagery from federal, state, and local sources, and to publicly available street-level images through Google Street View and Bing StreetSide, which provided the ability to see the fronts of structures, as if standing on the sidewalk.

10. A field operation called In-Field Address Canvassing occurred between August 2019 and October 2019 for approximately 50 million addresses that were not verified in the in-office review. Address Canvassing fieldwork validated roughly 88% of these addresses and the remainder were removed from the universe because the Address Canvassing fieldwork verified that they did not exist, were duplicates, or were non-residential addresses. Some new addresses identified during fieldwork matched addresses already in the MAF as a result of contemporaneous in-office update processes. Other new addresses were added to the MAF.

11. The Census Bureau believes that the Census Bureau's MAF/TIGER System is the most complete and accurate address listing in census history.

Census Step 2: Encouraging Self-Response Throughout the 2020 Census

12. In order to encourage everyone in the United States to self-respond, the Census Bureau designed, tested, and implemented a \$700 million Integrated Communications Program. This included a massive multimedia campaign designed to engage

¹ Statistical geographies establish the geographic areas at which the Census Bureau produces statistics. Census blocks are the smallest geographic areas for which we collect and tabulate data. Census blocks are formed by streets, railroads, bodies of water, and legal boundaries (there are approximately 8 million Census Blocks). Census blocks are aggregated to form block groups, and block groups are aggregated to form census tracts. Census tracts optimally represent about 1,600 housing units and 4,000 people. These statistical geographies nest within governmental unit boundaries, such as municipalities and counties.

stakeholders and partners, and to communicate the importance of the census through paid advertising, public relations, social media content, and the new web site. This was the first census where we made a significant investment in digital advertising, targeting online sites including Facebook, Instagram, paid search engines, display ads, and programmatic advertising.

13. The Census Bureau adapted its outreach strategies in response to delayed census operations due to COVID-19, increasing advertising and outreach to specific areas of the country with lower response rates. We quickly adjusted our messaging, pivoting from our original campaign to encourage people to respond online from the safety of their own homes. The use of micro-targeting allowed the Census Bureau to tailor its messaging, including directing appropriate messages to hard-to-reach communities and those who distrust government, both of which have been traditionally undercounted.

14. The Census Bureau's communications program also relied heavily on partnerships, including with organizations in the State of Ohio. There are two prongs to the Partnership Program, the National Partnership Program that works from Census Bureau headquarters mobilizing national organizations, and the Community Partnership and Engagement Program, that works through the regions at the local level to reach organizations that directly touch their communities. Census partners include national organizations like the National Urban League (NUL), the Mexican American Legal Defense Fund (MALDEF), the National Association of Latino Elected Officials (NALEO), the National Association for the Advancement of Colored People (NAACP), and the U.S. Chambers of Commerce. Major corporations also become census partners. At the local level, partners can be churches, synagogues and mosques, legal aid clinics, grocery stores, universities, colleges, and schools.

Census Step 3: Self-Response

15. The design of the 2020 Census depended on self-response from the American public. In an effort to ensure the most efficient process to enumerate households, the

Census Bureau assigned every block in the United States to one specific type of enumeration area (TEA). The TEA reflects the methodology used to enumerate the households within the block. There were two TEAs where self-response was the primary enumeration methodology: TEA 1 (Self-Response) and TEA 6 (Update Leave). Regardless of enumeration methodology, everyone in the country was able to participate in the census online, by mail, or by phone.

16. TEA 1 used a stratified self-response contact strategy to inform and invite the public to respond to the census, and to remind nonresponding housing units to respond. In total, six mailings including the initial Invitation, reminders, and, if we did not receive a response by the third mailing, questionnaires were be delivered on a flow basis unless a household responded.

17. Update Leave (TEA 6) was conducted in areas where the majority of the housing units did not have mail delivery to the physical location of the housing unit, or the mail delivery information for the housing unit could not be verified. The purpose of Update Leave was to update the address list and feature data, and to leave a 2020 Census Internet Choice package at every housing unit. The major difference from TEA 1 is that a Census Bureau employee, rather than a postal carrier, delivers the 2020 Census invitation to respond, along with a paper questionnaire. As with other housing units, those in TEA 6 had the option to respond online, by mail, or by phone.

18. Self-response began in March 2020 and was open until October 15, 2020. We are proud to have secured a self-response rate of 67%, higher than the 2010 self-response rate of 66.5%.

Census Step 4: Nonresponse Followup (NRFU) and Quality Control

19. After giving everyone an opportunity to self-respond to the census, census field staff (known as enumerators), attempted to contact nonresponding addresses to determine whether each address was vacant, occupied, or did not exist, and when occupied, to collect census response data. Multiple contact attempts to nonresponding addresses

were done to determine the housing unit status and to collect decennial census response data. This was the Nonresponse Followup operation, or NRFU. Enumerators conducted the NRFU operation using iPhones equipped with “optimization” software that assigned cases based on the enumerator’s availability and to increase efficiency of the operation.

20. In addition to the NRFU operation, the Census Bureau conducted several operations to collect information for individuals who do not live in housing units. The Group Quarters Enumeration collects response information for individuals living in group housing situations, such as college dormitories, prisons, or long term care facilities. The Enumeration at Transitory Locations (ETL) operation collects response information for individuals living at campgrounds and marinas.

21. Cases in the NRFU workload are subject to six contact attempts. The first contact attempt is primarily an in-person attempt. Each contact attempt in the 2020 Census NRFU was either a telephone or an in-person contact attempt (however the vast majority of attempts were in-person).

22. If upon the first contact attempt an enumerator determined an address was occupied and the enumerator was able to obtain a response for the housing unit, then the housing unit was counted, and no follow-up was needed.

23. If upon the first contact attempt, the enumerator was not able to obtain a response, the enumerator was trained to assess whether the location was vacant or unoccupied. Enumerators used clues such as empty buildings with no visible furnishings, or vacant lots, to identify an address as vacant or non-existent.

24. A single determination of a vacant or nonexistent status was not sufficient to remove that address from the NRFU workload; a second confirmation was required. If a knowledgeable person could confirm the enumerator’s assessment, the address was considered vacant or non-existent and no additional contact attempts were needed. A knowledgeable person was someone who knew about the address as it existed on census day or about the persons living at an address on census day. A knowledgeable person

could be someone such as a neighbor, a realtor, a rental agent, or a building manager. This knowledgeable person is known as a proxy respondent.

25. If a knowledgeable person could not be found to confirm the status of vacant or non-existent, use of administrative records could provide confirmation of the enumerator's assessment. The Census Bureau did not rely on a single administrative-records source to determine an address was vacant or non-existent. Rather, multiple sources were necessary to provide the confidence and corroboration before administrative records were considered for use. When used in combination with an enumerator's assessment of vacant or non-existent, corroborated administrative records provided the second confirmation that a nonresponding address was vacant or non-existent.

26. If, upon the first in-person contact attempt, the enumerator believed the address was occupied, but no knowledgeable person was available to complete the enumeration, the Census Bureau used consistent and high-quality administrative records from trusted sources as the response for the household and no further contact was attempted. We consider administrative records to be of high quality if they are corroborated with multiple sources. Examples of high-quality administrative records include Internal Revenue Service Individual Tax Returns, Internal Revenue Service Information Returns, Center for Medicare and Medicaid Statistics Enrollment Database, Social Security Number Identification File, and 2010 Census data.

27. Regardless of whether administrative records were used as a confirmation of vacancy or non-existent status or for the purposes of enumerating an occupied housing unit, the Census Bureau sent, as a final backstop, a final mailing encouraging occupants, if any, to self-respond to the 2020 Census.

28. If a nonresponding housing unit was found to be occupied but no information was gathered on the first attempt, enumerators repeatedly returned. The vast majority of nonresponding addresses in the NRFU workload had the full battery of in-person contact attempts to determine the status of the nonresponding address (vacant,

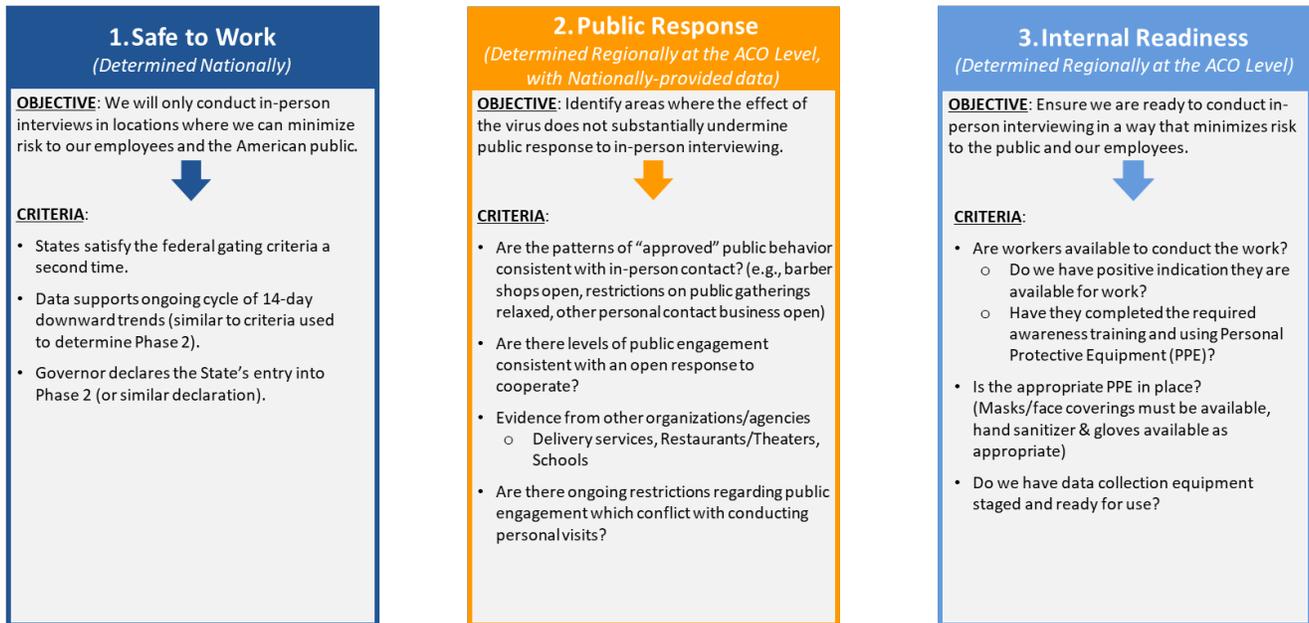
occupied, does not exist) and to collect 2020 Census response data. The full battery of in-person contact attempts also included the ability to collect information from a proxy respondent. Nonresponding units became eligible for a proxy response after three unsuccessful attempts to find residents of a nonresponding address themselves.

29. The Census Bureau arrived at the operational design for NRFU over the course of the decade. Use of administrative records, field management structures, systems, procedures, data collection tools and techniques were proven in tests occurring in 2013, 2014, 2015, 2016, and 2018.

30. While data collection began on schedule, the Census Bureau was forced on March 18, 2020 to announce a suspension of field operations because of the COVID-19 Pandemic. Our original plan was to begin the NRFU operation in most parts of the country in May. But continuing with planned field operations in the spring of 2020 was simply not an option. Many jurisdictions had issued “lockdown” orders. The nation did not know as much about the COVID-19 virus as it does now, and clear public health guidance had not yet been issued. Nor was the Census Bureau able to safely recruit, hire, and train employees for its field operations, and it did not have confidence that households would respond to individuals knocking on their doors seeking responses to the census. Protocols for mask wearing and social distancing were not yet in place and the public health impacts of conducting one of the nation’s largest peacetime mobilizations were unclear.

31. The suspension of field operations and subsequent decisions to adapt field operations were driven by a need to protect the health and safety of the American public; the requirement to implement federal, state, and local regulations on COVID-19; and the desire for a complete and accurate enumeration. We began to re-start operations by resuming our Update Leave operation, resuming pre-NRFU operations in Area Census Offices (ACOs), resuming operations at our paper data capture centers, and resuming fingerprinting and staff onboarding for NRFU workers. The graphic below describes the

criteria we used in our review process for resuming operations during the COVID-19 pandemic.



32. The Census Bureau returned to field operations using a "Soft Launch" approach, meaning that instead of opening all offices at the same time, we instead opened a small number of offices in succession. We opened offices in areas that we believed could be safely started based on COVID risk profiles (developed using CDC, state, and local health guidance), availability of staff, and availability of Personal Protective Equipment (PPE). We needed to acquire PPE, implement social distancing protocols, and work with state and local officials. We opened additional offices throughout the month of July based on detailed daily review of the data about COVID, taking into account state and local stay-at-home orders. We looked for data showing a 14-day downward trend in the area of virus cases, along with sufficient workers to conduct the enumeration, and sufficient available PPE. By August 9 we had begun NRFU in all 248 ACOs. There are 8 ACOs in Ohio. The Census Bureau began NRFU in the Mansfield ACO on July 26, 2020 and commenced operations in the remaining ACOs (Akron, Cincinnati, Cleveland, Toledo, South Point, Dayton, and Columbus) on August 1, 2020.

33. These COVID-19 delays forced the Census Bureau to carry out field operations during hurricane season. Devastating hurricanes in the Gulf Coast area, in particular, limited and slowed the Census Bureau's ability to conduct NRFU operations. Additionally, in large areas of the West Coast, field operations were hampered by conflagrations that caused health alerts due to fire and smoke. And in cities across the country, demonstrations and riots caused further difficulties for in-person enumeration. These challenges forced the Census Bureau to adapt, including by sending travel teams of enumerators to lagging areas.

34. In light of the COVID-19 delays, on April 13, 2020, the Secretary of Commerce and the Director jointly announced a new Census Schedule and stated that they would seek statutory relief from Congress of 120 additional calendar days. This new schedule set a completion date for field data collection and self-response of October 31, 2020. The proposed schedule called for the delivery of apportionment counts to the President by April 30, 2021 (120 days after the statutory deadline) and redistricting data files to the states no later than July 31, 2021. Congress did not pass such a statute.

35. The Secretary and the Director then announced on August 3, 2020 a "Replan Schedule" designed to meet the Census Bureau's statutory deadline for reporting apportionment data of December 31, 2020. Litigation ensued, and the Census Bureau was enjoined from attempting to meet the Replan Schedule. After a Supreme Court ruling, the Census Bureau ceased data collection operations on October 15, 2020, having resolved 99.9% of all housing units in the process.

Census Step 5: Post-Data Collection Processing

36. After the Census Bureau completed data collection, the next major step was what we call post processing, which refers to the Census Bureau's procedures to summarize the individual and household data that we collect into usable, high-quality tabulations. Our post processing procedures and systems are meticulously designed, tested,

and proven to achieve standardized, thoroughly vetted, high-quality data products that we can stand behind.

37. The Census Bureau is processing the data from the 2020 Census with all possible speed and care, consistent with the production of high-quality data products. The computer processing systems at Census Headquarters were optimized in partnership with industry leaders to use the latest hardware, database, and processing technology available. Taking advantage of this processing power and speed, we are working with all possible dispatch.

38. However, the processing phases build upon each other and fully rely on iterative steps that require computer processing followed by expert human review and validation. When review and validation discover possible data issues, we resolve them. We then test and validate the resolution, and repeat processing steps as required.

39. As described above, through 2020 the Census Bureau faced unprecedented circumstances that impacted our data collection and processing schedules. In response, the Census Bureau has made every attempt to curtail, eliminate, re-order, or run processing operations in parallel to deliver census results as early as possible. The Census Bureau is aware that states and other entities rely on our data products and expect those data products to be both timely and of high quality.

40. Despite the Census Bureau's best efforts, the delays caused by COVID, hurricanes and wildfires, along with the normal issues commonly encountered during census processing made it impossible for the Census Bureau to finish apportionment processing and deliver accurate and complete apportionment counts before April 30, 2021 (four months after the December 31, 2020 statutory deadline). However, more important in the context of this declaration is that delivery of apportionment data will occur a month later than the statutory due date for delivering *redistricting* data.

41. The order of phases and operations for processing allows no possible way to deliver redistricting data before apportionment data, as one depends and builds upon

the other. Further, the complex processing steps that occur between the apportionment delivery include contingency time for rework if it is required, and the delivery of the complete complement of redistricting products cannot be meaningfully shortened or curtailed without unacceptable risk to the accuracy of the data.

42. Below, I generally describe the post processing operations and schedule. While certain steps in different processing operations may sound similar they are in fact quite different because the steps are iterative. For example, we identify unique persons for the purposes of population count in the early phases, while in the later phases we verify and determine demographic characteristics of every unique person.

A. Incorporate address updates from the field data collection operations into MAF/TIGER

Dates: February 6 - September 27, 2020

43. During the data collection operations, the census field staff can update address, update physical location information, and add addresses. These changes are incorporated into our address and geo-spatial MAF/TIGER databases.

44. Once updated, each address must be associated to the correct state, county, tract, block group and block. Since it is critical for many of our data products (including redistricting data) to associate each address to the correct geography, we verify that the address and geo-spatial updates are incorporated correctly.

B. Produce the Final Collection Address Data Products from MAF/TIGER

Dates: September 27 - Oct 14, 2020

45. Once the benchmark has been created, the final collection geographic data files are produced and verified.

C. Produce and review the Decennial Response File 1 (DRF1)

Dates: October 29 – December 26, 2020

46. The verified final collection geography data are integrated with the response data and we verify our work to ensure accuracy. The next set of activities involves the standardization of the collected information.

47. First, we determine the final classification of each address as either a housing unit or a group quarters facility, which is necessary because addresses can change from a housing unit to group quarters and vice versa as a result of field observations. Initial status is set at the start of the data collection operations as either a housing unit or group quarters, but during the enumeration operations, we collect information that informs that classification. For a small number of addresses the classification may change, for example a housing unit may have been turned into a small group home.

48. Next we identify persons in housing unit and group quarters returns. As part of NRFU operation, we reinterview a sample of cases to ensure quality. We incorporate the results of the reinterview for further action in subsequent steps.

49. As part of the Internet self-response option and telephone operation, respondents can provide their data without their Census Identification Number (ID). These cases are assigned an ID which associates them to the final collection geography.

50. We collect data in many ways in the Group Quarters operation, for example on-line, over the phone, on a paper questionnaire, electronic administrative files, and in person using an electronic questionnaire. As a result, we need to standardize the responses across the modes of collection. This step ensures all the data are formatted in the same way for subsequent processing.

51. Finally, for the operations that collect data on a paper questionnaire, some housing units have more people than can fit on one paper questionnaire. The census field staff will use multiple paper questionnaires to enumerate the house. We have to link these continuation forms to form one household.

D. Produce and review the Decennial Response File 2 (DRF2)

Dates: December 26, 2020 – February 26, 2021

52. Once the previous step has been verified, we incorporate the results from the Self-Response Quality Assurance operation that occurred during the data collection phase. This quality assurance operation ensures that data determined to be falsified or incorrect are not added to the Census.

53. As part of the group-quarters operations – a special enumeration procedure used for group housing, such as prisons and colleges – we enumerate domestic violence shelters. Their locations and data are highly sensitive and are handled with special procedures both in the field and in processing. Their data are incorporated at this point in the process due to their sensitivity.

54. Also at this stage in the process, we select a form that will be used as the enumeration of record for those small number of addresses where we receive multiple returns – for example, where one person in a house completes the form online, and another completes the paper questionnaire. This is another important step to avoid duplication, and was particularly important for the 2020 Census, given the multiple modes of response that were offered and the ability to respond without an assigned identification number.

55. As with the prior steps, we continue in the DRF2 file to identify, review, and resolve data anomalies to ensure that the data are accurate.

E. Produce and review the Census Unedited File (CUF)

Projected Dates: February 27, 2021 – March 26, 2021

56. It is in the CUF that we began to incorporate administrative records data as the response data for housing units where we do not have an enumeration but where we have high-quality administrative records data. Incorporating this information thus helps

the Census Bureau achieve a more complete census. Administrative record data can include information previously collected by other federal or state agencies, including the Internal Revenue Service and the Social Security Administration.

57. Next, we finalize the status for every housing unit as occupied, vacant or non-existent. Non-existent units are removed from future processing. For every occupied housing unit, we determine the population count.

58. For every housing unit and group quarter, the location is processed by state, county, tract, block group, and block. Then we verify the status (occupied, vacant or non-existent) for every housing unit and group quarter. And in all occupied addresses, we verify the number of persons. For a small number of individuals who live in transitory locations such as campgrounds and marinas, this information will be added later in the process.

59. For unresolved housing units—*i.e.*, those we believe to be occupied but do not have respondent data after all collection operations end—we use a statistical method called count imputation to assign a population count. This was done for less than one half of one percent of housing units in the 2010 Census.

60. The result of these processes is a file that contains records for every housing unit and group quarters along with person records for the people associated with the addresses, although some of the demographic and tenure information may still be missing by this step.

61. As of the date I execute this declaration CUF processing is complete.

62. All of the processes involved in CUF creation are critical predecessors to the subsequent processing operations, including those needed for redistricting.

F. Produce, review and release the Apportionment Counts

Scheduled Dates: March 27 - April 30, 2021

63. On completion of the CUF, we verify and incorporate into the state population counts data that includes the Federally Affiliated Overseas population (such as

military personnel serving overseas), the results of the Enumeration of Transitory Locations for each State, and any addresses added late in census data collection.

64. Next, we determine the apportionment counts. Since all housing units and group quarters have a population count linked to a State, we can feed their tabulation into the state-level population counts.

65. To ensure accuracy in the apportionment numbers, the state counts including the overseas population and apportionment numbers are verified by independent teams using different methods. The results of the independent verifications are compared and reconciled, if necessary.

66. We produce the apportionment results using the method of equal proportions. We deliver the apportionment package to the Secretary of Commerce who then delivers them to the President. The President then reports the numbers to Congress.

67. Once again, the Census Bureau does not believe it can deliver apportionment counts sooner than its current working schedule.

G. Produce and Review Census Edited File (CEF)

Scheduled Dates: April 20 – June 24, 2021

68. The next stage is the creation of the Census Edited File (CEF). Whereas the CUF was the basis for the apportionment counts, the CEF provides for the much-more detailed and voluminous data required for redistricting. This process adds any remaining missing values, rectifies conflicting information, and overall ensures a complete set of records for subsequent production of redistricting data.

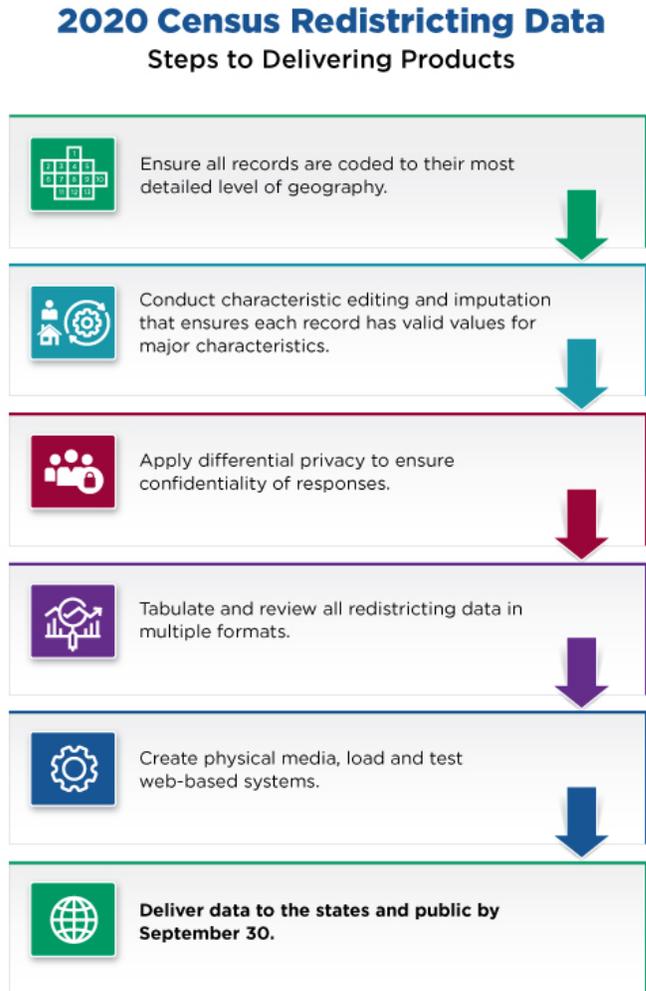
69. It is at this stage that the detailed information about individuals living in the households is compiled (as opposed to the simple population count). This includes complex processing for the race and ethnicity and age information that states must have in order to conduct redistricting.

70. Because processing for apportionment only requires accurate population count data, the detailed respondent information needed for this phase can still be conflicting or contradictory and requires further processing with complex editing rules. Additionally missing data are accounted for using a statistical process called characteristic imputation.

71. This is a highly complex operation that involves iterative run and review cycles to ensure processing is occurring as designed. And as anomalies are uncovered and corrected, the data must be re-processed.

72. Due to the complexity of the operation, and the iterative cycles of review, it is not possible to accelerate the production of the CEF without unacceptable risks to data quality.

73. The general steps to move from this point forward to production of the redistricting data are depicted in the following graphic and discussed in detail in the paragraphs that follow.



H. Produce and Review Microdata File (MDF)

Scheduled Dates: June 25 – July 18

74. The next stage of the process is to create the privacy-protected Microdata Detail File. At this stage the Census Bureau applies formal privacy protections to prevent revealing respondent information.

75. Application of these protections is not optional. The Census Bureau is required by law to protect the confidentiality of the information provided by respondents. Consistent with that requirement, the Census Bureau has designed the 2020 Census Disclosure Avoidance System (DAS) to ensure equal privacy protections for every enumerated person in the country, irrespective of where they live, and that the accuracy of any statistic that we publish will improve as the number of people being measured increases. Our disclosure avoidance approach accomplishes these objectives by taking detailed privacy-protected measurements of the population at all levels of geography, from the nation down to the individual Census block, and processing these data in descending order from the nation down to the individual block.

76. Because of how the method works, the disclosure avoidance algorithm must be applied to the full census data set (i.e., the entire nation) in order to function correctly. Processing these measurements in a top-down fashion, starting at the national level, allows the algorithm to improve the accuracy of the statistics at all geographic levels without impacting the privacy guarantee by leveraging the accuracy of statistics at higher geographic levels. This stage also requires careful review – and, if necessary, re-processing of the data – to ensure the system is functioning as designed. Additionally, any redesign of the top-down (full nation) approach would require complex software changes and testing of those changes that would add even more time to the processing schedule.

77. The nature of the disclosure avoidance algorithm thus means that individual states cannot be processed separately in order to finish the process earlier.

I. Produce and Review Tab file

Scheduled Dates: July 19 - August 16

78. Next, the Census Bureau conducts the tabulation and review of the tabulated census data. Tabular data are easily understandable and usable data tables that the public expects from the Census Bureau. Prior to tabulation, the census data are still in a largely unusable form that would require significant expertise and manipulation on the part of data users to select and understand useful information. Tabulation (literally, formatting and summarizing data into 'tables') makes census data easily accessible by state officials or the public. Published tables must be created from the processed data; must be accurate and complete; and must integrate geography, population, and characteristics in myriad combinations.

79. The voluminous and detailed nature of tabulation requires rigorous review and validation that cannot be skipped or shortened without significant risk to the accuracy of these products.

80. During tabulation we also add new fields in the data that make future extraction, summation, and deeper understanding easier for data users to achieve. For example, we may need to add a "voting age" field and update our system so that all records for people age 18 or over have the that value. This enables "filtering" for the characteristic of "voting age."

81. If the Census Bureau were to prioritize one State's redistricting data (to the detriment of the other 49 states), it may be able to deliver that data a few days earlier than other States, at most.

J. Produce, Load, and Disseminate Redistricting Data

Scheduled Dates: August 17 - September 30

82. The final stage is the review, preparation, loading, and delivery of the official redistricting data. This stage involves the creation of dissemination materials to send the states, the loading of web-based systems, the testing of those materials and systems

to ensure they are functioning correctly, and the actual delivery of the data to the states and the public.

83. At this stage we test our materials and systems to ensure they are functioning correctly. We then create redistricting materials to send to the States. In order to provide convenient access to data users, we also load these data products to our web-based systems. And we deliver the data to the states and the public.

84. While this is happening, we are loading the data.census.gov Data Explorer tool with the entire nation's data and metadata that allows the system to properly pull and display data. This too must be carefully verified to ensure that data for every geographic level and every table is being properly pulled by the application and displayed. Once all of these materials are ready for release, the physical materials are mailed via overnight mail and the web-tool is made available to the official recipients.

85. If the Census Bureau were to prioritize the DVD/Flash Drive and the data.census.gov webpage for one State's redistricting data (to the detriment of the other 49 states), it would not be able to deliver the data more than a few weeks earlier than a single national release.

Commitment to Data Quality

86. The Census Bureau is committed to unprecedented transparency about the quality of the 2020 Census. The Deputy Director set up a Data Quality Executive Guidance Group (EGG) in April 2020 to evaluate the quality of the 2020 Census. The EGG draws upon expertise of career employees within the Census Bureau in the fields of census operations, statistical methodology, acquisition and use of administrative records, and in the social, economic, and housing subject areas. The group has been meeting continuously since that time and fully supports of the processing steps and the timeline described above to ensure that 2020 Census data are accurate and complete.

87. The Census Bureau is now collecting data for its formal coverage measurement study, the Post-Enumeration Survey. That effort will provide estimates late in 2021

of coverage errors (both undercounts and overcounts) for States and for various demographic groups, similar to what we released after the 2000 and [2010 Censuses](#).

88. In December 2020, the Census Bureau released the 2020 Demographic Analysis (DA) estimates. DA estimates consist of national-level estimates of the population by age, sex, race, and Hispanic origin as of April 1, 2020. These estimates are developed from current and historical vital statistics: birth and death records, estimates of international migration, and Medicare records. The Demographic Analysis estimates are independent from the 2020 Census and are used to calculate net coverage error, one of the two main ways the Census Bureau evaluates the coverage of the census.

89. The 2020 Census has been the most challenging census in modern history. The Census Bureau has faced an unprecedented pandemic, natural disasters, and civil unrest in addition to the already-complicated task of collecting and processing data for nearly 150 million households across 3.8 million square miles. Despite these challenges, the Census Bureau resolved 99.9% of all housing units in the nation and it has planned a schedule that is designed to achieve the complete and accurate data that will guide the country for the next ten years.

90. I respectfully submit that the intentions of the dedicated professional staff at the Census Bureau will always be to deliver accurate data about the U.S. population and economy, and we continue to do so as we work through the challenges we as a nation have faced over the last year.

I have read the foregoing and it is all true and correct.

DATED and SIGNED:

Michael Thieme

Assistant Director for Decennial Census Programs, Systems, and Contracts

United States Bureau of the Census

IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF OHIO
WESTERN DIVISION AT DAYTON

STATE OF OHIO,

Plaintiff,

v.

GINA RAIMONDO, in her official ca-
pacity as Secretary of Commerce,* *et al.*,

Defendants.

Case No. 3:21-cv-00064-TMR

District Judge Thomas M. Rose

DECLARATION OF JAMES WHITEHORNE

* Gina Raimondo was recently confirmed as the Secretary of Commerce and has been automatically substituted for Wynn Coggins, the former Acting Secretary of Commerce, under Federal Rule of Civil Procedure 25(d).

I, James Whitehorne, make the following Declaration pursuant to 28 U.S.C. § 1746, and state that under penalty of perjury the following is true and correct to the best of my knowledge and belief:

1. I am the Chief of the Census Redistricting and Voting Rights Data Office at the U.S. Census Bureau. I have occupied this position since July 2015. Prior to that, I served as the Assistant Chief in the same office from April 2010 until becoming Chief. As Chief of the Census Redistricting and Voting Rights Data Office I am responsible for management of the Census Bureau's redistricting data program and for implementation of 13 U.S.C. § 141(c). I am knowledgeable about the Census Bureau's redistricting data program.

2. I am making this Declaration in support of Defendants' Opposition to Ohio's preliminary-injunction motion. All statements in this Declaration are based on my personal knowledge or knowledge obtained in the course of my official duties. In this declaration I:

- Provide background on the Census Bureau's redistricting data program;
- Explain the process by which the Census Bureau established September 30, 2021 as the working schedule date by which we would complete delivery of redistricting data, and our reasons for establishing this schedule;
- Explain why it is impossible for the Census Bureau to comply with the statutory deadline set in § 141(c); and
- Explain the likely effect of any order compelling production of redistricting data for Ohio prior to the completion of processing.

Background on the Redistricting Data Program

3. Section 141(c) of the Census Act requires the Secretary of Commerce ("the Secretary") to establish a program allowing States to identify the geographic areas for

which specific tabulations of population are desired. Section 141(c) also directs the Secretary to deliver basic tabulations of population, and geographically specific tabulations for those States participating in the program, to the Governor and officers or public bodies having responsibility for legislative apportionment or districting within one year from the decennial census data (which is April 1).

4. The Census Bureau established the program after passage of Public Law 94-171 in 1975, codified at 13 U.S.C. § 141(c). The States generally use redistricting data produced under § 141(c) to redistrict for state and congressional elections, although they are not required to do so by any federal law. The U.S. Department of Justice also uses redistricting data to enforce of the Voting Rights Act.

5. Section 141 requires the Census Bureau to conduct the program in a non-partisan manner. We accomplish this by asking each State to assign a non-partisan liaison or liaisons at the start of the program each decade. The redistricting data program asks that the majority and minority leadership in all chambers of the state legislatures sign off on the individuals they feel can represent the State in a non-partisan manner. The redistricting data program then works with those people (or their successors) for the lifecycle of the program.

6. The redistricting data program (RDP) works to ensure the states are informed about the decennial census and the RDP. We started the 2020 RDP by offering in-person briefings to each state, eventually providing information about the 2020 Census and the 2020 Redistricting Data Program to the 26 states that accepted. We have continued to conduct state briefings when requested. We keep as many states as possible informed through our regular interactions with umbrella organizations such as the National Conference of State Legislatures. We also interact directly with our program liaisons in each state.

7. When the Census Bureau first requested a four-month statutory extension from Congress in April 2020, we called our liaisons in New Jersey and Virginia because

those two states require redistricting data prior to our statutory deadline. We also emailed all of our liaisons over the month of May 2020 to try to understand the impact of that extension request. Some States were able to act on that information, such as New Jersey where voters approved a constitutional amendment that allowed the State to use previous district maps until the new maps are in effect for the 2023 elections. And in California, the state legislature sought and obtained at least a four-month delay of its redistricting deadlines from the California Supreme Court.

8. More recently, we notified all of our liaisons on January 28, 2021 that the redistricting data would be delivered later than July 31, 2021, and we have been providing a direct line of support for the states and our liaisons when they come to us with census-related questions. For example, we worked with the Secretary of State's office in Idaho to help them identify data that will allow them to perform a series of initial draft plans, thereby reducing their workload by 50% when the official data is provided. *See [Webinar, Comments by Jason Hancock, Deputy Secretary of State, Idaho \(March 5, 2021\)](#).*

9. The 2020 Census redistricting data program is being conducted in five phases. The first two phases are the Block Boundary Suggestion Project and the Voting District Project. These two phases were conducted in advance of the decennial census in the years 2015 through 2020 to provide States the opportunity to identify the geographic areas for which specific tabulations of population are desired. The third phase of the program is delivering redistricting data to the states. In the fourth phase, the Census Bureau collects the newly redistricted congressional and state legislative districts created by the States after the Census Bureau delivered the redistricting data. This phase is also used to collect changes every subsequent two years if States redistrict again during the decade. In phase five, the Census Bureau evaluates the previous decade's program, incorporating feedback from the States, and develops an outline for the next decennial's redistricting data program.

10. Currently, the Census Bureau is in phase three, the data delivery phase. We provided the States with geographic support products in January and February of this year. State and local governments use these products in their redistricting efforts. The products contain newly created 2020 Census blocks and updated block groups, census tracts, voting districts, and current boundaries for legal governments and school districts referenced to January 1, 2020. Using the information that each State provided, we have now delivered the geographic information that will help them plug in the actual 2020 Census data and do their work of redrawing district boundaries. We are now preparing to deliver the official data, once it has been processed and cleared for publication.

11. This data will be delivered to the States in two methods. The first method is on DVDs and Flash Drives. These physical devices will have an integrated software browsing tool that will allow intuitive browsing of the data. They also contain a custom extraction menu that allows for the extraction of large datasets from the device. Those extractions can then be imported easily into a Geographic Information System or database. The second method is using our data.census.gov webpage. This webpage is a data browsing tool where data users can access many different census datasets, including the redistricting data. It has custom filters that allow the user to filter on those geographic and characteristic data for which they are interested. For example, a State could filter the data and easily identify the number of voting-age residents by race or ethnicity in each and every block within a census tract, county, or even for the entire state. Data users can view, map, and download these datasets once they have set the filters with their choices.

Impossibility of Complying with the Statutory Deadline

12. Based on my knowledge of decennial census data processing, producing redistricting data by, or even close to, the statutory deadline of March 31, 2021 is not possible under any scenario, and the Census Bureau would be unable to comply with any such order from the Court. Simply put, it would be a physical impossibility.

13. As explained in depth by the Assistant Director for Decennial Census Systems and Contracts, Michael Thieme, the Census Bureau must complete a series of interim steps prior to delivering the redistricting data:

- On completion of the initial CUF, we incorporate the Enumeration of Transitory Locations data, and any addresses added late in census data collection into the detailed final version of the CUF, scheduled to be completed by April 19, 2021.
- The Census Edited File (CEF) in the working plan is scheduled to be completed by June 23, 2021. To produce the CEF, the final CUF needs to go through the editing and imputation process which ensures all records have valid values.
- The Microdata Detail File (MDF) in the working plan is scheduled to be completed by July 17, 2021. Census data is protected by Title 13 and cannot be disclosed until Census completes disclosure avoidance processing. The output of those privacy protections is the MDF. Disclosure avoidance involves a privacy budget based on complex algorithms that requires the entire national set of CEFs as its input. In other words, it is impossible for this step to be completed until CEF data from all states are done processing.
- The tabulation system then uses the MDF to append more detailed geographic information and then generate the tabulated versions of the data in all of their needed formats. These formats include the text-based summary files and the Application Programming Interface format that drive the data.census.gov website. These formatted tabulations are then reviewed by subject matter experts to ensure the tabulations were performed correctly. In the working plan, this review completes on August 13, 2021.
- The final activity is the production, loading, and testing of the actual dissemination materials and system. The materials are DVDs/Flash Drives with custom browsing software to make accessing the data user friendly. This requires another format conversion of the tabulated data. The system is the data.census.gov platform that provides access to the data for the states and the public. These materials need to be created, system loaded, and all reviewed and tested prior to being provided to the states.

14. Each of these interim steps, in order, is required to move to the next. And the processing for each of these interim steps are interrelated, so changing something in one would impact each subsequent step and threaten the success of the overall process. In the working plan, the Census Bureau is scheduled to complete production of redistricting data no later than September 30, 2021.

15. The current working schedule for producing the redistricting data is not set in stone, however. The schedule builds in time to account for multiple reviews on the assumption that anomalies will be discovered and must be corrected prior to publication. Anomalies found in processing are not errors in the census, but they can turn into errors if we don't review and resolve them. In a perfect world where every single step of the processing occurs with no additional anomalies or impediments, it may be possible to deliver redistricting data weeks before September 30. But it has been our experience with the 2010 Census processing, with the first half of the 2020 Census processing, and with the issues we already know we will encounter in the second half of the 2020 Census processing, that there is little to no chance of encountering this perfect world. This is a dynamic process and the Census Bureau is doing everything in its power to produce high-quality redistricting data as quickly as possible.

The September 30, 2021 Delivery Date

16. The Census Bureau's original plan was to release the redistricting data in a staggered fashion, releasing a group of states each week between February 18, 2021 and March 31, 2021. But by early 2021 it was clear that the Census Bureau could not meet its statutory deadline for delivering redistricting data to the states. Around the same time, my office received questions from our state liaisons about when we could deliver the data, and we wanted to provide this information to the States so that they could plan for the delay. The Census Bureau therefore sought to establish an achievable schedule for redistricting data that built in sufficient time for review and revision, and produced redistricting data that States could use with confidence.

17. To create the current working schedule, I coordinated with many different components of the Census Bureau about the time each office needed to perform its part of the process. These areas include: Decennial Response Processing System, Decennial Statistical Studies Division, Economic Reimbursable Surveys Division, Production Environment for Administrative Records Staging Integration and Storage, Demographic Directorate, Disclosure Avoidance System, Tabulation System, Center for Enterprise Dissemination Services and Consumer Innovation, Application Development and Services Division, Decennial Census Management Division, and the Census Redistricting and Voting Rights Data Office.

18. Recognizing that processing schedules are a snapshot based on past and current experiences, the working schedule that we created—estimating completion by September 30, 2021—takes into account the Census Bureau’s processing experiences thus far (such as the discovery of anomalies) and allows time for subject matter review and reruns of files, if necessary. To the fullest extent possible, it adjusts the sequencing and durations of some operations to achieve efficiencies. For example, the working schedule has allowed us to prepare ancillary files needed for creation of the CEF, while waiting for receipt of the CUF. Originally, these were to be processed after receipt of the CUF. This change allowed us to “save” several weeks in expected processing time.

19. But as discussed above and by Mr. Thieme, this highly complex operation involves iterative and interrelated review cycles to ensure processing is occurring as designed. This is crucially important because the finished CEF becomes the source of all decennial data for the next ten years. After completion and validation of the CEF, it is also essential that the Census Bureau process the country as a nation through the disclosure avoidance process to protect the confidentiality of all census respondents. These two necessities (completion of CEF and privacy protections) in particular push us deep into the planned schedule, well beyond the statutory deadline.

20. In addition, critical decisions are made using the data produced by the Census Bureau for the decade following their publication. The processing work that leads to the redistricting data products ensures the eventual quality of not only the redistricting data but all of the major decennial data releases that are used throughout the decade for public policy, funding formulas, business decisions, and many other uses.

21. To help states and the public plan, on February 12, 2021 the Census Bureau announced the new working schedule and published a blog (available [here](#)) that I had written describing our process and rationale.

22. Originally, we planned a staggered delivery so that we could order states based on their redistricting deadlines, prioritizing states that needed the data sooner. In our efforts to keep the redistricting schedule as short as possible while maintaining the quality of the data, however, we determined that a single national delivery would provide an overall shorter timeframe than a staggered release. That's because a single national release will enable us to compress several production and review activities. For example, by moving to a single national release, DVD/Flash Drive creation and review went from 37 days to 28 days; review of the tabulated data went from 36 days to 20 days; and the load-and-review process for the data.census.gov data website went from 42 days to 23 days.

23. The single national release will also allow the Census Bureau to ensure the delivery of redistricting data with finality, possibly saving time over a staggered release. When performing data reviews, there may be an error in one State that is not apparent except when viewed in another State or multiple States. These findings act as triggers to perform additional reviews to identify whether it is a systematic error that may require reprocessing of all States' data or if it only affects the State in which it was found. So a single national release allows the Census Bureau to complete the review of all the dissemination materials prior to release, thus reducing the likelihood of finding an error after the data for one State was released that would require us to retract that data, conduct

additional processing, and reproduce that State's corrected data much later. Because the Census Bureau will be unable to meet the statutory deadline to provide the redistricting data to the States, and with the urgency of supplying all States their data as soon as possible, it is thus more efficient for all States' data to be reviewed prior to dissemination.

24. The Census Bureau is aware that there are now a number of States, including Ohio, that will have to address statutory or state constitutional issues resulting from our delayed delivery of the redistricting data. Based on the National Conference of State Legislatures' webpage titled [2020 Census Delays and the Impact on Redistricting](#), at least 27 states have a requirement for redistricting to be completed in 2021 (either explicitly or implicitly). And each state has its own constitutional and statutory requirements, some of which include public meetings, data modification, and other requirements. So, with the delay in the delivery of the redistricting data, there are now too many states (at least 27) to prioritize, in a fair, logical, and data-driven manner.

25. It would be possible to have fully reviewed redistricting data for all States available by mid to late August, but the data would be in an older format of data the Census Bureau developed decades ago. These are a difficult-to-use series of files that are used in databases capable of creating relationships between tables and files. In order to be used correctly, the files must be imported into a database, relationships must be established between the files, and the State must pull a subset of records in those files and fields for only the geography and data categories the State wants to use. Given the difficulty in using data in this format, any State using this data would have to accept responsibility for how they process these files, whether correctly or incorrectly. The official census user-friendly DVDs/Flash Drives and [data.census.gov](#) webpage — that States expect for redistricting and do not require those types of databases or technical expertise — would still only be available on our current working schedule, as discussed above.

26. If the Census Bureau were to prioritize the DVD/Flash Drive and the [data.census.gov](#) webpage for one State's redistricting data (to the detriment of the other

49 states), it would not be able to deliver the data more than a few weeks earlier than a single national release. If the Census Bureau were to prioritize the older, more-complicated file format for one State's redistricting data (to the detriment of the other 49 states), it may be able to deliver that data a few days earlier than other States, at most. As explained above, the Census Bureau cannot produce data for any State until after the disclosure avoidance (privacy protections) have been applied, which requires processing data for all States at once. As a result, even if the Census Bureau prioritized the redistricting data for one State, it could only focus on that State after privacy protections (i.e., disclosure avoidance) are applied, and we would still need to create and review the data tabulations thereafter. However, if one State were prioritized through those reviews, the resulting data may have uncaught errors from being rushed through review without the benefit of review all States at once, perhaps ultimately sacrificing both accuracy and time (as discussed above).

27. Prioritizing one state would also divert the use of resources and systems that are needed for the national release and delay the release of data for the other 49 states. That's because prioritizing one State would mean focusing the Census Bureau's resources on that review and processing, delaying review for all other States. So even if the prioritized one State's data could advance the DVD/Flash Drive and data.census.gov webpage release by several weeks, the same data for the other 49 States would be delayed.

28. The Census Bureau's working schedule does not contemplate advantaging one State over the other 49. So the full extent of any additional delays resulting from the prioritization of one State over the other 49 would have to be determined by recreating the working schedule with the one prioritized State ahead of all others. Based on my current knowledge, attempting to prioritize one State may cause an additional delay by as much as several weeks, causing even further disruptions for the remaining 49 States' redistricting processes.

29. The current situation is understandably frustrating to Ohio, and to the majority of States. As the officer within the Census Bureau charged for advocating on behalf of the States in regard to the redistricting data program, I understand and share their frustration. But dedicated Census Bureau professionals are working as diligently and efficiently as possible to ensure that the data we provide for redistricting are produced as quickly and as accurately as we can accomplish.

30. I have read the foregoing and it is all true and correct.

DATED and SIGNED:

James Whitehorne

Chief, Census Redistricting and Voting Rights Data Office
United States Bureau of the Census