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Holtzman Vogel Josefiak Torchinsky PLLC
Attn: Mr. Jason Torchinsky and Mr. Phil Gordon
2300 N Street NW
Washington, DC 20037

May 14, 2021 Analysis of Black, Non-Hispanic Voting Age Populations by Alabama State Legislative Districts, via email

Jason and Phil,

   I am writing in response to your request to estimate the percent of Black, non-Hispanic (BNH) Voting Age Population (VAP) of the Total VAP by current Alabama Legislative (lower house) districts using the recently released vintage 20210418_4-5 Census DP dataset[1]. Specifically, I have been asked to investigate any districts that may have changed from being a Black majority-minority district to simply a Black minority district. One such candidate district is District 32, which shows a slight *majority* BNH VAP in the original, published Census 2010 SF dataset. I declare under penalty of perjury that the foregoing is true and correct according to the best of my knowledge, information and belief.

<u>Analytic Summary</u>

   In the recent 20210418 DP release, the Census Bureau does not provide data for current legislative and senate districts. Therefore, a "crosswalk" needs to be built to assign their reported block-level data to the appropriate current legislative districts. The Census Bureau publishes just such a crosswalk[2] in a Block Equivalency File (BEF) which I used to assign each of 252,266 Alabama census blocks to their corresponding legislative district. I independently validated this file in my geographic information system to ensure the block assignments were true and correct.

   To perform my analysis, I selected variable H75006: Not Hispanic or Latino: Population of one race: Black or African American alone (BVAP) as my numerator and H75001 (Total VAP) as my denominator. I summarized these variables for each of the 105 Alabama Legislative (lower house) districts for the original, published 2010 SF dataset, then replicated these same variables from the recently released vintage 20210418_4-5 Census DP dataset.

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[1] https://www.nhgis.org/privacy-protected-demonstration-data#v20210428_12-2
[2] https://www.census.gov/geographies/mapping-files/2018/dec/rdo/2018-state-legislative-bef.html

<u>Analytic Findings</u>

I found that District 32 has 17,750 BVAP and 35,496 Total VAP (50.01%) in the SF file and has 17,697 BVAP and 35,485 Total VAP (49.87%) in the DP file. This illustrates that District 32 was a Black non-Hispanic majority-minority district under the SF dataset but would *not* have been a Black non-Hispanic majority-minority district under this most recent 20210418 DP dataset.

I offer this additional assessment: I performed this same analysis on the 20201116 DP dataset that was released by the Census Bureau last November, 2020. In that analysis, my estimates from the SF dataset match my current estimates exactly (as they should). The estimates from the DP dataset showed 17,842 BVAP and 35,514 Total VAP (50.24%) – suggesting an *increase* over the original 50.01% in the SF file and retaining its status as a Black non-Hispanic majority-minority district. Not the *decrease* below 50.00% we see in the current DP file.

In comparing the recently released 20210418 dataset with the 20201116 dataset released last fall – the difference in whether Alabama Legislative District 32 is actually a majority-minority district only depends on how the Census Bureau's DP system randomly re-assigns populations (both total and sub-groups).

Respectfully submitted,

Thomas Bryan