EXHIBIT HHH
Declaration of Dr. Michael McDonald

Summary

I previously offered an initial expert report and reply expert report in this case. These reports are Exhibits Q and BBB to the Plaintiffs’ Motion for Preliminary Injunction, and to Advance and Consolidate the Trial on the Merits or, in the alternative, for Summary Judgment. I make this declaration in support of the same motion.

In this declaration, I analyze Maryland congressional redistricting plans and associated statistics present in redistricting software known as Maptitude that were produced to Plaintiffs by the office of Maryland Senate President Thomas V. “Mike” Miller, Jr. I understand that these files resided on a laptop that was used by Senate President Miller’s staffer, Yaakov “Jake” Weissmann for analyzing and drawing congressional maps during the 2011 redistricting process. The characteristics of these redistricting plans and the timing of when external plans were loaded into the redistricting software, or when a user drew plans with it, provide evidence of what was known to Senate President Miller and his staff at particular stages of Maryland’s 2011 congressional redistricting process.

Nearly all of the plans present on Senate President Miller’s Maptitude software appear to be entire, well-formed plans created by external entities. These Maptitude data files produced by the office of Senate President Miller provide insights to Maryland’s redistricting process.

- Senate President Miller and his staff had election data that permitted his office to evaluate the Democratic performance of redistricting plans on the Maptitude software. The Maptitude software also had partisan registration and past turnout data.

- The first three plans loaded into the Maptitude software had a highly Republican Sixth Congressional District that largely followed the pre-redistricting, benchmark district. President Miller and his staff were thus reasonably aware that the Sixth Congressional District could be drawn similar to its prior configuration.

- Two plan proposals were loaded into President Miller’s Maptitude software on October 3, 2011—the day before the Governor Redistricting Advisory Commission (GRAC) released its proposed congressional map. One option, shown at Figure 4, follows more closely the Maryland-Pennsylvania border, before curving to the south along its eastern boundary. Another option, shown at Figure 5, appears to be the basis for the adopted Sixth Congressional District, in that it largely follows the Maryland-Virginia border along the Potomac River. The first option has a democratic performance of 50.50%; and the second option has a performance of 51.36%. The second option, with the higher democratic performance, was chosen as worthy of further plan development.

- It appears that Senate President Miller’s staffer, Mr. Weissmann, made relatively minor alterations to the first of these proposals to arrive at the GRAC’s map. These alterations increased the democratic performance of the Sixth Congressional District.
Governor O’Malley’s congressional plan released on October 13, 2011 is identical to the plan passed by the legislature and signed into law. The democratic performance of the Sixth Congressional District in this plan is 52.61%, increasing its Democratic performance yet further.

In summary, it is my opinion this analysis reveals that whoever was producing maps for Maryland Democrats relied upon election data, including democratic performance metrics, to create a Sixth Congressional District with the intention to disfavor Republicans residing within the district. The goal was to create a Democratic district, not a competitive district, as configurations that would have produced a competitive 50% democratic performant district were not explored further.

Data Analyzed in this Declaration

Plaintiffs’ counsel provided me with data files that I have been represented to me to be a Maptitude database of redistricting information originating from Maryland Senate President Miller’s office. Forensic analysis of these data reveals that this database contains at least the following information:

- Census Bureau population data of census blocks from the PL94-171 data release, commonly used for redistricting purposes.

- A file called “MD_BLOCK_DEMPERF_2012.txt” which contains a variable called “DEMPERFIDX”, which appears to measure the Democratic performance of census blocks using an unknown composite of elections. When census blocks are assigned to districts, the overall Democratic performance of districts can be measured using these data.

- Fourteen distinct congressional redistricting plans, and backup files of these same plans. These plans have associated names and dates suggesting the origin of a plan and the date when the plan was loaded into President Miller’s Maptitude system.

In addition to these Maptitude data files, Plaintiffs’ counsel provided me with map images of plans that were represented to me as originating from President Miller’s office. The plans represented by these map images can be corresponded with plans present in the Maptitude system. Sometimes the map images are given different names than plans as they are named within the Maptitude system.

These plans provide evidence of the information that Senate President Miller’s staff was aware of during Maryland’s redistricting process and evidence of the goals President Miller’s office was internally pursuing. There are three important dates in Maryland’s redistricting process that, when compared to the Maptitude file dates, reveal when information and actions were taken during the process.
The Governor Redistricting Advisory Commission released its congressional plan on October 4, 2011.

Governor O’Malley released his map on October 13, 2015.

Senate Bill 1 (SB1) was introduced on October 17, 2011. The Senate amended and passed the bill on October 18, 2011. The House further amended and passed their version of the bill on October 18, 2011. The Senate agreed to the House amendments on October 20, 2011. Governor O’Malley signed the bill into law on October 20, 2011.¹

A plan’s file creation date indicates the time a plan was loaded into the Maptitude software or edits were made to a plan. For plans that were loaded into Senate President Miller’s Maptitude system, we cannot know from these data when an external mapper created a plan or the intermediate steps that were taken by the mapper in formulating the plan.

**Analysis of Plans**

I discuss the plans chronologically with respect to the dates a plan was created in Senate President Miller’s Maptitude system or when it was publicly released.

**Benchmark District**

The benchmark – i.e., pre-redistricting – Sixth Congressional District does not have a plan file present in President Miller’s Maptitude software. However, it is identified in the PL94-171 redistricting population data provided by the Census Bureau. I present it in this supplemental report for comparison purposes.

In Figure 1, I illustrate the boundaries of the benchmark Sixth Congressional District, similar to the one presented in my first report (Initial Report, p.18).

I color the Sixth District in a transparent yellow in this map and subsequent maps to assist readers in identifying the territory assigned to the Sixth District.

**Black Caucus Plans (September 15, 2011)**

Two plans identified as “Black Caucus A” and “Black Caucus B” appear in President Miller’s Maptitude software on September 15, 2011. These two plans have the same configuration of the Sixth Congressional District and Eighth Congressional District, and appear to be alternative explorations of the remainder of the state.

I present in Figure 2 the Black Caucus A plan’s Sixth Congressional District. The district largely follows the benchmark Sixth District’s boundaries, presented in Figure 1. The major changes are that this proposed Sixth Congressional district does not extend as far to the east, such that the district contains no portion of Harford County and a smaller portion of Baltimore County. To compensate for this lost population, the proposed district contains more of Montgomery County.

This configuration of the Sixth Congressional District has a Democratic performance of 38.83%.

These plans show that, prior to the release of the GRAC map, Senate President Miller and his staff were aware that it was possible to redraw the boundaries of the district in a way that would not so dramatically dilute its Republican performance.

**GOP Plan (September 15, 2011)**

A plan identified as “GOP Plan” was appears in President Millers’ Maptitude software on September 15, 2011.

I present in Figure 3 a map of the Sixth Congressional District for the GOP Plan. Like the Black Caucus maps, this configuration of the Sixth Congressional District largely follows the benchmark district. The differences are the district does not cross the Montgomery Country border, does not cross the Harford County border, and includes more of northern Baltimore County,

The Democratic performance of the Sixth Congressional District in the GOP Plan is 38.40%.

As with the Black Caucus plans, the GOP plan illustrates that Senate President Miller’s office was reasonably aware that a Republican performant Sixth Congressional district could be drawn.

**Congressional Option 1 and Congressional Option 2 (October 3, 2011)**

Two plans called “Congressional Option 1” and “Congressional Option 2” (also labeled Plan Av2 and Plan A7, respectively in the files) appear in Senate President Miller’s Maptitude software on October 3, 2011. These plans have two different approaches to create a majority-Democratic Sixth Congressional District.

Congressional Option 1 is presented in Figure 4. This is the configuration of the Sixth Congressional District that, apparently, did not merit further consideration. The district follows the northern Maryland state border, splitting Washington County while reaching out to incorporate Hagerstown. The district carves an arc out of Frederick County to include Westminster, Mount Airy, and Frederick. The district then splits Montgomery County, wrapping around to the northeast of Gaithersburg and Rockville. The Eighth District includes the remainder of Frederick County and much of the remainder of Montgomery County needed to balance population.

The Democratic performance of Congressional Option 1 is 50.50%.

Congressional Option 2 is presented in Figure 5. The Sixth Congressional District in this plan largely follows the Potomac River on the Maryland’s southern border, all the way to the Maryland-DC border. This configuration of the Sixth Congressional District does not split Washington County. The district splits Frederick County, including all of Frederick and Walkersville in the district. In Montgomery County, the district splits Gaithersburg and Rockville. This approach is very similar to the enacted Sixth Congressional District.

The Democratic performance of Congressional Option 2 is 51.36%.
These plans are significant because they undermine Dr. Lichtman’s argument that Democrats’
goal was to create “a more competitive district” (Lichtman Report, p.48). The proposal with the
higher democratic performance was the configuration of the Sixth Congressional District deemed
worthy of further exploratory mapping, while the configuration with the lower Democratic
performance (a more competitive district) was abandoned from further consideration, as no
subsequent plan incorporates its boundary concepts.

Final GRAC Map (October 4, 2011)

The Final GRAC Map was officially released on October 4, 2011, but was not loaded in Senate
President Miller’s software until October 14, 2011. The plan is called “Congressional Option 3”
and “congressional option 3-1” in Senate President Miller’s software.

I present the Final GRAC Map in Figure 6. Congressional Option 2 appears to be the basis for
plan development leading to the Final GRAC Map. Republican areas of Frederick County were
cut from Congressional Proposal 2’s Sixth Congressional District, leaving a cutout of Frederick
within the district. The Sixth Congressional District was reconfigured so that it did not stretch to
the DC border. To the naked eye, it no longer appears to split Gaithersburg or Rockville, instead
included the whole of Gaithersburg and wrapped around Rockville to pick up more territory in
the central-east portion of Montgomery County.

This plan development strategy is consistent with my prior redistricting work for redistricting
authorities. Once a broad approach is approved, additional fine-tuning of a plan’s districts is
conducted until satisfactory districts are created.

The sum of the political effects of these changes was to increase the democratic performance of
the Sixth District from 51.36% in Congressional Option 2 to 52.81% in the Final GRAC Map.

These changes again suggest that a goal of the GRAC was to maximize the democratic
performance of the Sixth Congressional District, to the further detriment of Republican voters
residing within the Sixth Congressional District. The goal was not to create a competitive Sixth
Congressional District.

Options 1, 2, and 3 (October 12, 2011)

Following the formal adoption of the Final GRAC map on October 4, 2011 and the Governor’s
plan on October 15, 2011, a series of three plans with file dates of October 12, 2011 appear in
President Miller’s Maptitude software. These plans are labeled as Option 1, Option 2, and Option
3 in map images provided to me, so I will use these names. In the software they have the names
“111012 Group”, “111012 Group2”, and “111012 Group Zeroed Out.” Backup file data indicate
someone, most likely Mr. Weissmann given his declaration, used President Miller’s Maptitude
software to actively create redistricting plans on October 12, 2011, rather than passively importing redistricting plans from external sources.2

I present these two of these three options in Figure 7 and Figure 8. Figure 7 shows Option 1, which nearly identical to the Final GRAC Map. Figure 8 presents Option 3, which makes minor changes around the edges of Option 2. Consistent with this observation, the Maptitude names suggest that the primary difference between Option 2 and Option 3 is that the population was balanced to equality between the congressional districts. I do present a map of Option 2 for this reason.

Option 1 appears to be based on the Final GRAC Map. The Sixth Congressional District is identical, but there are other changes to other districts. This configuration thus appears to represent the configuration of the Sixth Congressional District acceptable to the person using Senate President Miller’s software on October 11, 2011, as it was frozen into place while mapping occurred elsewhere.

Option 1 has a Democratic performance of 52.81%, which is identical to the Final GRAC Map.

Option 3 represents an alternative configuration of the Sixth Congressional District with the substantive changes from the Final GRAC Map being the swapping of the entirely of Rockville and Gaithersburg between the Sixth and Eighth Congressional Districts, no longer wrapping the Sixth District around Rockville, and extending the Sixth District to the Maryland/DC border.

Option 3 has a Democratic performance of 52.89%, slightly higher than the Final GRAC Map.

I do not know if Option 3 was shared with anyone outside of Senate President Miller’s office.

Final Governor Map (October 13, 2011)

On October 15, 2011 Governor O’Malley publicly released his proposed redistricting plan. This plan was eventually adopted by the legislature and became the adopted plan. The plan appears two days earlier in Senate President Miller’s Maptitude system on October 13, 2015, with the name “Congressional Option 4.” I will refer to this plan as the “Final Governor Map,” which is the name of the plan as it appears in the map images provided to me.

I provide a map of the Final Governor Plan’s Sixth Congressional District in Figure 9. The Final Governor Map’s Sixth Congressional District is substantially similar to the Final GRAC Map, except for some minor differences. The Sixth Congressional District in the Final Governor Map has an odd rabbit-earred extension of the Eighth Congressional District on the western portion of Rockville, crossing the Rockville boundary. This Final Governor’s Plan also gives a small portion of the Sixth Congressional District along the southern-most portion along the Potomac River to the Eighth Congressional District. In exchange for losing population in these areas, the isthmus joining the northern and southern portions of the Eight Congressional District is made narrower, and a dagger-shaped sliver is sliced into the Eighth Congressional District just north of

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2 The plan names also suggest mapping activity on October 12, 2011 if in “111012” the first two digits represent the year, the next two digits represent the month, and the last two digits represent the day.
this narrowed isthmus. I have no information as to why these changes were made, but in my prior redistricting experience these changes are often a result of map drawers anticipating future candidates to offices and strategically placing their homes within desired districts. I understand that the parties have stipulated that these changes are not material to the issues being litigated in this case.

The Final Governor Map, which becomes the adopted plan, has a Democratic performance of 52.61%, 0.2 points lower than the Final GRAC Map and 1.25 points higher than Congressional Option 2.

Option 4 (October 16, 2011)

Following the release of the Final Governor’s Plan on October 15, 2011, someone – most likely Mr. Weissmann – used Senate President Miller’s Maptitude system to edit the Sixth Congressional District. This exploratory map appears based on the Final Governor’s Plan, and was created on October 16, 2011. This plan is called “111016 Plan” in Senate President Miller’s Maptitude software, and is identified as “Option 4” in the map images provided to me.

I provide a map of Option 4 in Figure 10. The Sixth Congressional District in this plan appears to cut a larger portion from the Sixth Congressional District around the rabbit-eared extension west of Rockville in the Final Governor’s Map and begins to balance back the lost population by adding territory assigned to the Eighth District, such as the portion along the Potomac excised from the GRAC Final Map’s Sixth Congressional District.

This plan’s Sixth Congressional District is clearly an incomplete test map as its population is not balanced and it has noncontiguous holes.

The Democratic performance of this district is 51.58%.

Although I cannot know why this plan was abandoned, a plausible explanation is that further lowering of the Democratic performance of the Sixth Congressional District was deemed unacceptable.

Un-Named Plan (FLHPAC Plan, October 17, 2011)

A plan named “FLHPac Plan,” an apparent reference to the Fannie Lou Hammer Political Action Committee, appears in President Miller’s software on October 17, 2011. The plan has four Democratic and four Republican Congressional Districts. The Sixth Congressional District has a Democratic performance of 38.05%.³

This plan was apparently not considered by the Democrats nor was explored further in test mapping, so I do not provide a map or further analysis. The mapdrawers’ evident refusal to consider a map with so low a federal DPI for the Sixth District is consistent with an intent to draw the Sixth District as a safe district for Democrats.

³ The district that includes the panhandle counties is labeled CD1 in this plan, and is most analogous to the Sixth Congressional District.
SB1 Map (October 18, 2011)

Senate Bill 1 is named “SB1 Map” in the map images provided to me and is named “SB1 Plan” in Senate President Miller’s Maptitude software. Although the plan was introduced in the Maryland Senate on October 17, 2011, the creation date for the Maptitude plan and all backup files for this plan is two months later, on December 18, 2011. This suggests that Senate Bill 1 may have been developed by someone outside of Senate President Miller’s office.

SB1 makes small changes to the Final Governor Map, primarily around Frederick.

The Democratic performance of the Sixth Congressional District is 52.62%.

**Conclusion**

In summary, it is my opinion, based on a forensic analysis of the Maptitude files provided to me and the analyses in my initial reports (Exhibits Q and BBB), that the drafters of Maryland’s 2011 redistricting plan intended to draw the Sixth District so as to dilute Republican votes and ensure the election of Democratic candidates for office in the district.

Date: July 6, 2017

Prof. Michael P. McDonald, PhD
Figure 1. Benchmark Sixth Congressional District.
Figure 2. Black Caucus Plans (A & B) Proposed Sixth Congressional District.
Figure 3. GOP Plan, Proposed Sixth Congressional District.
Figure 4. Congressional Proposal 1, Proposed Sixth Congressional District.
Figure 5. Congressional Proposal 2, Proposed Sixth Congressional District.
Figure 6. Final GRAC Map, Proposed Sixth Congressional District.
Figure 7. Option 1, Proposed Sixth Congressional District.
Figure 8. Option 3, Proposed Sixth Congressional District.
Figure 9. Final Governor Map (Adopted by Legislature), Adopted Sixth Congressional District.
Figure 10. Option 4, Abandoned Plan for Sixth Congressional District.