



3. In paragraph 5 of his declaration, Dr. Saad claimed that I used an “entirely new” methodology for the charts attached as Exhibit B to my declaration of October 11, 2019. Dr. Saad’s claim is exaggerated. In my previous analyses of Dr. Saad’s study of requisition assignments given their initial global career levels (as described in my rebuttal report and in Charts R1 and 2R of that report), I used the Fisher’s exact test for each global career level pool of requisitions aggregated across the years. I subsequently designed the Exhibit B charts (as described in my declaration) to respond to his rebuttal criticism that I only looked at the three largest pools and did not consider requisitions for other global career levels or analyze the differences by year of requisition. To respond to his rebuttal critique, I used Fisher’s exact test (the same methodology) but applied it to the multiple competitions for each year and each global career level for which there were requisition hires. I used the same methodology, but applied it to multiple pools (as is standard in the research literature) reflecting all of the global career level requisitions and year combinations that Dr. Saad wanted considered.

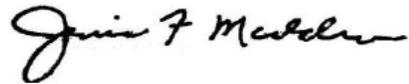
4. At paragraph 6 of his declaration, Dr. Saad criticized me for not including age and educational controls for the Exhibit B requisition analyses. I did not control for age and education because I was responding to Dr. Saad’s analyses of requisitions in his original report and rebuttal report, neither of which control for age or education. In my reply to his analyses, I utilized his approach, which simply examined gender or race counts relative to whether the job at hire is at the same, at a lower, or at a higher level than the level specified in the requisition. Dr. Saad did not use age or educational controls in his original or rebuttal reports for his analyses of requisitions, so my reply to these analyses also did not. I did not use these controls for the requisition analysis response in my rebuttal nor in the table in Exhibit B attached to my declaration because I was replicating his analyses. I was responsive to his approach.

5. At paragraph 7, he incorrectly claimed my analyses in Exhibit B aggregated across global career levels. They did not. I reported the results when the outcome for each global career level pool and year was separately analyzed in order to test whether there is a *pattern* of bias across these assignments of global career levels, once year and the global career level of each requisition were controlled. I used all global career level pools because, as I testified at my deposition, most, other than the three single global career level pools I described in my rebuttal report, have insufficient data to analyze individually with statistical methods. I did control, as indicated in the table title and in the backup data for Exhibit B, for each global career level and year. Each assignment decision was evaluated only within the requisition global career level and year that is was made. The controls used were completely consistent with my prior analyses, and Dr. Saad's analyses, of these requisition data.

6. At paragraph 8, Dr. Saad claimed that he found considerable "variety" in outcomes by race and gender for each year and global career level in the backup data to my Exhibit B. First, the term "variety" is not a term used in scientific research. Second, if he meant to use variability instead of variety, the bottom line is that the statistics (that is, the scientific test of variability) indicate a pattern of bias in outcomes for assignments at hire across these year and global career level requisitions. Dr. Saad did not provide any evidence of variety or variability. Simply observing that some jobs with a particular requisition global career level in a given year have few appointments or have no large racial or gender disparities does not counter the finding that jobs within the same requisition levels in each year show a *pattern* of disparities by race or gender. A statistical test is required to evaluate the *pattern*. The statistical test considers the relative sizes of pools and of gender and racial disparities. The test does not "mask" disparities, but is the scientific standard for determining whether disparities exist.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on November 7, 2019 in Philadelphia, Pennsylvania.

A handwritten signature in black ink that reads "Janice F. Madden". The signature is written in a cursive style with a large initial "J" and a distinct "F".

JANICE F. MADDEN