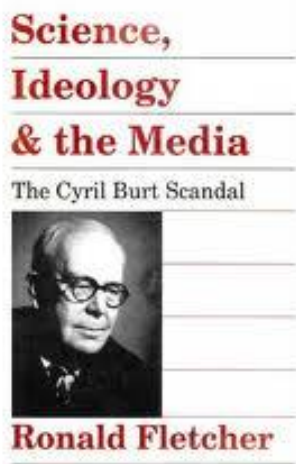# Janet Mertz on Ron Unz's "Meritocracy" Article

I'm an academic, not a political activist. My current job title is the Elizabeth McCoy Professor of Oncology at the University of Wisconsin – Madison. I have published over 80 primary research articles in peer-reviewed scientific journals and served on the editorial boards of three scientific journals. I became involved in the discussion of Ron Unz's Meritocracy article (http://www.theamericanconservative.com/articles/the-myth-of-american-meritocracy/) because I am a leading expert on the demographics of top-scoring participants in the high school International Mathematical Olympiad (IMO) and the US/Canadian inter-collegiate Putnam Mathematics Competition. I have published three peer-reviewed articles that include data directly related to this topic [http://www.ams.org/notices/200810/fea-gallian.pdf; http://www.ams.org/notices/201201/rtx120100010p.pdf; Hyde & Mertz, *Proc. Natl. Acad. Sci. USA*, **106**: 8801-8807, 2009 (accessible for free via Pubmed)]. Had Unz read my 2008 *Notices* article, he would have known his claim that Jewish achievement in these two competitions had collapsed in the 21st century (which was cited by David Brooks in the New York Times) was simply not true. Other than being Jewish myself, I have no vested interest in the questions Unz raises in his article given my offspring have already graduated from elite colleges.

The primary questions addressed in this article are the following:
- (i)   Do the Ivy League colleges use ethnic/racial quotas that discriminate against some ethnic/racial groups (e.g., Asian-Americans; non-Jewish, non-Hispanic whites) in their decisions regarding whom to admit?
- (ii) Does the academic performance of very high performing immigrant groups (e.g., Jews) collapse by the time they are 3rd or 4th generation Americans?

I, too, would like to know the answers to these questions. I readily appreciate that Unz has done a huge amount of work compiling and analyzing a large body of relevant data from a variety of sources. Unfortunately, I believe we cannot yet draw definitive conclusions from his study because, as Prof. Gelman has already written (http://andrewgelman.com/2013/02/12/that-claim-that-harvard-admissions-discriminate-in-favor-of-jews-after-checking-the-statistics-maybe-not/), Unz employed a mixture of methodological approaches with different sources of large errors that were additive, including at least one highly subjective one.

As an academic, I would be delighted to see Mr. Unz publish a revised version of his article where we can all agree the conclusions, whatever they turn out to be, are based upon solid data obtained using appropriate methods. Unfortunately, he has yet to even admit to, let alone address, *any* of the substantive issues raised by Prof. Gelman, N.B., me, and some of the other commenters on Gelman's blog. He even still insists that he was correct to state that "just two of the 78 names of Math Olympiad winners appear to be Jewish" even after it was repeatedly pointed out to him that "Oaz Nir" is a Hebrew Jewish name that he failed to count. The actual count of Jews is at least 10¼ out of 78 (counting part-Jews fractionally), *i.e.,* 5-fold higher. When an author refuses to admit to an error about which there is no possibility he is correct, academics have no choice but to then question the validity of everything that author has ever written because they can no longer trust the veracity of his statements. Much of what Unz reports in his article may well be true. However, given Unz's stance, we have to assume otherwise until he is willing to rewrite this article, making the changes necessary to produce an article in which we can believe his data and conclusions. As Unz himself has stated in the past, "Science largely runs on the honor system, and once simple statements of fact . . . are found to be false, we cannot trust more complex claims made by the particular scholar" (http://www.theamericanconservative.com/articles/race-iq-and-wealth/).

Below are suggestions for revisions that I believe are necessary to address the major concerns of Unz's article from my perspective as a serious academic researcher:

1. The recent Hillel data appear to be a major source of error. The numbers for Harvard and Yale are highly suspect in part for reasons stated by N.B (http://andrewgelman.com/2013/02/12/that-claim-that-harvard-admissions-discriminate-in-favor-of-jews-after-checking-the-statistics-maybe-not/#comment-139754). For example, it is highly implausible for the *total* undergraduate Jewish enrollment at Yale to jump from 22.6% in 2007 to 30% in 2008 and then back down to 23% in 2009. Likewise, it is statistically improbable that the percent Jews at Harvard, Brown, Columbia, and UPenn could recently have all been *exactly* 25% for 4 or more consecutive years. Even if their admissions committees were trying to have a 25% quota on admissions of Jews, how could there be absolutely no statistical fluctuation between admissions and acceptances? How could the colleges even know they were admitting exactly 25% Jews when many of their Jewish applicants lack Jewish surnames and don't live in predominantly Jewish neighborhoods? Thus, in the 21st century, these Hillel numbers absolutely cannot be assumed to be accurate reflections of the percent Jews at colleges such as Harvard that no longer collect data from incoming freshmen regarding their religious preferences. Rather, Unz needs to determine the undergraduate Jewish enrollment at these colleges using a different, more accurate method, ideally the same one he uses to determine the percent Jews among high academic achievers so that, even if this method yields data that differs from the actual percent Jews, the same error will exist in both the numerator and denominator, thereby likely cancelling as discussed by Prof. Gelman (http://andrewgelman.com/2013/02/12/that-claim-that-harvard-admissions-discriminate-in-favor-of-jews-after-checking-the-statistics-maybe-not/).

2. Likewise, the NCES/IPEDS data Unz uses for the percent Asian-Americans attending these elite colleges is also a significant source of error. In this case, the problem partly lies with the fact that these data include *all* undergraduate students taking classes at these schools (e.g., Harvard Extension), not just the ones admitted to the prestigious undergraduate programs. For example, according to the Harvard College Office of Admissions, the Harvard College

Class of 2016 includes 21% Asian-Americans (http://www.admissions.college.harvard.edu/apply/statistics.html), significantly higher than the 15%-16% quota Unz claims exists. Possibly, much of the disparity is due to how "2 or more races" and "not indicated" are counted, percents that sum to 10% or more. Thus, the data presented throughout Unz's article needs (i) to include only students admitted through the elite college admissions process, and (ii) to indicate clearly how bi-racial students are being counted.

3. The primary method Unz employed to determine race/ethnicity is "direct inspection" of each name. I agree that it may be the only reasonable method to use in evaluating data sets that contain hundreds of students given this number is (i) too large to use my labor-intensive method of obtaining definitive knowledge about each individual student via direct contact with them, people who know them well, or credible web site sources, yet (ii) too small for the Weyl method given Jews are currently less than 2% of the US population. Unfortunately, Unz's direct inspection method is both highly subjective and highly error prone.

People who use a subjective method tend to unconsciously introduce bias by counting different sets of data using altered methods, creating the result they are hoping to see even when it might not actually be so. This is human nature. The standard method scientists use to prevent subjective error from occurring is to have the experimenter "blinded" to knowledge regarding the source of the data they are analyzing. If Unz desires to have his article meet basic standards of academic rigor, he absolutely needs to do likewise, especially given that his use of the direct inspection method failed spectacularly in estimating the percent Jews when the actual ethnicity of the students was known. For example, he over-counted percent Jews on 1970s US IMO teams by at least 50% by including numerous students with ethnic German or Polish surnames that are rarely, if ever, Jewish (many of whom we have confirmed are not Jewish). On the other hand, he at least 5-fold under-counted Jews on the 21st-century teams in part by excluding some likely (*e.g.,* Nir) or quite possibly (*e.g.,* Miller) Jewish names while no longer counting as Jewish an ethnic German name (Mildorf). In other words, Unz failed to maintain a consistent methodology for identifying Jews. Thus, Unz identified only 2 Jewish names out of the 78 team members (including duplicates), while we have definitively identified at least 10¼ (giving half- or quarter-weight, as appropriate, to part-Jewish students). To see the names of some of these Jewish students Unz failed to count, go to (http://andrewgelman.com/2013/02/12/that-claim-that-harvard-admissions-discriminate-in-favor-of-jews-after-checking-the-statistics-maybe-not/#comment-139757).

All of Unz's published analysis of Jewish academic achievement was predicated on his ability to identify Jews on the basis of their names. Given that his method generated dramatically wrong findings for the one data set where we know the actual ethnic backgrounds of the students, it calls into serious question *all* of the conclusions in his article that relate to Jews.

It may still be possible to properly research this topic. However, to do so, Unz first needs to decide which types of names he desires to count as Jewish and then to hire someone to independently perform these analyses who has no knowledge whatsoever regarding the source of each list of names he wishes to have analyzed. Ideally, he should have several people independently perform these analyses to obtain an estimate of the precision in using this method. As a crucial control, Unz should generate several lists of names containing known 21st-century Jewish and white Gentile elite college students to determine the accuracy as well

as precision with which his blinded experimenters are able to estimate the actual percent Jews among 21st-century elite college students.

If desired, Unz could, likewise, determine the accuracy and precision of Weyl's method for this particular Jewish population. He should also clarify exactly how he performed Weyl Analysis given his published list of distinctively Jewish names is somewhat ambiguous and not identical to Weyl's own list. Unz claimed that his direction inspection method yielded results virtually identical to Weyl's method with his National Merit Scholar (NMS) semi-finalists data set. However, this finding is not sufficient evidence to claim his method is fine since both methods may suffer from similar large errors, *i.e.,* under-counting 21st-century non-ultra-Orthodox Jews. Knowing these errors, he could then use them as correction factors to obtain a range of likely actual percent Jews in each data set of interest. The data should be presented as ranges of values, along with *p*-values for statistical significance whenever comparing two percentages. As previously stated by Gelman (http://andrewgelman.com/2013/02/12/that-claim-that-harvard-admissions-discriminate-in-favor-of-jews-after-checking-the-statistics-maybe-not/), Unz should try to employ the same method, wherever possible, when comparing numbers so that the errors will be similar, hopefully cancelling each other.

Quite likely, Unz will discover that the errors are too large to enable generation of statistically significant data, at least for the smaller data sets. In this case, Unz will need to omit from his article all of the data and related conclusions based on his assumption that he could successfully estimate percent Jews from these lists of names. I predict that both the Weyl and direct inspection methods under-count the percent Jews among undergraduate students attending elite colleges because almost all of the Jews attending them are non-ultra-Orthodox Jews who are much more likely than the ultra-Orthodox ones to have Anglicized their names or inter-married. Fortunately, the use of a correction factor, once determined, may allow Unz to obtain meaningful results for the largest data sets (*e.g.,* NMS semi-finalists and Harvard College students).

4. As noted by N.B. (http://andrewgelman.com/2013/02/12/that-claim-that-harvard-admissions-discriminate-in-favor-of-jews-after-checking-the-statistics-maybe-not/#comment-141813), Unz's NMS semi-finalist lists were rather incomplete, *i.e.,* they were missing data from multiple states, including some of the key ones such as Massachusetts and New Jersey from which Harvard and other Ivies draw many of their students. Rather than simply averaging the data from each state in proportion to its population, Unz needs to include weighting factors that take into account (i) the geographic distribution of students attending each college, and (ii) an estimate of the percent of each state's NMS semi-finalists who scored 220 or above on the PSAT. The latter is important since most of the students admitted to the very top ranked colleges such as Harvard have SAT scores of 2,200 or more, corresponding to a PSAT score of 220. While students typically need to score 220 or more for NMS semi-finalist status in states such as MA (where non-Jewish white NMS semi-finalists are under-represented in proportion to their population according to Unz's figures), MD, DC and NJ, students can achieve NMS semi-finalist status with scores below 210 in states such as AL, IA, OK and WI. In these lower-qualifying score states, N.B. notes that the NMS semi-finalists are over 80% non-Jewish white (http://andrewgelman.com/2013/02/12/that-claim-that-harvard-admissions-discriminate-in-favor-of-jews-after-checking-the-statistics-maybe-not/#comment-142949).

5. Most of the Asian-Americans on recent US International Olympiad teams and among the Intel Science Talent Search top 40 are immigrants or children of recent immigrants to the US. Unz claimed the same is true of the very highest-performing Jews: "Roughly half of the Jewish Math Olympiad winners from the last two decades have had the sort of highly distinctive names which would tend to mark them as recent immigrants from the Soviet Union or elsewhere . . . even though this group represents only about 10 percent of current American Jews. Indeed, it seems quite possible that this large sudden influx of very high performing immigrant Jews from the late 1980s onward served to partially mask the rapid concurrent decline of high academic achievement among native American Jews, which otherwise would have become much more clearly evident a decade or so earlier." Based upon direct personal knowledge about these students, I know that at least 65% of the 21st-century Jewish US IMO team members are at least 3rd-generation Americans. This number would, actually, be considerably higher except for the fact that many of these long-term US residents are only ½ or ¼ Jewish due to inter-marriages and, thus, counted the corresponding fraction Jewish, with the rest of their heritage being counted among the non-Jewish whites.

Unz goes on to state, "For example, among Math Olympiad winners, white Gentiles scarcely outnumbered Jews during the 1970s, and held only a three-to-two edge during the 1980s and 1990s, but since 2000 have become over fifteen times as numerous. Between 1938 and 1999, Putnam Exam winners had averaged about two white Gentiles for every Jew, with the ratios for each decade oscillating between 1.5 and 3.0, then rising to nearly 5-to-1 during 2001–2005, and without a single Jewish name on the winner list from 2006 onward (Table 1a)." Yet again, Unz's claims are simply not true because his direct inspection method is both (i) highly inaccurate, and (ii) ignores the fact that a large percent of the Putnam Fellows are international students who only arrived in the US to attend college here. My data from direct knowledge regarding the 21st-century students who participated in these mathematics examinations indicates the ratios of US non-Jewish whites to US Jews is actually at most 2.5 since 2000 for both the US IMO team members and the Putnam Fellows (Table 1b); Jewish Putnam Fellows since 2006 include my own son.

Table 1a. Race/Ethnicities of Recent Putnam Fellows As Determined by Guessing from Students' Names (Unz)				
Period	Non-Jewish White	Asian	Jewish	Foreign
2000-2009	52%	37%	12%	Not Determined
2010-2011	50%	50%	0%	Not Determined

Table 1b. Race/Ethnicities of Recent Putnam Fellows As Determined by Direct Knowledge (Mertz)				
Period	US Non-Jewish White	US Asian	US Jewish	Foreign*
2000-2009	≤33%	≤17%	≥15%	≥34%
2010-2011	≤40%	≤10%	≥10%	≥40%

*Foreign students were counted by determining which ones had been members of non-US IMO teams prior to matriculation to college in the US or Canada; students who had not participated in the IMO were assumed, possibly incorrectly, to be US ones.

Thus, the reality is that the ratio of US non-Jewish whites to US Jews among the highest performing math competition students has ***not*** significantly changed over the past few decades; rather, it may very well be fairly similar to the ratio of these students attending Harvard College. (Also noteworthy is the relatively low percent of Putnam Fellows who are US Asian students once the international Asians have been separated out from total Asians.) This is exactly what one might expect to see if the admission committees, just like Unz, can't actually tell who many of the Jews are among their white applicants and are simply admitting the very best white and Asian students present within their US applicant pool. Assuming Unz's other Olympiad and science fair data are similarly flawed, I conclude that Unz's claim that Jewish very high-level academic achievement has collapsed is false. This striking claim made by Unz was, unfortunately, reiterated by David Brooks in a New York Times op-ed (http://www.nytimes.com/2012/12/25/opinion/brooks-the-2012-sidney-awards-i.html?_r=0).

Unz probably reached these false conclusions because (i) he was counting foreign European college students as US non-Jewish whites, and (ii) his direct inspection method has a serious deficiency*, i.e.,* he is able to successfully identify most European Jews who are recent immigrants because they have Jewish-sounding names, yet he dismally fails to identify as Jewish most of the 3rd and 4th generation US Jews because many no longer have such Jewish names. Without determining each student's heritage via direct contact with him/her or other reliable source (*e.g.,* parent, credible web sites) so one can successfully identify which are Jewish and which are, in fact, recent immigrants, Unz has no valid basis on which to claim either a "collapse" in Jewish very high-level academic achievement or that most of the Jews who achieve at these very high levels are children of recent immigrants.

Unz claimed that Jews currently represent 6% of National Merit Scholar semi-finalists by both his direct inspection method and Weyl analysis. However, he had omitted MA in this calculation. Including Unz's recently determined percent Jews for MA, N.B. has calculated (using Unz's data for each state) that Jews represent 7% of NMS semi-finalists for this 26-state aggregate. This percent is only slightly lower than the 8% reported for 1987 (http://www.theamericanconservative.com/articles/the-myth-of-american-meritocracy-endnotes/#fn60) based upon Weyl analysis. This small drop can be readily accounted for by changing demographics, *i.e.,* high school-aged Jews have been a gradually declining percentage of the US population during the past few decades. Thus, Jewish academic over-achievement has not collapsed at either the NMS or Olympiad level.

6. Given the problem made obvious by comparison of the data in Table 1a vs. Table 1b, all of the college performance tables [*e.g.,* Putnam Fellows, Phi Beta Kappas (PBKs)] need to include a column for international students, who comprise at least 10% of the undergraduate students attending these elite colleges. These students are among the very best students in the entire world, and they compete for admission in a separate applicant pool. With 1/3rd or more of recent Putnam Fellows (http://www.ams.org/staff/jackson/fea-gallian.pdf; Table 1b) and, likely, many of the PBKs being international students, merging their numbers with that of the US non-Jewish whites and Asian-Americans is quite misleading since it suggests these groups of US students are achieving in college at a significantly higher level than they actually are.

7. Likewise, all of the tables should include columns for under-represented minorities (URMs), even in the cases where these percentages may be very low. Given they make up 20% or more of the undergraduate students attending these colleges, their representation among NMS

semi-finalists, PBKs, etc. needs to be shown. Unz assumed all non-Asian, non-Jewish students were non-Jewish, non-Hispanic whites. They aren't. It is not correct to count them as such since doing so results in an over-count of white Gentiles.

8. Lastly, Unz's manuscript addresses two different questions. Thus, it would be better (i) to split it into two articles, and (ii) to focus the first article on the top three Ivy League colleges, Harvard, Yale, and Princeton (HYP). Stanford University and the University of Chicago could be included for comparison as other very top-ranked colleges located in the West and Midwest, respectively, rather than the Northeast and Mid-Atlantic regions of the U.S. The inclusion of the latter two colleges might help with understanding effects of geography, a topic discussed in some detail by N.B. (http://andrewgelman.com/2013/02/12/that-claim-that-harvard-admissions-discriminate-in-favor-of-jews-after-checking-the-statistics-maybe-not/#comment-139733). Data on Caltech and MIT are much less useful for comparative purposes given these institutions are not liberal arts colleges; instead, they largely attract students with a very strong interest in STEM fields. UC-Berkeley is also less useful given it receives some funding from the state and, thus, is required to reserve most of its slots for Californians, with non-Californians being considered in a separate applicant pool.

I sincerely hope Unz will take at least some of these above criticisms to heart along with those of N.B. and Prof. Gelman. I would be happy to look over a revised manuscript(s) that adequately addresses them as one does prior to acceptance for publication in peer-reviewed journals.   If he fails to do so, the questions he claims to have answered will remain open ones still awaiting resolution.