

Mertz's Response to "*Meritocracy: Almost as Wrong as Larry Summers*"

I'll focus my response here on the aspects of Unz's March 9th post related to his "*Meritocracy*" article given his attacks on Larry Summers and my own published work is a different topic.

Unz stated, "This single surname error (i.e., Nir) on my part accounts for virtually the entire discrepancy between my own 1988-2007 [International Mathematical] Olympiad results and those produced by the exhaustive research undertaken by Mertz and her three academic co-authors."

Absolutely wrong! There is a **huge** discrepancy. The **sum** of Jews for the 2-decade period may have, by accident, turned out to be similar, but that only happened because Unz grossly over-counted Jews during the first of these two decades and then grossly under-counted them in the more recent decade. One can see this fact from the comment I posted previously in which I listed the names of several Jewish students on the 2000-7 IMO teams, including my own son (<http://andrewgelman.com/2013/02/12/that-claim-that-harvard-admissions-discriminate-in-favor-of-jews-after-checking-the-statistics-maybe-not/#comment-139757>). Unz's two large errors just happened to cancel out, just like Unz's estimate for the number of Jews on the 1970s IMO teams (a grossly over-estimated 21 out of 48 by Unz's reckoning) plus the 2000-2012 IMO teams (a grossly under-estimated 2 out of 78) sums close to the actual total. By over-estimating the percent Jews in the 1970s through 1990s and then under-estimating them in the 21st century, Unz obtained his spurious collapse in Jewish academic achievement. As with the 1970s and 21st century US IMO team data discussed previously, Unz's direct inspection method was, yet again, majorly in error in the 1990s. The actual drop in percent Jews from the 1988-1997 decade to the 1998-2007 one was only ~5%, readily accounted for by changing demographics. Clearly, Unz would not have claimed a sudden collapse in Jewish very high-end achievement if he had these much more accurate numbers in hand, and Brooks would not have considered these data newsworthy.

"I readily acknowledge that her results are certain to be vastly more accurate than my own. Indeed, if we regard the Mertz figures as the "gold standard," then comparing them with my own numbers provides a useful means of assessing the overall quality of my direct inspection technique, a technique that constituted a central pillar of my entire study. . . Her peer-reviewed journal article determined that the 120 American Math Olympians from 1988-2007 consisted of exactly 42 Asians, 26 Jews, and 52 non-Jewish whites. My crude surname estimate had been 44 Asians, 23 Jews, and 53 non-Jewish whites. . . Obviously, such estimation techniques may be completely incorrect for tiny handfuls of names, and should only be relied upon across substantial lists."

I totally agree that Unz's "estimation technique may be completely incorrect" and "should only be relied upon across substantial lists" given Jews are only ~2% of US high school students. Yet, he proceeded to draw conclusions (reiterated by Brooks) from just such tiny data sets, including the 21st-century Putnam Fellow (with 5 students per year) and US IMO team member (with 6 students per year) lists. The very fact that he identified only 2 Jews out of 78 whereas I identified at least 10 ¼ is a clear example of how huge the error can be when using direct inspection with small data sets. Unz's conclusions regarding the ratio of US white Gentiles to Jews, number of Jews, and number of Asian-Americans among recent Putnam Fellows were also significantly in error (*e.g.*, compare Table 1a vs. Table 1b in my recent response posted by Gelman; <http://andrewgelman.com/2013/03/06/18150/>). Thus, Unz's direct inspection method, taken by itself in the absence of any more accurate confirmatory methods, is clearly totally inadequate for making **any** strong claims involving small data sets, be they from the Olympiads, Science Talent Search (STS), or junior-year Phi Beta Kappa (PBK) inductees at Harvard.

I did not claim my numbers were “exact” in my 2008 *Notices* article. The data I published in that article were simply well-informed estimates, with my numbers in the tables preceded by “~”s, a mathematical abbreviation for “approximately”. After Unz’s claim of “only 2 Jewish names out of 78” appeared in the NYT, I went back and carefully re-checked my data to come up with an absolutely certain “lower bound” (*i.e.*, minimum number) for percent Jewish members of 21st century US IMO teams. In doing so, I identified two students who are 1/4th Jewish whom I had previously assumed were non-Jewish whites in the absence of definitive evidence for Jewish ancestry.

“Given that I had produced my own ethnic estimates for [the 120 US Math Olympians from 1988-2007] on perhaps five minutes of cursory surname analysis,”

Unz considered “five minutes of cursory surname analysis” a sufficient basis on which to claim an important unexpected discovery, *i.e.*, a rapid collapse in Jewish very high-end achievement in the 21st century. Most unexpected discoveries are found not to be true when additional analyses are performed to test their validity. Before publishing, Unz should have checked the accuracy of these data using another, more reliable method (*e.g.*, looking at the data in my peer-reviewed 2008 *Notices* article; performing web searches to see whether any of the students being counted as non-Jewish whites might, in reality, be Jews). David Brooks probably assumed Unz had done so when he reiterated Unz’s claim in his NYT op-ed. Now that Unz knows at least 13% of the 21st century US IMO team members are Jewish, he should ask Brooks to publish a correction.

Importantly, the above findings indicate that ***Unz’s subjective direct inspection method may well be almost as inaccurate as the Weyl method for determining percent Jews; when performed in an unblinded manner, it is also highly imprecise.*** Thus, Unz absolutely needs: (i) to perform the controlled experiments I outlined in my previous response to determine the accuracy and precision of the direct inspection method; (ii) to employ it in a blinded way; and (iii) to use it only with data sets of sufficiently large size such that any differences have a chance of being statistically significant. Without these controls, the data presented in Unz’s “*Meritocracy*” article relating to Jews, almost all of which were obtained by direct inspection, are simply not credible. Alternatively, he could redo the analyses of his largest data sets (*i.e.*, NMS semi-finalists; undergraduate students attending elite colleges) using the Weyl method given this latter approach is, at least, objective and precise.

“She claims that my Asian-American enrollment percentages at the Ivies and other elite universities are distorted by inclusion of part-time students in the governmental NCES database. . . I was quite careful to restrict my results to full-time students only. Anyway, with the notable exception of Harvard, . . .”

We are all discussing full-time students. Unz arrived at the figure that Asian-Americans represented 17.2% of Harvard College students for 2011 by including full-time undergraduates attending the non-selective Harvard Extension School. He calculated this percent from 1,242/7,207, which are the NCES/IPEDS statistics for full-time undergraduates at Harvard. However, there were only 6,657 students attending the elite Harvard College in Fall 2011.

“She argues that the Jewish enrollment numbers provided by Hillel cannot possibly be correct because they are relatively constant from year to year. Now I have never claimed that the Hillel numbers are exact, and indeed have always suggested that they were probably mere estimates. But consider that the Asian enrollment figures are based on exact racial reporting as required by the federal government, and those numbers tend to be roughly as constant as the Hillel Jewish figures. Since the Asian figures are surely precise, how can the mere relative constancy of the Hillel numbers be taken as proof they are obviously fraudulent?”

The Asian enrollment figures are *not* as constant as the Hillel Jewish figures. For example, Harvard College's Office of Admissions reported that Asian-Americans represent 19.1%, 22%, 18.9%, and 21% of their classes of 2013-2016, respectively. These latter figures exhibit expected statistical fluctuations and are significantly higher and more variable than Unz's claimed "15%-16% quota" for Asian-Americans. By contrast, during 2006-2011, Harvard's Hillel numbers were reported as 25% *every* year except 2007, when it implausibly jumped up to 30% and then back down to 25%. Such statistical anomalies mean it is extremely improbable that the Hillel numbers are accurate.

"Mertz cites various arguments to suggest that my estimate that Jews constitute about 6% of national NMS semifinalists is too low, and that the correct figure should be 7%. Since . . . I am reasonably comfortable with any figure in the 5.5% to 7.0% range, perhaps our differences are not so enormous in this particular item. But if she accepts that 7% figure, then the over-representation of Jews in elite academic institutions remains just as suspiciously high as I had originally claimed."

I did *not* say that I agreed Unz's 7% number is correct; likely, it is an under-estimate because his method under-counts 21st-century non-ultra-Orthodox Jews. Rather, I simply pointed out that incorporating Unz's new data for MA leads to Jews representing 7% of NMS semi-finalists *based on Unz's reported Jewish tallies for 26 of the 50 states*. This is a small drop from the 1988 figure of roughly 8.1% Jews reported previously on the basis of Weyl Analysis, further evidence contradicting his claim of a collapse in Jewish academic achievement. In fact, if one looks at the appendices accompanying the "*Meritocracy*" article, it would appear that Unz's deeply flawed IMO and Putnam data were practically the *only* pre-2010s evidence he had suggesting such a collapse, with most of the 2010s-era data sets being way too tiny to provide statistically meaningful findings. For example, he reported 21% Jews among both the top Intel STS Winners and Harvard's junior-year PBKs for 2000-2009. The former are shoo-ins for admission to Harvard, while the latter would be the very top students there. Thus, if we end up concluding that Jews comprised roughly 15% of Harvard College undergraduate students in recent years, this percentage would be fully in line with their percent among *very* high-end achievers by multiple different measures.

"She seems perfectly comfortable with Jews being over-represented at elite academic institutions by perhaps 3,000% relative to non-Jewish whites, and totally disproportionate to their apparent academic ability."

As best I can tell based upon the most reliable data we have (which I would be happy to see folks considerably improve in accuracy), the ratio of non-Jewish whites to Jews at Harvard is probably somewhere within in the 2-4:1 range, fairly similar to what it appears to be among essentially all of the very high-end achievement data we have been discussing. Most likely, Harvard College is recruiting the very best white students it can, regardless of their ethnic background, with NMS semi-finalist status simply being far from sufficient for admission to this very elite college.

In summary, Unz *is* "almost as wrong as Larry Summers". And, yes, Summers *was* wrong in his 2005 talk regarding the primary reasons for the extreme scarcity of women among the tenured research faculty in top-ranked U.S. mathematics departments. However, that is another, unrelated topic better left for a different post. Unz has failed to present a convincing case for his claim that Jewish admissions to elite colleges are "totally disproportionate to their apparent academic ability". If he can produce some higher quality data that relates to this issue, I would be happy to examine it so we can try to reach consensus on this question. Prof. Gelman and I have already indicated the types of experiments he needs to perform to seriously address this question. And, yes, they involve a *lot* more time and effort than "five minutes of cursory surname analysis".