

October 2, 2026

To: Rex Wertz, Superintendent, Helena Public Schools
Jennifer Walsh, Chair, Board of Trustees, Helena Public Schools

From: Jonathan Plucker, PhD, Professor of Education, Johns Hopkins University, and
Director of the National Research Center on Advanced Education

Re: Gender Differences in PEAK Identification and Participation Rates

I am writing this memo to follow up on a lingering issue from my review of your advanced education programs, which I discussed with the Board of Trustees on May 12. Although the reaction to my recommendations appears to be positive, one community member has been outspoken in his belief that my conclusions about a lack of gender bias in the PEAK identification process are incorrect. He has shared his concern about that aspect of my report widely, including in an op-ed in a local news outlet, a series of emails to me, and – from what I have been told – conversations with others in your community.

I take such accusations seriously: In addition to having the integrity of my work questioned, my family has experienced gender bias in identification for advanced programs. As a result, this topic is not something I take lightly.

Therefore, I reanalyzed the data and information about the structure of the PEAK program, including but not limited to its identification system.¹ As a result of this additional analysis, for reasons detailed below, I confirm my conclusion from the report:

“Despite concerns about gender discrimination in the identification process, I did not find evidence of such discrimination. When identification and participation data are controlled for gender composition of each grade, no pattern emerges favoring either boys or girls.”

Some Key Points

Before diving into my analyses, it is important to note three things. First, the existence of differences does not necessarily indicate the presence of bias. People differ in important ways, and those differences are often correlated. Bias becomes a concern when the differences consistently favor some groups over others in specific decision-making

¹ In the interest of full disclosure, I met with the district’s two PEAK teachers to confirm my understanding of the identification procedures (primarily regarding COVID-related disruptions) and confirm a specific data point that appeared to be an outlier (it was confirmed as correct). No aspect of my planned analyses was shared with the teachers, nor have they reviewed this memo. The work and conclusions shared in this memo are solely my own.

processes. For our purposes here, bias would be indicated by evidence that the identification procedures used by HPS systematically favor one gender over the other.

Second, the law of small numbers applies here. HPS may be among the larger districts in Montana, but it is not a large district. When examining identification rates for special services, the numbers get even smaller. This results in a situation where a shift of one or two students can change the data considerably. This situation is often experienced when we read medical research. A study examining the effects of certain behaviors on cancer rates will often receive tremendous media attention because, for example, eating a certain food may increase the incidence rate of a certain type of cancer by 300% ... but if you read the study, you find that the rate increased from 0.1 to 0.4%. Any calculation involving the low base rate (0.1%) is going to look huge, even when it is actually quite small in absolute terms.

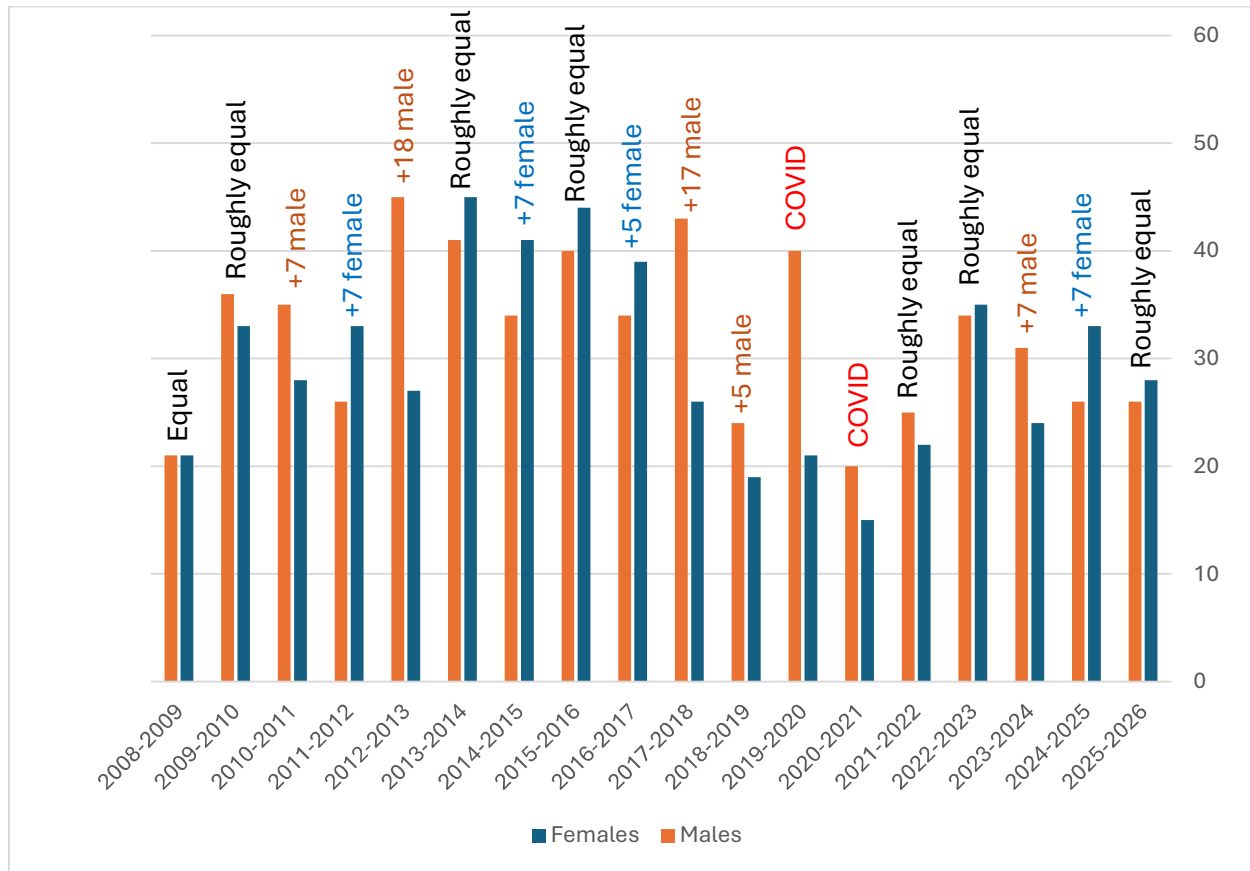
Both of these issues – not assuming differences equate with biases, and being sensitive to small samples sizes – are important to keep in mind when analyzing the data. In other words, for any gender differences to be evidence of potential bias, one would expect the differences to be relatively consistent over time (i.e., if more boys are identified one year, then more girls the next, etc., bias is unlikely). Fortunately, HPS has detailed identification data going back several years, allowing for analysis of trends. Regarding small sample sizes, differences reflecting 1-4 students should be interpreted as small and likely insignificant in the grand scheme of things; noting differences of 5 or more students appears to be a reasonable criterion for interpretation.

Third, in all of the analyses reported below, the two COVID cohorts (third-grade students in 2019-2020 and 2020-2021) are omitted from my evaluation of the data. I include them in the figures below in the spirit of transparency, but the identification processes in those years deviated sharply from the standard procedures used both before and after the pandemic. All third-grade students did not experience the same identification procedures in those two years, and many students were identified solely via teacher referrals. One of those years is marked by a large gender difference, but it is difficult to determine what occurred and with whom. The data from those years is moot: If the concern is that the normal identification process is biased, examining data from two years that did not use the normal identification process cannot help us address that concern.

Identification Data

I examined the number of female versus male students identified for PEAK participation (Figure 1). As noted above, differences of 5 or more students were considered a difference worthy of interpretation.

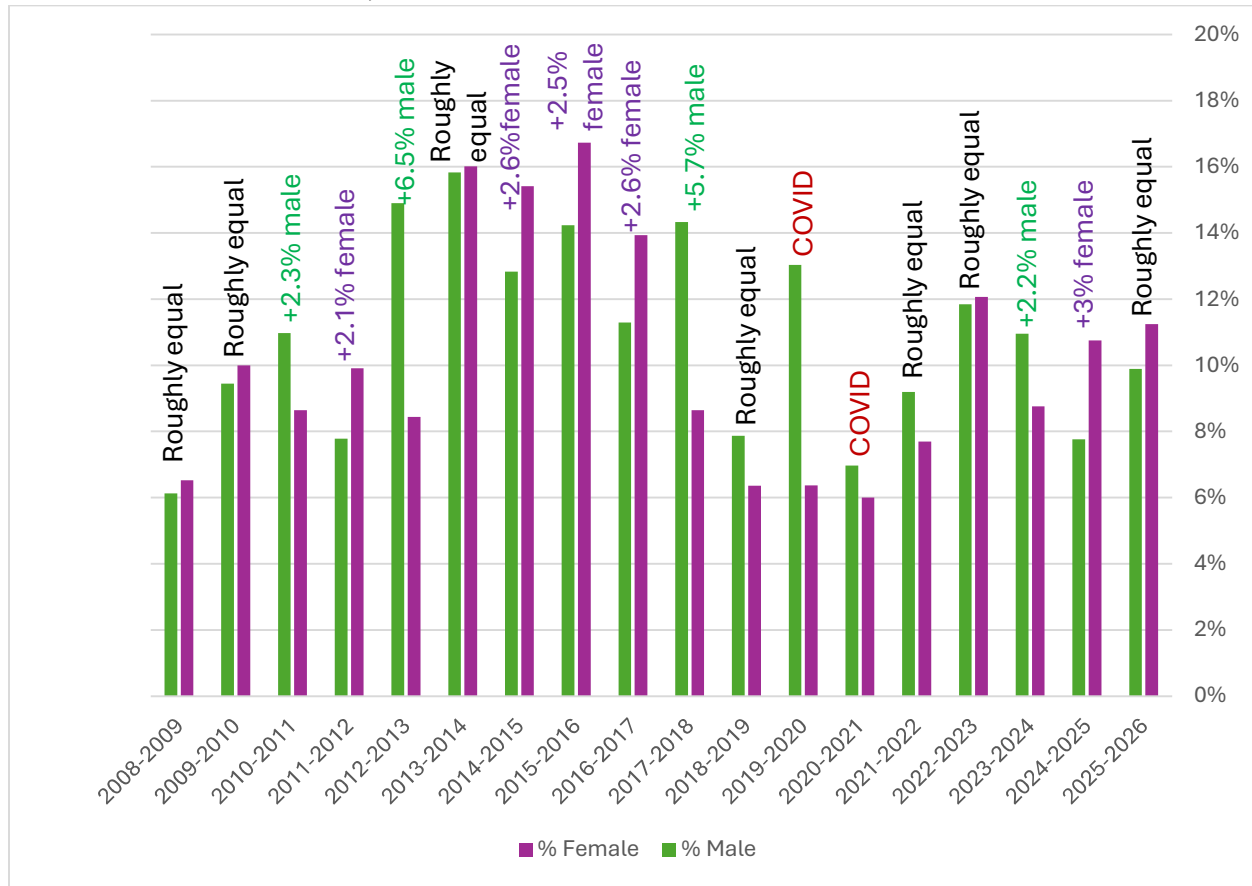
**Figure 1. Gender of PEAK Identified Students
by 3rd Grade Cohort, Raw Headcount**



No consistent patterns emerge from the data included in Figure 1. The 2018 and 2013 cohorts exhibit big gender differences favoring boys, but they are separated by four years of differences largely favoring girls. I see no discernable pattern, suggesting that the year-by-year discrepancies do not reflect any systematic gender bias.

But perhaps there are far more girls than boys in HPS, so that even a headcount difference favoring girls represents a lower rate of identification for girls than boys (i.e., the percent of HPS third-grade girls being identified could be lower than the percent of HPS third-grade boys being identified). However, as can be seen in Figure 2, the identification rates show similar variability to the headcounts.

Figure 2. Gender of PEAK Identified Students by 3rd Grade Cohort, Percent of Total 3rd Grade Gender in Cohort



For the purposes of constructing Figure 2, I chose to interpret differences of 2% or more. This is likely a conservative criterion, as a 2% difference in many years is quite a small difference. But even using the conservative benchmark, differences are predominantly small, with similar patterns to the headcount data in Figure 1. Again, no obvious pattern emerges from these data. Put differently, if the PEAK identification process is marked by a systematic gender bias, why is there almost no evidence of it over the last five cohorts, and little evidence over the past 18 years? The number of boys identified for PEAK participation over the past five cohorts is 142; the number of girls identified is 142.

All of these data can be hard to follow, so I created Figure 3 to summarize the results. As a result of these data, one would be hard-pressed to establish any pattern in gender differences in the identification procedures.

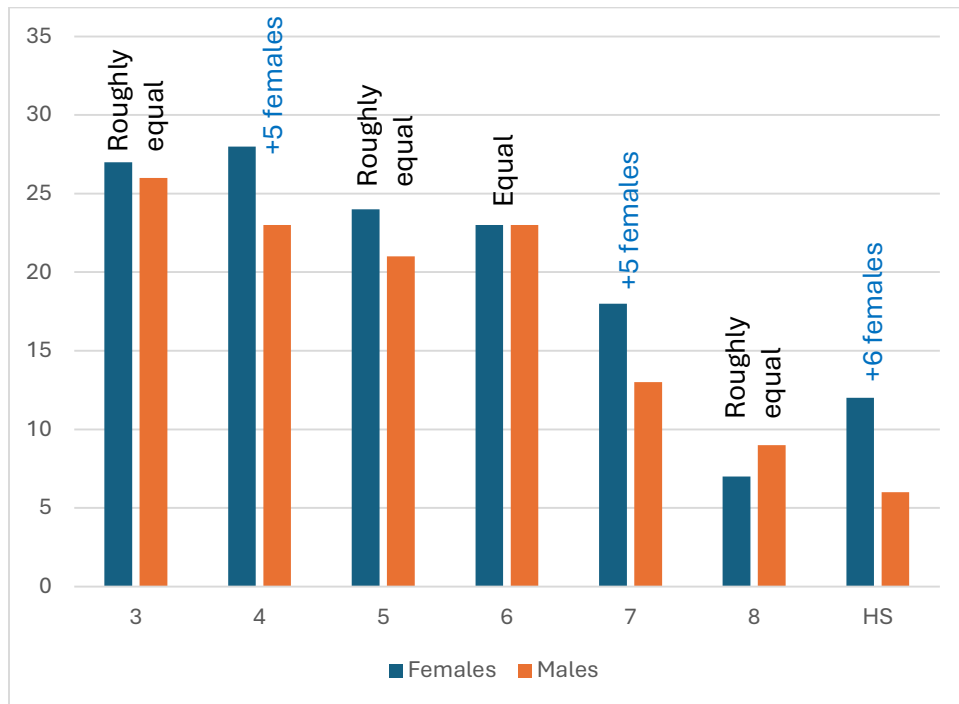
Figure 3. Summary of Gender Differences in Identification by 3rd Grade Cohort

3 rd Grade Cohort	ID (headcount)	ID (controlled)	Notes
↑ 2025-2026	≈	≈	= equal ≈ roughly equal Purple: Differences favor females Teal: Differences favor males
2024-2025	+7 students	+3.0%	
2023-2024	+7	+2.2	
2022-2023	≈	≈	
2021-2022	≈	≈	
2020-2021	COVID		
2019-2020			
2018-2019	+5	≈	
2017-2018	+17	+5.7	
2016-2017	+5	+2.6	
2015-2016	≈	+2.5	
2014-2015	+7	+2.6	
2013-2014	≈	≈	
2012-2013	+18	+6.5	
2011-2012	+7	+2.1	
2010-2011	+7	+2.3	
2009-2010	≈	≈	
2008-2009	=	≈	

Participation Data

To quote an old infomercial, “But wait, there’s more!” After re-analyzing these data, I wondered if any gender differences are apparent in PEAK *participation*. For example, perhaps the gender bias is present in PEAK programming, causing fewer girls to participate in PEAK than boys. The district provided participation data for current HPS students. The data in Figure 4, however, strongly suggest that no gender bias exists. If anything, there appears to be a slight gender *difference* in PEAK participation, but it favors girls and is quite small.

Figure 4. 2025-2026 PEAK Participation by Gender and Grade



Replicating the Community Critic's Analysis

The community critic sent me the following statement multiple times:

“This data shows that for the 12 school years from 2012-13 through 2024-25 (excluding 2015-16, for which PEAK data was not provided), covering approximately 7000 HPS third graders, 10.53% of 3rd grade boys were identified for the PEAK program versus 8.29% of 3rd grade girls being identified. Thus, a third grade boy has been 27% more likely to be identified for PEAK than a third grade girl has been during these years.” (G. Furshong, personal communications on August 7, August 19, and September 3)

The data shared by the community member do not match those provided to me by the district. Rather, I would phrase it as follows:

These data show that for the 12 school years from 2012-2013 through 2024-2025, including 7,531 HPS third graders, 11.5% of 3rd grade boys were identified for the PEAK program versus 10.5% of 3rd grade girls. However, if data from the COVID years of 2019-2020 and 2020-2021 are excluded, 11.8% of boys and 11.2% of girls were identified.

If one expands the range of analysis to cover every third-grade cohort from 2008-2009 through 2025-2026, 10.7% of boys versus 10.1% of girls were identified. If the COVID years are removed, the rates are 10.8% of boys and 10.5% of girls.

Perhaps more to the critic's concern, since the COVID years (i.e., 2021-2022 through 2025-2026), 9.8% of boys and 10.1% of girls have been identified via the district's standard procedures.

I find the gender balance in the identification data to be remarkably even.

Conclusions and Recommendations

If there is a systematic gender bias in the district's identification procedures, it is extremely well-hidden. Gender differences in identification are generally small and favor both girls and boys, depending on the cohort in question. The data provided to me by the district are so devoid of evidence of significant gender differences, let alone gender bias, that it is difficult to determine where the accusations of discrimination are coming from.

Perhaps if one cherry-picked certain data, included the pandemic years when the district's identification procedures were not used, etc., one could manufacture a narrative of gender differences. But including all the data and using reasonable standards of interpretation lead me to a clear conclusion. Indeed, it is the same conclusion I included in my May report: "Despite concerns about gender discrimination in the identification process, I did not find evidence of such discrimination. When identification and participation data are controlled for gender composition of each grade, no pattern emerges favoring either boys or girls."

That said, a case could be made that the district should examine the PEAK curriculum to ensure that those materials and activities are not inadvertently less appealing to boys than girls. Although evidence of gender differences in participation is rather weak, the data suggest that girls *may* find the program a bit more compelling than boys. When I interviewed HPS educators and parents, they offered a range of explanations for gender differences in participation, primarily dealing with competing extracurricular activities, and no one mentioned curriculum effects. But an examination of the curriculum to ensure that this is the case would not take much time and should be part of any regular curriculum review.

Appendix A. Relevant Data Received from HPS District Office

PEAK Data by Third-Grade Cohort																		
	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
District																		
Boys	343	381	319	334	302	259	265	281	301	300	305	330	287	272	287	283	335	263
Girls	322	330	324	333	320	281	266	263	280	301	299	307	250	286	290	274	307	249
Identified																		
Boys	21	36	35	26	45	41	34	40	34	43	24	40	20	25	34	31	26	26
Girls	21	33	28	33	27	45	41	44	39	26	19	21	15	22	35	24	33	28
Current Participation																		
Boys	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	1	1	0	4	9	13	23	21	23	26
Girls	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	NO DATA	2	3	2	5	7	18	23	24	28	27

Note. Normal identification procedures not followed in 2019-2020 and 2020-2021 due to COVID.