

Coalition for TJ misses the mark on Honesty: Rebuttal to Coalition for TJ's "FCPS Lottery Plan Gets 'F' Grade"

EXECUTIVE SUMMARY

In response to the FCPS superintendent's proposal to change the admissions process for Thomas Jefferson High School for Science and Technology to a "merit lottery", the Coalition for TJ recently released a statement, "FCPS Lottery Plan Gets 'F' Grade," in which they predict the proposed changes would harm all minority students and damage efforts to increase the school's diversity. Both the model used and the assumptions drawn by the Coalition are deeply flawed. In them, Coalition for TJ...

...**ignored** the 3.5 GPA requirement when calculating eligible students

...**assumed** all eligible students would apply to the lottery

...**misconstrued** a more accurate reflection of the FCPS student body as unfairly advantageous to white students

...**dismissed** the significance of a minimum 170% increase in representation of underrepresented minority student population, per their calculations

...**failed** to consider the 770% increase in representation economically disadvantaged students, calculated using their methods

The predictions, analyses, and recommendations put forth by the Coalition for TJ are statistically unsound and do not accurately portray the possible impact of the "merit lottery" on admissions for TJHSST.





Coalition for TJ misses the mark on Honesty: Rebuttal to Coalition for TJ’s “FCPS Lottery Plan Gets ‘F’ Grade”

By Michael Rodriguez (TJ Class of 2016), Research & Analysis Committee, Chair

Introduction

On September 15th, Superintendent Scott S. Braband presented recommendations to the Fairfax County School Board to change the admissions policy for Thomas Jefferson High School for Science and Technology (TJHSST) in order to promote access for student groups that have been historically underrepresented at the elite governor’s school. The proposal replaces the holistic selection of applicants—based off of GPA, teacher recommendations, a Student Information Sheet, a problem-solving essay, and percentile rank on a battery of admissions tests—with a merit lottery, in which qualified students will be drawn at random to fill a predetermined number of seats from designated regional pathways.¹ The proposal has since been revised² but still includes the merit lottery as its foundation³

On September 23, 2020, the Coalition for TJ, a group of “parents, students, alumni, staff, and community members of Thomas Jefferson

High School for Science and Technology”² published “FCPS Lottery Plan Gets ‘F’ Grade” in response to the proposed changes to the admissions process. Although the presentation by the superintendent included simulated class demographics based off of the applications for the TJHSST classes of 2015, 2019, and 2024, the Coalition conducted their own analysis in an attempt to simulate and predict the effect of the proposed merit lottery system. Drawing from this analysis, the Coalition concluded that “all racial minorities would lose under the lottery system...In a best-case scenario with successful outreach, the proposed lottery plan will only minimally increase representation of Black and Hispanic students.”³

However, these analyses are at a minimum fallacious and at most deliberately deceptive—there are errors and inconsistencies throughout the entire process from their methodologies, to their data, to their conclusions. ■

¹ Fowler, “[TJ Admissions Merit Lottery Proposal School Board Work Session 9/15/2020.](#)”

² Coalition For TJ, “[Coalition For TJ.](#)”

³ “[Coalition for TJ Predictions - FCPS Lottery Plan Gets.](#)”

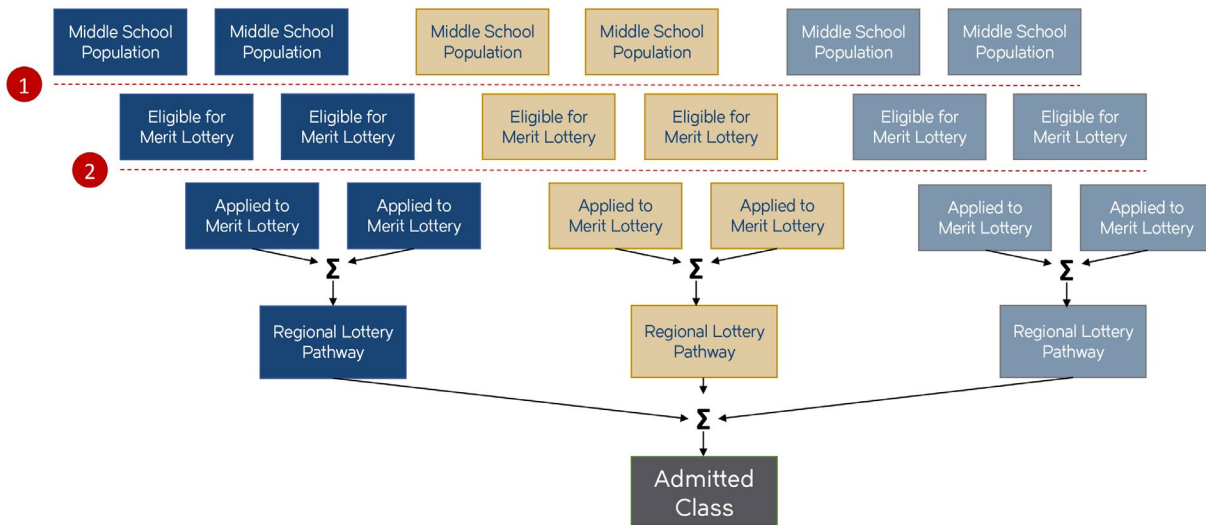


Figure 1. Coalition for TJ Model of Merit Lottery

Analyses

Simulation

The Coalition’s transparency in sharing their analyses with the public is commendable—the spreadsheets used for calculation are attached to both their website (coalitionfortj.net)⁴ and to “FCPS Lottery Plan Gets F Grade.”⁵ As modeled in Figure 1, the Coalition estimated the number of students from each race that would be eligible for the merit lottery at each school, assesses who would apply for the lottery, and then draws students from each regional pathway to generate an estimated demographic makeup for a TJHSST admissions class under the new merit lottery. This resulted in a predicted demographic distribution 27% Asian, 8% Black, 14% Hispanic, 44% White, and 6% Other.

- The process and their calculations are sound, but the Coalition used gross,

unfounded assumptions at critical points in the simulation—**marked with callouts #1 & #2.**

- At callout point #1—where the general student population is filtered by eligibility, i.e. Algebra 1 and core GPA > 3.5—the Coalition for TJ **completely disregarded the GPA requirement**, only using data for 8th grade Algebra 1 participation as provided by FCPS.⁶
- Examining the applicant data for the TJHSST class of 2022—the most recent for which applicant GPA is available—**85% of applicants had a GPA >= 3.5.** This represents an estimated ceiling for the application rate of eligible students.

⁴ Coalition For TJ: “Lottery Predictions”

⁵ “Coalition for TJ Predictions: FCPS Lottery Plan Gets ‘F’ Grade”

⁶ “8th Grade Algebra Participation”

- At callout point #2—where those eligible for the merit lottery must decide to enter—the Coalition **assumes that all students eligible for the Merit Lottery would enter the lottery.**
- Examining previous TJ applicant classes, we can quickly see that this assumption is not valid—with the same Algebra I requirement and a lower GPA threshold of 3.0, the applicant demographics for the **TJHSST Class of 2024 was 54% Asian, 7% Black, 8% Hispanic, 25% White, and 6% Other.**

The Coalition presents their simulation as an accurate representation of the Merit Lottery’s impacts, but the prior two assumptions are not given any caveats or explanations in their analysis. Such leaps undermine the credibility of their analysis as a faithful assessment of the merit lottery’s impact.

Impacts

Should we hold the aforementioned assumptions as true, though, there are still issues with the Coalition’s interpretation of the simulation’s outcomes. In “FCPS Lottery Plan Gets ‘F’ Grade,” the Coalition claims that “all racial minorities will lose in the new lottery system,” as the percentage of White students would rise to 44% under their model. However, they brush aside the gains in representation for underrepresented minorities, a better representation of county demographics, and an increase in student body diversity.

- The Coalition claims in “FCPS Lottery Plan Gets ‘F’ Grade” that increases from **6 Black students per class to 17 per class and 16 Hispanic students per class to 43 per class** are somehow “misleading.”⁷ Perhaps this

⁷ “Coalition for TJ Predictions_ FCPS Lottery Plan Gets”

Admit by Region						
Asian	Black	Hispanic	White	Other		
21.50	3.01	6.96	33.63	4.91	70.00	Number of students selected
6.07	2.82	2.19	5.25	5.48	100.00	Probability of selection by race
30.71	4.30	9.94	48.05	7.01	100.00	% of students selected by Race
					3.42%	Probability of selection for whole region
20.09	5.09	11.65	28.54	4.62	70.00	Number of students selected
6.64	4.19	2.23	6.26	6.90	100.00	Probability of selection by race
28.70	7.28	16.64	40.78	6.60	100.00	% of students selected by Race
					4.26%	Probability of selection for whole region
10.18	13.00	15.48	26.81	4.52	70.00	Number of students selected
7.40	4.69	3.03	7.79	6.37	100.00	Probability of selection by race
14.54	18.58	22.12	38.30	6.46	100.00	% of students selected by Race
					6.02%	Probability of selection for whole region
15.35	5.90	8.75	35.45	4.55	70.00	Number of students selected
5.63	3.57	3.23	5.20	4.46	100.00	Probability of selection by race
21.93	8.43	12.50	50.64	6.50	100.00	% of students selected by Race
					3.77%	Probability of selection for whole region
24.13	3.68	9.12	28.98	4.08	70.00	Number of students selected
6.45	4.44	3.64	5.39	5.37	100.00	Probability of selection by race
34.47	5.26	13.03	41.41	5.83	100.00	% of students selected by Race
					3.82%	Probability of selection for whole region
91.25	30.69	51.95	153.43	22.69	350.00	
26.07%	8.77%	14.84%	43.84%	6.48%		

Figure 2. Coalition Prediction of Racial/Ethnic Demographics of Admitted Students

	Ethnic/Racial Makeup (%)					Change from FCPS MS population (%)					Change from TJ c/o 2024 (%)				
	Asian	Black	Hispanic	White	Other	Asian	Black	Hispanic	White	Other	Asian	Black	Hispanic	White	Other
FCPS MS Population	18.8	11.3	26.9	37.2	5.7	0.0	0.0	0.0	0.0	0.0	-74.2	1031.0	798.0	106.6	14.7
TJHSST c/o 2024	73	1	3	18	5.0	287.8	-91.2	-88.9	-51.6	-12.8	0.0	0.0	0.0	0.0	0.0
FCPS Merit Lottery Prediction	54.0	7.0	8.0	25.0	6.0	186.9	-38.1	-70.3	-32.8	4.6	-26.0	600.0	166.7	38.9	20.0
Coalition for TJ prediction	26.1	8.8	14.8	43.8	6.5	38.5	-22.5	-44.9	17.9	13.0	-64.3	777.0	394.7	143.6	29.6

Table 1. Change in Racial/Ethnic Populations at TJHSST

is misleading because their own analysis document indicates that there would be roughly **31 Black students** and **52 Hispanic students** per class, as the screenshot shown in Figure 2 indicates.

- Either outcome is far from the trivial gains that the Coalition makes them out to be, representing **minimum increases of more than 170%** for the Black and Hispanic student population.
- As shown in Table 1, the Coalition’s analysis predicts increases of almost **800% and 400% for Black and Hispanic student populations**, respectively. While such massive proportional gains could be dismissed due to the low initial representation rates, the representation rates for both Blacks and Hispanics would **more closely approach the same levels as the overall FCPS population**.
- The proposed lottery would both significantly decrease the proportion of Asian students and increase the proportion of White students. **However, the numbers do not indicate**

a disadvantage or disservice to minorities, as the Coalition claims. Not only are there the aforementioned gains in underrepresented minorities, Asian students would also be represented at a rate nearly 40% greater than the FCPS average. Indeed, this new plan would greatly increase the diversity of the incoming class of students while also enabling more equitable admission for underrepresented minorities. The status quo admissions process might have high rates of minority representation, but it is neither diverse nor representative of the student population which TJ should serve.

- An important point untouched in the analysis by the Coalition for TJ is that the Coalition’s own simulation method predicts an increase in economically disadvantaged students from less than **2% to 17.4%**.⁸ This suggests that the merit lottery would have a significant increase in increasing educational equity for all students across ethnic/racial groups and economic strata, not just those with educationally-advantageous socioeconomic privilege.

⁸ [“TJ SES Projection”](#)

Conclusion

We stand with the Coalition in advocating for “diversity and excellence” at TJHSST. Unfortunately, the current admissions process contributes to a **lack of diversity** that is **prohibitive to excellence**. It is important that the necessary reforms to the admissions process are driven by evidence and data, but the Coalition for TJ’s attempt to simulate the effects of the merit lottery is lacking in both. Their model and analysis is undercut by gross assumptions and tenuous interpretations of data, with an unfortunate consequence of muddying, rather than clarifying, the matters at hand.

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