

MGMT 5518 Supply Chain Analytics

NJ Department Of Education Funding & Performance Analysis

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CERTIFICATION OF AUTHORSHIP

*I, **Adnan Kpodo**, certify that I am the author of this work and that any assistance I have received in its preparation is fully acknowledged and disclosed. I have also cited any sources from which I used data, ideas or words, directly quoted or paraphrased. This work was prepared by me specifically for this course.*

New Jersey Department of Education: District Funding and Performance Analysis (2022-2023)

Executive Summary

This report analyzes the relationship between educational funding and district performance across New Jersey counties for the 2022-2023 academic year. The analysis focuses on state performance, funding, behavioral reports, and academic proficiency in Mathematics and English Language Arts (ELA).

Introduction

The New Jersey Department of Education oversees the allocation of educational resources across 21 counties. This report examines how funding distributions correlate with various performance metrics, including graduation rates and academic proficiency.

Methodology

The analysis utilizes district-level data from all 21 counties in New Jersey, examining:

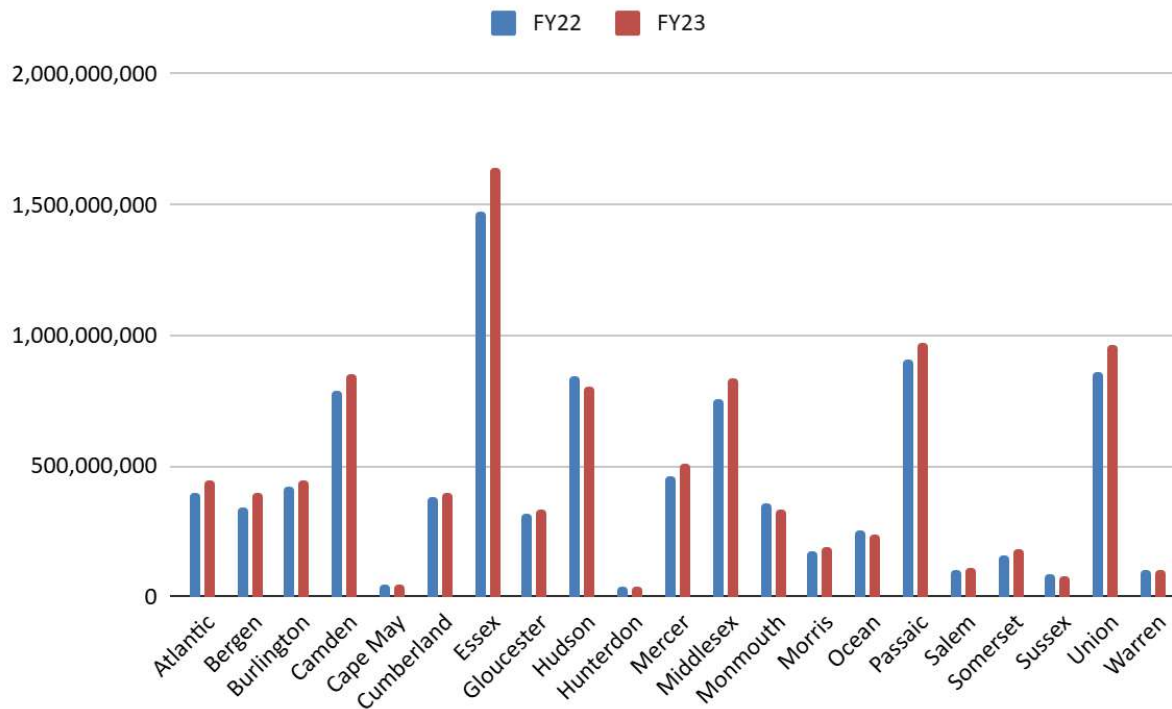
- Funding allocations
- Behavioral Reports
- Mathematics proficiency scores
- English Language Arts (ELA) proficiency scores

Key Findings

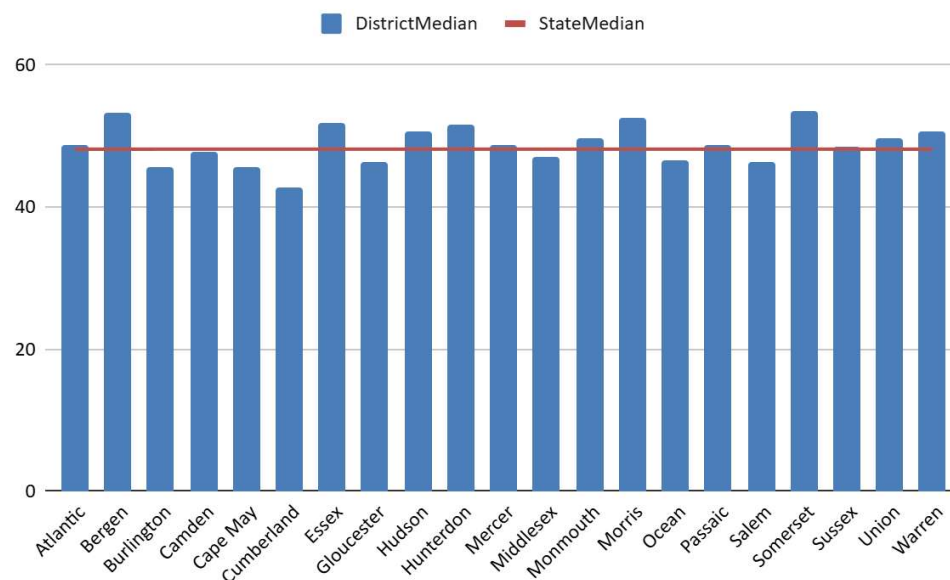
- Average Aid Percentage increase from 2022-2023 was: 4.78%
- 34.6% Of districts met the benchmark in regards to the PSAT, SAT & ACT
- 65.4% Of districts fell below the benchmark in regards to the PSAT, SAT & ACT
- Correlation analysis does not reveal a strong correlation between funding & performance metrics.

Problem Statement

I am trying to find a correlation between funding and student performance to see how New Jersey could better allocate funds in correlation with Student Performance. Specifically when it comes to State Tests like the PSAT, SAT, and ACT. As these are tests every district takes and it measures student proficiency in ELA and Math. Which can also measure just how ready students may be for college. If I can find a definite correlation then that would mean obvious steps can be taken in regards to funding.

Figure 1.

Aid Difference Per County For The Year 2022 & 2023

Figure 2.

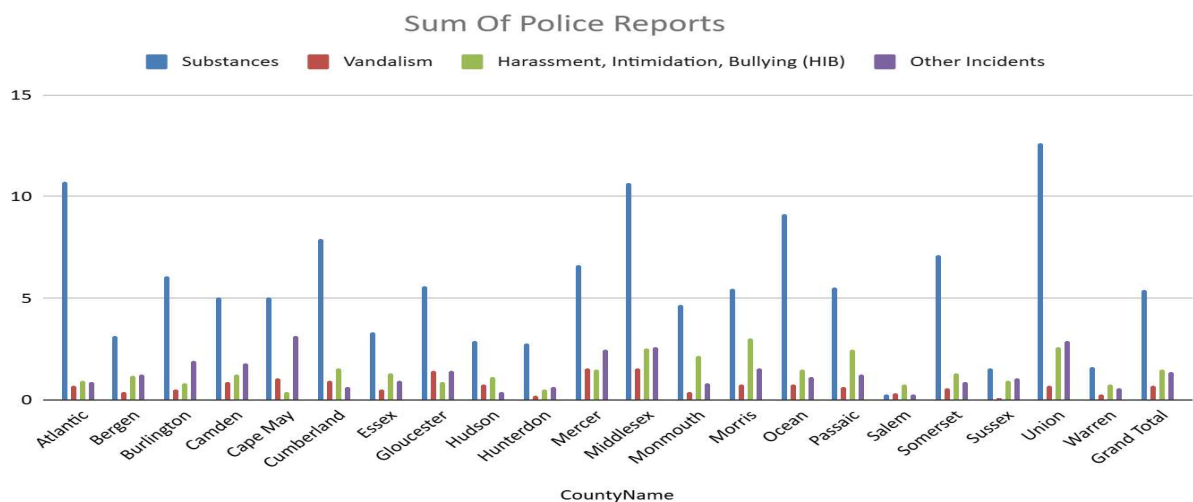
District Median & State Median In Regards To ELA & Math Performance

Figure 3.

CountyName	ACT		PSAT		SAT	
	District Average	State Average	District Average	State Average	District Average	State Average
Atlantic	22.33333333	24.25	433.7222222		464	498.2777778
Bergen	25.35416667	24.25	483.7840909		464	556.9204545
Burlington	24.0625	24.25	456.0625		464	528.21875
Camden	22.75	24.25	429.125		464	491.4
Cape May	24.25	24.25	458.1		464	536.2
Cumberland	#DIV/0!	24.25	416.5		464	486.7
Essex	22.78125	24.25	462.3913043		464	512.3571429
Gloucester	23	24.25	445.0714286		464	509.6428571
Hudson	23.58333333	24.25	439.4285714		464	481.25
Hunterdon	24.875	24.25	499.7		464	597.7
Mercer	25.40625	24.25	472.2083333		464	545.2916667
Middlesex	25.25	24.25	472.5227273		464	537.9090909
Monmouth	23.9375	24.25	460.7272727		464	528.5952381
Morris	24.4375	24.25	499.6052632		464	571.2368421
Ocean	23.35714286	24.25	461.6428571		464	526.8214286
Passaic	20.55	24.25	434.3214286		464	493.6428571
Salem	18.75	24.25	428.75		464	496.9
Somerset	25.25	24.25	503.8214286		464	581.1785714
Sussex	23.125	24.25	476.4444444		464	548.8888889
Union	23.54545455	24.25	455.7380952		464	516.5238095
Warren	25	24.25	496.5		464	531.75
Grand Total	24.07718121	24.25	463.8742038		464	529.7419355

This figure above is displaying the State Test(PSAT,SAT,ACT) Performance Averages Compared to the State Averages.

Figure 4.



Shows total police reports per county in regards to Substances, Vandalism, Harassment, and Other Incidents

Overall Analysis

The average percentage increase per county was 4.78 percent with the exception of 6 counties seeing a decrease in overall funding. Those counties being Cape May, Hudson, Hunterdon, Monmouth, Ocean, and Sussex. With the slight overall increase a positive correlation between funding and Performance was not shown as only 34.6% Of districts met or exceeded the standard in regards to state tests like the PSAT, SAT, and ACT. While 65.4% fell below the standard set. Keep in mind that the benchmark given to each district varied.

Furthermore what this shows is a total underperformance by the state as a whole despite adequate funding, at least in regards to the SAT as the overall average was 529.74 whereas for the ACT 24.07. Showing that districts whose students took the ACT seemed to perform better as a whole compared to those who took the SAT.

Implication and Recommendations

An implication that can be drawn from this is that there is no clear correlation between funding and performance. Showing that an increase in funding does not guarantee better performance. There appears to be a disconnect between resource input and performance output as a significant majority of districts (65.4%) fell below academic benchmarks, indicating systemic issues. These challenges suggest that the lack of correlation between funding and performance reflects deeper structural problems, and current educational improvement strategies may require fundamental revision.

Additionally, district-level variations underscore the need for localized solutions. To address these issues, several recommendations are proposed. Strategic resource allocation should include targeted interventions for underperforming districts and accountability measures for resource use. Performance enhancement initiatives such as mentorship programs, data-driven decision-making, and comprehensive student support systems are also essential. Standards should also be looked into as many schools standards for what is considered passing is very low as reported by the Grade Calculator a D is considered passing in many schools. Behavioral and safety measures should involve preventive programs and safe learning environment initiatives.

Lastly, community engagement can be improved through partnerships with local organizations and increased parental involvement as there appears to be a lot of cases in regards to substance use.

Conclusion

In conclusion, improving academic outcomes requires more than increased funding, it demands strategic, data-driven, and community-focused solutions. Addressing systemic issues through targeted interventions, accountability, and localized support can drive meaningful and lasting educational improvement. This is not a problem that can be solved with broad assessments.

References

State Aid Summaries

<https://www.nj.gov/education/stateaid/>

NJ School Data

<https://www.njschooldata.org/download>

Edweek.org

<https://www.edweek.org/leadership/want-test-scores-to-improve-make-engaging-families-a-top-priority/2022/10>

Grade Calculator

<https://gradecalculator.io/new-jersey/>