

South Orange
Maplewood School
District:
*Equity Audit of
Disparity Patterns*

Disproportionality and Equity Lab

June 2023

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Executive Summary

Dr. Edward Fergus along with a research team (Dr. Jessica Hochman and Dr. Tonya Leslie) conducted a eight-month equity audit of the South Orange Maplewood School District (SOMSD) systems related to diversification of advanced classes. The eight-month project (October, 2022 – June 2023) involved: 1) collection of school practice data specific to curriculum, instruction, advanced classes, and intervention supports; and 2) conduct focus groups with staff and students, and survey of students. The intention of this equity audit is to support the district’s efforts to develop a comprehensive approach for racial/ethnic diversifying of enrollment in advanced programming. The following are the key findings.

Disparity Patterns

Clear patterns of disparity were apparent in the special education, discipline, and Gifted/AP/Honors Enrollment.

1. In examining the special education data over the 2018-19 to 2021-22 school years, there is a persistent disparity pattern. Black students were consistently 80 to 90% *more likely* compared to all others to be identified with a disability. White students were between 40 to 50% *less likely* compared to all others to be identified with a disability.
2. The analysis of honors and AP over the 2018-19 to 2021-22 SY demonstrate a pattern in which Black and Latinx students are at greatest likelihood of being enrolled in Honors classes and less likely in Advanced Placement classes (AP). Meanwhile White and Asian students have an inverse pattern compared to Black and Latinx students. This pattern suggest that Black and Latinx students enrollment in advanced courses ends at Honors classes while White and Asians do not maintain a ceiling.

Curriculum Findings

Data analysis revealed several findings regarding the Math curriculum:

1. Less rigorous curriculum experienced by middle school students in lower track courses. The essential questions and learning objectives of the courses focus on comprehension and knowledge level skill development while more advanced courses focus synthesis and evaluative skill development;
2. Math course selection policy enacts a bounded system that reinforces inequalities in opportunity; and
3. Math course selection criteria of parent choice deepen disparities.

Intervention Support Findings

Overall, two clear findings emerged in our examination:

1. The I&RS process in SOMSD are inconsistent across elementary schools. In addition, the process does not contain the expected elements outlined in NJDOE I&RS guidance document in most of the schools. Based on this analysis the district needs to re-develop a tiered intervention process, that includes data infrastructure, teaming process of operating, intervention capacity, fidelity monitoring of I&RS team operation, and data interpretation to intervention capacity.
2. The rate of I&RS referrals transferred to CST referrals is appearing to be between 40-50%. And the rate of I&RS referrals and CST referrals are appearing to primarily involve Black students. Given the district enrollment is 42% Black, these rates of I&RS comprising primarily of Black students reflects an over-representation of Black students. In order to address these disproportionate patterns, there needs to be an improvement of I&RS process as well as identify why Black students are being primarily identified for I&RS services.

Recommendations

Within SOMSD, the norms of white and affluent families have historically dominated the culture of the school. It is recommended that the district undertake a systematic push toward re-norming their school policies, pedagogy, and curriculum toward more culturally responsive and inclusive norms. In particular centering the needs of Black and Latinx populations, and Free Reduced Lunch eligible families in the school district's programming. This shift will take time and all stakeholders will be impacted. Therefore, in the interim, it is crucial that the district also create spaces where all families, students, and educators can process these changes. Families who have typically had access to the most resources will struggle to adjust to a system that is more equitable; families who have typically been overlooked may struggle to build trust. Both will need spaces where they can ask questions of district leaders and build an understanding of the new district systems and policies. These spaces and family education mechanisms will need to look different according to the stakeholder group they serve. Issues of language, timing, location, and presenters should be considered in planning these supports. BIPOC students and teachers will also need affinity spaces where they can receive support.

The following recommendations refer to both long and short term goals that together can help create a more equitable environment for learning within SOMSD. The recommendations provided below are intended to not be an exhaustive list but rather focused activities to continue the movement of SOMSD towards being integration ready in target areas for the next 3-5 years.

Curriculum

1. **Prioritize material and verbal messaging regarding math growth mindset:** It is recommended to prioritize the development of a growth mindset and actively challenge gender and race-based stereotypes in math performance for educators, students, and families. This entails promoting the understanding that ability is not fixed, but rather malleable and can be enhanced through effort and persistence. By shifting students' beliefs about the nature of ability, educators can support students to embrace challenges and view setbacks as opportunities for growth, rather than as indicators of fixed traits.
2. **Foster heterogeneous student collaboration in math instruction:** In elementary and middle school math courses, equip educators to create opportunities for students of different abilities, backgrounds, and learning styles to collaborate and work together on math tasks.
3. **Ensure that low-track students receive the high-quality instruction that they need to become better math students:** Review the current curriculum and standards for lower-track math classes to ensure that they align with higher-level cognitive skills such as evaluation and creation (the two upper tiers of Bloom's Taxonomy). Identify areas where

the curriculum can be enhanced to provide more challenging tasks that require students to analyze, evaluate, and create mathematical solutions.

4. **Create a clear plan and timeline to identify high-achieving students from under-represented backgrounds for higher-track math courses:** Implement strategies to identify students with high math achievement potential who may come from under-represented backgrounds. This can include using multiple criteria such as teacher recommendations, performance on low-stakes math assessments, and considering students' demonstrated interest and motivation in math.
5. **Create enrichment and acceleration opportunities:** Develop enrichment and acceleration programs that provide students with the opportunity to move into accelerated math classes in grades 6 through 8. Offer summer enrichment courses specifically designed to reinforce and extend math concepts.
6. **Increase accessible and equitable parent involvement:** Actively involve parents in the math course selection process and provide strategies to support their children's math achievement at home. Offer math course selection sessions at different times of the day and in different modalities to accommodate different families. In addition, math course selection sessions can be led in multiple languages, including closed captioning or translated materials, to ensure that multilingual families and speakers of languages other than English can fully participate.
7. **Revisit the choice policy for math course selection:** Evaluate and modify the existing policy for math course selection to promote equity and reduce potential biases. Reduce the emphasis on high-stakes or one-time performance on math assessments as the sole criterion for course placement. Instead, consider multiple factors that provide a more comprehensive understanding of students' abilities and potential for success in advanced math courses.

Intervention Supports

1. Development of a district-wide tiered system of support that includes defining academic and behavioral tiers available and processes for utilization. The following are tools for considering the implementation timeline of response to intervention (RTI):
 - a. School Level implementation guide:
http://www.rtinetwork.org/images/Colorado_School_RtI_Fidelity_Rubrics_2.pdf
2. Extensive review of I&RS Implementation Process Guide in order to address inconsistencies and redundancies.
3. Develop list of tiered interventions for academic behavioral supports. The following are sample resources:
 - a. Academic Interventions list: <https://charts.intensiveintervention.org/aintervention>

- b. Behavior Interventions list: <https://charts.intensiveintervention.org/bintervention>
4. Develop tools and protocols for the operation of intervention team meetings. The following are sample resources:
 - a. Implementation checklist:
https://intensiveintervention.org/sites/default/files/Student-Level_DBI_Checklist_508.pdf

Develop Pedagogical Capacity with an Equity Lens

1. Develop and implement a professional development series that focuses on continued development of cross-cultural capacity in order to replace bias-based beliefs such as colorblindness, deficit thinking, and racial discomfort.
2. Continuous assessment of educator knowledge on intervention support systems, curriculum and instruction improvements.
3. Through professional development, build teacher empathy for all students. Events such as the middle school Challenge Day create humanistic bonds between teachers and students.
4. Conduct a curriculum audit of courses in humanities, English-Language Arts, and history using a culturally responsive protocol to determine where more inclusive materials and pedagogies are needed.
5. Hire more Black teachers/teachers of color and create affinity spaces to support those teachers to increase retention.
6. Build on successes of affinity spaces for students of color such as MAC scholars.
7. Provide affinity spaces for BIPOC students across school levels.

Introduction

The Equity & Disproportionality Lab’s work in SOMSD has three interconnected goals: 1) to evaluate and assess the specific needs of the district regarding supplemental programs to remediate the effects of tracking and leveling on African American and other disproportionately affected groups; 2) to provide recommendations to the district on further improvement of comprehensive equity plans; and 3) conduct collaborative meetings with the district to implement recommendations. This report will address the first two goals; the third will be met in meetings with report stakeholders in the community. A particular focus of this work is to explore and unpack the processes and practices involved in the determination of high school tracking and leveling.

Dr. Fergus and Rutgers team conducted several steps of support throughout 2022-23 school year including:

Evaluate and Assess Tracking and Leveling

Determine the processes and practices involved in the determination of high school tracking and leveling. The activities involved conducting interviews/focus groups (in-person and/or virtual) of school staff and students, collect documents representative of math, science, and ELA course selections at the high school, and review data on course enrollment of content by race/ethnicity, gender, and free/reduced lunch status eligibility.

Outline implementation stages for Equity Plan

Dr. Fergus and team will work collaboratively with SOMSD team to review the plan for improvement based on final report, review the integration enrollment process to determine whether practice is equitably providing access across the district, and finally examine the plan in relation to an implementation stages framework (<https://nirn.fpg.unc.edu/sites/nirn.fpg.unc.edu/files/resources/NIRN-StagesOfImplementationAnalysisWhereAreWe.pdf>). The intention is to define the stages of implementation or development necessary to ensure the changed practice takes hold within the district. The stages framework provides an opportunity to assess readiness of educators, community members; inventory the current and necessary resources for initial and full implementation; and define the progress monitoring process of the implementation.

Methods

Focus Groups

Focus groups were held in the district with teachers and students between January 2023 and May 2023. There were 4 teacher focus groups as well as 3 individual interviews with teachers and administrators. While interest in the teacher interest focus groups was strong, many teachers decided not to participate after learning groups would be audio recorded. This was despite learning that the recordings would not be shared with school administrators and being reminded that only pseudonyms would be used in the reporting. In fact, one of the teacher focus groups could not take place because the teachers refused to be recorded. A handful of those teachers agreed to be interviewed individually, and some joined other groups scheduled on a different date. Participants ranged in position from preschool through high school and included administrators, special education teachers, and teachers from all academic disciplines.

A total of eight student focus groups were held; three at each of the middle schools in the district and two at Columbia High School; a total of 40 students participated in focus groups. Per our examination plan, we intentionally solicited students of color from middle and high school levels. While we had a good showing of diverse students from all three schools, one of the middle schools included no Black student representation.

Survey

A student survey was administered in May 2023. While over 25 Black families indicated interest, we collected only 12 permission slips and received only one response to the survey. Therefore, survey data is not referenced in this report.

Document review

Documents were collected representative of math, science, and ELA course selections at the high school. Focus was placed on math, the one academic area within the district where tracking is still employed. The Rutgers team reviewed documents that provided insight into instruction, curriculum, intervention supports, and school climate. The documents are not intended to provide an exhaustive representation of each practice but rather were used as standard documents that can operate as a proxy for understanding. Table 1 provides the list of documents requested from each school.

Table 1: Artifacts checklist

Document	Completion (write in date)
e.g. whatever important document	1/5/20
Master Schedule (examine allocation of academic and behavioral supports)	
School student handbook	
School faculty handbook	
Curriculum	
ELA or Math Curriculum Scope & Sequence (sample lesson plan and curriculum unit)	
Sample curricular unit	
Sample lesson plan(s) for curricular unit above	
ELA or Math achievement patterns by race/ethnicity and FRLP for last 2 years	
Instruction	
PLC topics and calendar for 2019-20 and PLC structure	
Sample PLC meeting notes (5-10 sample notes)	
Sample instructional observations (sample of 4-5 classrooms)	
Intervention Supports	
Intervention tiers of supports (academic and behavioral) – Outline of I&RS process and other relevant I&RS documents	
Referral forms (academic and behavioral)	
Sample I&RS referral forms completed	
Climate Conditions	
Staff emails for school climate survey	
List of before and after school services	
List of school-wide programs (e.g., before and after care programs, Leader in Me, etc.)	
Data Collection Activities	
	Select Date and Timeframe
Observation of PLC	
Observation of I&RS meeting	
Focus groups with staff regarding intervention support capacity	
Other relevant documents (please list)	

Section 1: Disparity Analysis

A component of our analysis involves examining the nature of disparity by race/ethnicity, gender, and free reduced lunch program (FRLP) eligibility status. The disparity analyses involve examining the nature of proportional patterns existing in the district. We examine this pattern over a three-year timeframe to understand the trajectory (i.e., 2018-19, 2019-20, 2021-22). Additionally, this examination looks at three areas of programming, special education, discipline, and gifted, AP, honors, and advanced courses enrollment. The discipline analysis only focuses on 2021-22 SY given the anomalies of the previous years' quarantine and hybrid learning years.

Finding Section1: Black students, male students, and students eligible for free reduced lunch have a continuous pattern of disparity between 2018-19 and 2021-22 school years.

In examining the special education data over the 2018-19 to 2021-22 school years, there is a persistent disparity pattern. Figure 1 allows to see the trend line of relative risk to be identified with disability in SOMSD. Relative risk ratio formula allows to identify the likelihood a particular pattern happening for a specific group in comparison to all other groups. The rule of thumb is 1.0 is equal risk, above 1.0 is an elevated risk, and below 1.0 is a lowered risk. For instance, in 2018-19 SY, Black students were 1.87 times *more likely* or 87% more likely compared to all others to be identified with a disability. White students were .44 less likely or 44% *less likely* compared to all others to be identified with a disability. The figure demonstrates that Black and Latinx students have a persistently stable risk above 1.0 during these school years, while White, Asian, and Multiracial students have a lowered risk. NOTE: The small Native American student population makes it difficult to make any interpretation of the varied movement during each year.

The concern is whether or not shifts occurred in the tiered intervention support systems in the school district during the 2018-19 to 2021-22 school years to specifically address these patterns.

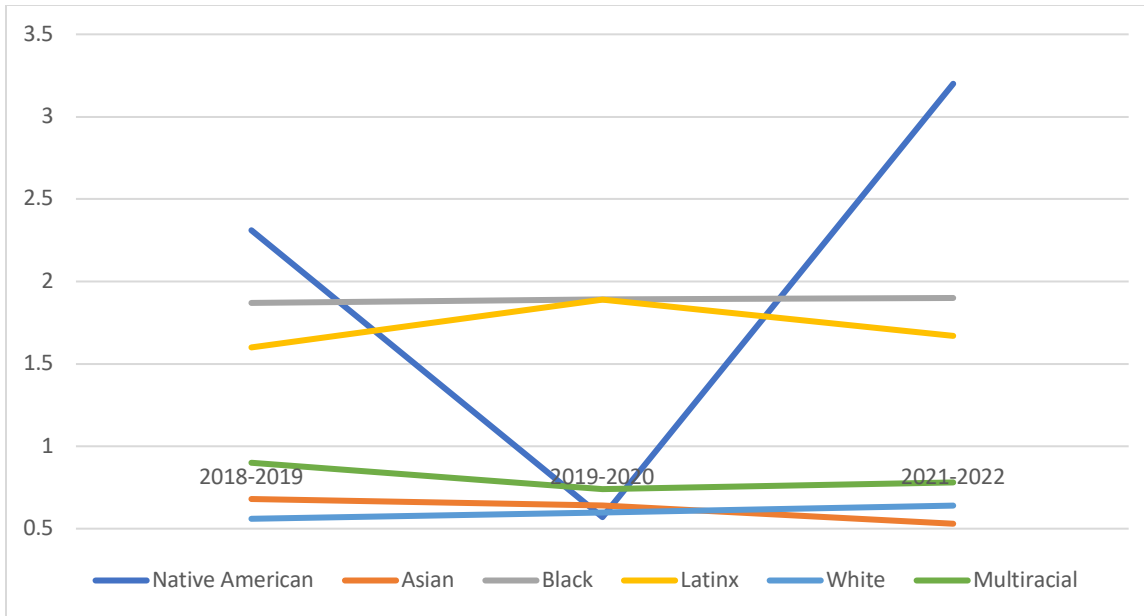


Figure 1: Relative Risk Ratio in Special Education by Race/Ethnicity: 2018-19 to 2021-22

The analysis of honors and AP over the 2018-19 to 2021-22 SY demonstrate a pattern in which Black and Latinx students are at greatest likelihood of being enrolled in Honors classes and less likely in Advanced Placement classes (AP). Meanwhile White and Asian students have an inverse pattern compared to Black and Latinx students. Figures 2 and 3 demonstrate risk in honors and AP classes.

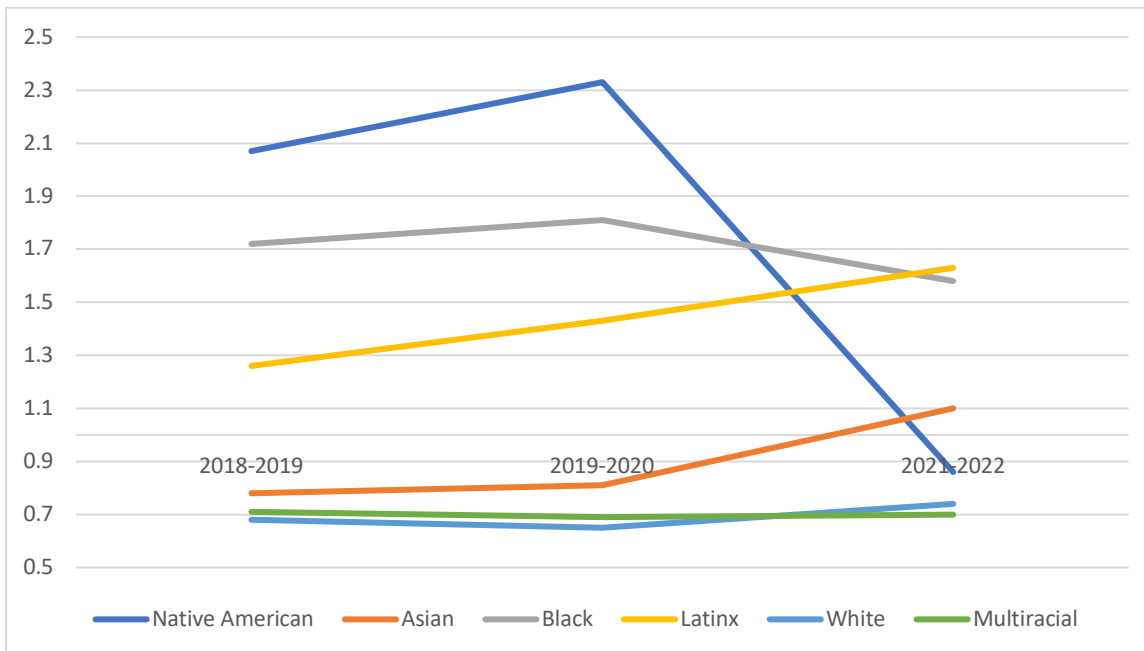


Figure 2: Relative Risk Ratio in Honors by Race/Ethnicity: 2018-19 to 2021-22

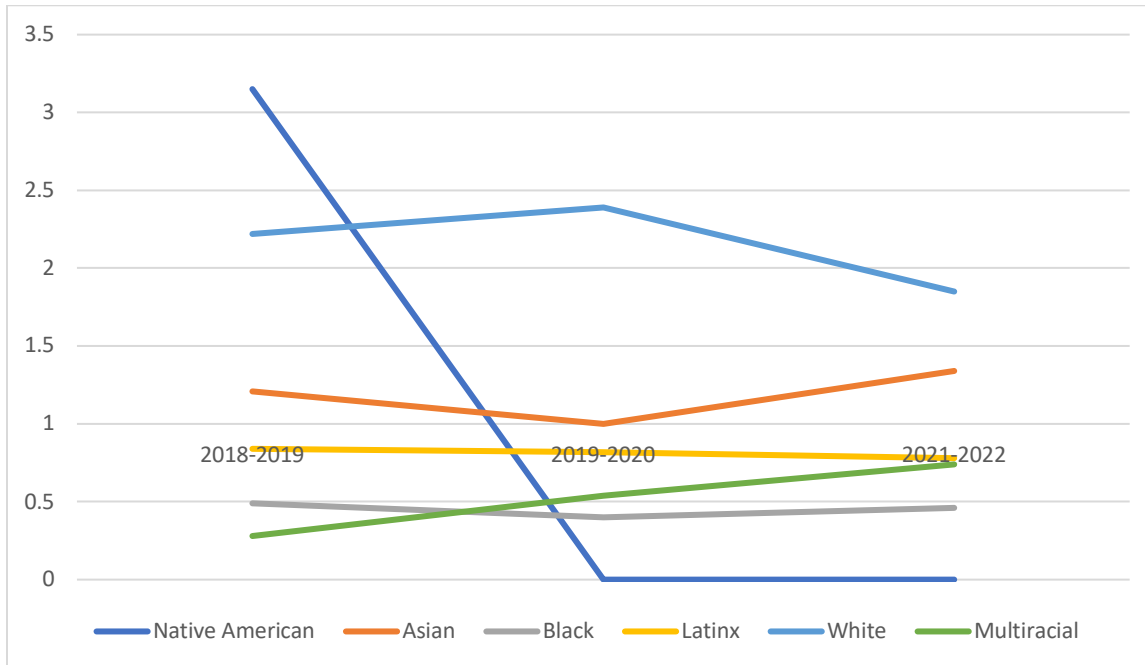


Figure 3: Relative Risk Ratio in AP by Race/Ethnicity: 2018-19 to 2021-22

The following analyses provide details by each area of educational practice – special education, discipline, and Gifted, AP, and Honors – and each school year included. The intention of the following analyses is to demonstrate the nuances of the disparity patterns that occurred within each other, as well as analyses by gender and Free Reduced Lunch Program eligibility status.

Special Education

2018-19 SY

Table 2 demonstrates the overall enrollment and special education enrollment by race/ethnicity for 2018-19 SY. Table 3 provides the percentage represented in overall enrollment and special education enrollment by race/ethnicity. In 2018-19 SY, while Black students comprised 28% of the school district enrollment, they represent 41% of the overall population of students with disabilities. This represents an over-representation of Black students in special education. In other words, all things being equal we should see a proportional representation of

Black students in special education similar to their rates of overall district enrollment. In addition, of the total Black student population, 21.8% are enrolled in special education; this pattern also demonstrates an over-representation compared to national averages of 12%. Comparatively, White students are 55% of the overall student population and represent 40% of students with disabilities population. This reflects an under-representation. We see a similar pattern of under-representation among Asian student population.

Table 2: Overall enrollment and Special Education Enrollment by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)	Total
Number of Students (Enrollment)	6	283	1,958	301	3,882	687	7,117
Students with Disabilities (SWD)	2	28	427	68	413	90	1028

Table 3: Percentage overall enrollment and special education enrollment by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)	Total
Percent of Students (Enrollment)	0.1%	4%	28%	4%	55%	10%	100%
Group % with Students with Disabilities (SWD)	33.33%	9.89%	21.81%	22.59%	10.64%	13.10%	14.44%
Students with Disabilities by	0.19%	2.72%	41.54%	6.61%	40.18%	8.75%	100.00%

race/ethnicity (SWD)							
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Table 4 provides the overall enrollment and special education enrollment by gender. And Table 5 provides the percentage of overall enrollment and special education enrollment by gender. Similar to patterns by race/ethnicity, there is a gender disparity. Male students are 51% of school district enrollment, and 65% of special education enrollment. Meanwhile female students are 49% of district and 34% of special education.

Table 4: Overall enrollment and Special Education Enrollment by gender

	MALE	FEMALE	Total
Number of Students (Enrollment)	3,639	3,478	7,117
Students with Disabilities (SWD)	673	355	1028

Table 5: Percentage overall enrollment and special education enrollment by gender

	MALE	FEMALE	Total
Percent of Students (Enrollment)	51%	49%	100%
Students with Disabilities (SWD)	18.49%	10.21%	14.44%
Students with Disabilities (SWD)	65.47%	34.53%	100.00%

Table 6 provides the overall enrollment and special education enrollment by free reduced lunch eligibility (FRLP) status. And Table 7 provides the percentage enrollment. In 2018-19, the students eligible for FRLP were combined 16% of the district enrollment and 26% of special education enrollment; this is an over-representation.

Table 6: Overall enrollment and Special Education Enrollment by Free Reduced Lunch Program Eligibility

	FREE	REDUCED	PAID	Total
Number of Students (Enrollment)	948	194	5,975	7,117
Students with Disabilities (SWD)	236	35	757	1028

Table 7: Percentage overall enrollment and special education enrollment by Free Reduced Lunch Program Eligibility

	FREE	REDUCED	PAID	Total
Percent of Students (Enrollment)	13%	3%	84%	100%
Students with Disabilities (SWD)	24.89%	18.04%	12.67%	14.44%
Students with Disabilities (SWD)	22.96%	3.40%	73.64%	100.00%

Table 8 provides the relative risk ratio of special education identification by race/ethnicity. Relative risk ratio formula allows to identify the likelihood a particular pattern is happening for a specific group in comparison to all other groups. The rule of thumb is 1.0 is

equal risk, above 1.0 is an elevated risk, and below 1.0 is a lowered risk. In 2018-19 SY, Black students were 1.87 times *more likely* or 87% more likely compared to all others to be identified with a disability. White students were .44 less likely or 44% *less likely* compared to all others to be identified with a disability. Black students also had an elevated risk in ED (44% more likely), LD (149% more likely), and SI (40% more likely). White students had a lowered risk in every identification category.

Table 8: Relative Risk Ratio by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)
Students with Disabilities (SWD)	2.31	0.68	1.87	1.60	0.56	0.90
Emotional Disturbance (ED)	25.76	0.52	1.49	0.49	0.80	0.87
Learning Disability (LD)	0.00	0.12	2.49	1.74	0.48	0.75
Speech or Language Impairment (SI)	0.00	2.15	1.40	0.00	0.80	0.83
Other Health Impairment (OHI)	0.00	0.82	0.93	1.58	0.93	1.21

Table 9 provides the relative risk ratio by gender. Male students maintain a higher likelihood in overall identification (1.81). And most over-represented in SI and OHI. The only category in which male and female students are nearly at equal risk is ED identification.

Table 9: Relative Risk Ratio by gender

	MALE	FEMALE
Students with Disabilities (SWD)	1.81	0.55
Emotional Disturbance (ED)	1.09	0.92
Learning Disability (LD)	1.36	0.73
Speech or Language Impairment (SI)	2.65	0.38
Other Health Impairment (OHI)	2.88	0.35

Table 10 provides the relative risk ratio by FRLP. Students not eligible for FRLP maintained a lowered risk ratio in all categories except OHI. Students FRLP eligible have a pronounced elevated risk in ED (99% more likely) and LD (151% more likely).

Table 10: Relative Risk Ratio by FRLP

	FREE	REDUCED	PAID
Students with Disabilities (SWD)	1.94	1.26	0.53
Emotional Disturbance (ED)	1.99	0.00	0.63
Learning Disability (LD)	2.51	1.23	0.42
Speech or Language Impairment (SI)	1.08	0.74	0.98
Other Health Impairment (OHI)	0.94	0.74	1.11

2019-20

Table 11 demonstrates the overall enrollment and special education enrollment by race/ethnicity for 2019-20 SY. Table 12 provides the percentage represented in overall enrollment and special education enrollment by race/ethnicity. In 2019-20 SY, among the Black student population, which comprised 26% of the school district enrollment, they were 39% of the overall student with disabilities population; this represents an over-representation of Black students in special education. In other words, all things being equal we should see a proportional representation of Black students in special education similar to their rates of overall district enrollment. In addition, of the total Black student population 20% are enrolled in special

education; this pattern also demonstrates an over-representation compared to national averages of 12%. Comparatively, White students are 55% of the overall student population and 42% of students with disabilities population; this is an under-representation. We see a similar under-representation among Asian student population.

Table 11: Overall enrollment and Special Education Enrollment by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)	Total
Number of Students (Enrollment)	13	276	1,882	264	3,974	820	7,229
Students with Disabilities (SWD)	1	24	388	65	409	84	971

Table 12: Percentage overall enrollment and special education enrollment by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)	Total
Percent of Students (Enrollment)	0%	4%	26%	4%	55%	11%	100%
Students with Disabilities (SWD)	7.69%	8.70%	20.62%	24.62%	10.29%	10.24%	13.43%

Students with Disabilities (SWD)	0.10%	2.47%	39.96%	6.69%	42.12%	8.65%	100.00%
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Table 13 provides the overall enrollment and special education enrollment by gender. And Table 14 provides the percentage of overall enrollment and special education enrollment by gender. Similar to patterns by race/ethnicity, there is a gender disparity. Male students are 51% of school district enrollment, and 66% of special education enrollment. Meanwhile female students are 49% of district and 33% of special education.

Table 13: Overall enrollment and Special Education Enrollment by gender

	MALE	FEMALE	Non Binary	Total
Number of Students (Enrollment)	3,700	3,528	1	7,229
Students with Disabilities (SWD)	646	325	0	971

Table 14: Percentage overall enrollment and special education enrollment by gender

	MALE	FEMALE	Total
Percent of Students (Enrollment)	51%	49%	100%
Students with Disabilities (SWD)	17.46%	9.21%	13.43%
Students with Disabilities (SWD)	66.53%	33.47%	100.00%

Table 15 provides the overall enrollment and special education enrollment by free reduced lunch eligibility (FRLP) status. And Table 16 provides the percentage enrollment. In 2019-20, the students eligible for FRLP were combined 15% of the district enrollment and 24% of special education enrollment; this is an over-representation.

Table 15: Overall enrollment and Special Education Enrollment by Free Reduced Lunch Program Eligibility

	FREE	REDUCED	PAID	Total
Number of Students (Enrollment)	882	188	6,159	7,229
Students with Disabilities (SWD)	200	37	734	971

Table 16: Percentage overall enrollment and special education enrollment by Free Reduced Lunch Program Eligibility

	FREE	REDUCED	PAID	Total
Percent of Students (Enrollment)	12%	3%	85%	100%
Students with Disabilities (SWD)	22.68%	19.68%	11.92%	13.43%
Students with Disabilities (SWD)	20.60%	3.81%	75.59%	100.00%

Table 17 provides the relative risk ratio of special education identification by race/ethnicity. Relative risk ratio formula allows to identify the likelihood a particular pattern is happening for a specific group in comparison to all other groups. The rule of thumb is 1.0 is equal risk, above 1.0 is an elevated risk, and below 1.0 is a lowered risk. In 2019-20 SY, Black students were 1.88 times more likely or 89% more likely compared to all others to be identified with a disability. White students were .40 less likely or 40% less likely compared to all others to be identified with a disability. Black students also had an elevated risk in ED (27% more likely), LD (164% more likely), and SI (67% more likely). White students had a lowered risk in every identification category.

Table 17: Relative Risk Ratio by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)
Students with Disabilities (SWD)	0.57	0.64	1.89	1.89	0.60	0.74
Emotional Disturbance (ED)	10.28	0.47	1.27	0.00	0.85	1.33
Learning Disability (LD)	0.00	0.00	2.64	1.99	0.51	0.54
Speech or Language Impairment (SI)	0.00	2.40	1.67	0.00	0.82	0.36
Other Health Impairment (OHI)	0.00	1.01	0.85	1.73	1.00	1.06

Table 18 provides the relative risk ratio by gender. Male students maintain a higher likelihood in overall identification (1.90). And most over-represented in SI (243% more likely) and OHI (164% more likely). The only category in which male and female students are nearly at equal risk is ED identification.

Table 18: Relative Risk Ratio by gender

	MALE	FEMALE
Students with Disabilities (SWD)	1.90	0.53
Emotional Disturbance (ED)	0.99	1.01
Learning Disability (LD)	1.49	0.67
Speech or Language Impairment (SI)	3.43	0.29
Other Health Impairment (OHI)	2.64	0.38

Table 19 provides the relative risk ratio by FRLP. Students not eligible for FRLP maintained a lowered risk ratio in all categories except OHI. Students FRLP eligible have a pronounced elevated risk in ED (22% more likely) and LD (154% more likely).

Table 19: Relative Risk Ratio by FRLP

	FREE	REDUCED	PAID
Students with Disabilities (SWD)	1.87	1.48	0.54
Emotional Disturbance (ED)	1.22	0.69	0.89
Learning Disability (LD)	2.54	1.56	0.40
Speech or Language Impairment (SI)	0.88	1.70	0.97
Other Health Impairment (OHI)	0.77	1.04	1.24

2021-22

Table 20 demonstrates the overall enrollment and special education enrollment by race/ethnicity for 2021-22 SY. Table 21 provides the percentage represented in overall enrollment and special education enrollment by race/ethnicity. In 2021-22 SY, among the Black student population, which comprised 25% of the school district enrollment, they were 38% of the overall student with disabilities population; this represents an over-representation of Black

students in special education. In other words, all things being equal we should see a proportional representation of Black students in special education similar to their rates of overall district enrollment. In addition, of the total Black student population 24% are enrolled in special education; this pattern also demonstrates an over-representation compared to national averages of 12%. Comparatively, White students are 54% of the overall student population and 42% of students with disabilities population; this is an under-representation. We see a similar under-representation among Asian student population.

Table 20: Overall enrollment and Special Education Enrollment by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)	Total
Number of Students (Enrollment)	6	258	1,617	183	3,499	969	6,532
Students with Disabilities (SWD)	3	22	393	47	435	122	1022

Table 21: Percentage of overall enrollment and Special Education Enrollment by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)	Total
Percent of Students (Enrollment)	0%	4%	25%	3%	54%	15%	100%

Students with Disabilities (SWD)	50.00%	8.53%	24.30%	25.68%	12.43%	12.59%	15.65%
Students with Disabilities (SWD)	0.29%	2.15%	38.45%	4.60%	42.56%	11.94%	100.00%

Table 22 provides the overall enrollment and special education enrollment by gender. And Table 23 provides the percentage of overall enrollment and special education enrollment by gender. Similar to patterns by race/ethnicity, there is a gender disparity. Male students are 51% of school district enrollment, and 64% of special education enrollment. Meanwhile female students are 49% of district and 36% of special education.

Table 22: Overall enrollment and Special Education Enrollment by gender

	MALE	FEMALE	NON BINARY	Total
Number of Students (Enrollment)	3,336	3,185	11	6,532
Students with Disabilities (SWD)	654	367	1	1022

Table 23: Percentage overall enrollment and special education enrollment by gender

	MALE	FEMALE	Non-Binary	Total
Number of Students (Enrollment)	51%	49%	.17%	100%
Students with Disabilities (SWD)	19.60%	11.52%	9.09%	15.65%

Students with Disabilities (SWD)	63.99%	35.91%	.1%	100.00%
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Table 24 provides the overall enrollment and special education enrollment by free reduced lunch eligibility (FRLP) status. And Table 25 provides the percentage enrollment. In 2018-19, the students eligible for FRLP were combined 16% of the district enrollment and 26% of special education enrollment; this is an over-representation.

Table 24: Overall enrollment and Special Education Enrollment by Free Reduced Lunch Program Eligibility

	FREE	REDUCED	PAID	Total
Number of Students (Enrollment)	582	94	5,856	6,532
Students with Disabilities (SWD)	155	23	844	1022

Table 25: Percentage Overall enrollment and Special Education Enrollment by Free Reduced Lunch Program Eligibility

	FREE	REDUCED	PAID	Total
Percent of Students (Enrollment)	9%	1%	90%	100%
Students with Disabilities (SWD)	26.63%	24.47%	14.41%	15.65%

Students with Disabilities (SWD)	15.17%	2.25%	82.58%	100.00%
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Table 26 provides the relative risk ratio of special education identification by race/ethnicity. Relative risk ratio formula allows to identify the likelihood a particular pattern is happening for a specific group in comparison to all other groups. The rule of thumb is 1.0 is equal risk, above 1.0 is an elevated risk, and below 1.0 is a lowered risk. In 2021-22 SY, Black students were 1.90 times more likely or 90% more likely compared to all others to be identified with a disability. White students were .36 less likely or 36% less likely compared to all others to be identified with a disability. Black students also had an elevated risk in ED (30% more likely) and LD (151% more likely). White students had a lowered risk in LD identification category and elevated risk in ED and SI identification.

Table 26: Relative Risk Ratio of Special Education by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)
Students with Disabilities (SWD)	3.20	0.53	1.90	1.67	0.64	0.78
Emotional Disturbance (ED)	0.00	0.00	1.30	0.00	1.41	0.50
Learning Disability (LD)	0.00	0.24	2.51	1.97	0.52	0.69
Speech or Language	0.00	0.33	0.84	0.00	1.51	0.90

Impairment (SI)						
Other Health Impairment (OHI)	0.00	0.68	1.06	1.12	1.10	0.82

Table 27 provides the relative risk ratio by gender. Male students maintain a higher likelihood in overall identification (1.70). And most over-represented in SI (177% more likely) and OHI (160% more likely).

Table 27: Relative Risk Ratio by gender

	MALE	FEMALE	Non-Binary
Students with Disabilities (SWD)	1.70	0.59	0.58
Emotional Disturbance (ED)	0.69	1.45	0.00
Learning Disability (LD)	1.27	0.79	1.45
Speech or Language Impairment (SI)	2.77	0.36	0.00
Other Health Impairment (OHI)	2.60	0.39	0.00

Table 28 provides the relative risk ratio by FRLP. Students not eligible for FRLP maintained a lowered risk ratio in all categories except OHI. Students FRLP eligible have a pronounced elevated risk in ED (66% more likely) and LD (126% more likely).

Table 28: Relative Risk Ratio by FRLP

	FREE	REDUCED	PAID
Students with Disabilities (SWD)	1.83	1.58	0.55
Emotional Disturbance (ED)	1.66	0.00	0.71
Learning Disability (LD)	2.26	2.25	0.43
Speech or Language Impairment (SI)	0.43	0.94	2.02
Other Health Impairment (OHI)	0.82	0.54	1.29

Discipline

2021-22

Table 29 demonstrates the overall enrollment and discipline by race/ethnicity for 2021-22 SY. Table 30 provides the percentage represented in overall enrollment and discipline by race/ethnicity. In 2021-22 SY, among the Black student population, which comprised 25% of the school district enrollment, they were 64% of the overall students receiving discipline; this represents an over-representation of Black students in discipline. In other words, all things being equal we should see a proportional representation of Black students in discipline similar to their rates of overall district enrollment. Comparatively, White students are 54% of the overall student population and 19% of students with disabilities population; this is an under-representation.

Table 29: Overall Enrollment and Discipline by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)	Total
Number of Students (Enrollment)	6	258	1,617	183	3,499	969	6,532
All Discipline	0	1	36	2	11	6	56

Table 30: Percentage overall enrollment and discipline by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)	Total
Number of Students (Enrollment)	0%	4%	25%	3%	54%	15%	100%
Group Percentage Discipline	0.00%	0.39%	2.23%	1.09%	0.31%	0.62%	0.86%
All Discipline	0.00%	1.79%	64.29%	3.57%	19.64%	10.71%	100.00%

Table 31 provides the overall enrollment and discipline by gender. And Table 32 provides the percentage of overall enrollment and discipline by gender. Unlike patterns by race/ethnicity, there is no gender disparity.

Table 31: Overall enrollment and Discipline by gender

	Male	Female	Non-Binary	Total
Number of Students (Enrollment)	3,336	3,185	11	6,532
All Discipline	27	29	0	56

Table 32: Percentage overall enrollment and discipline by gender

	Male	Female	Non-Binary	Total
Percent of Students (Enrollment)	51%	49%	0%	100%
Percentage of group Discipline	0.81%	0.91%	0.00%	0.86%
All Discipline	48.21%	51.79%	0.00%	100.00%

Table 33 provides the overall enrollment and discipline by free reduced lunch eligibility (FRLP) status. And Table 34 provides the percentage enrollment and discipline. In 2021-22, the students eligible for FRLP were combined 10% of the district enrollment and 31% of discipline; this is an over-representation.

Table 33: Overall enrollment and Discipline by Free Reduced Lunch Program Eligibility

	FREE	REDUCED	PAID	Total
Number of Students (Enrollment)	582	94	5,856	6,532
All Discipline	15	3	38	56

Table 34: Percentage of overall enrollment and discipline by Free Reduced Lunch Program Eligibility

	FREE	REDUCED	PAID	Total
Number of Students (Enrollment)	9%	1%	90%	100%
Percentage of group Discipline	2.58%	3.19%	0.65%	0.86%
All Discipline	26.79%	5.36%	67.86%	100.00%

Table 35 provides the overall enrollment and discipline by students with disability (SWD) status. And Table 36 provides the percentage enrollment and SWD status. In 2021-22, the students with disability were combined 16% of the district enrollment and 39% of discipline; this is an over-representation.

Table 35: Overall enrollment and Discipline by Students with Disabilities Status

	SWD	NON-SWD	Total
Number of Students (Enrollment)	1,022	5,510	6,532
All Discipline	22	34	56

Table 36: Percentage of overall enrollment and discipline by Students with Disability Status

	SWD	NON-SWD	Total
Percent of Students (Enrollment)	16%	84%	100%
Percentage of Group Discipline	2.15%	0.62%	0.86%
All Discipline	39.29%	60.71%	100.00%

Table 37 provides the relative risk ratio of discipline by race/ethnicity. Relative risk ratio formula allows to identify the likelihood a particular pattern is happening for a specific group in comparison to all other groups. The rule of thumb is 1.0 is equal risk, above 1.0 is an elevated risk, and below 1.0 is a lowered risk. In 2021-22 SY, Black students were 5.47 times more likely or 447% more likely compared to all others to be identified with a disability. White students were .36 less likely or 36% less likely compared to all others to be identified disciplined. Black students also had an elevated risk in ISS (52% more likely) and OSS (491% more likely).

Table 37: Relative Risk Ratio of Discipline by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)
All Discipline	0.00	0.44	5.47	1.28	0.21	0.69
ISS	0.00	0.00	1.52	0.00	1.73	0.00
OSS	0.00	0.47	5.91	1.36	0.18	0.73

Table 38 provides the relative risk ratio by gender. Male and female students have nearly proportional risk.

Table 38: Relative Risk Ratio by Gender

	Male	Female	Non-Binary
All Discipline	0.89	1.13	0.00
OSS	0.99	1.01	0.00

Table 39 provides the relative risk ratio by FRLP. FRLP students are at greater risk (4 times more likely) of Out of School Suspensions (OSS).

Table 39: Relative Risk Ratio by FRLP

	FREE	REDUCED	PAID
All Discipline	3.74	3.88	0.24
ISS	0.00	0.00	N/A
OSS	4.04	4.11	0.22

Gifted, AP, Honors

2018-19 SY

Table 40 demonstrates the overall enrollment and gifted, AP, Honors by race/ethnicity for 2018-19 SY. Table 41 provides the percentage represented in overall enrollment and gifted, AP, Honors by race/ethnicity. In 2018-19 SY, among the Black student population, which comprised 28% of the school district enrollment, they were 29% of the overall students enrolled in gifted, AP, Honors; this represents a proportional representation of Black students in gifted, AP, Honors. In other words, all things being equal we should see a proportional representation of Black students in gifted, AP, Honors similar to their rates of overall district enrollment. Comparatively, White students are 55% of the overall student population and 54% of students with disabilities population; this is a proportional representation.

Table 40: Overall Enrollment and Gifted, AP, Honors Enrollment by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)	Total
Number of Students (Enrollment)	6	283	1,958	301	3,882	687	7,117
Total Number of Students Enrolled in Gifted/AP/Honors	5	116	892	131	1646	206	2996

Table 41: Percentage overall enrollment and gifted, AP, Honors Enrollment by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)	Total
Percent of Students (Enrollment)	0.84%	4%	28%	4%	55%	10%	100%
Percentage of groups Enrolled in Gifted/AP/Honors	83.33%	40.99%	45.56%	43.52%	42.40%	29.99%	42.10%
Total Percent Enrolled in Gifted/AP/Honors	0.17%	3.87%	29.77%	4.37%	54.94%	6.88%	100.00%

Table 42 provides the overall enrollment and gifted, AP, honors by gender. And Table 43 provides the percentage of overall enrollment and gifted, AP, honors by gender. Unlike patterns by race/ethnicity, there is no gender disparity; groups nearly proportional.

Table 42: Overall enrollment and Gifted, AP, Honors Enrollment by gender

	MALE	FEMALE	Non-Binary	Total
Number of Students (Enrollment)	3,639	3,478	0	7,117
Total Number of Students Enrolled in Gifted/AP/Honors	1435	1564	0	2999

Table 43: Percentage of overall enrollment and Gifted, AP, Honors Enrollment by gender

	MALE	FEMALE	Non-binary	Total
Percent of Students (Enrollment)	51%	49%	0%	100%
Percent of Group Enrolled in Gifted/AP/Honors	39.43%	44.97%	0%	42.14%
Percent Enrolled in Gifted/AP/Honors	47.85%	52.15%	0%	100.00%

Table 44 provides the overall enrollment and gifted, AP, and honors enrollment by free reduced lunch eligibility (FRLP) status. And Table 45 provides the percentage enrollment and gifted, AP, and honors enrollment. In 2018-19, the students eligible for FRLP were combined 16% of the district enrollment and 16% of gifted, AP, and honors enrollment; this is a proportional representation.

Table 44: Overall enrollment and gifted, AP, Honors enrollment by Free Reduced Lunch Program Eligibility

	FREE	REDUCED	PAID	Total
Number of Students (Enrollment)	948	194	5,975	7,117
Total Number of Students Enrolled in Gifted/AP/Honors	395	89	2515	2999

Table 45: Percentage overall enrollment and gifted, AP, Honors enrollment by Free Reduced Lunch Program Eligibility

	FREE	REDUCED	PAID	Total
Number of Students (Enrollment)	13%	3%	84%	100%
Percent of Group Enrolled in Gifted/AP/Honors	41.67%	45.88%	42.09%	42.14%
Percent Enrolled in Gifted/AP/Honors	13.17%	2.97%	83.86%	100.00%

Table 46 provides the relative risk ratio of gifted, AP, Honors by race/ethnicity. Relative risk ratio formula allows to identify the likelihood a particular pattern is happening for a specific group in comparison to all other groups. The rule of thumb is 1.0 is equal risk, above 1.0 is an elevated risk, and below 1.0 is a lowered risk. In 2018-19 SY, Black students were 1.72 times or 72% more likely to be enrolled in honors courses compared to all others. However, when it comes to AP courses, Black students are .51 or 51% less likely compared to all other students, as well as .43 or 43% less likely to be in advanced courses (middle school). White students were .32 less likely or 32% less likely compared to all others to be enrolled in honors courses and 2.22 times or 12% more likely to be enrolled in AP courses, and 1.37 times or 37% more likely to be in advanced courses (middle school).

Table 46: Relative Risk Ratio of Gifted, AP, Honors by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)
Total Number of Students Enrolled in Gifted/AP/Honors	1.98	0.97	1.12	1.04	1.02	0.69
Honors	2.07	0.78	1.72	1.26	0.68	0.71
AP	3.15	1.21	0.49	0.84	2.22	0.28
Advanced	0.00	1.41	0.57	0.58	1.37	1.28

Table 47 provides the relative risk ratio of gifted, AP, Honors enrollment by gender. Male and female students have nearly proportional risk, except for AP courses.

Table 47: Relative Risk Ratio gifted, AP, Honors enrollment by Gender

	MALE	FEMALE
Total Number of Students Enrolled in Gifted/AP/Honors	0.88	1.14
Honors	0.93	1.08
AP	0.74	1.35
Advanced	0.93	1.08

Table 48 provides the relative risk ratio of gifted, AP, Honors enrollment by FRLP. FRLP students and paid students have nearly proportional risk overall, except for AP and Honors courses. Students eligible for FRLP are 1.53 and 1.45 times more likely compared to paid students to be in honors courses. However students eligible for FRLP are 63% less likely to be enrolled in AP courses and 65% less likely to be enrolled in advanced courses (middle school).

Table 48: Relative Risk Ratio gifted, AP, Honors enrollment by FRLP

	FREE	REDUCED	PAID
Total Number of Students Enrolled in Gifted/AP/Honors	0.99	1.09	0.99
Honors	1.53	1.45	0.64
AP	0.37	0.63	2.48
Advanced	0.35	0.62	2.59

2019-20

Table 49 demonstrates the overall enrollment and gifted, AP, Honors by race/ethnicity for 2019-20 SY. Table XX provides the percentage represented in overall enrollment and gifted, AP, Honors by race/ethnicity. In 2019-20 SY, among the Black student population, which comprised 26% of the school district enrollment, they were 28% of the overall students enrolled in gifted, AP, Honors; this represents a proportional representation of Black students in gifted, AP, Honors. In other words, all things being equal we should see a proportional representation of Black students in gifted, AP, Honors similar to their rates of overall district enrollment. Comparatively, White students are 55% of the overall student population and 55% of students with disabilities population; this is a proportional representation.

Table 49: Overall Enrollment and Gifted, AP, Honors Enrollment by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)	Total
Number of Students (Enrollment)	13	276	1,882	264	3,974	820	7,229
Total Number of Students Enrolled in Gifted/AP/Honors	7	115	852	129	1666	254	3023

Table 50: Percentage overall Enrollment and Gifted, AP, Honors Enrollment by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)	Total
Percent of Students (Enrollment)	0%	4%	26%	4%	55%	11%	100%
Percent of group Enrolled in Gifted/AP/Honors	53.85%	41.67%	45.27%	48.86%	41.92%	30.98%	41.82%
Percent Enrolled in Gifted/AP/Honors	0.23%	3.80%	28.18%	4.27%	55.11%	8.40%	100.00%

Table 51 provides the overall enrollment and gifted, AP, honors by gender. And Table 52 provides the percentage of overall enrollment and gifted, AP, honors by gender. Unlike patterns by race/ethnicity, there is no gender disparity; groups nearly proportional.

Table 51: Overall enrollment and Gifted, AP, Honors Enrollment by gender

	MALE	FEMALE	Non-Binary	Total
Number of Students (Enrollment)	3,700	3,528	1	7,229
Total Number of Students Enrolled in Gifted/AP/Honors	1448	1575	0	3023

Table 52: Percentage overall enrollment and Gifted, AP, Honors Enrollment by gender

	MALE	FEMALE	Non-binary	Total
Percent of Students (Enrollment)	51%	49%	0%	100%
Percent of group Enrolled in Gifted/AP/Honors	39.14%	44.64%	0.00%	41.82%
Percent Enrolled in Gifted/AP/Honors	47.90%	52.10%	0.00%	100.00%

Table 53 provides the overall enrollment and gifted, AP, and honors enrollment by free reduced lunch eligibility (FRLP) status. And Table 54 provides the percentage enrollment and gifted, AP, and honors enrollment. In 2019-20, the students eligible for FRLP were combined 15% of the district enrollment and 15% of gifted, AP, and honors enrollment; this is a proportional representation.

Table 53: Overall enrollment and gifted, AP, Honors enrollment by Free Reduced Lunch Program Eligibility

	FREE	REDUCED	PAID	Total
Number of Students (Enrollment)	882	188	6,159	7,229
Total Number of Students Enrolled in Gifted/AP/Honors	378	82	2563	3023

Table 54: Percentage of overall enrollment and gifted, AP, Honors enrollment by Free Reduced Lunch Program Eligibility

	FREE	REDUCED	PAID	Total
Percent of Students (Enrollment)	12%	3%	85%	100%
Percent of group Enrolled in Gifted/AP/Honors	42.86%	43.62%	41.61%	41.82%
Percent Enrolled in Gifted/AP/Honors	12.50%	2.71%	84.78%	100.00%

Table 55 provides the relative risk ratio of gifted, AP, Honors by race/ethnicity. Relative risk ratio formula allows to identify the likelihood a particular pattern is happening for a specific group in comparison to all other groups. The rule of thumb is 1.0 is equal risk, above 1.0 is an elevated risk, and below 1.0 is a lowered risk. In 2019-20 SY, Black students were 1.81 times or 81% more likely to be enrolled in honors courses compared to all others. However, when it comes to AP courses, Black students are .60 or 60% less likely compared to all other students, as well as .37 or 37% less likely to be in advanced courses (middle school). White students were .35 less likely or 35% less likely compared to all others to be enrolled in honors courses and 2.39 times or 139% more likely to be enrolled in AP courses, and 1.28 times or 28% more likely to be in advanced courses (middle school).

Table 55: Relative Risk Ratio of Gifted, AP, Honors by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)
Total Number of Students Enrolled in Gifted/AP/Honors	1.29	1.00	1.11	1.18	1.01	0.72
Honors	2.33	0.81	1.81	1.43	0.65	0.69
AP	0.00	1.00	0.40	0.82	2.39	0.54
Advanced	0.00	1.53	0.63	0.92	1.28	1.03

Table 56 provides the relative risk ratio of gifted, AP, Honors enrollment by gender. Male and female students have nearly proportional risk, except for AP courses.

Table 56: Relative Risk Ratio gifted, AP, Honors enrollment by Gender

	MALE	FEMALE	Non-binary
Total Number of Students Enrolled in Gifted/AP/Honors	0.88	1.14	0.00
Honors	0.93	1.07	0.00
AP	0.66	1.52	0.00
Advanced	1.06	0.94	0.00

Table 57 provides the relative risk ratio of gifted, AP, Honors enrollment by FRLP. FRLP students and paid students have nearly proportional risk overall, except for AP and Honors courses. Students eligible for FRLP are 1.62 and 1.44 times more likely compared to paid students to be in honors courses. However students eligible for FRLP are 66% less likely to be enrolled in AP courses and 52% less likely to be enrolled in advanced courses (middle school). Meanwhile paid students are 2.89 times or 189% more likely to be enrolled in AP courses, and 1.97 times or 97% more likely to be in advanced courses (middle school).

Table 57: Relative Risk Ratio gifted, AP, Honors enrollment by FRLP

	FREE	REDUCED	PAID
Total Number of Students Enrolled in Gifted/AP/Honors	1.03	1.04	0.97
Honors	1.62	1.44	0.61
AP	0.34	0.45	2.89
Advanced	0.48	0.71	1.97

2021-22 SY

Table 58 demonstrates the overall enrollment and gifted, AP, Honors by race/ethnicity for 2021-22 SY. Table 59 provides the percentage represented in overall enrollment and gifted, AP, Honors by race/ethnicity. In 2021-22 SY, among the Black student population, which comprised 25% of the school district enrollment, they were 23% of the overall students enrolled in gifted, AP, Honors; this represents a nearly proportional representation of Black students in gifted, AP, Honors. In other words, all things being equal we should see a proportional representation of Black students in gifted, AP, Honors similar to their rates of overall district enrollment. Comparatively, White students are 45% of the overall student population and 56% of students with disabilities population; this is a nearly proportional representation.

Table 58: Overall Enrollment and Gifted, AP, Honors Enrollment by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)	Total
Number of Students (Enrollment)	6	258	1,617	183	3,499	969	6,532
Total Number of Students Enrolled in Gifted/AP/Honors	1	122	612	84	1460	297	2576

Table 59: Percentage of overall Enrollment and Gifted, AP, Honors Enrollment by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)	Total
Number of Students (Enrollment)	0%	4%	25%	3%	54%	15%	100%
Percent of Group Enrolled in Gifted/AP/Honors	16.67%	47.29%	37.85%	45.90%	41.73%	30.65%	39.44%
Percent Enrolled in Gifted/AP/Honors	0.04%	4.74%	23.76%	3.26%	56.68%	11.53%	100.00%

Table 60 provides the overall enrollment and gifted, AP, honors by gender. And Table 61 provides the percentage of overall enrollment and gifted, AP, honors by gender. Unlike patterns by race/ethnicity, there is no gender disparity; groups nearly proportional.

Table 60: Overall enrollment and Gifted, AP, Honors Enrollment by gender

	MALE	FEMALE	Non-Binary	Total
Number of Students (Enrollment)	3,336	3,185	11	6,532
Total Number of Students Enrolled in Gifted/AP/Honors	1276	1289	11	2576

Table 61: Percentage of overall enrollment and Gifted, AP, Honors Enrollment by gender

	MALE	FEMALE	Non-binary	Total
Percent of Students (Enrollment)	51%	49%	0.17%	100%
Percent of group Enrolled in Gifted/AP/Honors	38.25%	40.47%	100.00%	39.44%
Percent Enrolled in Gifted/AP/Honors	49.53%	50.04%	0.43%	100.00%

Table 62 provides the overall enrollment and gifted, AP, and honors enrollment by free reduced lunch eligibility (FRLP) status. And Table 63 provides the percentage enrollment and gifted, AP, and honors enrollment. In 2021-22, the students eligible for FRLP were combined 10% of the district enrollment and 9% of gifted, AP, and honors enrollment; this is a nearly proportional representation.

Table 62: Overall enrollment and gifted, AP, Honors enrollment by Free Reduced Lunch Program Eligibility

	FREE	REDUCED	PAID	Total
Number of Students (Enrollment)	582	94	5,856	6,532
Total Number of Students Enrolled in Gifted/AP/Honors	203	32	2341	2576

Table 63: Percentage enrollment and gifted, AP, Honors enrollment by Free Reduced Lunch Program Eligibility

	FREE	REDUCED	PAID	Total
Percent of Students (Enrollment)	9%	1%	90%	100%
Percent of Group Enrolled in Gifted/AP/Honors	34.88%	34.04%	39.98%	39.44%
Percent Enrolled in Gifted/AP/Honors	7.88%	1.24%	90.88%	100.00%

Table 64 provides the relative risk ratio of gifted, AP, Honors by race/ethnicity. Relative risk ratio formula allows to identify the likelihood a particular pattern is happening for a specific group in comparison to all other groups. The rule of thumb is 1.0 is equal risk, above 1.0 is an elevated risk, and below 1.0 is a lowered risk. In 2021-22 SY, Black students were 1.58 times or 58% more likely to be enrolled in honors courses compared to all others. However, when it comes to AP courses, Black students are .54 or 54% less likely compared to all other students, as well as .50 or 50% less likely to be in advanced courses (middle school). White students were .26 less likely or 26% less likely compared to all others to be enrolled in honors courses and 1.85 times or 85% more likely to be enrolled in AP courses, and 1.66 times or 66% more likely to be in advanced courses (middle school).

Table 64: Relative Risk Ratio of Gifted, AP, Honors by race/ethnicity

	American Indian or Alaskan Native	Asian or Pacific Islander	Black	Hispanic or Latino	White (not of Hispanic Origin)	Multi-Racial (Not of Hispanic Origin)
Total Number of Students Enrolled in Gifted/AP/Honors	0.42	1.21	0.95	1.17	1.13	0.75
Honors	0.86	1.10	1.58	1.63	0.74	0.70
AP	0.00	1.34	0.46	0.78	1.85	0.74
Advanced	0.00	1.27	0.50	0.67	1.66	0.87

Table 65 provides the relative risk ratio of gifted, AP, Honors enrollment by gender. Male and female students have nearly proportional risk, except for AP courses.

Table 65: Relative Risk Ratio gifted, AP, Honors enrollment by Gender

	MALE	FEMALE	Non-binary
Total Number of Students Enrolled in Gifted/AP/Honors	0.94	1.05	2.54
Honors	0.97	1.01	3.29
AP	0.71	1.39	1.64
	1.22	0.81	2.04

Table 66 provides the relative risk ratio of gifted, AP, Honors enrollment by FRLP. FRLP students and paid students have nearly proportional risk overall, except for AP and Honors courses. Students eligible for FRLP are 1.38 and 1.43 times more likely compared to paid students to be in honors courses. However students eligible for FRLP are 54% less likely to be enrolled in AP courses and 62% less likely to be enrolled in advanced courses (middle school). Meanwhile paid students are 2.21 times or 121% more likely to be enrolled in AP courses, and 2.94 times or 194% more likely to be in advanced courses (middle school).

Table 66: Relative Risk Ratio gifted, AP, Honors enrollment by FRLP

	FREE	REDUCED	PAID
Total Number of Students Enrolled in Gifted/AP/Honors	0.87	0.86	1.15
Honors	1.38	1.43	0.71
AP	0.46	0.47	2.21
Advanced	0.38	0.12	2.94

Section 2: Math Achievement and Curriculum Findings

Introduction

In the ongoing pursuit of educational equity, an integral aspect that demands careful examination is math curriculum and achievement within South Orange-Maplewood School District. Math, as a foundational discipline, plays a crucial role in shaping students' academic trajectories and opportunities from an early age. By analyzing the district's mathematics curriculum and student achievement patterns, we gain valuable insights into the SOMSD math program and identify targeted areas to ensure all students have equitable access and opportunities for success in math and beyond.

The findings in this document build upon previous findings detailed in the SOMSD Equity Report: *Availability of Opportunity in Secondary Schools* (2021). Two notable findings were shared in that report with implications for the SOMSD math program. Firstly, the previous report conveyed that the process of enrolling in advanced courses exhibited inequities. Secondly, both staff and parents perceived a history of tracking within the district. These findings underscore the significance of investigating the dynamics surrounding math at SOMSD. This report will concentrate on evaluating math achievement and curriculum in elementary and middle schools, specifically exploring the policies, practices, and patterns at the lower grades level to provide insights into the observed inequities at the high school level.

The following questions guided the analysis:

- What are the patterns of math achievement in SOMSD elementary schools in respect to markers of identity such as race, gender, and socioeconomic class?
- How does elementary school math achievement data in SOMSD relate to or predict math achievement in grades 6-8?
- To what extent does the math course selection process at SOMSD promote equal access and opportunity for all students to take accelerated math courses, reflecting the concept of unhindered "choice"?
- To what extent does the elementary school curriculum in SOMSD adequately equip students with the necessary content knowledge and rigor in math standards, specifically in 5th grade, to support their preparation for Grade 6 course options?

Five findings emerged from analysis of the data. Data revealed: (1) Disparities evident in elementary math achievement; (2) Disparities observed in middle school math achievement; (3) Less rigorous curriculum experienced by middle school students in lower track courses; (4) Math course selection policy enacts a bounded system that reinforces inequalities in opportunity; and

(5) Math course selection criteria of assessment data, parent choice, and teacher recommendation deepen disparities.

Data Collection

The findings presented in this section are derived from the analysis of three data sources. These sources include publicly available data from the New Jersey Student Learning Assessment (NJSLA) for Mathematics, encompassing achievement data for all elementary and middle schools within SOMSD. The second source was the publicly available math curricula for grades K to 5 (Math In Focus), grade 6 (Big Ideas in Math, Pre-Algebra 1, and Algebra 1) obtained from Rubicon Atlas. The third source considered was the math course selection video dated March 29th, 2023, which is available on both YouTube and the SOMSD website.

Limitations

Three limitations underscore the data collection and analysis process:

1. **Absence of on-site observations:** Due to the absence of on-site observations, it was not possible to directly examine curriculum implementation and classroom dynamics. This limitation restricts the ability to understand how the math curriculum is being delivered and the nature of interactions between educators and students within the classroom environment.
2. **Limited availability of teacher-made lesson plans:** Another limitation arose from the scant selection of teacher-made lesson plans, particularly for grades 5 and 6 math. Without access to lesson plans, it is challenging to determine the extent to which variability in curriculum planning and implementation exists within SOMSD and may potentially impact the educational experiences of SOMSD students.

Finding Section 2: Disparities in Elementary Math Achievement

Achievement Disparities Observed by Race

An analysis of districtwide SOMSD elementary standardized assessment data from the 2021-2022 school year brings to light troubling racial disparities in elementary math achievement as noted by student performance on the math portion of the New Jersey Student Learning Assessment (NJSLA). This information is evident in Table 67 Emerging in 3rd grade, these math achievement disparities by race persist in grades 4 and 5. Notably, there are significant variations in academic achievement between Black and Latinx students and their peers across the district. The data reveals that the percentage of Black and Latinx students

meeting or exceeding grade-level expectations (scoring level of 4 or 5 thus signaling proficiency on the NJSLA in math) is significantly lower compared to overall percentage of students meeting or exceeded grade-level expectations. The data also reveals the consistent underperformance of Black students across all grades, highlighting a persistent gap in performance when compared to their non-Black counterparts across the district.

Table 67. Mathematics Assessment - District Performance By Grade and Race

Student Group	Districtwide	White	Black	Latinx	Asian
Math Performance-Grade 3- % of testers met or exceeded expectations (level 4 or 5)	56%	70%	23%	24%	67%
Math Performance-Grade 4- % of testers met or exceeded expectations (level 4 or 5)	56%	69%	27%	43%	54%
Math Performance-Grade 5- % of testers met or exceeded expectations (level 4 or 5)	55%	63%	29%	49%	80%

Source: NJ Performance Report. Mathematics Assessment - Performance By Grade.

The correlation between math assessment performance by school is also noteworthy in this data (see Table 2). For instance, publicly available records from the 2021-2022 school year indicate that Seth Boyden Elementary School has a student body where 69.8% are from minoritized backgrounds, with 47.9% being Black (“Enrollment by Racial and Ethnic Group”). This percentage is higher than the 56% student of color enrollment reported by the New Jersey Department of Education. Interestingly, at Seth Boyden Elementary School, although Black (47.9%) and Latinx (10.2%) students constitute the majority, it is students identified as white (30.2%) who achieve higher levels of math performance (“Enrollment by Racial and Ethnic Group”). In contrast, South Mountain Elementary School has a student body where 62.2% are white, 10.9% are Black, 11.6% are of Two or more races, 9.7% are Hispanic, and 5.4% are Asian (“Enrollment by Racial and Ethnic Group”). Despite the contrast in overall number of enrolled students of color, alarming low rates of math achievement are observed among Black students in both schools. Additionally, Clinton Elementary School has a student body where 56% are white, 20.5% are Black, 11.8% are Hispanic, 5.5% are Asian, and 6.2% are of Two or more races

(“Enrollment by Racial and Ethnic Group”) and 10.5% of Clinton Elementary School's population consists of English as a Second Language (ESL) students (“Enrollment Trends by Student Group”). On the other hand, Delia Bolden and Tuscan Elementary Schools have comparatively lower numbers of enrolled students of color (39.2% and 34.6% respectively). Data revealed that the schools with the highest number of enrolled students of color, namely Seth Boyden, yielded the lowest percentages of students meeting or exceeding grade-level expectations in comparison to schools with lower numbers of enrolled students of color. Additionally, an analysis of math achievement by race within each school reveals persisting pattern of disparate math achievement for Black and Latinx students.

Table 68. Mathematics Assessment - Performance By Grade and By School

Student Group	Seth Boyden	South Mountain	Clinton Elementary School	Delia Bolden Elementary School	Tuscan Elementary School
Math Performance-Grade 3- % of testers met or exceeded expectations (level 4 or 5)	Schoolwide: 31% White: 52% Black: 15% Latinx: No data	Schoolwide: 63% White: 67% Black: No data Latinx: No data	Schoolwide: 58% White: 71% Black: 21% Latinx: No data	Schoolwide: 63% White: 72% Black: 28% Latinx: No data	Schoolwide: 60% White: 73% Black: No data Latinx: 18%
Math Performance-Grade 4- % of testers met or exceeded expectations (level 4 or 5)	Schoolwide: 41% White: 90% Black: 26% Latinx: No data	Schoolwide: 60% White: 68% Black: 30% Latinx: No data	Schoolwide: 61% White: 72% Black: 31% Latinx: No data	Schoolwide: 59% White: 74% Black: 26% Latinx: 44%	Schoolwide: 52% White: 60% Black: 27% Latinx: 30%
Math Performance-Grade 5- % of testers met or exceeded expectations (level 4 or 5)	Schoolwide: 32% White: 62% Black: 18% Latinx: No data	Schoolwide: 62% White: 62% Black: 36% Latinx: 55%	Schoolwide: 45% White: 51% Black: 29% Latinx: No data	Schoolwide: 58% White: 61% Black: 32% Latinx: No data	Schoolwide: 71% White: 78% Black: 47% Latinx: 67%

Source: NJ Performance Report. Mathematics Assessment - Performance By Grade.

Achievement Disparities Observed by Gender

In certain cases, there are also disparities in academic achievement between female-identifying and male-identifying students. To demonstrate this, we examine two sets of data: districtwide math achievement data spanning grades 3, 4, and 5 and Seth Boyden.

Table 69 outlines disparate math performance by gender with female-identifying students performing at lower levels than male-identifying students and below the district average. Although non-binary and transgender students are indicated on the NJ Performance Report, there is insufficient data to determine if there are disparities in student performance among this group.

Table 69. Mathematics Assessment - District Performance By Grade and Gender

Student Group	Districtwide	Female-Identifying	Male-Identifying	Other
Math Performance-Grade 3- % of testers met or exceeded expectations (level 4 or 5)	56%	48%	65%	No data
Math Performance-Grade 4- % of testers met or exceeded expectations (level 4 or 5)	56%	53%	58%	No data
Math Performance-Grade 5- % of testers met or exceeded expectations (level 4 or 5)	55%	52%	57%	No data

Source: NJ Performance Report. Mathematics Assessment - Performance By Grade.

Data from Seth Boyden Elementary School in Table 4, chosen due to racially imbalance math performance, illustrates gaps in achievement between these groups in grades 3 and 5. Table 70 highlights the grade 3 math assessment results, where 27% of female-identifying students enrolled in Seth Boyden met or exceeded grade-level expectations, while 36% of male-identifying students achieved the same. It is important to acknowledge, however, that a noteworthy 7% of female-identifying students scored at Level 5, indicating an exceptional performance that surpasses grade-level expectations, in comparison to 6% of male-identifying students. These findings align with national trends, as studies have consistently revealed gender

disparities in math achievement, emphasizing the need for targeted efforts to address and mitigate these inequities.

Table 70. Mathematics Assessment - Grade 3 Performance By Race and Gender

Student Group	Valid Scores	School Mean Scale Score	District Mean Scale Score	State Mean Scale Score	% Level 1: Did not yet meet expectations	% Level 2: Partially met expectations	% Level 3: Approached expectations	% Level 4: Met expectations	% Level 5: Exceeded expectations	% of testers met or exceeded expectations	State: % of testers met or exceeded expectations
Schoolwide	77	736	755	745	10%	32%	26%	25%	6%	31%	45%
White	23	749	764	756	4%	26%	17%	35%	17%	52%	59%
Hispanic	*	*	735	729	*	*	*	*	*	*	27%
Black or African American	40	726	728	723	13%	40%	33%	15%	0%	15%	23%
Asian, Native Hawaiian, or Pacific Islander	*	*	773	777	*	*	*	*	*	*	79%
American Indian or Alaska Native	*	*	*	751	*	*	*	*	*	*	52%
Two or More Races	*	*	760	752	*	*	*	*	*	*	53%
Female	*	734	749	743	10%	41%	22%	20%	7%	27%	43%
Male	*	738	761	747	11%	22%	31%	31%	6%	36%	48%
Non-binary/undesignated gender	*	*	*	*	*	*	*	*	*	*	*

Source: NJ Performance Report. Mathematics Assessment - Performance By Grade: Grade 3

Table 71 highlights the performance of female-identifying students in meeting grade-level expectations, with 42% of them achieving this milestone. However, it is concerning to note that none of the female-identifying students scored at Level 5, indicating an absence of students who exceeded grade-level expectations. In contrast, 33% of male-identifying students enrolled in Seth Boyden attained Level 4, and 7% achieved Level 5, demonstrating notable achievements beyond grade-level expectations. Hence, this disparity in achievement patterns along the lines of gender, in addition to race, becomes apparent. While the overall percentage remains relatively consistent, this discrepancy raises important questions regarding the factors contributing to disparities in outcomes among male-identifying and female-identifying students when examining the case of Seth Boyden.

Table 71. Mathematics Assessment - Grade 4 Performance By Race and Gender

Student Group	Valid Scores	School Mean Scale Score	District Mean Scale Score	State Mean Scale Score	% Level 1: Did not yet meet expectations	% Level 2: Partially met expectations	% Level 3: Approached expectations	% Level 4: Met expectations	% Level 5: Exceeded expectations	% of testers met or exceeded expectations	State: % of testers met or exceeded expectations
Schoolwide	58	738	754	740	10%	26%	22%	38%	3%	41%	39%
White	10	770	763	750	0%	10%	0%	70%	20%	90%	52%
Hispanic	*	*	746	725	*	*	*	*	*	*	21%
Black or African American	35	726	729	720	17%	29%	29%	26%	0%	26%	17%
Asian, Native Hawaiian, or Pacific Islander	*	*	761	770	*	*	*	*	*	*	75%
American Indian or Alaska Native	*	*	*	746	*	*	*	*	*	*	46%
Two or More Races	*	*	759	749	*	*	*	*	*	*	50%
Female	*	740	752	738	10%	19%	29%	42%	0%	42%	37%
Male	*	735	755	741	11%	33%	15%	33%	7%	41%	41%
Non-binary/undesignated gender	*	*	*	*	*	*	*	*	*	*	*
Economically Disadvantaged Students	17	725	722	721	24%	24%	29%	24%	0%	24%	18%
Non-Economically Disadvantaged Students	41	743	757	749	5%	27%	20%	44%	5%	49%	51%
Students with Disabilities	10	724	726	719	20%	40%	20%	10%	10%	20%	18%
Students without Disabilities	48	740	758	744	8%	23%	23%	44%	2%	46%	44%
English Learners	*	*	716	714	*	*	*	*	*	*	11%
Non-English Learners	*	740	754	743	9%	24%	22%	41%	4%	44%	43%
Homeless Students	*	*	*	711	*	*	*	*	*	*	*
Students in Foster Care	*	*	*	712	*	*	*	*	*	*	12%
Military-Connected Students	*	*	*	742	*	*	*	*	*	*	40%
Migrant Students	*	*	*	711	*	*	*	*	*	*	*

Source: NJ Performance Report. Mathematics Assessment - Performance By Grade: Grade 4

Lastly, 72 further highlights the persistent pattern of disparity by gender identity. Among female-identifying students, 23% met or exceeded grade 5 expectations, while a higher percentage of male-identifying students (39%) achieved the same. Notably, 10% of female-identifying students scored at Level 5, surpassing grade-level expectations, in comparison to only 2% of male-identifying students. It is important to acknowledge that the precise number of female-identifying versus male-identifying students is not record in this table, limiting the depth of analysis. However, these findings shed light on an interesting and concerning trend of disparate math achievement among female-identifying students. These patterns align with broader issues of gender inequities in math achievement that have been well-documented (see Schwery et al., 2016), emphasizing the need for targeted interventions to address and dismantle these disparities.

Table 72. Mathematics Assessment - Grade 5 Performance By Race and Gender

Student Group	Valid Scores	School Mean Scale Score	District Mean Scale Score	State Mean Scale Score	% Level 1: Did not yet meet expectations	% Level 2: Partially met expectations	% Level 3: Approached expectations	% Level 4: Met expectations	% Level 5: Exceeded expectations	% of testers met or exceeded expectations	State: % of testers met or exceeded expectations
Schoolwide	77	735	751	736	18%	19%	30%	27%	5%	32%	36%
White	21	760	759	746	0%	19%	19%	48%	14%	62%	47%
Hispanic	*	*	744	722	*	*	*	*	*	*	18%
Black or African American	40	721	729	716	28%	25%	30%	18%	0%	18%	14%
Asian, Native Hawaiian, or Pacific Islander	*	*	757	769	*	*	*	*	*	*	74%
American Indian or Alaska Native	*	*	*	736	*	*	*	*	*	*	38%
Two or More Races	*	*	759	744	*	*	*	*	*	*	45%
Female	*	730	750	736	23%	19%	35%	13%	10%	23%	34%
Male	*	738	751	737	15%	20%	26%	37%	2%	39%	38%
Non-binary/undesignated gender	*	*	*	747	*	*	*	*	*	*	55%
Economically Disadvantaged Students	19	735	732	718	11%	26%	26%	37%	0%	37%	15%
Non-Economically Disadvantaged Students	58	735	753	746	21%	17%	31%	24%	7%	31%	47%
Students with Disabilities	18	707	720	714	*	*	*	*	*	*	14%
Students without Disabilities	59	743	756	741	8%	19%	32%	34%	7%	41%	41%
English Learners	*	*	716	707	*	*	*	*	*	*	*
Non-English Learners	*	737	751	739	15%	19%	32%	29%	5%	34%	39%
Homeless Students	*	*	*	709	*	*	*	*	*	*	*
Students in Foster Care	*	*	*	710	*	*	*	*	*	*	10%
Military-Connected Students	*	*	*	737	*	*	*	*	*	*	35%
Migrant Students	*	*	*	685	*	*	*	*	*	*	*

Source: NJ Performance Report. Mathematics Assessment - Performance By Grade: Grade 5

Achievement Disparities Observed by Social Class

Data reveals inconclusive results when comparing the performance of economically disadvantaged students in comparison to non-economically disadvantaged students. Data outlined on Table 5 reveals number of 41 non-economically disadvantaged grade 4 test-takers in comparison to 17 economically disadvantaged grade 4 test-takers. However, grade 4 achievement data indicate disparities in grade-level performance when examining these two groups (49% to 24%). Table 6, which examines grade 5 math data, reveals an instance where non-economically disadvantaged test-takers outnumber economically disadvantaged test-takers. Although economically disadvantaged test-takers appear to slightly outperform the non-economically disadvantaged test-takers (37% and 31% respectively), analysis reveals that lower numbers of economically disadvantaged test-takers are meeting or exceeding grade-level expectations in relation to their non-economically disadvantaged counterparts.

Data Implications

Altogether, several conclusions and implications can be drawn from the data analyzed in this section:

1. **Racial disparities in math achievement:** The data clearly indicate significant racial disparities in math achievement both districtwide and schoolwide starting at the 3rd grade, with Black students consistently underperforming compared to their peers, particularly white students.
2. **Gender disparities in math achievement:** The data also reveal disparities based on gender, with male-identifying students often outperforming female-identifying students in math assessments. This pattern is observed districtwide and in the case of Seth Boyden.
3. **Intersectionality of disparities:** Although the data does not provide specific numbers for intersectional analysis (e.g., comparing Black male-identifying students to Black female-identifying students), case study data from Seth Boyden Elementary School suggests that Black female-identifying students may face additional obstacles to their achievement compared to both their non-Black peers and Black male-identifying students. This highlights the importance of adopting an intersectional approach in understanding and addressing these inequities.
4. **Impact of school demographics:** The data demonstrate a correlation between the demographics of each school, particularly the percentage of Black and Latinx students, and math assessment performance. Schools with higher percentages of Black and Latinx students, such as Seth Boyden Elementary School, tend to exhibit lower overall math achievement rates, thus impacting the nature of their current and future math-related success and opportunities.
5. **Appropriateness of math instruction and preparation:** Lastly, this data provides insights into the context for racially imbalanced placement in middle school math courses and raises questions about the suitability of math preparation of Black and Latinx students in elementary school. As such, this data calls to question equitable distribution of quality of math instruction across the district and potential need for additional supports for Black and Latinx students to ensure equitable access and opportunity for math success and future access to accelerated math courses in middle school.

Finding 2: Disparities in Middle School Math Achievement

This section examines disparities in middle school math achievement across SOMSD, highlighting patterns of inequality based on race and gender. Data is insufficient to determine inequities across the lines of social class.

Achievement Disparities Observed by Race

An examination of the NJSLA data for the 2021-2022 school year indicates that racial disparities in math achievement persist in grades 6, 7, and 8 within the SOMSD middle schools. These disparities are particularly notable among Black and Latinx students, who demonstrate lower levels of academic achievement. The data reveal a disproportionate gap between the number of Black and Latinx students who meet or exceed grade-level expectations on the math portion of the NJSLA and the overall number of test-takers across the elementary schools. Similarly, to the findings in elementary school math achievement, a concerning pattern emerges where Black students consistently under-perform in all math measures when compared to their non-Black peers.

Table 73. Mathematics Assessment - Performance By Grade and By Middle School

Student Group	South Orange Middle School	Maplewood Middle School
Math Performance- Grade 6- % of testers met or exceeded expectations (level 4 or 5)	Schoolwide: 55% White: 62% Black: 18% Latinx: 52%	Schoolwide: 37% White: 51% Black: 13% Latinx: 36%
Math Performance- Grade 7- % of testers met or exceeded expectations (level 4 or 5)	Schoolwide: 24% White: 34% Black: 14% Latinx: No data	Schoolwide: 23% White: 31% Black: 17% Latinx: No data
Math Performance- Grade 8- % of testers met or exceeded expectations (level 4 or 5)	Schoolwide: No data White: 16% Black: No data Latinx: No data	Schoolwide: No data White: 13% Black: No data Latinx: No data

Source: NJ Performance Report. Mathematics Assessment - Performance By Grade: Grades 6, 7, and 8

As evident from the data presented in Table 73, there is a noticeable discrepancy in average performance between Maplewood Middle School and South Orange Middle School. While there are slight variations in the performance of white students across both schools, significant gaps are observed between students identifying as white and those identifying as Black or Latinx in grades 6, 7, and 8. This pattern aligns with the findings from the elementary school data, where Black students consistently underperform; however, the absence of data regarding Latinx students raises alarm. reveals potential impact on the achievement of Latinx students because there isn't a way to determine disproportionate achievement for these students. Taken together, this data serves as a clear indication that Black and Latinx students face barriers that hinder their academic achievement in comparison to their white counterparts. These barriers start in the 3rd grade, continue in the elementary grades, and persist throughout the middle school years, further exacerbating the existing inequities along the lines of race.

Achievement Disparities Observed by Gender

In terms of gender, there is a disparity in math achievement between female-identifying and male-identifying students, with female-identifying students meeting or exceeding 3rd, 4th, and 5th-grade level expectations at lower rates. Districtwide data indicates performance by grade and gender vary: 6th grade female-identifying students outperform male-identifying students 49% to 43%, in 7th grade under-perform 22% to 25%, and there isn't data for 8th grade. However, examining school-level data reveals other important information.

Achievement disparities by gender are evident in Tables 8 and 9, showcasing the performance data from Maplewood Middle School (chosen due to lower math performance than South Orange Middle School) in Algebra and Geometry, respectively. It is important to note that such disparities in performance by gender do not exist in grade 6, 7, and 8 math as the percentage of female-identifying student meeting and exceeding grade-level expectations is higher than male-identifying students. However, different observations are made when examining Algebra and Geometry courses, which are more complex. Tables 74 and 75 provide examples of the disparity in math achievement based on gender.

Table 74. Mathematics Assessment - Algebra Performance By Race and Gender

Student Group	Valid Scores	School Mean Scale Score	District Mean Scale Score	State Mean Scale Score	% Level 1: Did not yet meet expectations	% Level 2: Partially met expectations	% Level 3: Approached expectations	% Level 4: Met expectations	% Level 5: Exceeded expectations	% of testers met or exceeded expectations	State: % of testers met or exceeded expectations
Schoolwide	178	750	742	735	3%	15%	25%	54%	2%	56%	35%
White	109	755	752	745	2%	7%	25%	64%	2%	66%	45%
Hispanic	15	736	732	720	0%	47%	20%	33%	0%	33%	19%
Black or African American	30	737	720	717	10%	27%	33%	30%	0%	30%	16%
Asian, Native Hawaiian, or Pacific Islander	*	*	753	767	*	*	*	*	*	*	72%
American Indian or Alaska Native	*	*	*	734	*	*	*	*	*	*	30%
Two or More Races	17	754	750	742	6%	12%	24%	53%	6%	59%	42%
Female	*	745	739	735	2%	23%	25%	50%	0%	50%	35%
Male	*	756	744	735	3%	9%	26%	59%	3%	62%	35%
Non-binary/undesignated gender	*	*	*	738	*	*	*	*	*	*	33%

Source: NJ Performance Report. Mathematics Assessment - Algebra Performance

Table 75. Mathematics Assessment - Geometry Performance By Race and Gender

Student Group	Valid Scores	School Mean Scale Score	District Mean Scale Score	State Mean Scale Score	% Level 1: Did not yet meet expectations	% Level 2: Partially met expectations	% Level 3: Approached expectations	% Level 4: Met expectations	% Level 5: Exceeded expectations	% of testers met or exceeded expectations	State: % of testers met or exceeded expectations
Schoolwide	98	763	751	748	0%	2%	20%	69%	8%	78%	50%
White	70	765	754	750	0%	1%	16%	74%	9%	83%	54%
Hispanic	*	*	742	730	*	*	*	*	*	*	23%
Black or African American	10	748	739	728	0%	10%	60%	20%	10%	30%	21%
Asian, Native Hawaiian, or Pacific Islander	*	*	762	763	*	*	*	*	*	*	74%
American Indian or Alaska Native	*	*	*	745	*	*	*	*	*	*	47%
Two or More Races	*	*	752	752	*	*	*	*	*	*	57%
Female	*	760	747	746	0%	3%	26%	71%	0%	71%	47%
Male	*	765	754	749	0%	2%	17%	69%	13%	81%	53%
Non-binary/undesignated gender	*	*	*	749	*	*	*	*	*	*	44%

Source: NJ Performance Report. Mathematics Assessment - Geometry Performance

As observed in Tables 74 and 75, the data from Maplewood Middle School highlights disparities in academic achievement based on gender. In Algebra, 62% of male-identifying students met or exceeded expectations, compared to 50% of female-identifying students. A similar trend is seen in Geometry, with 81% of male-identifying students meeting or exceeding expectations, while the percentage for female-identifying students is 71%. When combined with the existing disparities in elementary school performance, this data emphasizes the need for an intersectional approach to address and improve equitable math instruction across the math course pathway. Efforts should be

made to provide support and minimize the differences in achievement rates based on race and gender.

Achievement Disparities Observed by Social Class

Finding #1, detailing elementary math achievement, disparities were observed in the academic performance between economically disadvantaged students and their non-economically disadvantaged peers. However, an analysis of middle school math data revealed insufficient publicly available data to draw similar conclusions.

Achievement Disparities Observed by Race in Algebra and Geometry

Lastly, racial disparities are evident in middle school NJSLA math achievement, particularly in Algebra and Geometry. An analysis of the data shows that while passing rates vary along racial lines, the overall passing rates for students in Algebra and Geometry are relatively higher.

Table 76. Mathematics Assessment - Performance By Grade and By Middle School

Student Group	South Orange Middle School	Maplewood Middle School
Math Performance- Algebra	Schoolwide: 58% White: 63% Black: 39% Latinx: 42%	Schoolwide: 56% White: 66% Black: 30% Latinx: 33%
Math Performance- Geometry	Schoolwide: 79% White: 85% Black: No data Latinx: No data	Schoolwide: 78% White: 83% Black: 30% Latinx: No data

Source: NJ Performance Report. Mathematics Assessment - Performance by Test: Algebra 1 and Geometry

Based on the data shared in this section, several conclusions and implications can be drawn:

1. **Racial disparities persist in middle school math achievement:** The data indicate that racial disparities in math achievement persist in grades 6, 7, and 8. Black students consistently underperform compared to their white peers. These disparities are not resolved by math course selection, as the performance gap widens between higher and lower-performing students from elementary school (grades 3 to 5) to middle school.

2. **Gender disparities exist in middle school math achievement:** The data also highlight gender disparities in math achievement during middle school years, with male-identifying students tending to outperform female-identifying students in Algebra 1 and Geometry.
3. **Need for targeted interventions and support:** The data underscore the importance of implementing targeted interventions and support mechanisms to address the disparities in math achievement in standard Grades 6-8 math classes, Algebra, and Geometry. This may involve providing additional resources, offering tutoring opportunities, and establishing mentorship programs to support students who are encountering challenges in math.

Finding Section 3: Middle School Students In Lower Track Courses Exposed to Less Rigorous Curricula

This section is aimed to investigate the elementary and middle school math curricula and identify factors that contribute to student learning in grades 5 and 6 and possibly explain disparities in student achievement observed in findings #1 and #2. Fifth grade curricula is significant because all students take this class whereas course pathways diverge by 6th grade. Publicly available curriculum scope and sequence of SOMSD math curricula revealed notable differences in the level of rigor in course standards and content within the middle school math curriculum, with students in lower track courses being exposed to less challenging material. Taking into account the racial disparities, particularly among Black and Latinx students enrolled in lower track courses, it becomes apparent that, on average, these students may have limited access to rigorous instruction compared to their white counterparts.

Differences in Rigor in Standards

Table 77 presents a notable contrast in the breadth, depth, and exposure to rigorous learning standards between grade 6 Math and grade 6 Pre-Algebra. Upon analyzing the 6th grade Math curriculum, it becomes evident that the majority of student learning standards focus on lower-level cognitive tasks such as "understanding" (e.g., finding) and "applying" (e.g., computing, dividing, adding, subtracting, solving) concepts, according to Bloom's Taxonomy. Only one standard involves the higher-level cognitive task of "interpreting," which aligns with the "evaluate" aspect of Bloom's Taxonomy.

In contrast, the grade 6 Pre-Algebra unit covers similar objectives but goes beyond them by encouraging students to "write, read, and evaluate" (see below 6.EE.A.1 and 6.EE.A.2) or "apply and extend" (see below 6.EE.A, 7.NS.A.1, and 7.NS.A.2) their learning. Moreover, students are prompted to apply their knowledge to real-world examples (see below 7.EE.B and 7.EE.B.3). Considering that both units span approximately seven weeks, it becomes apparent that students

in these classes are exposed to significantly different levels of rigor in terms of the standards they encounter.

Table 77. Unit One Topics and Learning Standards by Course

Grade	Unit Topics	New Jersey Student Learning Standards
Grade 6 Math	Unit 1: Number Theory- Rational Numbers	<ul style="list-style-type: none"> ● 6.NS.A. Apply and extend previous understandings of multiplication and division to divide fractions by fractions. ● 6.NS.A.1. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. ● 6. NS.B. Compute fluently with multi-digit numbers and find common factors and multiples. ● 6.NS.B.2. Fluently divide multi-digit numbers using the standard algorithm. ● 6.NS.B.3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. ● 6.NS.B.4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. ● 6.NS.C. Apply and extend previous understandings of numbers to the system of rational numbers. ● 6.NS.C.5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation. ● 6.NS.C.6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates. ● 6.NS.C.7. Understand ordering and absolute value of rational numbers. ● 6.NS.C.8. Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find

		distances between points with the same first coordinate or the same second coordinate.
Grade 6 Pre- Algebra	Unit 1: Algebraic Expressions and Rational	<ul style="list-style-type: none"> ● 6.NS.A. Apply and extend previous understandings of multiplication and division to divide fractions by fractions. ● 6.NS.A.1. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. ● Show details ● 6.NS.B. Compute fluently with multi-digit numbers and find common factors and multiples. ● 6.NS.B.2. Fluently divide multi-digit numbers using the standard algorithm. ● 6.NS.B.3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. ● 6.NS.B.4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. ● 6.NS.C. Apply and extend previous understandings of numbers to the system of rational numbers. ● 6.NS.C.5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation. ● 6.NS.C.6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates. ● 6.NS.C.7. Understand ordering and absolute value of rational numbers. ● 6.NS.C.8. Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.

		<p>Expressions & Equations</p> <ul style="list-style-type: none"> ● 6.EE.A. Apply and extend previous understandings of arithmetic to algebraic expressions. ● 6.EE.A.1. Write and evaluate numerical expressions involving whole-number exponents. ● 6.EE.A.2. Write, read, and evaluate expressions in which letters stand for numbers. ● 6.EE.A.3. Apply the properties of operations to generate equivalent expressions. ● Show details ● 6.EE.A.4. Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). <p>The Number System</p> <ul style="list-style-type: none"> ● 7.NS.A. Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers. ● 7.NS.A.1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. ● 7.NS.A.2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. ● 7.NS.A.3. Solve real-world and mathematical problems involving the four operations with rational numbers. <p>Expressions & Equations</p> <ul style="list-style-type: none"> ● 7.EE.A. Use properties of operations to generate equivalent expressions. ● 7.EE.A.1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients. ● 7.EE.A.2. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. ● Show details ● 7.EE.B. Solve real-life and mathematical problems using numerical and algebraic expressions and equations.
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		<ul style="list-style-type: none"> • 7.EE.B.3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.
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Source: Rubicon Atlas

Differences in Course Content

Table 10 highlights the contrasting levels of rigor between grade 6 math and grade 6 Pre-Algebra in terms of the knowledge and skills students are expected to acquire. These conclusions are drawn from an analysis of the respective *essential questions* and *enduring understandings* from unit 1 of grade 6 math and Pre-Algebra. Essential questions, derived from the Understanding by Design model, aim to address key issues and promote understanding in a subject (Wiggins and McTighe, 2005, p. 107). Enduring understandings encompass the central ideas and processes students will gain through instruction.

Upon comparing the two sets of essential questions, it becomes evident that the grade 6 Pre-Algebra questions present a higher level of challenge and rigor. They require a deeper comprehension and application of mathematical concepts, encouraging students to engage in more intricate reasoning, analysis, and evaluation. In contrast, grade 6 math primarily focuses on understanding the relationships between fractions and decimals, the concepts of opposite and absolute value, and the significance of decimal placement in computations. While these questions are crucial for developing foundational understanding, they may not demand the same level of complexity and depth of thinking as the essential questions in unit 1 of grade 6 Pre-Algebra.

The analysis of enduring understandings for grade 6 math and grade 6 Pre-Algebra supports the claims put forth in this section. The enduring understandings in grade 6 Pre-Algebra demand students to apply their understanding of math concepts in various ways, such as graphical, numerical, symbolic, or verbal representations. This approach requires students to engage in more sophisticated reasoning, analysis, and synthesis. Alongside the representation of patterns and relationships, the enduring understandings in grade 6 Pre-Algebra emphasize the use of numerical and algebraic expressions to solve both real-life and mathematical problems. They also highlight the application of operations with fractions to rational numbers and the creation of equivalent expressions using properties. These enduring understandings challenge students to think critically, establish connections, and apply their mathematical knowledge across different contexts.

In contrast, the enduring understandings in grade 6 math primarily focus on practical applications of equivalent forms of fractions and decimals, representing rational numbers on a

number line, describing points on a coordinate plane using ordered pairs, and understanding the concept of absolute value. While these enduring understandings are crucial for establishing foundational knowledge, they may not necessitate the same level of complexity and depth of understanding as those found in Pre-Algebra.

Table 78. Essential Questions and Enduring Understandings by Course

Grade	Unit Topics	Course Essential Questions	Enduring Understandings
Grade 6 Math	Unit 1: Number Theory-Rational Numbers	<ul style="list-style-type: none"> • How are fractions and decimals that represent the same quantity related? • What is the difference between the opposite and the absolute value of a number? • Why is the placement of decimal points important when I am computing with decimals? • How do I apply absolute value to real life situations 	<ul style="list-style-type: none"> • Real world problems can be solved by using equivalent forms of fractions and decimals. • A rational number can be expressed as a fraction and has an exact location on a number line. • A point on the coordinate plane can be described by its distance along both number lines. An ordered pair (x, y) is used to locate that point. • Absolute value is numbers distance from zero
Grade 6 Pre-Algebra	Unit 1: Algebraic Expressions and Rational	<ul style="list-style-type: none"> • What is the difference between an algebraic and numerical expression? • How can equivalent expressions help us evaluate real life expressions? • How can rational numbers help me 	<ul style="list-style-type: none"> • Patterns and relationships can be represented graphically, numerically, symbolically or verbally. • Real life and mathematical problems can be solved using

		<p>represent a given situation?</p> <ul style="list-style-type: none"> • How do fractions, decimals, and percents represent the same quantity? • How can knowledge of properties help identify equivalent expressions? 	<p>numerical and algebraic expressions, equations and inequalities.</p> <ul style="list-style-type: none"> • Previous understandings of operations with fractions can be applied and extended to addition, subtraction, multiplication and division of rational numbers. • Properties involving addition, subtraction, multiplication and division can be used to create equivalent expressions.
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Source: Rubicon Atlas

Altogether this pattern of differences in standards, essential questions, and enduring understandings reveal students in grade 6 math classes are exposed to less rigorous instruction while students in Pre-Algebra are exposed to more complex and sophisticated objectives and tasks

Drawing from curriculum analysis, several conclusions and implications can be drawn:

1. **Depth and Complexity:** The depth and complexity of essential questions and enduring understandings impact the level of challenge and rigor in the curriculum. Essential questions that require higher-order thinking skills, such as analysis, synthesis, and evaluation, promote deeper understanding and critical thinking. Enduring understandings that encompass complex concepts and connections contribute to a more rigorous learning experience.
2. **Equity and Access:** It is important to consider equity and access when designing standards, essential questions, and enduring understandings. Ensuring that all students

have equal opportunities to engage with challenging content and develop essential skills is crucial. This includes providing support and accommodations for diverse learners, addressing potential biases or barriers in the curriculum, and valuing students' diverse backgrounds and experiences.

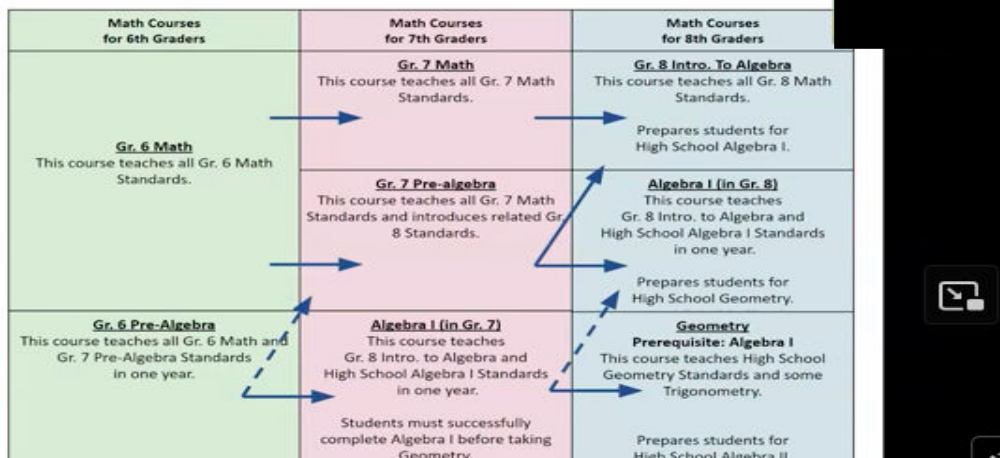
Finding 4: Math Course Selection Policy Enact a Bounded System That Reinforces Inequalities in Opportunity

The SOMSD middle school math course selection process reinforces inequities in opportunity and achievement, restricting student access to advanced math courses at the middle and high school levels and affecting students' eligibility to take AP Calculus AB, BC, and AP Stats in 11th grade. Moreover, the data indicates that students' choice of math course in 6th grade can have lasting implications for their cumulative high school GPA.

Math Course Selection Reinforces a Pre-Determined Pathway

The math course selection process at SOMSD is presented as a policy that offers students and family choice, but it actually reinforces a predetermined pathway based on decisions made in the 6th grade. This lack of flexibility is evident in Figure 4, where the Grade 6 math course selection significantly impacts subsequent classes in middle school. Students in grade 6 Math have two options, both exposing them to new grade-level standards in 7th grade. However, students in grade 6 Pre-Algebra can choose to repeat grade 7 math standards by taking grade 7 Pre-Algebra or move on to grade 7 Algebra, leaving them with only one option. This pattern continues in 7th grade, with grade 7 students recommended to take grade 8 Pre-Algebra, while students in grade 7 Pre-Algebra can choose to repeat grade 8 standards with grade 8 Intro to Algebra or take grade 8 Algebra 1. Little choice remains for students in grade 7 Algebra 1, as grade 8 Algebra 1 and Geometry are identical courses. This system reflects little opportunities for actual choice as it pushes students toward Geometry. Therefore, middle school math course selection reflects a bounded system, particularly for students in accelerated courses who have little incentive or opportunity to deviate from the accelerated pathway unless they require remediation.

Figure 4. 2023-2024 Middle School Math Recommended Paths



Source: Excerpt from Middle School Math Course Selection Information (19:52)

Furthermore, the requirement of Algebra 1 in 7th grade as a prerequisite for enrolling in grade 8 Geometry poses a significant obstacle for students in grade 6 Math, preventing them from transitioning into grade 7 Algebra 1. This lack of flexibility in course sequencing further hampers students' opportunities and limits their progression. Although there is opportunity for students at the high school level to take summer math classes to participate in accelerate or advanced math courses in the following academic year, these opportunities are absent at the middle school; thus, further concretizing this idea of pre-determined pathways based on students' 6th grade math placement. Although enrichment opportunities such as *Beyond the Bell* and *Achieve Tutoring* exist for students, these are not intended to serve as intervention courses or supplement math instruction.

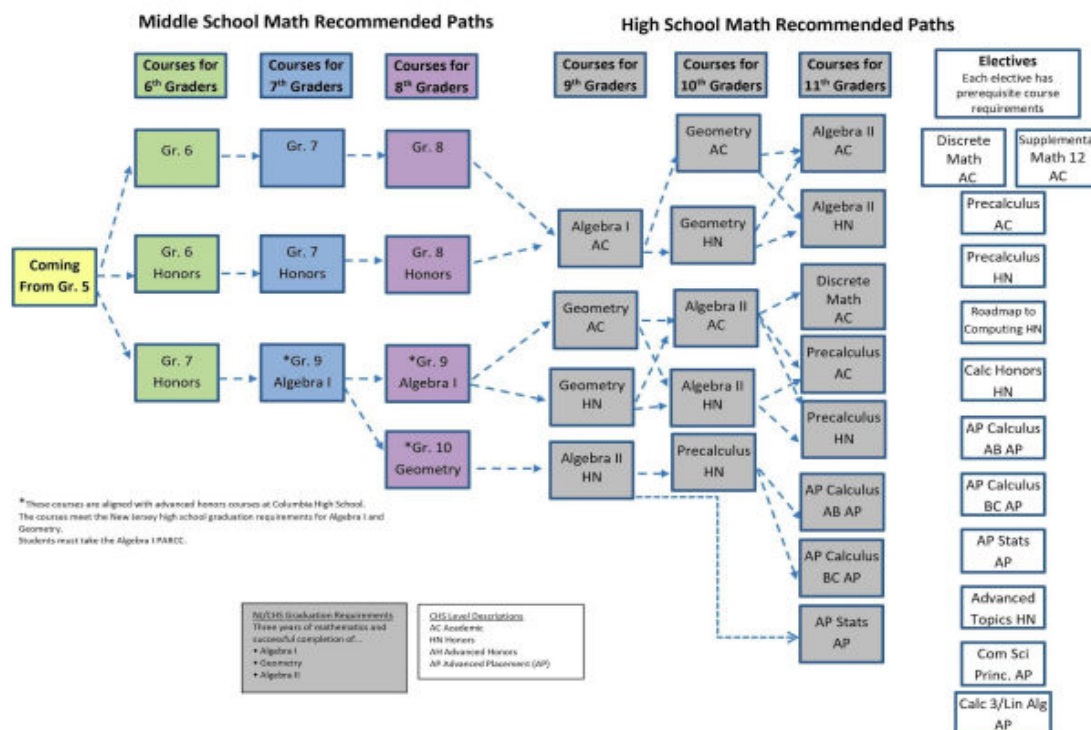
Lastly, information presented in the Middle School Math Course Selection Information video (SOMSD, 2023) reveals that while there is some movement between tracks during the initial weeks of school, the majority of these movements involve students transitioning to lower-level courses rather than advancing to more accelerated ones. This lack of upward mobility highlights the perpetuation of inequities in math course access and opportunity, further exacerbating disparities among students.

Math course selection impacts subsequent enrollment and GPA

Although the math course selection starting in grade 6 is intended to offer opportunities for students to pursue advanced math, the tiered course structure diminishes the availability of accelerated math courses in middle school. As a result, this has significant implications for students' future course options, including their eligibility to enroll in AP courses during high school and their high school GPA.

Figure 5. 2023-2024 Elementary and Math Courses

South Orange Maplewood School District Secondary Mathematics



Source: Excerpt from p. 43 of 2023-24 Columbia High School Program of Studies

As shown in Table 12, the choice of courses in 8th grade significantly limits the options available to students in their 9th grade year. Students who take grade 8 math or grade 8 Honors Math are required to enroll in Algebra 1. Conversely, students who take Algebra in grade 8 can choose between Geometry academic (AC) or Geometry Honors (HN). However, students who take geometry in 8th grade have only one option: Algebra II HN. Therefore, despite the intention to provide choice and opportunity, the 8th grade course selection leads to a narrow range of options from 8th grade to 9th grade. This pattern continues in 10th grade, where students have limited choices, but expands in grades 11 and 12, offering multiple pathways for students to pursue advanced math. However, as graduation only requires three years of math, this poses conflicts for students who wish to explore other academic subjects or limits their opportunities to pursue advanced math options.

As shown in Table 79, there are additional advantages to taking honors and AP classes, such as weighted grading, which can positively impact a student's GPA compared to their peers who do not have access to these courses due to their middle school course selections. For instance, while an A+ in an unweighted course is worth 4.33, academic and honors courses carry weights of 4.67 and 5.00 respectively. GPA holds significant implications for class rank, eligibility for scholarships, and other post-secondary opportunities. Despite being presented as a

policy offering choice, the selection of math courses in 6th grade has substantial implications for subsequent course options and overall GPA.

Table 79. 2023-2024 Secondary Math Courses

Grade	Unweighted Courses*	Weighted Courses		
		Academic	Honors	AP/Adv**
A+	4.33	4.67	5.00	5.33
A	4.00	4.33	4.67	5.00
A-	3.67	4.00	4.33	4.67
B+	3.33	3.67	4.00	4.33
B	3.00	3.33	3.67	4.00
B-	2.67	3.00	3.33	3.67
C+	2.33	2.67	3.00	3.33
C	2.00	2.33	2.67	3.00
C-	1.67	2.00	2.33	2.67
D+	1.33	1.67	2.00	2.33
D	1.00	1.33	1.67	2.00
D-	0.67	1.00	1.33	1.67
F	0.00	0.00	0.00	0.00

*All courses are unweighted unless otherwise indicated as Academic, Honors or AP.

**Advanced courses are Post-AP courses only.

Source: Excerpt from p. 8 of 2023-24 Columbia High School Program of Studies

Altogether, an analysis of the math course selection process in SOMSD leads to several important conclusions and implications:

1. **Influence of Grade 6 course selection:** The course selection process in Grade 6 significantly impacts subsequent classes, leaving little room for flexibility, especially for students who do not require remediation. This predetermined pathway limits their options for higher-level math courses and may perpetuate inequalities in math achievement. This rigidity is limiting for all students but particularly students in non-accelerated classes and their ability to explore higher-level math courses.
2. **Prerequisite requirements and restricted options:** The requirement of Algebra 1 in 7th grade as a prerequisite for 8th Grade Geometry creates a barrier for students placed in Grade 6 Math, hindering their progression to Algebra 1 and limiting their choices for advanced math courses. This requirement further contributes to the limited access to higher-level math education.
3. **Lack of upward mobility and perpetuation of inequities:** The limited flexibility in course sequencing in middle school and high school and the observed trend of movements to lower-level courses instead of more accelerated ones indicate a lack of upward mobility within tracks. This perpetuates existing inequities in math course access

and opportunity, reinforcing disparities among students. Additionally, the data clearly demonstrate that the math course selection process reinforces existing disparities in opportunity, particularly in accessing advanced math courses and AP Calculus AB, BC, or AP Stats by 11th grade. The tiered course structure limits options and creates barriers to academic advancement, disadvantaging certain groups of students based on their middle school math placements.

Finding 5: Math Course Selection Criteria of Assessment Data, Parent Choice, and Teacher Recommendation Reinforce Disparities

The data in this section reveals three criteria of math course selection undermine the expressed goals of equal access and choice: assessment data, parent choice, and teacher recommendations. While assessment data and parent choice are conveyed as the most prominent criteria that determines student placement, findings reveal that all three compound the nature of inequitable math success and opportunity.

Assessment Data

Assessment data has important implications for determining math placement, but it is crucial to consider its limitations and potential biases. Several key points arise from the analysis of assessment data. For instance, per the website, "Given over the course of the fifth grade year and Sixth Grade Placement Test (PT-6) given to all fifth grade students in Spring, composed of mathematical concepts taught in grades 5 and 6, and used as factors in determining sixth grade mathematics level placement." While assessment data is critical, it may not fully reflect a student's readiness for accelerated math instruction. Test anxiety, poor testing conditions, difficulties with test language, and other barriers can affect student performance. It is essential to recognize that these factors can influence results and may not accurately represent a student's aptitude. The assessment administered before explicit instruction on growth mindset in grade 6 math highlights the emphasis on standardized test scores as a measure of math competency. The current approach prioritizes outcomes over student growth and potential to participate in accelerated math. Additionally, standardized test scores primarily reflect the quality of instruction rather than inherent student aptitude for the subject. It is important to differentiate between instructional effectiveness and student ability when interpreting assessment data.

Assessment data also requires a discussion on stereotype threat and limiting beliefs. The combination of limiting beliefs and the consequences of the sixth-grade placement test can

contribute to student disengagement and reinforce internalized stereotypes about math performance. The phenomenon of stereotype threat, where individuals fear confirming negative stereotypes, particularly affects underrepresented or marginalized groups facing pervasive negative stereotypes.

Lastly, exclusionary nature of relying solely on standardized tests: Solely relying on standardized test scores may exclude students who possess the potential to succeed in higher-level math but did not perform well on a specific test. This perpetuates inequalities and restricts access to advanced math courses, especially for students from disadvantaged backgrounds. The racial skew in students meeting or exceeding grade-level expectations at the 5th and 6th grade math placements underscores this issue.

In conclusion, while assessment data plays a role in determining math placement, its limitations and biases must be acknowledged. Overreliance on standardized test scores can overlook student potential, perpetuate inequalities, and limit access to advanced math courses. A comprehensive approach that considers multiple factors, including qualitative assessments and individual student growth, is necessary to make informed decisions about math placement.

Teacher Recommendations

The significance of teacher recommendations in determining math placement should be carefully considered, as they can introduce elements of bias and reinforce limiting beliefs. Educators hold the discretion to recommend or not recommend students for specific courses, which allows for flexibility but also opens the door to potential biases and mismatches between adult expectations and student competency to participate in more complex math courses.

Research studies have revealed that educators who do not share the same ethnic-racial background or identity as their minoritized students, such as Black, Latinx, Native, and Indigenous students, often have lower expectations of their abilities (Cherng, 2017; Grissom & Redding, 2015). This disparity in expectations can result in these students being less likely to be recommended for accelerated instruction by their educators.

Even well-intentioned educators may unintentionally perpetuate the internalized stigma and limiting beliefs that underrepresented students hold about their perceived abilities. This can further reinforce the disparities in math placement and limit opportunities for these students to access advanced math courses.

Parent Choice

The element of parent choice and advocacy in determining students' grade 6 math placement introduces subjective factors such as parental preference, biases, and misconceptions about their child's abilities, as well as considerations of teacher quality and the perceived significance of different math placements. However, it is important to recognize that parents may

not have the necessary knowledge or expertise in math content to accurately assess their child's readiness for more complex mathematical concepts.

Parents may also lack sufficient context about their child's aptitude for math. While they may be aware of teacher reports and student performance on math assessments, their advocacy may not always consider the comprehensive short-term and long-term impact on their child's learning trajectory.

Moreover, parent choice and advocacy tend to favor parents who possess more institutional knowledge, educational backgrounds, advocacy skills, and fluency in English. This places families with fewer resources at a disadvantage. For instance, the math course selection orientation held on March 29th, 2023 (SOMSD, 2023) was conducted in English, which creates a barrier for children and families who primarily speak languages other than English. While closed captions were provided in English, the absence of video transcripts in other languages further hinders their access to institutional knowledge necessary for navigating the course selection process. Therefore, while parent choice and advocacy may not inherently be inequitable, they can perpetuate existing inequalities and privilege those with greater access to resources.

Furthermore, the lack of supports for students in need of supplementary math instruction or intervention was highlighted in the SOMSD course selection video. For students who struggle with accelerated math courses starting in the 6th grade, their only option is to switch to a less complex math class. This means that parents may choose and advocate for a more advanced class, but if they lack the resources for additional support, such as ongoing tutoring, these families are left with limited alternatives. The district's recommendation to change classes, in turn, has significant implications for subsequent course offerings and academic pathways.

Altogether, the following implications can be drawn from this section:

- 1. Insufficiency of assessment data to determine student competency and proficiency:** Altogether, math assessment data may be a helpful indicator but cannot sufficiently determine a student's readiness for accelerated math instruction. External factors such as instructional quality, test anxiety, or other barriers may influence a student's performance. These external factors are heightened when the nature of the assessment is high stakes. As such, assessment data is helpful but must be interpreted with caution and alongside other criteria.
- 2. Parent and teacher input, while helpful, may not reflect student competency and proficiency and may reflect bias:** Teacher recommendations and parent advocacy may be helpful criteria but should be regarded with caution as they may reinforce elements of racial bias and privilege. As noted in this section, teacher recommendations, particularly when educators do not reflect the background of their students, can reflect internalized bias and lower expectations that adversely influence students and perpetuate disparities in math placement. Likewise, parent advocacy may be influenced by misconceptions of

their child's ability; similarly, parents may lack math content knowledge and therefore their advocacy decisions may be influenced by other data sources such as teacher recommendations. Additionally, parent choice and advocacy favor English-speaking families with more institutional knowledge and education, thus compounding pre-existing structural inequalities with non-English speaking families with less resources. Altogether, these constraints (assessment data, parent and teacher input) suggest a need to re-construct the math course selection process to increase access and opportunity for all students, particularly those from under-represented groups.

Recommendations

Data analysis revealed five findings: (1) Disparities evident in elementary math achievement; (2) Disparities observed in middle school math achievement; (3) Less rigorous curriculum experienced by middle school students in lower track courses; (4) Math course selection policy enacts a bounded system that reinforces inequalities in opportunity; and (5) Math course selection criteria of assessment data, parent choice, and teacher recommendation deepen disparities. Given these findings, the following recommendations are made to enhance equitable access to math instruction:

1. **Prioritize material and verbal messaging regarding math growth mindset:** It is recommended to prioritize the development of a growth mindset and actively challenge gender and race-based stereotypes in math performance for educators, students, and families. This entails promoting the understanding that ability is not fixed, but rather malleable and can be enhanced through effort and persistence. By shifting students' beliefs about the nature of ability, educators can support students to embrace challenges and view setbacks as opportunities for growth, rather than as indicators of fixed traits.

At the same time, it is crucial to confront and dismantle preconceived notions associated with gender and race-based stereotypes related to math performance. Students who hold fixed, limiting beliefs influenced by these stereotypes are more likely to shy away from challenging tasks and perceive setbacks as reflections of their inherent, unchangeable traits such as race and gender. Equipped through professional development, educators can actively challenge these stereotypes and foster an inclusive and supportive environment that recognizes and celebrates the diverse mathematical talents and capabilities of all individuals, regardless of their gender or race. This includes adopting feedback and grading practices that emphasize growth, language use that emphasizes growth and student effort, celebrating mistakes as learning opportunities, and encouraging perseverance by teaching students how to break down complex tasks into smaller, more manageable chunks.

2. **Foster heterogenous student collaboration in math instruction:** In elementary and middle school math courses, equip educators to create opportunities for students of different abilities, backgrounds, and learning styles to collaborate and work together on math tasks. Educators can encourage peer teaching and cooperative learning where students can share their understanding and support one another in their math learning. At the same time, norms for productive academic discussion should be explicitly taught to students so the focus is on collaborative problem-solving and developing shared understanding and not copying or students giving answers away. This may require additional training and autonomy to support educators to create opportunities for students to talk about their learning and explain their mathematical thinking to each other and their peers. Such practices will deepen their understanding but also promotes collaboration and communication skills.

Lastly, the focus on heterogenous groupings also discourages labeling student groups by math ability. These practices often create a sense of hierarchy or stigmatizing students based on their math abilities. Instead, educators should have the agency and autonomy to create a supportive and inclusive learning environment where all students are encouraged and empowered to excel.

3. **Ensure that low-track students receive the high-quality instruction that they need to become better math students:** Review the current curriculum and standards for lower-track math classes to ensure that they align with higher-level cognitive skills such as evaluation and creation (the two upper tiers of Bloom's Taxonomy). Identify areas where the curriculum can be enhanced to provide more challenging tasks that require students to analyze, evaluate, and create mathematical solutions. Furthermore, equip and empower educators to supplement the curriculum as needed with problem-solving tasks that require students to apply their knowledge in real-world contexts. Design activities that challenge students to analyze complex problems, evaluate different strategies, and create innovative solutions. This encourages critical thinking and computational ability, which are necessary skills students will need if they want to choose to move into a more challenging math course in their middle school years.
4. **Create a clear plan and timeline to identify high-achieving students from under-represented backgrounds for higher-track math courses:** Implement strategies to identify students with high math achievement potential who may come from under-represented backgrounds. This can include using multiple criteria such as teacher recommendations, performance on low-stakes math assessments, and considering

students' demonstrated interest and motivation in math. By actively seeking out and recognizing talented students from diverse backgrounds instead of waiting for under-represented families to opt-in, you can ensure a more equitable representation in accelerated math classes.

5. **Create enrichment and acceleration opportunities:** Develop enrichment and acceleration programs that provide students with the opportunity to move into accelerated math classes in grades 6 through 8. Offer summer enrichment courses specifically designed to reinforce and extend math concepts. Partner with organizations like the National Society of Black Engineers or other national tutoring programs to provide additional support and resources for under-represented students. Additionally, consider offering support classes during the academic year to help students strengthen their foundational math skills and bridge any knowledge gaps.

Likewise, ensure that students who transition into accelerated math classes receive ongoing support and resources to succeed. This can include providing access to free tutoring services, additional learning materials, online resources, and mentorship programs that students can access during the school day and at home. Regularly assess students' progress and provide interventions as needed to ensure their continued success in math.

6. **Increase accessible and equitable parent involvement:** Actively involve parents in the math course selection process and provide strategies to support their children's math achievement at home. Offer math course selection sessions at different times of the day and in different modalities to accommodate different families. In addition, math course selection sessions can be led in multiple languages, including closed captioning or translated materials, to ensure that multilingual families and speakers of languages other than English can fully participate. Consider organizing sessions specifically aimed at increasing the representation of under-represented students in advanced math courses. By actively engaging and empowering parents, you can ensure that all families have the information and resources they need to make informed decisions and support their children's math learning.
7. **Revisit the choice policy for math course selection:** Evaluate and modify the existing policy for math course selection to promote equity and reduce potential biases. Reduce the emphasis on high-stakes or one-time performance on math assessments as the sole criterion for course placement. Instead, consider multiple factors that provide a more comprehensive understanding of students' abilities and potential for success in advanced

math courses. This may involve reevaluating the role of parent input and teacher recommendations, ensuring they align with the goal of expanding representation for under-represented students and minimizing potential biases. Implement explicit strategies to ensure racial balance in course selections, such as establishing targets to increase representation and regularly monitoring and adjusting the selection process to achieve equity.

Section 3: Intervention and Tiered Supports

Finding Section 3: SOMSD I&RS Process Does Not Align Across Schools and With NJDOE

In this section of the report, we provide an analysis of the intervention supports currently operating in the school district. As noted in the methods section, the analysis involves examining documents made available across the various schools in the district in relation to two frames: 1) the National Center for Intensive Intervention (<https://intensiveintervention.org/>), formerly the national Center on Response to Intervention funded by the US Department of Education, outline of tiered supports; and 2) the New Jersey Department of Education guidance of Intervention and Referral Services (<https://www.nj.gov/education/njtss/guidelines.pdf>). The intention of using these frames is to provide a research-based backdrop for determining the quality, efficiency, and resource appropriateness of the district's tiered intervention supports.

NJDOE I&RS Guidance

I&RS stands for “intervention and referral services” and is a support system for teachers to assist students who are experiencing learning, behavior, or health difficulties in general education. The I&RS process begins formally after a teacher has already facilitated and documented in-class Tier 1 interventions.

I&RS, RTI, and MTSS are all part of the same process but have specific meanings and utilizations. Figure 1 demonstrates the interconnected relationship between I&RS, RTI, and MTSS as imagined by the New Jersey State Education Department. The systems are nested within each other and share the intention of providing targeted supports with increasing intensity in order to accelerate learning.

I&RS serves as the process most closely tied to the Tier 1 core instructional, curricular, and behavioral program. If you were to visualize its placement in progression of student support, I&RS lives on the border of Tier 1 and Tier 2 interventions. In this sense, Tier 1 interventions might be used by a teacher for an individual student, a small group of students, or a whole class. After monitoring the success of the intervention, educators may collaborate with the I&RS team to strategize around a variety of additional supports for that student or small group. This marks the beginning of Tier 2 interventions and strategy.

RTI, on the other hand, serves as the framework for organizing the procedural elements of supports with an evidence orientation such as academic and behavioral universal screeners,

diagnostic assessments, evidence-based interventions, fidelity and progress monitoring tools, and progressive tiered supports (<http://www.rtinetwork.org/learn/what/whatisrti>).

Finally, MTSS serves as a framework for braiding together I&RS, RTI and PBIS in order to adequately support students with behavioral and academic needs, and brings in community and parent resources (<https://mtss4success.org/essential-components>). It serves as the umbrella framework for interventions designed to increase student success in all developmental areas (i.e., social, emotional, cognitive, moral, and physical).

NJTSS is a Multi-Tiered System of Support – Building on Intervention and Referral Services and Response to Intervention

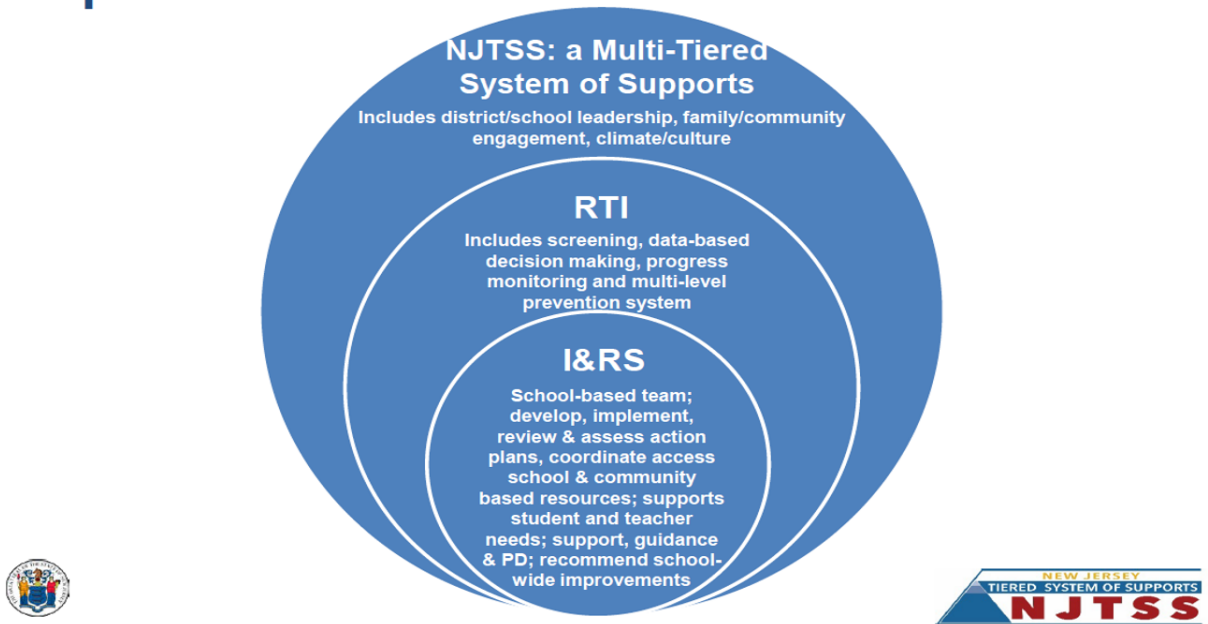


Figure 5: New Jersey Tiered System of Supports

What is the policy guiding the implementation of I&RS?

I&RS is the process New Jersey makes sure that all children get what they need. It creates a safety net to ensure that children don't fall through the cracks by asking educators to document attempts at supporting children who display academic and/or behavioral need **BEFORE** they are referred for Special Education evaluation. Why? Because some children need support, but they are not necessarily displaying a need that meets criteria for special education classification. The New Jersey State Board of Education provides the following mission statement for schools to understand the rationale and goal for the I&RS system.

The New Jersey State Board of Education has established that the primary mission of schools is to enhance student achievement of high academic standards in safe and disciplined learning environments. The effectiveness of public education in fulfilling this mission depends largely upon the capacity of school systems to respond to the diverse educational needs of students. Constantly evolving social conditions and the changing educational needs that tend to emerge with these changes can pose dramatic barriers to student achievement.

The educational mission is made more complex by the increased incidence, prevalence and intensity of problems students bring to schools. These problems include high risk behaviors, such as alcohol, tobacco and other drug abuse, violence, vandalism, child abuse and neglect, early sexual involvement, youth pregnancies and parenting, suicide attempts and suicides, eating disorders, low self-regard, poor socialization skills, lack of readiness for school, as well as chronic medical conditions and physical disabilities.

The types of at-risk behaviors students manifest while in school include not concentrating or focusing on learning, not completing assignments, not achieving to demonstrated skill level or tested potential, declining or failing grades, cheating, absenteeism, tardiness, falling asleep, inability to stay in seat or work within structure, decreased participation, self-defeating responses to peer pressure, deteriorating personal appearance and hygiene, erratic behavior, loss of affect, acting out, fighting, defying authority, violating rules and dropping out of school. These and other problems place students at risk for school failure and other problems, leaving parents and teachers frustrated and in need of assistance.

In response to these circumstances and the attendant needs of students, the New Jersey Department of Education continues to provide leadership to schools for educational improvement and whole-school reform. One such effort to be addressed in this manual is the school's program of intervention and referral services (I&RS).

(reference: <https://www.state.nj.us/education/students/irs/>)


SOMSD I&RS Process

In 2019-20 school year, our Disproportionality Lab conducted an equity audit which included a review of the intervention process. Two key findings were identified for the SOMSD district leadership:

- *Finding 1: I&RS Implementation Process Guide contains inconsistencies and redundancies. (pg. 48)*
- *Finding 2: Intervention approaches are often misaligned with student needs. (p. 51)*

Our analysis of documents for this audit focused on determining whether the recommendations provided in our August 2020 report are reflected in the sample documents provided in 2022-23. According to a January 2023 memo written by district leadership to school principals, there is an indication that some of the 2019-20 findings and recommendations have not been addressed. Figures 6 and 7 is the January 2023 memo on I&RS updates. The memo highlights recommendations made by another assessment conducted in February 2022: 1) consistent and uniform team compositions; 2) consistent I&RS teaming schedule; 3) creation of new and consistent I&RS assistance forms; 4) schools should share a uniform google drive on I&RS process; and 5) district creates and provides a bank of intervention. The need to make these improvements are critical for reducing the patterns of disproportionality in special education noted in section 1 of this report.

Figure 6: January 2023 memo on I&RS Updates – Page 1



The School District of
**SOUTH ORANGE
& MAPLEWOOD**
127 Academy Street • Maplewood, NJ 07040

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TO: Principals, Assistant Principals, and Supervisors

FROM: Dr. Kevin F. Gilbert, Assistant Superintendent of Access & Equity
Ms. Susie Budine, Assistant Superintendent of Special Services
Ms. Ann Bodnar, Assistant Superintendent of Curriculum and Instruction

DATE: January 18, 2023

RE: Update on SOMSD Intervention and Referral Services (I & RS)

The purpose of this memorandum is to provide an update on plans for I & RS and provide standard guidance for SOMSD I & RS work for the remainder of SY 2022-23. We have heard the concerns raised by our leaders and wanted to inform everyone that the Assistant Superintendents have been working collaboratively to develop a standardized approach to I & RS so that SOMSD is consistent in its approach to I & RS and that we are providing as many effective interventions for our students to help them be as successful as possible.

Based on an assessment that was done in February 2022, the following suggestions were made to strengthen our I & RS programming.

A. All schools should have consistent and uniform team compositions to include the following:

1. Administrator
2. General Education Teacher
3. Special Education Teacher
4. Specialist Teacher
5. Social Worker
6. Academic Interventionist
7. Referring Teacher
8. Parent

(As appropriate, an instructional coach, ELL teacher, nurse, related services, and student can be added. Child Study Team should not sit on the I & RS Team until the team has decided to consider referral for evaluation)

B. Establishing minimum standards for meeting schedules to include:

1. Each school develops its own schedule, including due dates for forms, data, etc. to be delivered to the Assistant Principal. These schedules should be shared with Ms. Budine, Ms. Bodnar, and Dr. Gilbert.
2. Monthly new referral meetings should be scheduled. If there are no new referrals, these meetings can be canceled.
3. Follow-up meetings should occur for each student who has an I & RS plan or is being

1

Figure 7: January 2023 memo on I&RS Updates – Page 2

monitored for an I & RS plan every 6-8 weeks.

C. All schools should use the same, current forms. Ms. Budine, Ms. Bodnar, and Dr. Gilbert are presently reviewing all forms and will make them available to schools when the review is complete. In the meantime, schools can continue to use the forms they are using currently until notified that district forms are ready for use.

D. All school I & RS teams should maintain a shared drive with all students' documentation, data, etc. in it. These drives should be shared with Ms. Budine, Ms. Bodnar, and Dr. Gilbert

E. The district will create a bank of interventions for teams to use and will be shared with all schools. Until this is completed, Mr. Russell King, Assistant Principal at Maplewood Middle School has created a bank and has graciously granted access to all schools. Please refer to this [I & RS Tracker](#) he created until notified that the district bank has been completed.

Please let us know if you have any questions

Cc: Dr. Ronald G. Taylor, Superintendent

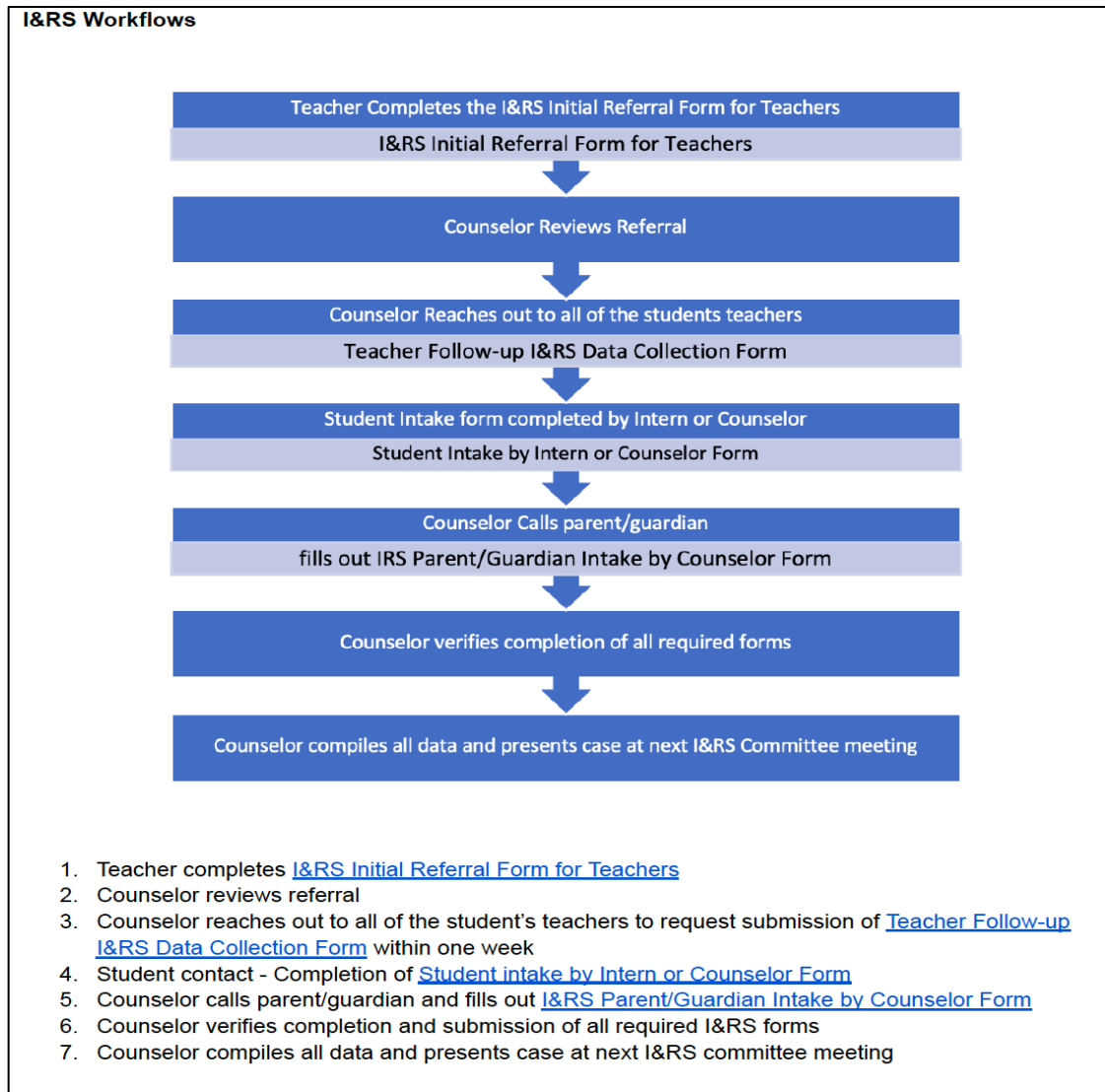
The district has also distributed an I&RS manual. The manual provides a robust set of information for implementing quality and efficient I&RS processes. Figure 8 is the table of contents of the I&RS manual. The manual contains various forms. The question is whether schools are using or adapting this manual.

Figure 8: SOMSD District Manual Table of Contents

The School District of South Orange & Maplewood Intervention & Referral Services (I&RS)	
Table of Contents	
Background	3
Function	4
State Codes	6
Intervention and Referral Services (I&RS) in SOMSD	8
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School Nurse Form	61
I&RS Community Brochure/Flyer	62
Sample Blank I&RS Action Plan	63
Parents will be sent a copy of a finalized action plan by the student's school counselor and receive follow-up contact.	

According to the district manual there is a process for I&RS. Columbia High School provided information on their I&RS workflow process. Figure 9 demonstrates the I&RS workflow at Columbia HS. The process begins with teacher completing I&RS referral form and the counselor is tasked with reviewing the referral form.

Figure 9: Columbia High School I&RS Workflow



According to various schools, I&RS process formally begins with an assistance form being completed by the teacher. Each school shared an assistance form that varied. For example, Figure 10 provides a sample I&RS form at Montrose Preschool.

Figure 10: Montrose Preschool Pre-I&RS form

**SOUTH ORANGE MAPLEWOOD SCHOOL DISTRICT
PRESCHOOL INTERVENTION AND REFERRAL TEAM (PIRT)**

PRIOR INTERVENTIONS CHECKLIST

Confidential

Student: [REDACTED] Grade: Pre-K
 Staff Requesting Assistance: [REDACTED] Date: 10/14/2022

Please indicate the types of interventions you have tried prior to this request for assistance:

1. Spoke to student privately
 - a) Explained class rules and expectations x
 - b) Explained my concerns x
2. Implemented environmental & social supports (e.g. Individualization) x
3. Contact parent via telephone/ email x
4. Developmental Screening completed x
5. Checked cumulative folder x
6. Held conference with parent (s) x
7. Completed Behavior Log & Intervention x
8. Checked-in with nurse x
9. Checked attendance and reasons for absences or tardiness x
10. Completed **5 Observation Cards/ABC Data** (If speech concern, **2 cards**) x
10. Reviewed the Tools of the Mind trajectory x
11. Discussed concerns with
 - Grade Level Colleagues
 - x Principal/Site Administrator
 - x Master Teacher
 - Other (specify) _____

Included with the Pre-I&RS form, Montrose also conducts “Observation cards” (Figure 11) which appear to demonstrate a protocol for teachers to observe students. The observation cards provided detailed examination of the behavior students demonstrate through a social context lens; that is, understanding the student’s behavior within the social context in which it happens (i.e., understanding the trigger/antecedent surrounding the behavior).

Figure 11: Montrose Pre-I&RS Observation cards

Observation Card Observer: [redacted] Date & Time: 9/10/22 10:00 am
Student Name: [redacted]
General Context (the setting of the observation) On the carpet during the Opening Group, all the children were seated on their spot.
Social Context (Trigger/Antecedent): I used a puppet to give each child an air high 5 after teaching a lesson on friendship skills. The teacher Said, "Say good-bye to [redacted] The teacher gets up to put away the puppet.
Behavior Problem (state the challenging behavior): Rebecca starts to cry and throws herself on the ground.
Social Reaction (what happens afterwards? Maintaining consequences?): I acknowledged her feelings by saying, " [redacted] see that you are crying and upset. It's time for the Freeze Dance?" "Do you want to dance Rebecca?" [redacted] goes and stands next to me (the teacher) and immediately begins to smile and dance.
Possible Function (what is the behavior communicating?): Adult attention? Access to tangible? (Attention, Escape, Access to tangible item, & Sensory ?)
The Center on the Social & Emotional Foundations for Early Learning

Another element of the I&RS process is the frequency of I&RS meetings. As noted in the memo from the district leadership the frequency of I&RS meetings is an area of improvement. According to various schools' documents there is a regularity of I&RS meetings. Figure 12 provides a sample meeting schedule at Seth Boyden elementary school. The sample schedule demonstrates several rounds of meetings occurred during the 2022-23 school year to discuss student's needs and progress.

Figure 12: Seth Boyden I&RS Meeting Schedule


Round 1, 2, & 3 Follow Ups			
June 2023			
Last updated 6/2/23			
Monday, Jun 5, 2023 Emails sent to families on 5/24/23	Student	Staff Invited	In Person or Virtual
8:30-9:00	Prep for Meetings		
9:00-9:30			Confirmed Mom in person and dad virtual Google Meet
9:30-10:00			
10:00-10:30			Google Meet
10:30-11:00			
11:00-11:30			
11:30-12:00			Google Meet
12:00-12:30			
12:30-1:30	LUNCH		
1:30-2:00			Confirmed

At Maplewood Middle School there appears to be a similar pattern of frequent I&RS meetings. Figure 13 provides a sample agenda for I&RS meetings 2022-23. Based on this sample, the meetings comprise of reviewing students “on your radar”; it is not clear what that references nor whether what data is expected to be demonstrated of what is “on your radar”.

Figure 13: Maplewood Middle School I&RS agenda

I&RS Task Force Agenda #2

Date: 12/12/22
Time: 2:45 - 3:14



Attachments:

- + [SOMSD I&RS Manual](#)
- + I&RS Shared Folder

I&RS Folders:

6th	7th	8th
Wildcats Silver Lions Red Tigers	Fire Cats Pumas King Cats	Mountain Lions Mountain Screammers Panthers

Agenda:

1. Review I&RS Student List
 - a. 6 Students have been referred to the CST via I&RS
 - i. [Redacted]
 - ii. [Redacted]
 - iii. [Redacted]
 - iv. [Redacted]
 - v. [Redacted]
 - vi. [Redacted]
2. Students on your Radar
 - a. S [Redacted]
 - b. [Redacted]
 - c. [Redacted] Red Tigers
 - d. [Redacted] * Wildcats
 - e. [Redacted] * Red Tigers
 - f. S [Redacted] * Mt. Screammers → Behavioral concerns impeding some academics, handsy (had family meeting → was previously diagnosed with ADHD but mom “doesn’t want him labeled”) → ABBY INCENTIVE!
 - g. [Redacted] (6th Grade) * Red Tigers → extreme anxiety, mom didn’t reach out to LB for 504 yet, but may be a good candidate for one.

Maplewood Middle School also shared documents that demonstrate their organizational structure for providing intervention supports. Figure 14 provides the bell schedule for Maplewood Middle School. According to this bell schedule, students needing additional intervention supports will receive it during period 8 and conference timeframe.

Figure 14: Maplewood Middle School Bell Schedule

MMS Bell Schedule 2022-2023				
Period	Time	6th Grade	7th Grade	8th Grade
1	8:20-9:09	Period 1	Period 1	Period 1
2	9:12-9:57	PE/RA/Music	Period 2	Period 2
3	10:00-10:45	Period 3	PE/RA/Music	Period 3
4	10:48-11:33	Lunch	Period 4	PE/RA/Music
5	11:36-12:21	Period 5	Lunch	Period 5
6	12:24-1:09	PE/RA/Music	Period 6	Lunch
7	1:12-1:57	Period 7	PE/RA/Music	Period 7
8	2:00-2:45	Rotation	Rotation	PE/RA/Music
Conference	2:45-3:14	Conference	Conference	Conference

Academic/Behavior Support

- Rotation period (grades 6 and 7)
- Conference period (all grades)

Behavior Support

- IEP counseling (D. Robinson/d. [redacted])
- General Ed/504 Counseling ([redacted])
- Lunch meetings of The Hub (LCSW)
- Lunch support/counseling of counselors. [redacted]

} Social workers

Academic Support

- Leveled Literacy Intervention
- Reading/Writing Intervention
- Math Intervention w/ [redacted]
- Push-In ELA w/ D. [redacted]
- Push-In Math w/ D. [redacted]

At Columbia high school the documentation of the I&RS meetings do not provide much understanding as to what transpires during and expected to occur after the meetings. Figures 15 and 16 are the I&RS agendas for March and June 2023.

Figure 15: Columbia High School March 2023 I&RS agenda

3/10/23

I&RS Meeting Agenda:

Welcome everyone!

- Explanation and expectations

Process:

1. Review Teacher Data Collection info
2. Review Parent Data Collection info
3. Judgment on case?
4. Plan creation (if determined necessary/appropriate)

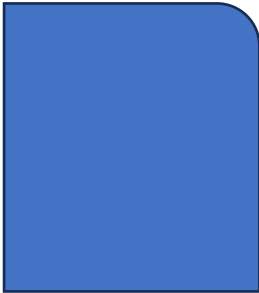


Figure 16: Columbia High School June 2023 I&RS agenda

6/9/2023 Agenda


I&RS Meeting Agenda

Process (initial):

1. Review Teacher Data Collection info
2. Review Parent Data Collection info
3. Judgment on case?
4. Plan creation (if determined necessary/appropriate)

Process (follow-up):

1. Review progress
2. Make adjustments
3. Decide upon next steps



Overall schools provided a similar rendering of I&RS. However in relation to the guidance provided by NJDOE, I&RS is intended to serve as a process for addressing academic and behavioral difficulties within the Tier 1 classroom prior getting to a Tier 2 intervention process.

Finding Section 3: School rates of I&RS Referral are Low However are Primarily Black Students


Some of the data provided by the schools include the number of students referred to the I&RS process. There is inconsistency in the demographic information maintained by the schools regarding the students receiving I&RS services. Majority data charts contain grade level and interventions being provided. Figure 17 is the demographic information maintained at Clinton elementary school. This example provides details that should be used across the various schools.

Figure 17: Clinton Elementary School I&RS Demographic collection drive

Time	Current Teacher	ID #	Name	Gender	Ethnicity	DOB	Grade	21-22 Teacher	AI	EL	SW	Case Manager	20-21 SY Folder	Previous Action Plan	2022-2023 Action Plan	Teacher Notes	Parent Mtg Date	Parent Name	Parent Email
...

Given the data Clinton collects they were able to conduct continuous analyses of the I&RS process. According to this 2022-23 data, among the 28 students that received I&RS supports 16 identified as male and 12 identified as female. This translates to 57% male and 43% female. The pattern by race/ethnicity also demonstrated an over-representation; among the 28 students, 14 identified as Black, 7 as White, 3 Multiracial, 3 Asian, and 1 Latinx. This translates to 50% Black and 25% White; meanwhile the district is 28% Black and 55% White. Unlike other school’s sample documents, Clinton shared documents regarding some of the data inquiry they were conducting in 2022-23; Figure18 is a powerpoint slide that includes the inquiry they conducted as a result of these disproportionate patterns.

Figure 18: Clinton I&RS data review inquiry

I Wonder... 

- Is the jump from second to third grade a bigger jump in some way?
- What are the demographics of the school as a whole? How does it correlate with this data?
- How does instruction change after a child is referred?
- Has leaving AI impacted referrals?
- How many students have previously been referred? How many students already receive services?
- What is the breakdown of subject areas regarding referrals?
- Of the students referred, how many are sent to the CST?
- What are the specific struggles of the students being referred?

Seth Boyden also collects robust data information on students receiving I&RS services. The data documents provided showcase the Seth Boyden collects: the number of years receives I&RS services, the type of I&RS interventions provided, race/ethnicity, referral purpose – academic and/or behavioral, CST or 504 referral, and number of annual meetings held by the I&RS team regarding students. According to the 2022-23 data on 5th graders, Black students reflect the majority receiving I&RS services and for multiple years. Among the 20 students receiving I&RS services, 12 contained demographic information – 11 Black and 1 Latinx; 7 Male and 5 female; 7 Black male, 4 Black female, and 1 Latinx female. Additionally, among the 12 students, 10 received I&RS services for 2 years or more, and 2 students received 1 year of I&RS services. This data point suggests that students are receiving I&RS services for multiple years, and given the inconsistency of process and quality outlined earlier, this sample of students may be experiencing repeated exposure to inadequate intervention services. Also noted in the data files from Seth Boyden are data points regarding each round of I&RS meetings. As noted earlier, Seth Boyden conducts 3 rounds of I&RS meetings over the course of the school year. Table 80 reflects the race/ethnicity and gender patterns for each round. During intervention rounds 1 and 3 Black students represent the majority of students enrolled in intervention services; Male students are the majority in rounds 1 and 2. This means that during the majority of rounds in 2022-23, Black and Male students are being enrolled most frequently for I&RS services.

Table 80: Seth Boyden 2022-23 I&RS Rounds by Race and Gender

I&RS Intervention Rounds	Race/ethnicity	Gender
1	26 Black students (70%) 5 White students (13%) 2 Multiracial (5%) 3 Latinx (8%) 1 Asian (3%) 37 Total	15 female students (40%) 22 male students (60%) 37 Total
2	6 Black students (33%) 6 White students (33%) 2 Multiracial students (11%) 2 Latinx students (11%) 1 Asian student (5%) 1 Hawaiian Native (5%) 18 Total	8 female students (44%) 10 male students (56%) 18 Total
3	11 Black students (68%) 3 White students (18%) 2 Multiracial (12%) 16 Total	12 female students (75%) 4 male students (25%) 16 Total

At South Mountain elementary school, a similar pattern of I&RS services enrolling a majority of Black and male students is also apparent. During the 2022-23 school year, a total of 36 students received I&RS services. Table 81 provides the demographic disaggregation. It is apparent Black students are over-represented in I&RS compared to their overall school enrollment. Additionally, male students are over-represented and specifically Black and White males.

Table 81: South Mountain 2022-23 I&RS Services Student Demographic

Race/ethnicity (N and %)	Gender (N and %)	Race/ethnicity + Gender (N and %)
12 Black students (33%) 18 White students (50%) 2 Asian students (5%) 2 Latinx students (5%) 2 Multiracial students (5%)	25 male students (69%) 11 female students (31%)	10 Black male students (83% of Black students receiving I&RS) 12 White male students (66% of White students receiving I&RS)

Overall, two clear findings emerged in our examination:

3. The I&RS process in SOMSD are inconsistent across elementary schools. In addition, the process does not contain the expected elements outlined in NJDOE I&RS guidance document in most of the schools. Based on this analysis the district needs to re-develop a tiered intervention process, that includes data infrastructure, teaming process of operating, intervention capacity, fidelity monitoring of I&RS team operation, and data interpretation to intervention capacity.

4. The rate of I&RS referrals transferred to CST referrals is appearing to be between 40-50%. And the rate of I&RS referrals and CST referrals are appearing to primarily involve Black students. Given the district enrollment for Black students, these rates of I&RS comprising primarily of Black students reflects an over-representation of Black students. In order to address these disproportionate patterns, there needs to be an improvement of I&RS process as well as identify why Black students are being primarily identified for I&RS services.

Section 4: Culture and Climate

Introduction

To understand the nature of the school district, we conducted student and teacher focus groups as well as individual teacher interviews to understand the nature of the culture and climate in SOMSD and also to give texture to some of our statistical analysis. Specifically, we spoke to Black students and other BIPOC students of their experiences in the district. Our findings suggests that SOMSD is a school district of contradictions. While there are some who experience the school district as “an oasis” there are others who experience the district as a place where they do not belong. Specifically, Black students say their experience of the district is one in which there is a lack of rigor and a lack of care in relation to their academic journeys.

SOMSD is a district where college attendance is the norm and Black students are aware of this expectation. Black students perceive this lack of rigor as an impediment to their college attendance options. Black high school students in higher level courses report feeling pressured to take academically strenuous course loads and that they are not easily allowed to adjust their schedule. They experience this as a form of tokenism and suggest that while they are physically represented in advanced level courses, their representation is superficial and fails to address the deeper issues of systemic racism operating in the district. Thus, Black students report that there is a lack of rigor in the curriculum and a lack of care demonstrated in the culture at SOMSD.

Finding Section 4: Black students perceive and experience the SOMSD as pressuring them to attend AP courses without supports; feeling isolated in AP courses due to being the only Black students and AP teachers ignoring their presence; experience being tokenized in courses; and in lower level classes higher performing Black students are expected to support other Black students.

CURRICULUM AND INSTRUCTION

Lack of Rigor

BIPOC students report a lack of rigor in their academic experiences in SOMSD. They spoke about rigor in terms of the challenges provided by their coursework, as well as the opportunities that were made available to them by academic pathways, teachers, and administrators. Black students repeatedly reported that their teachers had low expectations of them. They spoke of being aware that they were not encouraged or expected to take higher level courses, and when they were in those courses, teachers had different—and often lower— expectations of them than of their White peers. Some students expressed feeling unseen. For example, one student said, “And

so it's like sometimes I feel like -- it's like I'm there but I'm not seen as much... sometimes it feels like [white students'] education is more prioritized over mine."

Many students suggest that the culture and climate of SOMSD gives permission for these trends around rigor to exist. Students said that teachers' low expectations kept students locked into academic tracks early on. High academic performers suggested that they often feel "tokenized" and that teachers hold them responsible for managing the performance of other Black students or providing scaffolding for other Black students' academic experiences. Black students also reported that a culture of tutoring in the district maintains academic segregation.

Feelings of Tokenism

Black students report that the lack of rigor is part of the culture and climate of SOMSD and specific to their academic journey. They report an awareness of racialized trends early on and notice aspects of tracking and tokenism. Tokenism refers to the practice of including a small number of individuals from underrepresented groups to give the appearance of diversity or inclusivity without addressing underlying systemic issues.

More specifically, Black students spoke often of being the only Black student in their advanced level class and that they noticed that lower-level courses have more Black students. For example, one student noted, "Like also the regular classes have so many black students. I've had like eight kids, eight black kids, switched into my class." Another student said,

I took all honors classes freshman year except social studies and I eventually switched into a higher level. But I noticed when I was in the lower level that's like the mostly black kids. Like every seat.

Black students feel that their place in advanced courses had little to do with their acumen or interest and instead was rooted in the optics of Black students being in advanced courses. Additionally, they noted that they felt stressed to be high performing, knowing that any misstep would be amplified. For example, they noted that if they are normally a high-achieving student and they do not do well on an exam that they will automatically receive a comment on their report card that states that they are not "trying" in that class. Other students reported that they were not able to make academic decisions that would help them manage their stress. For example, one Black student described having a challenging time in a particular course. They told their counselor that they did not want to take that particular honors course. The counselor discouraged that path. After their conversation, the counselor emailed the students' parents to apply additional pressure to stay in the course. Eventually, the student conceded and took the course. Another student reported:

I am usually a straight A student and then I have one test that I don't do well on, the comments on my reports will say I'm not trying in class or I'm not paying attention or like it's just the automatic assumption is that I just didn't put effort in as opposed to maybe I just didn't understand.

Higher achieving Black students noted that they often feel pressured, both to keep up their grades and also to take on academically heavy course loads in order to create the appearance of diversity within those courses.

I feel like at some point it feels like they're desperate to have me in those classes --and it's like they need me there to expand the diversity, like at that point I'm not seen as like a student if I'm seen as a weapon to use to fight backlash for like racism and junk.

The process of exiting a course is also fraught for Black students, who often do not receive the support they need to make these changes. In some cases, students' requests are ignored. In other cases, students are made to feel that they will suffer worse consequences if they leave the class, and that such a choice will negatively impact their future. Some students advocate to take themselves out of classes in which they have poor relationships with teachers who they think are not supportive of Black students. As one student said, "I actually had a very long conversation with the principal over the summer begging him to not put me in [a particular teacher's] class one more time and he did nothing. But I feel like in that classroom, I don't know specifically, but I do feel like black students are targeted."

Black students often made requests to exit classes because they felt like the class was not a welcoming environment, or that they were already overwhelmed with academic responsibilities, and time after time these requests went ignored. Other students dropped courses that they felt they could not be successful in. They wondered why the trend of dropping out was not received with more concern by the district.

I was talking with the other [Black] kids in my class and they were like yeah, we all dropped out of honors classes, and we're all here now in Academic English. And I'm just like why are we all just dropping out of these classes? 'Cause I feel like we should be able to stay, we should be able to feel like we can do the work, but yet we're all in this class.

Access to Advanced Level Coursework

Black students reported a wide differential between the academic rigor of honors and AP classes and the college prep course track. They also reported that the rigor gap started in grade school. For example, many cited their experiences with the pathways for accelerated math in the district

and noted that if you weren't on the right path very early on, it was challenging, if not impossible to access accelerated coursework at the high school level. For example, some students reported that the curriculum in grade-level middle school math was much easier than the curriculum for seventh grade algebra or pre-algebra. Middle school students spoke of a period of adjustment that can result in students moving up or down in math level; teachers confirmed this happens from time to time. High school students suggested they were neither prepared nor encouraged to take advanced level coursework. When Black students are in these advanced courses, they are often the only student of color and report feeling undue stress. These disparities make it exponentially more difficult for students of color to excel in mathematics as time passes. In other words, as students advance in a math track, the harder it is to excel in math because they struggle to catch up. Even students who have strong math ability will struggle to gain the skills necessary to take a higher-level courses.

Further, our analysis of course standards showed a marked difference in the rigor of middle school math courses. Grade level courses focus on lower-level cognitive tasks while higher level classes offer more challenges and employ real-world examples (see tables 77 and 78).

Students in both middle and high school who had moved between higher level courses and grade level courses noted more Black students in grade level/college prep courses than in their higher level or AP courses. They also noted that the curriculum in grade level courses was not nearly as rigorous.

Lack of Access to Supports

High school students reported feeling that they were held to a different standard of performance in subjective domains such as note taking, class participation, and behavior than their White and Asian peers. Students described conscientiously completing coursework and receiving lower grades. When they confronted teachers, they were told phone use or talking in class was to blame for the lower grade. These students felt that their white peers displayed similar behaviors and often did less work but were given more leniency in these subjective domains because they were known to be “good kids”. As one student noted,

I don't care, but there are people who are passing [redacted] class with a great grade, and they openly admit it to the fact that they don't do the outlines correctly and they get 100% each and every time. And I have myself and I have other students who also have this teacher. I have other friends who also have this teacher, and she'll actually put 110% effort into it and always gets like two points off, four points off, which eventually affects your grade. But then when you ask why am I getting less points than like all these other kids, it's 'cause it's not in depth or you're missing this. But the other kids who didn't fully do the work got a

20 out of 20. And it happens, like it can't be a coincidence anymore, because why is it all the black kids who are in her class who are getting these lower grades?

The pervasiveness of private tutoring within SOMSD is another inequitable resource that shapes student experiences in the district. Because this norm has been established within the district, changes to pedagogy that include more tier one supports and the provision of additional supports for students who cannot afford private tutors is disincentivized. In focus groups, educators and students commonly cited tutoring as an essential part of educational success in SOMSD.

As one teacher reported, “They [white families] would go get private tutoring. They would go to Kumon, they'd go to Huntington,” while the families of color relied solely on the school’s support offering of the pull-out group class. According to the teacher, White students eventually rejoined their grade level peers, while the Black students did not. The teacher advocated for more generalized tier one support in the classroom, given the number of students who struggled. But suggested that because White parents meet this lack by providing outside supports for their children, there is no widespread complaint about the in-class instruction and so, nothing changes.

BIPOC students understand that they can avail themselves of school based academic support. Particularly in high school, where courses are more specialized and help from one’s own teacher is essential, students who have experienced prejudicial treatment in their classrooms may be hesitant to seek those teachers out. Students who cannot afford outside tutoring therefore face a choice: ask for help from a teacher with whom you feel unsafe or struggle in silence. As one student explained,

Why do I have to go out and seek a tutor? Why I have to go out and get that help? 'Cause they're not helping. And when I first started at Columbia, there were certain teachers that I don't want to go to them and I didn't want to say anything, 'cause I felt like I wouldn't get that help.

In SOMSD, academic support programs supported by the district often focus on the highest achievers. For example, a new program called Saturday Academy provides weekend help to students in AP classes. Academic support for students of color also focuses on higher achieving students. In elementary school, students can be identified for scholarships to programs like Bell Academy by their teachers if they show aptitude and financial need. In middle and high school, students of color can get involved in MAC scholars, a group for high achieving students of color that offers academic support, leadership opportunities and community. These groups provide essential supports for BIPOC students. However, teachers and students both note that there are limited resources for students who are struggling. As one teacher notes,

They had an AP Saturday academy. Where is the Saturday academy for the kids that are failing? How are you having an academy that’s free for the kids. Teacher volunteered. Now teachers at the high school don’t volunteer for anything. Where is the extra work for—you talk about access and equity.

The result of these factors related to course rigor is a glass ceiling for students of color in the district; they see that there are other choices and opportunities available, but they cannot access them. The consequences of their lack of access to academic rigor accumulates over time and results in fewer post-secondary options for these students. If they take self-protective measures, they experience additional stress about this decision and often do not receive support from their teachers and administrators in their attempts at self-care.

SCHOOL CULTURE OF WHITE STUDENT SUPPORT AND RACISM

An Awareness of Unfair Experiences

Teachers reported awareness that students of color are receiving differential treatment in classes and are often tokenized. One teacher described the experience of minority students in AP classes as

taking the challenge that the district wanted them to take. One, they were still a minority in those classes, and they weren't necessarily welcomed. What one of my colleagues used to say, "not only did a lot of the students leave, but they left with a footprint in their back."

In this quote a teacher suggests that students of color were included in advanced coursework because of a district initiative. As a result, these students were not necessarily welcomed in class and perhaps even encountered outright hostility ("they leave with a footprint on their back"). Teachers are aware that there is a lack of support for Black students but seem unsure how to move toward more equitable experiences for students. For example, one teacher said,

I do think that we are not encouraging our students of color. I don't know that we're reaching out to their families and letting them know fully what the options will be and I also still believe that there's a lot of bias and even teacher bias. And even when folks are trying, even when they are really, really trying to do the right thing, there's still a lot of internal teacher bias when guiding students in certain ways that is not resolved.

Teacher bias also plays a role in the communication of opportunities. While families drive course choice, encouragement can play a role in piquing student interest and retention in higher level courses. Teacher bias impacts students beginning in the youngest grades, when they are learning the basic skills that lay the foundation to enter more challenging math courses. Teachers reflected on the fact that bias can play a role in how students are grouped in elementary school, and whether and how they receive special education services. In some cases, students are classified in a particular way not because of a lack of academic skill, but because teachers struggle to manage their behaviors, or because they are multi-language learners. More nuance in

looking at the factors that influence student achievement in school is necessary to shape an equity lens in the district. Frequently these students are children of color. As one teacher said,

I have many students of color and some very bright students of color that I wonder if they were white, if they would be placed in that pullout class.

Teacher bias also impacts student achievement. As one teacher suggested,

I think the expectation for some teachers is that black and brown students are not capable of doing certain things that their white counterparts can do or they're not giving them the chance to actually do it because they already have that thinking in mind.

This quote corroborates Black students who report feelings of low expectations from their teachers, feeling unwelcome in some classrooms and experiencing hostility by some teachers. Many Black students shared examples of negative student/teacher interactions in their classes and suggest that teachers act on a bias against Black students. Some students described racial microaggressions and others spoke about feeling pressure to conform to white standards or to submit to white comfort.

For example, one student suggested feeling the need to conform to white standards of beauty in order to be taken seriously in her advanced placement class.

If I'm coming to go to an AP class and I'm coming to school I'm not just thinking about my AP class. I'm thinking about if my hair looks good, and how my outfit looks because I know that there's probably a white girl in at school and she's just in class. Just like living.

This student suggests that they feel pressured to look a certain way in order to be taken seriously in class and they suggest that white students don't have this pressure. Other students reported feeling like they had to submit to white students in different ways. For example, one student said, "it's really annoying that the school would go out of their way to protect white students but then we get left in the dust and just like who cares 'cause they can handle themselves 'because they're strong, they're intimidating."

Another student shared, that in a discussion of colonialism in Africa, a white student referred to Africans as African Americans. A Black student corrected the White student and the teacher allowed White students in the class to mock the Black student.

And then I went to like point it out and [the teacher was] like there's no need to be upset, like it's not a big deal, like you're being dramatic. I was like I haven't been upset. I haven't frowned. I haven't even like ticked my eyebrow at you. I'm just letting you know that there's a difference and that there are subcultures. And they're like there's no need to be snarky. And I'm like who's being snarky?

These experiences prompt student attempts to switch classes to be with teachers who are known to be supportive of BIPOC students. Students described reaching out to counselors or teachers about struggles they are having in courses and receiving no response. Students who have advocacy from their families may see more results, but in general, student initiated requests often go unanswered. One student describes their experience writing a letter to the head of the English department requesting a course change due to prejudicial treatment by a teacher and received no response:

For me to leave her class after semester one, I had to email the head of English, and I wrote this two-page long letter, just detailing everything that I had been through in her class and how difficult it was for me to stay in here as a student. 'Cause I also feel like I'm not being supported enough.

Black students suggested that they are often overlooked and that they must advocate for themselves. However, they also report that their needs and issues go unmet. One student reported being treated aggressively by a teacher during a class in front of many other students. The student was offered an apology, but declined because they feared further retribution.

Generally, Black students reported feeling that they had to make additional efforts to get the supports they needed. As one Black student said, “I think we [Black students] just all know that we have to work ten times harder to get anything that we want.” Black students in SOMSD often face challenges to get into higher level high school courses and the advanced math track based on their elementary and middle school experiences. When students do get into these tracks, they face additional challenges unique from those of their white peers, including differential treatment, targeting, and pressure to perform to ensure the optics of having at least a handful of Black students in those courses. Ironically, better preparing all students for higher level courses would relieve the pressure upon the few Black students to excel in every academic space.

Reports of Specific Acts of Racism

In conversations with Black students, many shared stories of explicit acts of racism from other students at the school or in the district and that when these acts are reported they are often ignored or minimized by the district. For example, one high school student told the story of meeting a White elementary school student who asked her, “Are you a slave?” Other students shared stories of being called other racially charged names. For example, one student said,

There's a lot of racist kids in this school, especially white ones that are racist to black people. I know that this guy called my friend like a cotton picker, and said that she should go back to the fields and stuff, and called her a slave.

In one instance, a student reported an incident to their school counselor and was told by the counselor not to tell their parents because the matter could be dealt with in the school. That the counselor did not want parents involved shows an unconscionable lack of culturally responsiveness. Generally, Black students reported a lack of response to these racially charged incidents. As one student said, “It's like, oh, racism, feel better. They'll just say anything in the moment to make you think that they're going to do something, and then they won't do it.”

As the comments above reflect, teachers and counselors do not have the tools or the culturally responsive frame to manage conflict around race. Most try to smooth over the situation, but then do not address their larger systemic causes. The result is an unspoken understanding that the district is not equipped and therefore will not address the root causes of racial conflict. As one district teacher notes, students are all too aware of this fact: “talking to middle schoolers, talking to high schoolers, they've gotten to a point that it's not that they don't know how to use their voice it's that they don't feel like their voice is being heard in a way that is going to make change.”

There is a lack of advocacy for Black students within the district, and a general absence of caretaking for Black and brown students. As mentioned above, BIPOC students do not receive adequate access to educational opportunities, nor adequate supports. Within their schools, students often feel isolated, ignored, and uncared for. For example, teachers have misidentified Black students, calling them the name of other Black students. Black students in higher level classes are often the only one, or one of very few, and receive little welcome. Thus, many choose to self isolate, as this student notes. “So it's just like I'm the only black girl in my class, so I kind of, I sit all the way in the back.”

Black students thought that if they did well, i.e., earned high grades, they would be treated well by the teachers and administration in their school. What they found was, they had to work harder to receive what they were after, which included good grades and support. They also had to work to separate themselves from stereotypes that adults held about Black people as a group. When they did exemplify academic excellence, adults maintained that they were unique ‘unlike the others’. Black students who came to the district and were ethnically diverse, e.g., Jamaican, Nigerian, etc., were coached by adults to stay away from the Black American students, who they were told were lazy.

Parental Engagement and Parent Pleasing

Teachers and students alike note that White parents are the most vocal within the community and therefore, their children have access to the most opportunities. As one district educator said, “You know the squeaky wheel always gets what they want. You have parents

who have learned that all I—and they’re mainly white parents.” Another teacher noted that the district is very invested in “parent pleasing”: “They are quick to parent please and again I am a parent in the district and I still think that they are very quick to parent please.” The urge to please vocal parents does not necessarily align with equity.

An example of the power of parents is the channels through which information about academic opportunities are shared. More than emails from schools, conversations among parents in spaces that are separate from the school’s communication channels are the best source of information on how to leverage academic opportunities in the district. White middle-class parents were cited in focus groups of both teachers and students as having the most expertise in this area, which they share through Facebook groups, text threads, and within their social circles. Students whose families operate outside these networks sometimes find out about how to access these opportunities from friends or the parents of friends, and then inform their own families. For example, when asked how they started on their math trajectory in middle school, BIPOC students overwhelmingly shared anecdotes about the power of informed and engaged parents in accessing these opportunities. One student said, “some parents didn't get the memo, because this is a new kind of math. So, I kind of wish they would have educated more parents on that.” Another student said, “if your parents are on top of it then you'll know about these things, most likely before everyone else because not everyone's parents are on top of emails. Another student said, “My friend's mom's texted my mom like oh, you sign her up for the accelerated class. So, then I got put into the accelerated class in seventh grade.”

Students suggest that there is an informal communication pathway that helps parents (and students) know how to advocate for the resources they need. However, it is not clear how one learns about this pathway. As one student mentioned, “the only reason I ever even figured out that you could take that is 'cause my friend was like, I'm taking pre-algebra, you should take it with me or whatever. But like I didn't have it offered to me.”

Students suggest they do not necessarily receive encouragement from within the school to take higher level courses, instead they rely on their parents to get information and be “in the know”. By designating families as the primary force behind student course choices, students who do not have parents who are involved in the school culture or who do not have access to particular communication pathways are at a significant disadvantage.

Special Education Classification

BIPOC students are overrepresented in special education. As mentioned in section 1, Black students are disproportionately represented in the special education population. In 2019-20, Black students were 87% more likely to be identified as having a disability, while white students are 44% less likely. This is concerning not only because these students are being identified at

alarmingly high rates, but also because if it is the case that these students need extra support, the supports that the district is offering are not adequate.

Because of the stigma of special education, some BIPOC families push back against classification of their students, as this teacher notes:

When black and brown parents hear 504 or special ed, it's 'you're trying to label my child, so I'm going to fight it'. And then what happens, because for so long we've classified black children, parents are like no, no, no. And it's hard because now we have some kids who need the support. But the parents don't want that label.

This refusal can be linked to the inadequate communication about the benefits of resources by the district to families, but it is also clearly linked to bias based attitudes about race and academic achievement within the schools and community. Black students who have IEPs and 504s experience differential treatment because of this status.

However, while Black families may feel stigmatized by a special education classification, a different, positive perception is emerging among White families around special education resources. White families are often eager to secure the benefits of a 504 or an IEP for their children. Teachers and students noted that increasing numbers of white students are receiving school-based supports, especially extra time on tests. Families will seek the evaluation of a private doctor outside the school system in order to enter the I&RS cycle to get a 504 plan or IEP for their child. Meanwhile, families who do not have access to private tutoring or a private neuropsychic evaluation are either languishing in the process waiting for services or they may reject them because of the fear of stigma. The ways in which teachers communicate the need for special ed services can also differ depending on the race of the family being informed. The following quotes explore the different perceptions of special education that run along lines of race:

to a black parent, it's, "Your child can't focus. Your child is not paying attention. I think they need a 504." In another instance, it's, "Hey, I know—have you ever thought about getting a 504, because it might really help." And I know there are doctors in this district that are like the go-to doctor.

Another teacher said,

And again you have parents who, you know, they've got their kids to the doctor. They're demanding the diagnosis whether or not they have one. You know? They need their IEP and it should have this and this and this and let's add a 504 in there and, you know, like, everything. Then you have students who desperately need services but their parents are either unresponsive or are just very resistant to it for whatever reason.

This discrepancy follows the pattern of families with the most resources continuing to secure even more resources because of their influence within the district. By using outside resources like private physicians, parents are able to hoard resources that the school offers to further boost their child's academic progress. White families are not only taking advantage of supports meant for students with special needs, they are also usurping resources meant specifically for students of color. In recent years, white families have insisted that their children be allowed to join MAC scholars, a group that supports students of color academically and socially. Ironically, parents claim that their children should be allowed into the group as white allies, yet because there are a limited number of seats within MAC scholars based on funding, these allies are actually stealing resources from their Black peers. The district's failure to preserve these opportunities for Black students is a gross equivocation of equity and fairness.

Lack of Cultural Responsiveness

Culturally responsive frames were found to be lacking in SOMSD pedagogy, classroom management, and in addressing school culture. Students report that teachers seem unable to manage classroom conversations about difficult topics such as race and challenging world events like police violence and the Holocaust. Teachers also noted that professional development around culturally responsive practices was inadequate. As one high school student noted, "maybe it's [the teacher's] uncomfotability [sic] and it's, but like I feel like as a teacher, you're signing up to take the class, like you should be addressing like these issues." In other words, culturally responsive policies, pedagogies, and practices are needed.

There is a dearth of culturally responsive curriculum and pedagogy within the district. Although teachers report that the district has undertaken professional development initiatives that address equity and culturally responsive teaching, they have not caused a significant culture shift. Teachers note that many of these program cycles were not completed due to changes in administration. With new leadership comes new key initiatives. Teachers also note there is a lack of institutional memory, so at times, trainings might feel redundant or disconnected, as this teachers notes:

nothing gets followed through all the way.... But I wish that we would just find something that we could stick to because then we might actually be able to see results. But when we keep having the same PD where they don't mean for it to be the same, but somehow it is.

Another teacher noted that the curriculum was not culturally responsive and felt skeptical that change was possible because of the district's post-hoc approach to managing incidents of bias or racism. This teacher said,

“I’ll never see changes in the curriculum. It’s all about just making it go away. We shouldn’t have to tell teachers please don’t auction off children in a slavery assignment every five years.”

This teacher shared the story of a mock slave auction activity where some students, mostly Black, were sold as slaves. This incident came up several times in focus groups and teachers noted that similar incidents had happened more than once in recent memory.

According to teachers, the individuals who led the activity were informed that what they did was harmful, but the culturally responsive mindsets that could prevent such incidents have not been shared with district teachers in a widespread, systematic manner. Because educators do not receive deliberate, explicit professional development that articulates an approach to teaching difficult topics such as slavery, the incidents repeat themselves. Additionally, teachers and students alike mention, as the quote above illustrates, that the district wants embarrassing incidents such as the mock slave auction to “just go away,” rather than addressing it head on. In other words, the response to harmful incidents such as this one are post hoc. Teachers are not prepared to cover challenging material like slavery in a thoughtful and sensitive manner in advance of doing so.

The result of this failure to have a consistent districtwide approach to addressing difficult subjects is that teachers often cover them in dispassionate or insensitive ways, or avoid them altogether. Students noted that their teachers did not seem willing to engage in such discussion and described a disposition of neutrality, or avoidance when such topics came up in classes. This is frustrating to students. A middle schooler described a dispassionate discussion of the Holocaust in their class, which surprised them given the emotional content of the lesson. They reflected on the teacher’s approach to the material: “I feel like teachers try to like just put on this teacher face, kind of. Well, I don’t need a teacher face. I need you to care.”

BIPOC students also report feeling underrepresented in the school curriculum. They note that they do not feel that Black cultural events or holidays are acknowledged in any significant way within the district. One common example was the lack of acknowledgement of Black History Month. A student noted that in their history class, there was no acknowledgement of Black history month despite potential curricular connections, and the fact that the event lasts an entire month.

The [History teacher] never even said happy Black History Month. But, but then two days after Presidents’ Day, she’s ‘Happy Presidents Day’. What? Black History Month was an entire month and she said no word about it.

One middle school student went so far as to say, “I feel like the guidance counselors, they did more for March Madness than they did for Black History Month.”

Students also note a dearth of texts by Black authors in history and English courses. As one student said,

My favorite class this year is probably English. I really like the teacher, and I also like how it's one of the only English classes I've ever [had] and then that's actually reading about like not just white authors, so that's really nice.

This inability or fear of talking about race within the curriculum or within classroom culture results in microaggressions, differential treatment, and targeting of BIPOC students in classrooms in SOMSD. Teachers are not prepared to manage these moments in the classroom and students report being ignored or treated rudely or cruelly by teachers.

In summary, the lack of culturally responsive strategies is harmful to all students in the district because it diminishes the teaching of challenging subject matter. It is particularly harmful to BIPOC students because it marginalizes their experiences within the curriculum. Teachers acknowledge that culturally responsive strategies are necessary, but they personally struggle with change. As one teacher noted, “You know, it's very hard to convince people to try a new pedagogy. I know myself that the students benefit from that.”

Section 5: Recommendations

Within SOMSD, the norms of white and affluent families have historically dominated the culture of the school. It is recommended that the district undertake a systematic push toward re-norming their school policies, pedagogy, and curriculum toward more culturally responsive and inclusive norms. Centering the needs of Black and Latinx populations, and Free Reduced Lunch eligible families in the school district's programming is recommended. This shift will take time and all stakeholders will be impacted. Therefore, in the interim, it is crucial that the district also create spaces where all families, students, and educators can process these changes. Families who have typically had access to the most resources will struggle to adjust to a system that is more equitable; families who have typically been overlooked may struggle to build trust. Both will need spaces where they can ask questions of district leaders and build an understanding of the new district systems and policies. These spaces and family education mechanisms will need to look different according to the stakeholder group they serve. Issues of language, timing, location, and presenters should be considered in planning these supports. BIPOC students and teachers will also need affinity spaces where they can receive support.

The following recommendations refer to both long and short term goals that together can help create a more equitable environment for learning within SOMSD. The recommendations provided below are intended to not be an exhaustive list but rather focused activities to continue the movement of SOMSD towards being integration ready in target areas for the next 3-5 years.

Curriculum

1. **Prioritize material and verbal messaging regarding math growth mindset:** It is recommended to prioritize the development of a growth mindset and actively challenge gender and race-based stereotypes in math performance for educators, students, and families. This entails promoting the understanding that ability is not fixed, but rather malleable and can be enhanced through effort and persistence. By shifting students' beliefs about the nature of ability, educators can support students to embrace challenges and view setbacks as opportunities for growth, rather than as indicators of fixed traits.
2. **Foster heterogeneous student collaboration in math instruction:** In elementary and middle school math courses, equip educators to create opportunities for students of different abilities, backgrounds, and learning styles to collaborate and work together on math tasks.
3. **Ensure that low-track students receive the high-quality instruction that they need to become better math students:** Review the current curriculum and standards for lower-track math classes to ensure that they align with higher-level cognitive skills such as

evaluation and creation (the two upper tiers of Bloom's Taxonomy). Identify areas where the curriculum can be enhanced to provide more challenging tasks that require students to analyze, evaluate, and create mathematical solutions.

4. **Create a clear plan and timeline to identify high-achieving students from under-represented backgrounds for higher-track math courses:** Implement strategies to identify students with high math achievement potential who may come from under-represented backgrounds. This can include using multiple criteria such as teacher recommendations, performance on low-stakes math assessments, and considering students' demonstrated interest and motivation in math.
5. **Create enrichment and acceleration opportunities:** Develop enrichment and acceleration programs that provide students with the opportunity to move into accelerated math classes in grades 6 through 8. Offer summer enrichment courses specifically designed to reinforce and extend math concepts.
6. **Increase accessible and equitable parent involvement:** Actively involve parents in the math course selection process and provide strategies to support their children's math achievement at home. Offer math course selection sessions at different times of the day and in different modalities to accommodate different families. In addition, math course selection sessions can be led in multiple languages, including closed captioning or translated materials, to ensure that multilingual families and speakers of languages other than English can fully participate.
7. **Revisit the choice policy for math course selection:** Evaluate and modify the existing policy for math course selection to promote equity and reduce potential biases. Reduce the emphasis on high-stakes or one-time performance on math assessments as the sole criterion for course placement. Instead, consider multiple factors that provide a more comprehensive understanding of students' abilities and potential for success in advanced math courses.

Intervention Supports

1. Development of a district-wide tiered system of support that includes defining academic and behavioral tiers available and processes for utilization. The following are tools for considering the implementation timeline of response to intervention (RTI):
 - a. School Level implementation guide:
http://www.rtinetwork.org/images/Colorado_School_RtI_Fidelity_Rubrics_2.pdf
2. Extensive review of I&RS Implementation Process Guide in order to address inconsistencies and redundancies.
3. Develop list of tiered interventions for academic behavioral supports. The following are sample resources:

- a. Academic Interventions list: <https://charts.intensiveintervention.org/aintervention>
 - b. Behavior Interventions list: <https://charts.intensiveintervention.org/bintervention>
4. Develop tools and protocols for the operation of intervention team meetings. The following are sample resources:
- a. Implementation checklist:
https://intensiveintervention.org/sites/default/files/Student-Level_DBI_Checklist_508.pdf

Development of Pedagogical Capacity with Equity Lens

1. Develop and implement a professional development series that focuses on continued development of cross-cultural capacity in order to replace bias-based beliefs such as colorblindness, deficit thinking, and racial discomfort.
2. Continuous assessment of educator knowledge on intervention support systems, curriculum, and instruction improvements.
3. Through professional development, build teacher empathy for all students. Events such as the middle school Challenge Day create humanistic bonds between teachers and students.
4. Conduct a curriculum audit of courses in humanities, English-Language Arts, and history using a culturally responsive protocol to determine where more inclusive materials and pedagogies are needed.
5. Hire more Black teachers/teachers of color and create affinity spaces to support those teachers to increase retention.
6. Build on successes of affinity spaces for students of color such as MAC scholars.
7. Provide affinity spaces for BIPOC students across school levels.