



R-2 ACADEMIC ACHIEVEMENT - MATHEMATICS SUMMARY OF PROGRESS STATUS APRIL 2024

SUPERINTENDENT CERTIFICATION

With respect to R-2 Academic Achievement – Mathematics taken as a whole, the superintendent certifies that the proceeding information is accurate and complete, and the district is:

- _____ Making Reasonable Progress
_____ X Making Reasonable Progress, with Exception
_____ Failing to Make Reasonable Progress

Summary Statement by Administration

Monitoring of results policies is part of the ongoing process of district performance evaluation and superintendent evaluation. This report includes a Data Analysis on page 2 presenting an administrative summary of the data and a Capacity Building/Recommendations section on the last page outlining new practice or protocol to be utilized for the next reporting timeframe.

Signed: [Signature] Superintendent Date: 4/11/2024

SCHOOL BOARD ACTION

With respect to R-2 Academic Achievement – Mathematics, the Board:

- _____ Accepts the report as making reasonable progress
_____ X Accepts the report as making reasonable progress, with exceptions
_____ Finds the district failing to make reasonable progress

Summary Statement/Motion of the Board

Really interesting data there. One of my questions is, do the teachers know what is going to be on the MAP test? They would know the areas and the concepts that are being covered, and there are a lot of practice problems, but they don't have the test and aren't teaching to the test. I think it's important, like you say, it's one test on one day, and then that's the measurement we're plugging in here. So when I look at the growth for the MAP test, before I got to comparing that to the classroom-based scores, it's a little concerning, but when you look at the classroom-based scores, that's really work that they're doing in the classroom, we're meeting or increasing across the board. I would also note that not only are we doing in well in classrooms, but in overall proficiency, that's where we're really hitting it.



Looking at Indicators 4 and 5 together, the growth perspective, thinking back and looking over the data in the COVID year, and you see the spring 2020-21, you see this really high growth number and then at least in my mind, there's going to be kind of a growth lull if you will. I'd be interested to see what the data looks like when we get the next set, to see if that starts to "normalize" around the 50% number, or if it's just one of those where you had such high growth that it's hard to continue to grow at that rate. That was the one thing that stood out to me.

I think you always want to look at trends. I think that although we're seeing the data from before, we're seeing that the teachers, the administrators, the instructional coaches, are leaning in to look at the data, to look at individual students and where they are, and intervene appropriately. If it's trending in the wrong direction, if it's an outlier, that's something to note, and then continue to make sure that all of our kids are experiencing growth. I think something to highlight is not only the participation of BPS teachers in the state standard committees, but as noted in the Focus on Success, that they are continuing to dig in and immediately be responsive to any of those changes and knowing that those changes that they are doing in that committee work also lead to changes that have to happen instructionally in the classroom to meet the needs of a) the new standards, but also the different curricular needs that have to occur. It is daunting work, it's good work, and I just appreciate the work that the educators are doing consistently and constantly to adapt to those changes. Bismarck should be commended and the stability they see in that, because that is not a trend we are seeing nationally and post-COVID, it is taking some really hard dips. And when I took a look at this data, the fact that we are able to maintain and stay steady in a time when a lot of people are going very far in the other direction is commendable.

I do believe 100% that every student is entitled to a year's worth of growth. The thing I struggle with is that can't possibly just be put on the shoulders of the classroom teacher. The fact is, if we have the opportunities, that is the thing to remember.

Motion by Mr. Lee to accept the R-2.1 *Academic Achievement - Math* Monitoring Report, with the recommended change to Indicator 8, as Making Reasonable Progress, with Exception, seconded by Ms. Preskey. Motion carried.

Signed: 
Board President

Date: 4/11/2024

Data Analysis

North Dakota State Assessment comparison data indicates we are exceeding the state average in grades 3-7 by 2-9% and matching in grade 8. We continue to exceed the state on the ACT, in the area of mathematics. We now have two years of data with the PreACT and saw growth in grade 10 and a decrease in grade 9.

In the Measures of Academic Progress (MAP) cohort data, we are meeting the target in all grades except 7th, which did see marginal growth from last year. When looking at MAP for all students who were enrolled in fall and spring assessments, we are meeting the target in grades 2-3. We saw growth in grades 6 and 8. Grades 4-5 and 7 were within 5% of last year. In students meeting MAP growth requirements, we saw a decrease in all grade levels. When looking at subgroups meeting MAP growth requirements, Pacific Islanders saw an increase of just under 5%, all other subgroups saw a decrease. As this was a trend we noticed in ELA and Math, practices around goal setting will be important as we start to evaluate if this will be a trend, or an outlier. It is important to note that Economically Disadvantaged numbers are not accurate due to all students receiving free lunch in 2020-2021 and 2021-2022.

Every grade level surpassed the target of a 2.5, or B average. The target was increased for grades K-2, 5-6, and 8. The number of students taking beyond the minimum requirements, in the area of math, did increase from last year.

Guiding Coalition teams continue to be an important and foundational factor in auditing the curricular program. With the state adopting new standards, there is a focus on standard prioritization and vertical alignment. Their focus on vertical alignment, guaranteed and viable, and vocabulary are key components in moving forward. This will have an impact on teams, work, instruction, and learning moving forward. As we are implementing new instructional practices and standards, an implementation dip is expected as we are aligning to evidence based practices.

Finally, please see Capacity Building/Recommendations on the last page to review additional inputs BPS has put in place this year to address learning and continued growth of our students and staff.

R-2.1 Academic Achievement – Mathematics

This section provides readers a summary of the data they are about to review.

Each student will meet or exceed targeted growth and proficiency using critical and creative thinking.

Each Student Will:

<p>2.1 Achieve targeted growth and proficiency in the following disciplines:</p> <ul style="list-style-type: none"> ELA Mathematics Science Social Studies 	<p>Making Reasonable Progress, with Exception</p>
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2.1 Mathematics

Superintendent Interpretation:

- **External assessments** include assessments with national norms that are administered within specified windows as a part of state requirements.
- **Proficiency** means meeting or exceeding the knowledge and skill requirements of the specified measure.
- **Grade level target** on the NWEA (MAP) assessment is considered 50th percentile or higher.
- **Proficiency** on the NDSA is considered performing at or above grade level.
- **Proficiency** in the standards means that students have demonstrated that they know, understand, and are able to apply knowledge and skills at the “proficient” level of district proficiency scales.
- **Proficiency** is defined as “College Ready” on the PreACT and ACT which is based upon the following percentiles and ACT cut scores. This score is an indication of the extent to which they are prepared for college-level work. The ACT consists of curriculum-based tests of educational development in English, mathematics, reading, and science designed to measure the skills needed for success in first-year college coursework.
- **Cut Score** is the minimum score needed on the ACT per subject-area to indicate a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in the corresponding credit-bearing college courses.
- **Targeted growth** is the expected growth defined by national norms on a particular assessment. National data indicates that 50% of students typically meet their expected targeted growth.
- **Minimum requirements** include BPS graduation expectations for high school and core courses in K-12.
- **“n”** equals number of students.

ACT				
Minimum Score On Track for College Readiness				
	English	Math	Science	Reading
PreACT 8/9 Grade 9	13	18	19	18
PreACT Grade 10	15	19	20	20
Minimum Cut Score for College Readiness				
ACT	18	22	23	22
Minimum Expected Percentile for College Readiness				
	English	Math	Science	Reading
PreACT 8/9 Grade 9	34	63	72	48
PreACT Grade 10	43	66	67	55
ACT	42	63	70	60

COMPARISON DATA – OUR STUDENTS COMPARED TO OTHERS IN THE STATE

Indicator 1: Students in grades 3-8 who are Advanced or Proficient on the NDSA Mathematics Section will meet or exceed the state performance.		Making Reasonable Progress
Green	Met or Increased	
Blue	Flat or a Decrease Under 2%	
Yellow	Decrease of 2% to 4.9%	
Red	Decrease of 5% or More	

Evidence:

	2019-2020		2020-2021		2021-2022		2022-2023	
	State	District	State	District	State	District	State	District
Grade 3	COVID		48%	57%	48%	55%	50%	58%
Grade 4			36%	44%	37%	43%	38%	47%
Grade 5			42%	47%	43%	54%	43%	50%
Grade 6			39%	34%	40%	38%	41%	43%
Grade 7			38%	41%	37%	44%	38%	46%
Grade 8			38%	36%	34%	33%	35%	35%

2022-2023 Analysis: We are outperforming the state in all grades except 8, where we are matching.

Indicator 2: The district mean scores will meet or exceed the state mean score on the ACT in the area of Mathematics.		Making Reasonable Progress
Green	Met or Increased	
Blue	Flat or a Decrease Under 2%	
Yellow	Decrease of 2% to 4.9%	
Red	Decrease of 5% or More	

Evidence:

Year	Number of Students Tested		Math	
	State	District	State	District
2016	7379	849	20.3	20.2
2017	7399	834	20.4	20.3
2018	7282	827	20.3	20.1
2019	7451	845	19.9	20.0
2020	7418	871	19.6	19.6
*2021	7203	855	19.1	19.2
2022			19.44	19.68
2023			19.8	20.02

2022-2023 Analysis: Data indicates we are consistently surpassing the state in ACT in the area of Mathematics. The data set comes from NDInsights starting from 2021, as ACT no longer sends out the same reports. This data set encompasses ACT accountability according to the state and is for public viewing. The number of students is not available.

NWEA (MEASURES OF ACADEMIC PROGRESS)

Indicator 3: Students in grades 2-8 will show continuous improvement toward, or attainment of, the identified target indicating percent of students at grade level on the NWEA (MAP) Mathematics Assessment.	Making Reasonable Progress
Green	Met or Increased
Blue	Flat or a Decrease Under 2%
Yellow	Decrease of 2% to 4.9%
Red	Decrease of 5% or More

Evidence:

Grad Class of	Current	Target	n	Spring 17-18	n	Spring 18-19	n	*Winter 19-20	n	Spring 20-21	n	Spring 21-22	n	Spring 22-23
2033	2	60%											931	65.4%
2032	3	60%									885	69.2%	880	67.7%
2031	4	60%							870	62.6%	850	68.0%	827	62.2%
2030	5	60%					872	57.9%	822	67.4%	810	64.8%	792	62.8%
2029	6	60%			858	54.8%	847	58.9%	791	63.8%	767	65.3%	751	61.8%
2028	7	60%	820	56.8%	836	62.2%	814	58.0%	768	58.6%	744	58.2%	729	58.6%
2027	8	60%	818	65.5%	806	62.2%	797	61.0%	769	59.2%	748	63.1%	710	63.5%

2022-2023 Analysis: All grades met the goal or showed an increase.

*Signifies the use of winter data, while all other comparisons are spring-to-spring, due to students not being face-to-face in building during the spring 2020 COVID pandemic.

All Student Data

Grade	Target	n	*Winter 19-20	n	Spring 20-21	n	Spring 21-22	n	Spring 22-23
2	60%	995	55.1%	947	62.0%	944	68.9%	1015	65.3%
3	60%	991	55.9%	933	65.5%	955	66.4%	983	65.7%
4	60%	972	57.2%	938	61.5%	977	61.8%	980	59.0%
5	60%	1002	56.9%	939	57.4%	950	62.4%	992	58.6%
6	60%	1063	52.5%	974	55.0%	953	56.0%	964	58.8%
7	60%	1023	54.6%	990	58.6%	968	58.5%	961	56.5%
8	60%	1021	59.8%	971	53.6%	1015	55.7%	958	57.9%

2022-2023 Analysis: Grades 2-3, 6, and 8 all grew or met the target. Grades 4-5 and 7 were within 5% of the previous year.

Indicator 4: Students in grades 2-8 will show continuous improvement toward, or attainment of, the identified target indicating percent of students meeting their expected targeted growth on the NWEA (MAP) Mathematics Assessment.		Failing to Make Reasonable Progress
Green	Met or Increased	
Blue	Flat or a Decrease Under 2%	
Yellow	Decrease of 2% to 4.9%	
Red	Decrease of 5% or More	

Evidence:

Grade	Target	n	*Winter 19-20	n	Spring 20-21	n	Spring 21-22	n	Spring 22-23
2	60%	995	55.1%	947	62.0%	944	49.3%	1015	41.1%
3	60%	991	55.9%	933	65.5%	955	61.0%	981	45.7%
4	60%	972	57.2%	938	61.5%	976	51.2%	979	41.7%
5	60%	1002	56.9%	939	57.4%	949	55.6%	991	42.1%
6	60%	1063	52.5%	974	55.0%	953	57.9%	964	51.3%
7	60%	1023	54.6%	990	58.6%	968	52.8%	961	51.7%
8	60%	1021	59.8%	971	53.6%	1014	59.3%	954	57.9%

2022-2023 Analysis: We saw a decrease in the number of students meeting growth expectations in all grade levels. We are within 2% of last year’s scores in grades 7-8. National average is 50%. Grades 6-8 are exceeding the national average.

*Signifies the use of winter data, while all other comparisons are spring-to-spring, due to students not being face-to-face in building during the spring 2020 COVID pandemic.

Indicator 5: Each student in grades 2-8 will show continuous improvement toward, or attainment of, the expected targeted growth of all students categorized into subgroups on the NWEA (MAP) Mathematics Assessment.		Failing to Make Reasonable Progress
Green	Met or Increased	
Blue	Flat or a Decrease Under 2%	
Yellow	Decrease of 2% to 4.9%	
Red	Decrease of 5% or More	

Evidence:

Disaggregated subgroups:	Target	n	*Winter 19-20	n	Spring 20-21	n	Spring 21-22	n	Spring 22-23
Economically Disadvantaged	50%	1753	44.5%	1229	54.5%	1448	48.4%	1537	44.0%
African American	50%	359	44.3%	325	52.0%	294	53.7%	294	45.6%
American Indian	50%	612	42.3%	577	49.6%	614	46.1%	604	40.9%
Asian	50%	70	54.3%	71	56.3%	80	56.3%	86	48.9%
Caucasian	50%	5779	47.6%	5473	64.1%	5490	56.8%	5544	48.1%
Hispanic	50%	183	45.4%	173	51.5%	207	47.3%	231	43.3%
Pacific Islander	50%			66	54.6%	68	50%	82	54.9%
Students w/ Disabilities	50%	829	41.7%	825	52.1%	892	51.9%	932	44.9%
EL	50%	187	40.6%	165	53.3%	177	56.5%	177	44.6%
Female	50%	3422	45.6%	3261	62.5%	3319	54.8%	3379	46.6%
Male	50%	3645	48.2%	3431	61.0%	3440	55.8%	3466	47.9%
Gifted	60%	95	53.8%	149	68.5%	257	67.7%	181	45.9%

2022-2023 Analysis: Pacific Islander subgroup saw an increase in the number of students meeting growth expectations. All other subgroups saw a decrease. Economically disadvantaged and Hispanic were within 2% from last year.

Changes in reporting and selection of students receiving Gifted Ed support are in flux and as such “n” for Gifted Ed is not an accurate representation.

***Signifies the use of winter data, while all other comparisons are spring-to-spring, due to students not being face-to-face in building during the spring 2020 COVID pandemic.**

Indicator 6: Students will show continuous improvement toward meeting the benchmark on the PreACT in the area of Mathematics.		Making Reasonable Progress, with Exception
Green	Met or Increased	
Blue	Flat or a Decrease Under 2%	
Yellow	Decrease of 2% to 4.9%	
Red	Decrease of 5% or More	

Evidence:

Grade	Target	n	Spring 21-22	n	Spring 22-23
9	TBD	1010	49.0%	1069	37%
10	TBD	907	36%	955	40%

2022-2023 Analysis: 2021-2022 was our baseline year. Grade 9 saw a decrease of 12% and grade 10 increased by 4%.

Due to an error in a reporting system, scores and numbers have shifted slightly for the 2021-2022 year.

CLASSROOM-BASED SCORES

Indicator 7: Each student in grades 2-8 will show continuous improvement toward, or attainment of, the identified target so that students reach a standards-based score of 2.5, or a letter grade of B in relation to Mathematics Standards.		Making Reasonable Progress
Green	Met or Increased	
Blue	Flat or a Decrease Under 2%	
Yellow	Decrease of 2% to 4.9%	
Red	Decrease of 5% or More	

Evidence:

B Letter Grade or 2.5 Standards-Based Score									
Grade	Target	n	Spring 19-20	n	Spring 20-21	n	Spring 21-22	n	Spring 22-23
K	75%	1096	55.4%	1059	75.6%	1121	84.7%	1053	83.1%
1	75%	1075	49.2%	995	73.0%	1094	85.6%	1130	85.0%
2	65%	1042	55.2%	1000	63.0%	1023	78.7%	1081	79.8%
3	60%	1037	44.6%	993	53.1%	1038	64.3%	1042	70.2%
4	60%	996	42.1%	961	49.4%	1040	62.0%	1026	68.4%
5	60%	1026	57.6%	967	58.9%	1017	69.7%	1044	67.8%
6	65%	1012	65.4%	921	64.0%	897	60.4%	916	70.2%
7	60%	962	50.8%	984	44.4%	906	61.1%	889	67.7%
8	65%	744	66.5%	802	69.8%	812	63.9%	754	68.6%

2022-2023 Analysis: Goals were increased in grades k-2, 5-6, and 8. We are exceeding in all grade levels.

EXTENDED PARTICIPATION IN ELA COURSE WORK - COLLEGE AND CAREER

Indicator 8: At least 50% of all students are participating in courses that promote college and career readiness specific to mathematics beyond minimum requirements.		Making Reasonable Progress
Green	Met or Increased	
Blue	Flat or a Decrease Under 2%	
Yellow	Decrease of 2% to 4.9%	
Red	Decrease of 5% or More	

Evidence:

Grade	Target	n	Spring 19-20	n	Spring 20-21	n	Spring 21-22	n	Spring 22-23
12	50%	919	49.4%	929	51.2%	895	48.2%	951	49.5%

2022-2023 Analysis: There was an increase in the number of students taking above minimum requirements.

Capacity Building/Recommendations

Capacity Building

As a district we have been prioritizing K-12 math standards in response to the rollout of new standards from ND DPI. Guiding Coalition members engaged in a process to prioritize the new standards. Teams of teachers worked together to align standards K-12 with a specific focus on transition years such as 5th to 6th and 8th to 9th grade. Next steps will include the on-going review of proficiency scales, pacing guides, assessments, and resources.

Curriculum

- Curriculum Guiding Coalition Teams
- New Math State Standards were rolled out by NDDPI, therefore Guiding Coalitions have compared the crosswalk, reprioritized and realigned the new standards
- Guiding Coalition Teams
 - K-12 prioritized standards
 - Accessible K-12 guaranteed and viable curriculum
 - Development of K-12 proficiency scales
 - K-12 guaranteed and viable vocabulary
- An alternative math pathway for high school students is being offered at all three high schools, with a focus on community readiness. Alignment and curricular refinement work is on-going.

Instruction

- Supporting district-wide Tier 1 instruction with Dreambox K-8, a personalized, interactive math curriculum designed to adapt to each student's learning style and pace
- Streamlining interventions across general ed and special education departments

Professional Development Opportunities

- Professional development on unit design that includes proficiency scales, pacing guides, assessments, vocabulary and resources.
- Training on proficiency scale use as an instructional tool
- Ongoing learning and support on proficiency scale use within PLC's

Other Highlights

- Tier 1 online primary resource pilot at Wachter Middle School for 6th grade

Recommendations

1. Continue offering research based professional learning opportunities in the area of math.
2. Guiding Coalitions and teachers invest time and learning with the new standards, to possibly include a PreK-12 math leadership team.