HINGHAM PUBLIC SCHOOLS

Quantifying the Impact of COVID-19 on Academics & Social-Emotional Functioning

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February 22, 2021

Agenda

- Part I: Executive Summary & Key Findings
- Part II: Assessing Impact of COVID-19
  - Achievement Gaps
  - Elementary Reading
  - Elementary Math
  - Secondary Grade Analysis
  - Elementary SEL Functioning
  - Secondary SEL Functioning
- Part III: Special Education Eligibility Rates
- Part IV: Addressing the Needs of all HPS Students
- Part V: Questions & Comments

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Acknowledgments

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Part I: Executive Summary & Key Findings

Executive Summary & Key Findings

Persistent Achievement Gaps

- There has been a documented history of **achievement gaps** between **all students**, **students with disabilities**, and **High Needs** students pre-COVID-19.

Elementary Basic Reading Skills

- Current **kindergarten: significantly lower** than previous cohorts in all measures of fluency; phonemic awareness skills growing at lower rate.
- Current **grade 1: significantly lower** than previous cohorts in all measures of fluency and retell.

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Executive Summary (continued)

Elementary Basic Reading Skills

- Current **grade 2: significantly lower** than previous cohorts in measures of fluency and retell; **no significant differences** in retell quality.
- Current **grade 3: significantly lower** than previous cohorts in measures of fluency and retell; oral reading fluency growing at lower rate; **no significant differences** in retell quality.
- Current **grade 4*: significantly lower** than previous cohorts in oral reading fluency and retell; **no significant differences** in retell quality.
- Current **grade 5*: significantly lower** than previous cohorts in oral reading fluency, retell, and retell quality; oral reading fluency has improved.

Executive Summary (continued)

Elementary Math

- Fact Fluency does appear to be improving over SY19-20.
- Don’t have the same data systems that we have in reading.
- Curriculum adjustments, variable math support across buildings and across grades.
- Examined referrals for math support; no meaningful patterns found.
- Need universal model and systems of support across the district.

Middle School Math

- 3% increase grade 6 math support (completely Title I funded).

Executive Summary (continued)

Middle School Grade Analysis

- Overall reduction of As and Bs, increase in Cs (183), Ds (66), and Fs (78) in core academics.

High School Grade Analysis

- Overall reduction of Bs, Cs, and D, increase in As (744), and Fs (85) in core academics.

Elementary SEL Analysis

- 1/20 - 12/20: Overall lower levels of students identified as “high risk” relative to externalizing and internalizing problems.

Secondary SEL Analysis: HMS

- 18-19 v. 20-21: Higher levels of risk in all areas screened: total difficulties score, emotional problems, conduct problems, hyperactivity/Inattention, peer problems, and prosocial skills.

Executive Summary (continued)

Secondary SEL Analysis: HHS (Grade 9 & Class of 2022)

- 18-19 v. 20-21: Overall, current grade 9 higher levels of risk in all areas screened: total difficulties score, emotional problems, conduct problems, hyperactivity/Inattention, peer problems, and prosocial skills (variation in Some vs. High Risk).
- Class of 2022 (gr. 9 vs. gr. 11): Overall, higher levels of risk in all areas screened: total difficulties score, emotional problems, conduct problems, hyperactivity/Inattention, peer problems, and prosocial skills (variation in Some vs. High Risk).

Special Education

- SY20-21: 215 evaluated; 169 found eligible: 79% positive eligibility rate.
  - 68% increase over SY18-19
  - 46% increase over SY19-20

Part II: Assessing Impact of COVID-19

Achievement Gaps

What is an achievement gap?

-A persistent disparity in academic performance among student groups/subgroups.

In Hingham Public Schools…

All Students: The combined performance of all students in a particular grade level.

High Needs: An unduplicated count of all students in a school or district belonging to at least one of the following individual subgroups: ***students with disabilities***, ***English language learners (ELL) and former ELL students***, or ***economically disadvantaged***.

Students with Disabilities: A count of all students in a school or district with a disability, as defined under the IDEA, who have an IEP.

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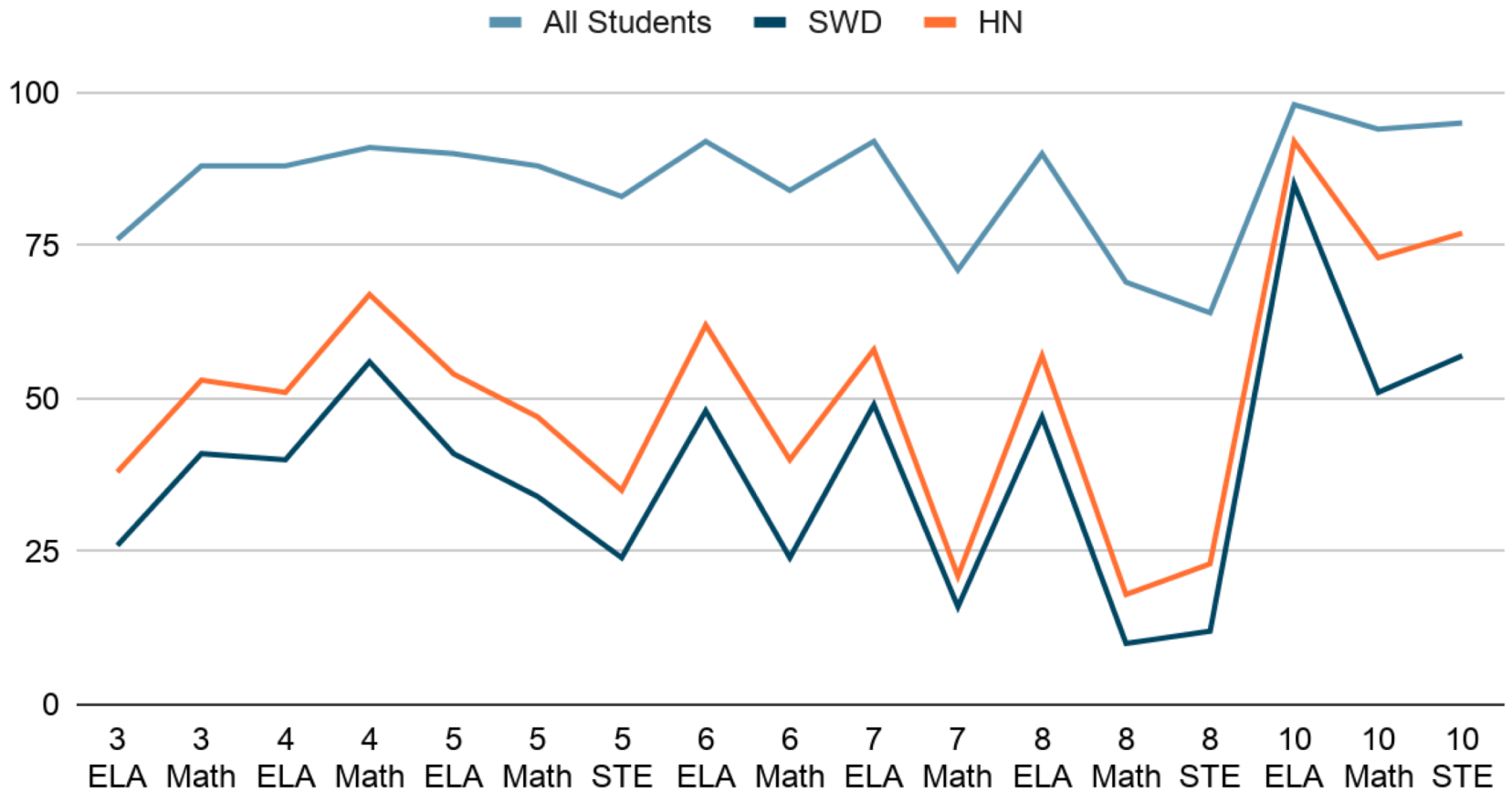
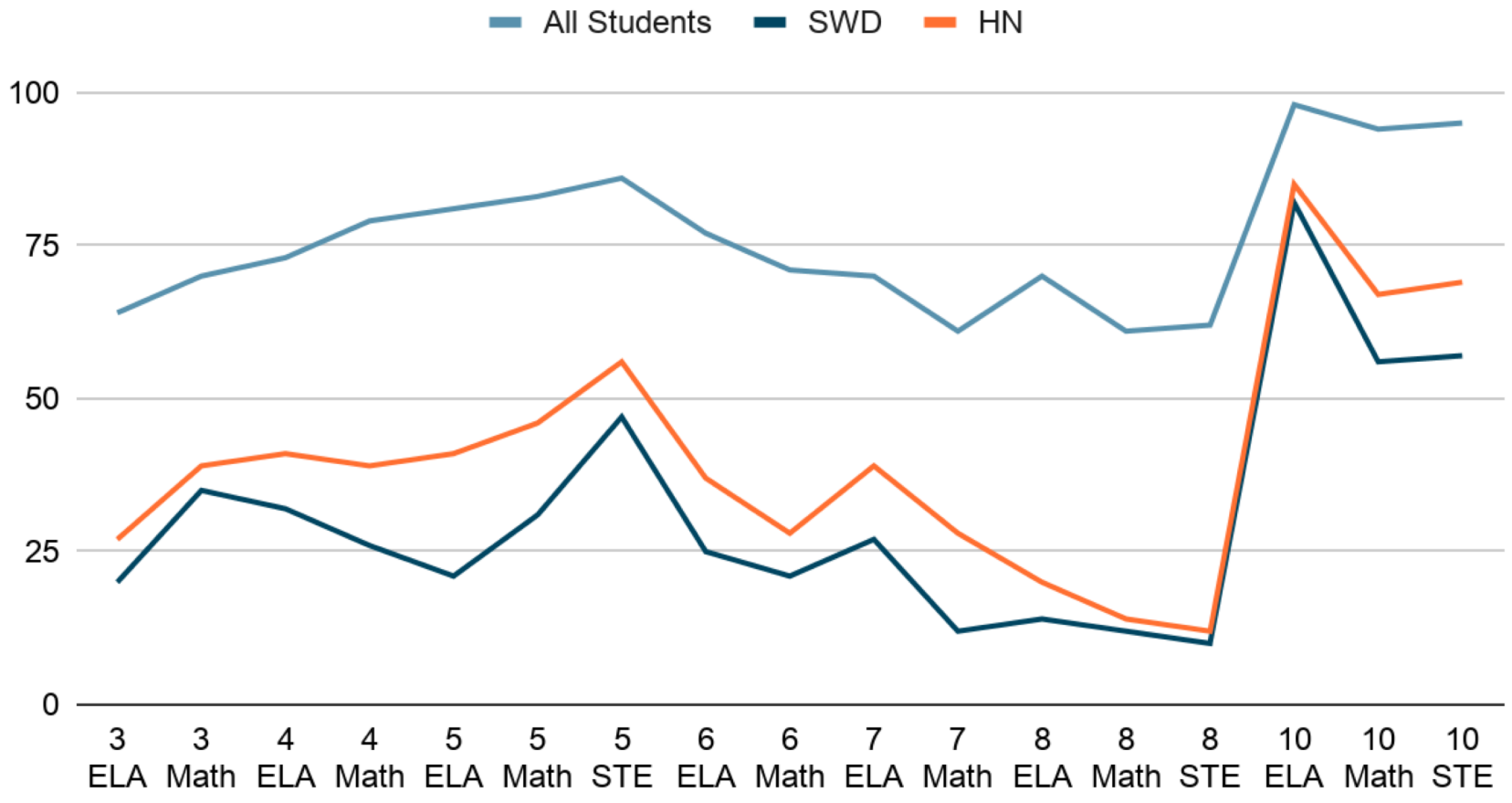
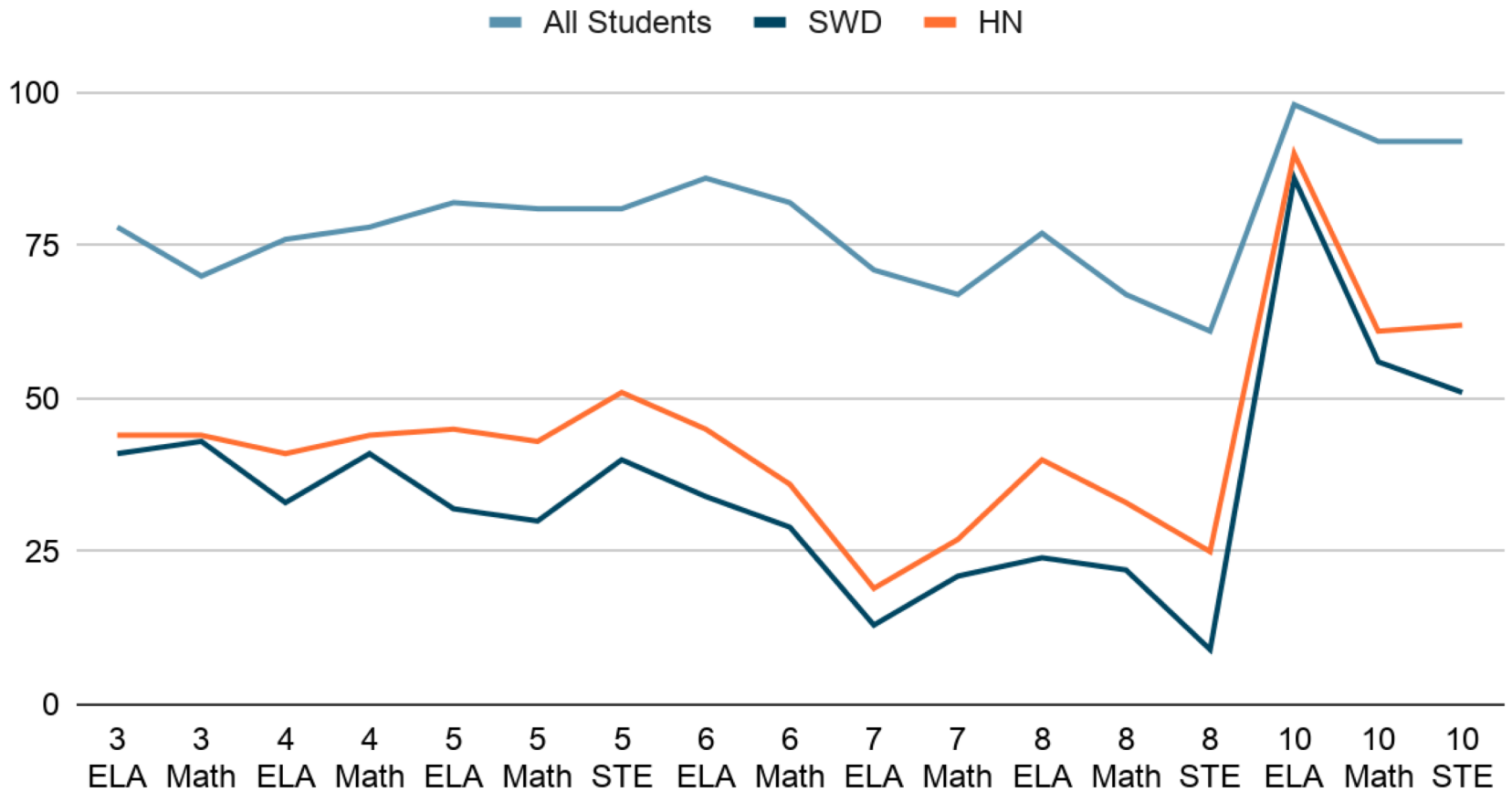
Spring 2016 MCAS Performance



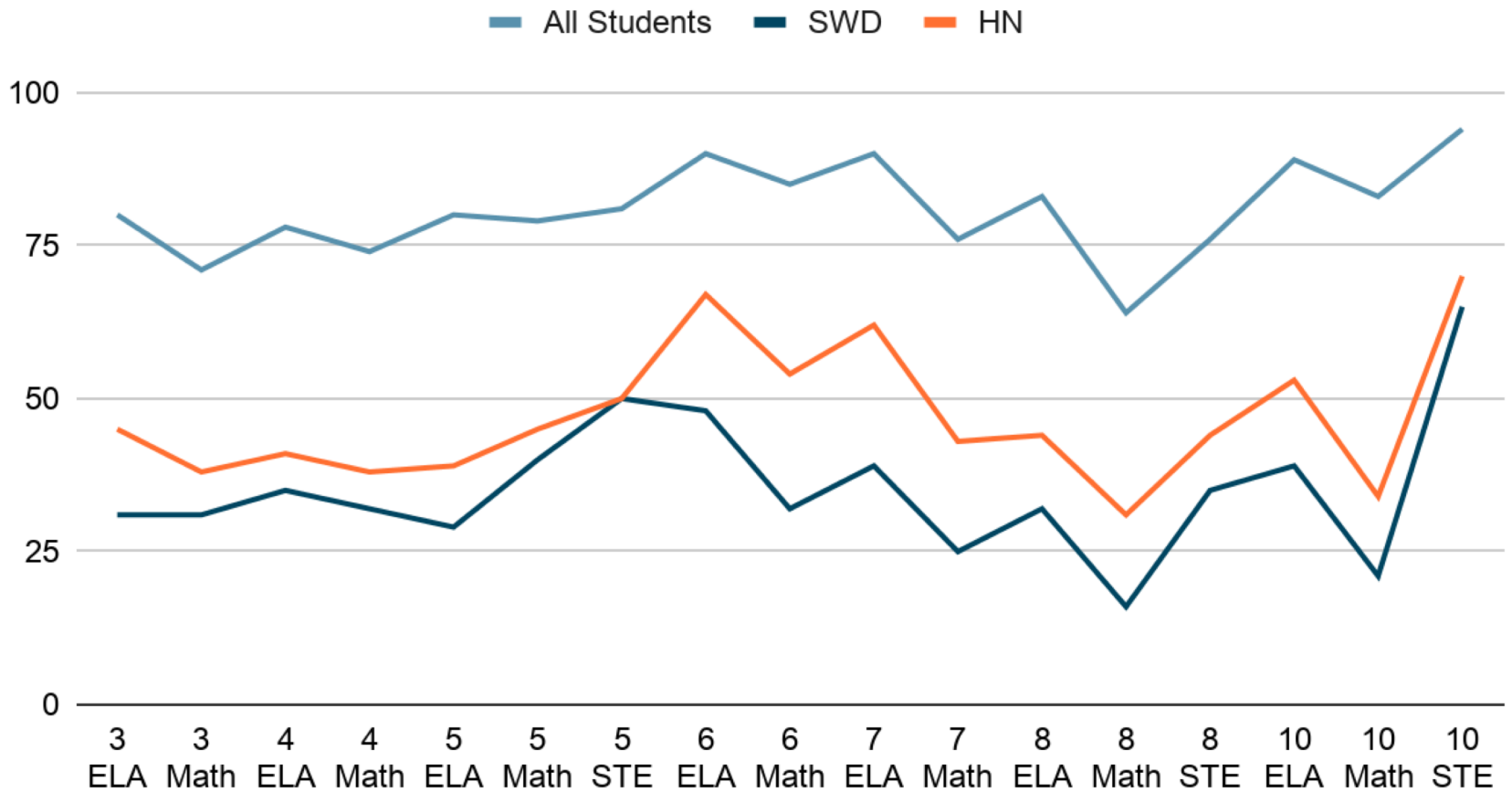
Spring 2017 MCAS Performance



Spring 2018 MCAS Performance



Spring 2019 MCAS Performance



Elementary Reading Skills

DIBELS: Analysis Overview

- Hypothesis: There are no significant differences between the average performance of current students vs. previous students.
- Data analysis encompassed BOY (beginning of year) data and mid-year data.
- Statistic: Welch's T-Test
  - Two-Tailed analysis
  - Assumes unequal variance
  - Assumes unequal populations
  - Probability: .05 (below .05 significant)

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Elementary Reading Skills: DIBELS: Dynamic Indicators of Basic Early Literacy Skills

Measure	Measurement Area
FSF	First Sound Fluency: Measure of phonemic awareness skills in the beginning and middle of kindergarten
LNF	Letter Naming Fluency: Predictive measure; simple measure of letter naming fluency
PSF	Phoneme Segmentation Fluency: Assesses a student's ability to segment three- and four-phoneme words into their individual phonemes fluency.
NWF	Nonsense Word Fluency: test of the alphabetic principle including letter-sound correspondence in which letters represent their most common sounds and of the ability to blend letters into words in which letters represent their most common sounds
ORF	Oral Reading Fluency & Retell Fluency: is a measure that assesses Accuracy and Fluency with Text, the ability to effortlessly translate letters to sounds and sounds to words. The fluent reader is one whose decoding processes are automatic, requiring no conscious attention.

Kindergarten Analysis

	P-*n*	P-MEAN	P-SD	S-*n*	S-MEAN	S-SD	*t*(df)	*p*=
FSF I	2506	20.76	12.20	206	20.30	11.33	0.54 (235	.58
LNF I	2506	27.20	14.81	206	24.61	14.08	2.52 (243)	.01
FSF II	2500	42.37	11.59	199	33.59	33.59	3.66 (201)	.00
LNF II	2500	45.91	15.07	199	37.50	16.39	7.00 (225)	.00
PSF II	2496	39.61	17.76	198	29.09	17.50	8.13 (230)	.00
NWF CLS	2496	32.34	19.26	198	24.57	20.56	5.14 (225)	.00
NWF WWR	2475	3.45	7.13	197	3.21	7.30	0.44 (226)	.65

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Grade 1 Analysis

	P-*n*	P-MEAN	P-SD	S-*n*	S-MEAN	S-SD	t(df)	p=
LNF I	2863	50.59	14.24	252	44.51	14.13	6.54 (297)	.00
PSF I	2862	45.25	13.04	250	40.04	14.48	5.49 (285)	.00
NWF CLS I	2861	45.58	28.09	250	39.30	24.59	3.82 (308)	.00
NWF WWR I	2860	9.51	9.51	250	6.6	9.59	4.61 (293)	.00
NWF CLS II	2847	81.63	34.64	234	65.71	34.38	6.80 (273)	.00
NWF WWR II	2847	24.31	13.93	234	17.61	14.18	6.95 (271)	.00
ORF WRC	2853	54.98	37.53	232	46.10	36.49	3.55 (272)	.00
ORF Accuracy	2846	87.09	12.22	232	81.33	16.80	5.11 (251)	.00
RETELL	1707	20.77	12.57	147	13.91	11.44	6.92 (177)	.00
RETELL QUAL	2147	1.70	0.72	139	1.43	0.67	4.50 (159)	.00

Grade 2 BOY Analysis

	P-*n*	P-MEAN	P-SD	S-*n*	S-MEAN	S-SD	*t*(df)	*p*=
NWF CLS	2964	94.53	34.86	271	83.21	37.27	4.81 (314)	.00
NWF WWR	2964	29.32	13.62	271	24.38	14.42	5.42 (315)	.00
ORF WRC I	2964	84.17	35.32	270	75.86	38.40	3.42 (311)	.00
ORF Accuracy	2959	94.75	6.46	270	91.47	11.15	4.75 (285)	.00
Retell I	2171	30.71	15.24	256	24.71	12.87	6.91 (341)	.00
Retell Quality	2779	2.06	0.84	253	2.04	0.90	0.41 (292)	.67

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Grade 2 MID YEAR Analysis

	P-*n*	P-MEAN	P-SD	S-*n*	S-MEAN	S-SD	*t*(df)	*p*=
ORF WRC II	2978	109.05	34.26	267	93.31	37.25	6.65 (307)	.00
ORF Accuracy	2976	97.81	3.89	266	96	6.54	4.45 (282)	.00
Retell	2308	37.33	15.82	170	29.32	15.09	6.65 (197)	.00
Retell Quality	2945	2.37	0.79	169	2.33	0.80	0.62 (187)	.53

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Grade 3 Analysis

	P-*n*	P-MEAN	P-SD	S-*n*	S-MEAN	S-SD	*t*(df)	*p*=
ORF WRC I	2864	109.03	35.53	212	105.52	37.41	1.32 (240)	.18
ORF Accuracy	2863	96.87	4.20	211	95.95	5.77	2.25 (226)	.02
Retell I	2145	38.38	16.28	159	29.56	14.41	7.37 (189)	.00
Retell Quality	2756	2.42	0.79	167	2.38	0.79	0.59 (186)	.55
ORF WRC II	2522	97.98	2.76	78	96.25	4.42	3.42 (78)	.00
ORF Accuracy	2522	97.98	2.76	78	96.25	4.42	3.42 (78)	.00
Retell II	1957	43.12	16.78	53	34.30	22.09	2.88 (53)	.00
Retell Quality	2513	2.64	0.77	63	2.52	0.91	1.02 (64)	.31

Grade 4 Analysis

	P-*n*	P-MEAN	P-SD	S-*n*	S-MEAN	S-SD	*t*(df)	*p*=
ORF WRC I	609	111.13	34.17	39	77.15	25.54	7.86 (47)	.00
ORF Accuracy	609	97.31	3.23	39	94.05	3.87	5.14 (41)	.00
Retell I	518	36.42	15.38	36	25.69	11.26	5.37 (44)	.00
Retell Quality	606	2.30	0.78	36	2.08	0.73	1.72 (39)	.09
ORF WRC II	596	124.27	28.60	22	88.09	28.93	5.76 (22)	.00
ORF Accuracy	596	98.36	2.00	22	95.77	4.29	2.81 (21)	.01
Retell II	522	37.65	15.10	14	27.71	11.97	3.04 (14)	.00
Retell Quality	596	2.37	0.73	14	2.21	0.69	0.83 (13)	.41

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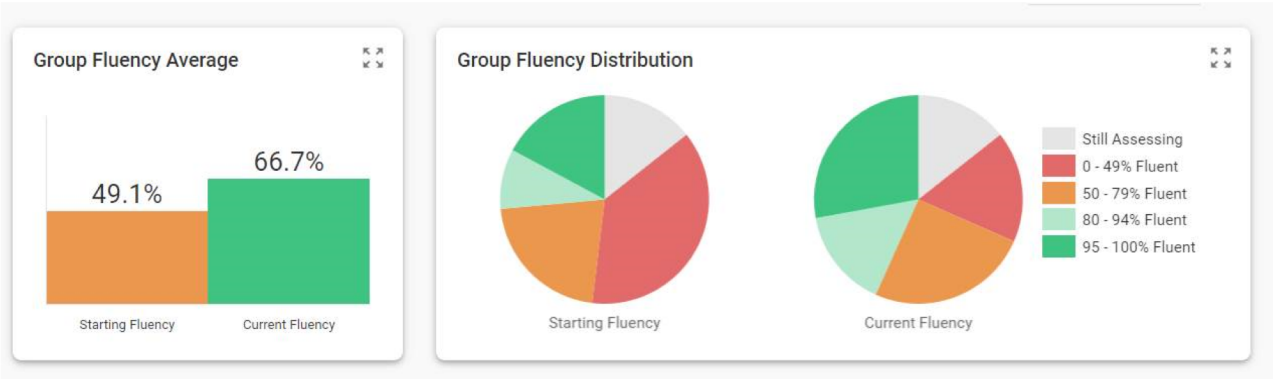
Grade 5 Analysis

	P-n	P-MEAN	P-SD	S-n	S-MEAN	S-SD	*t*(df)	*p*=
ORF WRC I	259	108.16	25.49	39	77.15	25.54	7.06 (50)	.00
ORF ACC I	259	97.53	2.64	39	94.05	3.87	5.42 (43)	.00
Retell I	239	37.11	14.48	36	25.69	11.26	5.44 (54)	.00
Retell Qual I	259	2.42	0.73	36	2.08	0.73	2.62 (45)	.01
ORF WRC II	234	117.71	21.08	22	88.09	28.93	4.68 (23)	.00
ORF ACC II	234	97.35	5.39	22	95.77	4.29	1.61 (26)	.11
Retell II	220	41.18	15.65	14	27.71	11.97	3.99 (15)	.00
Retell Qual II	232	2.67	0.78	14	2.21	0.69	2.36 (15)	.03

Elementary Math

Math: Elementary Fact Fluency

2021



2020

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Math Referrals: Grade 1

School	2019-2020	2020-2021	Difference
South	Not Serviced	Not Serviced	N/A
PRS	Not Serviced	Not Serviced	N/A
Foster	22%	Not Serviced	N/A
East	7%	Not Serviced*	N/A

* Additional small group math block by Classroom Teachers

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Math Referrals: Grade 2

School	2019-2020	2020-2021	Difference
South*	Not Serviced	Not Serviced	N/A
PRS	13%	37%	+24%
Foster	37%	15%	-22%
East	13%	17%	+4%

* SES noted teacher supports provided; no formal referrals for support

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Math Referrals: Grade 3

School	2019-2020	2020-2021	Difference
South	7%	25%	+18%
PRS	22%	23%	+1%
Foster	34%	38%	+4%
East	6%	14%	+8%

Math Referrals: Grade 4

School	2019-2020	2020-2021	Difference
South	7%	27%	+20%
PRS	26%	24%	-2%
Foster	27%	48%	+21%
East	15%	20%	+5%

Math Referrals: Grade 5

School	2019-2020	2020-2021	Difference
South	8%	39%	+31%
PRS	25%	27%	+2%
Foster	45%	31%	-14%
East	13%	22%	+9%

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Secondary Grade Analysis & Grade 6 Math Referrals

Math Referrals: Grade 6

School	2019-2020	2020-2021	Difference
HMS	14%	17%	+3%

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HMS Grade Distributions 2020 vs. 2021

Grade	2019-2020	2020-2021	Difference
A's	53.2%	52.0%	-1.2%
B's	37.6%	32.2%	-5.4%
C's	8.0%	11.5%	+3.5%
D's	1.0%	2.4%	+1.4%
F's	0.2%	1.9%	+1.7%
Total Grades	4155	4480	

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HHS Grade Distributions 2020 vs. 2021

Grade	2019-2020	2020-2021	Difference
A's	31.1%	43.4%	+12.3%
B's	50.7%	40.6%	-10.1%
C's	13.9%	10.6%	-3.3%
D's	3.4%	3.0%	-.4%
F's	1.0%	2.3%	+1.3%
Total Grades	6306	6226	

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Elementary SEL Screening Data

Elementary: SRSS

Students at the elementary level are screened with the SRSS: Student Risk Screening Scale.

- The SRSS consists of 12 items that teachers use to rate their classroom of students based on the teacher's current knowledge and observation of each individual student's behavior.
- Teachers rate the frequency:
  - 0=never, 1=occasionally, 2=sometimes, 3=frequently
- Scores are calculated to form one of three risk categories, Low, Moderate, or High Risk.

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Elementary: SRSS High Risk (1/20 - 12/20)

Domain	January 2020	December 2020	Difference
Internalizing	8%	6.7%	-1.30%
Externalizing	2.6%	1.5%	-1.10%

Domain	January 2020	December 2020	Total Population
Internalizing	n=149	n=105	-44
Externalizing	n=48	n=24	-24
Total Population	1870	1559	-311

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Secondary SEL Screening Data

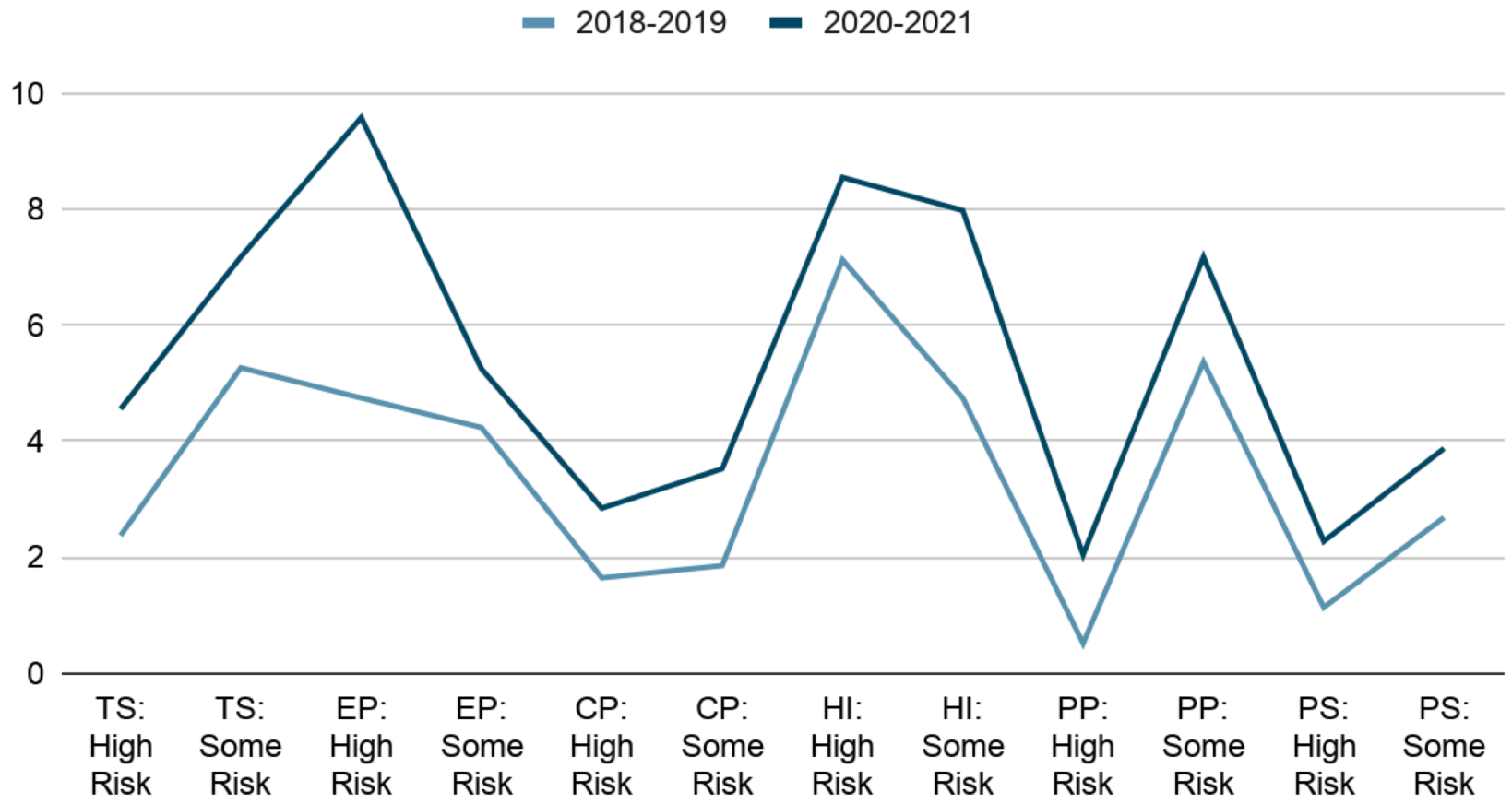
HMS & HHS: SDQ

Students at the secondary level are screened using the SDQ (Strengths and Difficulties Questionnaire-student self-report). The SDQ measures student functioning across five domains:

Domain	# Questions	Measure
Emotional Problems	5	Combine to provide a “Total Difficulties” Score
Conduct Problems	5	
Hyperactivity/Inattention	5	
Peer Problems	5	
Prosocial Behavior	5	Prosocial “strengths”

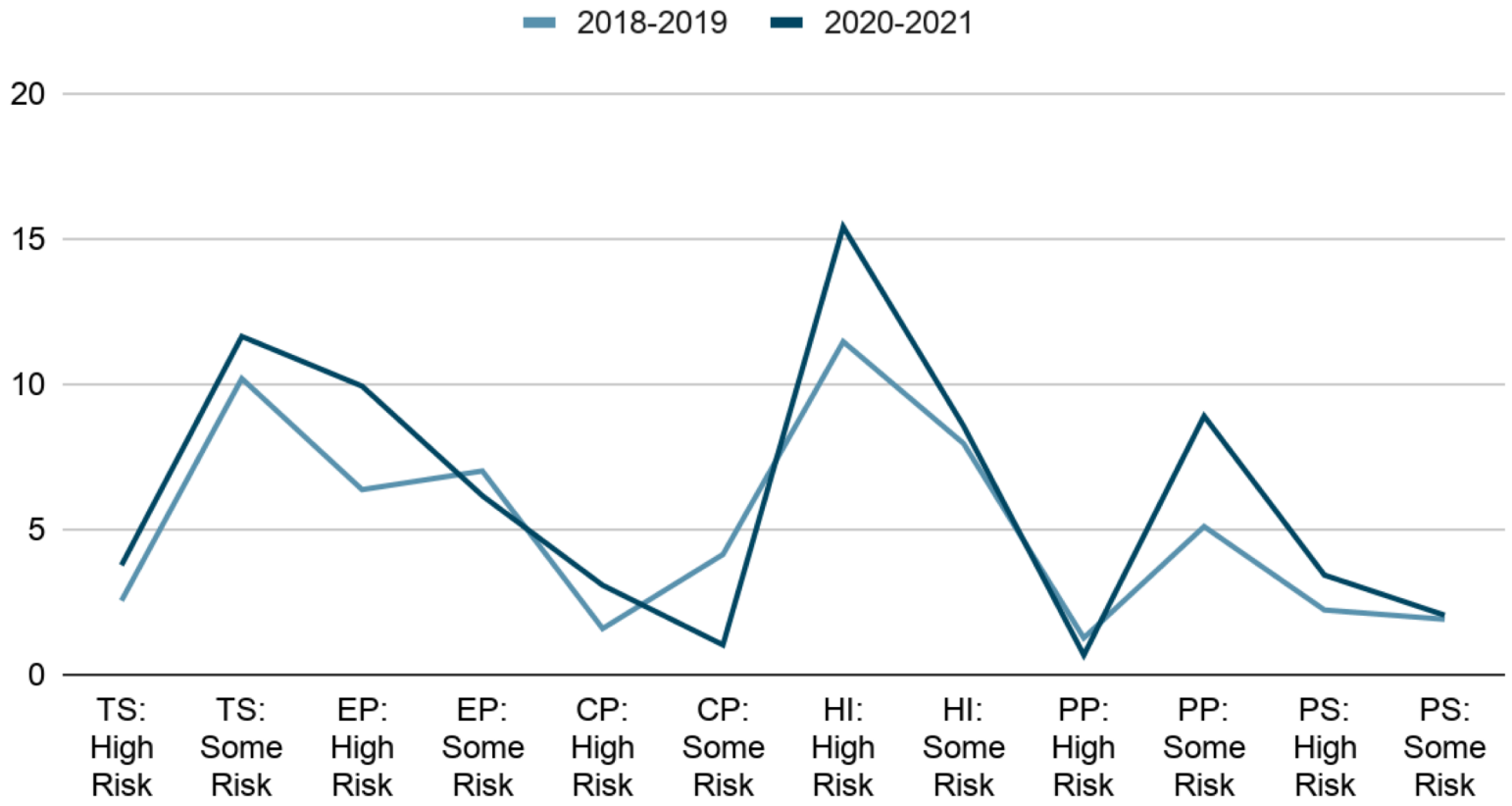
HMS SDQ Domain	2018-2019	2020-2021	Difference
TS: High Risk	2.38	4.56	+2.18
TS: Some Risk	5.27	7.18	+1.91
EP: High Risk	4.75	9.58	+4.83
EP: Some Risk	4.24	5.25	+1.01
CP: High Risk	1.65	2.85	+1.2
CP: Some Risk	1.86	3.53	+1.67
HI: High Risk	7.13	8.55	+1.42
HI: Some Risk	4.75	7.98	+3.23
PP: High Risk	0.52	2.05	+1.53
PP: Some Risk	5.37	7.18	+1.81
PS: High Risk	1.14	2.28	+1.14
PS: Some Risk	2.69	3.88	+1.19

HMS SDQ Results 18-19 vs. 20-21



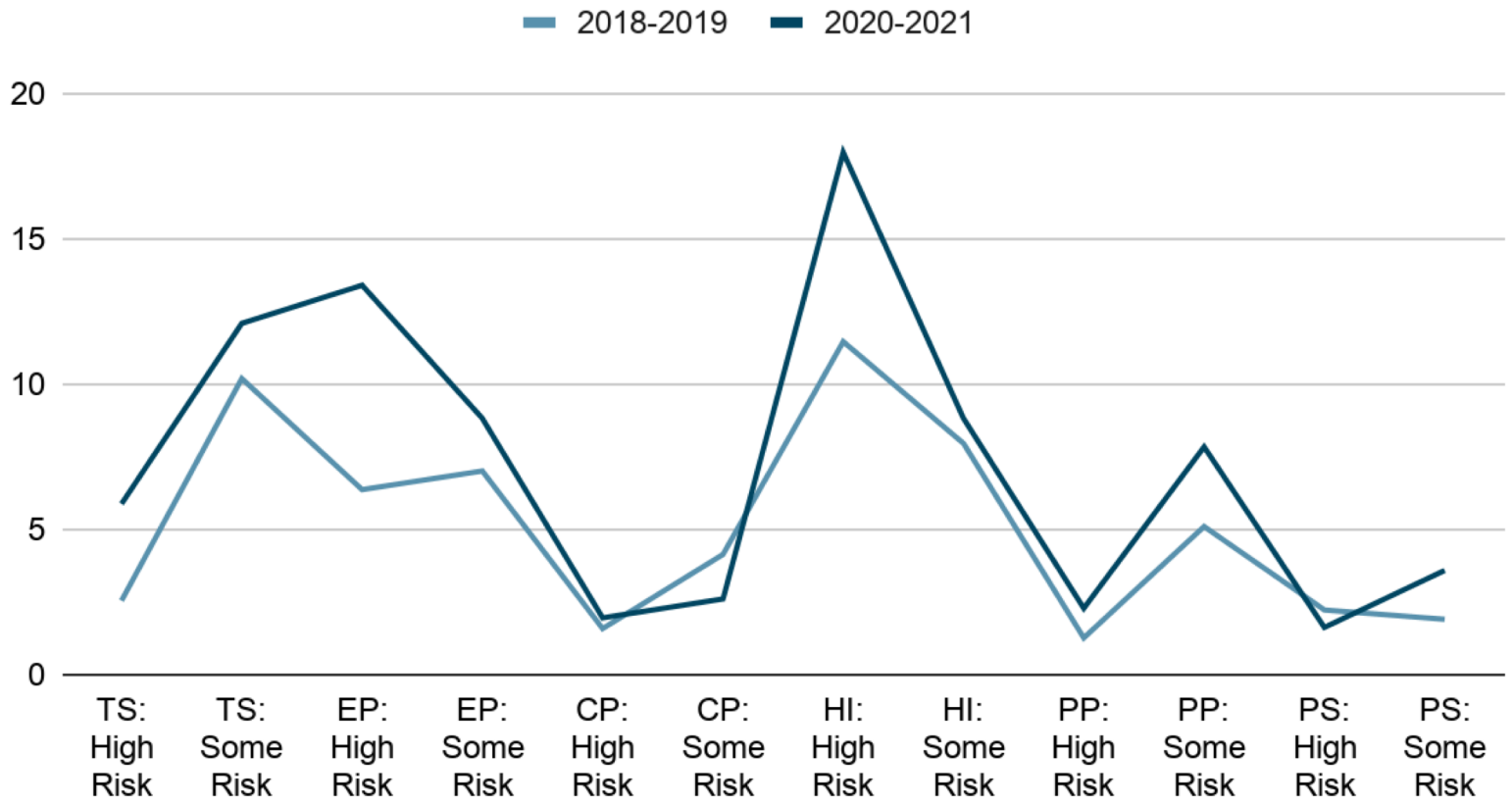
Gr. 9 SDQ	2018-2019	2020-2021	Difference
TS: High Risk	2.55	3.77	+1.22
TS: Some Risk	10.19	11.64	+1.45
EP: High Risk	6.37	9.93	+3.56
EP: Some Risk	7.01	6.16	-0.85
CP: High Risk	1.59	3.08	+1.49
CP: Some Risk	4.14	1.03	-3.11
HI: High Risk	11.46	15.41	+3.95
HI: Some Risk	7.96	8.56	+0.6
PP: High Risk	1.27	0.68	-0.59
PP: Some Risk	5.1	8.9	+3.8
PS: High Risk	2.23	3.43	+1.2
PS: Some Risk	1.91	2.05	+0.14

HHS Gr. 9 18-19 vs. 20-21



HHS Class 2022 SDQ	2018-2019 (gr. 9)	2020-2021 (gr. 11)	Difference
TS: High Risk	2.55	5.88	+3.33
TS: Some Risk	10.19	12.09	+1.9
EP: High Risk	6.37	13.4	+7.03
EP: Some Risk	7.01	8.82	+1.81
CP: High Risk	1.59	1.96	+0.37
CP: Some Risk	4.14	2.61	-1.53
HI: High Risk	11.46	17.97	+6.51
HI: Some Risk	7.96	8.82	+0.86
PP: High Risk	1.27	2.29	+1.02
PP: Some Risk	5.1	7.84	+2.74
PS: High Risk	2.23	1.63	-0.6
PS: Some Risk	1.91	3.59	+1.68

HHS Gr 9 vs. Gr 11 SDQ Results 18-19 vs. 20-21



Part III: Special Education Eligibility Rates

Dr. Suzanne Vinnes, Director of Student Services

Special Education

- The number of students found eligible for special education so far, this current school year, has increased by:
  - 68% of those found eligible in the entire 2018-2019 school year
  - 46% of those found eligible in the entire 2019-2020 school year

	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
Initials	208	268	259	148	215
Eligible	107	146	121	80	169
Percent Eligible	51%	54%	47%	54%	79%

*So far, this 2020-2021 school year, 215 students have been evaluated for suspicion of disability. Among the 215 students evaluated thus far, 169 students were found eligible for special education. This is a 79% positive eligibility rate and is a 46% increase in the number of students found eligible in the 2019-2020 school year AND a 68% increase in the number of students found eligible in the 2018-2019 school year.

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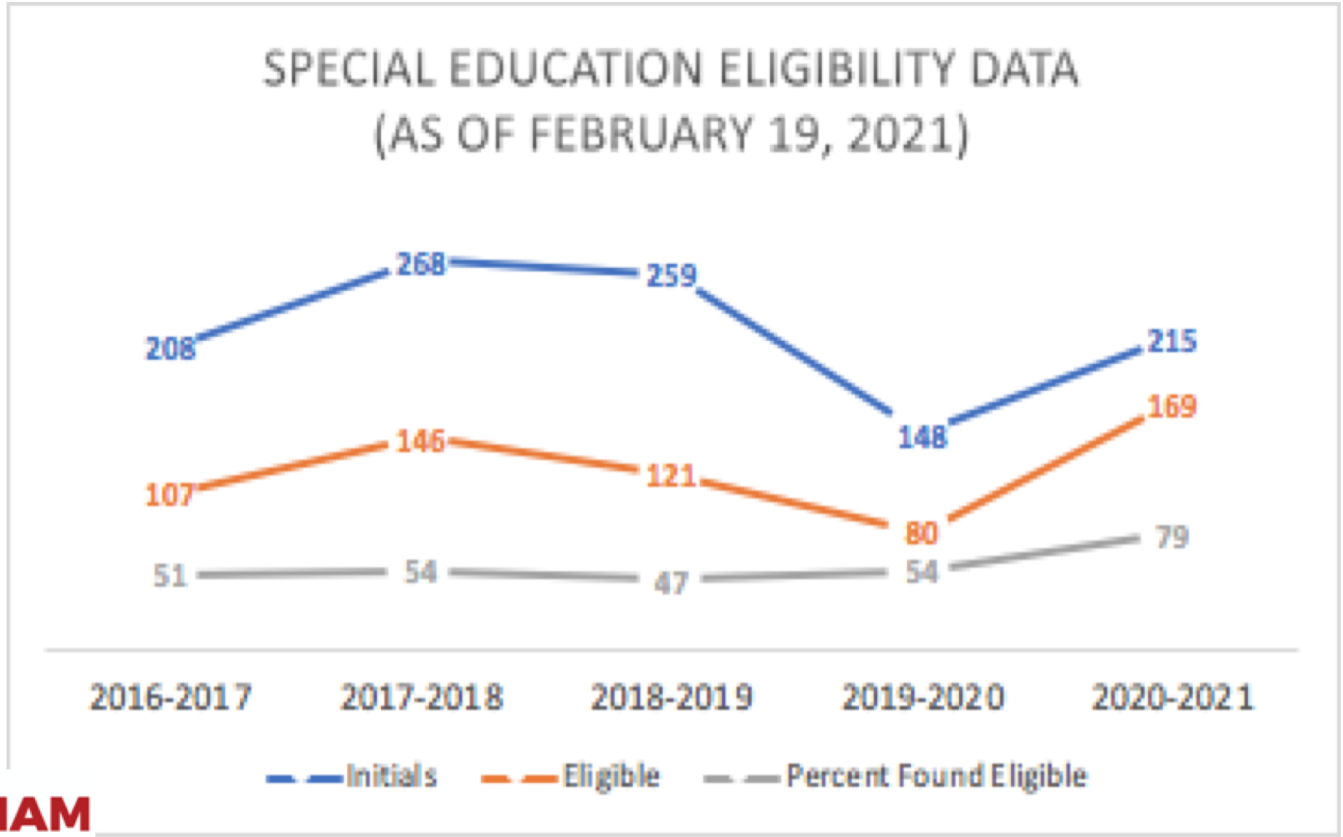
February 2021 Special Education Eligibility



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Part IV: Addressing the Needs of all HPS Students

Preparing for Full Re-Entry

- Data is only one part of the full picture.
- Our students, faculty, staff, and community have collectively lived through a global pandemic.
- Connection between teacher efficacy impact on student achievement.
- Balance the needs of academics and SEL
- Impact of non-core academic programming and departments

Global Focus Points:

- Curriculum
- Academic Skills
- SEL
- Actualize the full HTSS model (tiered systems of support)

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Area of Need	Budget Connection		
	Professional Staff	**Support Staff**	**Materials**
Elementary Reading	*4.0 Reading Specialists*, 4.0 Literacy Specialists, 1.0 Writing Specialist	Academic Interventionists, math paraeducators	Universal comprehension & writing screening
Elementary Math	*2.0 Math Specialists*		Intervention program & universal screenings
HMS Academics	*2.0 Reading Specialists*, 1.0 Math Specialist, 1.0 Writing/Literacy Specialist	Interventionists	Universal screenings Master Schedule
HHS Academics	FTEs to address class sizes & directed study		
SEL	2.0 Elementary Adjustment Counselor & HHS Guidance Counselor		HMS & HHS Schedule Interface Referral System
Special Education	2.0 Elementary Special Education Teachers, 1.0 Middle School Language Based Program Special Educator, 1.0 High School Special Educator, 3.0 Speech and Language Pathologists, 1.0 Elementary Administrator of Special Education, 1.0 Secondary Administrator of Special Education		

Part V: Questions & Comments