



**ARLINGTON HEIGHTS
SCHOOL DISTRICT 25**

State of the District Academic Proficiency & Growth

Board of Education
November 15, 2022

Eleni Speron, Ph.D.

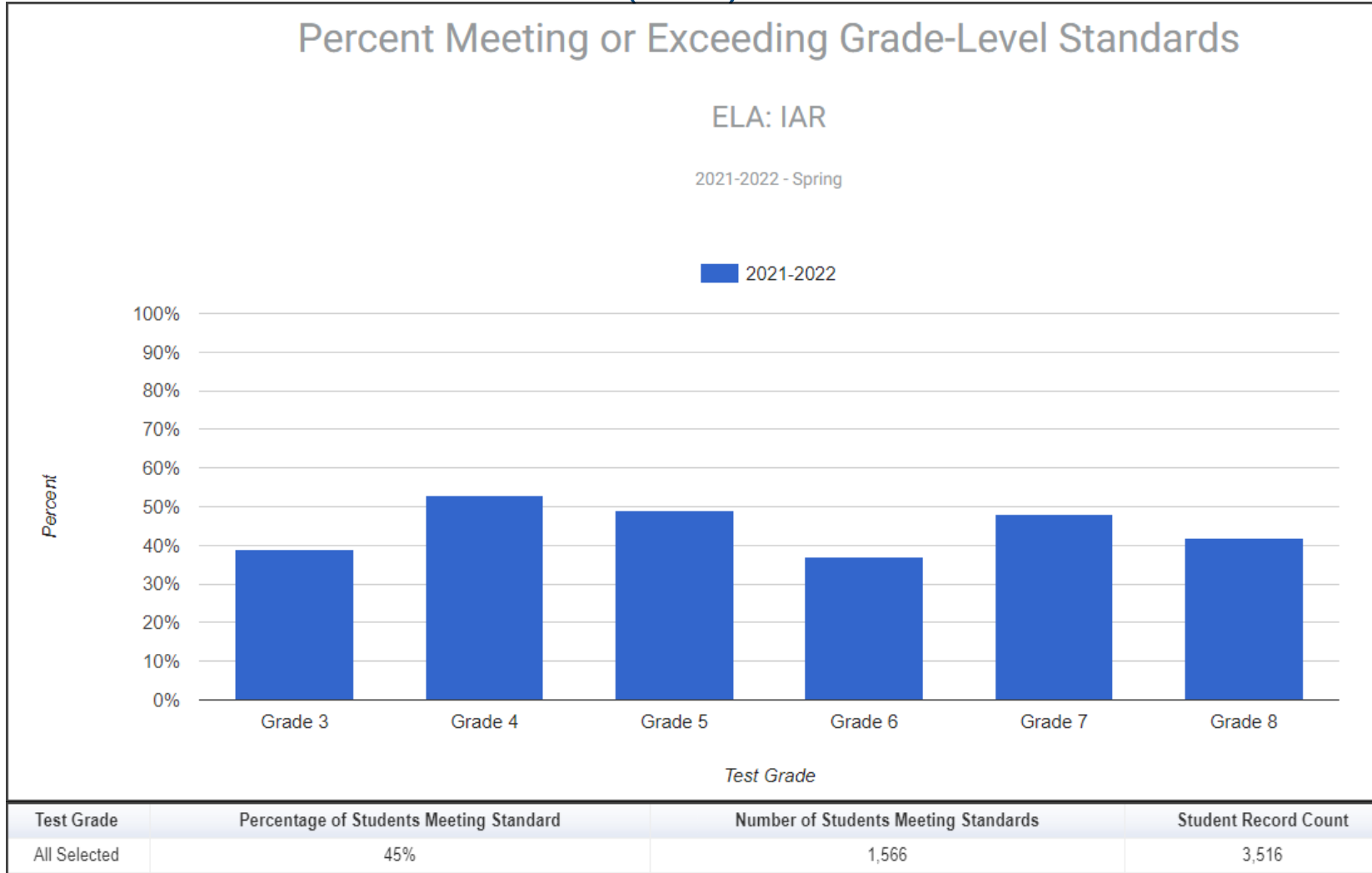
Overview

- Academic Proficiency
- Academic Growth
- Student Groups
- Academic Return on Investment (ROI)
- Summary

Academic Proficiency

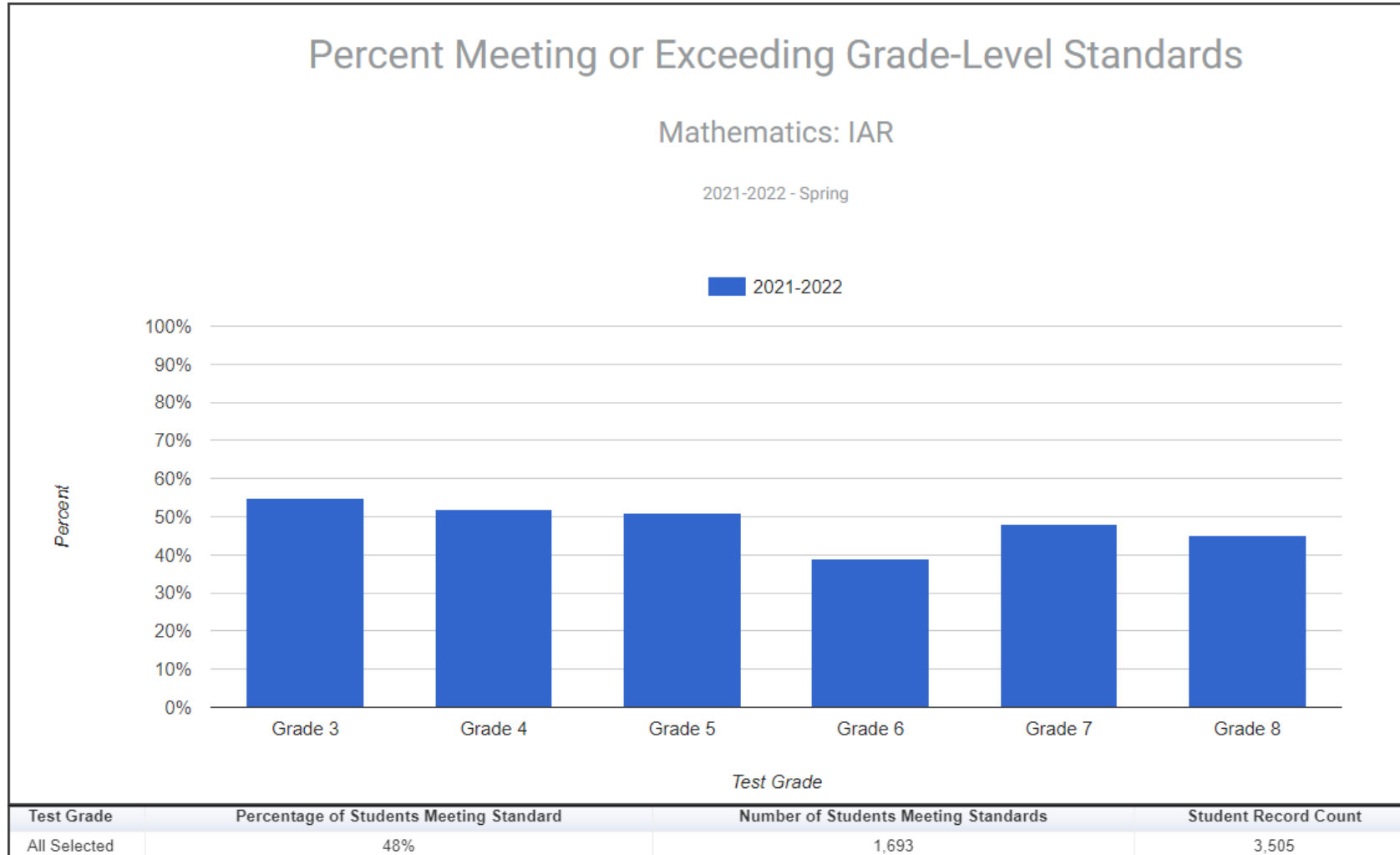
ELA Proficiency

Illinois Assessment of Readiness (IAR)



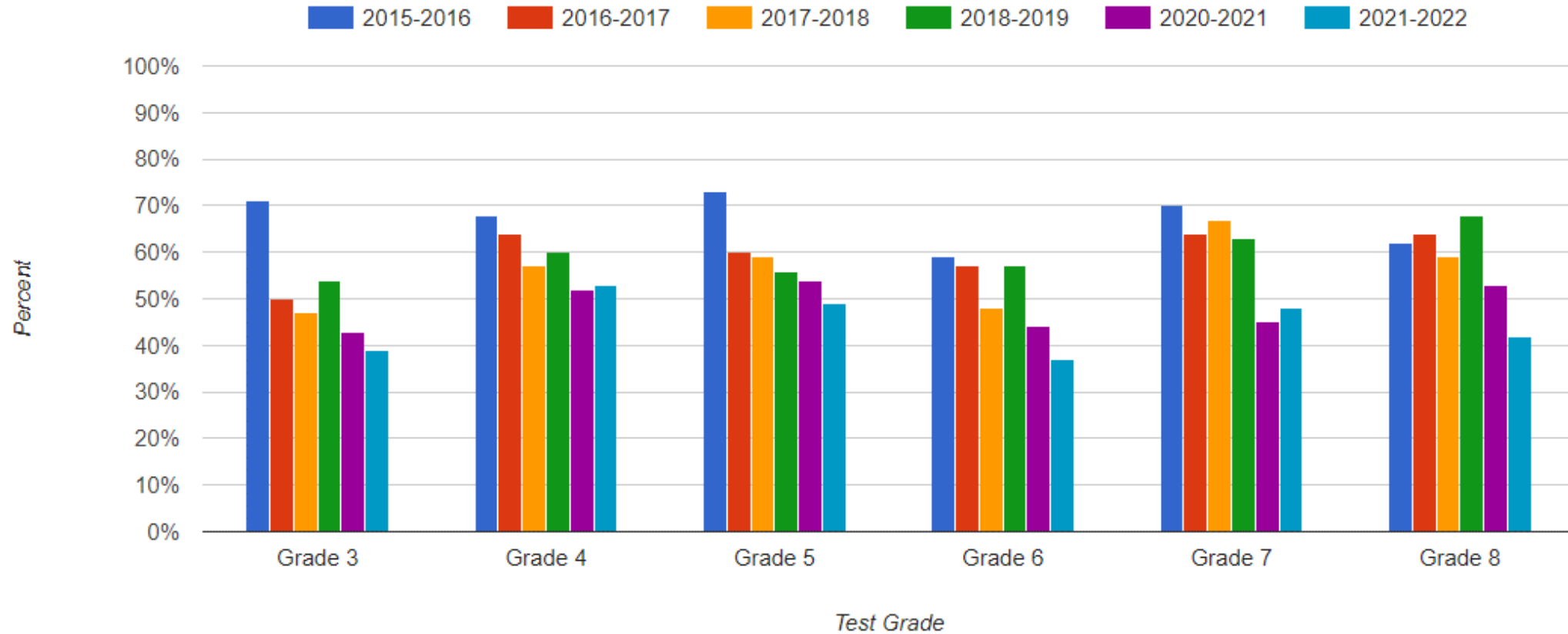
Math Proficiency

Illinois Assessment of Readiness (IAR)



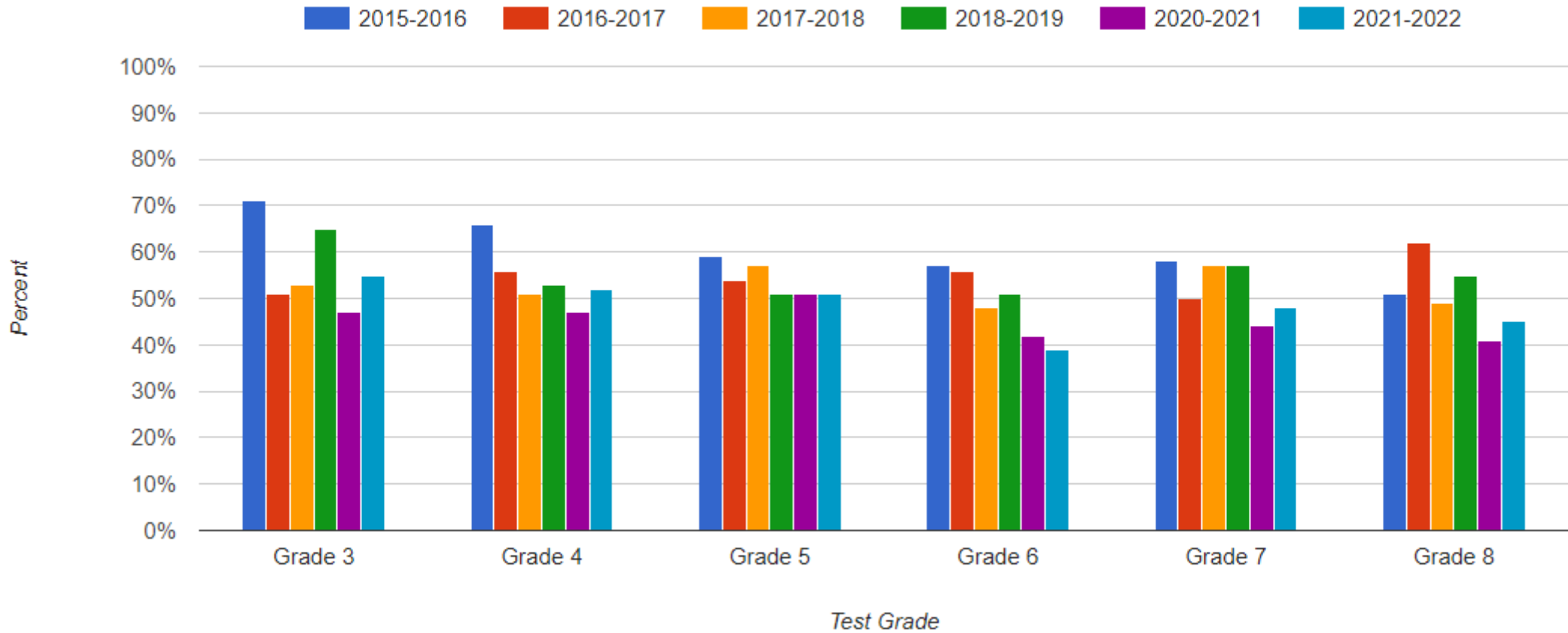
ELA Proficiency

Illinois Assessment of Readiness (IAR)
2016-2022



Math Proficiency

Illinois Assessment of Readiness (IAR)
2016-2022



Projections to Proficiency

Illinois Assessment of Readiness (IAR) ELA Spring 2022

Proficiency by Grade

Grade	Student Count *	% Projected to Meet Benchmark (+/- Std Err)	% Met Benchmark
03	505	42% - 44% - 46%	41%
04	539	49% - 51% - 53%	53%
05	518	51% - 53% - 55%	48%
06	542	47% - 49% - 51%	38%
07	516	54% - 56% - 58%	49%
08	543	44% - 46% - 48%	43%
ALL	3,163	49% - 50% - 51%	45%

*Results not reported for groups with fewer than 5 students

A district goal can be to outperform projected proficiency.

Projections to Proficiency

Illinois Assessment of Readiness (IAR) Math

Spring 2022

Proficiency by Grade

Grade	Student Count *	% Projected to Meet Benchmark (+/- Std Err)	% Met Benchmark
03	503	46% - 48% - 50%	58%
04	539	38% - 40% - 42%	53%
05	516	42% - 44% - 46%	50%
06	542	39% - 41% - 43%	39%
07	512	37% - 39% - 41%	50%
08	543	35% - 37% - 39%	46%
ALL	3,155	40% - 41% - 42%	49%

*Results not reported for groups with fewer than 5 students

A district goal can be to outperform projected proficiency.

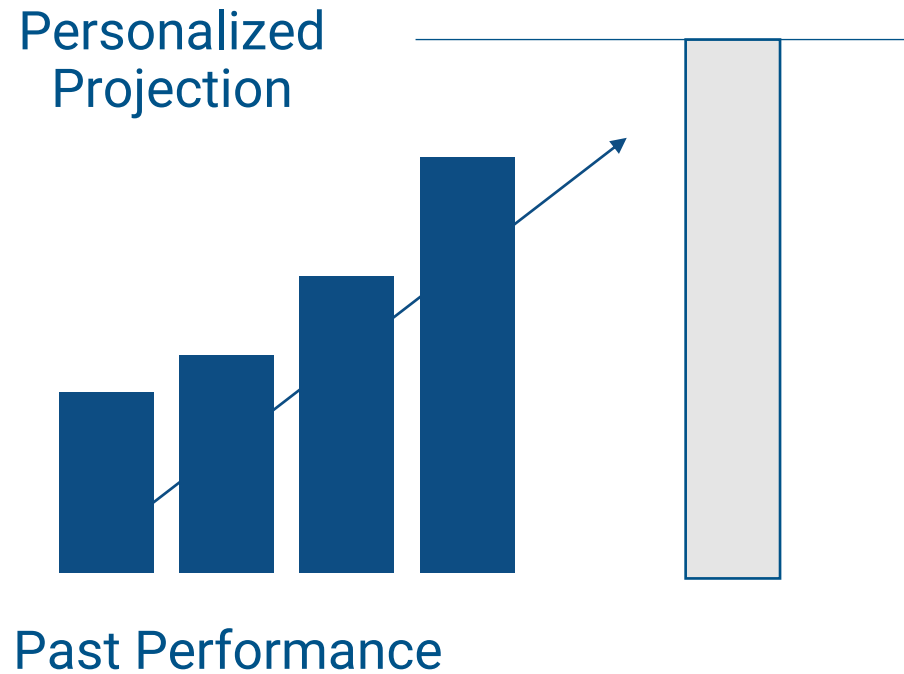
IAR State Percentile

* The state value columns report values at the 50th percentile across all districts in the state.

Indicator	State Value*	2019		State Value*	2022		Change 2019 to 2022	
		District Value	District Percentile		District Value	District Percentile	District Value	District Percentile
ELA Proficiency	37.6%	59.8%	90	28.5%	44.7%	82	-15.1%	-8
Math Proficiency	28.7%	54.9%	92	22.9%	48.1%	92	-6.8%	0

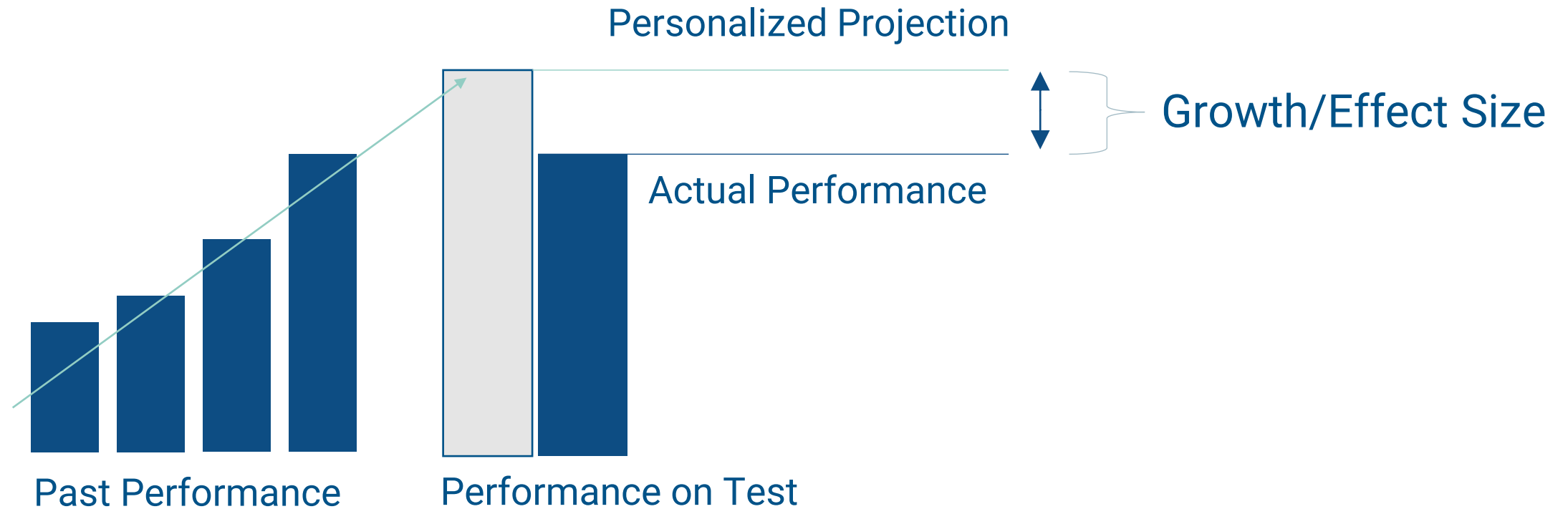
Academic Growth

Predictive Models as Personalized Benchmarks



How will an individual student perform on the test given past performance?

A Predictive versus Actual Framework



How to Interpret Results

Statistical Test	Aggregate Growth Threshold	Growth Inference	
Not Significant	Any	Expected	
Significant*	Growth is +0.30 or above	Higher than Expected	
	Growth from -0.29 to + 0.29	Expected	
	Growth from -0.30 to -0.59	Lower than Expected	
	Growth is -0.60 or below	Unsatisfactory	

*"Significant" refers to a $p < 0.05$ for a two-tailed test

ELA Growth

Illinois Assessment of Readiness (IAR)

Subject:

ELA

Growth Year: **2021-2022**

Growth Comparison Group: **Local District**

Term: **Spring**



Student Growth by Grade

Grade	Student Count [^]	% Met Benchmark	% High Growth	% Expected Growth	% Low Growth	Growth Effect Size
03	504	41%	14%	68%	18%	- 0.08
04	539	53%	16%	67%	17%	- 0.02
05	518	48%	15%	65%	19%	- 0.12
06	540	38%	7%	67%	26%	- 0.42
07	514	49%	10%	66%	25%	- 0.28
08	541	43%	12%	64%	24%	- 0.24
ALL	3,156	46%	12%	66%	21%	- 0.19
EXPECTED			16%	68%	16%	0.00

^{*} Dot color is green for all growth scores that are not statistically significant

^{**}Percentages may not add to 100 due to rounding

[^] Student count only includes students with at least 2 predictors

^{***}Results not reported for groups with fewer than 5 students



Math Growth

Illinois Assessment of Readiness (IAR)

Subject:

Mathematics

Growth Year: **2021-2022**

Growth Comparison Group: **Local District**

Term: **Spring**

Overall Growth

+ 0.43 **Higher than Expected Growth**

Student Growth by Grade

Grade	Student Count [^]	% Met Benchmark	% High Growth	% Expected Growth	% Low Growth	Growth Effect Size
03	502	58%	26%	65%	9%	+ 0.37
04	539	53%	40%	55%	5%	+ 0.70
05	516	50%	28%	62%	10%	+ 0.31
06	540	39%	21%	65%	14%	+ 0.11
07	510	50%	34%	61%	5%	+ 0.56
08	541	46%	35%	56%	10%	+ 0.51
ALL	3,148	49%	30%	61%	9%	+ 0.43
EXPECTED			16%	68%	16%	0.00

^{*} Dot color is green for all growth scores that are not statistically significant

[^] Student count only includes students with at least 2 predictors

^{**}Percentages may not add to 100 due to rounding

^{***}Results not reported for groups with fewer than 5 students














	Higher than Expected Growth Growth is +0.30 or above		Expected Growth Growth from -0.29 to +0.29
	Lower than Expected Growth Growth from -0.30 to -0.59		Unsatisfactory Growth Growth is -0.60 or below

Student Groups

ELA Growth

Illinois Assessment of Readiness (IAR)

Growth by Student Group

Group	Student Group	Student Count [^]	% Met Benchmark	% High Growth	% Expected Growth	% Low Growth	Growth Effect Size
ELL	ELL	191	10%	15%	65%	19%	- 0.08 
ELL	Not ELL	2,965	48%	12%	66%	22%	- 0.20 
Ethnicity	Asian	383	60%	16%	64%	19%	- 0.08 
Ethnicity	Black	42	19%	12%	62%	26%	- 0.35 
Ethnicity	Hispanic	228	31%	15%	62%	22%	- 0.13 
Ethnicity	Other	36	53%	11%	75%	14%	- 0.22 
Ethnicity	White	2,467	45%	11%	67%	22%	- 0.21 
Gender	Female	1,561	53%	16%	68%	16%	- 0.02 
Gender	Male	1,595	38%	9%	65%	26%	- 0.36 
IEP	IEP	329	6%	7%	64%	29%	- 0.43 
IEP	No IEP	2,827	50%	13%	67%	20%	- 0.16 
Income	Low Income	419	30%	15%	63%	22%	- 0.15 
Income	Not Low Income	2,737	48%	12%	67%	21%	- 0.20 
EXPECTED				16%	68%	16%	0.00

* Dot color is green for all growth scores that are not statistically significant

[^] Student count only includes students with at least 2 predictors

**Percentages may not add to 100 due to rounding














***Results not reported for groups with fewer than 5 students



Math Growth

Illinois Assessment of Readiness (IAR)

Growth by Student Group

Group	Student Group	Student Count [^]	% Met Benchmark	% High Growth	% Expected Growth	% Low Growth	Growth Effect Size
ELL	ELL	191	23%	36%	58%	6%	+ 0.57 
ELL	Not ELL	2,957	51%	30%	61%	9%	+ 0.42 
Ethnicity	Asian	383	71%	35%	60%	5%	+ 0.60 
Ethnicity	Black	42	17%	14%	69%	17%	- 0.11 
Ethnicity	Hispanic	227	29%	26%	68%	5%	+ 0.39 
Ethnicity	Other	36	61%	31%	61%	8%	+ 0.3* 
Ethnicity	White	2,460	48%	30%	60%	10%	+ 0.41 
Gender	Female	1,555	45%	31%	61%	8%	+ 0.44 
Gender	Male	1,593	53%	30%	60%	10%	+ 0.41 
IEP	IEP	328	12%	23%	60%	17%	+ 0.10 
IEP	No IEP	2,820	54%	31%	61%	8%	+ 0.46 
Income	Low Income	417	30%	31%	59%	9%	+ 0.39 
Income	Not Low Income	2,731	52%	30%	61%	9%	+ 0.43 
EXPECTED				16%	68%	16%	0.00

* Dot color is green for all growth scores that are not statistically significant

[^] Student count only includes students with at least 2 predictors

**Percentages may not add to 100 due to rounding

***Results not reported for groups with fewer than 5 students

	Higher than Expected Growth Growth is +0.30 or above		Expected Growth Growth from -0.29 to +0.29		Lower than Expected Growth Growth from -0.30 to -0.59		Unsatisfactory Growth Growth is -0.60 or below
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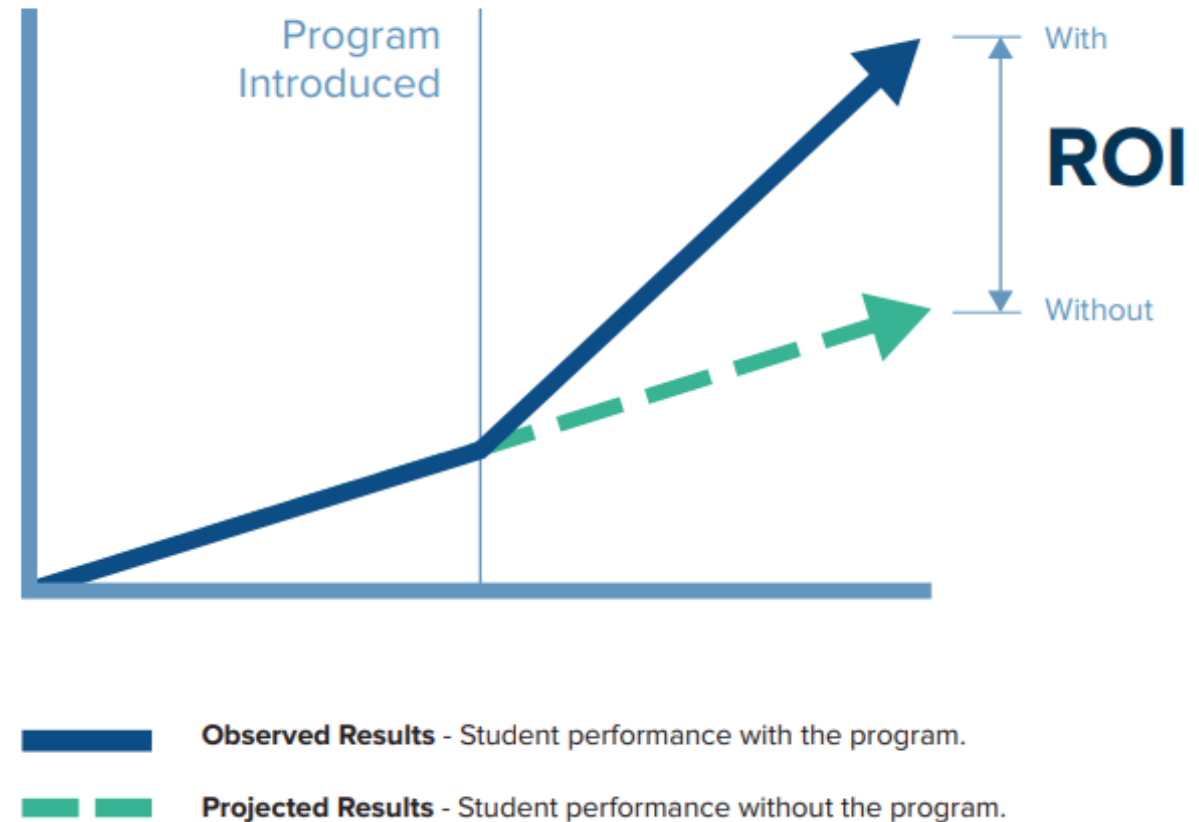
Academic Return on Investment

Academic ROI

Academic ROI quantifies the impact of an investment on student growth above and beyond growth that would have happened anyway.

Districts often ask:
“How did students in the program grow?”





Academic ROI asks:
“How did students in the program grow compared to how they would have grown without the program?”



Academic ROI-ELA

Spring 2022 IAR

Student Growth by Programs and Other Groups





Group	Student Group	Student Count [^]	% Met Benchmark	% High Growth	% Expected Growth	% Low Growth	Growth Effect Size
Advanced Language Arts	No - Advanced Language Arts	1,427	38%	10%	66%	24%	- 0.30 
Advanced Language Arts	Yes - Advanced Language Arts	168	90%	6%	65%	29%	- 0.40 
Reading Intervention	No - Reading Intervention	3,061	47%	12%	66%	21%	- 0.20 
Reading Intervention	Yes - Reading Intervention	95	3%	18%	62%	20%	- 0.10 



Academic ROI-Math

Spring 2022 IAR

Student Growth by Programs and Other Groups

Group	Student Group	Student Count [^]	% Met Benchmark	% High Growth	% Expected Growth	% Low Growth	Growth Effect Size
Advanced Math	No - Advanced Math	2,241	39%	31%	60%	9%	+ 0.42 
Advanced Math	Yes - Advanced Math	405	97%	35%	56%	9%	+ 0.55 
Math Intervention	No - Math Intervention	3,014	51%	31%	60%	9%	+ 0.43 
Math Intervention	Yes - Math Intervention	133	2%	28%	64%	8%	+ 0.29 



Summary

- District performs in the top 18% for ELA and top 8% for math compared to other districts across Illinois.
- Overall district level growth is consistent with pre-pandemic norms for ELA. Overall, growth is significantly higher than expected for math.
- Several student groups have higher than expected growth in math, but continued focus is needed to accelerate growth for students with IEPs, specifically in ELA.
- Students in reading interventions are growing at expected rates. Accelerated growth rates are needed to provide evidence of academic ROI.
- Math growth is higher than expected for both students in advanced math courses and those not in advanced math courses. Students in math interventions are growing at expected rates but trending higher.

Questions?



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