

Impact of COVID on High School Student Outcomes

SHEEO Best Practices

December 8, 2021

Research Agenda

- Use existing data to characterize LEAs' instructional delivery models
- Examine impact of COVID on GPAs and the likelihood a student qualifies for the Opportunity Scholarship or Direct Admissions - Group of 8 programs
- Examine impact of COVID on math and English grades

Classification of Instructional Delivery Models



In-Person

Districts that used only in-person instructional delivery model.



Hybrid

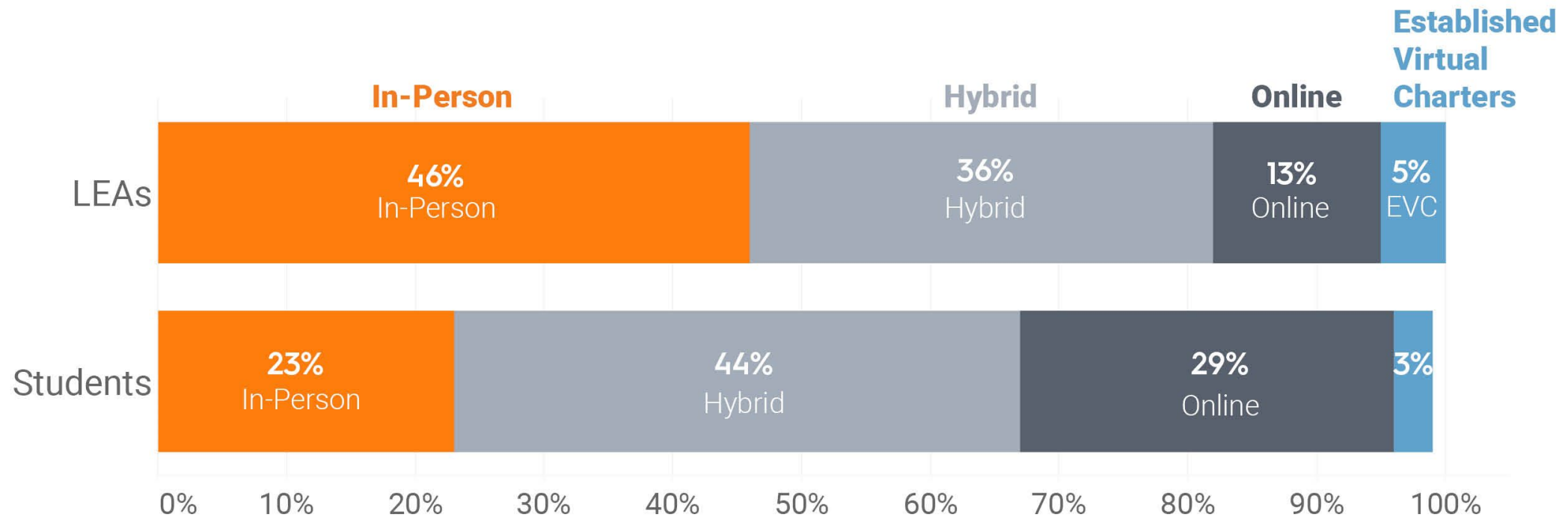
Districts that used hybrid instructional delivery model for at least some period of time but did not use strictly online instructional delivery model at any point.



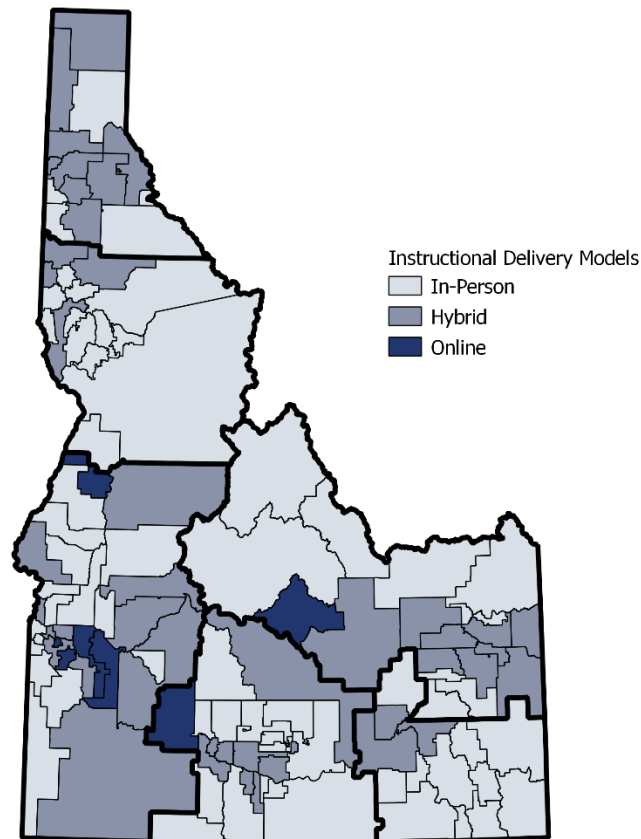
Online

Districts that used strictly online instructional delivery model for at least a period of time.

Prevalence of models in Idaho



Prevalence of models across state



Was there an impact on 9th grade GPAs?

	Summary of Findings for All Students								
	In-Person			Hybrid			Online		
	GPA	% Eligible for Opportunity Scholarship	% Eligible for DA Group of 8	GPA	% Eligible for Opportunity Scholarship	% Eligible for DA Group of 8	GPA	% Eligible for Opportunity Scholarship	% Eligible for DA Group of 8
Significant Change?	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Decrease or Increase	-	-	-	-0.13 points ↓	-5 percentage points ↓	-5 percentage points ↓	-0.09 points ↓	-5 percentage points ↓	-4 percentage points ↓

Impact on subgroups of students

Unless these 9th graders raise their GPA before graduation, it is projected there will be decreases in the number of students eligible for the Opportunity Scholarship and Direct Admissions - Group of 8 programs compared to what there would have been if their GPAs had followed the same pattern that existed pre-COVID.

- There could be about 580 fewer White students eligible for the programs - a 4% decrease.
- There could be about 250 fewer Hispanic students eligible for the programs - a 10% decrease.
- There could be about 400 fewer Economically Disadvantaged students eligible for the program - a 12% decrease.
- There could be about 100 fewer English Language Learner students eligible for the programs - a 22% decrease.
- There could be about 30 fewer Migrant students eligible for the programs - a 19% decrease.

Was there an impact on the probability a student would receive a D or F?

Courses included in analysis

- Math
 - Geometry
 - Algebra I
- English
 - English/Language Arts I (9th grade content level)
 - English/Language Arts II (10th grade content level)
 - English/Language Arts III (11th grade content level)
 - English/Language Arts IV (12th grade content level)

Was there an impact on the probability a student would receive a D or F?

Research Question

Research Question: Were students more likely to receive a D or F in the specified courses in 2020-2021 compared to earlier years holding individual level student characteristics (race/ethnicity, economic disadvantage, prior academic achievement, etc) and the school attended constant?

Was there an impact on the probability a student would receive a D or F?

Structure of data

ID	Course	Year	School 1	Grade 1	Start Date 1	End Date 1	School 2	Grade 2	Start Date 2	End Date 2	...
1	ELA 1	19-20	345	F	8/1/19	9/30/19	879	A	10/1/19	12/13/19	
2	ELA 1	18-19	345	C	8/25/18	12/4/18	879	A	1/9/19	5/13/19	

Outcome = 1 if any of the grades recorded were a D or F.

Outcome = 0 if none of the grades recorded were a D or F.

Was there an impact on the probability a student would receive a D or F?

All students

	Summary of Overall Findings by Course					
	English Language Arts				Math	
	ELA I*	ELA II	ELA III	ELA IV	Algebra I*	Geometry*
Significant Change?	Yes	Yes	Yes	Yes	Yes	Yes
Decrease or Increase	+7 percentage points ↑	+6 percentage points ↑	+5 percentage points ↑	+4 percentage points ↑	+6 percentage points ↑	+5 percentage points ↑
Grade Level	9th grade	10th grade	11th grade	12th grade	8th or 9th grade	9th, 10th, 11th grades

*8th grade ISAT scores were not included as a control variable for ELA I, Algebra I, and Geometry.

Was there an impact on the probability a student would receive a D or F?

Instructional Delivery Models

	Summary of Findings by Instructional Delivery Model					
	English Language Arts				Math	
	ELA I*	ELA II	ELA III	ELA IV	Algebra I*	Geometry*
In-Person (Comparison Group)	+6 percentage points	+5 percentage points	Not significant	Not significant	Not significant	Not significant
Hybrid	+9 percentage points	+8 percentage points	✓ +8 percentage points	+5 percentage points	✓ +5 percentage points	✓ +9 percentage points
Online	Not significant	+4 percentage points	+4 percentage points	Not significant	✓ +10 percentage points	Not significant

*8th grade ISAT scores were not included as a control variable for ELA I, Algebra I, and Geometry.



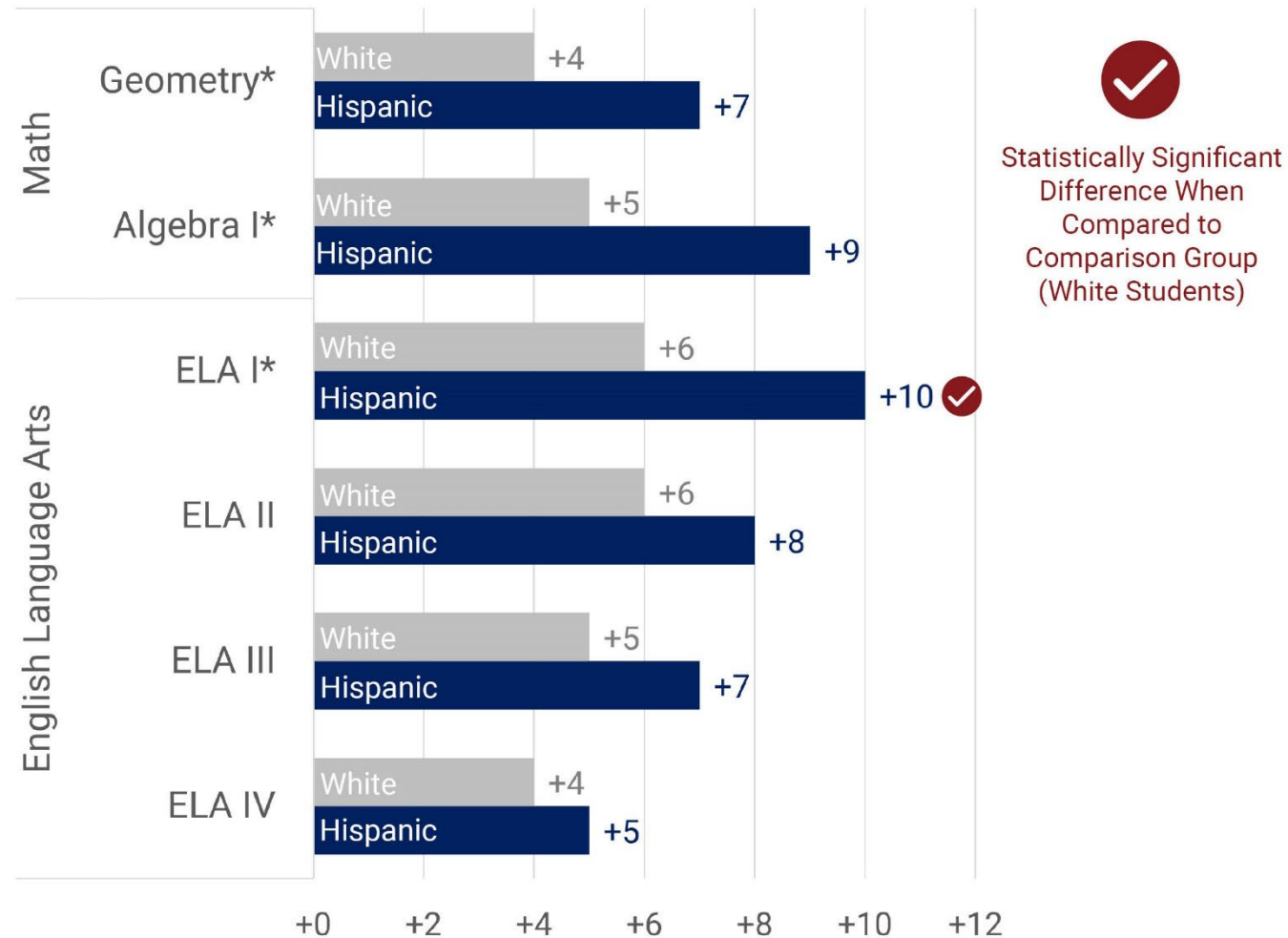
Statistically Significant Difference When Compared to Comparison Group (In-Person Instructional Delivery Model)

Questions?

Was there an impact on the probability a student would receive a D or F?

Race/Ethnicity

Percentage-Point Increase in Percentage of Students Receiving a D or Lower for **White Students** vs. **Hispanic Students** by Course

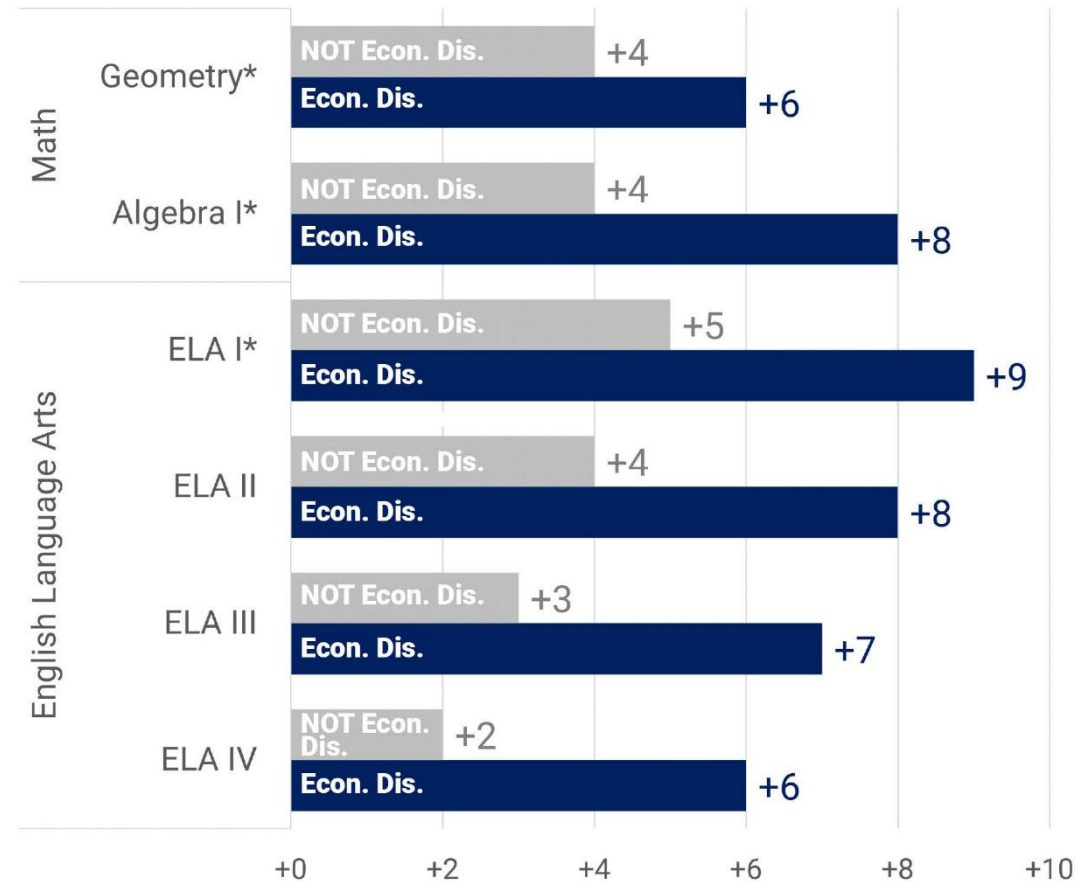


*8th grade ISAT scores were not included as a control variable for ELA I, Algebra I, and Geometry.

Was there an impact on the probability a student would receive a D or F?

Socioeconomic Status

Percentage-Point Increase in Percentage of Students Receiving a D or Lower for Students who are **NOT Economically Disadvantaged** vs. Students who are **Economically Disadvantaged** by Course[†]



[†]No statistically significant differences were found when comparing economically disadvantaged students with non-economically disadvantaged students

*8th grade ISAT scores were not included as a control variable for ELA I, Algebra I, and Geometry.