



A Time to Act

COVID-19 Academic Slide in New Jersey

Fall 2020 - Winter 2021

COVID has the potential to drastically exacerbate the educational inequities in New Jersey for an entire generation of students....

A Time to Act examines the impact of COVID on New Jersey student learning by using student data from grades 3-8 to answer three primary questions:

1. How has student academic growth changed since schools shifted to distance learning due to the pandemic?
2. Based on the 2020-21 achievement data, how many students are on track to score proficient on statewide assessments (NJSLA), if offered this Spring?
3. Do the results differ based on student demographic groups?

Key Findings: Proficiency rates are projected to be slashed nearly in half for ELA and more than half for Math

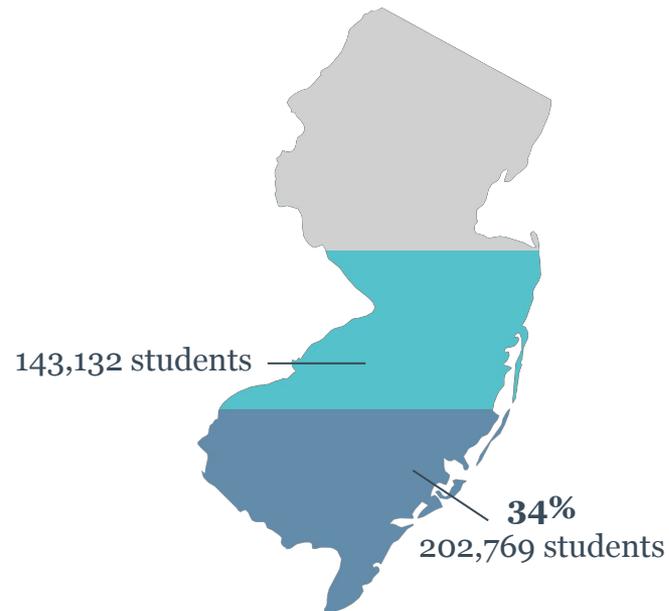
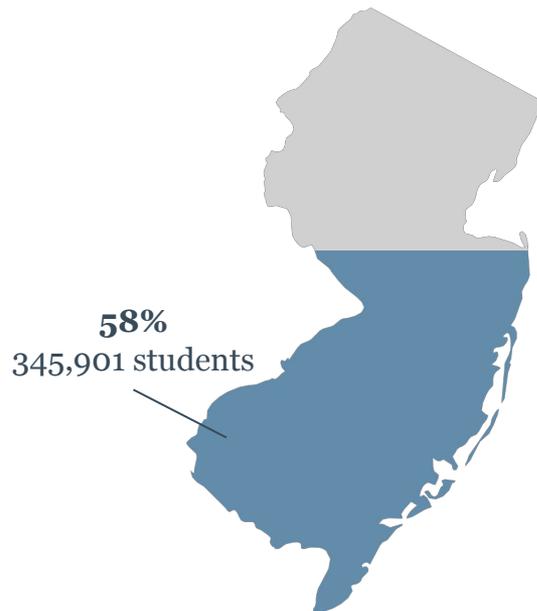
- **A majority of New Jersey's students in grades 3-8 started the 2020-21 school year significantly behind**
- **And more students were pushed off course in the Fall and Winter of this school year — the COVID slide deepened as students lost expected academic growth**
 - **ELA: 24 percentile point drop projected on New Jersey Student Learning Assessment (NJSLA)**
 - Actual Spring NJSLA 2019 proficiency: 58%
 - Estimated Fall 2020 proficiency: 39%
 - Expected Spring 2021 proficiency: 34%
 - **Math: 23 percentile point drop projected on NJSLA**
 - Actual Spring NJSLA 2019 proficiency: 45%
 - Estimated Fall 2020 proficiency: 29%
 - Expected Spring 2021 proficiency: 22%
- **Now, only one-third of students in ELA and less than one-fourth of our students in Math are expected to be proficient**
- **Our low-income Black and low-income Latinx students are falling even further behind**

These findings estimate that if state tests were given this Spring, **143,132** fewer NJ students in grades 3-8 would meet grade levels in ELA, bringing the total number of students not proficient to **393,613**

Spring 2019
ELA Proficiency



Spring 2021 (Estimated)
ELA Proficiency



596,382 students in grades 3-8 in 2019
345,901 students proficient in 2019
250,481 not proficient in 2019

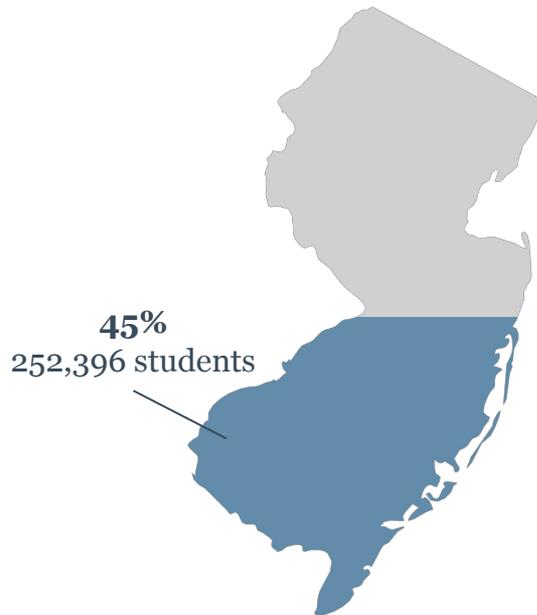
596,382 students in grades 3-8 in 2019
202,769 students estimated proficient in 2021
393,612 students estimated not proficient in 2021

These findings estimate that if state tests were given this Spring, **129,002** fewer NJ students in grades 3-8 would meet grade levels in Math, bringing the total number of students not proficient to **437,488**

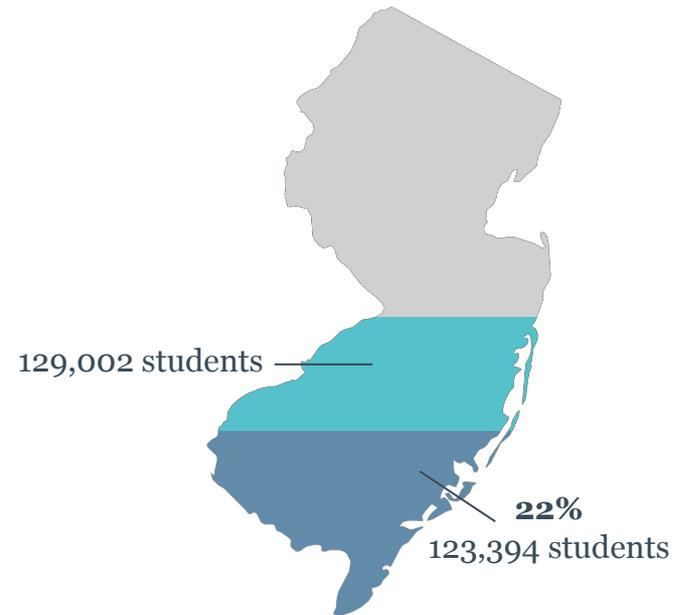
Spring 2019
Math Proficiency



Spring 2021 (Estimated)
Math Proficiency



560,882 students in grades 3-8 in 2019
252,396 students proficient in 2019
308,486 not proficient in 2019



560,882 students in grades 3-8 in 2019
123,394 students estimated proficient in 2021
437,488 students estimated not proficient in 2021

COVID Academic Slide Methodology

How we approach this



EmpowerK12

EmpowerK12 supported data collection and analysis for this study. EmpowerK12 is a nonprofit specializing in education data systems, strategic analysis and research, and improvement science best practices that translate data into action. For this study, EmpowerK12 looked at data from MAP and i-Ready, described below:

map GROWTH

NWEA Measures of Academic Progress (MAP) By dynamically adjusting to each student's performance, MAP Growth creates a personalized assessment experience that accurately measures performance -- whether a student performs on, above, or below grade level.

Curriculum Associates

i-Ready Diagnostic (i-Ready) is an adaptive assessment that pinpoints student ability level, identifies the specific skills students need to learn to accelerate their growth, and charts a personalized learning path for each student.

Focused analysis to see how students are performing halfway through the school year

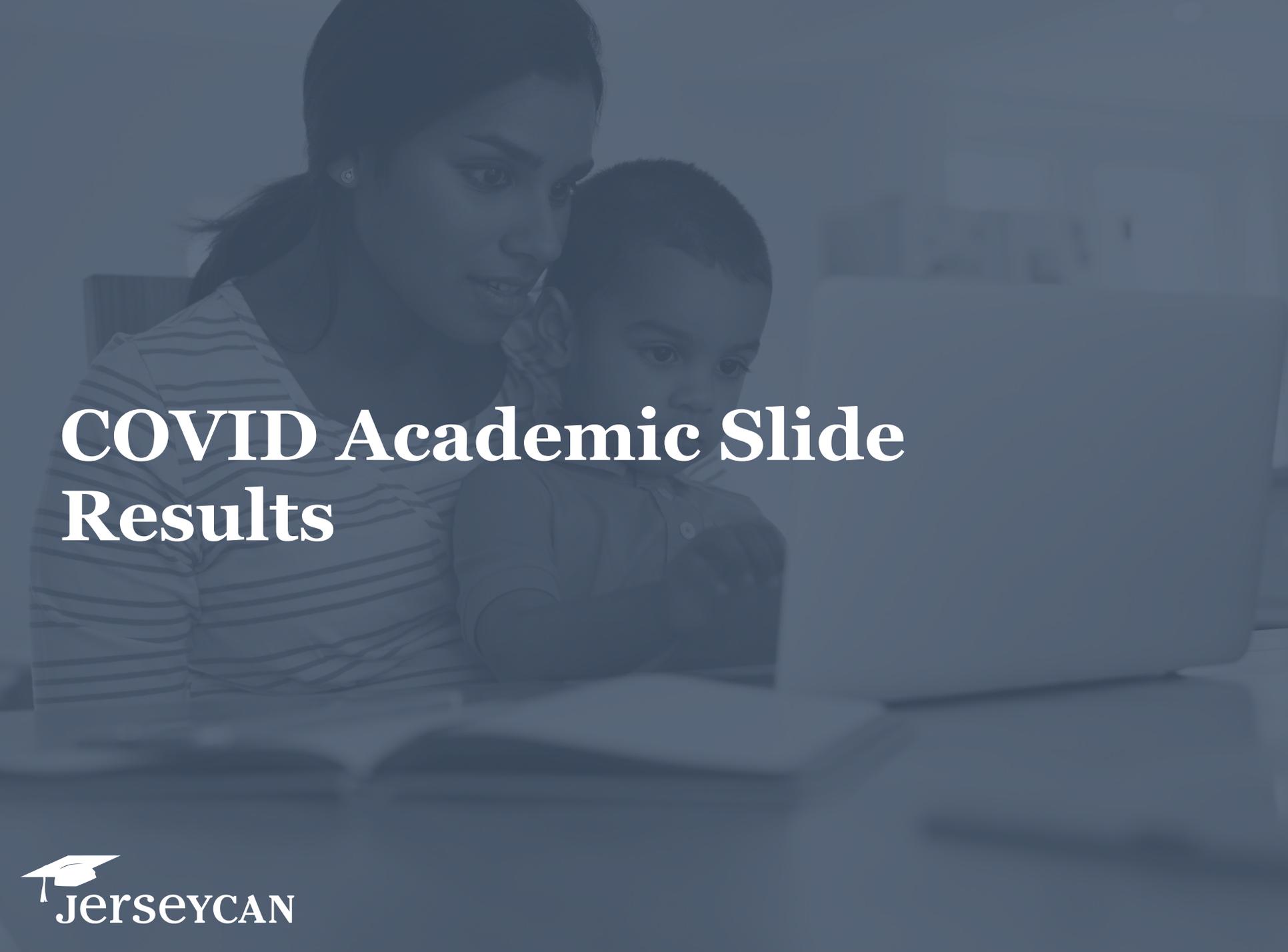
- **Percent of typical Fall to Winter growth met:** students receive a winter growth target based on where they score in the Fall and the typical amount of growth made by similar students over 5 months



Fall 2020

Winter 2020

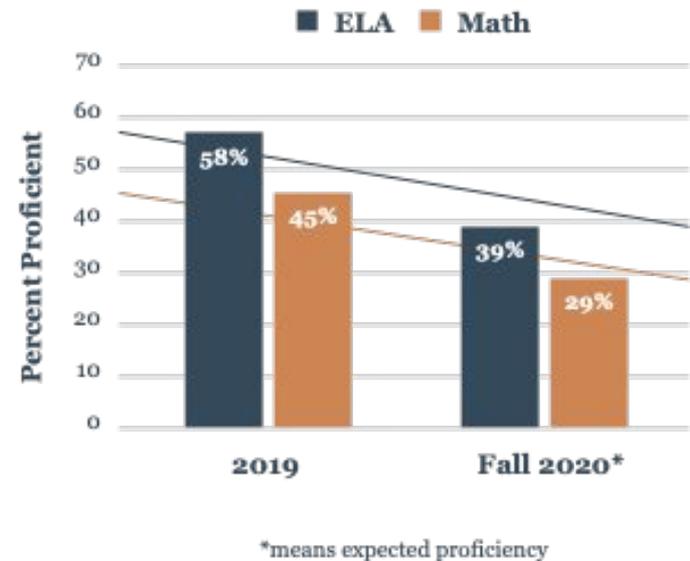
- **On-track for NJSLA proficiency:** utilizing a linking study from NWEA, we examined the percent of sample students whose Fall and Winter NWEA MAP scores put them on-track to earning NJSLA proficiency in Spring 2021
- **Average national percentile rank changes:** Fall national studies focused on change in average percentile rank from last year to this year — essentially, they compare how Fall scores would have ranked in the pre-COVID 2019-20 school year; we also analyze changes in percentile rank for key student groups

A woman and a young boy are sitting at a desk, looking at a laptop screen. The woman is on the left, and the boy is on the right. They both appear to be focused on the screen. The image is overlaid with a semi-transparent blue filter.

COVID Academic Slide Results

A majority of NJ's students started the 2020-21 school year significantly behind due to the COVID slide

- Using the achievement data collected in this study, and consistent with other national studies, we know that students in Fall 2020 were already facing significant declines in their academic performance
- Actual Spring 2019 NJSLA:
 - 58% of students were proficient in ELA
 - 45% of students were proficient in Math
- Fall 2020:
 - only 39% of students estimated to be proficient in ELA
 - only 29% of students estimated to be proficient in Math
- Spring 2019-Fall 2020 COVID Slide:
 - a drop of 19 percentile points in ELA estimated proficiency
 - a drop of 16 percentile points in Math estimated proficiency



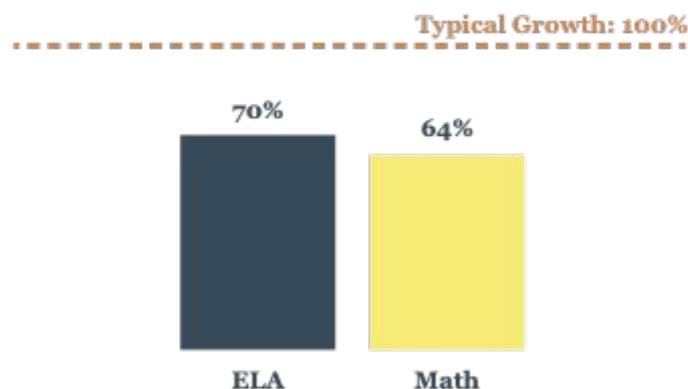
The COVID slide has deepened for New Jersey students due to slowed growth during the Fall and Winter of this school year

Using MAP and iREADY assessments, students receive a winter growth target based on where they score in the fall and the typical amount of growth made by similar students **over 5 months**.

This Fall 2020 to Winter 2021:

- **On average, students in grades 3-8 lost 30% of expected learning in ELA**
- **On average, students in grades 3-8 lost 36% of expected learning in Math**

Median % Fall-to-Winter Growth by Subject



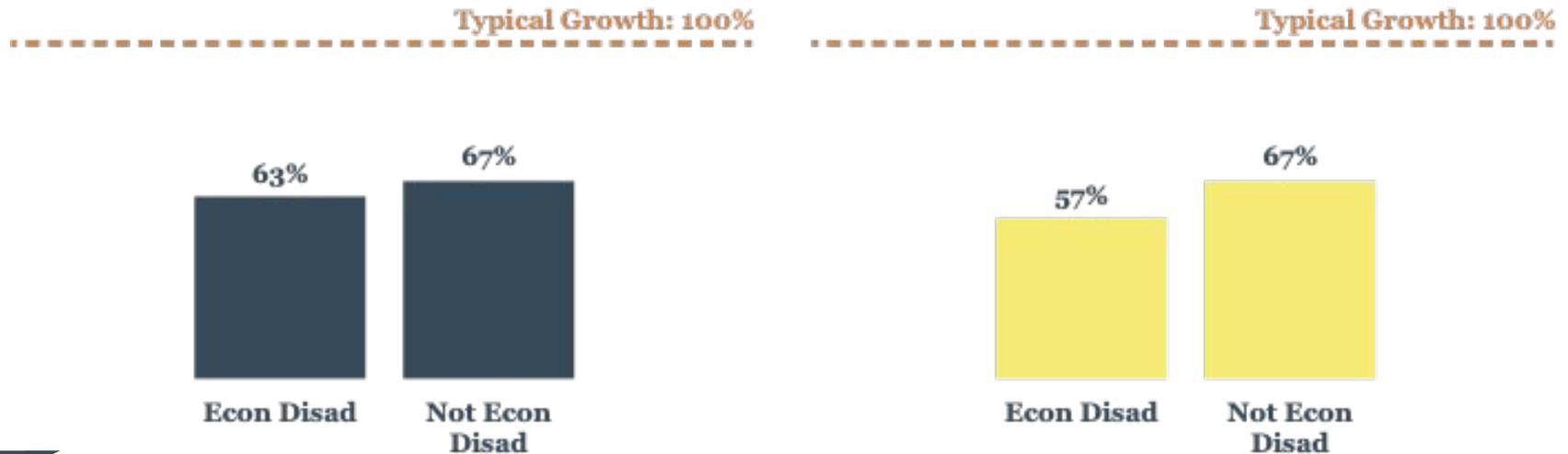
Pre-pandemic there were already learning gaps across NJ based on subgroups. The following slides drill down into what this sample shows us is happening in those subgroups.

New Jersey's economically disadvantaged students lost more ground in Math than their more affluent peers

- Economically disadvantaged students experienced a similar loss in ELA as compared to their non-economically disadvantaged peers -- **losing approximately 40% of expected learning**
- Economically disadvantaged students **lost 43% of expected learning in Math** this year compared to their more advantaged peers

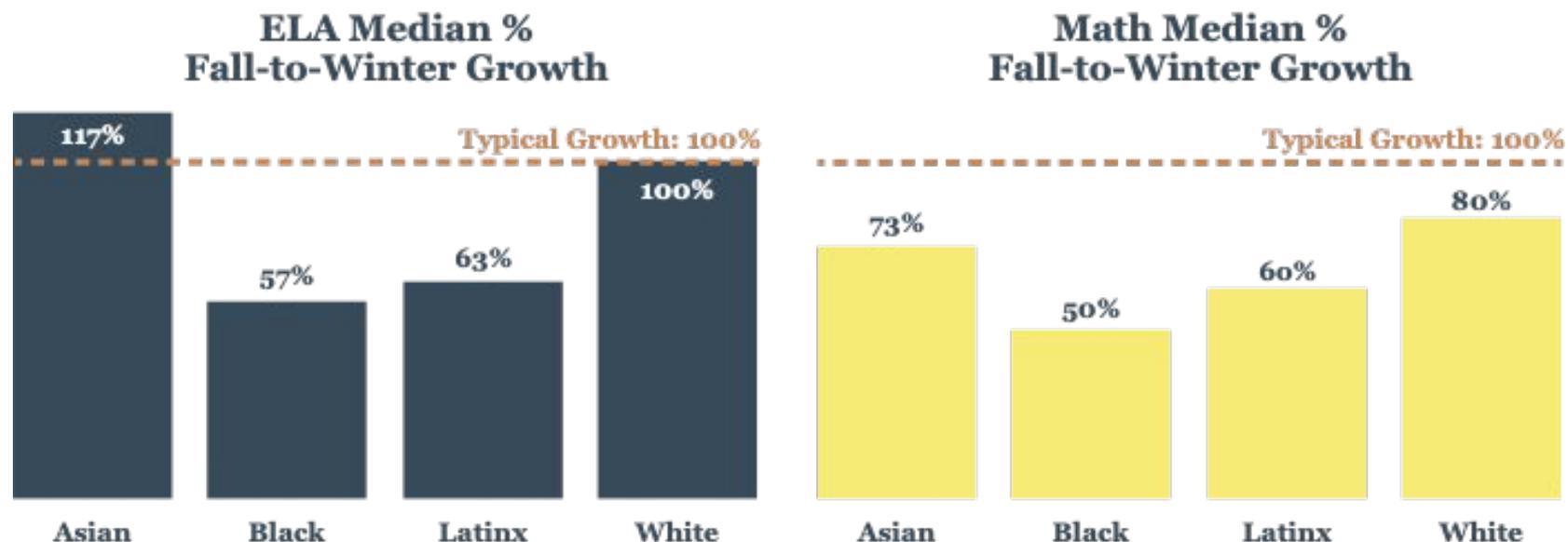
**ELA Median %
Fall-to-Winter Growth**

**Math Median %
Fall-to-Winter Growth**



New Jersey's Black and Latinx students lost more learning in both ELA and Math than their peers

- ELA
 - Black students on average **lost 43% of expected learning this year**
 - Latinx students on average **lost 37% of expected learning this year**
- Math
 - Black students on average **lost 50% of expected learning this year**
 - Latinx students on average **lost 40% of expected learning this year**



New Jersey's students with disabilities also lost more learning than their peers without IEPs

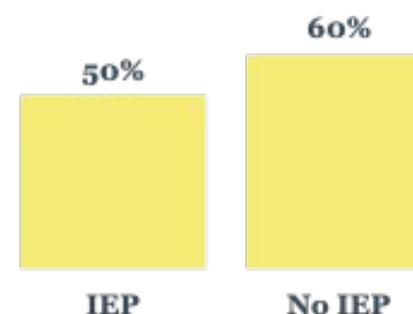
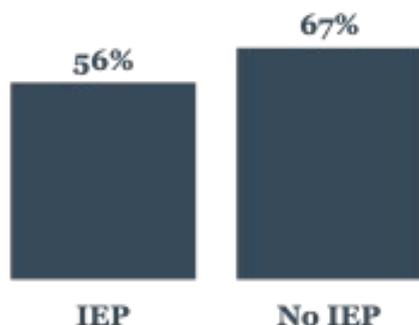
- Students with IEPs **lost 44% of expected learning in ELA this year** as compared to their peers without IEPs
- Students with IEPs **lost 50% of expected learning in Math this year** as compared to their peers without IEPs

**ELA Median %
Fall-to-Winter Growth**

**Math Median %
Fall-to-Winter Growth**

Typical Growth: 100%

Typical Growth: 100%



New Jersey's English language learners out-performed their non-ELL peers in Math

- In ELA, ELL students **lost 37% of expected learning this year**, which was slightly **higher** than their non-ELL peers
- In Math, ELL students **lost 33% of expected learning this year**, which was slightly **lower** than their non-ELL peers

**ELA Median %
Fall-to-Winter Growth**

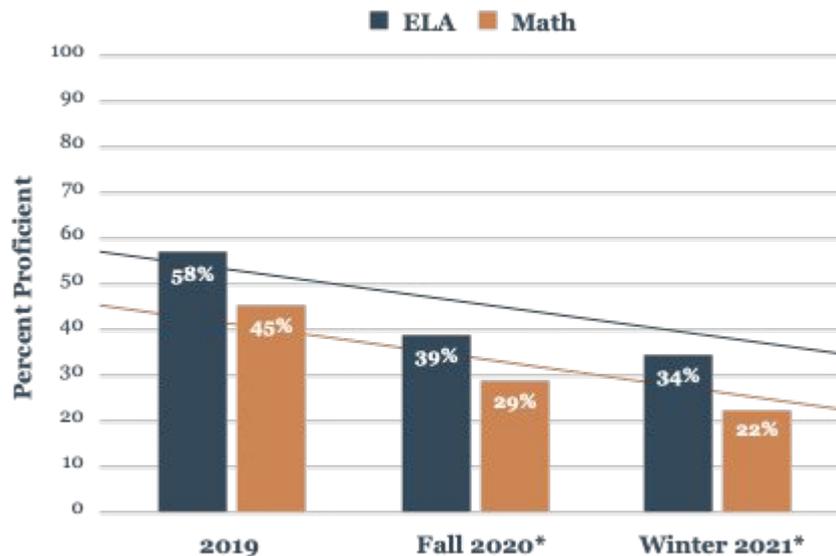
**Math Median %
Fall-to-Winter Growth**



Lost learning in the first half of this school year means the COVID slide deepens...

It is projected that **nearly 2 out of every 5 students** who were previously proficient in ELA on the NJSLA are no longer on-track, and **about 1 out of every 2** who were proficient in Math in Spring 2019 are not meeting or exceeding expectations anymore.

Actual NJSLA proficiency vs Expected NJSLA proficiency



*means expected proficiency

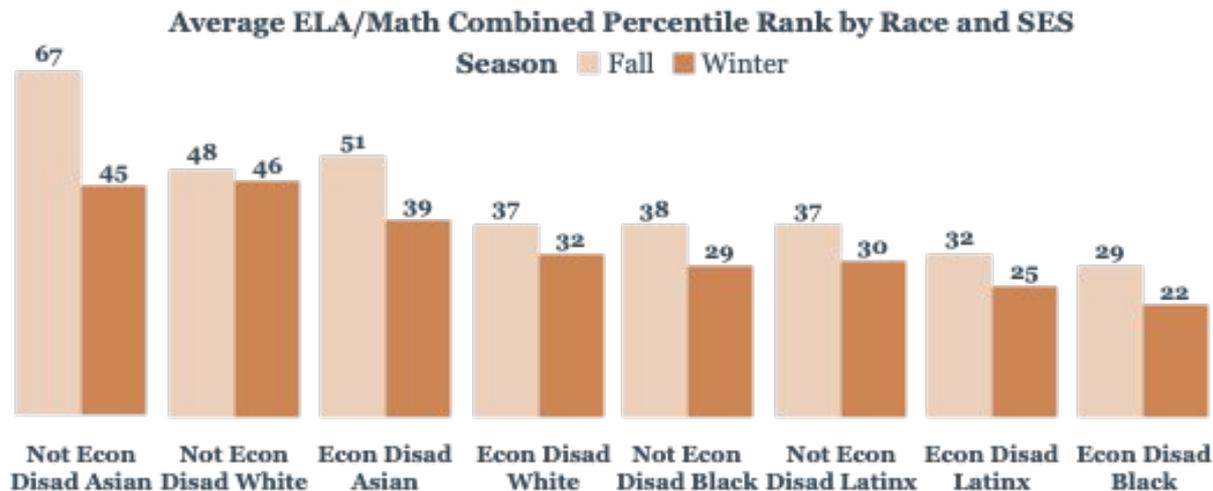
- **Spring 19-Winter 21 COVID Slide:**
 - an expected drop of 24 percentage points in ELA
 - an expected drop of 23 percentage points in Math
- Only 1 in 3 students may now be proficient in ELA
- Only 1 in 4 students may now be proficient in Math
- This means the vast majority of our students are no longer expected to be on grade level as measured by NJSLA

We added a variable to the model to account for participating schools' performance pre-pandemic and another to control for in-person vs. distance learning status. Both variables led to increases in state estimates compared to the sample. State projections are based on a model that uses weighted averages of sample students by race, ELL status socioeconomic status, and disability status to better reflect the demographics of New Jersey.

Achievement gaps are growing for low-income Black and low-income Latinx students

- Comparing ELA and Math average achievement to pre-pandemic national percentile ranks-- New Jersey student group outcome gaps have worsened
 - To understand the graph below, if a student group has a national average percentile ranking of 60 from fall 2019, then that student group outperformed 60% of students nationwide in the same grade on average
 - A national average percentile of 35 in fall 2020 means that those students outperform 35% of students in the same grade group pre-COVID.

Low-income Black and low-income Latinx students experienced larger percentile decreases in average achievement percentile rank this semester



Recommendations to Stem the COVID Slide

Recommendations to Stem the COVID slide and get students back on track



Urgently prioritize the adoption and statewide implementation of extensive summer programming so that we can stem the COVID slide now and further stop more students from falling behind;



Adopt and implement personalized, research-based solutions for accelerating student learning like high-dosage tutoring;



Allow parents to exercise their choice to retain or hold back their child, if desired, to provide additional time to students for learning and the provision of social and emotional supports;



Incentivize all districts to adopt high-quality instructional materials that are aligned to statewide assessments, which can provide teachers and parents with ongoing information about student academic growth and that can project proficiency on NJSLA; and



Administer statewide assessments in Spring 2022 that are comparable to those administered in Spring 2019 to establish a new baseline from which to measure student growth moving forward and to also enable comparisons to pre-pandemic statewide proficiency.

Acknowledgements

- Thank you to the **15 New Jersey** districts and charter schools who volunteered their data to make this study possible
- Thank you to EmpowerK12 for their data and research assistance
- This project was made possible through the generous support of the New Jersey Children's Foundation



New Jersey
Children's Foundation

The New Jersey Children's Foundation is a non-profit organization aimed at promoting a fact-based discussion about public education in New Jersey. Its mission is to invest in people, programs, and partnerships that will improve public education systems by putting the interests of children first.

Questions



Appendix

Our sample

- Received Fall and Winter 2020-21 assessment data for more than 18,000 students from 15 school districts
- Focused on students with “typical” testing characteristics -- about 8250 students
- Used industry best practices by applying weighted averages to adjust this sample to match the demographics for New Jersey by race, ELL status socioeconomic status, and disability
- Since there is variation in historical proficiency between the sample and state, we apply mathematical adjustments to model parameters to account for pre-pandemic achievement differences

Sample & State Demographics

Student Group	Sample	State
Asian	2	10
Black	36	15
Econ Disad	81	37
ELL	20	7
Latinx	53	30
Non-Econ Disad	19	63
SwD	17	17
White	9	42

Sample & State NJSLA Proficiency

Group Student Group	Sample		State	
	ELA	Math	ELA	Math
Asian	89	84	83	78
Black	33	29	38	24
Econ Disad	41	37	40	27
ELL	24	27	15	18
Latinx	42	38	44	30
Non-Econ Disad	53	48	68	55
SwD	23	25	22	20
White	62	49	67	53

Testing during virtual learning

- Many students took significantly less time to complete the test

Percent of Student by Time Taken Category and Fall Year

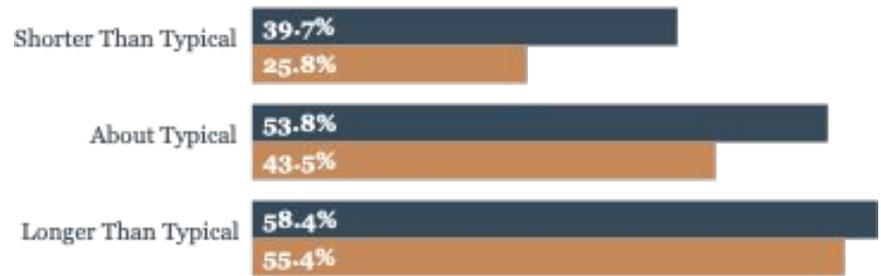
■ Shorter Than Typical ■ About Typical ■ Longer Than Typical



- Students who rushed performed worse than expected compared to pre-pandemic data
- Study focuses on students with “typical” testing characteristics

Avg Fall-to-Fall Percentile by Time Taken Category and Fall Year

■ Pre-COVID 2016-2019 ■ During COVID 2020-2021



Avg Fall-to-Fall Growth Percentile

Test participation rates

- Assessment participation rates were lower than typical pre-pandemic rates
- Missing one-quarter of students from the winter data

ELA Participation Rates

Econ Disad Status	Fall 2020	Winter 20-21	N-size
Econ Disad	93%	75%	15767
Not Econ Disad	85%	68%	5442
All Students	92%	74%	21209

ELL Status	Fall 2020	Winter 20-21	N-size
ELL	95%	82%	3384
Not ELL	90%	71%	16618

Disability Status	Fall 2020	Winter 20-21	N-size
IEP	91%	75%	3253
No IEP	92%	73%	17304

Race/Ethnicity	Fall 2020	Winter 20-21	N-size
Asian	95%	30%	820
Black	91%	69%	7697
Latinx	95%	78%	9774
Others	71%	73%	214
White	73%	79%	2052

Math Participation Rates

Econ Disad Status	Fall 2020	Winter 20-21	N-size
Econ Disad	92%	75%	15767
Not Econ Disad	84%	68%	5442
All Students	90%	73%	21209

ELL Status	Fall 2020	Winter 20-21	N-size
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Disability Status	Fall 2020	Winter 20-21	N-size
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