

Full-Day Kindergarten Analysis

An Analysis of Student Outcomes for Schools Implementing
Full-Day Kindergarten in the State of Idaho from 2018–19 to 2020–21



ACKNOWLEDGEMENTS

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ABOUT BLUUM

Bluum is a Boise-based education nonprofit committed to ensuring Idaho's children reach their fullest potential by cultivating great leaders, replicating high-performing school models and taking risks to develop new approaches so all Idaho students have access to great education. We believe a robust choice of learning opportunities helps children, families and educators achieve more and do better.

ABOUT PUBLIC IMPACT

Public Impact's mission is to improve education dramatically for all students, especially low-income students, students of color, and other students whose needs historically have not been well met. We are a team of professionals from many backgrounds, including former teachers. We are researchers, thought leaders, tool-builders, and on-the-ground consultants who work with leading education reformers. For more on Public Impact, please visit www.publicimpact.com.

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Cover photo: Future Public School, Garden City



Gem Prep Nampa

Foreword

BY TERRY RYAN

Providing all-day kindergarten, at no costs to families, is an important part of setting a great foundation for learning and ensuring all Idaho families are able to choose a school that is right for them,” wrote my colleague and friend Roger Quarles when the J.A. and Kathryn Albertson Family Foundation (JKAF) and Bluum announced our all-day kindergarten initiative in January 2020.

JKAF awarded Bluum \$1.5 million in 2020 and \$1.5 million again in 2021 to fund all-day kindergarten for 17 partner schools. This support provided more than 1,000 children the opportunity to attend all-day kindergarten at one of their Idaho public charter schools. As part of this effort, Bluum promised to evaluate the impact of the investment. Both JKAF and Bluum want to know what does and what doesn’t work when it comes to improving the literacy and numeracy skills of our youngest learners.

The stakes are incredibly high. *ExcelinEd* reports, “children who are not reading proficiently by the end of third grade are four times more likely to drop out or fail to graduate from high school...For poor black and Hispanic students, that likelihood doubles.”¹ Based on evidence from across the nation, all-day kindergarten is an important strategy for closing literacy gaps. All-day kindergarten is not a magic bullet. But it can be fundamental in setting the conditions for better learning outcomes if it is done in tandem with smart improvements to what happens for our children in first, second, and third grades.

But what does Idaho’s early literacy data tell us? This is what we engaged the expert research team at Public Impact in North Carolina to help tease out. Our plan called for Public Impact accessing and using Idaho Reading Indicator (IRI) data from 2018–19 through 2020–21 to evaluate the effectiveness and impact of all-day kindergarten on our children’s literacy results. Specifically, we sought answers for the following:

1. Do students participating in JKAF-funded all-day kindergarten show more progress from fall to spring IRI assessments during kindergarten compared to students in half-day kindergarten programs?
2. Are students who attend JKAF-funded all-day kindergarten better prepared for first grade as measured by fall first-grade IRI in growth and/or proficiency?
3. Do students who attend JKAF-funded all-day kindergarten achieve higher IRI results in first, second, and third grades?

To our surprise and delight as researchers, when we spoke with the leadership at the Idaho State Board of Education about getting access to the IRI data for our 17 partner schools, they asked us if the study could include **all public schools** in Idaho. Both Bluum and Public Impact jumped at the opportunity for a larger study. In 2020–21, 19,043 Idaho kindergartners were in partial-day kindergarten, and 14,832 Idaho children were in full-day kindergarten, with larger percentages of economically disadvantaged, special education, and English language learners in all-day programs than partial-day. A number of Idaho school districts have used their local funds and/or state literacy funds to provide all-day kindergarten for their students in recent years.

Our original study of 17 schools became the largest study of its kind ever done in Idaho. It is our intention to conduct this study every year for the next three years, to get stronger longitudinal data around the impact of all-day kindergarten on both of what Public Impact describes as “kindergarten outcomes” and “kindergarten preparedness.” You need to read the entire study to understand the difference between the two and why each is important for discussions around all-day kindergarten in Idaho. I encourage you to read the entire report closely.

By demonstrating the effectiveness and impact of all-day kindergarten, we hope to better inform the critical and ongoing discussion around strategies to improve literacy in the Gem State. Our children and families deserve nothing less.

“Once you learn to read, you will be forever free.”—Frederick Douglass

Terry Ryan is the CEO of the Boise-based education nonprofit Bluum. Bluum is committed to ensuring Idaho’s children reach their fullest potential by cultivating great leaders and growing high-performing public charter schools.

¹ ExcelinEd. (n.d.) Early literacy: Equipping all students to read by fourth grade. https://excelined.org/policy-playbook/early-literacy/?clid=CjwK-CAiAnO2MBhApEiwA8qOHYQML3d95WzOuClPjw95N-j8-RDAUeggZNtGPwVhGnbsoc-2Z5cDRoCuR8QAvD_BwE



Forge International School, Middleton

Introduction

BY BRYAN HASSEL

With 30,000 of its K–3 students not reading at grade level in 2021, Idaho needs strategies to boost early achievement.¹ A significant body of national research tells us that full-day kindergarten can help. When researchers examined dozens of studies in 2010, they found attending full-day kindergarten lifted student academic learning by 0.25 standard deviations, a substantial impact. Students going to full-day kindergarten also showed higher self-confidence and a greater ability to play and work with other children.² Subsequent research has found that the benefits of full-day kindergarten are even larger for Hispanic children, non-English speakers, children from immigrant households, and children with low socioeconomic status.³

With national research findings like that, it is not surprising that this study of Idaho students found similar academic benefits for full-day kindergarten. Students attending full-day kindergarten in Idaho learned more over the course of the year than those in partial-day, by about 0.2 standard deviations on average.

This combination of national and Idaho research sends a clear signal to policymakers about the value of increasing access to full-day kindergarten for the state’s children. Idaho is one of only nine states that does not require school districts to offer *any* kind of kindergarten.⁴ Requiring districts to offer full-day kindergarten, with state funding behind it, would expand the number of students getting the benefit of full-day kindergarten.

And Idaho should not stop there. First, some research suggests these benefits of full-day kindergarten are not sustained after third grade⁵ unless high-quality instruction is maintained throughout early elementary school (Hahn et. al, 2014).⁶ Full-day kindergarten must come alongside continuing efforts to improve the education students receive in these early grades. Second, while the average impact of full-day kindergarten is large in Idaho, the outcomes vary a great deal from school to school. While expanding access to full-day kindergarten, policymakers should also prioritize learning about what the most successful programs are doing. The state could then disseminate lessons widely, and make funding for full-day kindergarten contingent on implementing what works.

Bryan Hassel is co-president of Public Impact, whose mission is to improve education dramatically for all students, especially low-income students, students of color, and other students whose needs historically have not been well met.

¹ Idaho Ed News. (2021). *An annual report on Idaho's own education goals*. Retrieved from <https://reportcard.idahoednews.org/#data>

² Cooper, H., Allen, A., Patall, E., & Dent, A. (2010). Effects of all-day kindergarten on academic achievement and social development. *Review of Educational Research*, 80(1), 34–70. Retrieved from https://www.researchgate.net/publication/249797967_Effects_of_Full-Day_Kindergarten_on_Academic_Achievement_and_Social_Development

³ Dhuey, E. (2011, March 1). Who benefits from kindergarten? Evidence from the introduction of state subsidization. *Educational Evaluation and Policy Analysis*, 33(1), 3–22. Retrieved from <https://journals.sagepub.com/doi/abs/10.3102/0162373711398125>

⁴ Education Commission of the States. *50-state comparison: State K–3 policies*. Retrieved from <https://www.ecs.org/kindergarten-policies/>

⁵ Cooper, H., Allen, A., Patall, E., & Dent, A. (2010). Effects of all-day kindergarten on academic achievement and social development. *Review of Educational Research*, 80(1), 34–70. Retrieved from https://www.researchgate.net/publication/249797967_Effects_of_Full-Day_Kindergarten_on_Academic_Achievement_and_Social_Development; Brownell, M. D., et. al. (2015). Long-term benefits of full-day kindergarten: a longitudinal population-based study. *Early Child Development and Care*, 185(2), 291–316. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/03004430.2014.913586>

⁶ Hahn, R. A., et al. (2014, March 1). Effects of full-day kindergarten on the long-term health prospects of children in low-income and racial/ethnic-minority populations: A community guide systematic review. *American Journal of Preventive Medicine*, 46(3), 312–323. Retrieved from <https://doi.org/10.1016/j.amepre.2013.12.003>



Gem Prep Nampa

Background

In a state where only 42 percent of kindergartners scored at or above grade level on the statewide reading assessment in fall 2020, the need for more and better early education is clear. Research shows that attending full-day kindergarten boosts students' academic outcomes, self-confidence, and ability to work and play with other children¹. Yet Idaho does not provide funds for all districts to offer some form of full-day kindergarten².

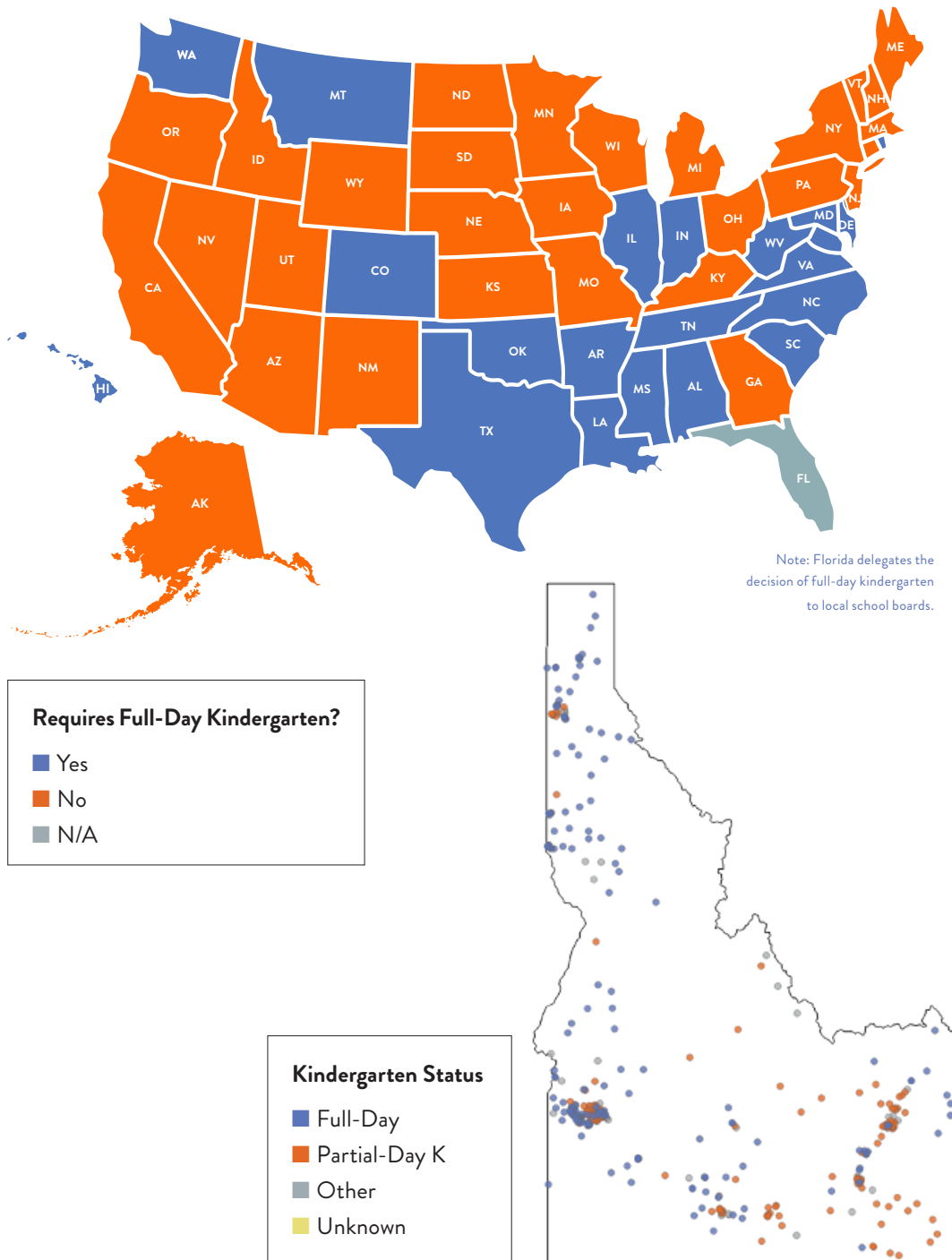
This statewide analysis studies the academic outcomes of students participating in full-day kindergarten across the state of Idaho as measured by the Idaho Reading Indicator (IRI)³—an early reading screener and diagnostic assessment required for all K–3 students in Idaho.

¹ Cooper, H., Allen, A., Patall, E., & Dent, A. (2010). Effects of all-day kindergarten on academic achievement and social development. *Review of Educational Research*, 80(1), 34–70. Retrieved from https://www.researchgate.net/publication/249797967_Effects_of_Full-Day_Kindergarten_on_Academic_Achievement_and_Social_Development

² Education Commission of the States. 50-state comparison: State K–3 policies. Retrieved from <https://www.ecs.org/childcare/policies/>

³ Idaho Department of Education, *Idaho reading indicator*. Retrieved from <https://www.sde.idaho.gov/assessment/iri/>

Full-Day Kindergarten Policies Nationwide



Sources: Institute of Education Sciences. (2020). Types of state and district requirements for kindergarten entrance and attendance by state. Retrieved from https://nces.ed.gov/programs/statereform/tab1_3-2020.asp; school mailing addresses from the 2020–21 school year are from the National Center for Education Statistics. Retrieved from https://nces.ed.gov/ipeds/data/ipedsdatacenter/ipeds_datacenter_files.asp#Fiscal:2,LevelId:7,SchoolYearId:35,Page:1

The State of Kindergarten in Idaho



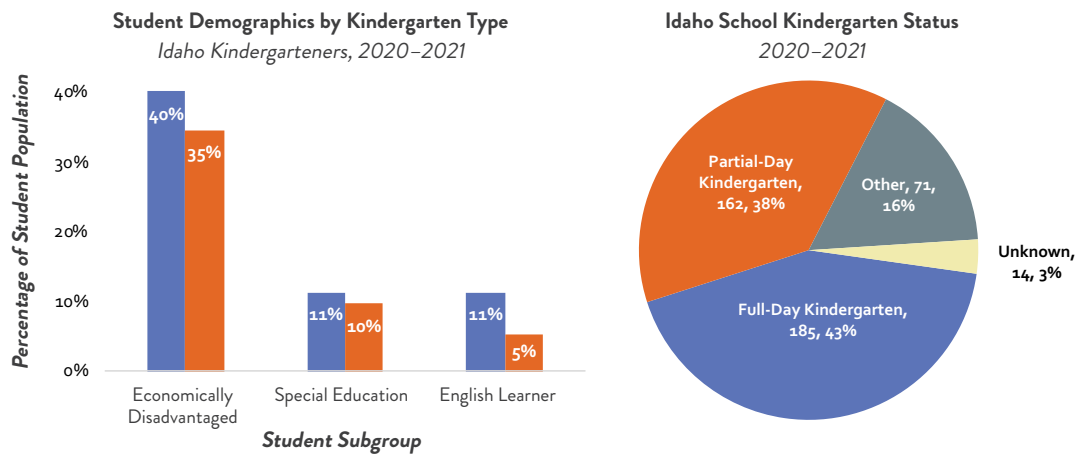
21,000

Kindergarten Students Annually



432

Schools Serving Kindergarteners

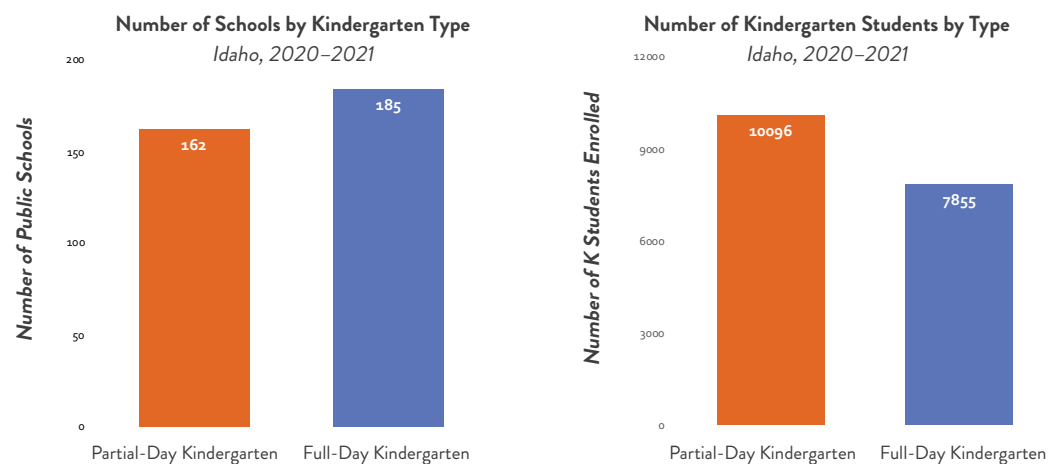


Note: Kindergarten status of “Other” indicates a hybrid between full-day and partial-day kindergarten.

Source: Idaho State Board of Education, 2018–19 to 2020–21 results, *Idaho Reading Indicator Assessment* [provided through data-sharing agreement]. An explanation of the assessment can be found at <https://www.sde.idaho.gov/assessment/iri/>.

Full-Day Kindergarten Schools and Students

While there are **more schools** offering full-day kindergarten, these schools have **fewer students** on average.



Note: there are 85 schools where the type of kindergarten is either a hybrid between full-day and partial-day or unknown.

Source: Idaho State Board of Education, 2018–19 to 2020–21 results, *Idaho Reading Indicator Assessment* [provided through data-sharing agreement]. An explanation of the assessment can be found at <https://www.sde.idaho.gov/assessment/iri/>.



Forge International School, Middleton

Full-Day Kindergarten Analysis Key Findings

1. **KINDERGARTEN OUTCOMES.** Did students participating in full-day kindergarten show more progress from fall 2020 to spring 2021 than students participating in partial-day kindergarten programs? How does this compare for economically disadvantaged (ED) students?
 - **Full-day kindergartners made more progress than partial-day, including economically disadvantaged (ED) students, though ED students remain far behind.**
2. **PREPAREDNESS.** Are students who attended full-day kindergarten better prepared for first and second grade? How does this compare for economically disadvantaged (ED) students?
 - **After closing during the kindergarten year, the gap between full-day and partial-day kindergartners re-widens in first and second grade. For non-ED students, the gap only partially rewidens, but for ED students the gap becomes larger in second grade than it was the beginning of kindergarten.**

The following pages provide details on these key findings.



Future Public School, Garden City

Full-Day Kindergarten Analysis

Questions

- 1. KINDERGARTEN OUTCOMES.** Did students participating in full-day kindergarten show more progress from fall 2020 to spring 2021 than students participating in partial-day kindergarten programs? How does this compare for economically disadvantaged students?
- 2. PREPAREDNESS.** Are students who attended full-day kindergarten better prepared for first and second grade? How does this compare for economically disadvantaged students?

Source: Idaho Reading Inventory Assessment

Idaho's Reading Indicator (IRI)¹ is administered to all K–3 public school students. IRI is an early reading screener and diagnostic assessment. The screener is mandatory for Idaho public school students in the fall and spring, with optional winter administration.

This study uses IRI data provided through a data request approved by the Idaho State Board of Education.

- Dataset contains test results for over 145,000 Idaho students in grades K–3² and includes assessment results from the fall and spring semesters for the 2018–19, 2019–20, and 2020–21 school years. There are approximately 21,000 students in each kindergarten cohort annually.
- Indicators are included for economic status, race/ethnicity, special education, and English language learners.
- The analysis focuses primarily on the economic status subgroup, but details on results for other groups can be found in the appendix.

¹ Idaho Department of Education, *Idaho reading indicator*. Retrieved from <https://www.sde.idaho.gov/assessment/iri/>

² Note: While the dataset contains third-grade results, they were not used in the analysis because no third-graders in our analysis have corresponding kindergarten results as a result of the school years being limited to three years.



Idaho Arts Charter School, Nampa

ANALYSIS 1

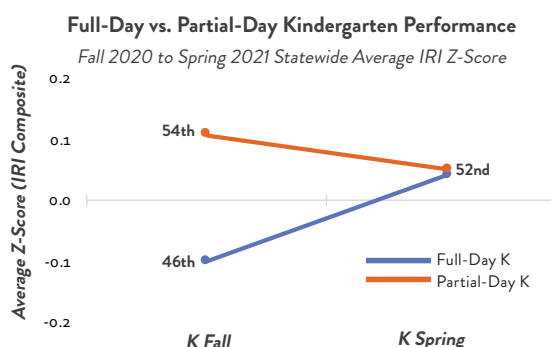
Kindergarten Outcomes

- Did students participating in full-day kindergarten show more progress from fall 2020 to spring 2021 than students participating in partial-day kindergarten programs?
- How does this compare for economically disadvantaged students?

Kindergarten Outcomes—Fall 2020 to Spring 2021

Did students participating in full-day kindergarten show more progress from fall to spring than students participating in partial-day kindergarten programs?

- Yes, students participating in full-day kindergarten **improved** their IRI scores and **outpaced** partial-day kindergarten students.
- Scores for full-day kindergarten students made **statistically significant** improvements of 0.199 standard deviation units compared to the scores of partial-day kindergarten students.



Kindergarten Status	Average Statewide IRI Z-Score		
	K Fall, 2020	K Spring, 2021	Difference
Full-Day (n=6,977)	-0.101	0.041	0.141
Partial-Day (n=8,947)	0.106	0.049	-0.057
Difference	-0.207	-0.008	+0.199*

*Statistically significant at $(\alpha) < 0.01$ level

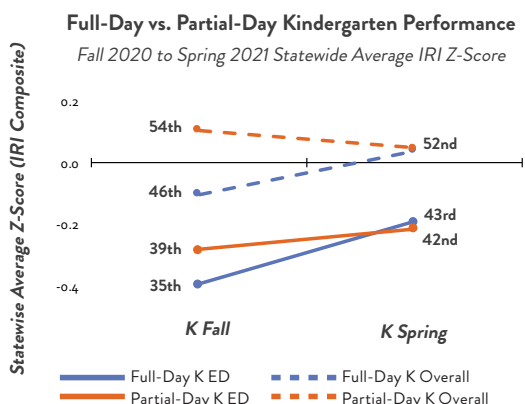
Notes: Labels refer to percentile ranks, see page 17 for details. Cohorts include only students who have results for both assessments.

Source: Idaho State Board of Education, 2018–19 to 2020–21 results, *Idaho Reading Indicator Assessment* [provided through data-sharing agreement]. An explanation of the assessment can be found at <https://www.sde.idaho.gov/assessment/iri/>

Economically Disadvantaged Student Outcomes by Subgroup

How does this compare for economically disadvantaged (ED) students?

- ED students for both full-day and partial-day kindergarten have lower initial scores on the IRI.
- ED students in full-day kindergarten made larger gains than ED students in partial-day kindergarten—surpassing the partial-day ED students by the spring.
- However, ED students in both full-day and partial-day kindergarten remain far below the average for all students.



Subgroup	Kindergarten Status	Average Statewide IRI Z-Score		
		K Fall, 2020	K Spring, 2021	Difference
All Students	Full-Day (n=6,977)	-0.101	0.041	+0.141
	Partial-Day (n=8,947)	0.106	0.049	-0.057
ED Students	Full-Day (n=2,390)	-0.391	-0.188	+0.203
	Partial-Day (n=2,335)	-0.280	-0.211	+0.068

Notes: Labels refer to percentile ranks. See page 17 for details. Cohorts include only students who have results for both assessments.

ED = Economically disadvantaged. For full results on other subgroups, see pages 18–23.

Source: Idaho State Board of Education, 2018–19 to 2020–21 results, *Idaho Reading Indicator Assessment* [provided through data-sharing agreement]. An explanation of the assessment can be found at <https://www.sde.idaho.gov/assessment/iri/>



Future Public School, Garden City

ANALYSIS 2

Preparedness

- Are students who attended full-day kindergarten better prepared for first and second grade?
- How does this compare for economically disadvantaged students?

Data Limitation and Assumption

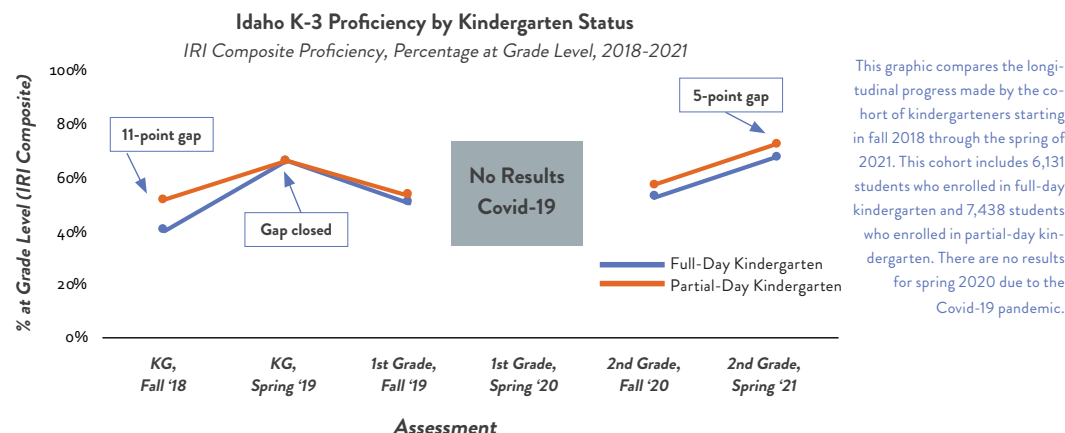
Limitation: One limitation of this analysis on preparedness for first and second grade is that each school's status as full-day, partial-day, or neither is based on enrollment data for the 2020–21 school year only (prior years not available).

Schools that offered full-day kindergarten in 2020–21 may not have offered it in previous years in the data source (2018–19 and 2019–20). However, in the following analyses where outcomes are examined over multiple years, we make the following assumption.

- **Assumption:** Any first or second grade student who was enrolled in kindergarten in 2018–19 or 2019–20 in a school that offers full-day kindergarten as of 2020–21 is classified as having participated in full-day kindergarten.
- **Implications:** Because of this assumption, it is likely that results are less accurate due to over-classification of students participating in full-day kindergarten.

Preparedness for First and Second Grade

Despite nearly closing the gap during kindergarten, the proficiency gap between students who participated in full-day kindergarten vs partial-day kindergarten partially widens back up in first and second grade. For a detailed comparison by category, see page 17.



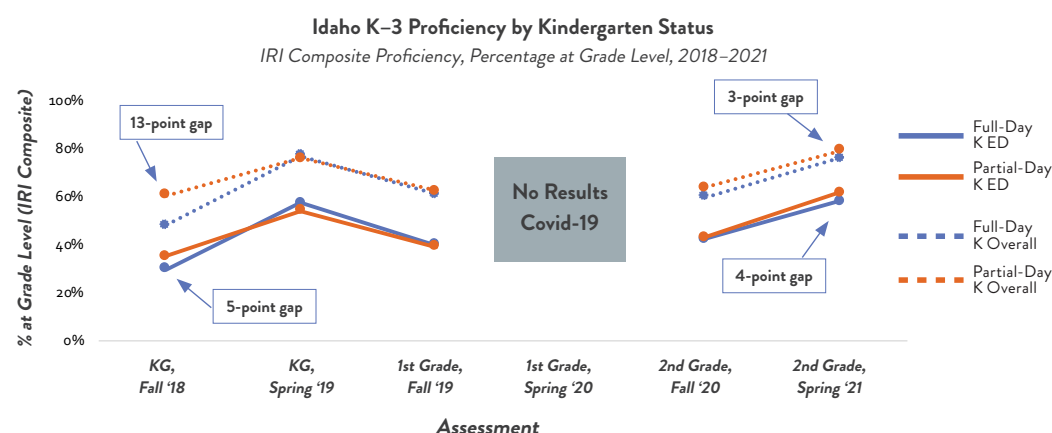
Notes: See page 14 for details on assumption made about categorizing students as full-day or partial-day kindergarten. Cohorts include only students who have results for all five available assessments (excluding first grade spring due to Covid-19). Source: Idaho State Board of Education, 2018-19 to 2020-21 results, *Idaho Reading Indicator Assessment* [provided through data-sharing agreement]. An explanation of the assessment can be found at <https://www.sde.idaho.gov/assessment/iri/>

Subgroup Analysis

Preparedness for First and Second Grade by Subgroup

How does this compare for economically disadvantaged (ED) students?

Both ED and non-ED students initially have a gap between full-day and partial-day kindergarten students in the fall of kindergarten that closes by the end of kindergarten. However, by the spring of second grade, this gap widens again for both ED and non-ED students, though the gap is narrower than it was initially.



Notes: See page 14 for details on assumption made about categorizing students as full-day or partial-day kindergarten. No results for spring 2020 due to Covid-19. Cohorts include only students who have results for all five available assessments (excluding first grade spring due to Covid-19). ED = Economically disadvantaged. For full results on other subgroups, see pages 18-23. Source: Idaho State Board of Education, 2018-19 to 2020-21 results, *Idaho Reading Indicator Assessment* [provided through data-sharing agreement]. An explanation of the assessment can be found at <https://www.sde.idaho.gov/assessment/iri/>



Gem Prep Nampa

Appendix

- Difference-in-Differences Methodology
- Z-scores and Percentile Interpretation
- Detailed Comparison of Proficiency Levels: Fall '18 to Spring '21
- Additional Analyses by Subgroups

Difference-in-Differences Methodology

The study uses a difference-in-differences regression* model. The model compares the average “difference” (change in average scores between fall and spring of the kindergarten year) in schools with full-day vs. those with partial-day kindergarten—the “difference in differences.” The approach is visually summarized on the following page.

Kindergarten Status	Average Statewide IRI Z-Score		
	K Fall, 2020	K Spring, 2021	Difference
Full-Day (n=6,977)	-0.101	0.041	0.141
Partial-Day (n=8,947)	0.106	0.049	-0.057
Difference	-0.207	-0.008	+0.199

Difference 1: Change from fall to spring for full-day and partial-day students, respectively.

$$(0.041) - (-0.101) = 0.141$$

$$(0.049) - (0.106) = -0.057$$

Difference 2: Difference between a) full-day spring to fall difference and b) partial-day spring to fall difference.

$$(0.141) - (-0.057) = 0.199$$

Note: The same result can be reaching by differencing across columns first, then rows, rather than across rows and then columns as above.

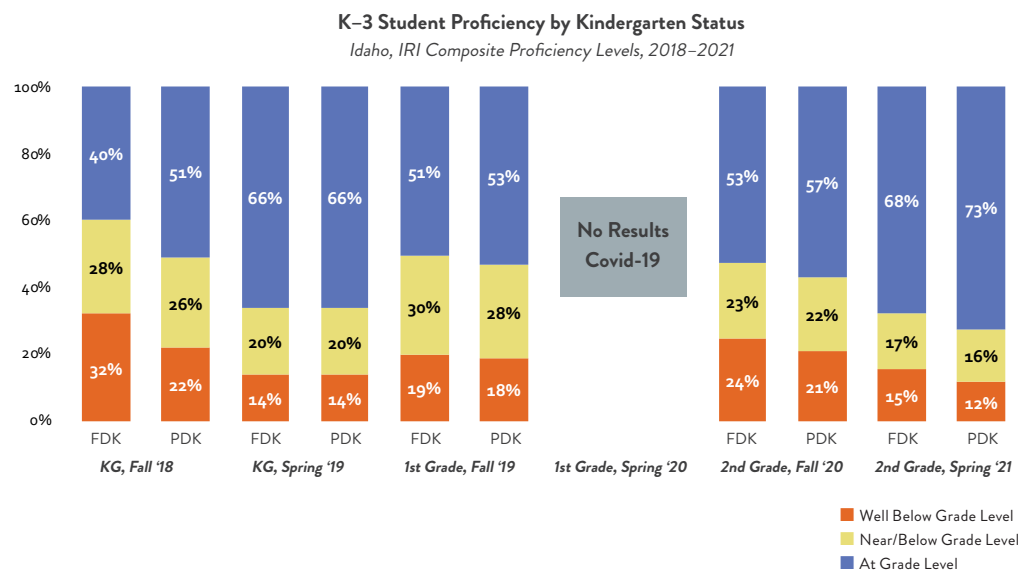
*For details, see Columbia Public Health, *Difference-in-difference estimation*. Retrieved from: <https://www.publichealth.columbia.edu/research/population-health-methods/difference-difference-estimation>

Z-scores and Percentile Interpretation

The measurement used was the standardized Z-score of each student's composite score relative to all students during the testing period (e.g., fall 2020, spring 2021). These Z-score values represent the number of standard deviations that each score is above or below the mean for each test administration and can be interpreted as percentiles by considering the cumulative distribution function of the standard normal distribution with mean 0 and standard deviation 1.

Standardized Z-scores were used instead of the raw composite score to control for the year-to-year differences in score distribution. Specifically, results prior to the onset of the Covid-19 pandemic were distributed differently than results after the pandemic began.

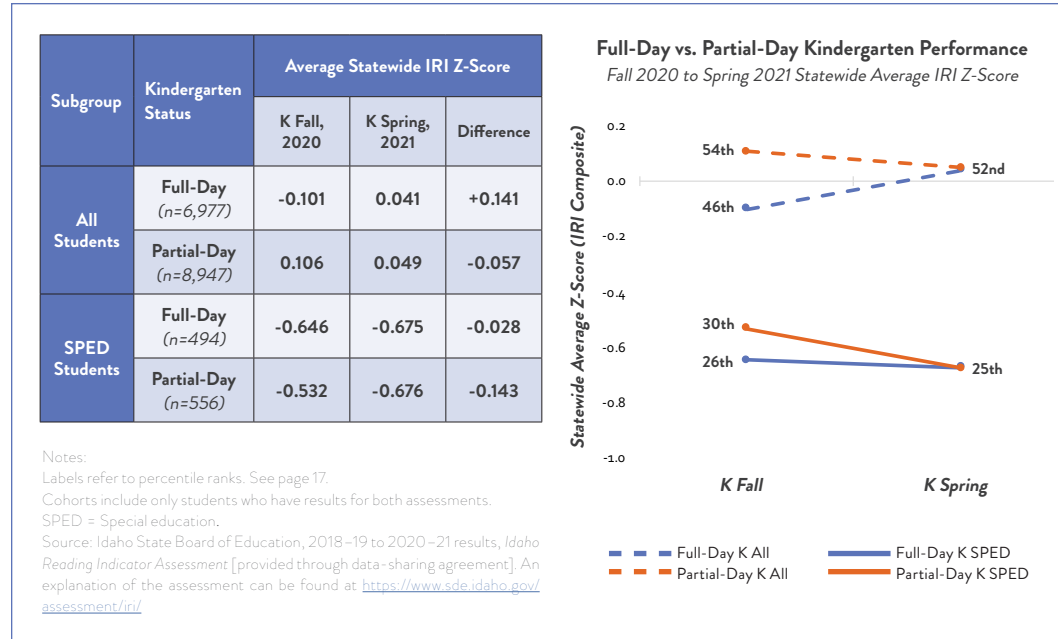
Detailed Comparison of Proficiency Levels: Fall '18 to Spring '21



Notes: FDK = Full-Day Kindergarten, PDK = Partial-Day Kindergarten

Source: Idaho State Board of Education, 2018-19 to 2020-21 results, *Idaho Reading Indicator Assessment* [provided through data-sharing agreement]. An explanation of the assessment can be found at <https://www.sde.idaho.gov/assessment/iri/>

Additional Analysis By Subgroup: Special Education

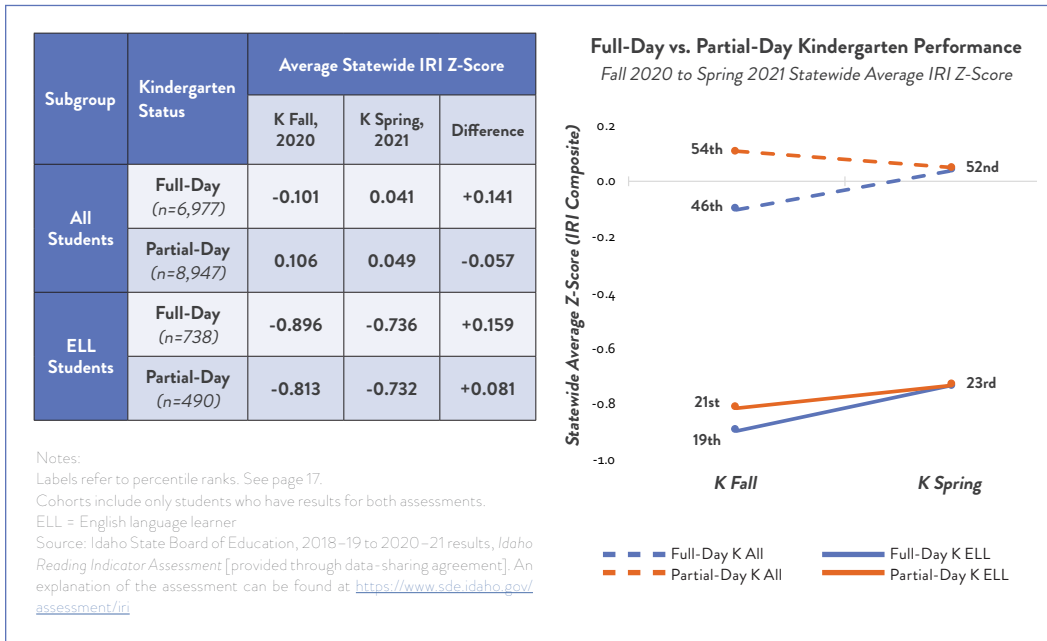


Additional Analysis By Subgroup and Grade: Special Education

Subgroup	Kindergarten Status	Percentage at Grade Level (IRI Composite)					
		KG, Fall '18	KG, Spring '19	1st Grade, Fall '19	1st Grade, Spring '20	2nd Grade, Fall '20	2nd Grade, Spring '21
SPED	Full-Day (n=2,837)	20%	37%	21%	N/A	23%	30%
	Partial-Day (n=3,354)	26%	37%	24%	N/A	27%	36%
Non-SPED	Full-Day (n=27,818)	41%	69%	54%	N/A	56%	73%
	Partial-Day (n=33,836)	53%	69%	56%	N/A	60%	77%

Notes:
See page 14 for details on assumption made about categorizing students as full-day or partial-day kindergarten.
No results for spring 2020 due to Covid-19.
Cohorts include only students who have results for all five available assessments (excluding first grade spring due to Covid-19).
SPED = Special education
Source: Idaho State Board of Education, 2018–19 to 2020–21 results, *Idaho Reading Indicator Assessment* [provided through data-sharing agreement].
An explanation of the assessment can be found at <https://www.sde.idaho.gov/assessment/iri/>.

Additional Analysis By Subgroup: English Language Learners



Additional Analysis By Subgroup and Grade: English Language Learners

Subgroup	Kindergarten Status	Percentage at Grade Level (IRI Composite)					
		KG, Fall '18	KG, Spring '19	1st Grade, Fall '19	1st Grade, Spring '20	2nd Grade, Fall '20	2nd Grade, Spring '21
ELL	Full-Day (n=4,116)	7%	32%	20%	N/A	29%	45%
	Partial-Day (n=2,576)	10%	31%	20%	N/A	33%	49%
Non-ELL	Full-Day (n=26,539)	45%	72%	55%	N/A	56%	71%
	Partial-Day (n=34,614)	54%	69%	56%	N/A	59%	74%

Notes:
See page 14 for details on assumption made about categorizing students as full-day or partial-day kindergarten.
No results for spring 2020 due to Covid-19.
Cohorts include only students who have results for all five available assessments (excluding first grade spring due to Covid-19).
ELL = English language learner
Source: Idaho State Board of Education, 2018–19 to 2020–21 results, *Idaho Reading Indicator Assessment* [provided through data-sharing agreement].
An explanation of the assessment can be found at <https://www.sde.idaho.gov/assessment/iri/>

Additional Analysis By Subgroup: White Students

Subgroup	Kindergarten Status	Average Statewide IRI Z-Score		
		K Fall, 2020	K Spring, 2021	Difference
All Students	Full-Day (n=6,977)	-0.101	0.041	+0.141
	Partial-Day (n=8,947)	0.106	0.049	-0.057
White Students	Full-Day (n=4,744)	0.059	0.191	+0.133
	Partial-Day (n=6,991)	0.189	0.125	-0.064

Notes:

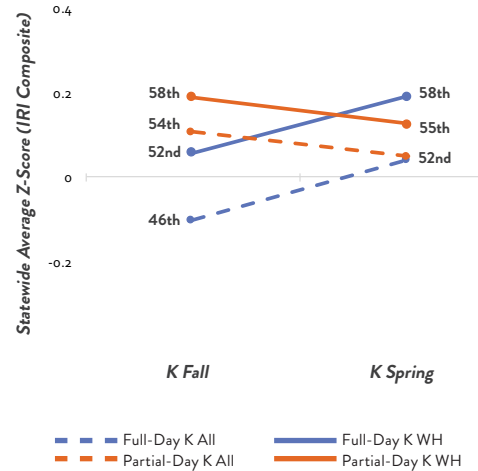
Labels refer to percentile ranks. See page 17.

Cohorts include only students who have results for both assessments.

WH=White.

Source: Idaho State Board of Education, 2018–19 to 2020–21 results, *Idaho Reading Indicator Assessment* [provided through data-sharing agreement]. An explanation of the assessment can be found at <https://www.sde.idaho.gov/assessment/iri/>

Full-Day vs. Partial-Day Kindergarten Performance
Fall 2020 to Spring 2021 Statewide Average IRI Z-Score



Additional Analysis By Subgroup: Hispanic Students

Subgroup	Kindergarten Status	Average Statewide IRI Z-Score		
		K Fall, 2020	K Spring, 2021	Difference
All Students	Full-Day (n=6,977)	-0.101	0.041	+0.141
	Partial-Day (n=8,947)	0.106	0.049	-0.057
Hispanic Students	Full-Day (n=1,758)	-0.530	-0.346	+0.184
	Partial-Day (n=1,359)	-0.274	-0.295	-0.021

Notes:

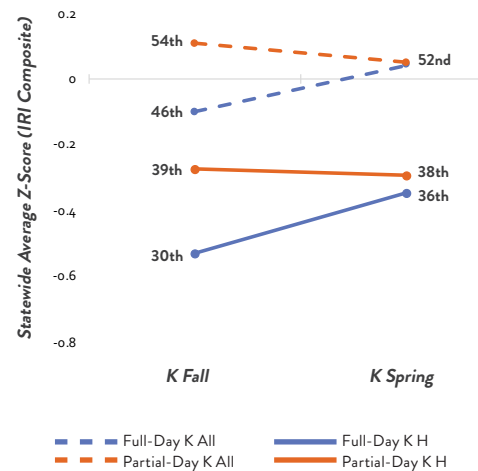
Labels refer to percentile ranks. See page 17.

Cohorts include only students who have results for both assessments.

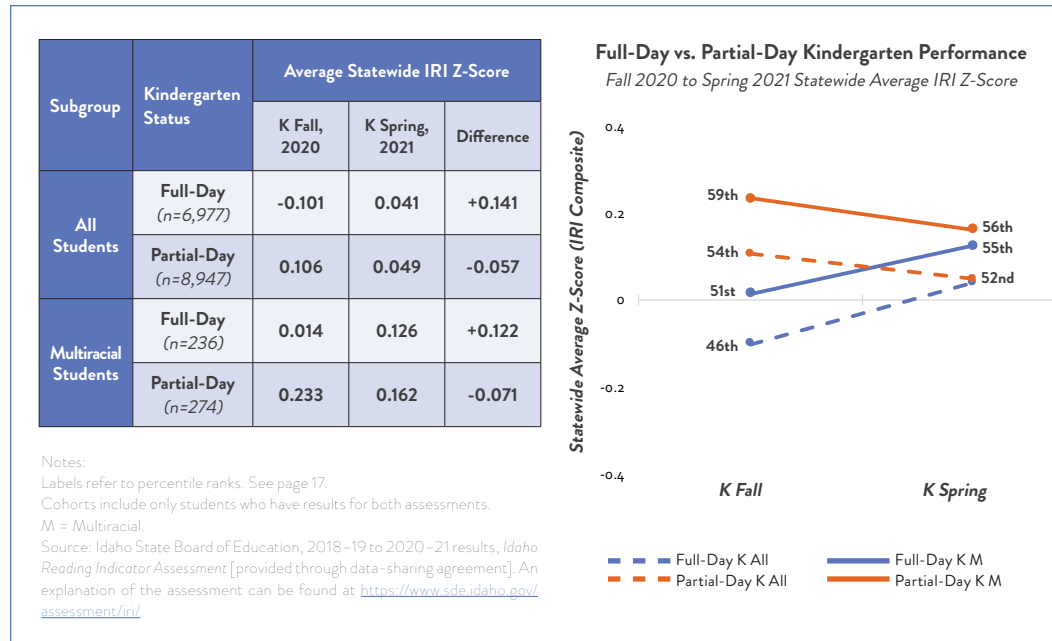
H = Hispanic

Source: Idaho State Board of Education, 2018–19 to 2020–21 results, *Idaho Reading Indicator Assessment* [provided through data-sharing agreement]. An explanation of the assessment can be found at <https://www.sde.idaho.gov/assessment/iri/>

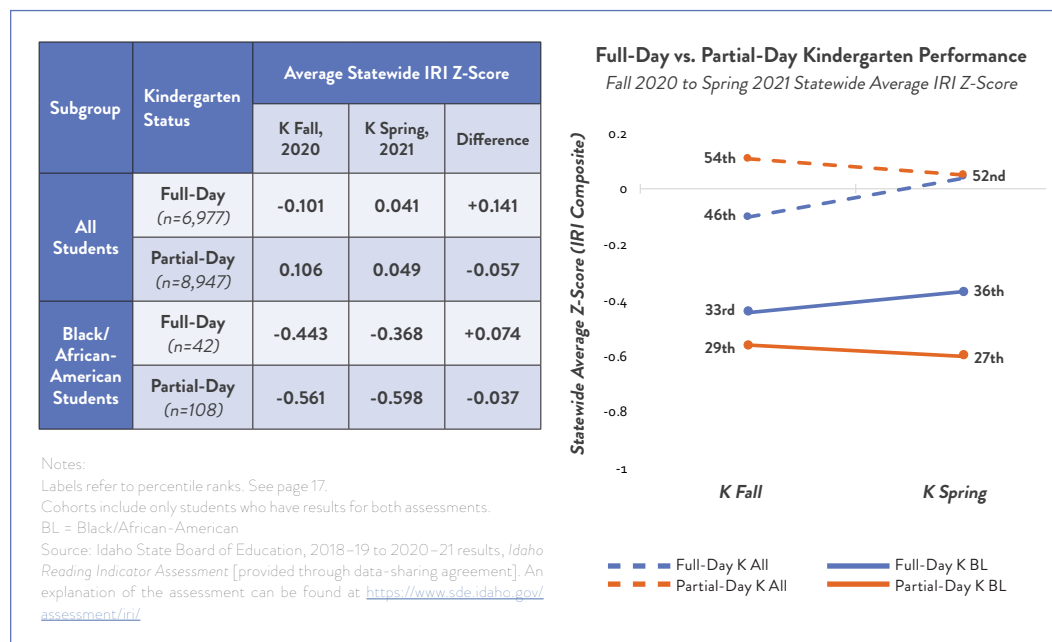
Full-Day vs. Partial-Day Kindergarten Performance
Fall 2020 to Spring 2021 Statewide Average IRI Z-Score



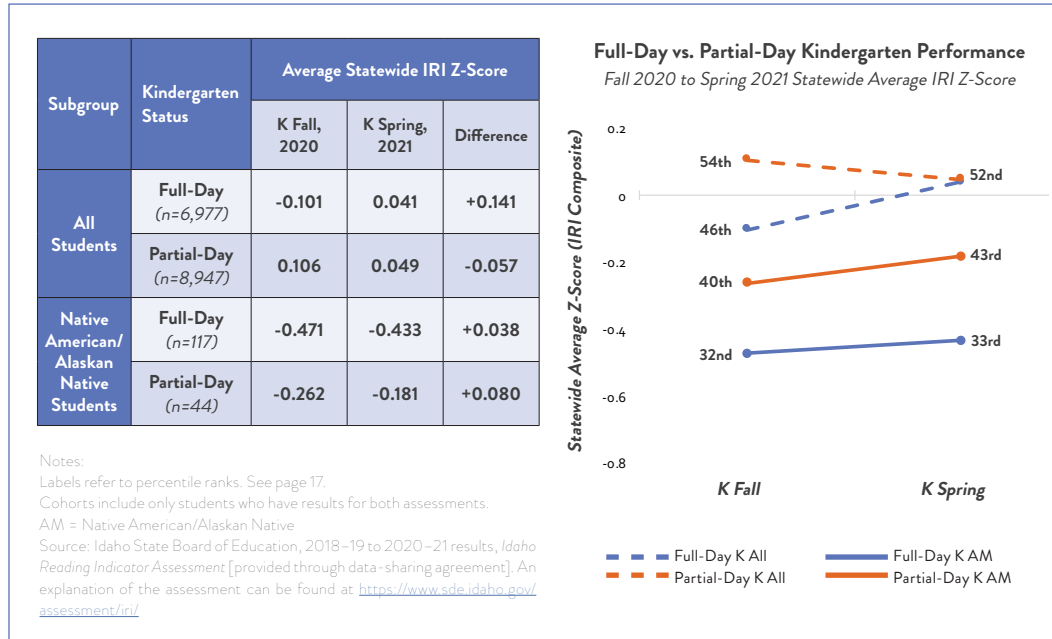
Additional Analysis By Subgroup: Multiracial Students



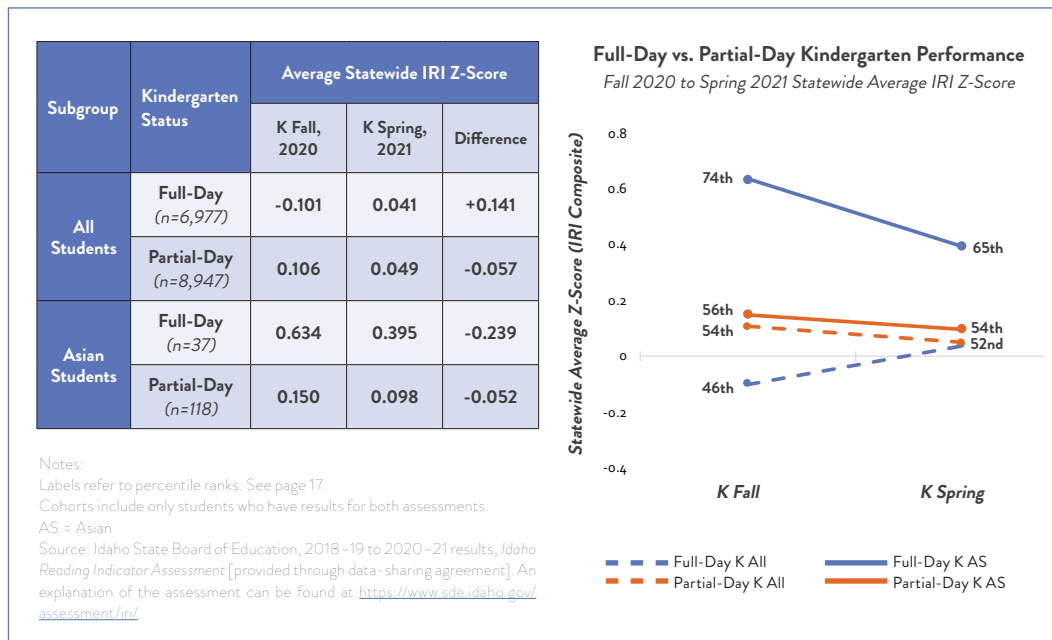
Additional Analysis By Subgroup: Black/African-American Students



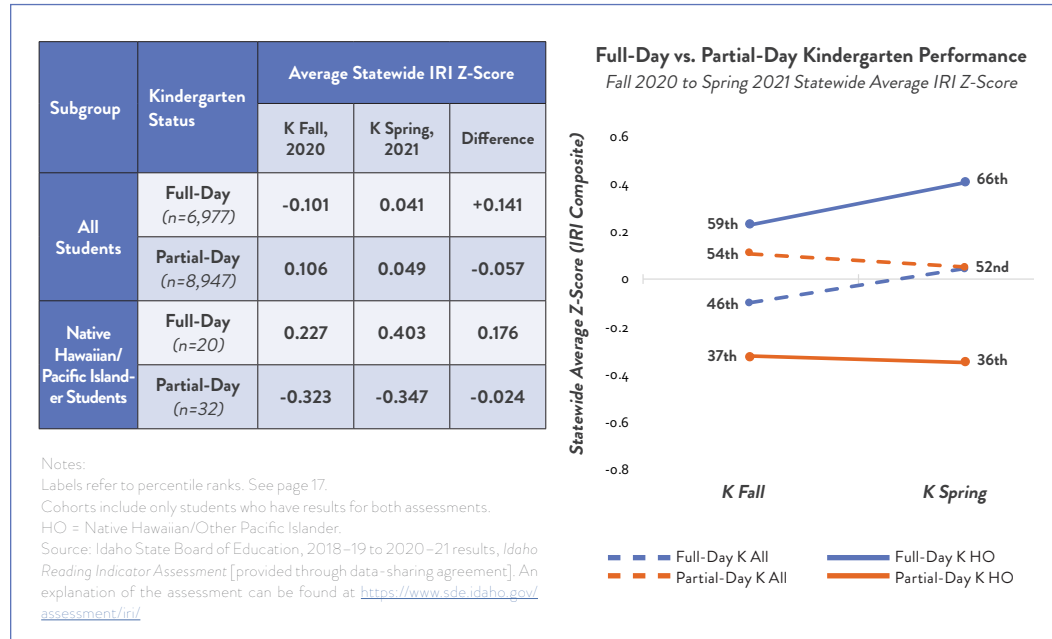
Additional Analysis By Subgroup: Native American/Alaskan Native Students



Additional Analysis By Subgroup: Asian Students



Additional Analysis By Subgroup: Native Hawaiian/Pacific Islander Students



Additional Analysis By Subgroup: Race/Ethnicity

Subgroup	Kindergarten Status	Percentage at Grade Level (IRI Composite)					
		KG, Fall '18	KG, Spring '19	1st Grade, Fall '19	1st Grade, Spring '20	2nd Grade, Fall '20	2nd Grade, Spring '21
White	Full-Day (n=21,241)	49%	74%	57%	N/A	58%	73%
	Partial-Day (n=29,671)	56%	70%	57%	N/A	60%	75%
Hispanic or Latino	Full-Day (n=7,607)	17%	44%	32%	N/A	39%	54%
	Partial-Day (n=5,224)	26%	47%	33%	N/A	43%	59%
Multiracial	Full-Day (n=939)	46%	67%	57%	N/A	60%	71%
	Partial-Day (n=1,041)	52%	67%	61%	N/A	65%	73%
Black/African-American	Full-Day (n=185)	30%	57%	43%	N/A	46%	59%
	Partial-Day (n=541)	32%	44%	35%	N/A	40%	59%
Native American or Alaska Native	Full-Day (n=452)	15%	45%	32%	N/A	34%	46%
	Partial-Day (n=181)	36%	59%	51%	N/A	55%	73%
Asian	Full-Day (n=181)	42%	68%	60%	N/A	71%	86%
	Partial-Day (n=410)	33%	50%	45%	N/A	55%	74%
Native Hawaiian or Other Pacific Islander	Full-Day (n=50)	10%	40%	40%	N/A	50%	80%
	Partial-Day (n=122)	36%	48%	33%	N/A	50%	79%

Note: Cohorts include only students who have results for all five available assessments (excluding first grade spring due to Covid-19)
 Source: Idaho State Board of Education, 2018–19 to 2020–21 results, *Idaho Reading Indicator Assessment* [provided through data-sharing agreement].
 An explanation of the assessment can be found at <https://www.sde.idaho.gov/assessment/iri/>