



# COMMONWEALTH of VIRGINIA

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October 1, 2024

The Honorable L. Louise Lucas  
Chair, Senate Finance and Appropriations Committee  
General Assembly Building, Room 1404  
P. O. Box 396  
Richmond, VA 23218

The Honorable Luke E. Torian  
Chair, House Appropriations Committee  
General Assembly Building, Room 1223  
201 North 9th Street  
Richmond, VA 23219

The Honorable Ghazala F. Hashmi  
Chair, Senate Education and Health  
Room 616  
PO Box 396  
Richmond, VA 23218

The Honorable Sam Rasoul  
Chair, House Education  
General Assembly Building, Room 910  
Richmond, VA 23219

Dear Delegates Torian and Rasoul, Senators Lucas and Hashmi:

We are pleased to submit the enclosed Annual Update on the Virginia Kindergarten Readiness Program (VKRP). The report summarizes VKRP data collected in the fall and spring during the 2023-2024 academic year on both statewide kindergarten and publicly funded three and four-year-old pre-kindergarten students.

[Appropriation Act - Item 117 H.e. \(Special Session I, 2024\)](#) directs the Department of Education and the University of Virginia's Center for Advanced Study of Teaching and Learning to use the results of the multi-dimensional Virginia Kindergarten Readiness Program assessments to determine how well the Virginia Preschool Initiative promotes readiness in all key developmental domains assessed and submit such findings to the Chairmen of House Appropriations and Senate Finance Committees:

*e. The Department and the University of Virginia's Center for Advanced Study of Teaching and Learning shall use the results of the multi-dimensional Virginia Kindergarten Readiness Program assessments to determine how well the Virginia Preschool Initiative promotes readiness in all key developmental domains assessed. The Department shall submit such findings using data from the prior year's fall assessment to the Chairs of House Appropriations and Senate Finance and Appropriations Committees no later than October 1 each year.*

An update on the current progress of the development and piloting of the VKRP Mid-Year Pilot, VKRP 1-3 Pilot, and enhancements to the VKRP system for the 2024-2025 school year are also detailed in this report.

Please direct questions to Jenna Conway, Deputy Superintendent of Early Childhood at [Jenna.Conway@doe.virginia.gov](mailto:Jenna.Conway@doe.virginia.gov).

Sincerely,

Lisa Coons  
Superintendent of Public Instruction  
Virginia Department of Education

LC/



## **VKRP Annual Report for the Chairmen of House Appropriations and Senate Finance Committees**

### **October 2024 Report for the 2023–2024 School Year**

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#### **Acknowledgments:**

This report was prepared by the University of Virginia's Center for Advanced Study of Teaching and Learning (CASTL) and the Virginia Department of Education supported through an appropriation from the Virginia General Assembly to the Virginia Department of Education subcontracted to CASTL. The Virginia Kindergarten Readiness Program (VKRP) is implemented by CASTL under the direction of Amanda Williford ([williford@virginia.edu](mailto:williford@virginia.edu)).

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## Table of Contents

Executive Summary	1
Summary of Appropriations Language	18
Introduction	19
2023–2024 VKRP Kindergarten Data	29
2019–2024 VKRP Kindergarten Trends Across Time	54
2023–2024 VKRP in Pre-kindergarten	63
Mid-Year Assessment Pilot: Pre-kindergarten and Kindergarten	92
Mathematics, Self-Regulation, Social Skills, and Mental Health Well-being Assessment Pilot: Grades 1-3	95
2024–2025 Next Steps	101
Appendices	104

## Executive Summary

In this October 2024 data report<sup>1</sup> of the [Virginia Kindergarten Readiness Program \(VKRP\)](#) to the General Assembly, we report on the fall and spring kindergarten data collected during the 2023–2024 academic year, kindergarten data trends from fall 2019 through spring 2024, and 2023–2024 pre-kindergarten data for three- and four-year-old publicly-funded pre-kindergarten students. The report also provides an update on the progress of the VKRP Mid-year Assessment Pilot, an update on the mathematics, self-regulation, social skills, and mental health well-being assessment pilot in first through third Grades (1-3 Assessment Pilot) and shares future goals of the VKRP system for the 2024–2025 year and beyond.

VKRP empowers Virginia’s teachers and education leaders by providing a more comprehensive assessment system that shines a spotlight on pre-kindergarten and kindergarten students’ learning and growth. VKRP is a Virginia standards-aligned, multi-year early learning assessment system that produces actionable information to guide decisions at the student, classroom, school/program, and division levels from the beginning of pre-kindergarten through the end of kindergarten to support student learning. VKRP provides assessments of mathematics, self-regulation, and social skills to complement Virginia’s longstanding literacy screeners. In 2020–2021, during the pandemic, VKRP also added items for teachers to indicate their perceptions of students’ mental health well-being. The 2023–2024 literacy data gathered from the Phonological Awareness Literacy Screener (PALS-K) measure and the Virginia Language & Literacy Screener: Pre-K (VALLS: Pre-K) come directly from Virginia Literacy Partnerships (VLP). Literacy data in this 2023–2024 report includes the PALS-K which was used in 114 divisions. Literacy data from the 17 divisions that piloted the Virginia Language & Literacy Screener: K (VALLS: K) are not included in this report. Additional information on the literacy screeners can be found on the [VLP website](#).

From 2014 through 2018, the [Center for Advanced Study of Teaching and Learning \(CASTL\) at the University of Virginia](#) implemented VKRP in kindergarten through a voluntary rollout where, each year, an increasing number of school divisions elected to administer VKRP. Virginia began statewide, mandatory kindergarten administration of VKRP in the 2019–2020 school year.

The VKRP team developed a 4-year-old pre-kindergarten extension of VKRP between 2018–2021. In the 2021–2022 school year, VKRP became available to all publicly-funded pre-kindergarten programs to assess 4-year-old children’s skills in fall of 2021 and spring of 2022. Additionally, the VKRP team developed a 3-year-old extension of VKRP, which became available to all publicly-funded pre-kindergarten programs to assess 3-year-old children’s skills in the 2022–2023 school year.

## Defining Readiness for Summative Data Purposes

Virginia defines school readiness as, “the capabilities of children, their families, schools, and communities that best promote student success in kindergarten and beyond.” For summative purposes, kindergarten students are categorized as *ready* or *meeting the overall benchmark* (fall) or *meeting the overall benchmark* (spring) if their assessment scores indicate that they demonstrate the minimally expected skills for the fall or the spring (depending upon the data timepoint) of kindergarten for literacy, mathematics, self-regulation, **and** social skills. If a kindergarten student’s assessment scores do **not** indicate they are demonstrating the minimally expected skill **in one or more** areas at the respective timepoint (fall or spring), they are categorized as *not ready* or *below the overall benchmark* (fall) or *below the overall benchmark* (spring).

VKRP does not publish benchmarks for pre-kindergarten children’s skills. Instead, starting in the 2022–2023 school year, in pre-kindergarten, VKRP piloted Skill Development Bands (Beginning, Growing, and Strong) to help

<sup>1</sup> This report is submitted to satisfy the requirement that "the Department shall submit such findings using data from the prior year's fall assessment to the Chairmen of House Appropriations and Senate Finance Committees no later than October 1 each year."

programs, educators, and families interpret and use VKRP pre-kindergarten data. Separate bands were established for the fall and spring to represent children's skill development as compared to expectations at that particular point in time. VLP has created separate skill development bands for the VALLS: Pre-K, and the VLP team can provide more information about the VALLS: Pre-K bands. These bands are included to give guidance on where children are in their development of early learning skills so that teachers can provide appropriate support and instruction. They are not intended to serve as benchmarks.

The mental health well-being items are not part of the overall benchmark in kindergarten or skill development bands in pre-kindergarten. Information from these items is shared with teachers to help facilitate conversations between teachers, instructional leaders, school counselors, other school personnel, and families on how best to support students.

## **VKRP and the COVID-19 Pandemic**

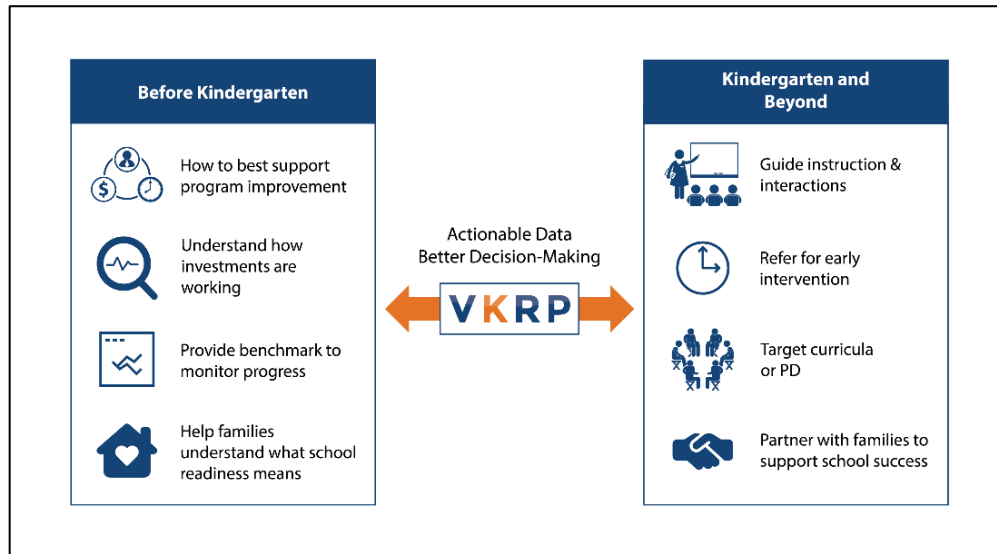
During the worldwide COVID-19 pandemic, young students experienced sudden and long-lasting negative stresses to their care and early learning environments, negatively impacting their academic and social-emotional school readiness. Nationally and within the Commonwealth, there were missed opportunities to learn foundational early mathematics and literacy skills, pandemic-related learning losses, and adverse impacts on young students' mental health well-being. The pandemic had disproportionate impacts on students from families with low-income backgrounds and students who resided in neighborhoods with decreased access to early learning opportunities (World Bank, 2023<sup>2</sup>). Importantly, if students are not provided with opportunities to catch up and these losses are not addressed, gaps in students' early learning skills will continue to widen over time (World Bank, 2023<sup>2</sup>). VKRP collects data on students' early learning, social-emotional skills, and mental health well-being that can be used to understand early learning trends across time and inform investments.

## **How Statewide VKRP Data Can Be Used in Virginia**

VKRP highlights the strengths of Virginia's pre-kindergarten and kindergarten children, bringing attention to areas where students need support to maximize their learning. For teachers and school personnel, VKRP data can help drive day-to-day instruction, guide conversations with families, and inform decisions about educators' professional development needs. At the state level, VKRP data informs policy decisions and helps identify schools, programs, divisions, and regions that may need more support or can serve as exemplars.

VKRP can be used by various stakeholders to better understand and support students' academic and social-emotional learning and development, as well as their mental health well-being.

<sup>2</sup> Schady, N.; Holla, A.; Sabarwal, S.; Silva, J.; & Yi Chang, A. (2023.) Collapse and recovery: How the COVID-19 pandemic eroded human capital and what to do about it. © Washington, DC: World Bank. <http://hdl.handle.net/10986/39403>  
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**Figure 1***How Statewide Data Can Be Used in Virginia*

## An Integrated Approach to VDOE’s Early Childhood Data Systems: Virginia Connects for Kids

The existing early childhood data collection initiatives in Virginia include the Virginia Language & Literacy Screening System (VALLSS), VKRP, and LinkB5. LinkB5 is a uniform data system used to collect and analyze measurement and improvement data across early childhood programs participating in Virginia's unified measurement and improvement system, Virginia Quality Birth to Five (VQB5). The use of LinkB5 is a requirement for all publicly-funded sites as part of VQB5.

In 2022, VDOE provided funding through the federal Preschool Development Grant Funds and American Rescue Plan Act to a team of researchers within UVA’s School of Education and Human Development (EHD) to develop and implement a coordinated and integrated technology strategy and shared infrastructure between the growing state data collection initiatives (VALLSS, VKRP, and LinkB5) to maximize the impact and potential of these data systems. The integrated data system, Virginia Connects for Kids (VAConnects), ensures that each project can not only sustain individual growth and expansion but also work together to prioritize the integrity and continuity of data needed to inform and strengthen Virginia’s sizeable investment in young learners—birth through third Grade.

The goals of the integrated data system are to build a robust, coordinated system with enhanced hosting infrastructure and security features; shared data warehousing reflecting effective data governance; consistent, aligned, and integrated reporting; and a more streamlined user interface. In 2023–2024, the VAConnects team worked in partnership with VDOE to establish security infrastructure, develop a Data Governance Framework, improve the user interface and reporting services, and was used to complete a pilot of VALLSS in 17 school divisions across Virginia within the VAConnects system.

## 2023–2024 Kindergarten Students Assessed With VKRP

In the fall of 2023, kindergarten teachers assessed approximately 97% of eligible<sup>3</sup> kindergarten children on the Phonological Awareness Literacy Screener (PALS-K) literacy screener and the Early Mathematics Assessment System (EMAS) mathematics assessment. Similarly, approximately 97% of eligible kindergarten children were rated by teachers on self-regulation and social skills on the Child Behavior Rating Scale (CBRS) and Mental Health Well-being items. Statewide, 76% of assessed kindergarten students had complete VKRP data on all four measures – literacy (PALS-K), mathematics (EMAS), and self-regulation and social skills assessments (CBRS) in the fall of 2023.

In the spring of 2024, approximately 97% of eligible kindergarten children were assessed on the PALS-K literacy screener and the EMAS mathematics assessment and were rated by teachers on self-regulation and social skills using the CBRS and Mental Health Well-being items. Statewide, 76% of assessed kindergarten students enrolled in the spring of 2024 had complete VKRP data on the four assessments – literacy (PALS-K), mathematics (EMAS), self-regulation and social skills (CBRS) assessments.

Over 60,000 kindergarten students were assessed in both the fall of 2023 and the spring of 2024 in all four domains of literacy, mathematics, self-regulation, and social skills.

## **2023–2024 VKRP Kindergarten Key Findings**

### **Fall 2023 and Spring 2024 VKRP Kindergarten Data**

In fall of 2023, approximately 60% of kindergarten students met the overall benchmark or minimum competency level in literacy, mathematics, self-regulation, and social skills. This means that 40% of Virginia’s kindergarten students began the school year still needing to build skills in literacy, mathematics, self-regulation, and/or social skills (Figure 2).

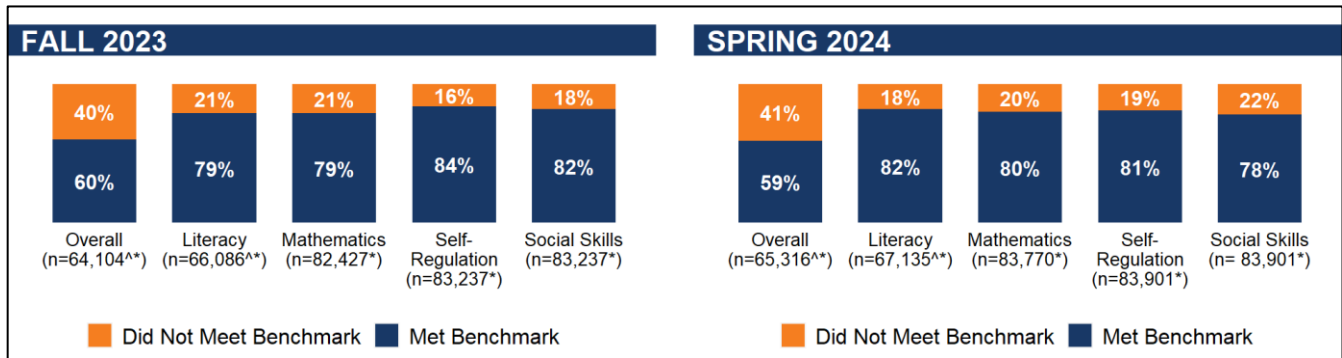
In the spring of 2024, approximately 59% of kindergarten students met the overall benchmark or minimum competency level in literacy, mathematics, self-regulation, and social skills. This means that 41% of Virginia’s kindergarten students ended the school year below expected levels in literacy, mathematics, self-regulation, and/or social skills. These results indicate a very small, 1% increase in kindergarten students not meeting the overall VKRP benchmark from fall 2023 to spring 2024.

### **Figure 2**

*Fall 2023 and Spring 2024 Kindergarten Overall and Domain Benchmark Estimates*

<sup>3</sup> Kindergarten students were eligible if they were in a public kindergarten classroom not participating in the VALLS: Kindergarten pilot and were not otherwise exempt from testing.





Note. If a kindergarten student does not demonstrate the minimally expected skill in one or more areas at the respective timepoint (fall or spring), they are categorized as not ready or below the benchmark (fall) or below the benchmark (spring).

^ These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

\* Students with complete data on each individual measure were included to obtain these estimates.

## 2023–2024 VKRP Kindergarten Benchmark Estimates Across Demographics

Students falling below the overall VKRP benchmark at the beginning and/or end of kindergarten were disproportionately more likely to be students from low-income backgrounds, students with a disability, students who are English language/multilingual learners (EL), and students from historically marginalized racial/ethnic groups (Table 1). These differential patterns in skill development illustrate the stark disparities in opportunities and access to high-quality educational experiences available to students and their families. These results elevate concerns that disparities in opportunity and access were likely exacerbated following the onset of the COVID-19 pandemic and mandated school closures in Virginia during the spring of 2020 and beyond.

**Table 1**

*2023–2024 Kindergarten Demographics and Below Benchmark Percentages*

Kindergarten Student Demographic Characteristics	Percent Below the Overall Benchmark	
	Fall 2023	Spring 2024
From low-income background <sup>a</sup>	51%	52%
Has a disability <sup>b</sup>	62%	66%
Is an English language/multilingual learner (EL) <sup>c</sup>	66%	57%
Student race		
American Indian or Alaska Native	53%	48%
Asian	31%	29%
Black or African American	47%	53%
Hispanic/Latino of any race	55%	51%
White, not of Hispanic origin	31%	32%
Native Hawaiian or other Pacific Islander	40%	36%
Non-Hispanic/Latino of any race, two or more races	35%	38%

*Note.* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

<sup>a</sup> Source: SRC Disadvantaged Status Flag. The Disadvantaged Status Flag identifies the student as economically disadvantaged if the student: 1) is eligible for Free/Reduced Meals to include Foster, Head Start, Migrant, and Homeless students; or 2) receives TANF; or 3) is eligible for Medicaid.

<sup>b</sup> Source: SRC Primary Disability Code. Students are identified as having a disability if any code is present *except*, “*Qualified Individual under Section 504.*”

<sup>c</sup> Source: Student Record Collection (SRC) EL Services Code. Students are identified as English language/multilingual learners (EL) if code is, “*Identified as EL and receives EL services,*” “*Identified as EL but has refused EL services,*” or “*Identified as formerly EL for each of the 4 years after exiting EL services.*”

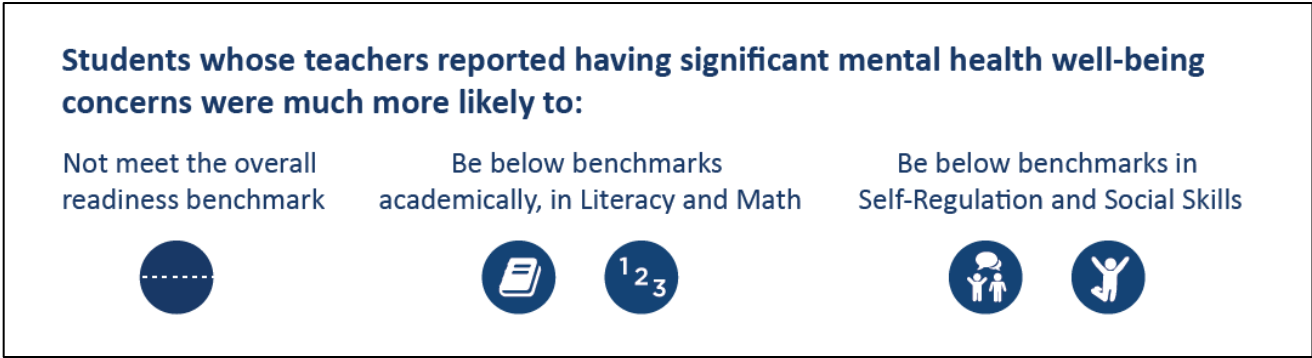
### 2023–2024 VKRP Kindergarten Mental Health Well-being Data

Teachers continued to report concern for student well-being in the 2023–2024 school year. Teachers reported being moderately, very, or extremely concerned about well-being for about 13% of kindergarten students in fall 2023 and 15% in spring 2024.

Additionally, in both fall of 2023 and spring of 2024, students whose teachers were concerned for their well-being were much more likely to *not* meet the overall benchmark, and to be below the benchmark academically and social-emotionally when compared to students whose teachers did not report well-being concern (Figure 3). These results indicate teacher concern is an important indicator of which students likely need comprehensive and intensive supports to be successful in school.

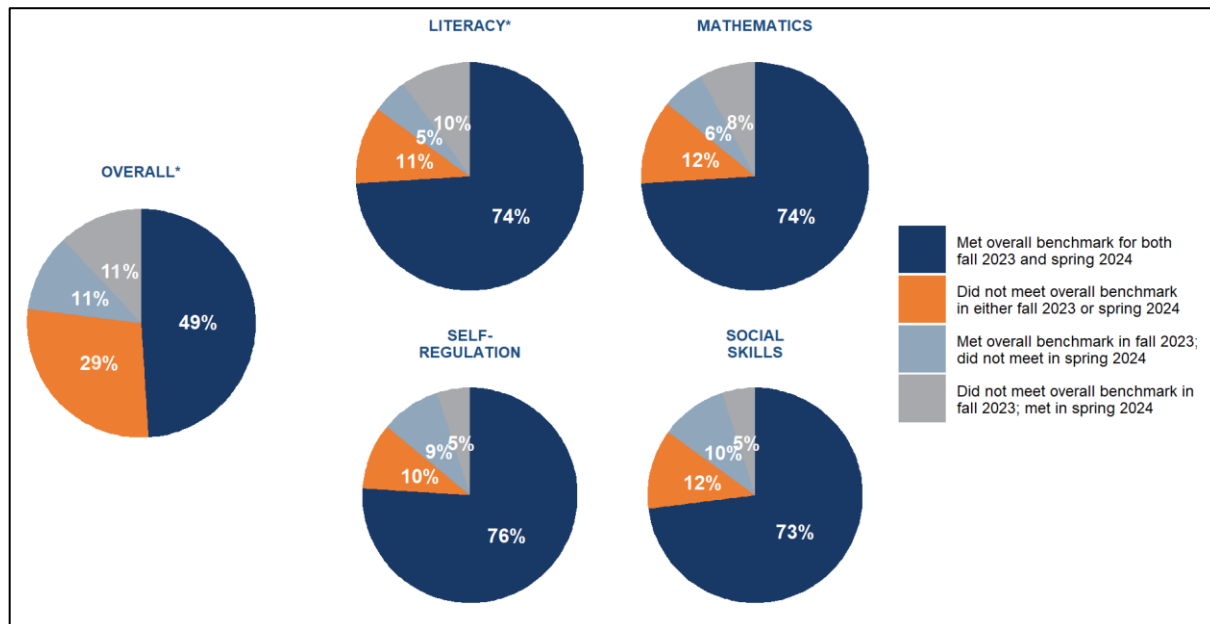
*Teacher concern about a student's well-being is an important indicator that the student may need early, comprehensive, and intensive supports to be successful in school.*

**Figure 3**  
*Mental Health Well-being Concerns and Benchmark Status*



### 2023–2024 VKRP Kindergarten Benchmark and Growth Data

This is the third year that VKRP has examined growth from the fall to spring timepoints. In terms of overall benchmark status, 49% of kindergarten students met the overall benchmark for both fall 2023 and spring 2024, while 29% did not meet the overall benchmark in either fall 2023 or spring 2024. Smaller percentages of students shifted in their overall benchmark status across the 2023–2024 school year—either meeting the overall benchmark in fall 2023 and not meeting in spring 2024 (11%) or not meeting the overall benchmark in fall 2023 and meeting in spring 2024 (11%) (Figure 4).

**Figure 4***Kindergarten Benchmark Status for Fall 2023 and Spring 2024*

*Note.* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

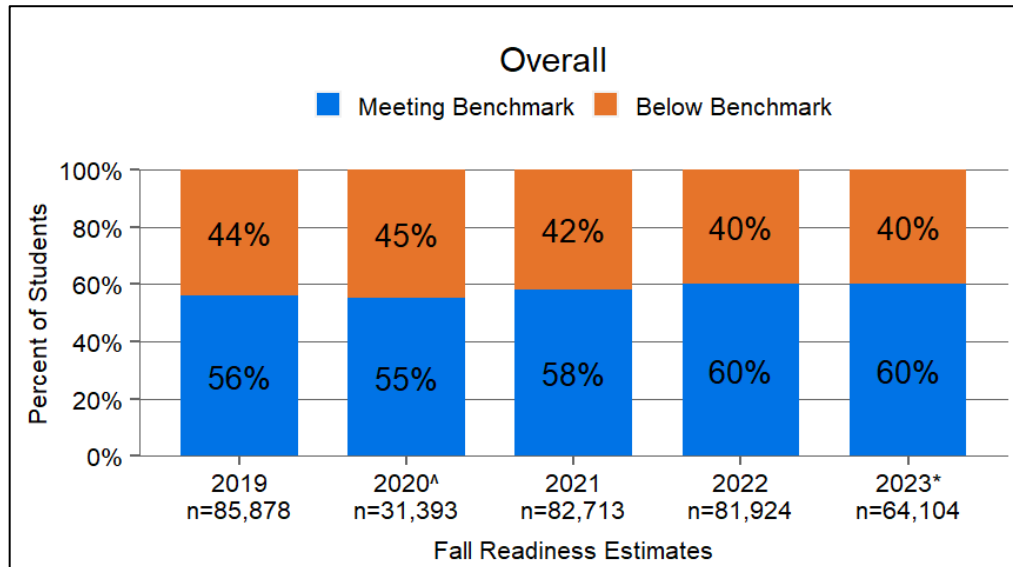
VKRP also examined trends in student growth<sup>4</sup> from fall 2023 to spring 2024 in mathematics, self-regulation, and social skills. Kindergarten students, on average, tended to display strong growth in mathematics skills and modest growth in self-regulation and social skills. However, there was variation in students' growth across all domains with most students showing growth, some making robust gains, and a small percentage demonstrating negative growth from fall 2023 to spring 2024.

### 2019–2024 VKRP Kindergarten Trends Across Time Key Findings

Overall readiness estimates from fall 2019 to fall 2023 have remained relatively stable with a slight decrease in the percentage of students meeting the overall benchmark from fall 2019 to fall 2020, followed by slight increases in fall 2021 and fall 2022. The percentage of students meeting the overall benchmark remained stable from fall 2022 to fall 2023 (Figure 5).

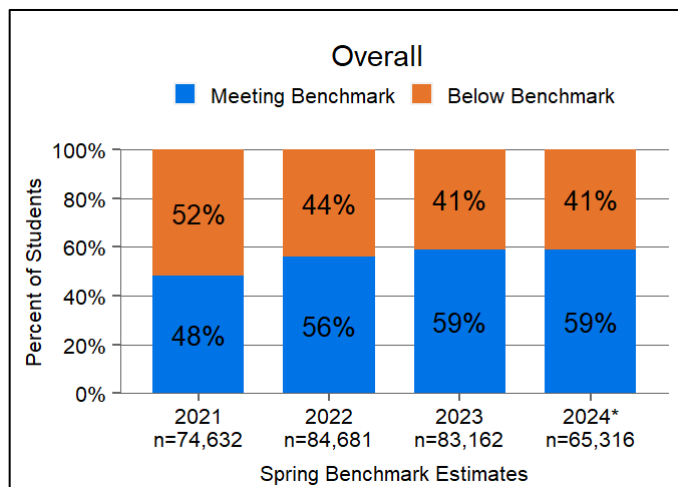
Overall benchmark estimates from spring 2021 to spring 2023 increased and then remained stable from spring 2023 to spring 2024 (Figure 6). There was a large increase in students meeting the overall benchmark from spring 2021 (48%) to spring 2022 (56%). There was a slight increase from spring 2022 to spring 2023 (59%) in students meeting the overall benchmark. The percentage of students meeting the overall benchmark from spring 2023 to spring 2024 remained stable (59%). Spring VKRP data was not collected prior to the 2019–20 school year, and the spring assessment was not administered in 2020 due to the onset of the COVID-19 pandemic and universally mandated public-school closures.

<sup>4</sup>PALS-K was not designed to be used as a growth measure and is therefore not included in trends in student growth.

**Figure 5***Fall Overall Kindergarten Readiness Estimates 2019–2023*

<sup>^</sup> These data represent students who were assessed in-person in the fall of the 2020–2021 school year, prior to the availability of remote assessments.

\* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

**Figure 6***Spring Overall Kindergarten Benchmark Estimates 2021–2024*

\* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

## 2023–2024 VKRP Pre-kindergarten Students Assessed With VKRP

Beginning in the 2022–2023 school year, VKRP was administered to publicly-funded 3-and 4-year-old children in Virginia Preschool Initiative (VPI) and Virginia Early Childhood Foundation (VECF) Mixed Delivery classrooms in

the fall of 2022 and in the spring of 2023. Pre-kindergarten classrooms in public schools that are not funded by VPI (such as a full Early Childhood Special Education (ECSE) classroom, Head Start classroom, Title I classroom, or other locally supported pre-kindergarten classroom) may have chosen to administer the VKRP assessments, but it was not required.

### **Three-Year-Old Assessment Completion Data**

In the fall of 2023, teachers assessed approximately 86% of eligible<sup>5</sup> 3-year-old pre-kindergarten children on the VALLS: Pre-K and 84% of eligible 3-year-old pre-kindergarten children on the EMAS mathematics assessment. Approximately 86% of eligible 3-year-old pre-kindergarten children were rated by teachers on self-regulation and social skills on the Child Behavior Rating Scale (CBRS) and Mental Health Well-being items. Statewide, 81% of assessed 3-year-old pre-kindergarten children had complete VKRP data on all four measures – literacy (VALLS: Pre-K), mathematics (EMAS), and self-regulation and social skills assessments (CBRS) in the fall of 2023.

In the spring of 2024, approximately 85% of eligible 3-year-old pre-kindergarten children were assessed on the VALLS: Pre-K literacy screener, 80% were assessed on the EMAS mathematics assessment, and 81% were rated by teachers on self-regulation and social skills using the CBRS and Mental Health Well-being items. Statewide, 82% of assessed 3-year-old pre-kindergarten children enrolled in the spring of 2024 had complete VKRP data on the four assessments – literacy (VALLS: Pre-K), mathematics (EMAS), self-regulation and social skills (CBRS) assessments in the spring of 2024.

### **Four-Year-Old Assessment Completion Data**

In the fall of 2023, teachers assessed approximately 97% of eligible 4-year-old pre-kindergarten children on the VALLS: Pre-K and 94% of eligible 4-year-old pre-kindergarten children on the EMAS mathematics assessment. Approximately 97% of eligible 4-year-old pre-kindergarten children were rated by teachers on self-regulation and social skills on the Child Behavior Rating Scale (CBRS) and Mental Health Well-being items. Statewide, 92% of assessed 4-year-old pre-kindergarten children had complete VKRP data on all four measures – literacy (VALLS: Pre-K), mathematics (EMAS), and self-regulation and social skills assessments (CBRS) in the fall of 2023.

In the spring of 2024, approximately 96% of eligible 4-year-old pre-kindergarten children were assessed on the VALLS: Pre-K literacy screener, 93% were assessed on the EMAS mathematics assessment, and 95% were rated by teachers on self-regulation and social skills using the CBRS and Mental Health Well-being items. Statewide, 93% of assessed 4-year-old pre-kindergarten children enrolled in the spring of 2024 had complete VKRP data on the four assessments – literacy (VALLS: Pre-K), mathematics (EMAS), self-regulation and social skills (CBRS) assessments in the spring of 2024.

Over 25,000 4-year-old pre-kindergarten children were assessed in both the fall of 2023 and the spring of 2024 in all four domains of literacy, mathematics, self-regulation, and social skills.

## **2023–2024 VKRP Three-Year-Old Pre-kindergarten Key Findings**

### **Fall 2023 and Spring 2024 Three-Year-Old VKRP Pre-kindergarten Data**

In 2023–2024, VKRP and VLP piloted Skill Development Bands (Beginning, Growing, and Strong) to help programs and educators interpret and use their VKRP pre-kindergarten data. Pre-kindergarten Literacy Skill Development Bands that were created by VLP for the VALLS: Pre-K measure are still being scaled and, therefore, are not

<sup>5</sup> Three- and four-year-old pre-kindergarten children were eligible if they were in a participating VKRP classroom and were not otherwise exempt from testing.

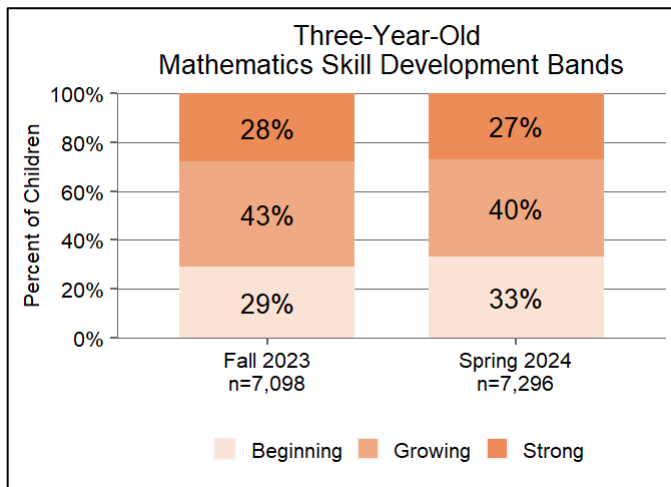
included in this report. For more information regarding the Literacy Skill Development Bands, please contact the [VLP office](#).

For mathematics, self-regulation, and social skills, separate bands were established in the fall of 2023 and spring of 2024 to represent children's development as compared to expectations at that point in time.

For mathematics, in the fall of 2023, the largest percentage of children's scores fell into the Growing Skill Development Band in the fall of 2023 (43%) and in the spring of 2024 (40%) (Figure 7).

**Figure 7**

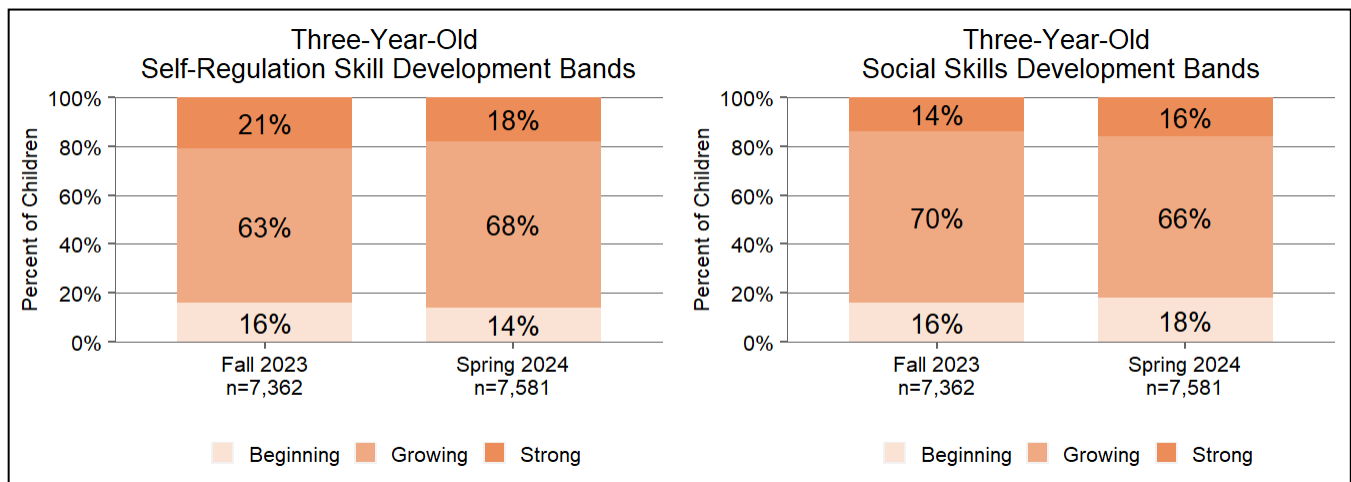
*Three-Year-Old Mathematics Skill Development Bands*



For self-regulation and social skills, the largest percentage of children's scores fell into the Growing Skill Development Band in both the fall of 2023 (63% and 70%, respectively) and in the spring of 2024 (68% and 66%, respectively) (Figure 8).

**Figure 8**

*Three-Year-Old Self-Regulation and Social Skills Skill Development Bands*



In the fall of 2023, teachers reported being moderately, very, or extremely concerned about the mental health well-being of 23% of 3-year-old children enrolled in VKRP. Elevated teacher concern for 3-year-old pre-kindergarten children remained consistent in the spring of 2024 where teachers reported being moderately, very, or extremely concerned about 22% of children.

### 2023–2024 VKRP Three-Year-Old Pre-kindergarten Growth Data

As with the kindergarten data, VKRP examined trends in growth<sup>6</sup> in children's scores from fall 2023 to spring 2024 in mathematics, self-regulation, and social skills. Three-year-old pre-kindergarten children tended to display strong growth in mathematics skills and modest growth in self-regulation and social skills. There was variation in children's growth across all domains with most children growing in their skills, some children making robust gains, and a small percentage of children losing ground from fall 2023 to spring 2024.

### 2023–2024 VKRP Four-Year-Old Pre-kindergarten Key Findings

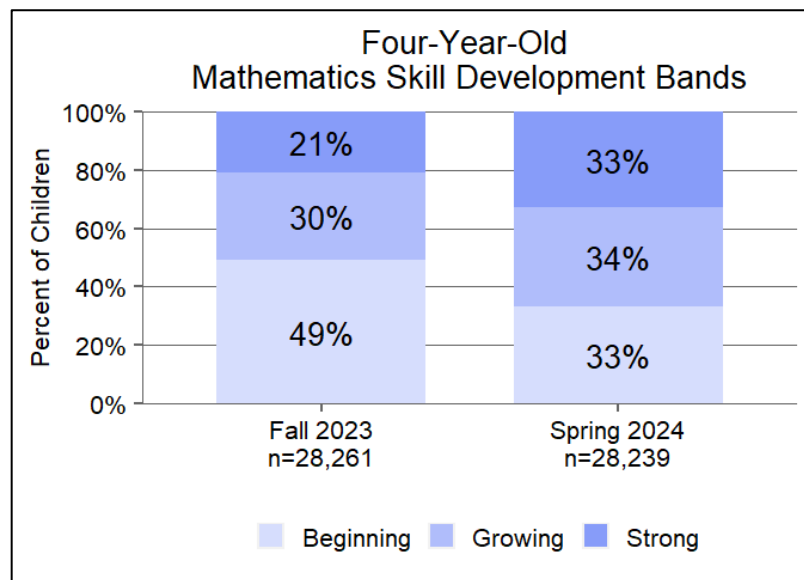
#### Fall 2023 and Spring 2024 Four-Year-Old VKRP Pre-kindergarten Data

Four-year-old pre-kindergarten children also displayed a range of skills across mathematics, self-regulation, and social skills in fall 2023 and spring 2024 (Figure 9).

For mathematics, in the fall of 2023, the largest percentage of children's scores (49%) fell into the Beginning Skill Development Band. In the spring of 2023, there were relatively equal percentages of children's scores that fell into each of the three bands, Beginning (33%), Growing (34%), Strong (33%).

**Figure 9**

*Four-Year-Old Mathematics Skill Development Bands*

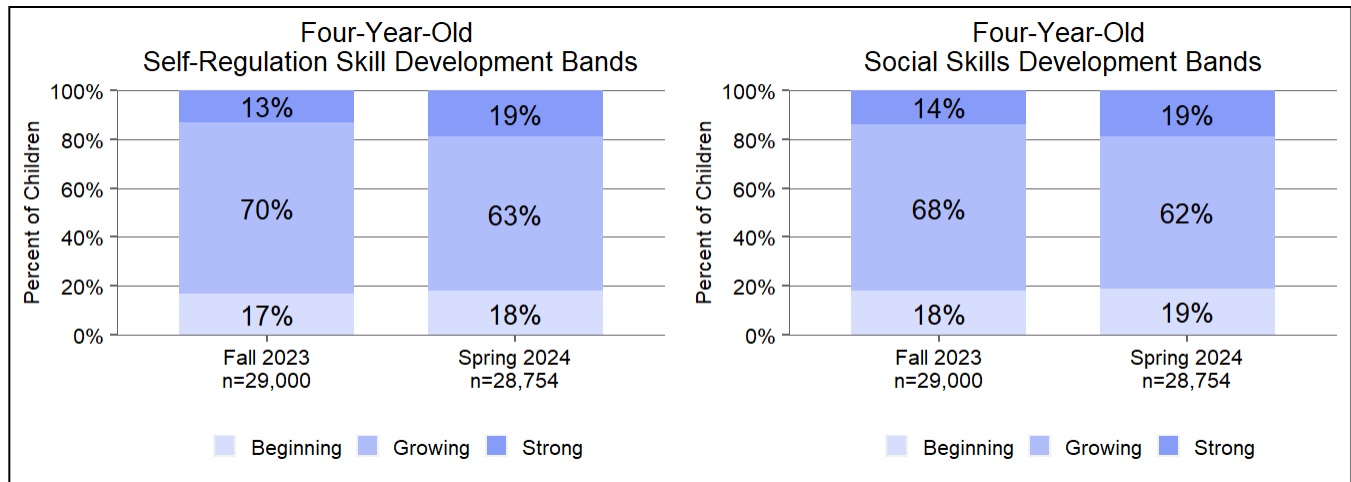


For self-regulation and social skills, the largest percentage of 4-year-old children's scores fell into the Growing Skill Development Band in both the fall of 2023 (70% and 68%, respectively) and in the spring of 2024 (63% and

<sup>6</sup> Growth scores on the pre-kindergarten literacy screener are still being finalized. Currently pre-kindergarten literacy scores represent children's outcomes at each distinct timepoint (i.e., fall and spring).



62%, respectively) (Figure 10).

**Figure 10***Four-Year-Old Self-Regulation and Social Skills Skill Development Bands***2023–2024 VKRP Four-Year-Old Pre-kindergarten Mental Health Well-being Data**

Preschool teachers reported being significantly concerned about  
**1 in 5 four-year-olds**  
during fall 2023.

In the fall of 2023, teachers reported being moderately, very, or extremely concerned about the mental health well-being of 19% of their 4-year-old children. Elevated teacher concern for 4-year-old pre-kindergarten children decreased slightly in the spring of 2024 where teachers reported being moderately, very, or extremely concerned about 17% of their 4-year-old children.

**2023–2024 VKRP Four-Year-Old Pre-kindergarten Growth Data**

We examined trends in growth<sup>7</sup> of 4-year-old children's scores from fall 2023 to spring 2024 in mathematics, self-regulation, and social skills. Four-year-old pre-kindergarten children tended to display robust growth in mathematics skills and modest growth in self-regulation and social skills. There was variation in children's growth across all domains with most children making gains, some making strong gains, and a small percentage losing ground from fall 2023 to spring 2024.

**Mid-Year Assessment Pilot**

Program, school and division leaders, teachers, and families across Virginia have expressed interest in understanding how to better monitor students' progress and growth across the school year and to better align with Virginia's literacy assessment practices.

During the 2022–2023 year, as required by the 2022–2023 Biennial Budget, VKRP gathered information about the goals of a mid-year assessment from VDOE and educator stakeholders and coordinated with VLP, to inform the design of a mid-year assessment timepoint. During the 2023–2024 year, VKRP conducted a pilot and engaged in refinement of the VKRP assessment system for a mid-year timepoint.

<sup>7</sup> Growth scores on the pre-kindergarten literacy screener are still being finalized. Currently pre-kindergarten literacy scores represent children's outcomes at each distinct timepoint (i.e., fall and spring).

In the spring of 2023, the VKRP team developed new mathematics items to be used as part of a mid-year EMAS mathematics assessment in pre-kindergarten and kindergarten. These items were piloted by a team of data collectors in classrooms across Virginia throughout the fall of 2023. Psychometric analysis was conducted on the items, and feedback was gathered from data collectors and teachers who reviewed the items. This information was triangulated to develop pilot EMAS mid-year forms. In January 2024, we conducted a VKRP Mid-year Assessment Pilot that incorporated pilot EMAS mid-year forms, the CBRS, and the Mental Health Well-being items. The VKRP team recruited teachers for participation across divisions and programs in the Commonwealth to participate in the pilot. In kindergarten, 82 teachers and 1,176 kindergarten students participated in the pilot. In pre-kindergarten, 337 teachers, 1,002 3-year-old children, and 3,887 4-year-old children participated in the pilot. At the conclusion of the VKRP Mid-year Assessment Pilot, the VKRP team sent a survey to teachers that asked questions about how teachers would use mid-year data. Results showed that that pre-kindergarten and kindergarten teachers were likely to use the VKRP mid-year data for a wide range of purposes including identifying gaps in student knowledge, planning instruction for small groups, communicating with families about student development, and planning instruction to meet the needs of individual students.

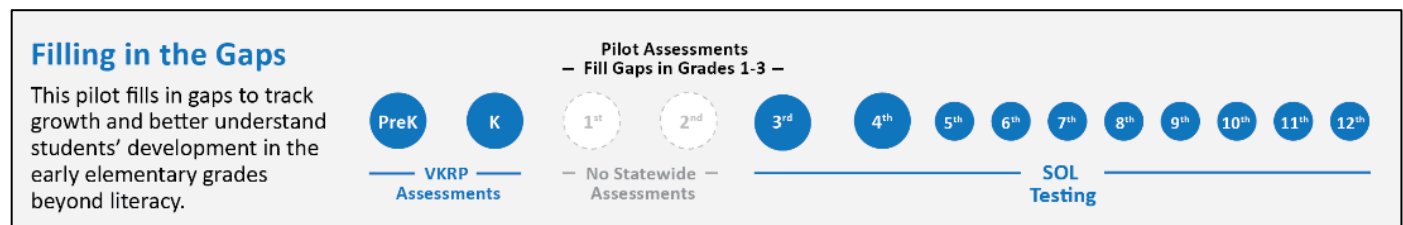
## Grade 1-3 Assessment Pilot

VKRP, in partnership with VDOE, began conducting a mathematics, self-regulation, social skills, and mental health well-being assessment pilot in Grades 1 through 3 (1-3 Assessment Pilot) in 2022–2023. The purpose of the pilot, required by Virginia’s 2022–2023 Biennial Budget, was to explore the utility of building longitudinal measures of mathematics, self-regulation, social skills, and mental health well-being that could potentially extend into Grades 1 through 3.

Currently, there are several gaps in existing assessments (Figure 11). Apart from literacy, there are no statewide assessments that measure students’ early learning in these areas in Grades 1 and 2. Additionally, there are no statewide assessments that universally track students’ growth within the academic year and across academic years in these areas from pre-kindergarten through Grade three (noting there are growth assessments in mathematics starting in Grade three).

**Figure 11**

*How the Assessment Pilot Fills Gaps in Grades 1-3*



## Key Pilot Activity Updates

### 1-3 Division Assessment Survey

A survey was developed and distributed across Virginia school divisions during the 2023–2024 year to learn what assessments are currently being used in Grades 1 through 3 to assess mathematics, social-emotional skills (with a particular interest in self-regulation and social skills), and mental health well-being. At least two division leaders from the 130 divisions across the state were identified, contacted, and asked to complete the survey. A total of 181 individuals across 109 divisions completed the survey. Results indicated that most divisions do not

have an assessment to measure social-emotional skills or mental health well-being in Grades 1, 2, or 3. In contrast, most respondents reported having a division wide assessment for mathematics in Grades 1, 2, and 3.

Respondents also shared qualitative feedback about how assessments are used to support students and families and their thoughts about a possible state-supported assessments for mathematics, social-emotional skills, and mental health well-being. A subset of common themes that emerged from responses across domains are shared below.

#### *Themes about Opportunities for Possible State-Supported Assessments for Mathematics, Social-Emotional Skills, or Mental Health Well-being*

- Longitudinal Tracking and Growth Analysis: Assessments could track growth and changes over time from pre-kindergarten through third Grade.
- Informed Decision-Making: Assessments could provide insights to inform decision-making, aiding timely interventions and appropriate resource allocation.
- Tailored Support and Instruction: Assessments could enable tailored support and data-driven instruction tailored to individual needs.

#### *Themes about Challenges for Possible State-Supported Assessments for Mathematics, Social-Emotional Skills, or Mental Health Well-being*

- Instructional Time and Workload Impact: There were concerns about the potential impact on instructional time and increased workload for educators responsible for administering additional assessments, potentially leading to reduced teaching time.
- Teacher Support and Professional Development: The necessity for adequate support, training, and professional development for teachers to effectively utilize assessment data for instructional improvement were emphasized for both assessments.

### **EMAS Item Development and Piloting**

#### *EMAS Item Development*

During the 2022–2023 school year, the VKRP team worked with consultants with mathematics expertise to create 237 new items across five domains (Numeracy = 52, Geometry & Measurement = 43, Patterning = 36, Computation = 84, and Probability & Statistics = 22) that were then reviewed by VDOE. Piloting these new items in Grades 1 through 3 began during the 2022–2023 year and continued into the 2023–2024 year.

#### *EMAS Item Piloting*

The VKRP team recruited 18 school divisions to participate in an EMAS item pilot. The VKRP team intentionally recruited a diverse group of divisions that included variability based on urbanicity and size. VKRP hired and trained data collectors to pilot test items in first through third Grade classrooms. To date, data has been collected on 6,635 students across Grades 1 through 3.

### **Future Directions**

In the 2024–2025 school year, VKRP will:

- **Continue to support pre-kindergarten and kindergarten implementation.** VKRP will continue to support teachers', administrators', and divisions/programs' implementation of VKRP by providing in-person trainings, webinars, and online trainings and resources for teachers and school/division/program-level administrators.

- **Continue to support 3- and 4-year-old pre-kindergarten participation.** VKRP will continue to be available for use in publicly funded 3- and 4-year-old pre-kindergarten classrooms with continued implementation support for programs required to participate (e.g., VPI funded classrooms, VECF Mixed Delivery) or who are voluntarily participating and targeted outreach to those who are not yet participating but may choose to participate.
- **Statewide availability of VKRP Assessment System at a mid-year timepoint.** VKRP will be available to all divisions and programs at a mid-year timepoint, beginning in winter 2025.
- **Continue the Grades 1-3 Assessment Pilot.** The VKRP team will refine the measures, resources, and reports for mathematics, self-regulation, social skills, and mental health well-being in 2024–2025 with a focus on Grades 1 and 2.
- **Continue to collaborate with VLP.** Continuing in 2024–2025, VKRP will closely collaborate with the VLP team around their statewide implementation of the Virginia Language & Literacy Screening System (VALLSS).
- **Continue to collaborate with STREAMin<sup>3</sup>.** The STREAMin<sup>3</sup> curriculum model supports skills and interactions that align to the Virginia Kindergarten Readiness Program (VKRP) and highly encourages use of VKRP as a progress monitoring tool. To support VKRP use in new STREAMin<sup>3</sup> programs, the VKRP and STREAMin<sup>3</sup> teams collaborate to encourage new programs, many of whom were small private childcare and family childcare programs, to use VKRP.
- **Continued development of improved and expanded reports.** VKRP includes a robust reporting system that provides a detailed snapshot of students' academic and social-emotional skills in the fall and spring of each academic year. VKRP is enhancing reports that show growth in students' skills for both teachers and families. Additionally, the VKRP team is developing a suite of mid-year reports.
- **Continue to develop enhanced resources for families.** VKRP, in collaboration with VDOE, continues to prioritize elevating families' voices and improving their experiences with VKRP. Feedback from family focus groups held in 2023–2024 was used to improve the Pre-kindergarten VKRP Family Information Report. Similar improvements are being made to the Kindergarten VKRP Family Information Reports for the 2024–2025 academic year.
- **Virginia Connects for Kids.** The VKRP team continues to collaborate with VLP and the LinkB5 teams to develop a coordinated integrated data system, Virginia Connects for Kids (VAConnects). This system will integrate statewide early childhood data collection initiatives to leverage data to maximize the impact of the three separate data systems. In fall 2024, VALLSS will launch statewide in VAConnects in Grades kindergarten through third in all school divisions across Virginia. Throughout 2024–2025, VKRP and LinkB5 will be integrated into the VAConnects application. All three programs will launch in VAConnects in fall 2025.

## Summary of Appropriations Language

The Virginia Department of Education and the University of Virginia's Center for Advanced Study of Teaching and Learning (CASTL) are providing this report to the Chairmen of House Appropriations and Senate Finance Committees to share the results of the Virginia Kindergarten Readiness Program in accordance with Appropriation Act - Item 117 H.e. (Special Session I, 2024).

Out of this appropriation, \$3,652,000 the first year and \$3,652,000 the second year from the general fund is provided for the Virginia Kindergarten Readiness Program.

- a. Of this amount, \$1,377,000 the first year and \$1,377,000 the second year from the general fund is provided through the Department of Education to the University of Virginia to continue statewide implementation of the Virginia Kindergarten Readiness Program conducted in the fall, and to continue to support a post-assessment upon the conclusion of the kindergarten year.
- b. The Department of Education shall coordinate with the University of Virginia's Center for Advanced Study of Teaching and Learning to ensure that all school divisions shall be required to have their kindergarten students assessed annually during the school year using the multi-dimensional kindergarten readiness assessment model. All school divisions shall be required to have their kindergarten students assessed with such model.
- c. Of this amount, \$1,050,000 the first year and \$1,050,000 the second year shall be allocated to the University of Virginia to support implementation of a pre-kindergarten version of the Virginia Kindergarten Readiness Program for four-year-old children enrolled in publicly-funded pre-kindergarten programs, and for piloting the use and development of a pre-kindergarten version of the Virginia Kindergarten Readiness Program for three-year-old children enrolled in publicly-funded pre-kindergarten programs.
- d. Of this amount, \$350,000 the first year and \$350,000 the second year from the general fund shall be allocated to University of Virginia's Center for Advanced Study of Teaching and Learning to provide training to school divisions annually on how to effectively use Virginia Kindergarten Readiness Program data to improve instructional practices and student learning. Such teacher focused professional development and training shall be prioritized for the school divisions that would most benefit from state assistance in order to provide more time for classroom instruction and student learning for kindergarten and pre-kindergarten students, including both three- and four-year-old pre-kindergarten classrooms.
- e. The Department and the University of Virginia's Center for Advanced Study of Teaching and Learning shall use the results of the multi-dimensional Virginia Kindergarten Readiness Program assessments to determine how well the Virginia Preschool Initiative promotes readiness in all key developmental domains assessed. The Department shall submit such findings using data from the prior year's fall assessment to the Chairs of House Appropriations and Senate Finance and Appropriations Committees no later than October 1 each year.
- f. Of this amount, \$875,000 the first year and \$875,000 the second year from the general fund is provided through the Department of Education to the University of Virginia in partnership with the Department and school divisions to support an assessment in literacy, math, social skills and self-regulation in Grades 1, 2 and 3 to help teachers, parents and divisions identify students' strengths, deficiencies and support student growth longitudinally.

## Introduction

[The Virginia Kindergarten Readiness Program \(VKRP\)](#) empowers Virginia’s teachers and education leaders by providing a more comprehensive set of assessments that shine a spotlight on pre-kindergarten and kindergarten students’ learning and growth. VKRP is a Virginia standards-aligned, multi-year early learning assessment system that produces actionable information to guide decisions at the student, classroom, school/program, and division levels from the beginning of pre-kindergarten through the end of kindergarten to support student learning. VKRP provides assessments of mathematics, self-regulation, and social skills to complement Virginia’s literacy screeners (Phonological Awareness Literacy Screener – Kindergarten (PALS-K) and Virginia Language & Literacy Screener: Pre-K (VALLS: Pre-K). Additionally, in 2020–2021, during the pandemic, VKRP also added items for teachers to indicate their perceptions of students’ mental health well-being. The 2023–2024 literacy data gathered from the PALS-K and VALLS: Pre-K come directly from the Virginia Literacy Partnerships (VLP). Literacy data from the 2023–2024 VALLS: K pilot are not included in this report. Additional information on the literacy assessments can be found on [the VLP website](#).

From 2014 through 2018, the [Center for Advanced Study of Teaching and Learning \(CASTL\)](#) at the University of Virginia designed, piloted, and implemented VKRP in the fall of the kindergarten year through a voluntary rollout where, each year, an increasing number of divisions elected to administer VKRP. Virginia began statewide implementation of VKRP in kindergarten classrooms in the 2019–2020 school year.

The VKRP team developed a 4-year-old pre-kindergarten extension of VKRP between 2018–2021. In the 2021–2022 school year, VKRP became available to all publicly-funded pre-kindergarten programs to assess 4-year-old children’s skills in fall of 2021 and spring of 2022. Additionally, the VKRP team developed a 3-year-old extension of VKRP, which became available to all publicly-funded pre-kindergarten programs to assess 3-year-old children’s skills in the 2022–2023 school year. Pre-kindergarten expansion of VKRP will continue during the 2024–2025 school year.

In this October 2024 report to the General Assembly, we report on the data collected during the 2023–2024 academic year on both kindergarten and pre-kindergarten publicly-funded students statewide, provide and update on the VKRP Mid-year Assessment Pilot, provide an update on the current progress of the mathematics, self-regulation, social skills, and mental health well-being assessment pilot in first through third Grades (1-3 Assessment Pilot), and share next steps for VKRP in the 2024–2025 school year.

## Defining and Measuring School Readiness With VKRP

Virginia defines school readiness as, “the capabilities of children, their families, schools, and communities that best promote student success in kindergarten and beyond.”<sup>8</sup> Each component – students, families, schools, and communities – plays an essential role in the development of school readiness. For Virginia’s youngest learners, a “ready” child is prepared socially, personally, physically, and intellectually in the areas of literacy, mathematics, science, history and social science, physical and motor development, and personal and social development.

The Virginia Kindergarten Readiness Program (VKRP) is an initiative focused on building a more comprehensive understanding of students’ early skills in Virginia. As an assessment system, VKRP adds measures of mathematics, self-regulation, social skills, and mental health well-being to complement Virginia’s statewide

<sup>8</sup> Virginia Department of Education. (n.d.). School Readiness. Retrieved from <https://www.doe.virginia.gov/home/showpublisheddocument/41058/638096375884800000>

assessment of literacy skills (PALS-K and VALLS: Pre-K). Although not fully comprehensive of all the skills students need to thrive in school and life, VKRP provides reliable and valid data across indicators known to predict school success in the short and long term and puts an equal emphasis on academic and social-emotional skills, including a teacher report of students' mental health well-being. Notably, students develop skills through their early experiences at home, school, and in the community. It is important to acknowledge that VKRP is *not* a measure of a school/program's or a community's readiness (see Appendix B for more information about how VKRP measures and defines readiness).

### Kindergarten Benchmarks



The VKRP benchmark estimates are calculated based upon the expected skill levels of a kindergarten student at the beginning (fall) and end (spring) of the school year for each learning domain. For example, if a student's score is above the benchmark for self-regulation in the fall, they should be demonstrating the minimum self-regulation skills needed to be successful at the *beginning* of kindergarten. If a student's score is above the benchmark in self-regulation in the spring, this means that they should be demonstrating the minimum self-regulation skills needed to be successful at the *end* of kindergarten. Thus, the benchmark for self-regulation is *higher* in the spring of kindergarten than in the fall of kindergarten. This holds true for all the learning domains.

For summative purposes, kindergarten students' scores are categorized as *ready* or *meeting the overall benchmark* (fall) and *meeting the overall benchmark* (spring) if they demonstrate minimally expected skills for the fall or the spring (depending upon the data timepoint) of kindergarten for literacy, mathematics, self-regulation, and social skills. If kindergarten students' scores do not demonstrate the minimally expected skill in one or more areas at the respective timepoint (fall or spring), they are categorized as *not ready* or *below the overall benchmark* (fall) and *below the overall benchmark* (spring). A student classified as *ready* based on their VKRP scores in the fall of kindergarten is estimated to be demonstrating the minimum skills needed to be successful across all measured learning domains at the beginning of kindergarten. A student classified as *meeting the overall benchmark* based on their scores in the spring of kindergarten is estimated to be demonstrating the minimum skills across all measured learning domains needed to be successful across learning domains at the end of kindergarten.

The mental health well-being items are not part of the overall benchmark in kindergarten or skill development bands in pre-kindergarten. Information from these items is shared with teachers to help facilitate conversations between teachers, instructional leaders, school counselors, other school personnel, and families on how best to support students.

**Figure 12**

*Kindergarten Benchmark Expectations for Fall and Spring*

	FALL Overall Benchmark		SPRING Overall Benchmark
	Meeting expectations for the <b>beginning</b> of kindergarten in all 4 domains:		Meeting expectations for the <b>end</b> of kindergarten in all 4 domains:
	<ul style="list-style-type: none"> <li>✓ Literacy</li> <li>✓ Mathematics</li> <li>✓ Self-Regulation</li> <li>✓ Social Skills</li> </ul>		<ul style="list-style-type: none"> <li>✓ Literacy</li> <li>✓ Mathematics</li> <li>✓ Self-Regulation</li> <li>✓ Social Skills</li> </ul>



More information regarding VKRP, the VKRP assessments, VKRP's history, and how it is used for summative purposes can be found on the [VKRP website](#).

## Pre-kindergarten Skill Development Bands

In the fall of 2022, VKRP designed and piloted pre-kindergarten Skill Development Bands to help teachers interpret and use their pre-kindergarten VKRP data. For the first time during the 2022–2023 school year, VKRP pre-kindergarten reports included information about where children’s scores fell within three distinct Skill Development Bands: Beginning, Growing, and Strong. These score ranges are included to give guidance on where children are in their development of skills so that teachers can provide appropriate support and instruction.




Young children enter and end pre-kindergarten with a wide range of early learning skills; the mathematics, self-regulation, and social skills assessments measure children’s skills along a developmental continuum. To help teachers interpret and use their pre-kindergarten data, VKRP provides Skill Development Bands that identify children’s skills in three developmental ranges: Beginning, Growing, and Strong. Separate bands are established for the fall and spring in mathematics, self-regulation, and social skills to represent children’s skills as compared to expectations at a particular point in time. Skill Development Bands do not serve as benchmarks. Children’s skills are not expected to be in the Strong Band by the end of the pre-kindergarten school year. Pre-kindergarten Literacy Skill Development Bands that were created by VLP for the 2022–2023 school year are not yet scaled and therefore are not included in this report. For more information on the VLP Literacy Skill Development Bands, please contact the [VLP office](#).

Children whose skills fall within the Beginning Band are beginning to explore and develop foundational skills in a given early learning domain and will benefit from instruction that includes high levels of support. Children whose skills fall within the Growing Band are developing their skills as expected in a given early learning domain and will benefit from encouragement to demonstrate skills consistently and with ease. Children whose skills fall within the Strong Band have strong foundational skills in a given early learning domain and will benefit from opportunities to advance their skills. All children at this age continue to need developmentally appropriate instruction and support to grow their early learning skills.

The mental health well-being items are not part of the overall benchmark in kindergarten or skill development bands in pre-kindergarten. Information from these items is shared with teachers to help facilitate conversations between teachers, instructional leaders, school counselors, other school personnel, and families on how best to support students.

### Figure 13

### Pre-kindergarten Skill Development Bands for Fall 2023 and Spring 2024

Skill Development Band	Interpretation Within a given learning domain, children whose scores fall within this band are:	Supporting development All children, no matter where they fall within the Skill Development Bands, will benefit from support and challenge as they learn. Direct instruction and engaging opportunities will support learning and development.
 <b>Beginning</b>	Beginning to develop their skills	<ul style="list-style-type: none"> <li>• Acknowledge efforts and attempts</li> <li>• Offer hands-on, engaging experiences and opportunities</li> <li>• Provide high levels of scaffolding, support, and specific feedback</li> <li>• Provide explicit instruction</li> </ul>
 <b>Growing</b>	Demonstrating skills as expected	<ul style="list-style-type: none"> <li>• Encourage independent and fluent skill demonstration</li> <li>• Provide support to promote development</li> <li>• Offer engaging opportunities to practice and grow skills</li> </ul>
 <b>Strong</b>	Demonstrating strong foundational skills	<ul style="list-style-type: none"> <li>• Encourage independence and flexible problem-solving</li> <li>• Encourage application of skills across settings</li> <li>• Provide opportunities for advancement</li> </ul>

## VKRP and the COVID-19 Pandemic

During the worldwide COVID-19 pandemic, young students experienced sudden and long-lasting negative stresses to their care and early learning environments negatively impacting their academic and social-emotional school readiness. Nationally and within the Commonwealth, there were missed opportunities to learn foundational early mathematics and literacy skills, pandemic-related learning losses, and adverse impacts on young students' mental health well-being. The pandemic had disproportionate impacts on students with families from low-income backgrounds and on students who resided in neighborhoods with decreased access to early learning opportunities (World Bank, 2023<sup>9</sup>). Importantly, if students are not provided with opportunities to catch up and these losses are not addressed, gaps in students' early learning skills will continue to widen over time (World Bank, 2023<sup>9</sup>). VKRP collects data on students' early learning, social-emotional skills, and mental health well-being that can be used to understand early learning trends over time and inform investments.

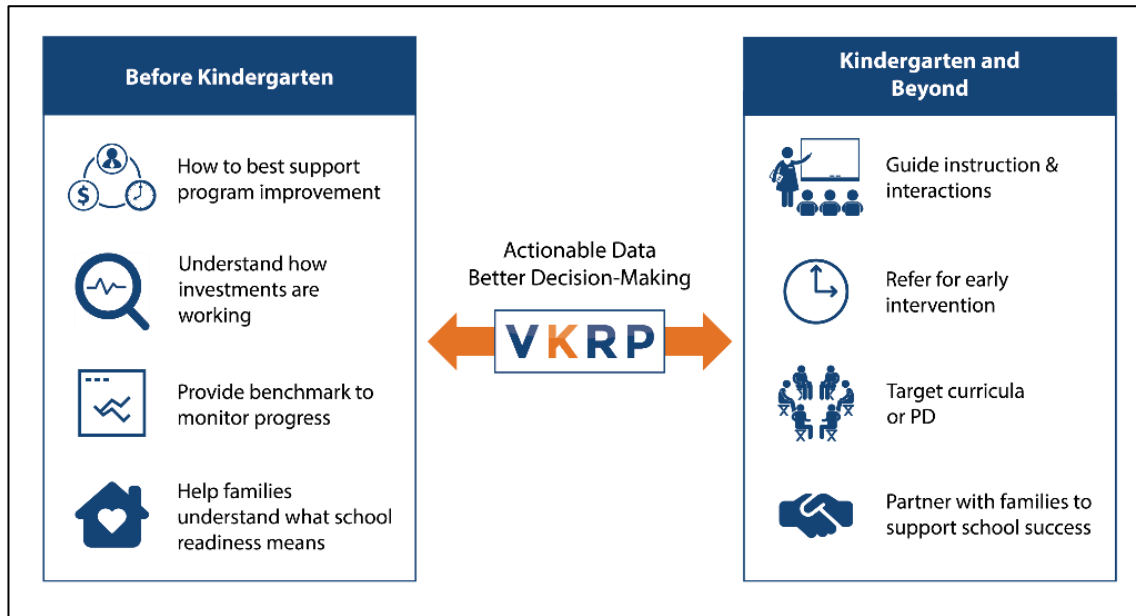
In terms of the VKRP assessments, nearly all kindergarten students statewide were assessed in-person using VKRP in fall 2023 and spring 2024, and many pre-kindergarten children in publicly funded settings were also assessed using VKRP. VKRP continues to collect data on students' mental health well-being in addition to data across the other key early learning domains.

## How Statewide VKRP Data Can Be Used in Virginia

VKRP provides detailed, actionable information to guide decisions at various levels before and after kindergarten entry to support early learning. Pre-kindergarten and kindergarten VKRP data can be used at different levels and by a variety of stakeholders. VKRP provides timely and actionable data for teachers to support the implementation of individualized academic and social-emotional instruction to meet students' needs. VKRP provides information about where students are succeeding and where more targeted support is needed. For example, teachers can use the data to tailor their instruction to a student's current skill level and provide scaffolding to support their growth, refer a student for additional assessment or support, and partner with families to support students' learning at home.

<sup>9</sup> Schady, N.; Holla, A.; Sabarwal, S.; Silva, J.; & Yi Chang, A. (2023.) Collapse and recovery: How the COVID-19 pandemic eroded human capital and what to do about it. © Washington, DC: World Bank. <http://hdl.handle.net/10986/39403>  
License: CC BY 3.0 IGO.



**Figure 14***How Statewide Data Can Be Used in Virginia*

VKRP provides information and resources for families to support their students' early skill development and to help teachers be well-positioned to work as partners with families from the onset of a student's formal educational experience.

At a program, school, and/or division level, VKRP data can be used to better target professional development for educators based on the specific needs of the students, schools, and communities they serve. For example, division leaders can use the data to examine variability within and across divisions, individualize professional development to teachers, and align pre-kindergarten, kindergarten, and elementary curricula and instruction.

At the state level, VKRP data can inform targeted investments in divisions and programs across the state. Having statewide data allows for meaningful comparisons across programs, divisions, and regions. VKRP and other early childhood education data can be used to identify opportunity disparities, track system-level trends, and inform effective allocation of education resources.

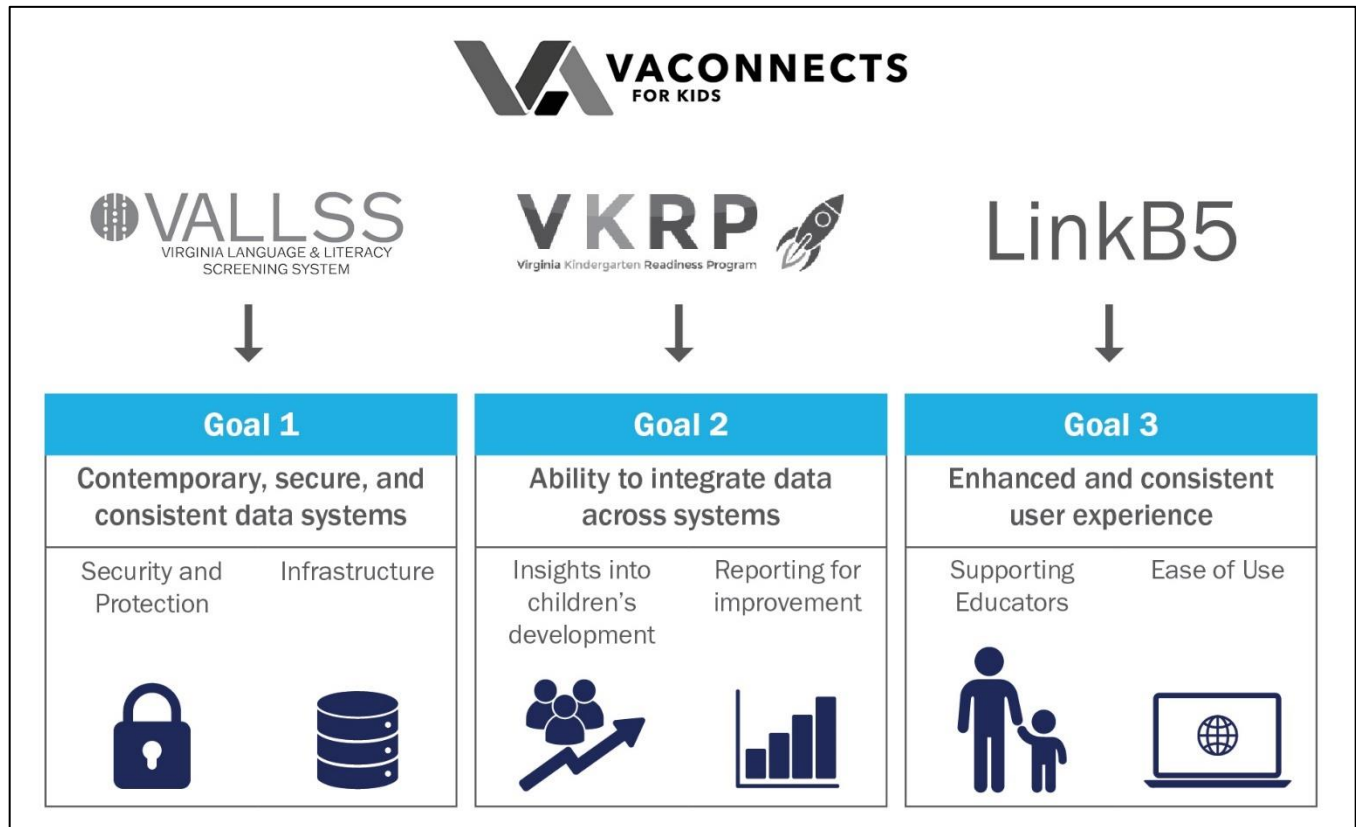
### **An Integrated Approach to VDOE's Early Childhood Data Systems: Virginia Connects for Kids**

In 2022, VDOE provided funding through the federal Preschool Development Grant Funds and American Rescue Plan Act to a team of researchers within UVA's School of Education and Human Development (EHD) to develop and implement a coordinated and integrated technology strategy and shared infrastructure between the growing state data collection initiatives (VALLSS, VKRP, and LinkB5) to maximize the impact and potential of these data systems (Figure 15). The integrated data system, Virginia Connects for Kids (VAConnects), ensures that each project can not only sustain individual growth and expansion but also work together to prioritize the integrity and continuity of data needed to inform and strengthen Virginia's sizeable investment in young learners—birth through third Grade. By aligning these systems, VAConnects will be able to answer critical questions about how children's early care and education experiences across the first five years link to learning and social emotional

outcomes and growth in pre-kindergarten and the early elementary Grades.

**Figure 15**

*VAConnects Goals*



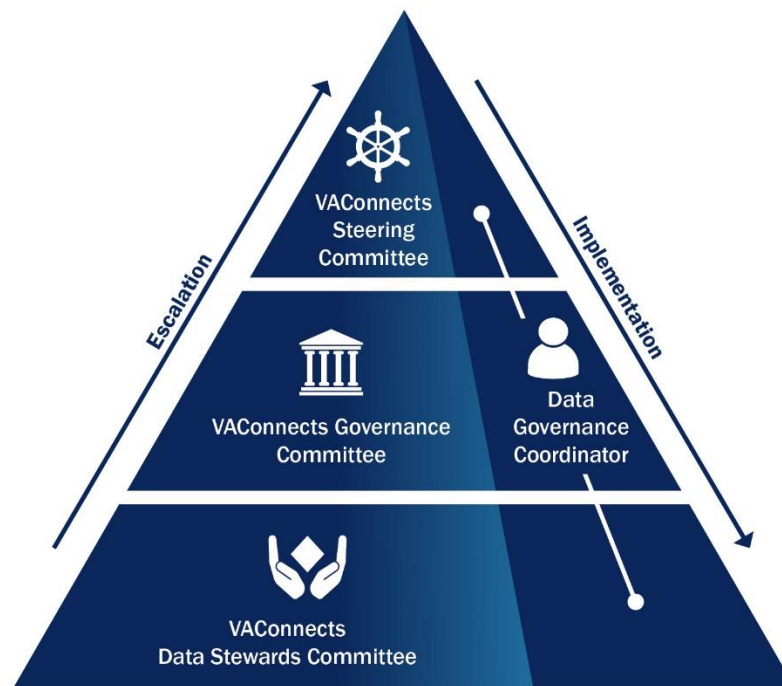
The goals of the integrated data system are to build a robust, coordinated system with enhanced hosting infrastructure and security features; shared data warehousing reflecting effective data governance; consistent, aligned, and integrated reporting; and a more streamlined user interface.

#### **VAConnects High Level Milestones**

This year, VAConnects made progress towards each of the goals outlined above.

With respect to Goal 1, VAConnects established a security infrastructure and completed a third-party security gap analysis. VDOE and UVA established a shared data governance framework (

Figure 16) and held a kick-off meeting in May 2024 with stakeholders.

**Figure 16***Data Governance Framework*

In terms of Goal 2, the ability to integrate data across systems, VAConnects is in the process of working to create program-specific and shared databases that connect data across VALLSS, VKRP, and LinkB5. VAConnects is being built using Cloud-based services that are scalable and flexible. The selected reporting tool, PowerBI, is being used to create reports that help users visualize and understand data collected through VAConnects.

Finally, in regard to Goal 3, an enhanced and consistent user experience, progress is being made through the design and launch of an updated user interface and reports that will be mobile optimized in fall 2024.

During the 2023–24 school year, VAConnects housed the pilot of VALLSS in 17 school divisions across Virginia. The VALLSS team solicited and collected feedback from users throughout the pilot that is being used to refine and improve VAConnects as described in the progress towards goals listed above.

### **VAConnects Next Steps**

In fall 2024, VALLSS will launch statewide in VAConnects in Grades kindergarten through three in all school divisions across Virginia. By spring 2025, the shared entity management will have been designed and built. It will serve as the single location where all VAConnects users can be managed, allowing for decreased redundancy in information that users enter and upload to the three separate applications. All three programs will launch in VAConnects in fall 2025. By aligning these systems, critical questions can be answered related to how children’s early care and education experiences across the first five years link to learning and social-emotional outcomes and growth in pre-kindergarten and beyond.



## 2023–2024 VKRP Kindergarten Data

This section presents kindergarten data from the 2023–2024 school year. In the fall of 2023 and the spring of 2024, kindergarten students across the Commonwealth completed assessments in the domains of literacy (PALS-K) and mathematics (EMAS), and teachers rated students' self-regulation, social skills, and mental health well-being (CBRS). The VKRP 2023–2024 assessment methods, demographic data, completion rates, results, and trends across time in mathematics, self-regulation, and social skills are all described below.

### Background

#### Assessment Methods

Students were directly assessed on the Phonological Awareness Literacy Screener (PALS-K) and the Early Mathematics Assessment System (EMAS) in the fall of 2023 and spring of 2024 by their classroom teachers, instructional assistants, and/or other school personnel (e.g., mathematics coaches, literacy specialists). In fall 2023 and spring 2024, teachers also completed the Child Behavior Rating Scale (CBRS), which assesses teachers' reports of students' self-regulation and social skills. Teachers also complete five items on their observations about students' mental health well-being and an item that asks them to report how concerned they are about a student's social-emotional well-being. Throughout the 2023–2024 year, VKRP trained school staff on how to administer the EMAS and CBRS through either in-person or web-based trainings, by a trainer designated by the school division, or by completing VKRP kindergarten online training modules. Most teachers were trained on the PALS-K measure by a trainer designated by the school division. More information regarding the VKRP assessments and the history of their implementation can be found on the [VKRP website](#).

The fall 2023 assessment windows were September 5 – November 10, 2023, for PALS-K and August 21 – November 3, 2023, for VKRP. The spring 2024 assessment windows were April 22 – May 17, 2024, for PALS-K and April 8 – May 17, 2024, for VKRP. Both PALS-K and EMAS had remote testing options for use during both fall 2023 and spring 2024 timepoints. During the 2023–2024 school year, less than 1% of EMAS assessments were completed in a remote format.

#### 2023–2024 VKRP Kindergarten Demographic Data

During the 2023–2024 academic year, 131 school divisions participated in VKRP. In total, 1,091 Virginia schools implemented VKRP in the fall of 2023, resulting in data from 4,948 kindergarten classrooms and 85,367 kindergarten students. In spring 2024, 1,118 schools, 5,039 kindergarten classrooms, and 86,332 kindergarten students participated in VKRP.

The student demographic data for fall 2023 and spring 2024 are presented in

Table 2. The spring 2024 sample included slightly more students from low-income backgrounds (47%) compared to the fall 2023 sample (42%). This change has been observed in past school years and reflects both more complete data obtained about the family's socioeconomic status as well as changes in a family's financial needs from fall 2023 to spring 2024. There were also more students identified as having a disability in the spring of 2024 (14%) compared to the fall of 2023 (11%), reflecting additional students being identified as having a disability after the fall 2023 VKRP assessment term during the kindergarten school year.

**Table 2****2023–2024 Kindergarten Demographic Summary**

Demographic	Description	Fall 2023 N = 86,947	Spring 2024 N = 88,185
		Mean (SD) or n (%)	Mean (SD) or n (%)
<b>Age</b>	Age in years on September 30, 2023	5.54 (0.34)	5.54 (0.34)
<b>Sex</b>	Female	41,400 (48.3)	42,133 (48.3)
	Male	44,342 (51.7)	45,177 (51.7)
	Other	16 (< 0.1)	-
<b>Race/Ethnicity</b>	American Indian or Alaska Native	253 (0.3)	264 (0.3)
	Asian	5,912 (6.9)	6,052 (6.9)
	Black or African American	18,203 (21.2)	18,536 (21.2)
	Hispanic/Latino of any race	17,140 (20.0)	17,936 (20.5)
	White, not of Hispanic origin	37,347 (43.6)	37,566 (43.0)
	Native Hawaiian or other Pacific Islander	114 (0.1)	118 (0.1)
	Non-Hispanic/Latino of any race, two or more races	6,789 (7.9)	6,865 (7.9)
<b>Family Income Status<sup>a</sup></b>	Students not from low-income backgrounds	49,712 (58.0)	46,016 (52.7)
	Students from low-income backgrounds	36,046 (42.0)	41,321 (47.3)
<b>Pre-kindergarten Experience</b>	Head Start	2,969 (3.5)	3,159 (3.6)
	Public pre-kindergarten	31,505 (36.7)	31,840 (36.5)
	Private pre-kindergarten	27,280 (31.8)	27,444 (31.4)
	Department of Defense child development program	489 (0.6)	495 (0.6)
	Family day home	1,531 (1.8)	1,568 (1.8)
	No pre-kindergarten	21,984 (25.6)	22,831 (26.1)
<b>Disability<sup>b</sup></b>	Students without a disability	76,121 (89.1)	74,818 (86.3)
	Students with a disability	9,359 (10.9)	11,884 (13.7)
<b>Language<sup>c</sup></b>	Not English language/multilingual learners (EL)	72,568 (84.6)	72,861 (83.4)
	English language/multilingual learners (EL)	13,190 (15.4)	14,453 (16.6)

<sup>a</sup> Source: SRC Disadvantaged Status Flag. The Disadvantaged Status Flag identifies the student as economically disadvantaged if the student: 1) is eligible for Free/Reduced Meals to include Foster, Head Start, Migrant, and Homeless students; or 2) receives TANF; or 3) is eligible for Medicaid.

<sup>b</sup> Source: SRC Primary Disability Code. Students are identified as having a disability if any code is present except, "Qualified Individual under Section 504."

<sup>c</sup> Source: Student Record Collection (SRC) EL Services Code. Students are identified as English language/multilingual learners (EL) if code is, "Identified as EL and receives EL services," "Identified as EL but has refused EL services," or "Identified as formerly EL for each of the 4 years after exiting EL services."

**2023–2024 VKRP Kindergarten Completion Data**

Kindergarten completion rates were above 95% for the fall of 2023 and the spring of 2024 (

Table 3). EMAS and CBRS exemptions from testing, which are usually reserved for students who cannot be validly assessed due to developmental disabilities, were less than 1% of the total population of potentially assessed students.

**Table 3***2023–2024 Kindergarten Assessment Completion*

Assessment	Status	Fall 2023 N=86,957	Spring 2024 N=88,185
		n (%)	n (%)
PALS-K*	Incomplete	968 (1.4)	606 (0.9)
	Exempt	462 (0.7)	470 (0.7)
	Complete, remote	60 (0.1)	81 (0.1)
	Complete, non-standard <sup>a</sup>	270 (0.4)	331 (0.5)
	Complete, standard	66,026 (97.4)	67,054 (97.8)
EMAS	Incomplete	1,215 (1.4)	974 (1.1)
	Exempt	738 (0.9)	627 (0.7)
	Complete, Spanish	789 (0.9)	667 (0.8)
	Complete, remote	39 (<0.1)	37 (<0.1)
	Complete, non-standard <sup>a</sup>	270 (0.3)	271 (0.3)
	Complete, standard	82,388 (96.4)	83,756 (97.0)
CBRS	Incomplete	1,754 (2.1)	2,003 (2.3)
	Exempt	448 (0.5)	385 (0.5)
	Complete, standard	83,237 (97.4)	83,944 (97.2)
Breakdown of assessment overlap (complete, standard, or remote only)	PALS-K, EMAS, CBRS	64,104 (75.9)	65,369 (76.6)
	PALS-K, EMAS	652 (0.8)	785 (0.9)
	PALS-K, CBRS	906 (1.1)	761 (0.9)
	EMAS, CBRS	17,523 (20.7)	17,188 (20.1)
	PALS-K	424 (0.5)	220 (0.3)
	EMAS	148 (0.2)	451 (0.5)
	CBRS	704 (0.8)	626 (0.7)

*Note.* Overall and domain benchmarks are only calculated for students with a standard or remote administration.

\* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

<sup>a</sup> Non-standard administration includes accommodations to the administration conditions (i.e., frequent breaks, simplified directions) that do not follow the standard administration protocol.

Table 4 provides demographic characteristics of those students who were assessed across all four domains. Due to the high completion rates in both the fall of 2023 and the spring of 2024, students who were fully assessed across all four domains, as compared with those who were assessed on only one to three domains, largely resemble the overall sample except for disability status. In the fall of 2023, 11% of all students in the overall sample were identified as having a disability, while 9% of students who were fully assessed were identified as having a disability. The pattern was similar in the spring of 2024, where 14% of the overall sample were identified as having a disability, while 12% of students who were fully assessed were identified as having a disability.

**Table 4****2023–2024 Fully Assessed Kindergarten Students Demographic Summary**

Demographic	Description	Fall 2023	Spring 2024
		Fully-Assessed Sample n=64,104 SRC Demographics n=63,601	Fully-Assessed Sample n=65,316 SRC Demographics n=64,833
		Mean (SD) or n (%)	Mean (SD) or n (%)
<b>Age</b>	Age in years on September 30, 2023	5.54 (0.34)	5.54 (0.33)
<b>Sex</b>	Female	31,241 (49.1)	31,833 (49.1)
	Male	32,347 (50.9)	33,000 (50.9)
	Other	13 (<0.1)	-
<b>Race/Ethnicity</b>	American Indian or Alaska Native	164 (0.3)	174 (0.3)
	Asian	4,103 (6.4)	4,250 (6.6)
	Black or African American	14,223 (22.3)	14,403 (22.2)
	Hispanic/Latino of any race	12,572 (19.8)	13,414 (20.7)
	White, not of Hispanic origin	27,455 (43.2)	27,473 (42.4)
	Native Hawaiian or other Pacific Islander	70 (0.1)	73 (<0.1)
	Non-Hispanic/Latino of any race, two or more races	5,014 (7.9)	5,067 (7.8)
<b>Family Income Status<sup>a</sup></b>	Students not from low-income backgrounds	36,879 (58.0)	34,115 (52.6)
	Students from low-income backgrounds	26,722 (42.0)	30,739 (47.4)
<b>Pre-kindergarten Experience</b>	Head Start	2,330 (3.7)	2,483 (3.8)
	Public pre-kindergarten	23,137 (36.4)	23,278 (35.9)
	Private pre-kindergarten	20,282 (31.9)	20,377 (31.4)
	Department of Defense child development program	414 (0.6)	418 (0.7)
	Family day home	1,147 (1.8)	1,153 (1.8)
	No pre-kindergarten	16,291 (25.6)	17,145 (26.4)
<b>Disability<sup>b</sup></b>	Students without a disability	57,653 (91.0)	56,867 (88.4)
	Students with a disability	5,722 (9.0)	7,488 (11.6)
<b>Language<sup>c</sup></b>	Not English language/multilingual learners	53,969 (84.9)	53,944 (83.2)
	English language/multilingual learners	9,632 (15.1)	10,892 (16.8)

\* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

<sup>a</sup> Source: SRC Disadvantaged Status Flag. The Disadvantaged Status Flag identifies the student as economically disadvantaged if the student: 1) is eligible for Free/Reduced Meals to include Foster, Head Start, Migrant, and Homeless students; or 2) receives TANF; or 3) is eligible for Medicaid.

<sup>b</sup> Source: SRC Primary Disability Code. Students are identified as having a disability if any code is present *except*, “Qualified Individual under Section 504.”

<sup>c</sup> Source: Student Record Collection (SRC) EL Services Code. Students are identified as English language/multilingual learners (EL) if code is, “Identified as EL and receives EL services,” “Identified as EL but has refused EL services,” or “Identified as formerly EL for each of the 4 years after exiting EL services.”

Table 5 provides descriptive information on the means across all four domains in the fall and spring of the 2023–2024 school year. Table 5 also provides information on the number of students who were meeting or below the overall benchmark across the four domains in fall 2023 and spring 2024.

**Table 5**

*2023–2024 Kindergarten Assessment Descriptive Data*

Domain	Description	Fall 2023				Spring 2024			
		N	Min	Max	Mean (SD)	N	Min	Max	Mean (SD)
<b>Literacy*</b>	PALS Summed Score	66,086	0	92	52.64 (24.09)	67,135	3	95	86.88 (14.86)
<b>Mathematics</b>	EMAS Scaled Score	82,427	296	830	593.34 (77.78)	83,770	363	911	698.47 (78.07)
<b>Social-Emotional</b>	CBRS Self-Regulation Mean Score	83,237	1.00	5.00	3.68 (0.84)	83,901	1.00	5.00	3.88 (0.82)
	CBRS Social Skills Mean Score	83,237	1.00	5.00	4.22 (0.68)	83,901	1.00	5.00	4.31 (0.68)
	CBRS Well-Being Mean Score	83,237	1.00	5.00	4.31 (0.62)	83,901	1.00	5.00	4.39 (0.60)
Domain	Benchmark Status	n (%)				n (%)			
<b>Literacy*</b>	Below benchmark	13,675 (20.7)				11,920 (17.8)			
	Meeting benchmark	52,411 (79.3)				55,215 (82.2)			
<b>Mathematics</b>	Below benchmark	16,995 (20.6)				16,688 (19.9)			
	Meeting benchmark	65,432 (79.4)				67,082 (80.1)			
<b>Self-Regulation</b>	Below benchmark	13,041 (15.7)				16,004 (19.1)			
	Meeting benchmark	70,196 (84.3)				67,897 (80.9)			
<b>Social Skills</b>	Below benchmark	14,583 (17.5)				18,568 (22.1)			
	Meeting benchmark	68,654 (82.5)				65,333 (77.9)			
<b>Overall</b>	Below benchmark	25,574 (39.9)				26,840 (41.1)			
	Meeting benchmark	38,530 (60.1)				38,476 (58.9)			

\* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.



## 2023–2024 VKRP Kindergarten Overall and Domain Results

In this section, the fall 2023 and spring 2024 VKRP data for kindergarten students are presented. Data shared include the 2023–2024 overall readiness/benchmark levels of kindergarten students and those represented in specific demographic categories for both the overall readiness/benchmark levels and within the specific domains of literacy, mathematics, self-regulation, and social skills.

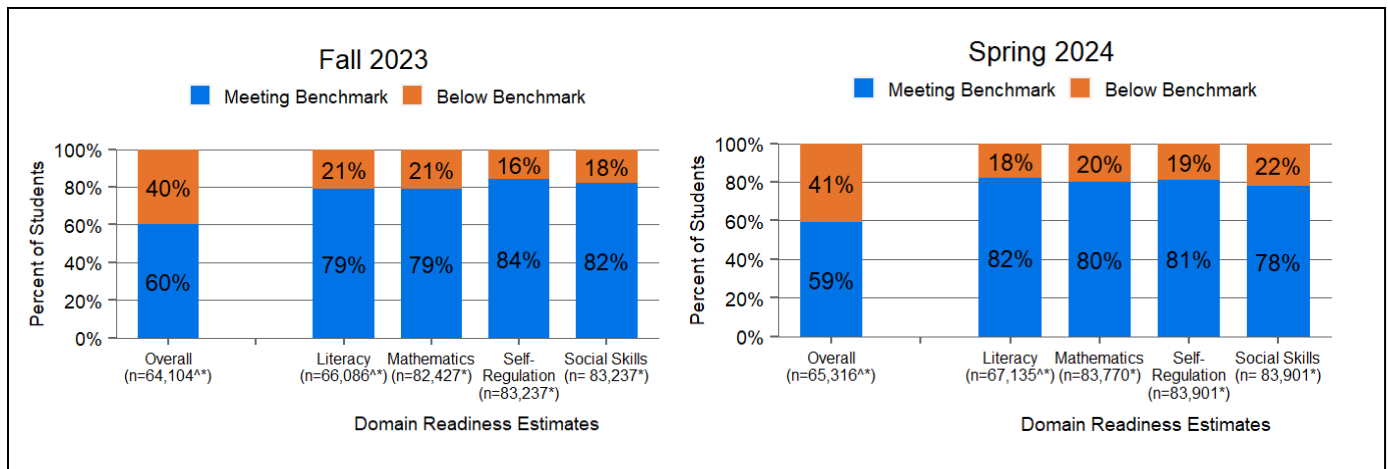
Benchmark estimates for the 2032–2024 school year are provided in

**Figure 17. The data from the 2023–2024 academic year indicated that 40% of students' scores fell below the overall VKRP benchmark in the fall of 2023. In the spring of 2024, 41% of students' scores fell below the overall VKRP benchmark.**

When looking across fall 2023 and spring 2024, for literacy and mathematics, more students' scores were below the benchmark in fall compared to spring. In literacy, 21% of students' scores did not meet the benchmark in the fall of 2023 compared to 18% in the spring of 2024. In mathematics, 21% of students' scores did not meet the benchmark in the fall of 2023 compared to 20% in the spring of 2024. The pattern for self-regulation and social skills was the opposite with a greater percentage of students' scores falling below the benchmark in spring 2024 as compared to fall 2023. In self-regulation, 16% of students' scores fell below the benchmark in the fall of 2023 and 19% in the spring of 2024. In social skills, 18% of students' scores fell below the benchmark in the fall 2023 and 22% in the spring of 2024.

**Figure 17**

*Fall 2023 and Spring 2024 Kindergarten Overall and Domain Benchmark Estimates*



<sup>^</sup> These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

\* All students who had data on each individual measure were included to obtain these estimates.

## 2023–2024 Variability in Benchmark Estimates Disaggregated by Student Characteristics

In this section, the benchmark data in fall of 2023 and spring of 2024 is disaggregated according to a variety of student characteristics. The breakdowns of VKRP data by pre-kindergarten experience are presented first because this is specifically requested in the General Assembly's budget appropriation language. In addition, the VKRP data is disaggregated according to student disability status, English language/multilingual learner (EL)

status, race, sex, and age. Associations between student characteristics and VKRP data do not provide causal evidence that a student characteristic leads to having higher or lower scores on the VKRP assessments.

### Students With Public Pre-kindergarten Experience Compared to Those Who Did Not Attend Pre-kindergarten

For this breakdown, public pre-kindergarten experience was defined as any student who attended a pre-kindergarten program operating within the public school. This includes VPI, Title I, ECSE, and Head Start programs—both in the public school and if the public school is the fiscal agent, and locally-funded public pre-kindergarten programs. No pre-kindergarten experience was defined as any student whose family reported that they had not had a formal classroom pre-kindergarten experience. An example of this would be if the student was at home with a parent, family member, or other caregiver. Below are the comparisons between students who attended any type of publicly supported pre-kindergarten experience with those whose families reported that their students did not attend formal pre-kindergarten. Note that due to data limitations, this analysis does not include children who participated in preschool, pre-kindergarten or a similar experience in private child care centers or family day homes. Current data cannot accurately indicate which children are in which private settings. Ultimately Virginia will need to compare all publicly-funded experiences that precede kindergarten which will be made possible through VQB5 and LinkB5.

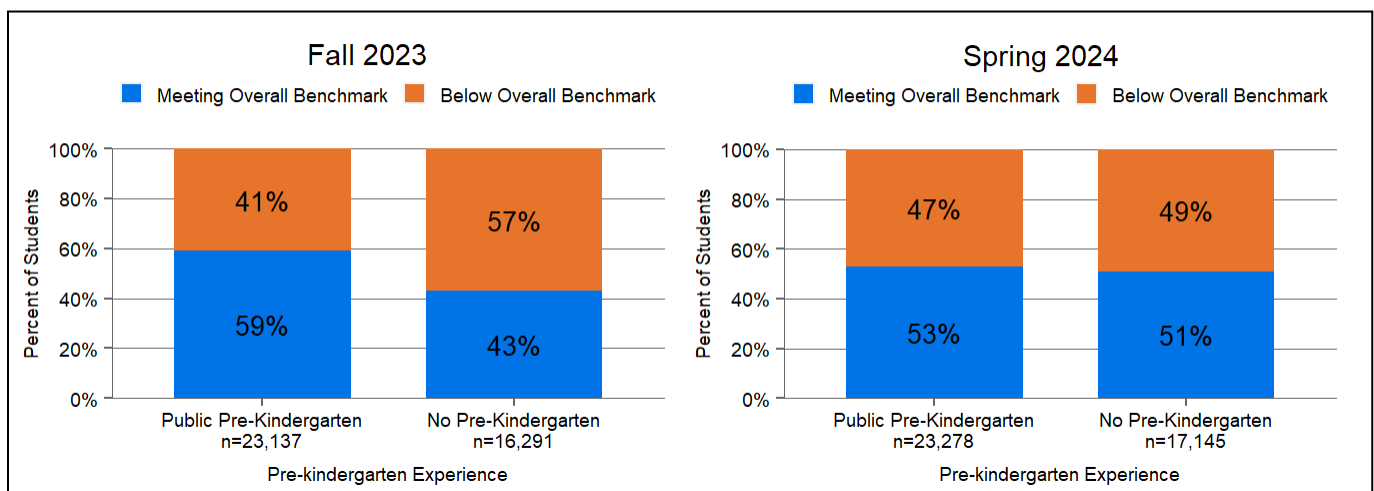
**Students assessed in the fall of 2023 who attended public pre-kindergarten were more likely to have scores categorized as meeting or exceeding the overall readiness benchmark (ready), compared to students who did not attend any pre-kindergarten (Again, note that this analysis is limited to a subset of children due to data limitations. Future analysis will seek to include all children served with public funds in private settings such as child care centers and family day homes.**

Figure 18). In the fall of 2023, 59% of students who attended public pre-kindergarten had scores meeting the overall VKRP readiness benchmark compared to 43% of students without pre-kindergarten experience meeting the overall readiness benchmark.

**In the spring of 2024, students who attended public pre-kindergarten were slightly more likely to be categorized as meeting the overall benchmark (53%) compared to students who did not attend pre-kindergarten (51%). Again, note that this analysis is limited to a subset of children due to data limitations. Future analysis will seek to include all children served with public funds in private settings such as child care centers and family day homes.**

**Figure 18**

*Fall 2023 and Spring 2024 Kindergarten Overall Benchmark Status by Public Pre-kindergarten Experience*



*Note.* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

### Students From Low-Income Backgrounds

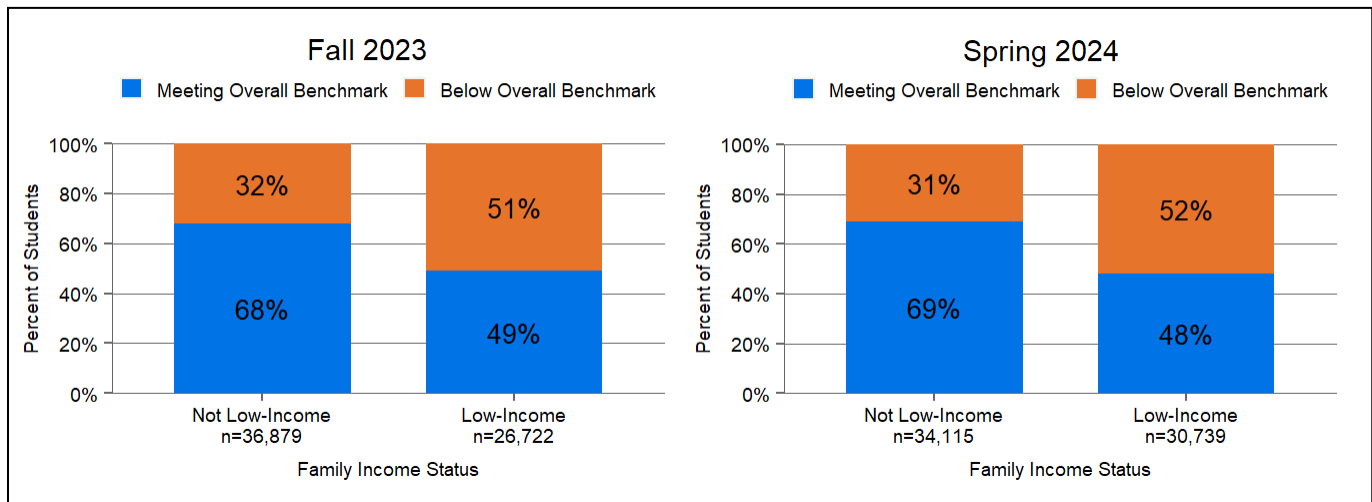
Students' 2023–2024 benchmark scores were examined based on whether they came from low-income backgrounds. Students were categorized using the VDOE Disadvantaged Status Flag entered in the Student Record Collection (SRC). The Disadvantaged Status Flag identifies a student as economically disadvantaged, at any point during the school year, if the student: 1) is eligible for Free/Reduced Meals to include Foster, Head Start, Migrant, and Homeless students; 2) receives Temporary Assistance for Needy Families (TANF); or 3) is eligible for Medicaid. Detailed definitions for the SRC are included in Appendix A.

**For the overall benchmark, in both the fall and spring of 2023–2024, students from low-income backgrounds were significantly more likely to have scores categorized as below the overall benchmark, compared to those coming from higher income backgrounds (**

**Figure 19).** Patterns were consistent in fall 2023 (32% below benchmark for students not from low-income backgrounds compared with 51% below benchmark for students coming from low-income backgrounds) and spring 2024 (31% below benchmark for students not from low-income backgrounds compared with 52% below benchmark for students coming from low-income backgrounds).

**Figure 19**

*Fall 2023 and Spring 2024 Kindergarten Overall Benchmark Status by Low-Income Background Status*



*Note.* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

### Students From Low-Income Backgrounds with Public Pre-kindergarten Experience

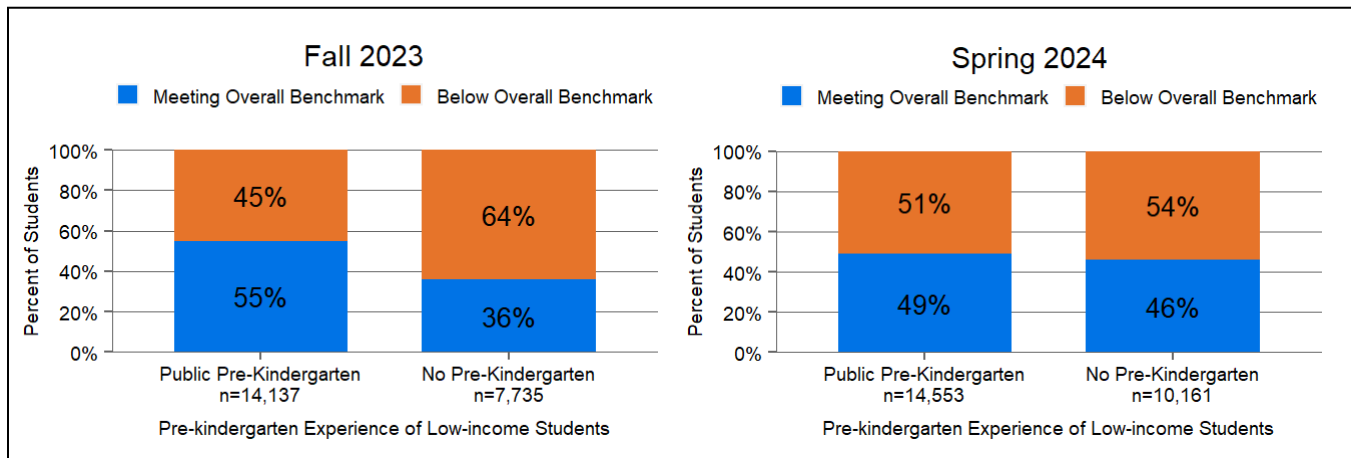
**In fall of 2023 and spring of 2024, students from low-income backgrounds who attended public pre-kindergarten were more likely to have scores that met or exceeded the overall benchmark compared to students from low-income backgrounds who did not attend public pre-kindergarten (55% versus 36% in fall 2023 and 49% versus 46% in spring 2024 (**

**Figure 20).** The public pre-kindergarten advantage was larger in the fall of 2023 compared to the spring of 2024. In fall 2023 data, there was a 19% difference between the two groups. In the spring of 2024, the difference was only 3%. This is consistent with literature suggesting that there is a “catch-up” effect whereby advantages in skills at the beginning of the kindergarten year for children who attended pre-kindergarten, compared with children with no pre-kindergarten experience, diminish by the end of kindergarten (e.g., Ansari et al., 2020<sup>10</sup>).

<sup>10</sup> Ansari, A., Pianta, R. C., Whittaker, J. V., Vitiello, V. E., & Ruzek, E. A. (2020). Persistence and convergence: The end of kindergarten outcomes of pre-K graduates and their nonattending peers. *Developmental Psychology*, 56(11), 2027–2039. <https://doi.org/10.1037/dev0001115>

**Figure 20**

*Fall 2023 and Spring 2024 Kindergarten Overall Benchmark Status by Pre-kindergarten Experience for Students from Low-Income Background Status*



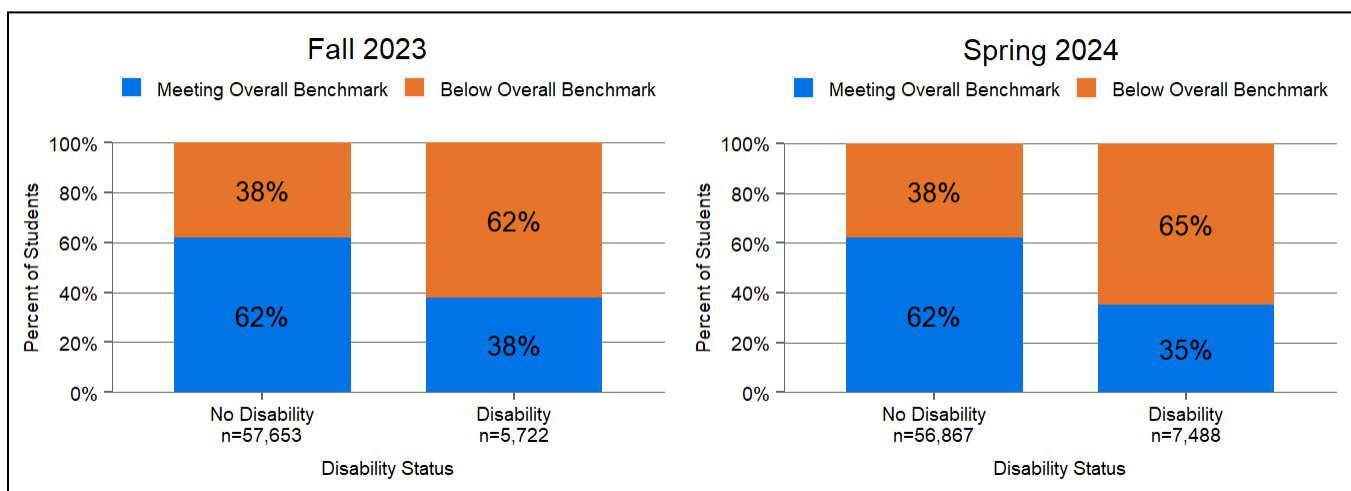
*Note.* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

### Students With Disability Status

**Students with disabilities were more likely to have scores categorized as below the overall benchmark in both the fall of 2023 and in the spring of 2024 (Figure 21).** In fall 2023, 62% of students with disabilities' scores were categorized as below the overall benchmark, compared with 38% of students without disabilities. In spring 2024, 65% of students with disabilities' scores were categorized as below the overall benchmark, compared to 38% students without a disability.

**Figure 21**

*Fall 2023 and Spring 2024 Kindergarten Overall Benchmark Status by Disability Status*



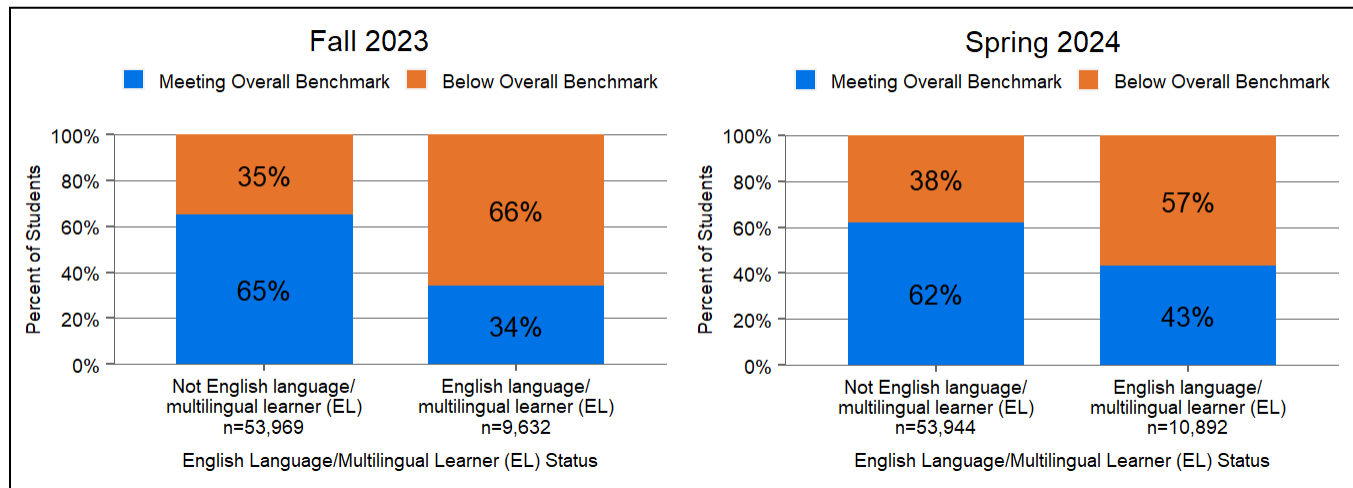
*Note.* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

### Students With English Language/Multilingual Learner (EL) Status

**Students identified as English language/multilingual learners (EL) were more likely than non-EL students to have scores categorized as below the overall benchmark in both fall 2023 and spring 2024 (Figure 22).** In the fall of 2023, 66% of EL students had scores below the overall readiness benchmark compared to 35% of non-EL students. In spring 2024, 57% of EL students had scores below the overall benchmark compared to 38% of non-EL students.

**Figure 22**

*Fall 2023 and Spring 2024 Kindergarten Overall Benchmark Status by English Language/Multilingual Learner (EL) Status*



*Note.* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

### Students' Race and Ethnic Groups

**Overall benchmark status was associated with racial/ethnic identification.** In 2023–2024, there was significant variability in the proportions of students performing above and below the overall benchmark across racial and ethnic groups at both timepoints (

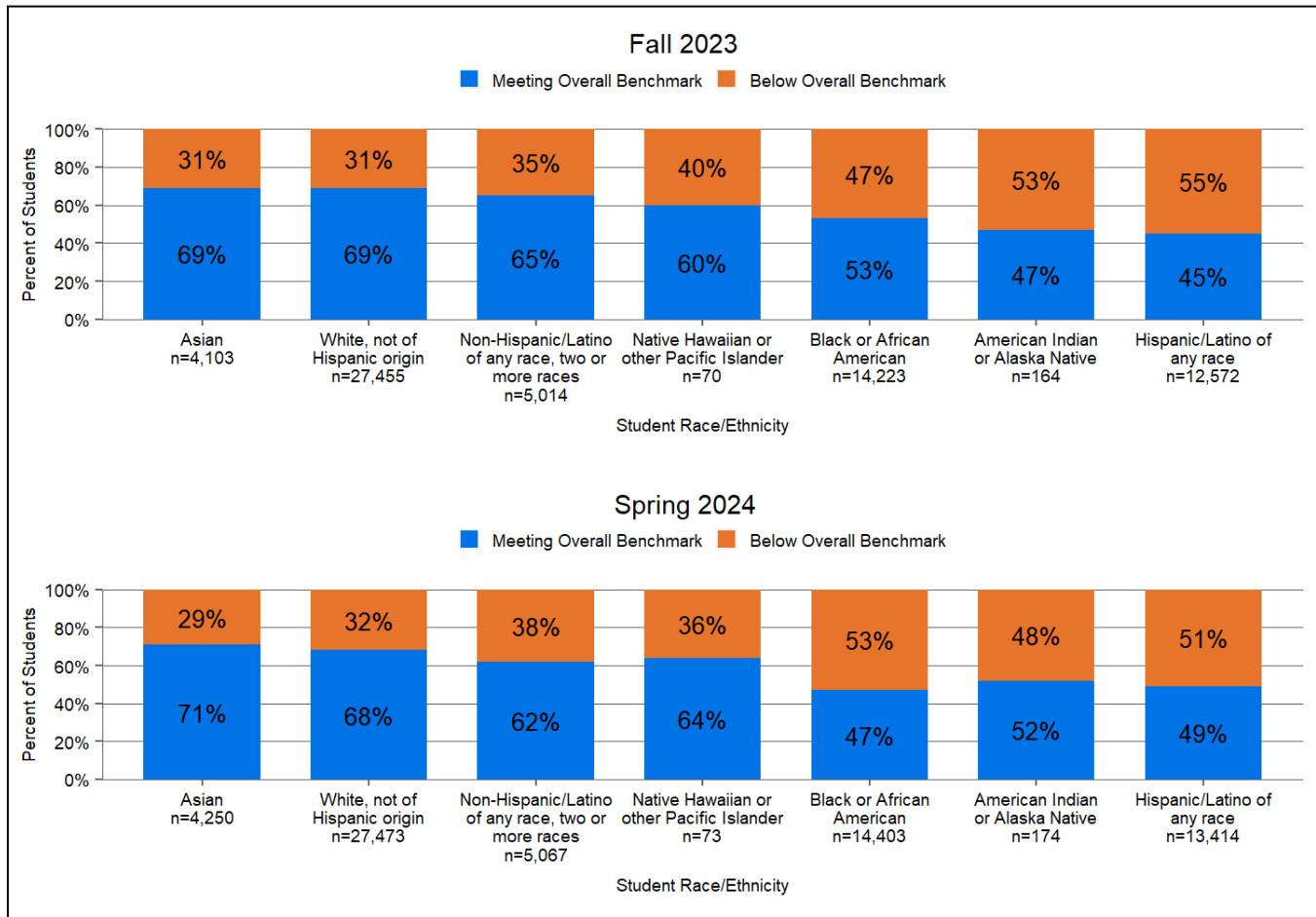
Figure 23). In fall 2023, Hispanic/Latino students of any race and American Indian or Alaska Native students were more likely to have scores below the overall benchmark compared to students from other racial groups. In spring 2024, Black or African American and Hispanic/Latino students of any race students were more likely to have scores below the overall benchmark compared to students from other racial groups.

When examining variability in overall benchmark performance from fall 2023 to spring 2024 based on race/ethnicity, there was a similar pattern of findings with three exceptions. First, a higher percentage of Black or African American students had scores below the overall benchmark in spring 2024 (53%) compared to fall 2023 (47%). Second, a lower percentage of Hispanic/Latino students of any race had scores below the overall benchmark in spring 2024 (51%) compared to fall 2023 (55%). Lastly, there was a lower percentage of Native Hawaiian or other Pacific Islander students' scores below the overall benchmark in spring 2024 (36%) compared to fall 2023 (40%).



**Figure 23**

*Fall 2023 and Spring 2024 Kindergarten Overall Benchmark Status by Race/Ethnicity*



*Note.* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

**Table 6 and**

**Table 7 show how the overlap with student race/ethnicity and those coming from a low-income background is jointly associated with proportions of students' scores falling above and below the overall benchmark in 2023–2024.** For example, students who were Hispanic/Latino of any race or Black or African American were more likely to score below the overall benchmark if they came from a low-income background. These associations tended to be more pronounced in the spring of 2024.

**Table 6***Fall 2023 Kindergarten Overall Benchmark Status by Low-Income Status and Race/Ethnicity*

Race/Ethnicity	Not Low-Income			Low-Income		
	Below Benchmark	Meeting Benchmark	Total	Below Benchmark	Meeting Benchmark	Total
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
American Indian or Alaska Native	48 (49.0)	50 (51.0)	98 (100.0)	39 (59.1)	27 (40.9)	66 (100.0)
Asian	693 (24.9)	2,088 (75.1)	2,781 (100.0)	563 (42.6)	759 (57.4)	1,322 (100.0)
Black or African American	2,344 (42.3)	3,196 (57.7)	5,540 (100.0)	4,335 (49.9)	4,348 (50.1)	8,683 (100.0)
Hispanic/Latino of any race	2,868 (50.2)	2,848 (49.8)	5,716 (100.0)	4,073 (59.4)	2,783 (40.6)	6,856 (100.0)
White, not of Hispanic origin	4,915 (25.0)	14,721 (75.0)	19,636 (100.0)	3,629 (46.4)	4,190 (53.6)	7,819 (100.0)
Native Hawaiian or other Pacific Islander	13 (31.0)	29 (69.0)	42 (100.0)	15 (53.6)	13 (46.4)	28 (100.0)
Non-Hispanic/Latino of any race, two or more races	840 (27.4)	2,226 (72.6)	3,066 (100.0)	893 (45.8)	1,055 (54.2)	1,948 (100.0)
<b>Total</b>	<b>11,721 (31.8)</b>	<b>25,158 (68.2)</b>	<b>36,879 (100.0)</b>	<b>13,547 (50.7)</b>	<b>13,175 (49.3)</b>	<b>26,722 (100.0)</b>

*Note.* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

**Table 7***Spring 2024 Kindergarten Overall Benchmark Status by Low-Income Status and Race/Ethnicity*

Race/Ethnicity	Not Low-Income			Low-Income		
	Below Benchmark	Meeting Benchmark	Total	Below Benchmark	Meeting Benchmark	Total
	n (%)	n (%)	n (%)	n (%)	n (%)	n (%)
American Indian or Alaska Native	26 (31.3)	57 (68.7)	83 (100.0)	58 (63.7)	33 (36.3)	91 (100.0)
Asian	645 (23.7)	2,081 (76.3)	2,726 (100.0)	573 (37.6)	951 (62.4)	1,524 (100.0)
Black or African American	1,933 (44.0)	2,458 (56.0)	4,391 (100.0)	5,686 (56.8)	4,326 (43.2)	10,012 (100.0)
Hispanic/Latino of any race	2,429 (45.6)	2,903 (54.4)	5,332 (100.0)	4,347 (53.8)	3,735 (46.2)	8,082 (100.0)
White, not of Hispanic origin	4,857 (25.9)	13,883 (74.1)	18,740 (100.0)	4,046 (46.3)	4,687 (53.7)	8,733 (100.0)
Native Hawaiian or other Pacific Islander	10 (25.6)	29 (74.4)	39 (100.0)	16 (47.1)	18 (52.9)	34 (100.0)
Non-Hispanic/Latino of any race, two or more races	794 (28.3)	2,010 (71.7)	2,804 (100.0)	1,130 (49.9)	1,133 (50.1)	2,263 (100.0)
<b>Total</b>	<b>10,694 (31.3)</b>	<b>23,421 (68.7)</b>	<b>34,115 (100.0)</b>	<b>15,856 (51.6)</b>	<b>14,883 (48.4)</b>	<b>30,739 (100.0)</b>

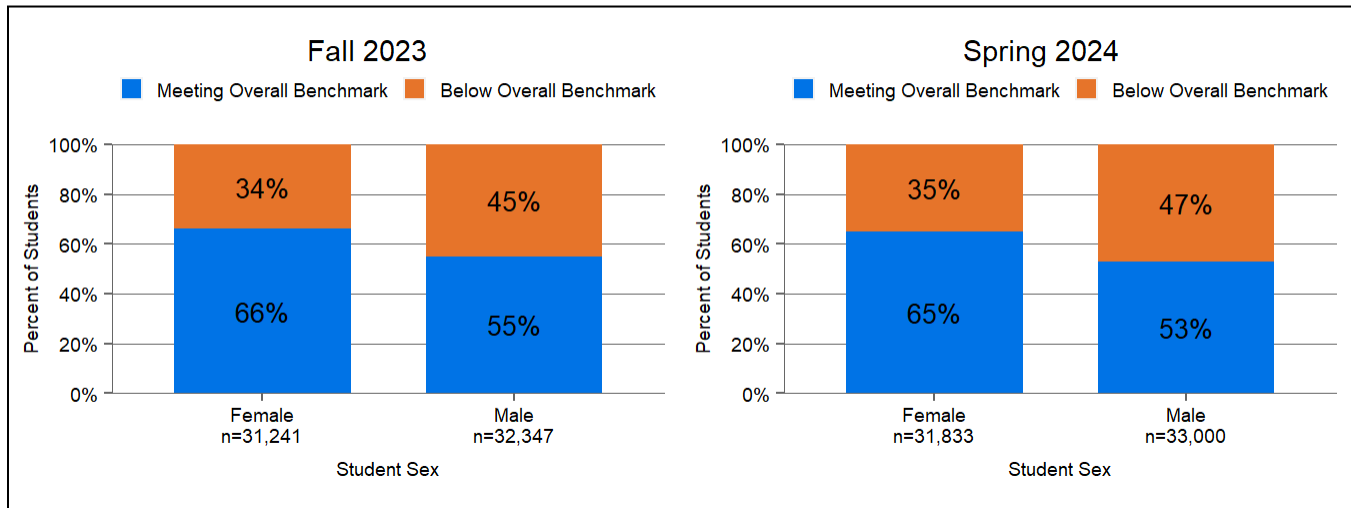
*Note.* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

### Student Outcomes by Sex

**In both fall 2023 and spring 2024, a larger percentage of kindergarten male students scored below the overall benchmark compared to female students (Figure 24).**

**Figure 24**

*Fall 2023 and Spring 2024 Kindergarten Overall Benchmark Status by Sex*



*Note.* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

### Students' Age

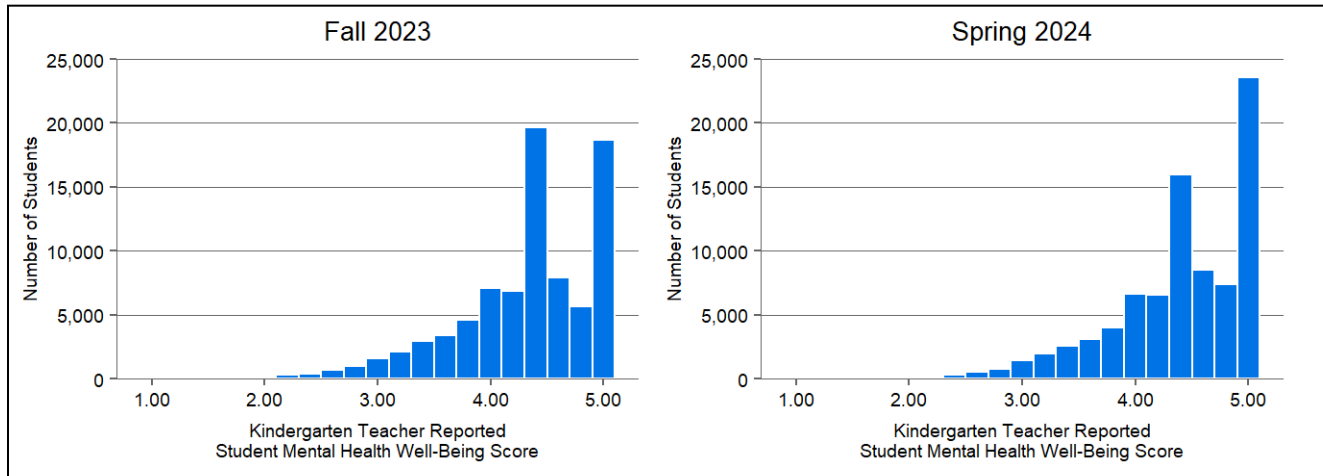
**In both fall 2023 and spring 2024, a larger percentage of younger students compared with older students had scores below the overall benchmark.**

### 2023–2024 VKRP Kindergarten Students' Mental Health Well-being Data

In response to the COVID-19 pandemic, at the beginning of the 2020–2021 school year, VKRP added new reporting items to better understand teachers' perceptions of students' mental health well-being. These Mental Health Well-being Items capture the teachers' perceptions of students' behaviors related to mental health well-being. Items include "adapts when things change; goes with the flow" and "calms down after being upset, frustrated, or angry." Items are rated by the kindergarten classroom teacher on a scale of 1 to 5, with higher scores indicating greater mental health well-being. A composite score is created by averaging the mental health well-being item scores. Additionally, there is a single item where teachers are asked to rate their level of concern for each student's social-emotional well-being on a scale of 1 (not at all) to 5 (extremely). The average overall mental health well-being score was 4.31 out of 5 ( $SD = 0.62$ ) in the fall of 2023 and 4.39 out of 5 ( $SD = 0.60$ ) in the spring of 2024 (Table 5).

**Figure 25**

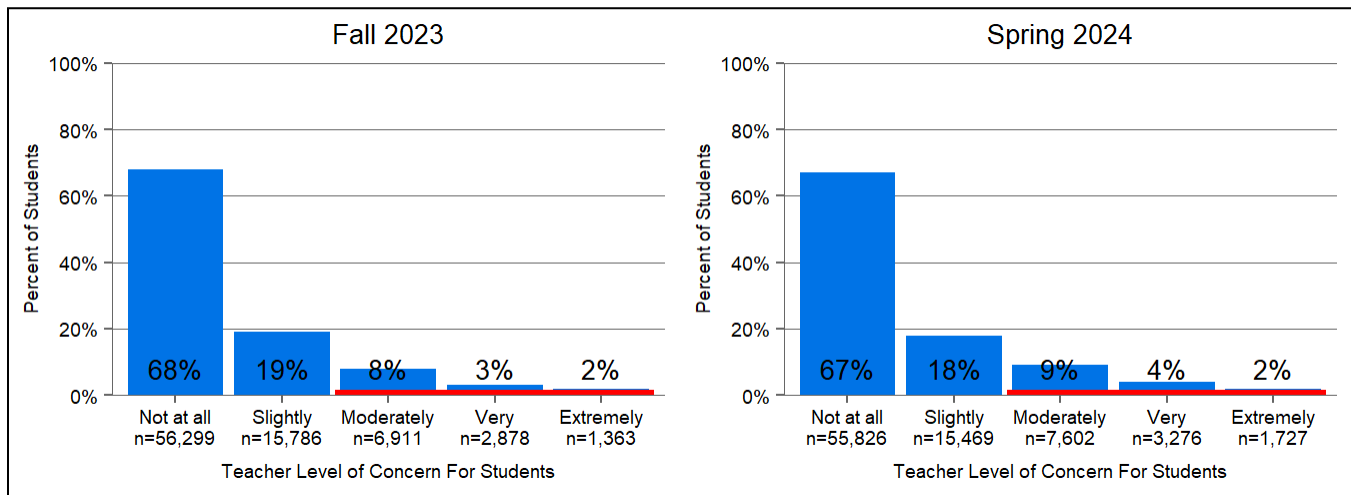
*Fall 2023 and Spring 2024 Kindergarten Mental Health Well-being Composite Score*



Teachers reported that most students had high levels of well-being based on the composite score in 2023–2024. Based on the teacher concern item, kindergarten teachers reported to be moderately, very, or extremely concerned about the social-emotional well-being of 13% of their students in the fall of 2023 and 15% of their students in the spring of 2024 (Figure 26).

**Figure 26**

*Fall 2023 and Spring 2024 Kindergarten Teacher Concern*



### 2023–2024 Teacher Reports of Concern for Student Well-being and Benchmark Estimates

In both fall of 2023 and spring of 2024, students whose teachers reported concern for the student's well-being were much more likely to not meet the overall benchmark and to be below the benchmark academically (in literacy and mathematics), socially, and emotionally (in self-regulation and social skills) compared to students whose teachers did not report well-being concern. These results indicate teacher concern about a student's well-being is an important indicator of which students need comprehensive and intensive supports to be successful in school.



## VKRP Kindergarten Benchmark Status and Growth from Fall 2023 to Spring 2024

In both fall 2023 and spring 2024, teachers administered literacy and mathematics assessments to kindergarten students and teachers completed ratings of kindergarten students' self-regulation and social skills. **The majority (68%, n = 61,240) of Virginia kindergarten students had complete data across all measures in both the fall of 2023 and the spring of 2024.**

This allowed us to answer the following questions:

- How did students shift in overall benchmark status from fall 2023 to spring 2024?
- How did students grow in mathematics, self-regulation, and social skills from fall 2023 to spring 2024?

Below are two metrics for understanding student progress or growth in the 2023–2024 school year. First, VKRP examined students' overall benchmark status changes from fall 2023 to spring 2024, which incorporates literacy, mathematics, self-regulation, and social skills. Second, students' growth from fall 2023 to spring 2024 for mathematics, self-regulation, and social skills were examined. The PALS-K screener was not developed as a growth measure; therefore, literacy growth is not displayed in the tables below. The revised state-supported literacy screener (VALLS: Kindergarten), to be implemented statewide during the 2024–2025 school year, will measure growth across the year.

### Did Kindergarten Students Change Their Overall VKRP Benchmark Status from Fall 2023 to Spring 2024?

There are four groups that students can fall into based upon their overall benchmark status in the fall of 2023 and in the spring of 2024. The four groups are:

- Below overall benchmark fall 2023/Below overall benchmark spring 2024
- Below overall benchmark fall 2023/Met overall benchmark spring 2024
- Met overall benchmark fall 2023/Below overall benchmark spring 2024
- Met overall benchmark fall 2023/Met overall benchmark spring 2024

As a reminder, the VKRP overall benchmark estimates are calculated based upon the expected skill levels of a kindergarten student at the beginning (fall) and end (spring) of the school year for each learning domain.

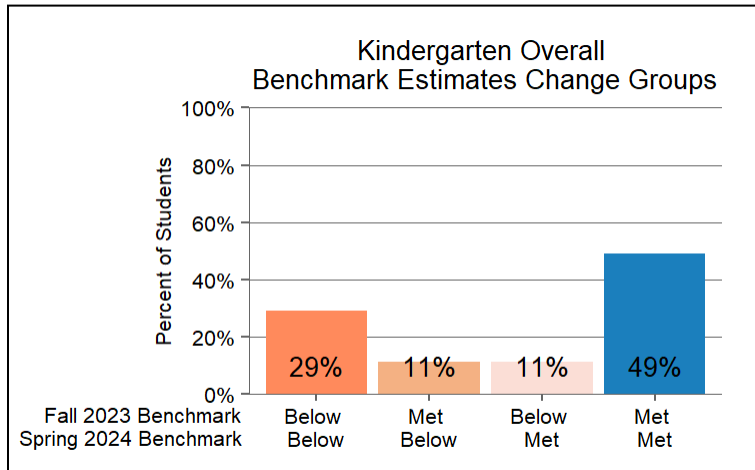
Students are included in the *below overall benchmark* group for fall 2023 and spring 2024, respectively, if they did not meet the benchmark in one or more of the four domains (e.g., literacy, mathematics, self-regulation, social skills) during either fall 2023 or spring 2024. Students are included in the *meeting overall benchmark* group for fall 2023 and spring 2024 terms, respectively, if they met the overall benchmark in all four domains during either the fall of 2023 or the spring of 2024.

As seen in

Figure 27, the largest group of kindergarten students (49%) were meeting the overall benchmark in both the fall of 2023 and spring of 2024. The second largest group of students (29%) were below the overall benchmark in both the fall of 2023 and spring of 2024. Most students (78%) remained in the same overall benchmark status group (met/met or below/below) from the fall of 2023 to the spring of 2024. There were also two smaller groups of students whose benchmark status shifted from the fall of 2023 to the spring of 2024. Specifically, 11% of students met the overall benchmark in fall 2023 but were below the overall benchmark in spring 2024. Conversely, 11% of students were below the overall benchmark in the fall of 2023 and met the overall benchmark in the spring of 2024.

**Figure 27**

*Kindergarten Overall Benchmark Status Change from Fall 2023 to Spring 2024*



*Note.* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

### How Did Kindergarten Students Grow in Mathematics, Self-Regulation, and Social Skills from Fall 2023 to Spring 2024?

This section discusses the overall growth in scaled scores in mathematics and growth in raw averaged scores in self-regulation and social skills from fall 2023 to spring 2024.

#### 2023–2024 VKRP Kindergarten Students’ Mathematics Scaled Score Growth

The EMAS captures growth over time using scaled scores ranging from 296 to 911 in kindergarten. In the following table and figures, each student’s scaled score in the fall of 2023 is subtracted from their scaled score in the spring of 2024 to arrive at each individual student’s growth score in mathematics (Table 8). These individual growth scores are then averaged to create a mean growth score at the state level for the 2023–2024 year.

Students’ scores on the EMAS have a normal distribution in the fall 2023 and spring 2024. There was also a normal distribution of growth across the year. Although there was a range in growth across the year, **on average, students gained 107 points in mathematics from fall 2023 to spring 2024, demonstrating robust growth in mathematics skills.** Very few students (89 or 0.01%) showed no growth, while a small portion of students (1,542 or 1.9%) showed negative growth.

**Table 8**

*Fall 2023 and Spring 2024 Kindergarten Mathematics Descriptive Statistics*

Domain	Measure	n	Mean (SD)	Range	Benchmark
Mathematics	Scaled Score, Fall	82,427	593.34 (77.78)	296 – 830	538
	Scaled Score, Spring	83,770	698.47 (78.07)	363 – 911	643
	Mean Growth	79,813	106.80 (56.00)	-323 – 551	-

#### Interpreting Kindergarten Students’ Growth in Self-Regulation and Social Skills Using the CBRS

The CBRS measures teacher reports of students’ self-regulation and social skills with scores ranging from 1 to 5 (never, rarely, sometimes, frequently, always). The CBRS uses the same items and the same rating scale across



Grades, and in fall and spring within a Grade. The CBRS captures students' growth in self-regulation and social skills over time using averaged raw scores.

When teachers rate a student's skills in self-regulation and social skills, they do so in relation to their expectations of what students should be able to do in their classroom at a particular point in time. Therefore, gains in scores from fall to spring are expected to be positive but modest. For example, consider the following item on the CBRS self-regulation scale: "Completes tasks successfully." A teacher may score a child as being able to do this frequently (a score of 4) in the fall and the spring. Thus, the growth score for that item would be zero. However, this does not mean a child did not grow in self-regulation skills in relation to this task because instructional tasks become more advanced and require greater self-regulation from fall to spring (e.g., tasks take longer, cover higher order concepts, have more steps, are expected to be done more independently). Therefore, a student would need to grow in their self-regulation skills for a teacher to rate them as frequently completing tasks successfully in the fall and spring.

In the following tables, each kindergarten student's average raw score in the fall of 2023 is subtracted from their average raw score in the spring of 2024 to arrive at each individual student's growth in self-regulation or social skills. These individual growth scores are then averaged to create a mean growth score at the state level. Below, 2023–2024 growth in self-regulation skills is presented followed by growth in social skills.

#### 2023–2024 VKRP Kindergarten Students' Self-Regulation Growth

There is a range in kindergarten self-regulation scores in both the fall of 2023 and the spring of 2024. **Teachers reported small gains in students' self-regulation skills over the year and growth is normally distributed (Table 9).** Additionally, the data showed that some students did make larger gains in self-regulation skills while other students lost ground relative to their fall 2023 scores.

**Table 9**

*Fall 2023 and Spring 2024 Kindergarten Self-Regulation Descriptive Statistics*

Domain	Measure	n	Mean (SD)	Range	Benchmark
Self-Regulation	Average Raw Score, Fall	83,237	3.68 (0.84)	1.00 – 5.00	2.90
	Average Raw Score, Spring	83,901	3.88 (0.82)	1.00 – 5.00	3.20
	Mean Growth	80,007	0.20 (0.63)	-3.60 – 4.00	-

#### 2023–2024 VKRP Kindergarten Students' Social Skills Growth

There is a range in kindergarten social skills scores in both fall 2023 and spring 2024. **Teachers reported small gains in students' social skills over the year 2023–2024 (Table 10).** Growth is normally distributed with some students making gains and others losing ground with regards to teachers' perceptions of their social skills.

**Table 10**

*Fall 2023 and Spring 2024 Kindergarten Social Skills Descriptive Statistics*

Domain	Measure	n	Mean (SD)	Range	Benchmark
Social Skills	Average Raw Score, Fall	83,237	4.22 (0.68)	1.00 – 5.00	3.71
	Average Raw Score, Spring	83,901	4.31 (0.68)	1.00 – 5.00	4.00
	Mean Growth	80,007	0.09 (0.54)	-3.43 – 4.00	-

## 2019–2024 VKRP Kindergarten Trends Across Time

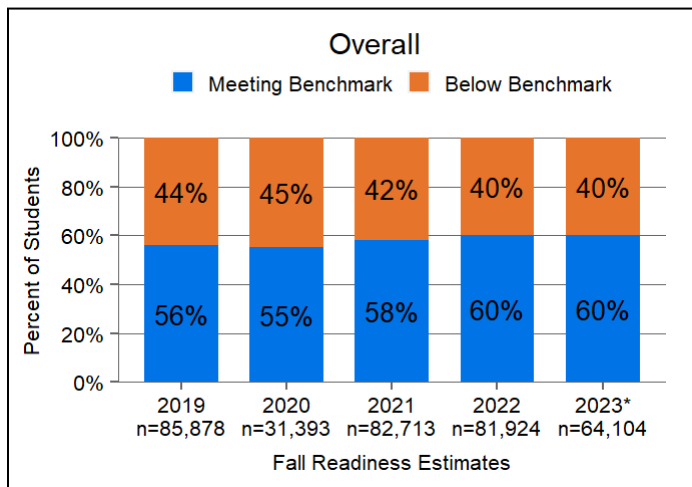
This section presents kindergarten trends over time across the last three years, from fall 2019 to spring 2024. Analyses include VKRP comparisons between fall timepoints of 2019, 2020, 2021, 2022, and 2023 and spring timepoints of 2021, 2022, 2023, and 2024 in terms of overall benchmark and specific skill domains in literacy, mathematics, self-regulation, and social skills.

### 2019–2023 Fall VKRP Kindergarten Data Over Time

**The percentage of students meeting the overall benchmark remained stable from fall 2022 to fall 2023, with increases from fall 2019 to fall 2022 (Figure 28).** In the fall of 2019, which was the last assessment timepoint pre-pandemic and the first year of statewide fall VKRP data collection, 44% of students' scores did not meet the overall benchmark. In the fall of 2020 when the sample was significantly reduced due to school closures, changes in student enrollment, and limited availability of remote assessments, 45% of kindergarten students who were assessed on all four measures had scores below the overall readiness benchmark. In the fall of 2021, when the sample of students assessed was much closer to the full population of kindergarten students enrolled in public school classrooms, 42% of kindergarten students' scores were below the overall readiness benchmark. In fall 2022 and fall 2023, 40% of kindergarten students' scores were below the overall readiness benchmark.

**Figure 28**

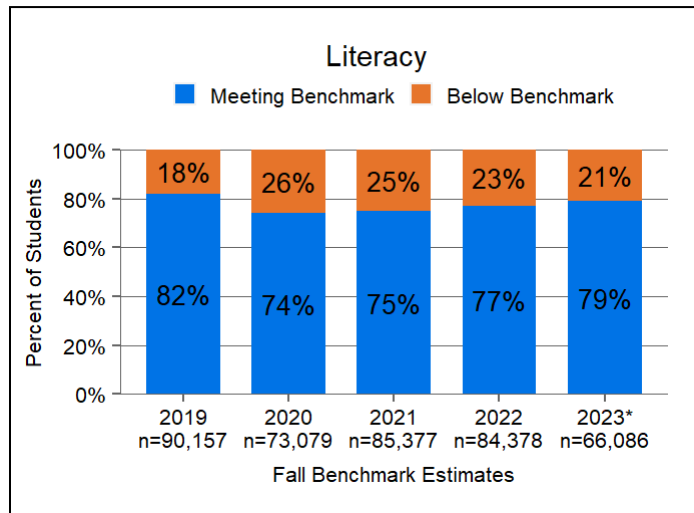
*Fall Kindergarten Overall Readiness Estimates 2019–2023*



\* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

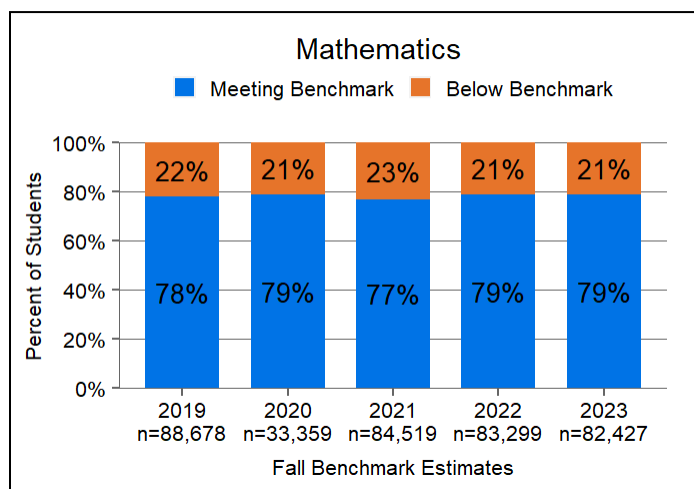
With regards to the four separate learning domains, **literacy benchmark estimates have varied over time** with fewer kindergarten students' scores (18%) below the literacy benchmark in the fall of 2019 prior to COVID-19 and more kindergarten students' scores (26% and 25%) below the literacy benchmark in the fall of 2020 and 2021, respectively. In the fall of 2022, 23% of kindergarten students' scores were below the literacy benchmark. In the fall of 2023, 21% of kindergarten students' scores were below the literacy benchmark (

Figure 29).

**Figure 29***Fall Kindergarten Literacy Benchmark Estimates 2019–2023*

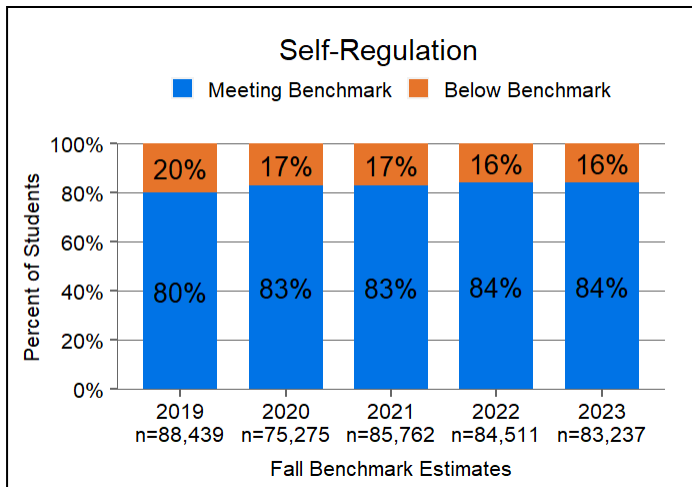
\* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

**Mathematics readiness estimates remained relatively stable over time** in the fall with 22% (2019), 21% (2020), 23% (2021), 21% (2022), and 21% (2023) of students' scores below the mathematics benchmark (Figure 30).

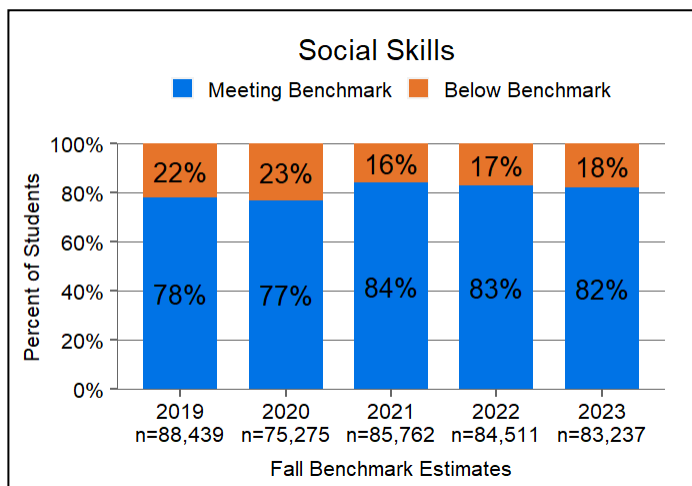
**Figure 30***Fall Kindergarten Mathematics Readiness Estimates 2019–2023*

In fall 2019, 20% of students' scores below the self-regulation benchmark. **The percentage of students' scores below the self-regulation benchmark decreased slightly in fall 2020 (17%) and then remained stable in fall 2021 (17%), fall 2022 (16%), and fall 2023 (16%)** (

**Figure 31).**

**Figure 31***Fall Kindergarten Self-Regulation Readiness Estimates 2019–2023*

Social skills estimates were stable from fall 2019 to fall 2020 with 22% and 23% of kindergarten students' scores below the benchmark, respectively. **The percentage of kindergarten students' scores below the social skills benchmark decreased in fall 2021 to 16% and then remained relatively stable through the fall of 2022 (17%) and fall of 2023 (18%) (Figure 32).**

**Figure 32***Fall Kindergarten Social Skills Readiness Estimates 2019–2023*

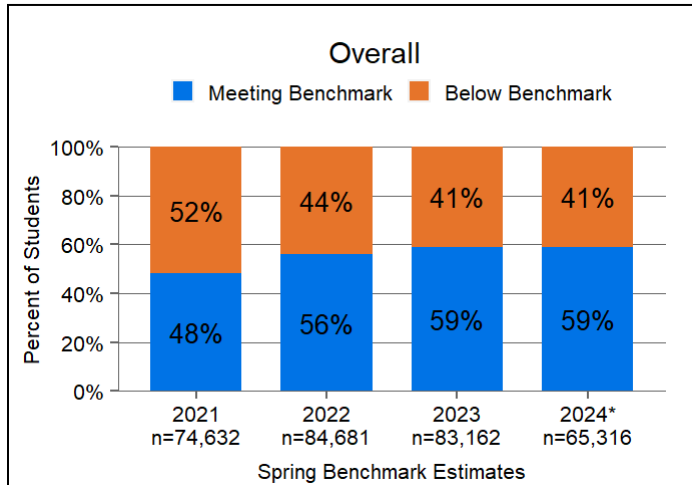
## 2021–2024 Spring VKRP Kindergarten Data Over Time

Spring VKRP data were not available in 2020 due to the onset of the COVID-19 pandemic and universally mandated public-school closures. Spring data can be compared between spring 2021, spring 2022, spring 2023, and spring 2024 (Figure 33). In the spring of 2021, 52% of kindergarten students' scores were below the overall benchmark and, in the spring of 2022, 44% of students' scores were below the overall benchmark. This percentage has continued to decrease with 41% of kindergarten students' scores not meeting the overall benchmark in the spring of 2023 and remained stable in the spring of 2024 with 41% of kindergarten students' scores not meeting the overall benchmark. Thus, **more students ended kindergarten likely demonstrating the**

skills they need for first Grade in the spring of 2024, spring of 2023, and spring of 2022 compared to the spring of 2021. Causal claims cannot be made about the differences seen when looking at the spring of 2021 versus the spring of 2022, 2023, and 2024 data. However, the data may suggest some COVID recovery and the importance of in-person instruction.

**Figure 33**

*Spring Kindergarten Overall Readiness Estimates 2021–2024*

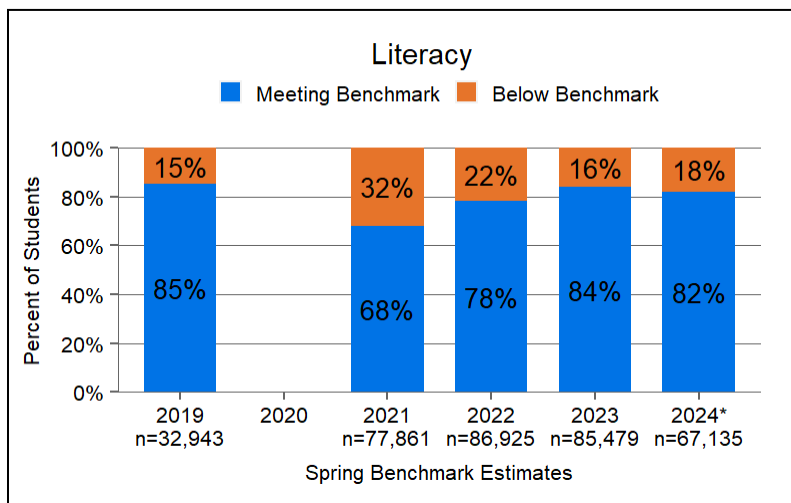


\* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten.

As the PALS-K assessment has been implemented for many years, spring literacy benchmark estimates are available across time. For literacy, data is shown from spring 2019 through spring 2024. **In spring 2019—prior to COVID-19, 15% of students scored below the literacy benchmark. The percentage rose to 32% in spring 2021 and fell to 22% in spring 2022. The percentage slightly rose to 18% in the spring of 2024 (Figure 34).**

**Figure 34**

*Spring Kindergarten Literacy Benchmark Estimates 2019–2024*

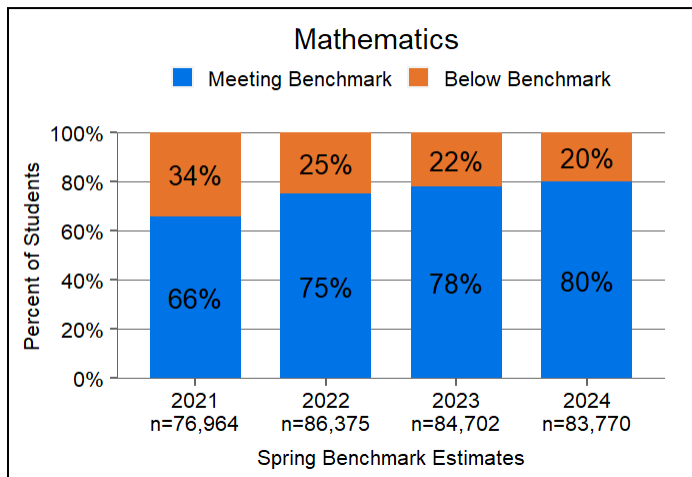


*Note.* VKRP and PALS assessments were not conducted in the spring of 2020 due to the COVID-19 pandemic. Fairfax County Public Schools is not represented in the Spring 2019 VKRP estimate but is represented in spring 2021 (iReady) and spring 2022 (PALS-K) VKRP estimates.

\* These data represent 114 divisions who used the PALS-K measure during the 2023–2024 school year. They do not include the 17 school divisions who piloted the Virginia Language & Literacy Screener: Kindergarten. For mathematics, **34% of students' scores fell below the mathematics benchmark in the spring of 2021 and decreased to 25% below the mathematics benchmark in the spring of 2022. The percentage of students whose scores fell below the benchmark continued to decrease with 22% of kindergarten students not meeting the spring 2023 mathematics benchmark and decreased again with 20% of kindergarten students not meeting the spring 2024 mathematics benchmark (Figure 35).**

**Figure 35**

*Spring Kindergarten Mathematics Readiness Estimates 2021–2024*

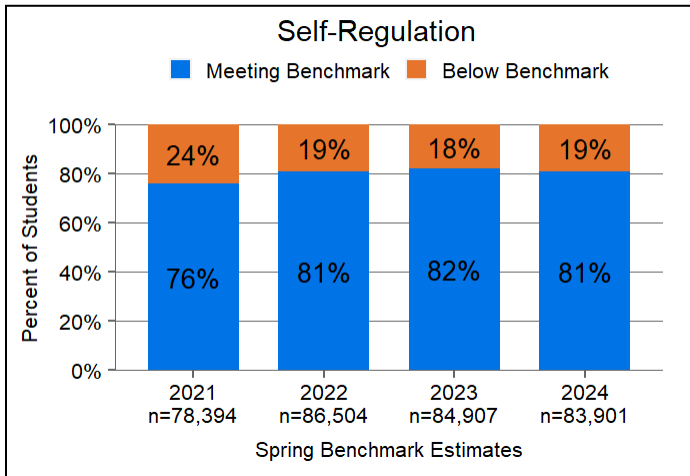


For self-regulation, **24% of kindergarten students' scores fell below the self-regulation benchmark in spring 2021. This decreased to 19% scoring below the self-regulation benchmark in spring 2022 and remained relatively stable with 18% scoring below the benchmark in spring 2023 and 19% in the spring of 2024 (Figure 36).**

**Figure 36**

*Spring Kindergarten Self-Regulation Readiness Estimates 2021–2024*

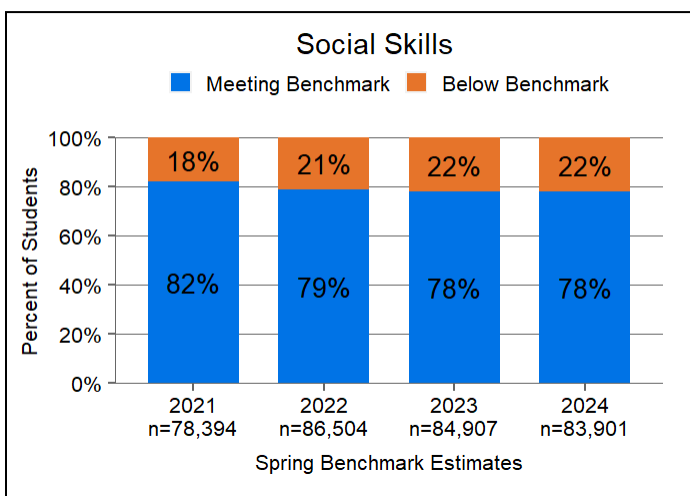




Spring social skills benchmark estimates followed a different trend as compared to the other learning domains. **The percentage of students' scores falling below the benchmark slightly increased from 2019 to 2023 and then remained stable from 2023 to 2024. In spring 2021, 18% of kindergarten students' scores were below the social skills benchmark compared to 21% of students' scores below the social skills benchmark in the spring of 2022. 22% of kindergarten students fell below the spring social skills benchmark in 2023 and 2024 (Figure 37).** Although causal claims cannot be made, this data showing that teachers reported that fewer students had the level of social skills meeting the spring benchmark in 2022, 2023, and 2024 compared to the spring of 2021 is consistent with other research indicating teacher reports that students' social-emotional skills have been and continue to be impacted by the pandemic (e.g., Egan et al., 2021<sup>11</sup>).

**Figure 37**

*Spring Kindergarten Social Skills Readiness Estimates 2021–2024*



<sup>11</sup> Egan, S. M., Pope, J., Moloney, M., Hoyne, C., & Beatty, C. (2021). Missing early education and care during the pandemic: The socio-emotional impact of the COVID-19 crisis on young children. *Early Childhood Education Journal*, 49(5), 925–934. DOI: [10.1007/s10643-021-01193-2](https://doi.org/10.1007/s10643-021-01193-2)



## 2023–2024 VKRP in Pre-kindergarten

### Background

The VKRP team developed a 4-year-old pre-kindergarten extension of VKRP between 2018–2021. In the 2021–2022 school year, VKRP became available to all publicly-funded pre-kindergarten programs to assess 4-year-old children’s skills in fall of 2021 and spring of 2022. Additionally, the VKRP team developed a 3-year-old extension of VKRP. Beginning in the 2022–2023 school year, VKRP became available to all publicly-funded pre-kindergarten programs to assess both 3- and 4-year-old pre-kindergarten children in both the fall and spring. VKRP was required in VPI and Virginia Early Childhood Foundation (VECF) Mixed Delivery classrooms and was optional for other publicly-funded pre-kindergarten classrooms (such as a full ECSE classroom, Head Start classroom, Title I classroom, or other locally supported pre-kindergarten classroom). Given that the pre-kindergarten VKRP is optional for some early childhood programs, the VKRP team does not expect 100% participation of all publicly funded programs of 3- and 4-year-old children across the state.

### VKRP Pre-kindergarten Expansion

#### Assessment Methods

Pre-kindergarten VKRP measures children’s early learning skills and growth in four domain areas: literacy (VALLS: Pre-K), mathematics (EMAS), self-regulation, and social skills (CBRS). VALLS: Pre-K and the EMAS assessments each have different versions for 3-year-olds and 4-year-olds. However, the CBRS assessment is the same for 3-year-old and 4-year-old children. Throughout the 2023–2024 school year, VKRP trained pre-kindergarten staff on how to administer the EMAS and CBRS either at an in-person or remote training, by a trainer designated by the school division or program, or by completing VKRP pre-kindergarten online training modules. Most teachers were trained on the VALLS: Pre-K by a trainer designated by the school division. More information regarding the VKRP assessments in pre-kindergarten can be found on the [VKRP public website](#).

The fall 2023 assessment windows were September 5 – November 10, 2023, for VALLS: Pre-K and August 21 – November 3, 2023, for VKRP. The spring 2023 assessment windows were April 22 – May 17, 2024, for VALLS: Pre-K and April 8 – May 17, 2024, for VKRP. The EMAS assessment had a remote testing option available for use during both fall 2023 and spring 2024 timepoints. During the 2023–2024 school year, less than 0.1% of assessments were completed in a remote format.

#### VKRP Pre-kindergarten Skill Development Bands

In 2022–2023, VKRP and VLP piloted Skill Development Bands (Beginning, Growing, and Strong) to help divisions, programs, and teachers interpret and use their VKRP pre-kindergarten data. As a reminder, the Literacy Skill Development Bands that were created by VLP for the 2022–2023 school year are not yet scaled and therefore, are not included in this report. For more information regarding the Literacy Skill Development Bands, please contact the [VLP office](#).

Young children enter and end pre-kindergarten with a wide range of early learning skills; therefore, the mathematics, self-regulation, and social skills assessment tools measure children’s skills along a developmental continuum. To help teachers interpret and use their pre-kindergarten VKRP data, the VKRP team piloted the use of Skill Development Bands within VKRP reports that categorize children’s skills as falling into one of three developmental ranges for mathematics, self-regulation, and social skills: Beginning, Growing, and Strong. Separate bands were established in the fall and spring to represent children’s skill development in each domain as compared to expectations at a particular point in time.

Children whose skills fall within the Beginning Band are starting to explore and develop foundational skills in each early learning domain and will benefit from instruction that includes high levels of support. Children whose skills fall within the Growing Band are developing their skills as expected in a learning domain and will benefit from encouragement to demonstrate skills consistently and with ease. Children whose skills fall within the Strong Band have strong foundational skills in a given early learning domain and will benefit from opportunities to advance their skills. All children at this age continue to need developmentally appropriate, engaging, and stimulating instruction and support to grow their early learning skills.

For mathematics, the Skill Development Bands were developed using a statistically and empirically based approach. For self-regulation and social skills, the Skill Development Bands were set statistically based on standard deviations so that most children's scores fall within the Growing Band and smaller percentages of children's scores fall in the Beginning and Strong Bands.

### **2023–2024 VKRP Pre-kindergarten Participation by Funding Source**

The pre-kindergarten funding for any child enrolled in programs that are locally, state, or federally funded is reported to VDOE through the Student Record Collection (SRC). Demographic information including pre-kindergarten funding code is merged with VKRP pre-kindergarten data using the State Testing Identifier (STI), which is the only common identifier present in both data sources. VKRP serves a larger population of children than those who are assigned STI numbers; therefore, STI and associated demographic data were missing for a subset of the VKRP pre-kindergarten sample. In an effort to close information gaps, VECF shared demographic information for children enrolled in Mixed Delivery classrooms in the 2023–2024 school year. This information was also merged with VKRP pre-kindergarten data using student name and location.

To provide an estimate of participating children with different funding sources, which includes VECF Mixed Delivery children, available SRC data was merged with pre-kindergarten funding source codes entered into the VLP system, and child records shared by VECF were identified as Mixed Delivery (Appendix C). Following the merge, funding information was missing for approximately 35% of the 3-year-old VKRP sample, and 14% of the VKRP 4-year-old sample. Therefore, analyses that include merged funding source should be interpreted with caution.

The merged funding source code is presented in

Table 11 and Table 12 below. **In both the fall of 2023 and spring of 2024, VPI, local funding for VPI placement, or special education funding for VPI placement had the highest participation in VKRP. In addition, almost 2,000 children were identified as having participated in VECF Mixed Delivery in fall 2023 and spring 2024.**

**Table 11***Fall 2023 Pre-kindergarten Funding Source Estimates*

Merged Funding Source Code	Three-Year-Old Children	Four-Year-Old Children	Total Children
	n (%)	n (%)	n (%)
Head Start	678 (7.9)	2,020 (6.6)	2,698 (6.9)
VPI, local funding for VPI placement, special education funding for VPI placement	2,093 (24.4)	20,164 (66.2)	22,257 (57.0)
Early Childhood Special Education (ECSE)	903 (10.5)	1,512 (5.0)	2,415 (6.2)
Title I Preschool	451 (5.2)	590 (1.9)	1,041 (2.7)
Local funding for other public preschool	52 (0.6)	460 (1.5)	512 (1.3)
VECF Mixed Delivery	998 (11.6)	962 (3.2)	1,960 (5.0)
Private preschool	329 (3.8)	403 (1.3)	732 (1.9)
VA Child Care Subsidy Program	4 (0.1)	2 (0.1)	6 (< 0.1)
Missing funding information	3,085 (35.9)	4,327 (14.2)	7,412 (19.0)
<b>Total</b>	<b>8,593 (100.0)</b>	<b>30,440 (100.0)</b>	<b>39,033 (100.0)</b>

Source: VECF and SRC PK Funding Code. Children missing SRC data were categorized utilizing the PK Funding Source from the VLP system if present.

**Table 12***Spring 2024 Pre-kindergarten Funding Source Estimates*

Merged Funding Source Code	Three-Year-Old Children	Four-Year-Old Children	Total Children
	n (%)	n (%)	n (%)
Head Start	748 (8.1)	2,086 (6.8)	2,834 (7.1)
VPI, local funding for VPI placement, special education funding for VPI placement	2,191 (23.9)	20,363 (66.3)	22,554 (56.6)
Early Childhood Special Education (ECSE)	1,046 (11.4)	1,619 (5.3)	2,665 (6.7)
Title I Preschool	418 (4.6)	595 (1.9)	1,013 (2.5)
Local funding for other public preschool	68 (0.7)	467 (1.5)	535 (1.3)
VECF Mixed Delivery	965 (10.5)	924 (3.0)	1,889 (4.7)
Private preschool	310 (3.4)	379 (1.2)	689 (1.7)
VA Child Care Subsidy Program	4 (< 0.1)	2 (0.1)	6 (0.1)
Missing funding information	3,430 (37.4)	4,266 (13.9)	7,696 (19.3)
<b>Total</b>	<b>8,347 (100.0)</b>	<b>30,701 (100.0)</b>	<b>39,881 (100.0)</b>

Source: VECF and SRC PK Funding Code. Children missing SRC data were categorized utilizing the PK Funding Source from the VLP system if present.

## 2023–2024 VKRP Three-Year-Old Pre-kindergarten Data

This section includes data collected on 3-year-old pre-kindergarten students for fall of 2023 and spring of 2024. Data includes 3-year-old pre-kindergarten demographic information, program/classroom data, data completion information, descriptive data, and mental health well-being data for 3-year-old children assessed in the 2023–2024 academic year.

### 2023–2024 Three-Year-Old VKRP Pre-kindergarten Demographic Information

In the fall of 2023, 8,593 3-year-old pre-kindergarten children participated in VKRP (Table 13). A subset of that sample, 3,442 children (40%), did not have a State Testing Identifier (STI). Following the merge of VDOE and VECF Mixed Delivery demographic data, 3,627 children (42%) are missing demographic data. This is a result of missing STI numbers, and the timing at which the files are generated (i.e., children in the VKRP file may have an STI but may not appear in the VDOE demographic file because it is finalized on October 1<sup>st</sup>). Therefore, in the fall of 2023, 58% of children had available demographic information. The demographic information provided from the fall of 2023 is reflective only of the 58% of children with demographic information and may not represent the demographic characteristics of the full cohort of 3-year-olds who were assessed. Therefore, any analyses that include demographic information should be interpreted with caution.

For the subsample of children with demographic data, children were on average 3 years and 6 months old in the fall of 2023 and were racially and ethnically diverse. About 43% of the sample in the fall of 2023 were children from low-income backgrounds, which was expected given the eligibility requirements of the participating pre-kindergarten programs. About one-third of children had a disability, and the majority were non-EL students.

The number of 3-year-old pre-kindergarten children participating in the spring of 2024 increased slightly from the fall of 2023. Specifically, in the spring of 2024, 9,180 children participated in VKRP. Of this sample, 57% had available demographic information. Racial/ethnic representation remained consistent from fall 2023 to spring 2024, as did disability, income status, and EL status.

**Table 13****2023–2024 Pre-kindergarten Three-Year-Old Demographic Summary**

Demographic	Description	Fall 2023	Spring 2024
		Overall Sample N=8,593	Overall Sample N=9,180
		Demographics n=4,966	Demographics n=5,234
		Mean (SD) or n (%)	Mean (SD) or n (%)
<b>Age</b>	Age in years on September 30, 2023	3.56 (0.30)	3.54 (0.29)
<b>Sex</b>	Female	2,306 (46.4)	2,437 (46.6)
	Male	2,659 (53.5)	2,797 (53.4)
	Other	1 (<0.1)	-
<b>Race/Ethnicity</b>	American Indian or Alaska Native	3 (0.1)	5 (0.1)
	Asian	172 (3.5)	201 (3.8)
	Black or African American	1,873 (37.7)	2,006 (38.3)
	Hispanic/Latino of any race	831 (16.7)	892 (17.1)
	White, not of Hispanic origin	1,769 (35.6)	1,790 (34.2)
	Native Hawaiian or other Pacific Islander	5 (0.1)	6 (0.1)
	Non-Hispanic/Latino of any race, two or more races	313 (6.3)	334 (6.4)
<b>Family Income Status<sup>a</sup></b>	Students not from low-income backgrounds	2,805 (57.3)	2,806 (54.3)
	Students from low-income backgrounds	2,088 (42.7)	2,362 (45.7)
<b>Disability<sup>b</sup></b>	Students without a disability	3,574 (72.0)	3,672 (70.2)
	Students with a disability	1,388 (28.0)	1,556 (29.8)
<b>Language<sup>c</sup></b>	Not English language/multilingual learners (EL)	4,051 (99.9)	5,233 (>99.9)
	English language/multilingual learners (EL)	1 (<0.1)	1 (<0.1)
		Merged Funding Sample n=5,508	Merged Funding Sample n=5,750
<b>Merged Funding Source Code<sup>d</sup></b>	Head Start	678 (12.3)	748 (13.0)
	VPI, local funding for VPI placement, special education funding for VPI placement	2,093 (38.0)	2,191 (38.1)
	Special Education Preschool	903 (16.4)	1,046 (18.2)
	Title I Preschool	451 (8.2)	418 (7.3)
	Local funding for other public preschool	52 (0.9)	68 (1.2)
	VECF Mixed Delivery	998 (18.1)	965 (16.8)
	Private	329 (6.0)	310 (5.4)
	VA Child Care Subsidy Program	4 (0.1)	4 (<0.1)

<sup>a</sup> Source: SRC Disadvantaged Status Flag. The Disadvantaged Status Flag identifies the student as economically disadvantaged if the student: 1) is eligible for Free/Reduced Meals to include Foster, Head Start, Migrant, and Homeless students; or 2) receives TANF; or 3) is eligible for Medicaid.

<sup>b</sup> Source: SRC Primary Disability Code. Students are identified as having a disability if any code is present *except*, “Qualified Individual under Section 504.”

<sup>c</sup> Source: Student Record Collection (SRC) EL Services Code. Students are identified as English language/multilingual learners (EL) if code is, “Identified as EL and receives EL services,” “Identified as EL but has refused EL services,” or “Identified as formerly EL for each of the 4 years after exiting EL services.”



<sup>d</sup> Source: VECF and SRC PK Funding Code. Children missing SRC data were categorized utilizing the PK Funding Source from the VLP system if present.

### 2023–2024 Three-Year-Old VKRP Pre-kindergarten Completion Data

Over 80% of children in participating classrooms were assessed on *at least one* domain in the fall of 2023 and in the spring of 2024 (Table 14). In fall 2023, 81% of children had complete data on all VKRP assessments (literacy, mathematics, self-regulation, and social skills). In spring 2024, 83% of 3-year-old pre-kindergarten children had complete VKRP data. Exemptions across assessments were rare and ranged from 3 to 6 percent in fall 2023 and spring 2024.

**Table 14**

*2023–2024 Pre-kindergarten Three-Year-Old Assessment Completion*

Assessment	Status	Fall 2023 N=8,593	Spring 2024 N=9,180
		Mean (SD) or n (%)	Mean (SD) or n (%)
Virginia Language & Literacy Screener (VALLS: Pre-K)	Incomplete	928 (10.8)	1,028 (11.2)
	Exempt	259 (3.0)	328 (3.6)
	Complete, non-standard <sup>a</sup>	80 (0.9)	118 (1.3)
	Complete, standard	7,326 (85.3)	7,706 (83.9)
EMAS	Incomplete	783 (9.1)	1,171 (12.8)
	Exempt	551 (6.4)	523 (5.7)
	Complete, Spanish	70 (0.8)	45 (0.5)
	Complete, remote	1 (<0.1)	2 (<0.1)
	Complete, non-standard <sup>a</sup>	91 (1.1)	145 (1.6)
	Complete, standard	7,097 (82.6)	7,294 (79.4)
CBRS	Incomplete	755 (8.8)	1,172 (12.8)
	Exempt	476 (5.5)	427 (4.7)
	Complete, standard	7,362 (85.7)	7,581 (82.6)
Breakdown of assessment overlap (complete, standard, or remote only)	VALLS: Pre-K, EMAS, CBRS	6,522 (81.4)	6,844 (82.8)
	VALLS: Pre-K, EMAS	116 (1.4)	139 (1.7)
	VALLS: Pre-K, CBRS	172 (2.1)	197 (2.4)
	EMAS, CBRS	443 (5.5)	289 (3.5)
	VALLS: Pre-K	516 (6.4)	526 (6.3)
	EMAS	17 (0.2)	24 (0.3)
	CBRS	225 (2.8)	251 (3.0)

<sup>a</sup> Non-standard administration includes accommodations to the administration conditions (i.e., frequent breaks, simplified directions) that do not follow the standard administration protocol.

### 2023–2024 Three-Year-Old Pre-kindergarten Descriptive and Skill Development Band Data

Table 15 presents descriptive data for the VALLS: Pre-K measure for literacy (mean subtask scores), EMAS (mathematics total scaled score), and CBRS (self-regulation, social skills and mental health well-being mean scores) in 2023–2024. Note the VALLS: Pre-K does not have a total score; therefore, the mean subtask scores (e.g., name writing, letter sounds etc.) are presented. **Three-year-old children displayed a range of skills in the fall of 2023 and spring of 2024 across each of the domains-literacy, mathematics, self-regulation, and social skills.**

**Table 15***2023–2024 Three-Year-Old Pre-kindergarten Assessment Descriptive Data*

Domain	Description	Fall 2023		Spring 2024	
		n	Mean (SD)	n	Mean (SD)
Literacy	Letter Names	7,523	11.38 (15.94)	7,902	22.79 (18.69)
	Letter Sounds	7,494	2.48 (5.31)	7,881	7.33 (8.33)
	Syllable Segmenting	7,470	4.33 (4.04)	7,876	6.48 (3.67)
	Beginning Sounds Matching	7,464	2.28 (2.78)	7,859	3.34 (3.04)
	Passage Comprehension: Retell	7,442	1.44 (1.61)	7,855	2.16 (1.79)
	Passage Comprehension: Expressive	7,439	1.43 (1.40)	7,852	2.57 (1.76)
	Passage Comprehension: Receptive	7,430	1.59 (1.38)	7,842	2.14 (1.35)
	Name Writing	7,462	1.51 (1.07)	7,866	2.73 (1.56)
	Print Concepts	7,438	3.26 (2.68)	-	
Mathematics	EMAS Scaled Score	7,098	449.40 (97.21)	7,296	526.86 (93.55)
Social-Emotional	CBRS Self-Regulation Mean Score	7,362	3.20 (0.90)	7,581	3.47 (0.86)
	CBRS Social Skills Mean Score	7,362	3.69 (0.78)	7,581	3.81 (0.78)
	CBRS Well-Being Mean Score	7,362	4.05 (0.69)	7,581	4.16 (0.67)

Table 16 provides descriptive information about the number of 3-year-old pre-kindergarten children whose mathematics scores fell into each of the Skill Development Bands. **In the fall of 2023, most 3-year-old children's scores fell into the Growing Band (43%), and in the spring of 2024, most 3-year-old children's scores also fell into the Growing Band (40%).**

**Table 16***2023–2024 Three-Year-Old Pre-kindergarten Mathematics Skill Development Bands Descriptive Data*

		Fall 2023			Spring 2024		
		n = 7,098			n = 7,296		
		Min	Max	Mean (SD)	Min	Max	Mean (SD)
Mathematics	EMAS Scaled Score	211	689	449.40 (97.21)	251	760	526.86 (93.55)
		n (%)			n (%)		
Skill Development Bands	Beginning	2,066 (29.1)			2,441 (33.5)		
	Growing	3,058 (43.1)			2,883 (39.5)		
	Strong	1,974 (27.8)			1,972 (27.0)		

Figure 38 provides a visual depiction of the percentage of 3-year-old children's mathematics scores that fell into each of the Skill Development Bands in the fall of 2023 and the spring of 2024.

**Figure 38**

*Fall 2023 and Spring 2024 Three-Year-Old Pre-kindergarten Mathematics Skill Development Bands*

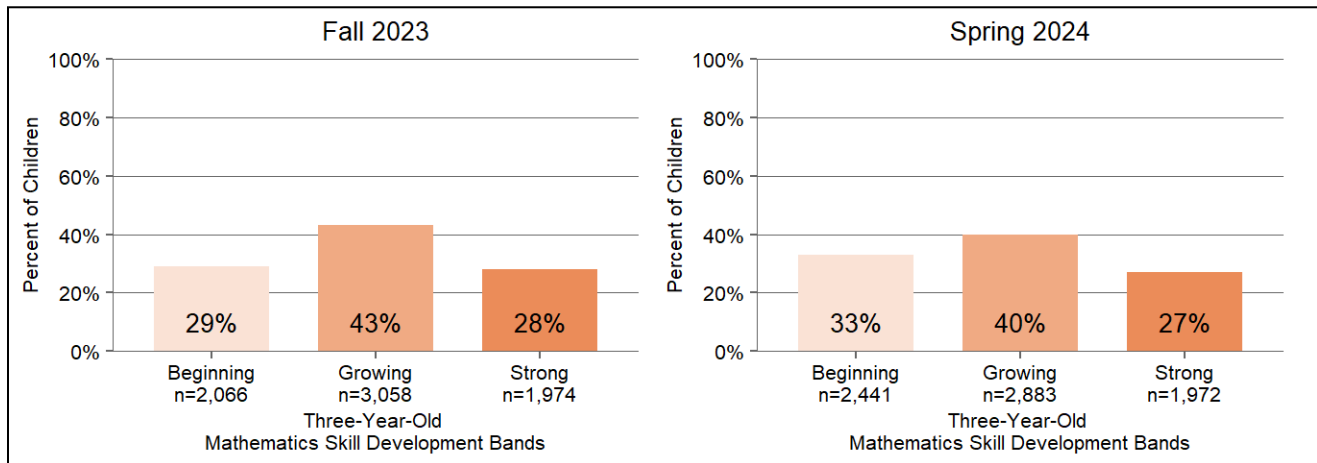


Table 17 provides descriptive information about the number of 3-year-old pre-kindergarten children whose self-regulation scores fell into each of the Skill Development Bands. It is expected in pre-kindergarten that most children's self-regulation scores will fall into the Growing Band at each time point. **In both the fall 2023 and spring 2024, most 3-year-old children's self-regulation scores fell into the Growing Band (63% and 68%, respectively).**

**Table 17**

*2023–2024 Three-Year-Old Pre-kindergarten Self-Regulation Skill Development Bands Descriptive Data*

		Fall 2023			Spring 2024		
		n = 7,362			n = 7,581		
		Min	Max	Mean (SD)	Min	Max	Mean (SD)
Self-Regulation	CBRS Mean Score	1.00	5.00	3.20 (0.90)	1.00	5.00	3.47 (0.86)
		n (%)			n (%)		
Skill Development Bands	Beginning	1,156 (15.7)			1,074 (14.2)		
	Growing	4,666 (63.4)			5,133 (67.7)		
	Strong	1,540 (20.9)			1,374 (18.1)		

Figure 39 provides a visual depiction of the percentage of 3-year-old children's self-regulation scores that fell into each of the Skill Development Bands in the fall of 2023 and the spring of 2024.

**Figure 39**

*Fall 2023 and Spring 2024 Three-Year-Old Pre-kindergarten Self-Regulation Skill Development Bands*

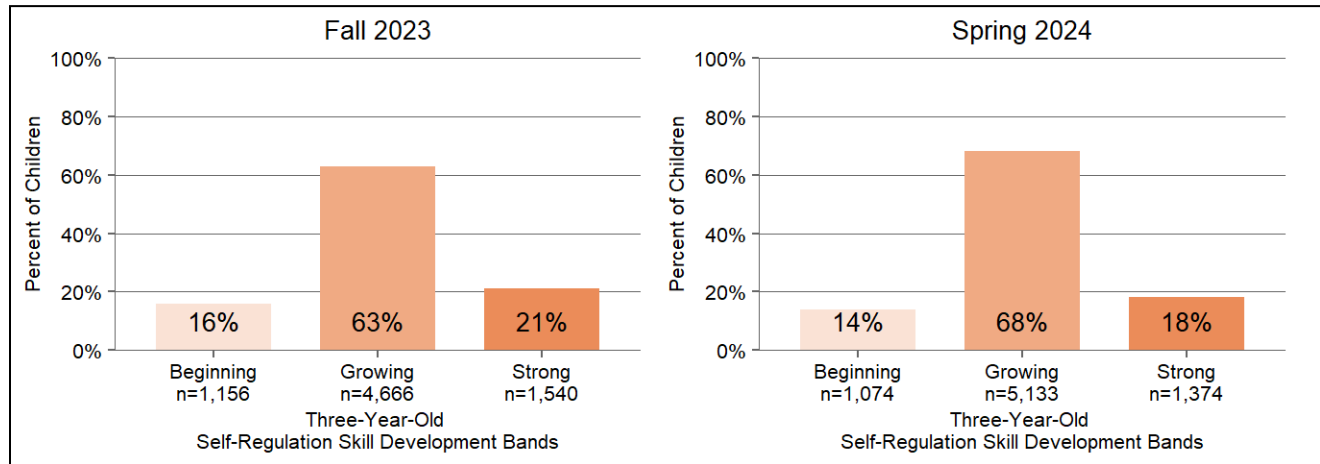


Table 18 provides descriptive information about the number of 3-year-old pre-kindergarten children whose social skills scores fell into each of the Skill Development Bands. It is expected in pre-kindergarten that most 3-year-old children's social skills scores will fall into the Growing Band at each time point. **In both the fall 2023 and spring 2024, the majority of 3-year-old pre-kindergarten children's self-regulation scores fell into the Growing band (70% and 66%, respectively).**

**Table 18**

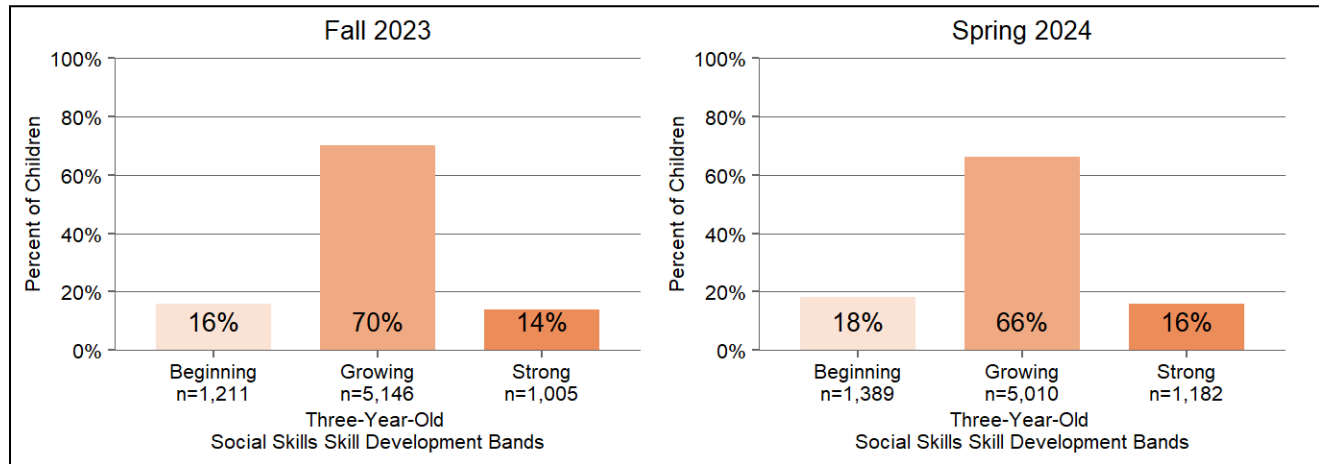
*2023–2024 Three-Year-Old Pre-kindergarten Social Skills Skill Development Bands Descriptive Data*

		Fall 2023			Spring 2024		
		n = 7,362			n = 7,581		
		Min	Max	Mean (SD)	Min	Max	Mean (SD)
<b>Social Skills</b>	CBRS Mean Score	1.00	5.00	3.69 (0.78)	1.00	5.00	3.81 (0.78)
		n (%)			n (%)		
<b>Skill Development Bands</b>	Beginning	1,211 (16.4)			1,389 (18.3)		
	Growing	5,146 (69.9)			5,010 (66.1)		
	Strong	1,005 (13.7)			1,182 (15.6)		

Figure 40 provides a visual depiction of the percentage of 3-year-old children's social skills scores that fell into each of the Skill Development Bands in the fall of 2023 and the spring of 2024.

**Figure 40**

*Fall 2023 and Spring 2024 Three-Year-Old Pre-kindergarten Social Skills Skill Development Bands*



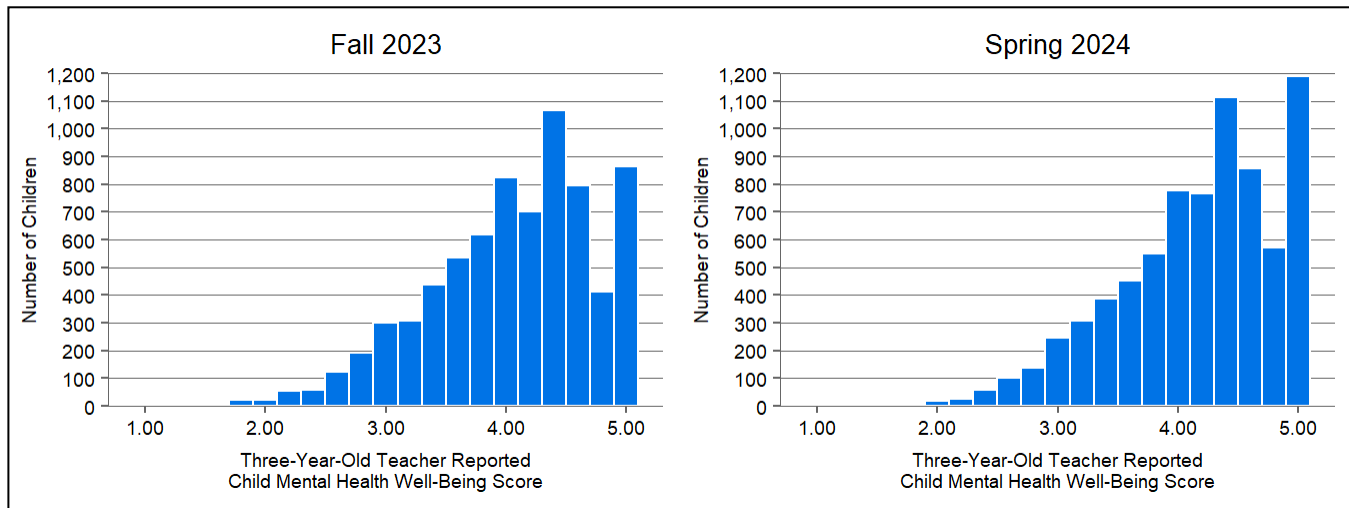
### 2023–2024 Three-Year-Old VKRP Pre-kindergarten Mental Health Well-being Data

The mean Mental Health Well-being scores for 3-year-old children in fall 2023 and spring 2024 were 4.05 ( $SD = 0.69$ ) and 4.16 ( $SD = 0.67$ ), respectively (

Table 15). In the fall of 2023, teachers reported being moderately, very, or extremely concerned about the social-emotional well-being of 23% of 3-year-old children (Figure 42). Teacher concern for pre-kindergarten 3-year-old children's social-emotional well-being remained consistent in the spring of 2024 where teachers reported being moderately, very, or extremely concerned about 22% of children.

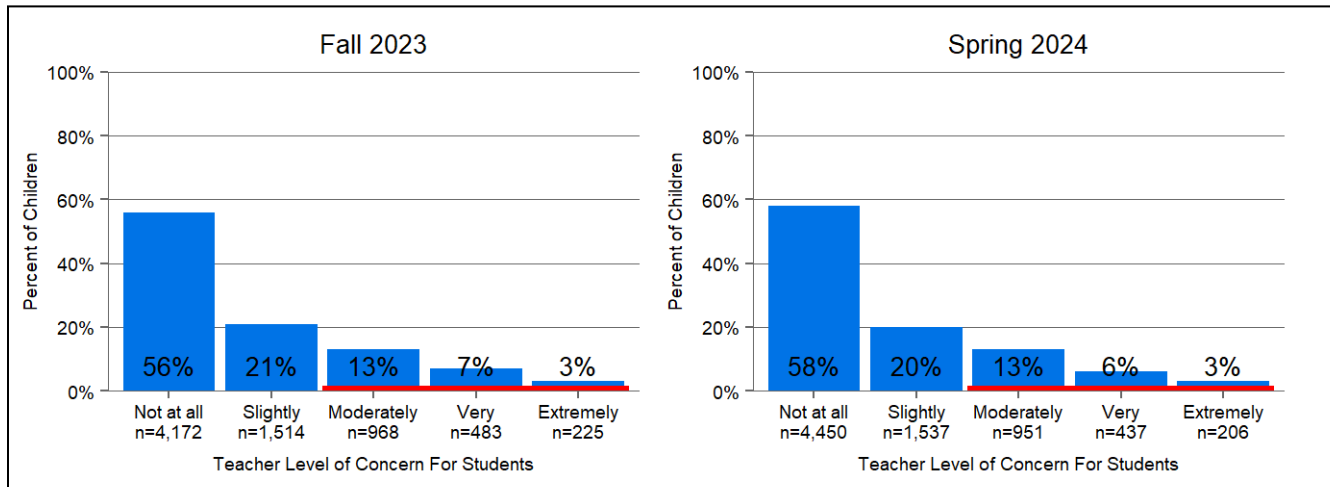
**Figure 41**

*Fall 2023 and Spring 2024 Three-Year-Old Pre-kindergarten Well-being Composite Score*



**Figure 42**

*Fall 2023 and Spring 2024 Three-Year-Old Pre-kindergarten Teacher Concern*



### How Did Three-Year-Old Pre-kindergarten Children Grow in Mathematics, Self-Regulation, and Social Skills from Fall 2023 to Spring 2024?

This section discusses the growth in the total scaled scores in mathematics and growth in raw averaged scores in self-regulation and social skills from fall 2023 to spring 2024. The newly developed VALLS: Pre-K measure for literacy does not yet have growth data available and therefore, is not included in the growth data below.

#### 2023–2024 VKRP Three-Year-Old Pre-kindergarten Children’s Mathematics Scaled Scores Growth

The EMAS captures growth over time using scaled scores ranging from 211 to 760 in pre-kindergarten. In the following table and figures, each 3-year-old child’s scaled score in the fall of 2023 is subtracted from their scaled score in the spring of 2024 to arrive at each individual child’s growth in mathematics (Table 19). These individual growth scores are then averaged to create a mean growth score at the state level for the 2023–2024 year.

**Three-year-old pre-kindergarten children’s scores on the EMAS were normally distributed in the fall 2023 and spring 2024, and there was a normal distribution of growth across the year.**

**Table 19**

*Fall 2023 and Spring 2024 Three-Year-Old Pre-kindergarten Mathematics Descriptive Data*

Domain	Measure	n	Mean (SD)	Range
Mathematics	Scaled Score, Fall	7,098	449.40 (97.21)	211 – 689
	Scaled Score, Spring	7,296	526.86 (93.55)	251 – 760
	Mean Growth	6,127	78.92 (73.70)	-238 – 549

#### 2023–2024 VKRP Three-Year-Old Pre-kindergarten Children’s Self-Regulation Growth

Three-year-old children’s mean raw scores in self-regulation in the fall 2023 and spring 2024 as well the average self-regulation growth across the state are presented in



Table 20. There was a range in 3-year-old pre-kindergarten children's self-regulation scores in both the fall of 2023 and the spring of 2024. **Teachers reported small gains in 3-year-old pre-kindergarten children's self-regulation skills over the year, and growth was normally distributed. The data also showed that some 3-year-old children made larger gains in self-regulation skills while other 3-year-old children demonstrated negative growth across the 2023-24 school year.**

**Table 20***Fall 2023 and Spring 2024 Three-Year-Old Pre-kindergarten Self-Regulation Descriptive Data*

Domain	Measure	n	Mean (SD)	Range
Self-Regulation	Average Raw Score, Fall	7,362	3.20 (0.90)	1.00 – 5.00
	Average Raw Score, Spring	7,581	3.47 (0.86)	1.00 – 5.00
	Mean Growth	6,394	0.28 (0.73)	-3.00 – 3.60

**2023–2024 VKRP Three-Year-Old Pre-kindergarten Children’s Social Skills Growth**

Three-year-old children’s mean raw scores in social skills in the fall of 2023 and spring of 2024 as well the average social skills growth across the state are presented in Table 21. There was a range in 3-year-old pre-kindergarten social skills scores in both the fall of 2023 and the spring of 2024. Like self-regulation, **pre-kindergarten teachers reported small gains in 3-year-old children's social skills over the year 2023–2024. The distribution of children’s teacher-reported social skills growth was normally distributed with some 3-year-old children making larger gains and others demonstrating negative growth in their social skills across the 2023–24 school year.**

**Table 21***Fall 2023 and Spring 2024 Three-Year-Old Pre-kindergarten Social Skills Descriptive Data*

Domain	Measure	n	Mean (SD)	Range
Social Skills	Average Raw Score, Fall	7,362	3.69 (0.78)	1.00 – 5.00
	Average Raw Score, Spring	7,581	3.81 (0.78)	1.00 – 5.00
	Mean Growth	6,394	0.11 (0.67)	-2.86 – 3.00

**2023–2024 VKRP Four-Year-Old Pre-kindergarten Data**

The VKRP 4-year-old pre-kindergarten assessment data for the 2023–2024 academic year are shared in the sections below. Data include pre-kindergarten demographic information, program/classroom data, data completion information, descriptive data, and mental health well-being results for 4-year-old children assessed in the 2023–2024 academic year.

**2023–2024 Four-Year-Old VKRP Pre-kindergarten Demographic Information**

In the fall of 2023, over 30,000 4-year-old children participated in VKRP (

Table 22). Four-year-old children assessed were on average 4 years and 6 months old in the fall of 2023 and were racially and ethnically diverse, with 23% of 4-year-old children identifying as Hispanic/Latino of any race and 31.2% identifying as Black or African American. 55.8% of the sample in the fall of 2023 were 4-year-old children from low-income backgrounds. The number of 4-year-old children participating in the spring was similar to the fall 2023 sample. Racial/ethnic representation remained consistent from fall 2023 to spring 2024, but there was a 10.2% increase in the number of 4-year-old children from low-income backgrounds in the spring of 2024 compared to the fall of 2023. This increase is likely due to real increases in the number of families meeting low-income background status criteria over the course of the 2023–2024 year.

**Table 22***2023–2024 Pre-kindergarten Four-Year-Old Demographic Summary*

Demographic	Description	Fall 2023	Spring 2024
		Overall Sample N=30,440	Overall Sample N=30,701
		Demographics n=25,772	Demographics n=26,110
		Mean (SD) or n (%)	Mean (SD) or n (%)
<b>Age</b>	Age in years on September 30, 2023	4.52 (0.30)	4.52 (0.30)
<b>Sex</b>	Female	12,582 (48.8)	12,736 (48.8)
	Male	13,186 (51.2)	13,366 (51.2)
	Other	4 (<0.1)	8 (<0.1)
<b>Race/Ethnicity</b>	American Indian or Alaska Native	62 (0.2)	61 (0.2)
	Asian	1,148 (4.5)	1,185 (4.5)
	Black or African American	8,031 (31.2)	8,152 (31.2)
	Hispanic/Latino of any race	5,921 (23.0)	6,077 (23.3)
	White, not of Hispanic origin	8,809 (34.2)	8,789 (33.7)
	Native Hawaiian or other Pacific Islander	28 (<0.1)	28 (0.1)
	Non-Hispanic/Latino of any race, two or more races	1,772 (6.9)	1,817 (7.0)
<b>Family Income Status<sup>a</sup></b>	Students not from low-income backgrounds	11,354 (44.2)	8,858 (34.0)
	Students from low-income backgrounds	14,345 (55.8)	17,183 (66.0)
<b>Disability<sup>b</sup></b>	Students without a disability	21,631 (84.0)	21,069 (80.9)
	Students with a disability	4,119 (16.0)	4,988 (19.1)
<b>Language<sup>c</sup></b>	Not English language/multilingual learners (EL)	24,878 (99.9)	26,085 (99.9)
	English language/multilingual learners (EL)	26 (0.1)	25 (0.1)
		Merged Funding Source n=26,113	Merged Funding Source n=26,435
<b>Merged Funding Source Code<sup>d</sup></b>	Head Start	2,020 (7.7)	2,086 (7.9)
	VPI, local funding for VPI placement, special education funding for VPI placement	20,164 (77.2)	20,363 (77.0)
	Special Education Preschool	1,512 (5.8)	1,619 (6.1)
	Title I Preschool	590 (2.3)	595 (2.3)
	Local funding for other public preschool	460 (1.8)	467 (1.8)
	VECF Mixed Delivery	962 (3.7)	924 (3.5)
	Private	403 (1.5)	379 (1.4)
	VA Child Care Subsidy Program	2 (<0.1)	2 (<0.1)

<sup>a</sup> Source: SRC Disadvantaged Status Flag. The Disadvantaged Status Flag identifies the student as economically disadvantaged if the student: 1) is eligible for Free/Reduced Meals to include Foster, Head Start, Migrant, and Homeless students; or 2) receives TANF; or 3) is eligible for Medicaid.

<sup>b</sup> Source: SRC Primary Disability Code. Students are identified as having a disability if any code is present *except*, “*Qualified Individual under Section 504.*”

<sup>c</sup> Source: Student Record Collection (SRC) EL Services Code. Students are identified as English language/multilingual learners (EL) if code is, “*Identified as EL and receives EL services,*” “*Identified as EL but has refused EL services,*” or “*Identified as formerly EL for each of the 4 years after exiting EL services.*”

<sup>d</sup>Source: VECF and SRC PK Funding Code. Children missing SRC data were categorized utilizing the PK Funding Source from the VLP system if present.

### 2023–2024 Four-Year-Old VKRP Pre-kindergarten Completion Data

Ninety-two percent of participating 4-year-old children had complete data on all assessments (literacy, mathematics, self-regulation, and social skills) in the fall of 2023, and 93% had complete data on all assessments in the spring of 2024 (Table 23). The table below presents information on completion rates across the 4-year-old pre-kindergarten assessments in 2023–2024. Across both the fall 2023 and spring 2024, exemptions were low (< 2%) across all assessments.

**Table 23**

*2023–2024 Pre-kindergarten Four-Year-Old Assessment Completion*

Assessment	Status	Fall 2023 N=30,440	Spring 2024 N=30,701
		Mean (SD) or n (%)	Mean (SD) or n (%)
Virginia Language & Literacy Screener (VALLS: Pre-K)	Incomplete	737 (2.4)	970 (3.1)
	Exempt	326 (1.1)	334 (1.1)
	Complete, non-standard <sup>a</sup>	332 (1.1)	-
	Complete, standard	29,045 (95.4)	29,397 (95.8)
EMAS	Incomplete	1,043 (3.4)	1,438 (4.7)
	Exempt	456 (1.5)	487 (1.6)
	Complete, Spanish	422 (1.4)	224 (0.7)
	Complete, remote	1 (0.1)	-
	Complete, non-standard <sup>a</sup>	258 (0.8)	313 (1.0)
	Complete, standard	28,260 (92.8)	28,239 (92.0)
CBRS	Incomplete	1,036 (3.4)	1,607 (5.2)
	Exempt	404 (1.3)	340 (1.1)
	Complete, standard	29,000 (95.3)	28,754 (93.7)
Breakdown of assessment overlap (complete, standard, or remote only)	VALLS: Pre-K, EMAS, CBRS	27,441 (91.5)	27,678 (92.6)
	VALLS: Pre-K, EMAS	222 (0.7)	316 (1.1)
	VALLS: Pre-K, CBRS	631 (2.1)	617 (2.1)
	EMAS, CBRS	587 (2.0)	211 (0.7)
	VALLS: Pre-K	751 (2.5)	786 (2.6)
	EMAS	11 (0.1)	34 (0.1)
	CBRS	341 (1.1)	248 (0.8)

<sup>a</sup> Non-standard administration includes accommodations to the administration conditions (i.e., frequent breaks, simplified directions) that do not follow the standard administration protocol.

### 2023–2024 Four-Year-Old VKRP Pre-kindergarten Descriptive and Skill Development Band Data

Table 24 presents 4-year-old VKRP descriptive data for the EMAS (total scaled score) and CBRS (self-regulation, social skills and mental health well-being mean scores) in 2023–2024. The VALLS: Pre-K measure for literacy does not have an overall summed score; therefore,

Table 24 lists the mean subtask scores (e.g., name writing, letter sounds etc.) for the literacy screener. **Overall, 4-year-old children displayed a range of skills in the fall of 2023 and spring of 2024 across each of the domains—literacy, mathematics, self-regulation, and social skills.**



**Table 24***2023–2024 Four-Year-Old Pre-kindergarten Assessment Descriptive Data*

Domain	Description	Fall 2023		Spring 2024	
		n	Mean (SD)	n	Mean (SD)
Literacy	Letter Names	29,562	20.24 (18.56)	29,558	37.26 (16.47)
	Letter Sounds	29,498	4.99 (7.05)	29,522	14.40 (8.89)
	Syllable Segmenting	29,475	5.27 (3.70)	29,489	8.08 (3.01)
	Passage Comprehension: Retell	29,334	1.51 (1.58)	29,445	2.94 (1.80)
	Passage Comprehension: Expressive	29,321	2.24 (1.67)	29,437	2.61 (1.40)
	Passage Comprehension: Receptive	29,300	1.70 (1.22)	29,421	2.86 (1.22)
	Name Writing	29,491	2.93 (1.54)	29,495	4.44 (1.07)
	Print Concepts	29,403	4.64 (2.76)	-	
Mathematics	EMAS Scaled Score	28,261	502.24 (92.18)	28,239	614.33 (89.78)
Social-Emotional	CBRS Self-Regulation Mean Score	29,000	3.42 (0.81)	28,754	3.82 (0.81)
	CBRS Social Skills Mean Score	29,000	3.89 (0.73)	28,754	4.12 (0.72)
	CBRS Well-Being Mean Score	29,000	4.11 (0.66)	28,754	4.31 (0.63)

Table 25 provides descriptive information about the number of 4-year-old pre-kindergarten children's mathematics scores that fall into each of the Skill Development Bands. **In the fall of 2023, most 4-year-old children's scores fell into the Beginning Band (49%), and in the spring of 2024, there were relatively equal percentages of 4-year-old children's scores that fell into each of the three bands: Beginning (33%), Growing (34%), Strong (33%).**

**Table 25***2023–2024 Four-Year-Old Pre-kindergarten Mathematics Skill Development Bands Descriptive Data*

		Fall 2023			Spring 2024		
		n = 28,261			n = 28,239		
		Min	Max	Mean (SD)	Min	Max	Mean (SD)
Mathematics	EMAS Scaled Score	240	752	502.24 (92.18)	304	829	614.33 (89.78)
		n (%)			n (%)		
Skill Development Bands	Beginning	13,904 (49.2)			9,267 (32.8)		
	Growing	8,528 (30.2)			9,621 (34.1)		
	Strong	5,829 (20.6)			9,351 (33.1)		

Figure 43 provides a visual depiction of the percentage of 4-year-old children's mathematics scores that fell into each of the Skill Development Bands in the fall of 2023 and the spring of 2024.

**Figure 43**

*Fall 2023 and Spring 2024 Four-Year-Old Pre-kindergarten Mathematics Skill Development Bands*

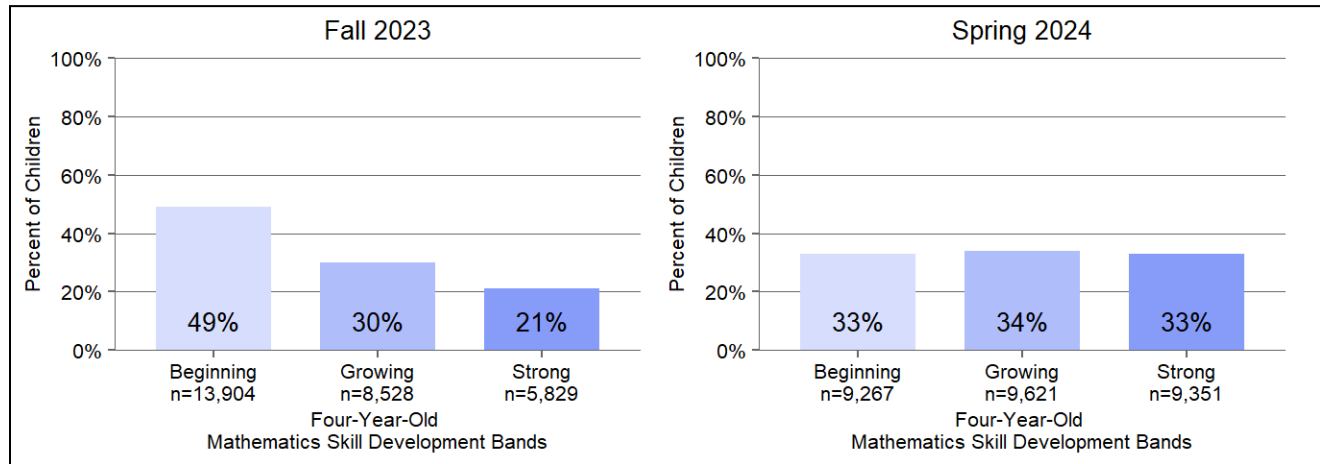


Table 26 provides descriptive information about the number of 4-year-old pre-kindergarten children's self-regulation scores that fell into each of the Skill Development Bands. **In both the fall 2023 and spring 2024, the majority of 4-year-old children's self-regulation scores fell into the Growing Band (70% and 63%, respectively).**

**Table 26**

*2023–2024 Four-Year-Old Pre-kindergarten Self-Regulation Skill Development Bands Descriptive Data*

		Fall 2023			Spring 2024		
		n = 29,000			n = 28,754		
		Min	Max	Mean (SD)	Min	Max	Mean (SD)
Self-Regulation	CBRS Mean Score	1.00	5.00	3.42 (0.81)	1.00	5.00	3.82 (0.81)
		n (%)			n (%)		
Skill Development Bands	Beginning	4,884 (16.8)			5,176 (18.0)		
	Growing	20,252 (69.8)			18,109 (63.0)		
	Strong	3,864 (13.3)			5,469 (19.0)		

Figure 44 provides a visual depiction of the percentage of 4-year-old children's self-regulation scores that fell into each of the Skill Development Bands in the fall of 2023 and the spring of 2024.

**Figure 44**

*Fall 2023 and Spring 2024 Four-Year-Old Pre-kindergarten Self-Regulation Skill Development Bands*

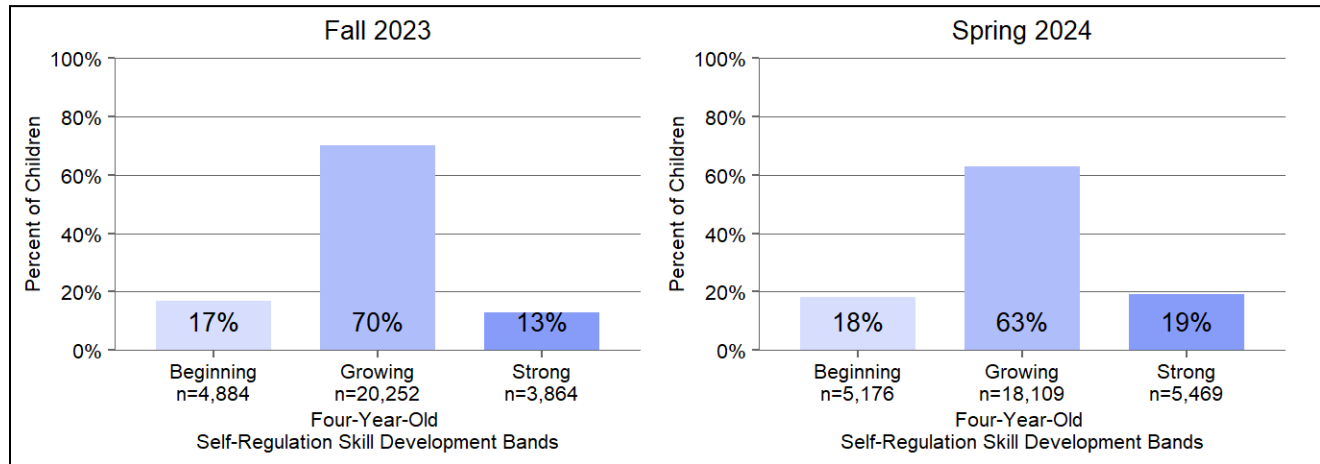


Table 27 provides descriptive information about the number of 4-year-old pre-kindergarten children's social skills scores that fell into each of the Skill Development Bands. **In both the fall 2023 and spring 2024, most 4-year-old children's social skills scores fell into the Growing Band (68% and 62%, respectively).**

**Table 27**

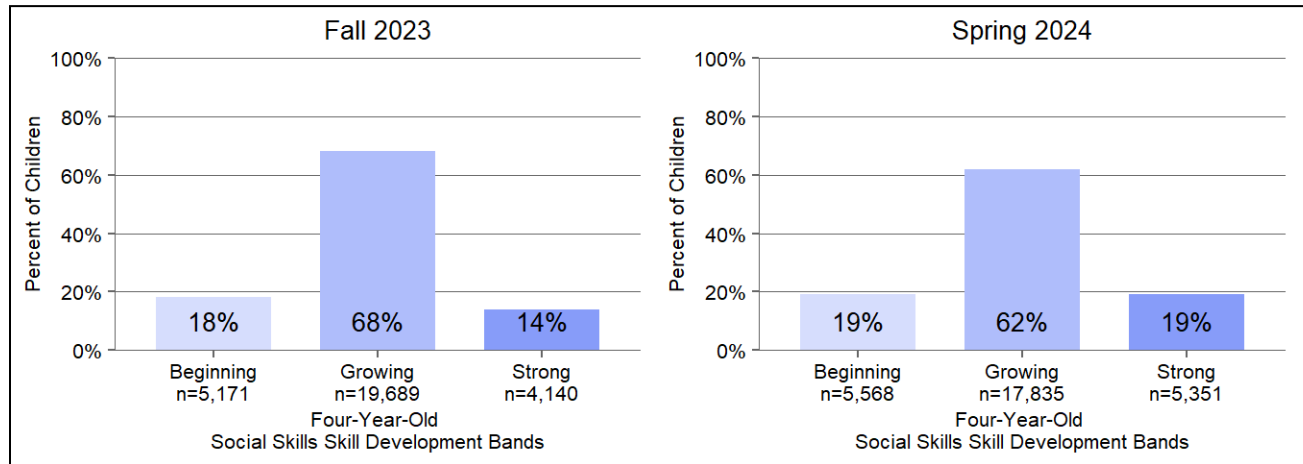
*2023–2024 Four-Year-Old Pre-kindergarten Social Skills Skill Development Bands Descriptive Data*

		Fall 2023			Spring 2024		
		n = 29,000			n = 28,754		
		Min	Max	Mean (SD)	Min	Max	Mean (SD)
<b>Social Skills</b>	<b>CBRS Mean Score</b>	1.00	5.00	3.89 (0.73)	1.00	5.00	4.12 (0.72)
		n (%)			n (%)		
<b>Skill Development Bands</b>	Beginning	5,171 (17.8)			5,568 (19.4)		
	Growing	19,689 (67.9)			17,835 (62.0)		
	Strong	4,140 (14.3)			5,351 (18.6)		

Figure 45 provides a visual depiction of the percentage of 4-year-old children's social skills scores that fell into each of the Skill Development Bands in the fall of 2023 and the spring of 2024.

**Figure 45**

*Fall 2023 and Spring 2024 Four-Year-Old Pre-kindergarten Social Skills Skill Development Bands*



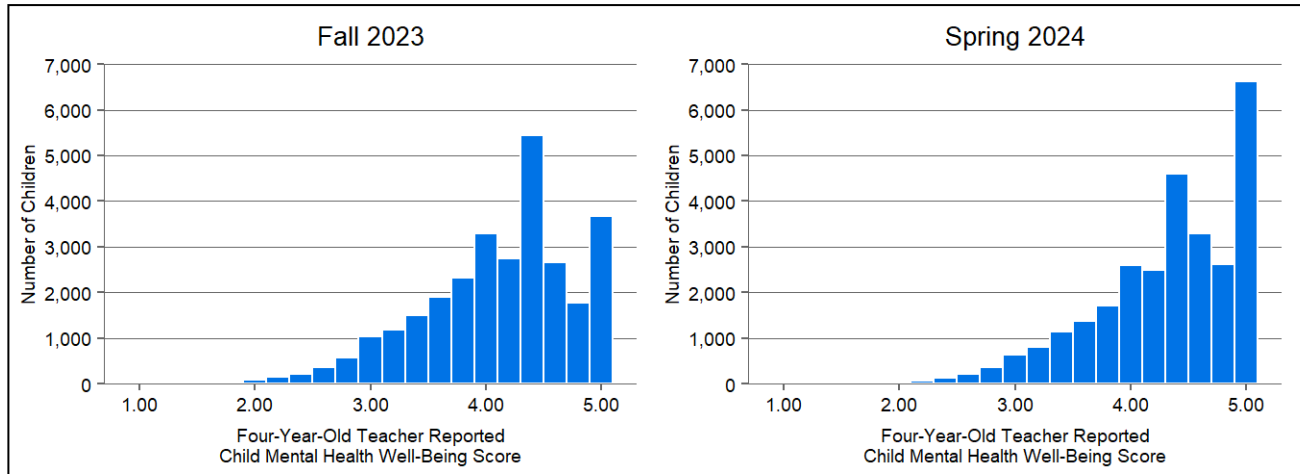
### 2023–2024 Four-Year-Old VKRP Pre-kindergarten Mental Health Well-being Data

The mean Mental Health Well-being scores for 4-year-old children in fall 2023 and spring 2024 were 4.11 ( $SD = 0.66$ ) and 4.31 ( $SD = 0.63$ ), respectively (

Table 24). In the fall of 2023, teachers reported being moderately, very, or extremely concerned about the social-emotional well-being for 19% of 4-year-old children (Figure 47). Teacher concern for 4-year-old pre-kindergarten children's social-emotional well-being decreased slightly in the spring of 2024 where teachers reported being moderately, very, or extremely concerned about 17% of their 4-year-old children.

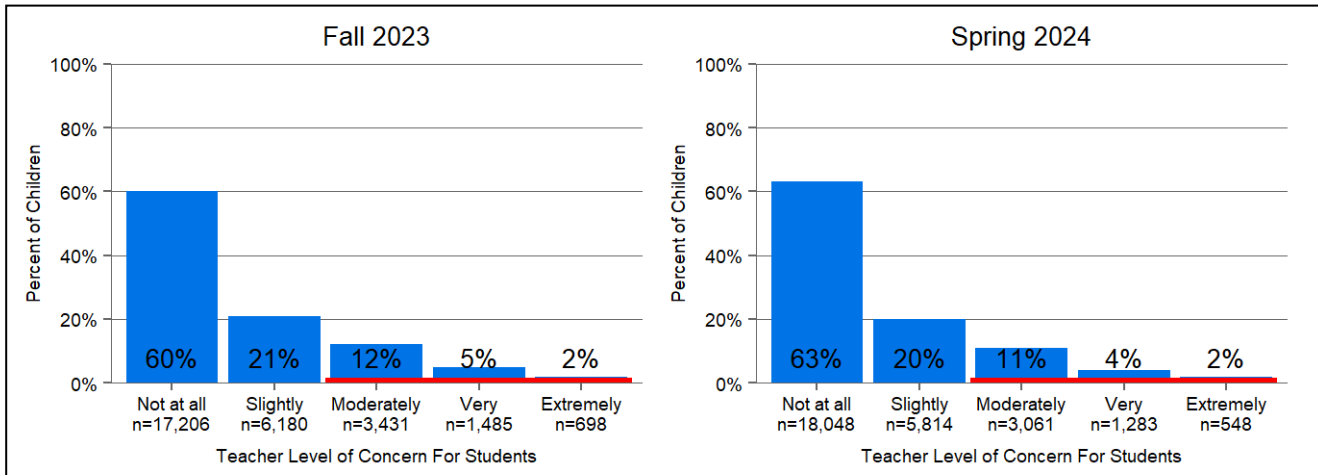
**Figure 46**

*Fall 2023 and Spring 2024 Four-Year-Old Pre-kindergarten Well-being Composite Score*



**Figure 47**

*Fall 2023 and Spring 2024 Four-Year-Old Pre-kindergarten Teacher Concern*



### How Did Four-Year-Old VKRP Pre-kindergarten Children Grow in Mathematics, Self-Regulation, and Social Skills from Fall 2023 to Spring 2024?

This section discusses the overall growth in 4-year-old children's scaled scores in mathematics and growth in raw averaged scores in self-regulation and social skills from fall 2023 to spring 2024. The newly developed VALLS: Pre-K measure for literacy does not yet have growth data available.

#### 2023–2024 VKRP Four-Year-Old Pre-kindergarten Children's Mathematics Scaled Scores Growth

The Early Mathematics Assessment System (EMAS) for pre-kindergarten captures growth over time using scaled scores ranging from 240 to 829. In the following table and figures, each 4-year-old child's scaled score in the fall of 2023 is subtracted from their scaled score in the spring of 2024 to arrive at each individual child's growth in mathematics (Table 28). These individual growth scores are then averaged to create a mean growth score at the state level for the 2023–2024 year.

**Four-year-old pre-kindergarten children's scores on the EMAS were normally distributed in the fall 2023 and spring 2024, and there was a normal distribution of growth across the year.**

**Table 28**

*Fall 2023 and Spring 2024 Four-Year-Old Pre-kindergarten Mathematics Descriptive Data*

Domain	Measure	n	Mean (SD)	Range
Mathematics	Scaled Score, Fall	28,261	502.24 (92.18)	240 – 752
	Scaled Score, Spring	28,239	614.33 (89.78)	304 – 829
	Mean Growth	26,126	112.50 (70.11)	-199 – 490

#### 2023–2024 VKRP Four-Year-Old Pre-kindergarten Children's Self-Regulation Growth

Four-year-old children's mean raw scores in self-regulation in the fall 2023 and spring 2024 as well the average self-regulation growth across the state are presented in Table 29. There was a range in 4-year-old pre-kindergarten children's self-regulation scores in both the fall of 2023 and the spring of 2024. **Teachers reported small gains in 4-year-old pre-kindergarten children's self-regulation skills over the year, and growth was normally distributed. The data also showed that some 4-year-old children made larger gains in self-regulation**

skills while other 4-year-old children demonstrated negative growth in their self-regulation skills across the 2023–24 school year.

**Table 29**

*Fall 2023 and Spring 2024 Four-Year-Old Pre-kindergarten Self-Regulation Descriptive Data*

Domain	Measure	n	Mean (SD)	Range
Self-Regulation	Average Raw Score, Fall	29,000	3.42 (0.81)	1.00 – 5.00
	Average Raw Score, Spring	28,754	3.82 (0.81)	1.00 – 5.00
	Mean Growth	26,832	0.40 (0.68)	-3.40 – 3.90

### **2023–2024 VKRP Four-Year-Old Pre-kindergarten Children’s Social Skills Growth**

Four-year-old children’s mean raw scores in social skills in the fall of 2023 and spring of 2024 as well the average social skills growth across the state are presented in Table 30. There was a range in 4-year-old pre-kindergarten social skills scores in both the fall of 2023 and the spring of 2024. Like self-regulation, **pre-kindergarten teachers reported small gains in 4-year-old children's social skills over the year 2023–2024. The distribution of growth is normally distributed with some 4-year-old children making gains and others demonstrating negative growth with regards to teachers’ perceptions of their social skills.**

**Table 30**

*Fall 2023 and Spring 2024 Four-Year-Old Pre-kindergarten Social Skills Descriptive Data*

Domain	Measure	n	Mean (SD)	Range
Social Skills	Average Raw Score, Fall	29,000	3.89 (0.73)	1.00 – 5.00
	Average Raw Score, Spring	28,754	4.12 (0.72)	1.00 – 5.00
	Mean Growth	26,832	0.23 (0.60)	-3.00 – 3.15

## Mid-Year Assessment Pilot: Pre-kindergarten and Kindergarten

### Description of Pilot

Program, school and division leaders, teachers, and families across Virginia have expressed interest in understanding how to better monitor students' progress and growth across the school year, and to better align with Virginia's literacy assessment practices.

During the 2022–2023 year, as required by the 2022–2023 Biennial Budget, VKRP gathered information about the goals of a VKRP mid-year assessment from VDOE and educator stakeholders and then coordinated with VLP to inform the design of a mid-year assessment timepoint. During the 2023–2024 year, the VKRP team conducted a pilot and engaged in refinement of the VKRP assessment system for a mid-year timepoint.

In the spring of 2023, the VKRP team developed new mathematics items to be used as part of a mid-year EMAS mathematics assessment in pre-k 3, pre-k 4, and kindergarten. These items were initially piloted by a team of data collectors in classrooms across Virginia throughout the fall of 2023. Psychometric analysis was conducted on the items, and feedback was gathered from data collectors and teachers who reviewed the items. The VKRP team then triangulated this information to develop pilot EMAS mid-year forms.

### VKRP Mid-Year Assessment Participant Descriptive Data

In January 2024, the VKRP team conducted a VKRP Mid-year Assessment Pilot that incorporated pilot EMAS mid-year forms, the CBRS, and the Mental Health Well-being Items. VKRP recruited teachers for participation across 22 divisions and programs in the Commonwealth to participate in the pilot. In kindergarten, 82 teachers and 1,176 kindergarten students participated in the pilot. In pre-kindergarten, 337 teachers, 1,002 3-year-old children, and 3,887 4-year-old children participated in the pilot. EMAS assessments were conducted with 5,766 children (1,147 kindergarten, 3,697 pre-k 4 and 922 pre-k 3) and CBRS ratings were complete for 5,855 children (1,158 kindergarten, 3,732 pre-k 4, and 965 pre-k 3).

In addition to the teacher-administered pilot, the data collector pilot continued throughout the end of the 2023–2024 school year. Data collectors assessed a total of 1,787 pre-kindergarten and kindergarten students on the EMAS mid-year items.



Table **31** shows the 15 divisions/programs and the number of students assessed per division by the data collectors in spring 2024.

**Table 31**

*Number of Pre-kindergarten and Kindergarten Students Assessed Per Division for the Mid-Year Pilot by Data Collectors*

<b>Division</b>	<b>N</b>
Amherst County Public Schools	74
LLE Education Group	36
Loudoun County Public Schools	193
Lynchburg City Public Schools	87
Madison County Public Schools	159
Martinsville City Public Schools	16
New Kent County Schools	14
Norfolk City Public Schools	264
Pittsylvania County Public Schools	63
Richmond City Public Schools	17
Roanoke City Public Schools	137
Virginia Beach City Public Schools	260
Warren County Public Schools	115
Waynesboro City Public Schools	281
Wise County Public Schools	71
<b>Total</b>	<b>1,787</b>

At the conclusion of the VKRP Mid-year Assessment Pilot, the VKRP team sent a survey to teachers that asked questions about how teachers would use mid-year data. Results showed that that pre-kindergarten and kindergarten teachers were likely to use the VKRP mid-year data for a wide range of purposes, including identifying gaps in student knowledge, planning instruction for small groups, communicating with families about student growth, and planning instruction to meet the needs of individual students.

During the 2024–2025 school year, the VKRP system, including associated data reports, will be available statewide at a mid-year timepoint for any division or program to use voluntarily.

## Mathematics, Self-Regulation, Social Skills, and Mental Health Well-being Assessment Pilot: Grades 1-3

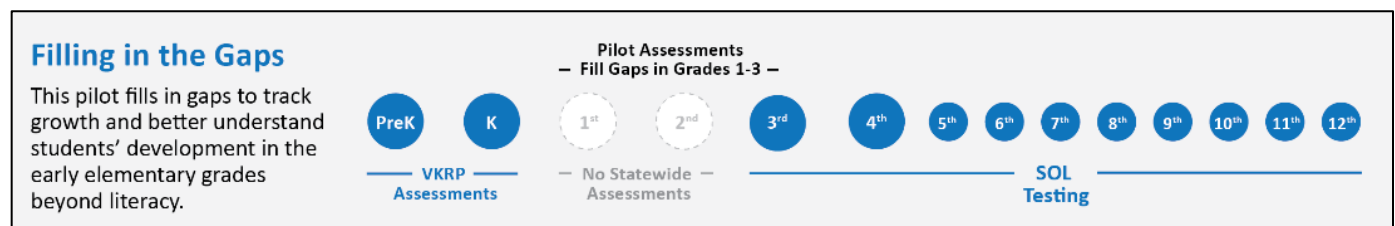
### Introduction

VKRP, in partnership with VDOE, is conducting a mathematics, self-regulation, social skills, and mental health well-being assessment pilot in Grades 1 through 3 (1-3 Assessment Pilot). The purpose of the VKRP 1-3 Assessment pilot, required initially by [Virginia's 2022–2024 Biennial Budget and continued through the 2024–2026 Biennial Budget](#), is to explore the utility of building longitudinal measures of mathematics, self-regulation, social skills, and mental health well-being that could potentially extend into Grades 1 through 3. These measures could complement Virginia's use of VALLSS in the primary Grades administered by Virginia Literacy Partnerships (VLP).

School and division leaders, teachers, and families across Virginia have expressed interest in understanding how young students' skills develop in the early elementary Grades and how to better track student growth from pre-kindergarten through the early Grades. Currently, there are several gaps in existing assessments (Figure 48). Apart from literacy, there are no statewide assessments that measure students' early learning in these areas in Grades 1 and 2. Additionally, there are no statewide assessments that universally track students' growth within the academic year and across academic years in these areas from pre-kindergarten through Grade three (noting there are growth assessments in mathematics starting in third Grade). Currently, school divisions vary in their approach to student assessments in the early elementary Grades.

**Figure 48**

*How the Assessment Pilot Fills Gaps in Grades 1-3*



### Goals of the VKRP Grades 1-3 Assessment Pilot

There are four goals of the VKRP 1-3 Assessment Pilot. For each goal, VKRP has engaged or is continuing to engage in data collection, analysis, and planning:

1. Analyze feedback from teachers, school, division, and state leaders about existing assessments to learn what types of measures are currently being used in school divisions and to gain perspectives on gaps in data on students' mathematics, self-regulation, social skills, and mental health well-being.
  - This goal was accomplished through the development, administration, and analysis of a **Division Assessment Survey**.
2. Create an inventory of current Early Mathematics Assessment System (EMAS) and Child Behavior Rating Scale (CBRS) items.

- For mathematics, the VKRP team created a crosswalk between Clements and Sarama’s **Mathematics Learning Trajectories**<sup>12,13</sup>, which describe the developmental path along which students learn mathematical concepts and skills, the Virginia Mathematics 2016 and 2023 Standards of Learning, and existing EMAS items to guide item development.
  - **VDOE reviewed and provided feedback on the CBRS**, which is used statewide in 3- and 4-year-old pre-kindergarten and kindergarten classrooms to measure aspects of students’ self-regulation, social skills, and mental health well-being. The CBRS has been used in research with children ranging in age from 3 to 10 years old.
3. Pilot EMAS items developed during the 2022–2023 year (Table 32) in Grades 1 through 3 in a subset of school divisions with the goal that these items could potentially be used as part of a future statewide suite of assessments to better understand student progress in mathematics, social skills, self-regulation, and mental health well-being.
    - This goal was accomplished through the **development and item piloting of EMAS mathematics items** led by UVA data collectors.
  4. Refine the measures, reports, resources, and technology so that a 1-3 Assessment System could be available for use statewide.
    - This goal is in the preliminary stages of planning a timeline of activities and tasks to be completed for a successful launch.

## VKRP 1-3 Assessment Pilot Timeline

**Table 32**

*Timeline for 1-3 Assessment Pilot Activities*

Year	Activities
2022–2023	Gather information from stakeholders, including subject matter experts Launch division survey for assessments in Grades 1-3 Understand what assessments are currently available across the state Develop and pilot EMAS items Receive teacher feedback about EMAS items Revise items based on feedback
2023–2024	Continue to pilot items and assessments in Grades 1-3 Provide report of findings to VDOE
2024–2026	Refine the measures (EMAS, CBRS, Mental Health Well-being), reports, resource, and technology for a possible statewide availability of a VKRP 1-3 Assessment System

## Key 1-3 Assessment Pilot Activity Updates

Below are updates on ongoing key VKRP 1-3 Assessment Pilot activities noted in the goals section above.

### 1-3 Division Assessment Survey

The purpose of the division assessment survey was to learn what assessments are currently being used division wide in Virginia to understand students’ development and learning in the early Grades. Additionally, the VKRP

<sup>12</sup> Clements, D. H., & Sarama, J. (2021). Learning and teaching early math: Learning trajectories approach. Routledge & CRC Press.

<sup>13</sup> Sarama, J., & Clements, D. H. (2009). Early childhood mathematics education research: Learning trajectories for young children. Routledge.

team was interested in learning what division leaders and teachers would like to have available at the division- and/or state-level with respect to assessments for Grades 1 through 3.

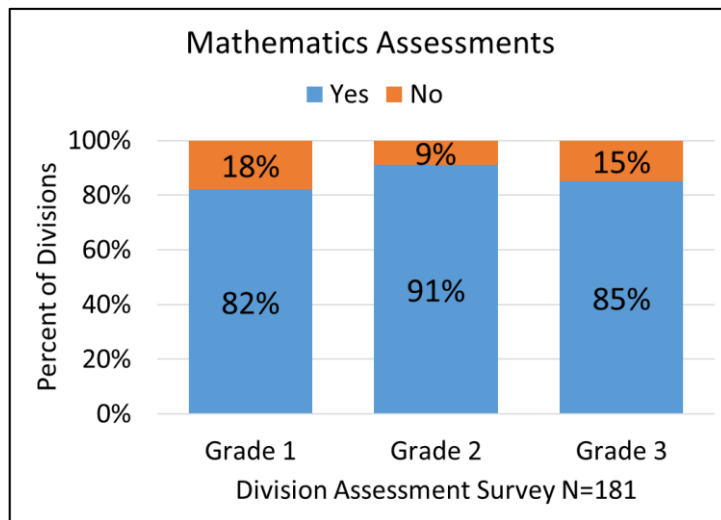
In the survey, respondents were asked a series of questions about division wide assessments currently being used in Grades 1 through 3 to assess mathematics, social-emotional skills (with a particular interest in self-regulation and social skills), and mental health well-being. At least two division leaders from each of the 130 divisions across the state were identified, contacted, and asked to complete the survey.

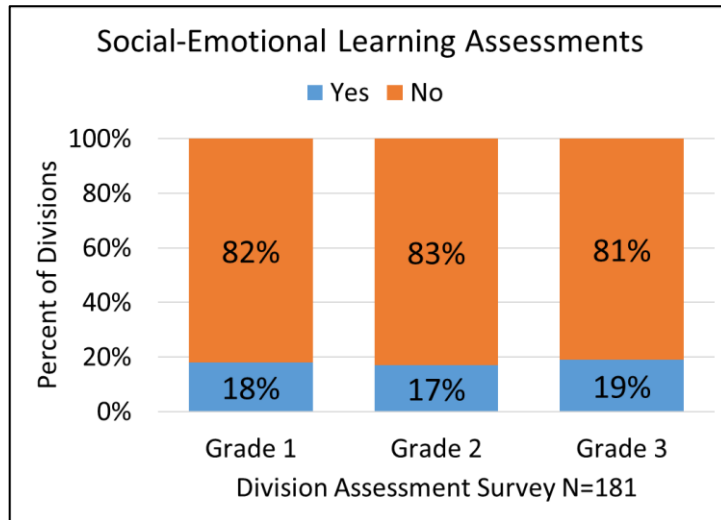
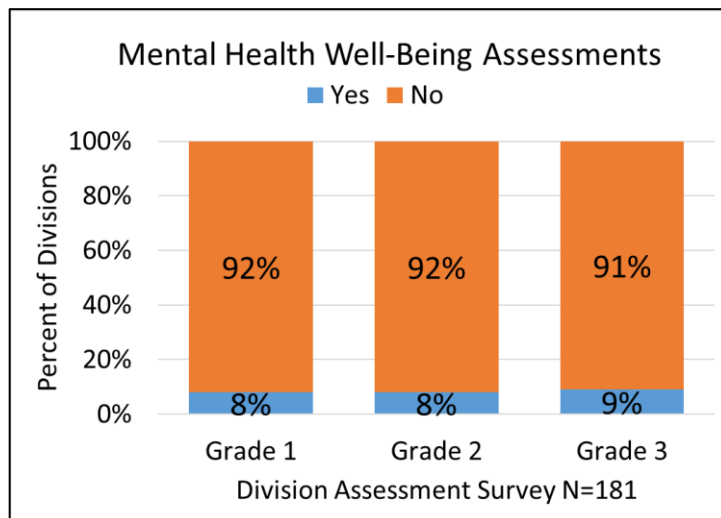
The final sample of survey respondents included a total of 181 responses across 109 divisions. Respondents had a range of positions including, but not limited to mathematics specialists, directors of elementary instruction, first through third Grade teachers, and principals. All respondents had the opportunity to share their knowledge about assessments being used in their division across mathematics, social-emotional skills, and mental health well-being regardless of their positions. Future analyses will aggregate responses from divisions with multiple respondents to understand the assessments that are currently available across the state.

Figure 49 through 51 show the number of respondents that reported having division wide assessments for mathematics, social-emotional skills, and mental health well-being in Grades 1 through 3. Most divisions have an assessment to measure mathematics in Grades 1, 2, or 3. In contrast, most respondents reported not having a division wide assessment for social-emotional skills or mental health well-being in Grades 1, 2, or 3.

**Figure 49**

*Division Wide Mathematics Assessments by Grade*



**Figure 50***Division Wide Social-Emotional Assessments by Grade***Figure 51***Division Wide Mental Health Well-being Assessments by Grade*

Respondents also shared qualitative feedback about how assessments are currently used to support students and families and their thoughts about possible state-supported assessments for mathematics, social-emotional skills, and mental health well-being. Common themes that emerged from responses across domains are shared below.

#### Data Use and Policies

- Of the respondents that reported having an assessment in Grades 1, 2, or 3, fewer than 50% of all respondents reported having a division policy for how data collected from mathematics, social-emotional skills, and mental health well-being assessments are used and shared.
- Of the respondents that reported having an assessment in Grades 1, 2, or 3, over 50% of respondents reported sharing data from mathematics assessments with families, while fewer than 50% of respondents reported sharing data from social-emotional skills or mental health well-being assessments.

### Themes about Opportunities for Possible State-Supported Assessments for Mathematics, Social-Emotional Skills, or Mental Health Well-being

- Longitudinal Tracking and Growth Analysis: Assessments could enable tracking growth and changes over time from pre-kindergarten through third Grade.
- Informed Decision-Making: Assessments could provide insights to inform decision-making, aiding timely interventions, and appropriate resource allocation.
- Identifying Specific Needs and Weaknesses: Assessments could help identify specific needs, enabling targeted interventions, and support strategies.
- Evaluation of Effectiveness: Assessments could allow for evaluating the effectiveness of strategies and interventions.
- Tailored Support and Instruction: Assessments could enable tailored support and data-driven instruction tailored to individual needs.
- Support for Transient Students: Assessments could support transient students by providing consistent measures of progress.

### Themes about Challenges for Possible State-Supported Assessments for Mathematics, Social-Emotional Skills, or Mental Health Well-being

- Instructional Time and Workload Impact: There were worries about the potential impact on instructional time and increased workload for educators due to administering additional assessments, potentially leading to reduced teaching time.
- Alignment with Standards: The importance of aligning assessments with curriculum standards to ensure they accurately measure what students have been taught in the classroom was stressed for all assessments.
- Over-Assessment and Student Well-being: There were concerns about over-assessing students, especially in 3rd Grade where there are already several assessments in place, leading to test fatigue, stress, and burnout for students and teachers.
- Teacher Support and Professional Development: The necessity for adequate support, training, and professional development for teachers to effectively utilize assessment data for instructional improvement were emphasized for both assessments.
- Counselor and Professional Support: The recognition of the essential role of counselors and mental health professionals to support students based on assessment outcomes was noted, particularly for mental health well-being assessments.

### EMAS Item Piloting

#### EMAS Item Development

The Early Mathematics Assessment System (EMAS) is the measure currently used to assess students' mathematics skills in pre-kindergarten and kindergarten through VKRP. The EMAS has been developed to assess students' growth in mathematics knowledge and skills from the beginning of pre-kindergarten through the end of kindergarten.

The VKRP team worked with consultants with mathematics expertise to create 237 new items across five domains (Numeracy = 52, Geometry & Measurement = 43, Patterning = 36, Computation = 84, and Probability &

Statistics = 22) that were then reviewed by VDOE. Piloting these new items in Grades 1 through 3 began during the 2022–2023 year and continued into the 2023–2024 year.

### EMAS Item Piloting

The VKRP team recruited 18 school divisions to participate in an EMAS item pilot. A diverse group of divisions that included variability based on urbanicity and size were intentionally recruited. Table 33 shows the 18 divisions and the number of students assessed per division.

**Table 33**

*Number of Grade 1–3 Students Assessed on the 1-3 Pilot Per Division by Data Collectors*

Division	N
Amherst County Public Schools	571
Fairfax County Public Schools	103
Gloucester County Public Schools	228
King George County Public Schools	141
Lynchburg City Public Schools	61
Madison County Public Schools	260
Martinsville City Public Schools	49
New Kent County Public Schools	387
Norfolk City Public Schools	1,655
Pittsylvania County Public Schools	170
Portsmouth City Public Schools	374
Radford City Public Schools	53
Richmond City Public Schools	509
Roanoke City Public Schools	318
Virginia Beach City Public Schools	995
Warren County Public Schools	264
Waynesboro City Public Schools	431
Wise County Public Schools	66
<b>Total</b>	<b>6,635</b>

The goals of the pilot were to have data collectors administer items to students in first through third Grades and to collect both quantitative and qualitative data on each of the items.

VKRP hired and trained data collectors to pilot test items in first through third Grade classrooms. During the 2023–2024-year, data were collected on 6,635 students across Grades 1 through 3.

The VKRP team will continue to refine the measures (EMAS, CBRS, Mental Health Well-being), reports, resources, and technology during the 2024-2025 year for possible statewide availability of a VKRP 1-3 Assessment System. The VKRP team is in the preliminary stages of planning a timeline of activities and tasks to be completed for a successful launch in fall 2026.



## 2024–2025 Next Steps

Virginia’s youngest learners arrive to pre-kindergarten and kindergarten with different experiences, including varied access and exposure to early learning opportunities in home, childcare, and school-based settings. Teachers and administrators continue to use VKRP data in combination with other formative and summative assessments to help target individualized instruction, determine teacher professional development needs, and, at the state-level, inform policy decisions to help identify school divisions and regions most in need of support. VKRP data can also be used to help families understand what readiness means, and to create home-school connections focused on supporting young learners in educational settings. In partnership with VDOE, VKRP will continue to improve and expand the VKRP assessment system in the following ways during the 2024–2025 school year.

### Continued Support for Pre-kindergarten and Kindergarten Implementation

VKRP will continue to support teachers’, administrators’, and divisions/programs’ VKRP implementation by providing in-person trainings, webinars, and online trainings and resources for teachers and school/division/program-level administrators. Based on teacher and administrator feedback, additional training and data use modules and resources will be developed to assist teachers and administrators in understanding how best to use VKRP data to support students’ learning and development. Finally, VKRP is working with divisions and programs in 2024–2025 to analyze and use their data and to encourage collaboration between Grade levels, and to help foster data-driven instruction and decision-making in the classroom.

### Continued Support for Three- and Four-Year-Old Pre-kindergarten VKRP Participation

VKRP will continue to be available for use in publicly-funded 4-year-old pre-kindergarten classrooms with continued implementation support for programs required to participate (e.g., VPI funded classrooms, VECF Mixed Delivery) or who are voluntarily participating and targeted outreach to those who are not yet participating but may choose to participate. In 2022–2023, VKRP was made available for 3-year-old children in publicly-funded pre-kindergarten classrooms. VKRP will continue to be available for use in 3-year-old programs and provide support for 3-year-old programs in 2024–2025.

### Statewide Availability of VKRP at Mid-Year Timepoint

VKRP will be available to all divisions and programs at a mid-year timepoint, beginning in winter 2025. The inclusion of a mid-year timepoint for VKRP will allow teachers to better monitor students’ progress over the year and to make instructional decisions to best meet students’ individual needs. Head Start programs are encouraged to participate in the VKRP Mid-Year assessment, which will support their continued adherence to the Head Start Program Performance Standard 45CFR 1302.102(C)(2)(ii) to aggregate and analyze child-level assessment data three times annually. Additionally, VKRP mid-year reports and resources will be added to the VKRP web portal and website for educators to support student growth of skills.

### Grades 1-3 Assessment Pilot

The VKRP team will continue to refine the measures, reports, resources, and technology during the 2024-2025 year for possible statewide availability of a VKRP 1-3 Assessment System in coordination with VLP. The 1-3 Assessment pilot will be used to help teachers, families, and divisions identify students' strengths, note areas of needed support, and monitor student growth longitudinally in the early elementary Grades.



## Collaboration With the Virginia Literacy Partnerships (VLP) Team

Continuing in 2024–2025, VKRP will collaborate with the Virginia Literacy Partnerships (VLP) team around their development and implementation of the Virginia Language & Literacy Screening System (VALLSS). The two teams regularly work together on assessment coordination and development, technology system development and expansion, data integration, teacher and administrator training, troubleshooting, and data usage and reporting.

## Collaboration With STREAMin<sup>3</sup>

The STREAMin<sup>3</sup> curriculum model supports skills and interactions that align to the Virginia Kindergarten Readiness Program (VKRP) and encourages use of VKRP as a progress monitoring tool. Through a competitive process and beginning in fall 2022, STREAMin<sup>3</sup> is being provided as a no- to low-cost choice for eligible early childhood programs who receive public dollars. To support VKRP use in new STREAMin<sup>3</sup> programs, the VKRP and STREAMin<sup>3</sup> teams collaborate to encourage new programs, many of whom were small private childcare and family childcare programs, to use VKRP.

## Improved and Expanded Reports

VKRP includes a robust reporting system that provides a detailed snapshot of students' academic and social-emotional skills in the fall and spring of each academic year. These reports provide detailed, actionable information to help meet students' needs at their current skill levels and to give a snapshot of how students' skills have grown across the year. VKRP is enhancing reports that show growth in students' skills for both teachers and families. Additionally, the VKRP team is developing a suite of mid-year reports for those opting to participate in the VKRP mid-year timepoint.

## Enhanced Resources for Families

VKRP, in collaboration with VDOE, continues to prioritize elevating families' voices and improving their experiences with VKRP. During the summer and fall of 2023, VKRP and VDOE co-led a series of family focus groups to gather feedback on the pre-kindergarten VKRP Family Information Reports. Feedback from focus groups was used to inform improvements to the VKRP suite of family resources. The improvements made from families' feedback was shared back to the focus group families during the winter of 2024. Similar improvements are being made to the Kindergarten VKRP Family Information Reports for the 2024–2025 academic year. Additionally, in 2024–2025, VKRP and VDOE will begin engaging with [Ready Region Family Councils](#) to gather feedback about VKRP's suite of family resources to continue improving reports and resources.

## Virginia Connects for Kids (VAConnects)

The VKRP team continues to collaborate with VLP and the LinkB5 teams to develop a coordinated integrated data system, VAConnects. This system will integrate statewide early childhood data collection initiatives to leverage data to maximize the impact of the three separate data systems. This critically important work will allow for better visibility into children's early experiences from birth to age five and how these experiences influence children's readiness for kindergarten and their future success in school. Through VAConnects, researchers, policymakers, and stakeholders will be better poised to make well-informed decisions regarding funding and professional development support across the state. In fall 2024, VALLSS will launch statewide in VAConnects in Grades K-3 in all school divisions across Virginia. Throughout 2024–2025, VKRP and LinkB5 will be integrated into the VAConnects application. All three programs will launch in VAConnects in fall 2025.

## Appendices

### Appendix A

#### VDOE Student Record Collection Codes

English Language/Multilingual Learners (EL) Flag	
Yes	If VDOE EL Services Code is: 1) Identified as EL and receives EL services, 2) Identified as EL but has refused EL services, or 4) Identified as formerly EL for each of the four years after exiting EL services.
No	If VDOE demographic data is present but EL Services Code is not present.

Disability Flag	
Yes	If any VDOE Primary Disability Code is present except “ <i>Qualified individual under Section 504</i> ”
No	If VDOE demographic data is present but Primary Disability Code is not present or if Primary Disability Code is “ <i>Qualified individual under Section 504</i> ”

Disadvantaged Status Flag	
Yes	Yes, student is disadvantaged if the student: 1) is eligible for Free/Reduced Meals to include Foster, Head Start, Migrant, and Homeless students; or 2) receives TANF; or 3) is eligible for Medicaid.
No	No, student is not disadvantaged.

All public preschool students must be reported to the Student Record Collection (SRC) system when the school division is the fiscal agent, grantee, or sub-grantee. All public preschool students receive both a Preschool Funding Code and a Preschool Experience Code assigned by school divisions in the preschool year. Non-public preschoolers are not captured in the SRC system, and their Preschool Experience Code is parent-reported at kindergarten entry. If parent-reported preschool experience does not match the SRC system, the Preschool Experience Code will default to division records. This information comes from the Guidance for PK Funding and PK Experience Codes posted on the VPI website.<sup>14</sup>

*Note.* Further documentation of these codes is available on the VDOE website:

- [Virginia Department of Education Data Elements](#)
- [Virginia Department of Education Student Record Collection Code Values](#)

<sup>14</sup> Guidance for PK Funding and PK Experience Codes posted on the VPI website: <https://www.doe.virginia.gov/teaching-learning-assessment/early-childhood-care-education/virginia-preschool-initiative>

PK Experience Code	
Head Start	The preschool classroom for at-risk four-year-olds is funded by the federal Head Start grant in a community-based organization.
Public Preschool	A preschool program operated in the public school. This would include VPI, VPI+, Title I, ECSE, and Head Start programs – both in the public school and if the public school is the fiscal agent; and locally funded public preschool program.
Private Preschool/Daycare	The student is served by a preschool, child daycare, or other program provided by a private provider. This includes programs for-profit and non-profit providers, including faith-based programs and commercial daycare centers.
Department of Defense child development program	A preschool program operated by the Department of Defense on a military installation.
Family Home Daycare Provider	The student was served by a preschool or child daycare provided in a home.
No Preschool Experience	The student has not had a formal classroom preschool experience. The student was at home with a parent, family member, caregiver, nanny, etc.

PK Funding Code	
Head Start	Select Head Start as the funding source code if the student slot is fully funded with federal Head Start funds administered by the school division as the Head Start grantee.
Virginia Preschool Initiative (VPI – Four-Year-Old Students)	Select VPI 4-year-old program as the funding source code if the student slot is fully funded by the state Virginia Preschool Initiative (state/local match).
Special Education Preschool (Part B, 619)	Select Special Education Preschool as the funding source code if the student slot is fully funded with federal Special Education Preschool funds. This code may apply to students with Individualized Education Programs who receive special education and related services in a public special education early childhood classroom, regular early childhood program, or in a service-provider location (e.g., therapist’s office). This code may also apply to students in a private community-based program if services are funded with federal Special Education Preschool funds. This funding code is not used if the student slot is funded by Head Start, VPI, or VPI+.
Title I Preschool	Select Title I Preschool as the funding source code if the student slot is fully funded with federal Title I, Part A funds, not mixed with state or other funding sources. <i>Ex. A student slot funded with VPI state funds in a classroom where the teaching assistant’s salary is paid out of Title I funds would not be labeled with this funding code because the student slot is not fully funded by Title I. Instead, the slot would receive a #3 funding code as a VPI state funded slot.</i>
Local Funding for VPI Placement	Select local funding for VPI student placement if a student is in a VPI classroom but is funded locally. This funding code is typically used when a school division has been allocated state VPI funds for less than a full classroom of 18 students. <i>Ex. The division may be allocated 11 VPI funded slots. In order to maximize services for students, the school divisions places 7 more students in the room and provides local funds to account for the additional student slots. Seven students would be coded #8 in this scenario.</i>
Local Funding for Other Public Preschool Program	Select local funding that supports any other public preschool program not identified in this list.
Virginia Preschool Initiative (Pilot for Three-Year-Old Students)	Select VPI 3-year-old program as the funding source code if the student is a part of the VPI Pilot for 3s and is not 4 but turns 3 by September 30 and the slot is fully funded by the state Virginia Preschool Initiative (state/local match).
Mixed Delivery Grant Program (administered by VECF)	Select Mixed Delivery Grant if the student is participating in a Mixed Delivery Grant program administered by the Virginia Early Childhood Foundation (VECF)
Special Education Funding for VPI Placement	Select special education funding if a student with an IEP is placed in a VPI classroom but is funded through special education funds (618 or 619) and is not reported as one of the division’s state allocated VPI slots (Funding Code #3) or allocated VPI Pilot for Three-Year-Olds slots (Funding Code #12). This funding code is typically used when a school division places a child with an IEP in a VPI classroom and the child is not funded by an allocated VPI slot, Head Start, or local funds. This funding code is not to be used if the student slot is funded by VPI or Head Start.



## Appendix B

### How VKRP Defines Readiness and Benchmark Estimates for Summative Purposes

Virginia defines school readiness as, “the capabilities of children, their families, schools, and communities that best promote student success in kindergarten and beyond.” The VKRP readiness and/or benchmark estimates are calculated based upon the expected skill levels of a kindergarten student at the beginning (fall) and end (spring) of the school year. There are separate kindergarten benchmarks for fall and spring with spring benchmarks being higher than fall benchmarks.

For summative purposes, kindergarten students are categorized as ready or meeting the overall benchmark (fall) and/or meeting the overall benchmark (spring) if they demonstrate minimally expected skills for the fall or the spring (depending upon the data timepoint) of kindergarten for literacy, mathematics, self-regulation, and social skills. If a kindergarten student does not demonstrate the minimally expected skill in one or more areas at the respective timepoint (fall or spring), they are categorized as not ready or below the overall benchmark (fall) and/or below the overall benchmark (spring).

The VKRP assessment tools measure students’ skills along a developmental continuum. However, it is common practice to establish benchmarks, often called thresholds or cut points, to help determine where students fall related to a standard. For VKRP, a benchmark at the fall and spring of kindergarten were established to estimate students’ skills relative to developmentally appropriate expectations in each area.

Benchmarks for the mathematics (EMAS), self-regulation, and social skills (CBRS) assessments were established using developmental expectations in conjunction with students’ scores across the Commonwealth. Students scoring below the benchmark on a specific assessment are most likely not demonstrating the level of skills one would expect for a kindergarten student in the fall or spring of kindergarten. The benchmarks vary from the fall to the spring based on increased skill level expectations.

#### **A Note on Using Benchmarks:**

Benchmarks can provide a quick, first-pass means of interpreting a student’s scores. For instance, a student who scores well above the benchmark in each early learning area likely possesses a high level of skill and could benefit from additional challenge. For students whose scores are falling well below the established benchmark for a given early learning area, additional support may be needed to help the student’s skill development. Similarly, teachers will likely need to provide additional scaffolding to students whose scores are falling close to the benchmark, including those who are slightly above it.

Although derived theoretically, it is important to recognize that imposing a benchmark on a measure that assesses students’ skills provides only a rough, imprecise estimate, which can be particularly problematic for students who score just above or below a particular threshold. For these reasons, it is not recommended to use whether or not a student is above or below the benchmark as the sole criterion for understanding his or her skills within an early learning domain. For all students, continual progress monitoring is critical as students develop skills at different rates and respond differently to instruction and scaffolding.



## Appendix C

### Merged Funding Source Code

VKRP serves a larger population of children than those enrolled in public preschool programs, including children enrolled in Mixed Delivery classrooms. Current efforts are underway to close information gaps about funding sources. Below information is provided about how children's funding source was estimated for the 2023–2024 school year through multiple data sources.

All public preschool students receive a Preschool Funding Code (PK Funding Code) assigned and reported to the VDOE's SRC system by school divisions in the preschool year. VDOE PK Funding Code was missing for approximately 23% of the VKRP pre-kindergarten sample in the 2023–2024 school year (Table 34).

The VLP system offers the opportunity for users to assign a Funding Source (PK Funding Source) as part of their pre-kindergarten student upload. Funding source codes entered into the VLP system are optional and were missing for over 73% of the VKRP pre-kindergarten sample in the 2023–2024 school year. However, the VLP PK Funding Source code for Mixed Delivery was present for a small portion of the VKRP pre-kindergarten sample (

Table 35).

**Table 34**

*2023–2024 VKRP Pre-kindergarten Sample VDOE PK Funding Code Descriptives*

PK Funding Code (VDOE)	Fall Total Pre-kindergarten Children	Spring Total Pre-kindergarten Children
	n (%)	n (%)
Head Start	2,076 (5.3)	2,269 (5.7)
Virginia Preschool Initiative (VPI – Four-Year-Old Students)	19,760 (50.6)	19,905 (49.9)
Virginia Preschool Initiative (Pilot for Three-Year-Old Students)	1,977 (5.1)	2,054 (5.2)
Local Funding for VPI Placement	353 (0.9)	405 (1.0)
Special Education Funding for VPI Placement	162 (0.4)	185 (0.5)
Special Education Preschool (Part B, 619)	2,411 (6.2)	2,661 (6.7)
Title I Preschool	1,041 (2.7)	1,013 (2.5)
Local Funding for Other Public Preschool Program	477 (1.2)	495 (1.2)
Mixed Delivery Grant Program (administered by VECF)	1,783 (4.6)	1,636 (4.1)
Missing	8,993 (23.0)	9,258 (23.2)
<b>Total</b>	<b>39,033 (100.0)</b>	<b>39,881 (100.0)</b>

**Table 35***2023–2024 VKRP Pre-kindergarten Sample VLP PK Funding Source Descriptives*

PK Funding Source (VLP)	Fall Total	Spring Total
	Pre-kindergarten Children	Pre-kindergarten Children
	n (%)	n (%)
Head Start	1,719 (4.4)	1,650 (4.1)
VPI 4YO	4,442 (11.4)	5,012 (12.6)
VPI 3YO	636 (1.6)	642 (1.6)
Local for VPI	18 (0.1)	37 (0.1)
Special Ed Preschool	1,005 (2.6)	890 (2.2)
Title I	8 (0.1)	27 (0.1)
Other Local	210 (0.5)	215 (0.5)
Mixed Delivery	1,346 (3.4)	1,504 (3.8)
Private	742 (1.9)	702 (1.8)
VA CCSP	7 (< 0.1)	7 (< 0.1)
Funding Source Unassigned	28,900 (74.0)	29,195 (73.2)
<b>Total</b>	<b>39,033 (100.0)</b>	<b>39,881 (100.0)</b>

To provide a more accurate estimate of participation by funding source, available SRC data was merged with pre-kindergarten funding source codes entered into the VLP system. In an effort to close information gaps, VECF also shared demographic information for children enrolled in Mixed Delivery classrooms in the 2023–2024 school year. This information was also merged with VKRP pre-kindergarten data using student name and location.

VDOE PK Funding Code was set as the default code. VDOE PK Funding Codes of “*Virginia Preschool Initiative (VPI – Four-Year-Old Students)*,” “*Virginia Preschool Initiative (Pilot for Three-Year-Old Students)*,” “*Local Funding for VPI Placement*,” and “*Special Education Funding for VPI Placement*” were combined into a single “*VPI, local funding for VPI placement, special education funding for VPI placement*” code. If no VDOE PK Funding Code was present and demographic information had been shared by VECF, the child was categorized as “*VECF Mixed Delivery*.” If no VDOE PK Funding Code was present, the child was not present in VECF demographic data, and a VLP Funding Source code was present, VLP Funding Source was set as the merged funding source code. VLP Funding Source Codes of “*VPI 4YO*,” “*VPI 3YO*,” “*Local for VPI*” were combined into a single “*VPI, local funding for VPI placement, special education funding for VPI placement*” code (Table 36).

**Table 36***Creation of Merged Pre-kindergarten Funding Code*

Default: PK Funding Code (VDOE)	If demographics shared from VECF:	If missing VDOE Funding Code: PK Funding Source (VLP)	Merged Funding Code
Head Start		Early Head Start Head Start	Head Start
Virginia Preschool Initiative (VPI – Four-Year- Old Students)		VPI 4YO	VPI, local funding for VPI placement, special education funding for VPI placement
Virginia Preschool Initiative (Pilot for Three- Year-Old Students)		VPI 3YO	
Local Funding for VPI Placement Special Education Funding for VPI Placement		Local for VPI	
Special Education Preschool (Part B, 619)		Special Ed Preschool	Special Education Preschool
Title I Preschool		Title I	Title I Preschool
Local Funding for Other Public Preschool Program		Other Local	Local funding for other public preschool
Mixed Delivery Grant Program (administered by VECF)	Mixed Delivery	Mixed Delivery	VECF Mixed Delivery
		Private	Private
		VA CCSP	VA CCSP
Missing		Funding Source Unassigned	Missing