MARYLAND STATE DEPARTMENT OF EDUCATION
EQUITY AND EXCELLENCE

Karen B. Salmon, Ph.D.
State Superintendent of Schools

TO: Members of the State Board of Education

FROM: Karen B. Salmon, Ph.D.
State Superintendent of Schools

DATE: January 22, 2019

SUBJECT: 2018 Kindergarten Readiness Assessment Results

PURPOSE:

To brief the Board on the 2018 Kindergarten Readiness Assessment Results for the state.

BACKGROUND:

In 2014-2015, Maryland introduced the Ready for Kindergarten (R4K): Maryland's Early Childhood Comprehensive Assessment System to align with the State's rigorous College and Career-Ready Standards. The system consists of the Kindergarten Readiness Assessment (KRA) and the Early Learning Assessment (ELA). The R4K provides a single coordinated system for measuring the learning progress (knowledge, skills, and behaviors) of children from 36-72 months old and identifying the needs of young children. The KRA is a developmentally appropriate assessment tool that measures the school readiness of incoming kindergartners across four domains: literacy, mathematics, social foundations, and physical well-being and motor development. Based on teacher feedback after the 2014 administration, the KRA was updated and the number of items was reduced from 63 to 50. The KRA version 1.5 was administered in 2015-16, 2016-17, and 2017-2018. New replacement items were piloted during the 2017-2018 administration which allowed for the creation of the KRA version 2.0, which was administered in the fall of 2018.

EXECUTIVE SUMMARY:

The state and district overall results were released in December. The demographic and domain state and district level results will be released at the January State Board meeting. The Individual Student Reports were available as soon as an individual student's assessment was completed. The Individual Student Reports were sent home to the families of all assessed students. Kindergarten teachers were able to begin to view and use teacher level data reports and the new data visual displays both during and after the assessment window.

ACTION:

No action is required; this information is for discussion only.

Attachments (4)

Attachment I – Summary of Responses to the KRA Survey
Attachment II – 2018 Kindergarten Readiness Assessment Power Point
Attachment III – Kindergarten Readiness Assessment 2018 Technical Report
Attachment IV – KRA 2.0 Infographic

2018 Kindergarten Readiness Assessment

MARYLAND STATE DEPARTMENT OF EDUCATION

EQUITY AND EXCELLENCE

STATE BOARD MEETING

January 22, 2019

What is School Readiness?

"School readiness" means the stage of early development that enables an individual child to engage in and benefit from early learning experiences.

As a result of family nurturing and interactions with others, a young child in this stage has reached certain levels of social and emotional development, cognition and general knowledge, language development, and physical well-being and motor development.

School readiness acknowledges individual approaches to learning as well as the unique experiences and backgrounds of each child.

(COMAR 13A.06.02.02)

What is the KRA?

The **Kindergarten Readiness Assessment (KRA)** is a developmentally appropriate assessment tool that measures the school readiness of incoming public-school kindergarteners across four learning domains.

Administered by kindergarten teachers at the start of each school year, the KRA looks at the knowledge, skills, and behaviors necessary to be successful in kindergarten.

Kindergarten teachers use this information to better understand the needs of their students and align classroom instruction.

The results give teachers the information they need to provide individualized learning and appropriate supports for individual students, as well as promote better communication with families about their child's strengths and needs.

What Does the KRA tell us about a Student's Readiness?

Demonstrating Readiness: The child demonstrates foundational skills and behaviors that prepare him or her for instruction based on kindergarten standards.

Approaching Readiness: The child demonstrates *some* foundational skills and behaviors that prepare him or her for instruction based on kindergarten standards.

Emerging Readiness: The child demonstrates *minimal* foundational skills and behaviors that prepare him or her for instruction based on kindergarten standards.

Foundational Skills are the are based on the end of Prekindergarten MD College and Career Ready Standards. The KRA looks at children's readiness across four domains: social foundations, language & literacy, mathematics, and physical well-being and motor development. These are the key areas of child development and learning that are recognized as essential for school and long-term success.

What are the Foundational Skills or Domains?

SAMPLE KNOWLEDGE & SKILLS FOR EACH DOMAIN

SOCIAL FOUNDATIONS

Expressing, understanding, and responding to feelings (emotions) of self and others; following routines and multi-step directions; sharing materials and equipment with other children; or demonstrating the ability to delay gratification for short periods of time.

LANGUAGE & LITERACY

Listening; asking and answering questions; identifying, blending, and segmenting syllables in spoken words; recognizing rhyming words; speaking or expressing thoughts, feelings, and ideas clearly; participating in conversations with adults and peers; printing letters of own name; or describing persons, animals, places, events, actions, etc.

MATHEMATICS

Counting to 20; naming written numerals and pairing them with concrete objects; sorting multiple groups by one attribute; comparing and describing two objects with a measurable attribute; ordering objects by measurable attributes; matching similar shapes; or naming different two-dimensional shapes.

PHYSICAL WELL-BEING & MOTOR DEVELOPMENT

Using large muscles to perform a variety of physical skills (e.g., running, hopping, jumping) and demonstrating these skills with control, coordination, and balance; identifying and following basic safety rules; independently completing personal care tasks; using classroom and household tools independently with eye-hand coordination to carry out activities (e.g. using a three-finger grasp of dominant hand to hold a writing tool).

How is the KRA Administered?

Local boards of education and individual schools choose to administer the KRA in one of the following ways:

- **Census Administration.** Administering the KRA to all incoming kindergarteners, assessing each student's knowledge, skills, and abilities.

- **Representative Sample Administration.** Administering the KRA to an identified sample of students in each classroom to ensure an accurate representation of the kindergarten population.

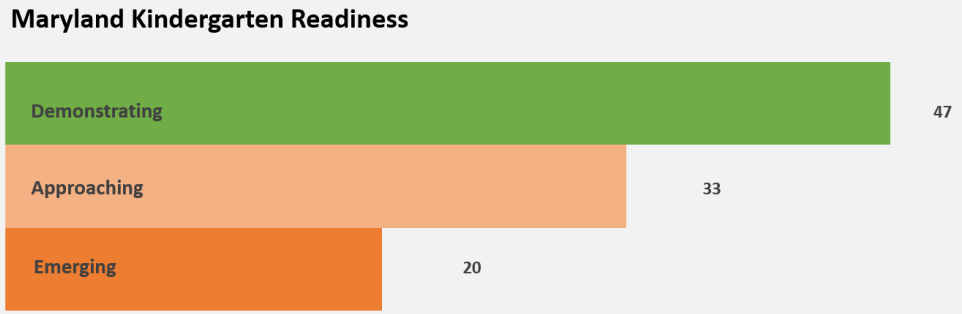
KRA Administration Type and Sample Size

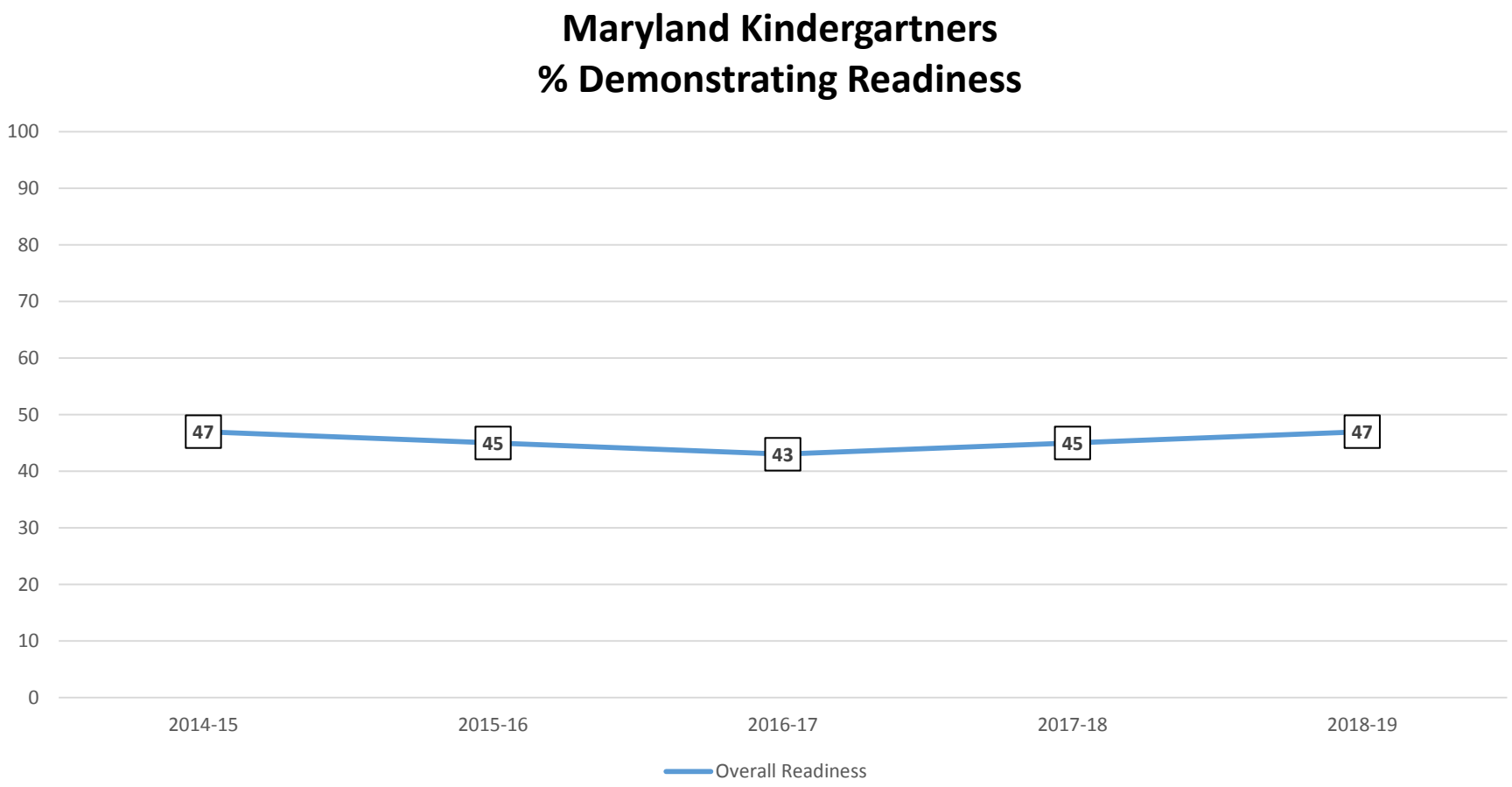
CENSUS (100% of Kindergarteners Assessed)	LIMITED CENSUS (Select Title I/Judy Centers)	SAMPLE (With Sample Size)
Allegany	Anne Arundel (21%)	Garrett (37%)
Baltimore City	Baltimore County (20%)	
Caroline	Calvert (27%)	
Cecil	Carroll (31%)	
Charles	Frederick (31%)	
Dorchester	Harford (31%)	
Kent	Howard (31%)	
Queen Anne's	Montgomery (12%)	
St. Mary's	Prince George's (12%)	
Somerset		
Talbot		
Washington		
Wicomico		
Worchester		

How can the KRA data be used?	CENSUS ADMINISTRATION	SAMPLE ADMINISTRATION
To Benefit Students: identifies the individual learning needs of every student and determines necessary supports to help each child succeed.	✓	
To Support Classroom Instruction: enables teachers to monitor each student's progress and mastery of kindergarten standards, as well as differentiate instruction to address learning gaps and individual student needs.	✓	
To Inform Families: provides all families with an Individual Student Report (ISR), which gives information about their child's skills, abilities, and development.	✓	
To Offer Early Childhood Programs Feedback: indicates how well-prepared their children are for kindergarten and reveals areas where prior care instructional practices need to be modified to better promote kindergarten readiness.	✓	✓
To Advise Community Leaders & Policy Makers: offers rich information about kindergarten readiness and promotes well-informed programmatic, policy, and funding decisions.	✓	✓

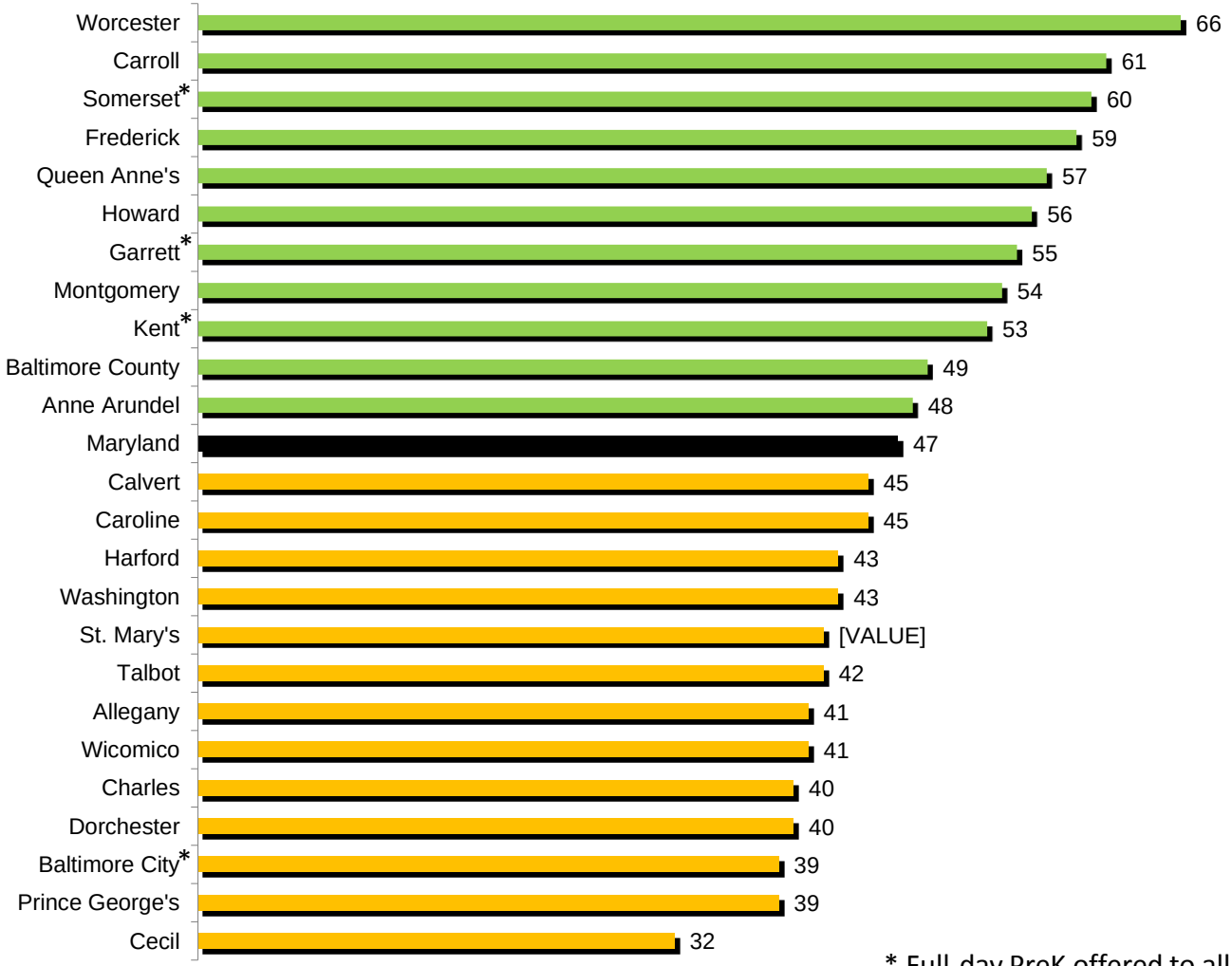
Maryland 2018 Readiness Results

- **47% of Maryland kindergartners demonstrate readiness- an increase from 45% in 2017-18.**
- **39% of kindergartners were assessed.**




Maryland Kindergartners
% Demonstrating Readiness
100
90
80
70
60
50
40
30
20
10
0
47
45
43
45
47
2014-15
2015-16
2016-17
2017-18
2018-19
Overall Readiness

2018 District Results for Demonstrating Readiness



* Full-day PreK offered to all 4-year-olds

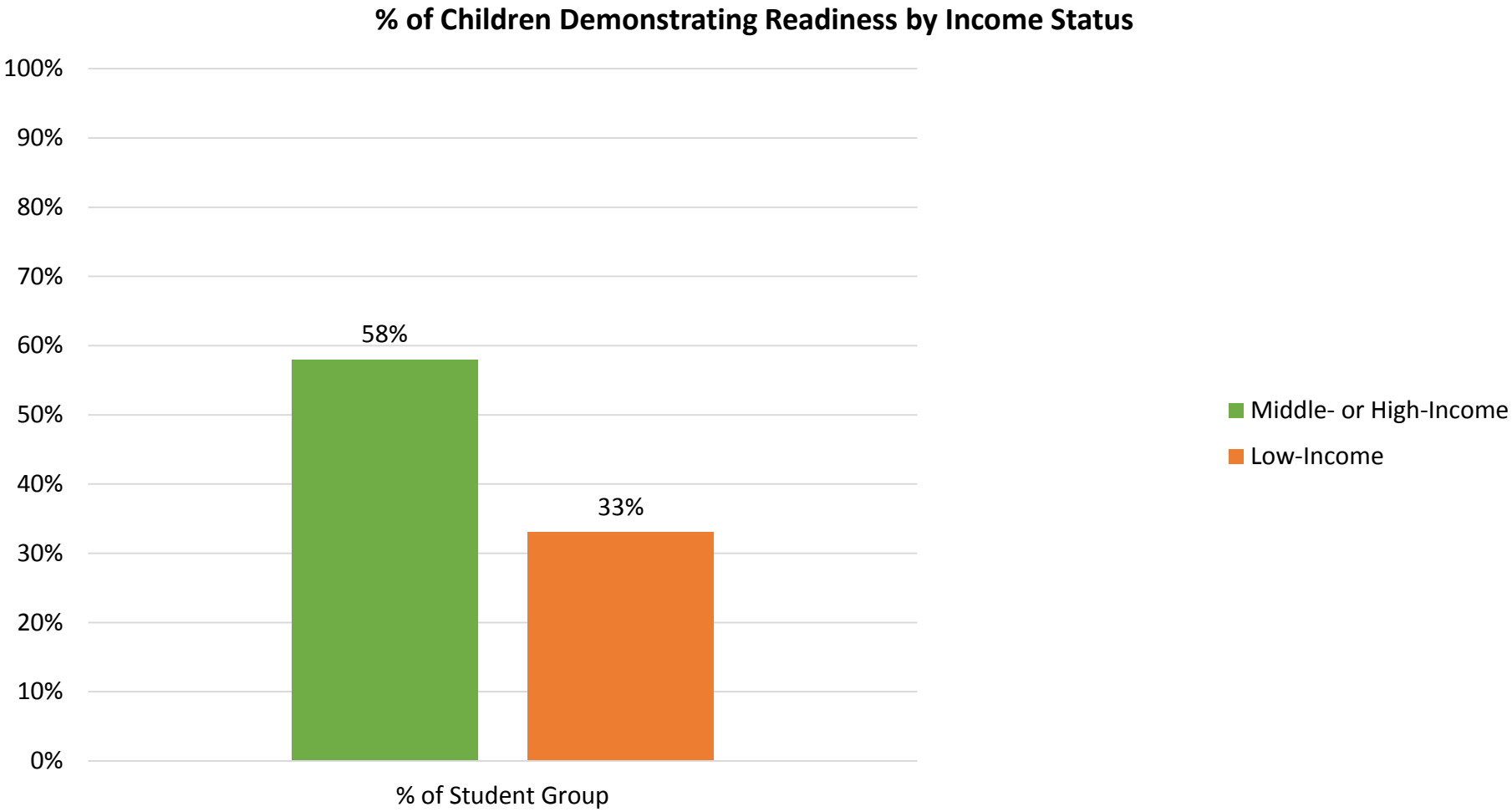
2018 Student Groups

44%
OF KINDERGARTENERS
LIVE IN LOW-INCOME HOUSEHOLDS

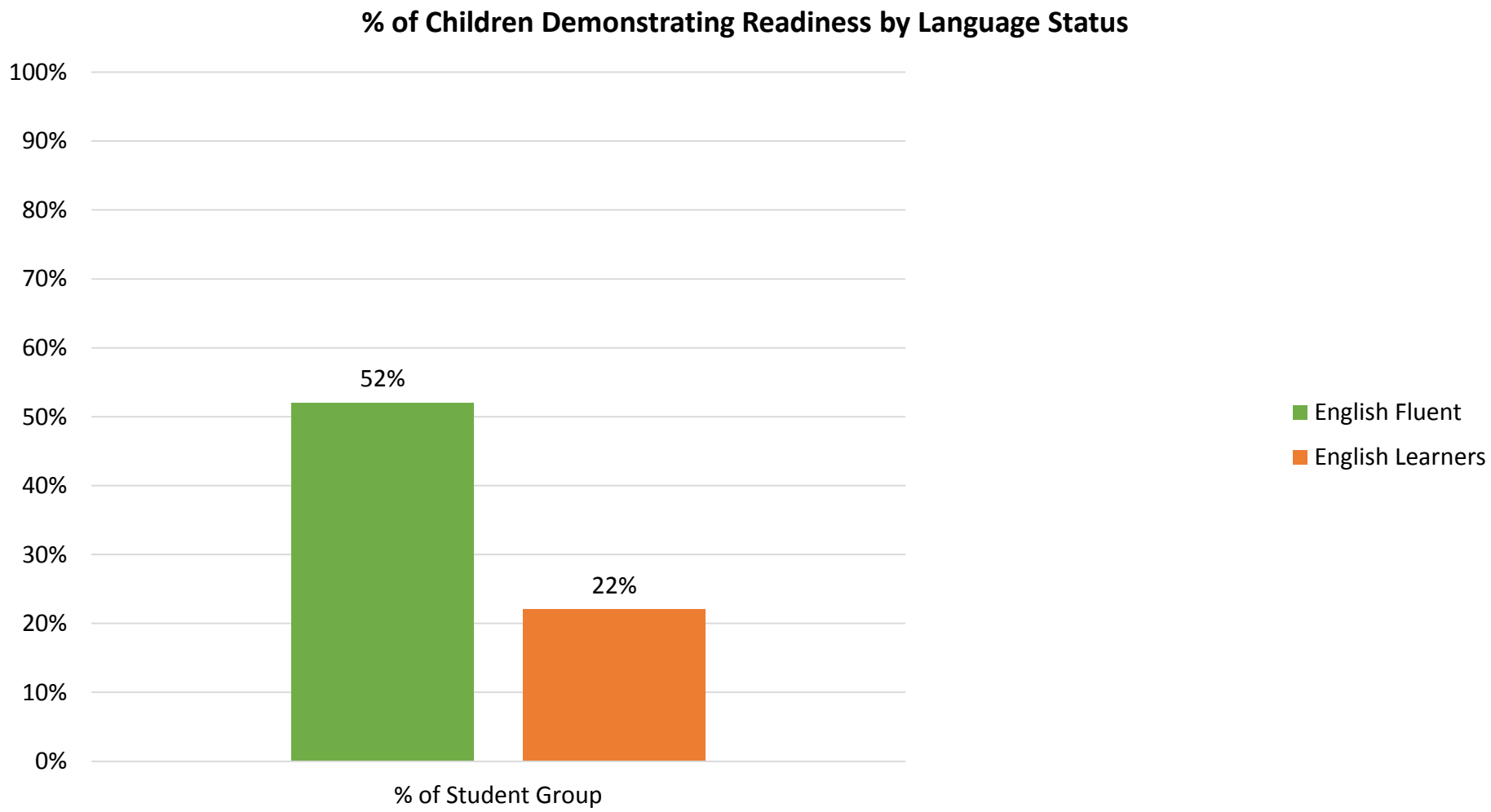
15%
OF KINDERGARTENERS
ARE ENGLISH LEARNERS

9%
OF KINDERGARTENERS
HAVE IDENTIFIED DISABILITIES

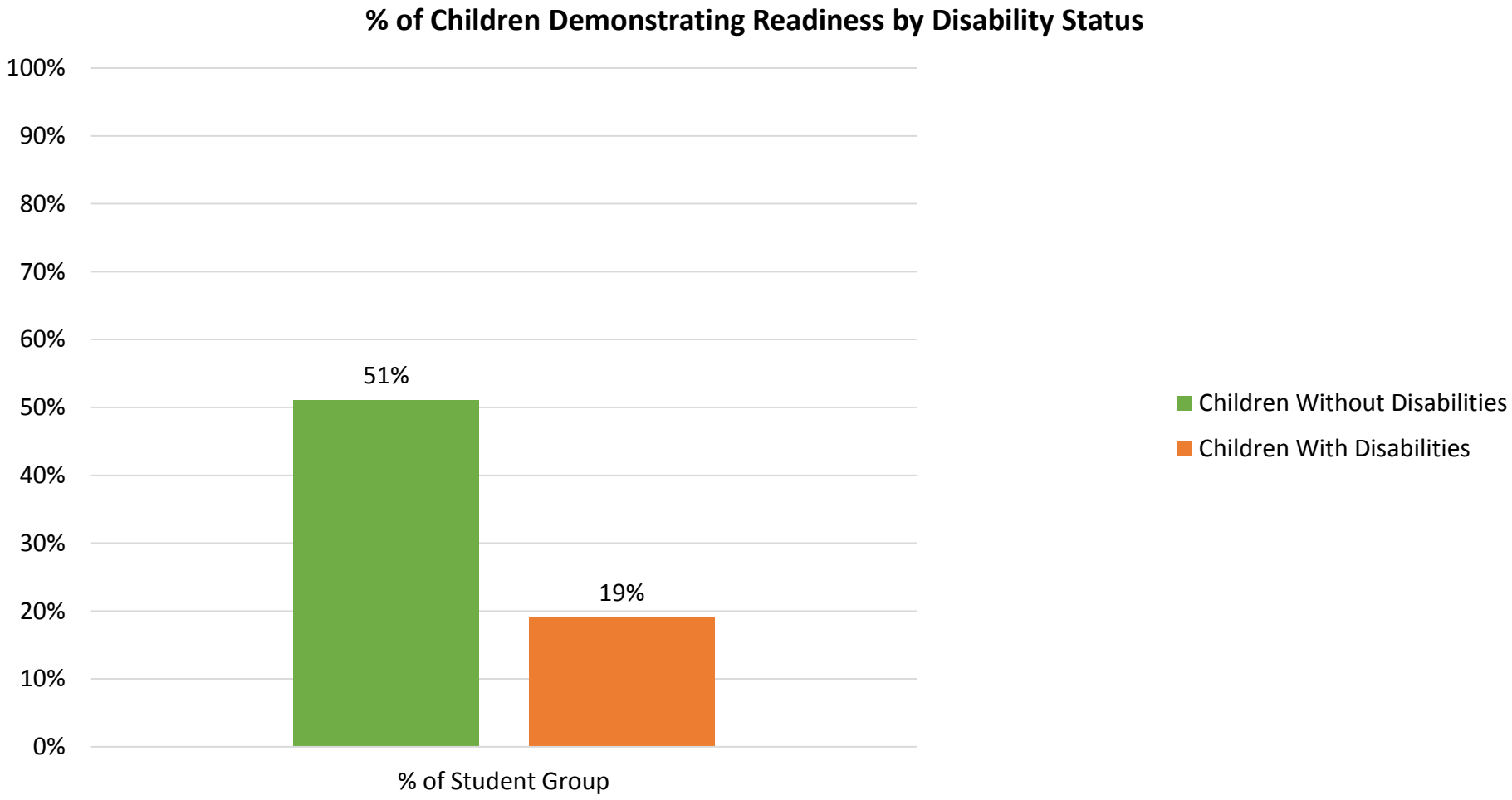
Student Groups 2018 Readiness Results: Low-Income



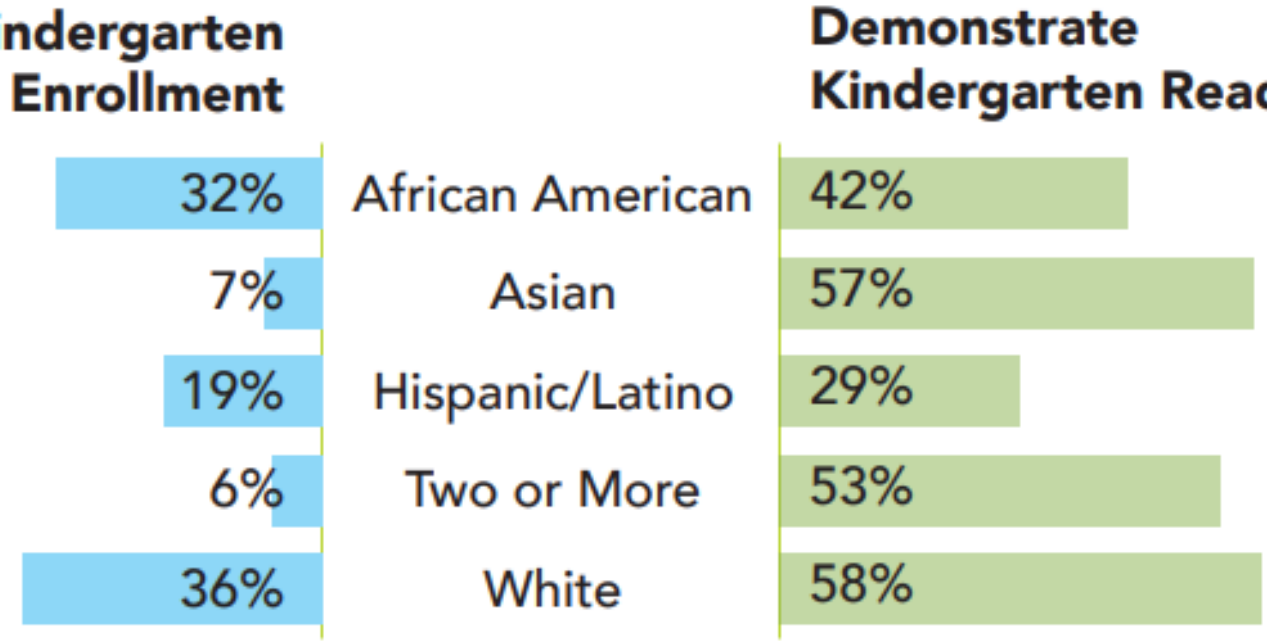
Student Groups 2018 Readiness Results: English Learners



Student Groups 2018 Readiness Results: Children with Disabilities



Race/Ethnicity DEMOGRAPHICS & READINESS



Communicating Results to Families

Student Report
KINDERGARTEN READINESS ASSESSMENT

WHAT IS THE KINDERGARTEN READINESS ASSESSMENT?

The Kindergarten Readiness Assessment (KRA) is one part of the Ready for Kindergarten assessment system in Maryland. The KRA is a kindergarten readiness tool that allows teachers to measure each child's school readiness across four domains: Social Foundations, Mathematics, Language and Literacy, and Physical Well-being and Motor Development.

Teachers administer the KRA to children in kindergarten between the beginning of school and October 10. More information about the Ready for Kindergarten system and the KRA are available at http://pdl.kready.org/r4kmaryland.

HOW IS THE KRA ADMINISTERED?

The KRA does not look like a test. Instead, it includes a variety of items, including teacher's observations of daily activities and age-appropriate performance tasks in which the teacher asks a child to respond to a question or complete an activity. The KRA is administered in English and some items can be given via a tablet or computer.

Most children enjoy working on these tasks, and appropriate supports are provided, when possible, to allow any child, including a child with disabilities or a child learning English, to demonstrate his/her skills and knowledge.

WHAT DO THE RESULTS MEAN?

The results provide a measure of a child's mastery of content and skills that Maryland has identified as expectations for children entering kindergarten. Performance on the KRA does not prevent or prohibit a child from entering kindergarten. The KRA results are only one piece of information on a child's preparation for kindergarten-level curriculum. Score reports should be used with other data and information, including feedback from a child's teacher, to make instructional and intervention decisions.

HOW IS THE KRA SCORED?

After the KRA is completed, scores are calculated for each domain and for overall performance based on all 4 domains. The overall score determines a performance level, which is based on criteria set by Maryland educators.

Demonstrating Readiness: A child demonstrates foundational skills and behaviors that prepare him/her for curriculum based on kindergarten standards.

Approaching Readiness: A child demonstrates some foundational skills and behaviors that prepare him/her for curriculum based on kindergarten standards.

Emerging Readiness: A child demonstrates minimal foundational skills and behaviors that prepare him/her for curriculum based on kindergarten standards.

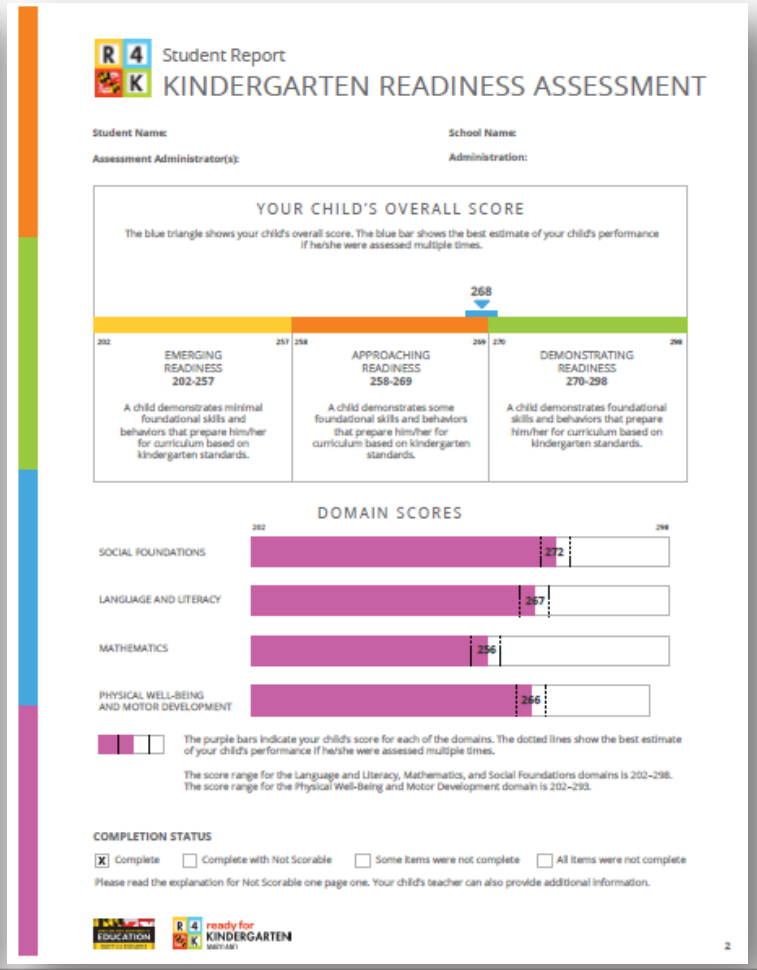
Not Scorable: A "Not Scorable" rating is applied when a child is not able to access an item due to limited English proficiency, a disability, or other circumstances, such as a documented condition during assessment administration. A child's overall and domain scores will be impacted.

For a child with a disability, a rating of "Not Scorable" is applied when a child's disability restricts or prevents the child from demonstrating a skill or behavior on a specific item, after the appropriate "Level the Field" supports were provided. For example, a child in a wheelchair would not be able to demonstrate some gross motor skills, such as hopping. A "Not Scorable" rating would not be appropriate when the response to an item reflects the child's functioning at an earlier developmental level and the child's ability to respond is otherwise affected by his/her disability; in this instance the appropriate rating is a "0."

For a child whose primary language at home is not English, educators must administer every item possible using the "Level the Field" supports, if applicable. The rating of "Not Scorable" may be appropriate when the child is not able to respond to an item in English based upon the language demands of the item. Please note that the child may have the skills being assessed in his/her home language, but may not be able to demonstrate those skills in English yet.

ready for KINDERGARTEN

1



Student Report
KINDERGARTEN READINESS ASSESSMENT

Student Name:
School Name:
Assessment Administrator(s):
Administration:

YOUR CHILD'S OVERALL SCORE

The blue triangle shows your child's overall score. The blue bar shows the best estimate of your child's performance if he/she were assessed multiple times.

268

202 257 258 269 270 298

EMERGING READINESS 202-257
A child demonstrates minimal foundational skills and behaviors that prepare him/her for curriculum based on kindergarten standards.

APPROACHING READINESS 258-269
A child demonstrates some foundational skills and behaviors that prepare him/her for curriculum based on kindergarten standards.

DEMONSTRATING READINESS 270-298
A child demonstrates foundational skills and behaviors that prepare him/her for curriculum based on kindergarten standards.

DOMAIN SCORES

202 298

SOCIAL FOUNDATIONS 272
LANGUAGE AND LITERACY 267
MATHEMATICS 256
PHYSICAL WELL-BEING AND MOTOR DEVELOPMENT 266

The purple bars indicate your child's score for each of the domains. The dotted lines show the best estimate of your child's performance if he/she were assessed multiple times.

The score range for the Language and Literacy, Mathematics, and Social Foundations domains is 202–298.
The score range for the Physical Well-Being and Motor Development domain is 202–293.

COMPLETION STATUS

[X] Complete [ ] Complete with Not Scorable [ ] Some items were not complete [ ] All items were not complete

Please read the explanation for Not Scorable one page one. Your child's teacher can also provide additional information.

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2

2018 Kindergarten Readiness Assessment

2018 Kindergarten Readiness Assessment

Add Filter

EL Students (4 Results)

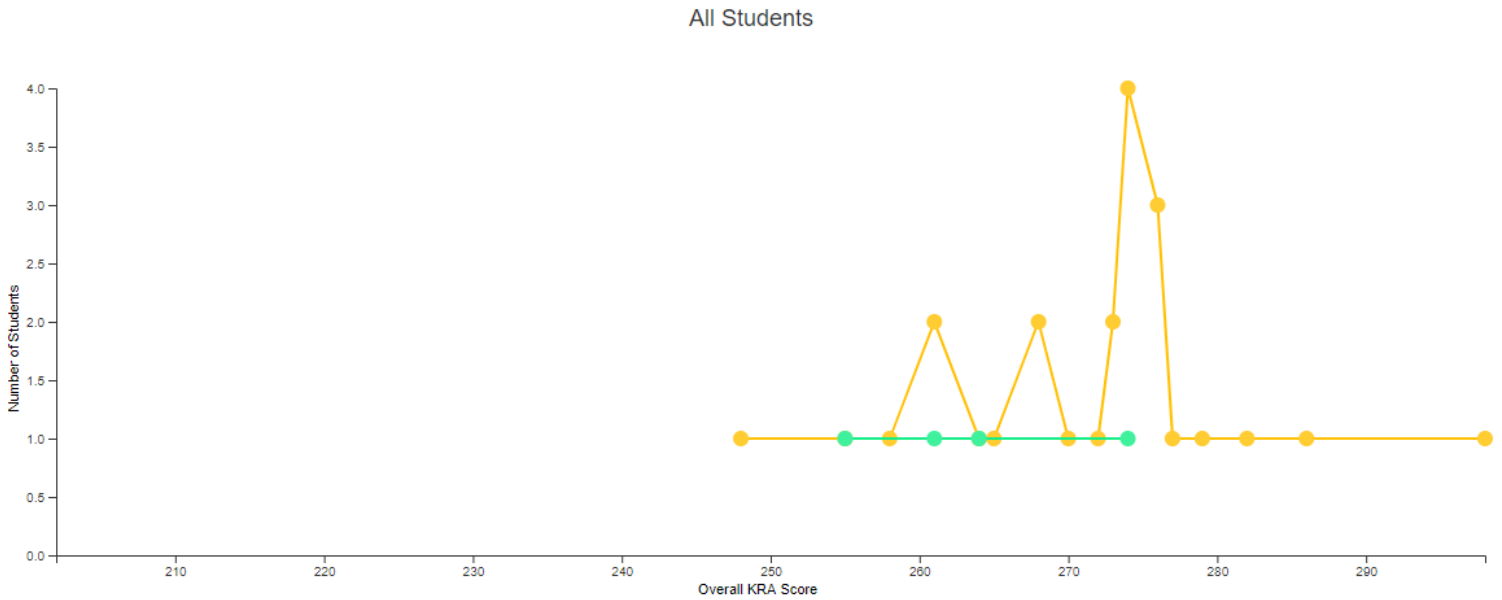
Enabled

Is ELL

Overall KRA Score | Domain report

HOW TO READ THIS CHART

CHART TYPE



Range Minimum: **202** Range Maximum: **298**

Whole population	EL Students
Lowest Score: **248**	Lowest Score: **255**
Highest Score: **298**	Highest Score: **274**
Mean Score: **271.3**	Mean Score: **263.5**
Median Score: **273**	Median Score: **262.5**

2018 Kindergarten Readiness Assessment

Kindergarten Readiness Assessment 2018 / Data Displays

Add Filter

EL Students (4 Results)

Enabled

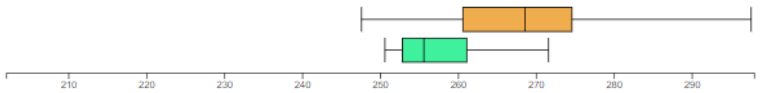
Is ELL

Overall KRA Score | Domain report

HOW TO READ THIS CHART

CHART TYPE

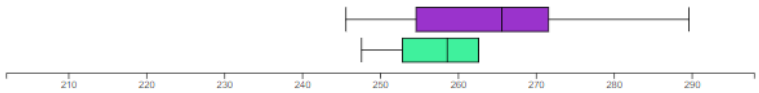
Language and Literacy



Range Minimum: **202** Range Maximum: **298**

Whole population	EL Students
Lowest Score: **248**	Lowest Score: **251**
Highest Score: **298**	Highest Score: **272**
Mean Score: **269.7**	Mean Score: **258.8**
Median Score: **269**	Median Score: **256**
Standard Deviation: **12.9**	Standard Deviation: **9.3**

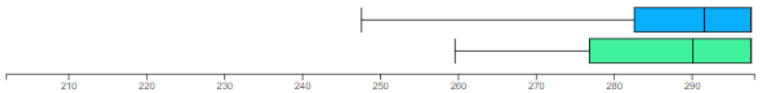
Mathematics



Range Minimum: **202** Range Maximum: **298**

Whole population	EL Students
Lowest Score: **246**	Lowest Score: **248**
Highest Score: **290**	Highest Score: **263**
Mean Score: **265.5**	Mean Score: **257.3**
Median Score: **266**	Median Score: **259**
Standard Deviation: **11.9**	Standard Deviation: **7.2**

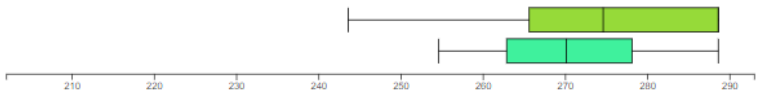
Social Foundations



Range Minimum: **202** Range Maximum: **298**

Whole population	EL Students
Lowest Score: **248**	Lowest Score: **260**
Highest Score: **298**	Highest Score: **298**
Mean Score: **287.3**	Mean Score: **284.8**
Median Score: **292**	Median Score: **290.5**
Standard Deviation: **13.3**	Standard Deviation: **18.0**

Physical Development

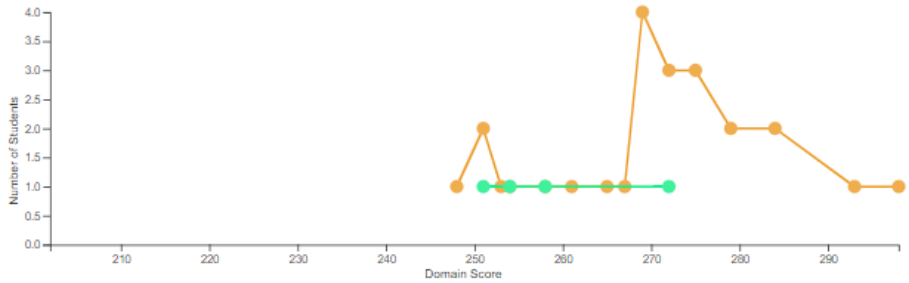


Range Minimum: **202** Range Maximum: **293**

Whole population	EL Students
Lowest Score: **244**	Lowest Score: **255**
Highest Score: **289**	Highest Score: **289**
Mean Score: **276.2**	Mean Score: **271.3**
Median Score: **275**	Median Score: **270.5**
Standard Deviation: **13.9**	Standard Deviation: **14.4**

2018 Kindergarten Readiness Assessment

Language and Literacy



Range Minimum: **202** Range Maximum: **298**

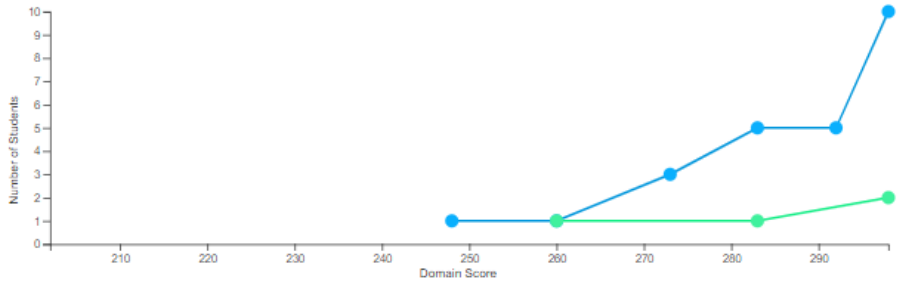
Whole population	EL Students
Lowest Score: **248**	Lowest Score: **251**
Highest Score: **298**	Highest Score: **272**
Mean Score: **269.7**	Mean Score: **258.8**
Median Score: **269**	Median Score: **256**
Standard Deviation: **12.9**	Standard Deviation: **9.3**

Mathematics

Range Minimum: **202** Range Maximum: **298**

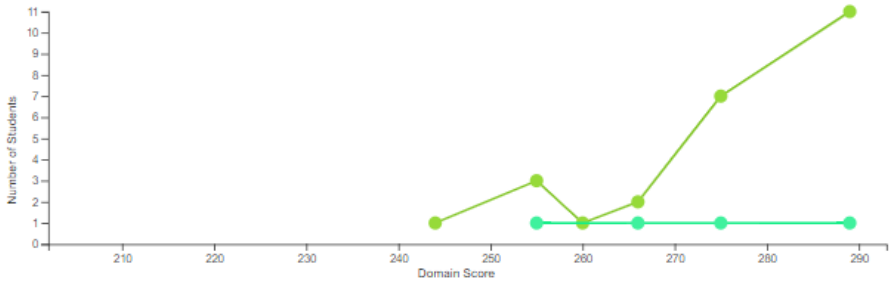
Whole population	EL Students
Lowest Score: **246**	Lowest Score: **248**
Highest Score: **290**	Highest Score: **263**
Mean Score: **265.5**	Mean Score: **257.3**
Median Score: **266**	Median Score: **259**
Standard Deviation: **11.9**	Standard Deviation: **7.2**

Social Foundations



Range Minimum: **202** Range Maximum: **298**

Physical Development



Range Minimum: **202** Range Maximum: **293**

2018 KRA Survey Results

- A total of 1,473 teachers participated in the survey.
- All districts were represented, as well as Maryland School for the Blind and Maryland School for the Deaf.
- 78% of teachers reported their experience as Excellent, Very Good, or Good.
- 60% of teachers indicated that they do not administer other locally mandated assessments at the start of the school year. 31% of the remaining teachers noted that the skills measured by the other assessments are not the same as measured by the KRA. 65% indicated that they measured similar skills.
- When asked if the KRA data enhances their ability to identify challenges a student may be experiencing, 73% of teachers who administered the KRA to all of their students (census) agreed or strongly agreed, while 55% of the teacher who administered the KRA to a sample of students (limited census or sample only) agreed or strongly agreed.

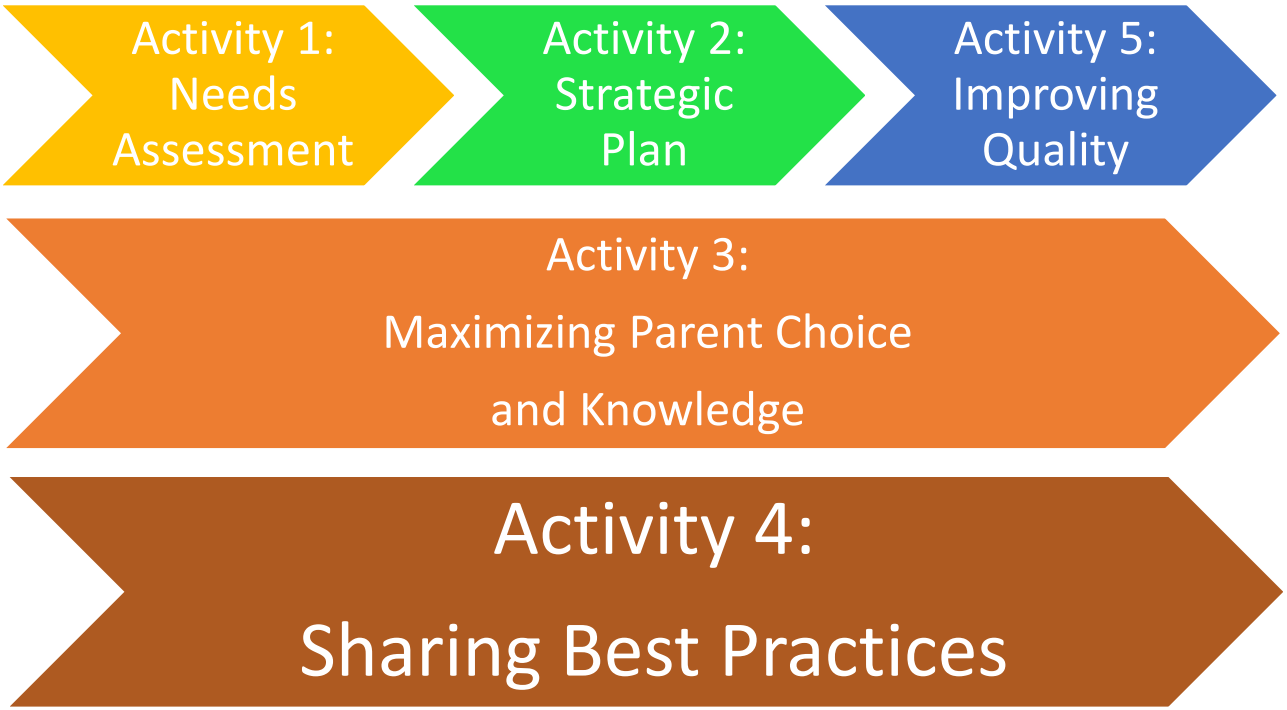
End of Kindergarten-2nd Grade Assessments

- ❑ **Fall 2018** — **Districts submitted current assessment tools given at each grade level.**

- ❑ **Fall 2018** — **EducationCounsel analyzed the assessment chart of K-2 tools used.**
  - 26 different assessments are used across the 24 districts in Reading and Mathematics at the end of K-2.

- ❑ **January 2019** — **EducationCounsel began interviews with each district:**
  - What standards do assessment tools assess?
  - How is proficiency determined?
  - What has data from student assessments below 3rd grade shown your district?
  - How is your district using student performance data from below 3rd grade?

Maryland Wins $10.6 Million Birth through Five Grant



Summary of Responses to the Kindergarten Readiness Assessment (KRA) Survey Administered to Maryland Kindergarten Teachers

December 19, 2018

Prepared by ICF for the Maryland State Department of Education Division of Early Childhood and the Johns Hopkins University School of Education Center for Technology in Education

2018 Ready for Kindergarten (R4K) Kindergarten Readiness Assessment (KRA) Maryland Teacher Survey Results

Introduction

ICF is supporting John Hopkins University School of Education's Center for Technology in Education to report the findings of the Ready for Kindergarten: Kindergarten Readiness Assessment (KRA) Survey administered to kindergarten teachers in Maryland. This report highlights the findings of the survey and includes tabular displays of the data. The 2018 KRA Teacher Survey was administered online in the fall of 2018 to Maryland kindergarten teachers. Data collection was completed on Friday, November 16, 2018, at which point 1,473 responses were recorded.

The report includes the following sections:

- Teachers' Experience
- KRA Implementation
- Classroom Composition
- Other Assessments
- Time Required
- KRA Administration
- Teacher Input on KRA Features
- Technology Use
- Using Reports and Results

Over half (55%) of respondents taught in the five largest school systems: Anne Arundel Public Schools, Baltimore City Public Schools, Baltimore County Public Schools, Montgomery County Public Schools, and Prince George's County Public Schools (see Exhibit 1 below). Within the subset of responses from other school systems, the top counties represented were Frederick County (5%), Howard County (5%), Charles County, Carroll County, and Harford County (4% from each county).

Exhibit 1. School systems represented in responses (N = 1,473)

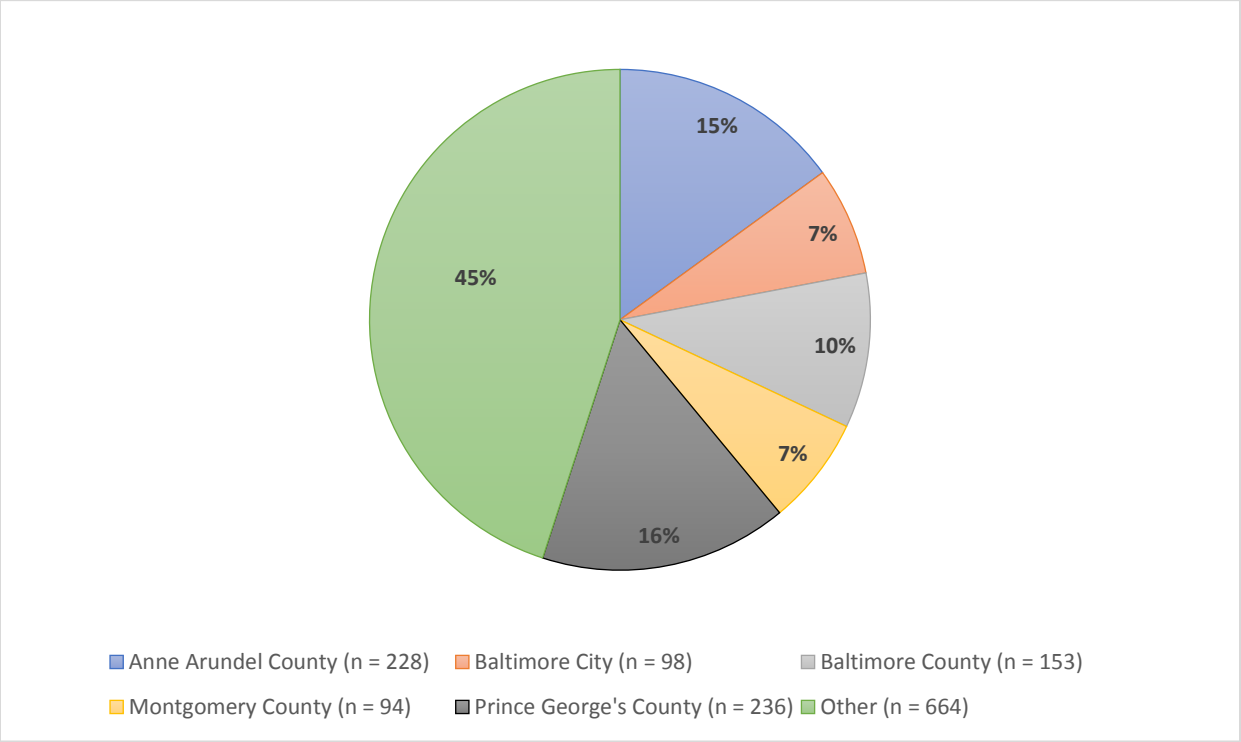


Exhibit 1a. All school systems represented (N = 1,473) [1]

School System	Number (Percent)
Allegany County	26 (2%)
Anne Arundel County	228 (15%)
Baltimore City	98 (7%)
Baltimore County	153 (10%)
Calvert County	25 (2%)
Caroline County	16 (1%)
Carroll County	58 (4%)
Cecil County	32 (2%)
Charles County	60 (4%)
Dorchester County	13 (1%)
Frederick County	79 (5%)
Garrett County	12 (1%)
Harford County	63 (4%)
Howard County	79 (5%)
Kent County	7 (0.5%)
Montgomery County	94 (7%)
Prince George's County	236 (16%)
Queen Anne's County	25 (2%)
Somerset County	9 (0.6%)
St. Mary's County	41 (3%)
Talbot County	9 (0.6%)
Washington County	34 (2%)
Wicomico County	48 (3%)
Worcester County	24 (2%)
Maryland School for the Blind	1 (<0.1%)
Maryland School for the Deaf	3 (0.2%)

Teachers' Experience

Over a third of responding teachers (36%) had been teaching kindergarten for over 10 years, and over 40% had administered the KRA for at least five years. See Exhibits 2 and 3 below for representation from teachers with less than 10 years of teaching experience and less than five years of experience with KRA administration, respectively.

[1] Throughout this report, tables were constructed in Excel using the color scale feature. The color gradient indicates higher numbers and percentages in darker shades.

Exhibit 2. Years of experience teaching kindergarten (N = 1,473)

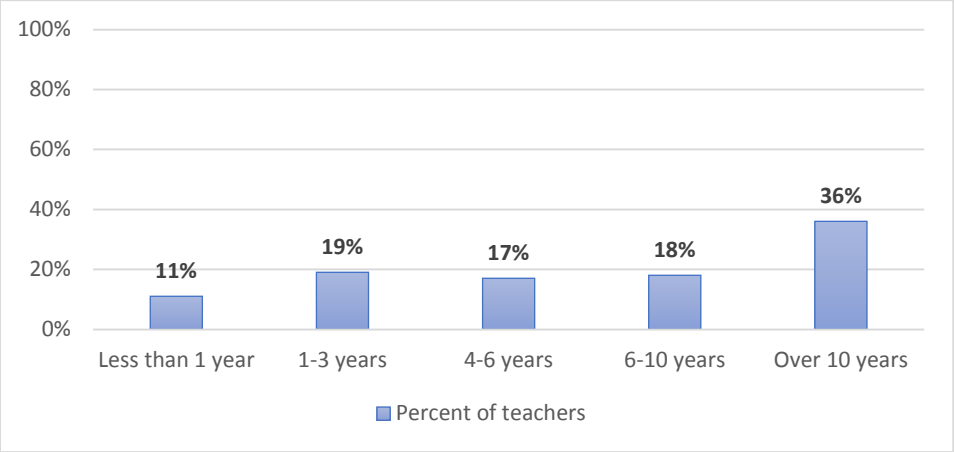
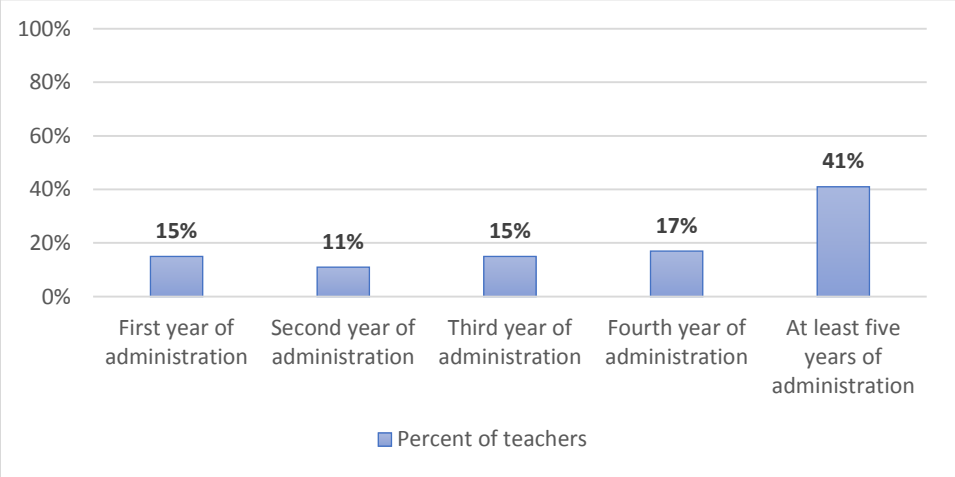


Exhibit 3. Years of experience with KRA administration (N = 1,473)



KRA Implementation

The majority of teachers (87%) reported no new initiatives in their school districts that impacted KRA administration. The remaining 13% noted items such as a directive that all Title I schools administer the KRA to all students, and new or different curricula, assessments, or instructional practices (e.g., Wit and Wisdom curriculum, "staggered start" to the school year, QUILS assessment).

An aspect of KRA administration that is important to note is the decision (which differs by jurisdiction) on whether to administer the assessment to all incoming kindergarteners (a census approach) versus a random sample of students within each kindergarten classroom (with sample size determined by MSDE based on enrollment data).[2] In the survey, similar percentages of responding teachers administered the full KRA to all students on their rosters (45%) or the full KRA to a sample of students on their rosters (48%). The remaining 7% reported administering the full KRA to a sample of students on their rosters

[2] Source: Ready at Five

and a portion (e.g., a particular domain) to the remaining students on their rosters. Although teachers did not have an opportunity to add comments specific to this question, feedback was provided on both of these approaches elsewhere in the survey. Specifically, those who administered the assessment to a sample of students often reported that the students selected for the assessment were not the ones who would benefit most from the assessment (e.g., students who might be candidates for additional services were not selected for assessing). Additionally, teachers indicated that administering the assessment to a sample of students limits the usability of results.

Responding teachers were asked about the window for KRA administration. Exhibit 4 below highlights the number and percent of responding teachers who selected each statement regarding their KRA administration. Over half of respondents (55%) indicated that they began KRA administration a week or two into the school year in an effort to give students time to acclimate to daily routines. The next statement most frequently selected was that the KRA was administered throughout most of the administration window (40%). It is important to note that the administration window ended on October 10, and in most districts the first day of school was September 4.

Exhibit 4. KRA Administration Timing (N = 1,473)

	Number (Percent)
I administered all or a portion of the KRA before the school year started	8 (1%)
I began KRA administration on the first day of school or the first few days of school	87 (6%)
I began KRA administration after allowing students a week or two to learn routines	809 (55%)
I administered the KRA throughout much of the administration window	595 (40%)
I administered the KRA over a short time period	356 (24%)

Note: Statements are not mutually exclusive; the sum of percentages does not equal 100%.

Teachers were given an opportunity to add comments regarding the timing of administration. Among the 70 comments provided, the main feedback provided was related to three main categories: the duration of the administration window, using the KRA in conjunction with other assessments, and fitting in the KRA into their instructional routine. A few teachers also mentioned delays in receiving the names of students who were to be assessed, or technological issues that interfered with timely completion. Recommendations included administering the assessment in pre-K or during the summer prior to kindergarten – at least the Literacy and Math components, in order to focus on observational items during the current administration window.

Responding teachers were also asked about how they managed KRA administration, data entry, and their regular instructional responsibilities. Figure 5 below highlights the number and percent of responding teachers who selected each statement regarding their KRA administration. Nearly equal numbers of responding teachers either entered assessment data as the information was collected or waited until data collection was complete to enter data. Nearly half of respondents were provided with instructional support from substitute teachers or para-educators during the administration period. Twelve percent had assistance with data entry. Regarding data entry, one teacher noted that, “The spreadsheet feature to enter scores was much improved from previous years.”

Exhibit 5. Managing KRA administration (N = 1,473)

	Number (Percent)
I administered the KRA throughout the window and entered data into the online system as it progressed	599 (41%)
I administered the KRA throughout the window and entered data into the online system at the end of administration	580 (39%)
I was provided a substitute teacher or para-educator to cover instruction during KRA administration	700 (48%)
I was provided a substitute teacher or para-educator to support data entry	184 (12%)
Other	10 (1%)

Those who responded 'other', as well as 20 other individuals provided additional information in their comments, specifying that they had support from a substitute for either half a day or a whole day or entered data during after school hours.

Classroom Composition

Most teachers responding administered the KRA in classrooms where fewer than 20% of students had identified disabilities. Among those who selected 'other,' a few teachers indicated that English Learners were more prevalent in their classes, and others noted that kindergarten students have not yet been assessed to determine IEP eligibility.

Exhibit 6. Classroom composition: Students with identified disabilities (N = 1,473)

	Number (Percent)
Less than 20% of class includes children with identified disabilities	1277 (87%)
20-50% of class includes children with identified disabilities	111 (8%)
More than 50% of class includes children with identified disabilities	80 (5%)
Other	5 (0.3%)

Note: The "less than 20%" category includes 4 teachers who selected 'other' and explained that they have no students with identified disabilities. The "more than 50%" category includes 9 teachers who indicated after selecting 'other' that 100% of their students are on IEPs (at least one teaches at a special education center).

Similarly, most responding teachers administered the KRA in classrooms where fewer than 20% of students were English Learners.

Exhibit 7. Classroom composition: Students who are English learners (N = 1,473)

	Number (Percent)
Less than 20% of class includes children who are English learners	1029 (70%)
20-50% of class includes children who are English learners	241 (16%)
More than 50% of class includes children who are English learners	202 (14%)
Other	1 (0.1%)

Note: The "less than 20%" category includes 14 teachers who selected 'other' and explained that they have 0-1 students who are English learners. The "more than 50%" category includes 4 teachers who indicated 0-2 after selecting 'other' that 100% of their students are English learners or access the curriculum through ASL.

Other Assessments

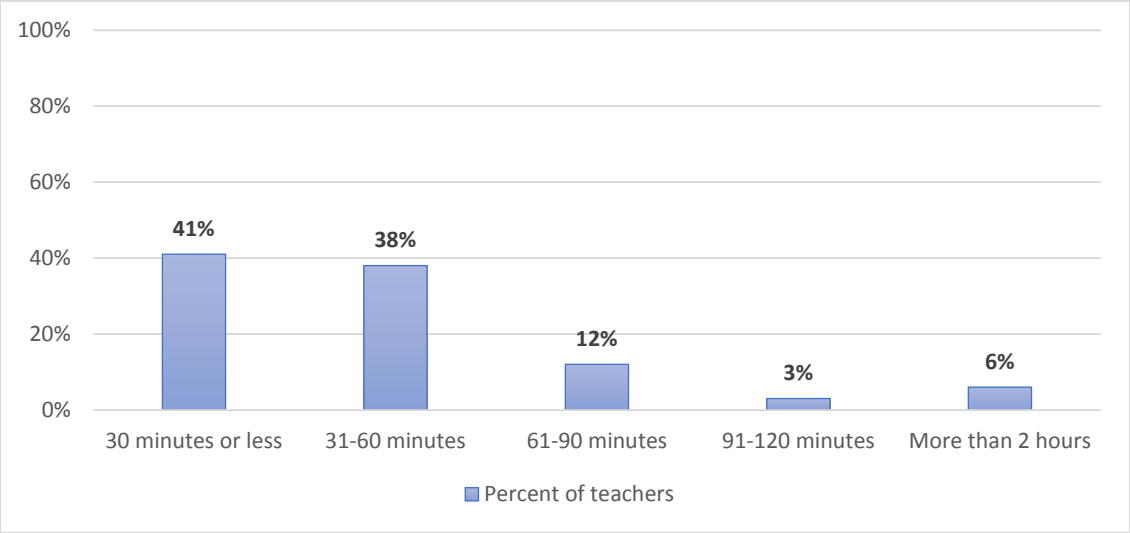
Teachers were asked whether they administer any other locally-mandated kindergarten readiness assessment at the start of the school year. Nearly two thirds (60%) of respondents indicated that they do not, and 40% said they do. For those who used other assessments in addition to the KRA, frequently named measures included Amplify, Developmental Reading Assessment (DRA), DIBELS, Fountas and Pinnell, Kindergarten Literacy Assessment (KLA), as well as various other district or teacher developed assessments.

Of the 590 teachers who administered other assessments in addition to the KRA, nearly a third (31%) noted that the skills measured by these other assessments are not the same as those measured by the KRA. Sixty-five percent indicated that the skills measured by these other assessments have similarities to those measured by the KRA. When asked to provide details, teachers stated that some of the literacy and math components of the KRA overlap with skills measured by other assessments. Some teachers mentioned other domain-specific assessments that duplicated or expanded on KRA skills such as letter recognition and sounds as well as number recognition and counting.

Time Required

Teachers were also asked about the amount of planning time needed prior to administering the KRA to their students. Most teachers (41%) indicated they needed 30 minutes or less of planning time. A slightly smaller percentage (38%) of teachers indicated they needed 31-60 minutes of planning time.

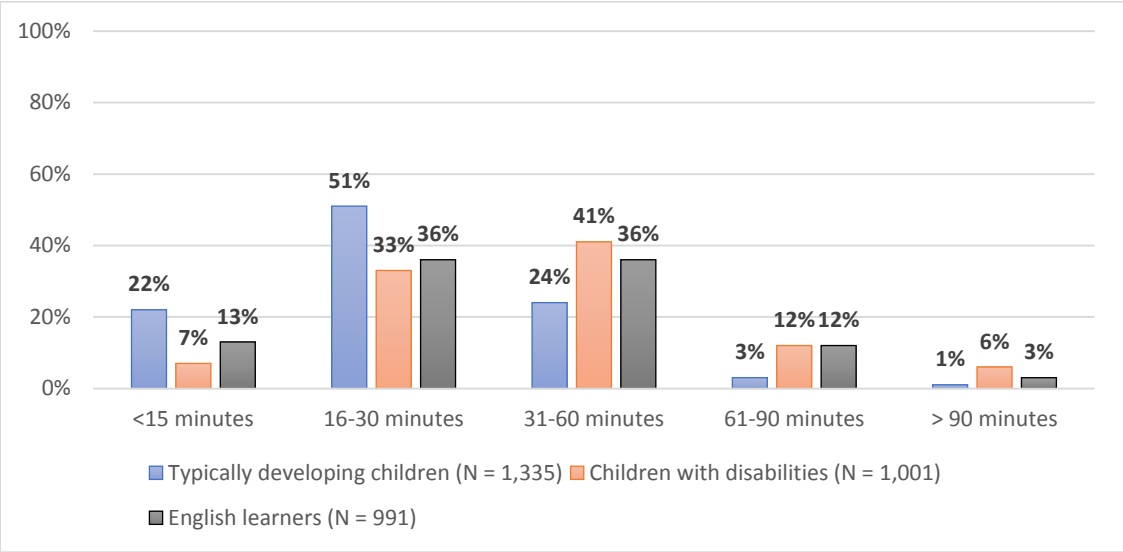
Exhibit 8. KRA planning time per class (N = 1,372)



According to 1,372 responding teachers, the number of observation sessions needed to address the observational items on the KRA ranged from less than 10 sessions (39%) to 50 or more sessions (3%). Excluding these endpoint categories, teachers could report within a range of 11 sessions to 48 sessions. The average number of sessions required (excluding the endpoint categories) was 18.

Teachers were asked to report on average KRA administration time per child for direct assessment items. Teachers administering the KRA to typically developing children most frequently reported needing 16-30 minutes per child; nearly three fourths of these respondents (73%) reported needing less than 15 minutes or 16-30 minutes. Teachers administering the KRA to children with disabilities most frequently reported needing 31-60 minutes of administration time (41%). Additionally, for teachers administering the KRA to English Learners, just over a third each (36%) reported needing either 16-30 minutes, or 31 – 60 minutes for administration (72% total for both of these categories). When asked to share how administration time was determined, many teachers reported that they completed the assessment in chunks, either due to timing of support (e.g., a substitute teacher's time), to maintain the focus of the child being assessed, and/or to minimize time taken away from the class. A few teachers set goals (e.g., to complete a set number of items per child during a testing period), and others had some flexibility in letting the child being assessed set the pace (due to substitute support provided, or working with children who have additional needs). More than 60 minutes for administration was primarily needed when students with disabilities or English learners were being assessed.

Exhibit 9. Administration time needed per child on direct assessment items



KRA Administration

Teachers reported on their level of confidence and comfort with various aspects of KRA administration. Teachers reported the highest levels of comfort with observing children – over two thirds (68%) selected the highest rating for this item. Teachers also reported high levels of comfort with knowing all of the KRA domains (57% selected the highest rating). Teachers' responses on other items still trended towards high levels of comfort, however responses were spread more evenly across the second half of the rating scale (3 – 5). In additional comments, some teachers expressed discomfort with three key aspects of KRA administration: 1) the timing of administration (i.e., assessing kindergarten readiness when the child is already enrolled); 2) the limited scope of administration (some teachers in random sample districts believed they were only allowed to assess selected students, and sometimes those selected were least in need of being assessed); 3) sharing results with families since the assessment reflects what was learned before entering kindergarten and the meaning of the assessment results may be difficult for families to understand.

Exhibit 10. Teachers' reported levels of confidence and ability with aspects of KRA administration

	1 (least comfortable)	2	3	4	5 (most comfortable)
Observing children (administering observational items) (N = 1,358)	0.3%	1%	6%	25%	68%
Using the Universally Designed Allowances (N = 1,350)	1%	4%	17%	40%	38%
Administering the KRA to children with disabilities (N = 1,316)	4%	9%	26%	35%	26%
Administering the KRA to children who are English learners (N = 1,324)	6%	7%	24%	35%	29%
Knowledge of all of the domains measured on the KRA (N = 1,352)	0.3%	2%	8%	33%	57%
Using KRA data to inform instruction (N = 1,350)	7%	6%	17%	31%	40%
Communicating KRA results with families (N = 1,348)	9%	9%	21%	30%	31%

Half of responding teachers reported not seeking any support from other individuals when administering the KRA, whereas about a third (32%) did consult with other kindergarten teachers or colleagues. KRA trainers, school administrators, and district personnel were less frequently cited as sources where support was sought.

Exhibit 11. Teacher reported sources of coaching and support for KRA administration (N = 1,473)

	Number (Percent)
KRA trainer	171 (12%)
Another kindergarten teacher or other colleague	471 (32%)
School administrator	70 (5%)
District personnel	121 (8%)
No support sought	730 (50%)

Some teachers commented that they appreciated having the option of taking a refresher training instead of a full training, if they had prior experience with the KRA. Others felt that a refresher was not necessary for those who have multiple years of experience (they can proceed straight to the teacher test portion of the training where teachers demonstrate their knowledge of KRA administration). Suggestions about training included giving teachers more opportunities to observe administration of the assessment (e.g., a video clip) and having pre-K teachers conduct the assessment (with support from compensated kindergarten teachers as needed).

Teacher Input on KRA Features

The next question on the survey was related to the new form of the KRA form used this year (KRA 2.0). Teachers who had administered the KRA in previous years were asked to respond to items related to

changes made to the form. Those who were administering the KRA for the first time this year were asked to select 'N/A' for each item. Overall, there were high levels of agreement with each of the positive statements related to the new KRA form. At least three quarters of teachers either agreed or strongly agreed with each statement. The highest percentage of agreement was with the statement: 'The Teacher Administration Manual' was easy to follow (89% agreed or strongly agreed). Many of the 27 additional comments focused on the improved story. One teacher noted that, "I totally liked the new and improved Shopping with Grandma. It was so much more relatable. Students were able to see a connection compared to the previous one."

Exhibit 12. Perspectives on the new KRA form 2.0

	Strongly disagree	Disagree	Agree	Strongly agree	N/A
The Teacher Administration Manual was easy to follow (N = 1,277)	3%	2%	45%	44%	6%
The scripts for selected-response and performance items were improved (N = 1,310)	3%	4%	47%	32%	13%
The observational rubric criteria were clear and easy to apply (1,301)	3%	3%	51%	36%	7%
The story (Shopping with Grandma) was improved from the previous version (1,309)	4%	6%	33%	42%	15%

The Individual Student Report (ISR) was also updated this year. Teachers were asked to provide their perspectives on aspects of the new ISR as well. Results were similar across items; the percentage of teachers who agreed or strongly agreed with each positive statement about the ISR ranged from 83% - 90%. One teacher appreciated the English and Spanish versions of the report, and another commented that the layout was better than the previous year. One teacher noted that, "The status column on the ISR was helpful to indicate whether the student had completed the assessment, and if the student had one or more Not Scorable."

Exhibit 13. Perspectives on the updated Individual Student Report (ISR)

	Strongly disagree	Disagree	Agree	Strongly agree
The ISR was easy to understand and interpret (N = 1,309)	3%	7%	71%	19%
The ISR was easy for families to understand (N = 1,271)	5%	13%	70%	13%
The Status Column was helpful to indicate assessment completion and 'not scorable' items (N = 1,298)	3%	9%	69%	19%

Of the 1,288 teachers who responded to the question, about a quarter (26%) used the On-Demand ISR feature in Ready for Kindergarten online to access results after administration of the test was completed, and the remaining 74% did not. This feature allows teachers to readily access an ISR for any child once they complete the KRA with that child. A few added that this feature was helpful, especially if the official mailed reports do not arrive in time for instructional planning sessions or parent conferences. In some cases, the on-demand reports could serve as talking points for fall parent-teacher conferences. One respondent noted that receiving the official KRA reports in the second marking period is "pretty useless, unless we have someone we are seeking an IEP for." It was suggested that reports be sent in October, or else not sent, as teachers may have already gleaned what they need from results at that point or otherwise have moved on.

Teachers were asked to provide their opinions on the Guidelines on Allowable Supports document and the associated professional development. Those who did not administer the KRA to any children with disabilities or English learners were asked to select N/A on the items related to the Guidelines. Results were very similar across all four items, with 55% - 59% agreeing or strongly agreeing with each statement related to the Guidelines. A few teachers commented that it would be useful if the test could be given in Spanish. One teacher noted that English learners in the class had varying degrees of English mastery, and consequently, that teacher had to be diligent in differentiating between giving a score of zero versus a non-scorable.

Exhibit 14. Perspectives on the Guidelines on Allowable Supports document

	Strongly disagree	Disagree	Agree	Strongly agree	N/A
The Guidelines helped me make accurate decisions around supports I could provide for children with disabilities (N = 1,259)	1%	3%	45%	12%	38%
The Guidelines helped me make accurate decisions around supports I could provide for children who are English learners (N = 1,260)	2%	4%	47%	12%	35%
Supports identified in the Guidelines helped children with disabilities demonstrate their abilities during the KRA (N = 1,256)	2%	5%	44%	11%	39%
Supports identified in the Guidelines helped English learners demonstrate their abilities during the KRA (N = 1,252)	3%	5%	45%	11%	36%

Teachers were asked whether they engaged with a special educator or English language educator for their students when planning for KRA administration. Of the 1,260 who responded to this item, 42% reported that they administered the KRA to at least one student with a disability or an English learner without involving another educator, while 18% reported that they did involve another educator in the process. An additional 40% indicated that they did not administer the KRA to any students with disabilities or English learners.

Only a few teachers (less than 1% of 1,260) used the Alternative TAM for students who are deaf or hard of hearing. One teacher noted that, "I received the ASL manual for some of the items and videos that were on the USB on how to say the directions as directed in ASL for each of the domains in the KRA. It was GREAT to have!!" Four of five responding teachers agreed or strongly agreed that the Alternative TAM was easy to use. Four of four teachers agreed or strongly agreed that the Alternative TAM increased their abilities to help children demonstrate their knowledge during the KRA.

Similarly, less than 1% of 1,260 teachers used the Alternative TAM for students who are blind or visually impaired. Five of six responding teachers agreed or strongly agreed that the Alternative TAM was easy to use, and that it increased their abilities to help children demonstrate their knowledge during the KRA, and that the tactile graphics allowed children to better demonstrate their knowledge. One teacher noted that, "The 'Shopping with Grandma' story was much better than 'The Ant Story', especially when adapting for students with blindness." The one teacher who disagreed with these statements commented that if a child doesn't understand the flow of Braille, then it could be difficult to keep track of what they are feeling on a large piece of paper.

Technology Use

The KRA includes both required and optional technologies. Teachers must access the Ready for Kindergarten Online website in order to enter KRA scores. An optional KRA App is also available for teachers to use to on computers and tablets to deliver a subset of the items to students if they so choose. Teachers provided information on the devices used during KRA administration, including for data entry and accessing reports. The highest percentages of teachers reported using a laptop (41%) or an iPad (42%) in their classroom.

Exhibit 15. Technology use for KRA administration (N = 1,473)

	In class: Number (Percent)	In school: Number (Percent)
Desktop computer	404 (27%)	105 (7%)
Laptop	610 (41%)	128 (9%)
iPad	624 (42%)	189 (13%)
Android	22 (1%)	7 (0.4%)
Chromebook	121 (8%)	63 (4%)
Other device	30 (2%)	18 (1%)

Teachers were asked to provide information regarding internet connectivity and reliability for the purposes of KRA administration. The majority of teachers (ranging from 77% - 82% for each item) agreed or strongly agreed that the internet was reliable and adequately fast in their school buildings.

Exhibit 16. Feedback on internet reliability

The internet connection was…	Strongly disagree	Disagree	Agree	Strongly agree
reliable during the KRA administration window (N = 1,249)	6%	13%	48%	33%
fast enough to use the Ready for Kindergarten online system successfully (N = 1,236)	5%	12%	50%	32%
reliable/fast enough to use the KRA app (N = 1,202)	7%	16%	47%	30%

Teachers were asked to report on their general comfort with using technology, as well as their comfort levels with using the Ready for Kindergarten Online system. Of 1,256 respondents, 97% agreed or strongly agreed that they were comfortable with using technology in general, and 83% of 1,241 respondents agreed or strongly agreed that the Ready for Kindergarten Online system was intuitive to use. Some of the additional comments provided related to issues with the optional App freezing or not loading properly. These teachers described the experience as "frustrating."

Exhibit 17. Perspectives on Ready for Kindergarten Online

	Strongly disagree	Disagree	Agree	Strongly agree
I am comfortable with the use of technology (N = 1,256)	1%	3%	46%	51%
I felt comfortable using the Ready for Kindergarten Online system (N = 1,241)	2%	6%	51%	41%
I found the Ready for Kindergarten Online system intuitive (N = 1,228)	4%	14%	54%	29%

Several respondents provided suggestions for improving the Ready for Kindergarten Online system. These included: adding an FAQ section to address basic technology issues, streamlining access to the Professional Development Content pages to make resources easier to find, and revamping the format to easily complete data for one student (e.g., like a questionnaire) at a time.

When asked directly for suggestions, teachers commented that the system should undergo a test run prior to the administration window to make sure everything is working – it was also suggested that a teacher panel could provide input. It is worth noting that Early Learning Supervisors recruited and managed testing of the system and App for each district prior to the administration window, and perhaps not all teachers were aware of these activities. Concrete suggestions for system features included: having a setup that defaults to showing all questions at once, or all students in a class; adding a function to allow "copy and paste" (e.g., if all students can do a particular skill, a way to quickly enter the same score for each); and providing a report that sums up overall Math and Literacy performance, or one that can be directly aligned to instructional planning.

The KRA Help Desk was available to teachers who were experiencing technology issues. Eighty three percent (1,080) of the 1,256 teachers responding to this item reported not contacting the Help Desk

during administration. Of the remaining 213 teachers, over half (58%, 123 teachers) reported that their technology issues were resolved in timely fashion.

Teachers were also asked whether they contacted other individuals to obtain technology support for the KRA. Among the entire responding sample of 1,473 teachers, over half (57%) did not seek technology support. Among the remaining 511 teachers, over half (56%) sought support from an Early Childhood Supervisor, and over a quarter (27%) reached out to their local IT department. Seventeen percent contacted a KRA trainer for support with technology.

Over two thirds (69%; 862 teachers) indicated that they used the optional KRA App to administer items to students in their classes. Nearly a third of 1,254 responding teachers (31%) did not use the optional KRA App. For those teachers, reasons for not using the KRA app included perceptions based on past experiences or through conversations with others that the App is difficult to use. Given the limited time most teachers had to administer the test, they often opted for paper and pencil from the beginning to avoid unexpected delays or setbacks. Others tried to use the App but were not able to this year due to malfunction, and several teachers did not have access to iPads.

Teachers who indicated that they used the App were asked additional questions about their use of the App.[3] Over three fourths (78%) of 850 responding teachers used the iOS version of the KRA App. Sixteen percent used the Web (browser) version, and 6% used the Android version. The majority of teachers who chose to use the KRA App (93%) felt that administering items using the App was intuitive. Less than a third of respondents (29%) agreed or strongly agreed that they would rather use the teacher-administered items over the KRA App, if given the choice. Several teachers commented that they prefer the App as it is faster – as long as it is functioning well. As summed up by one teacher, "It is easier to use the App (when working) than to try to administer without." Teachers who were able to use the App successfully found it easier to let students complete items on the App semi-independently, allowing the teacher more bandwidth for classroom management. One teacher noted that the App may be the better option for ease of administration, however it can be "more insightful to use paper/pencil to see what mistakes students are making in order to better drive instruction."

Exhibit 18. Perspectives on using the KRA App

	Strongly disagree	Disagree	Agree	Strongly agree
Administering items using the App was intuitive (N = 791)	1%	6%	53%	40%
If given the choice, I would use teacher-administered items over items using the KRA App (N = 846)	35%	36%	20%	9%

About 84% - 89% of respondents agreed or strongly agreed that students understood how to repeat instructions in the context of the App, and that students could use the App successfully, regardless of their prior experience with technology. A few teachers commented that students seemed interested in pushing buttons and advancing the test without necessarily listening closely to instructions. A few

[3] Note that sample sizes are lower for the next several findings, as these items relate only to teachers who used the App for administration.

teachers also noted that completing items using the App was more challenging for students less familiar with technology (those who disagreed with the second item in Exhibit 19).

Exhibit 19. Perspectives on student use of the KRA App

	Strongly disagree	Disagree	Agree	Strongly agree	N/A
Most students understood how to repeat directions (N = 841)	2%	12%	59%	25%	2%
Students were able to use the KRA App successfully (N = 848)	2%	8%	60%	29%	2%

About two thirds (65%) of 847 responding teachers indicated that they did not use a proctor to monitor students as they interacted with the App.[4]

Using Reports and Results

Of the reports available in the system, the Item Results report was the most frequently used report type, by a small percentage. Among teachers who used the various report types available, 78 – 82% agreed or strongly agreed that these materials were helpful for instruction. Between 39-43% of teachers reported that they did not use various the KRA Online System reports available.

Exhibit 20. Perspectives on KRA Online system reports

	Strongly disagree	Disagree	Agree	Strongly agree	Did not use
Using the Domain Data Export was helpful for instruction (N = 1,239)	3%	8%	38%	9%	42%
The Data Results Export was helpful for instruction (N = 1,236)	3%	9%	36%	8%	43%
The Items Results report was helpful for instruction (N = 1,232)	3%	8%	41%	9%	39%
The Class Item Results report was helpful for instruction (N = 1,233)	3%	9%	39%	9%	40%

The most commonly reported uses for KRA results are to support communication with families (45%; n=662), to determine supports or interventions that individual students might need (41%; n=600), and to support instructional planning (39%; n=581), followed by forming instructional groups (31%; n=452) and informing additional assessment needed for individual children (28%; n=408). The majority of teachers who commented 'other' specified that they do not use the assessment to guide instruction, with many indicating that assessing a small sample of students did not give ample information for this

[4] Note that it is not clear whether teachers may have considered themselves to be proctors (many who responded that they used a proctor clarified in comments that they served as proctors themselves). Findings on this question may not be accurate based on differing interpretations from respondents. Use of a proctor is optional, but a proctor for the KRA App is an adult in the classroom who can assist the teacher by monitoring students as they complete the App items, but who is not required to participate in the full KRA teacher training and reliability certification. Completion of a brief proctor training packet is required.

purpose. Some teachers relied on other measures for this purpose, such as the district literacy or math assessments or informal assessments. Other uses of data noted in the comments included: school improvement planning, looking at the pre-K program, and creating materials for strengthening skills.

Exhibit 21. Using KRA results (N = 1,473)

	Number (Percent)
Determine supports or interventions needed for individual children	600 (41%)
Form instructional groups	452 (31%)
Support instructional planning	581 (39%
Inform additional assessment needs for individual children	408 (28%)
Support communication with families	662 (45%)

When KRA results were discussed, they were most frequently shared with other kindergarten teachers (34%). A few teachers planned to share information at upcoming parent-teacher conferences. Over a third of teachers (38%) reported not discussing KRA results with anyone at their school. Some teachers who added comments to this question mistakenly believed they needed to wait until receiving mailed ISRs to be able to access KRA results.

Exhibit 22. Discussing KRA results (N = 1,473)

	Number (Percent)
I shared and discussed during parent-teacher conferences	217 (15%)
I discussed results with another kindergarten teacher	494 (34%)
I discussed results with a special educator	142 (10%)
I discussed results in an IEP meeting	82 (6%)
I discussed results with an English language educator	96 (7%)
I engaged in collaboratively looking at KRA data with other educators	182 (12%)
I discussed results with my school administrator	142 (10%)
I discussed school-level results with community-based teachers	12 (1%)
I did not discuss results with anyone at my school	559 (38%)

Note: These responses are influenced by some teachers not having accessed their results at the time of the survey.

Teachers were asked how KRA data have proved to be useful for their instructional purposes. Nearly two thirds agreed or strongly agreed with the usefulness of the data for identifying student challenges (64%) or providing helpful information on students who may need additional services (57%). One teacher expressed that that, “KRA results gave teachers the opportunity to plan activities suited to their children. The data also helped teachers in student groupings, plan instructions and use the data in setting goals for each student during parent teacher conference.”

Exhibit 23. Perspectives on usefulness of KRA data

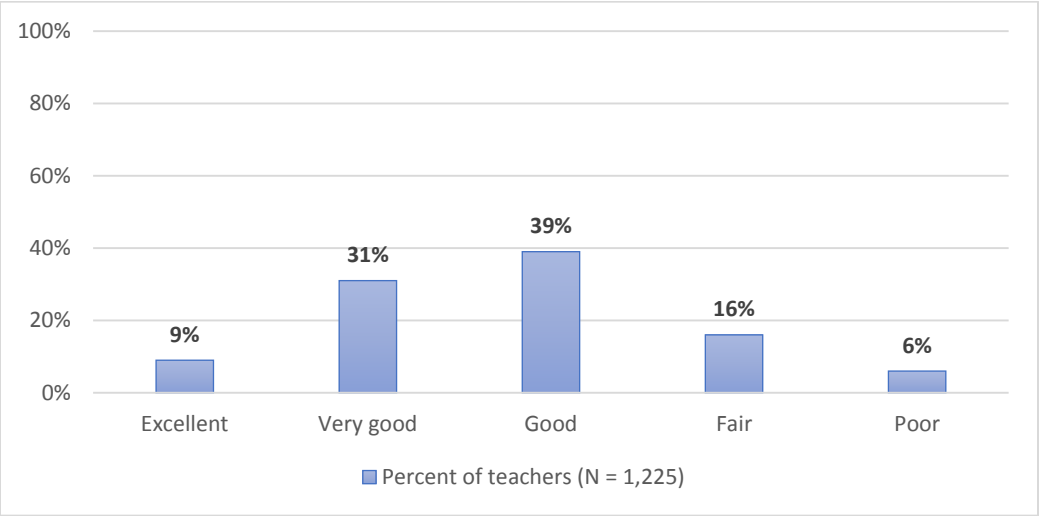
	Strongly disagree	Disagree	Agree	Strongly agree
KRA data enhances my ability to identify students' challenges (N = 1,231)	15%	21%	52%	12%
KRA data can provide information about a student that may indicate a need for special education services (N = 1,223)	15%	29%	47%	10%

Teachers were asked in an open-ended format to provide their perspectives on whether they feel that KRA results accurately represent their students' knowledge and abilities at the beginning of kindergarten. Responses ranged widely from "not at all" to "very accurate." Some provided percentages (ranging from 50-90% accuracy in representing students' abilities). Several teachers noted that the assessment reflects which students have attended pre-K versus those who have not. One teacher commented that, "I feel that it is a great representation of how prepared a child is for kindergarten. The skills that are assessed on the KRA really do reflect a child's ability entering kindergarten." Another teacher specifically expressed that, "I have found KRA results to be very reflective of what I am seeing in the classroom. I know that it is very helpful to the early childhood programs (feeders) to know where the areas of concern are so they can help inform their instruction."

Some noted that while the information provided may be accurate, if other assessments are mandated, then the KRA could be "redundant." Some teachers were unsure if the time in the school year that a student completes the assessment (the beginning of the assessment window or towards the end) will affect results as well. Multiple teachers commented that the observational items were particularly useful, especially when a language barrier may be present.

The majority of teachers (79% of those who responded to this item) reported a "good," "very good," or "excellent" experience with KRA administration this year. Those who reported fair or poor experiences had the opportunity to share additional details about their rating. The comments focused on the level of planning needed to administer the assessment, frustration with the App, and how to use KRA data for instructional purposes and planning.

Exhibit 24. KRA administration experience



ADDENDUM

Additional Analysis of Responses to the Kindergarten Readiness Assessment (KRA) Survey Administered to Maryland Kindergarten Teachers

December 19, 2018

Prepared by the Johns Hopkins University School of Education
Center for Technology in Education for the
Maryland State Department of Education
Division of Early Childhood

Addendum

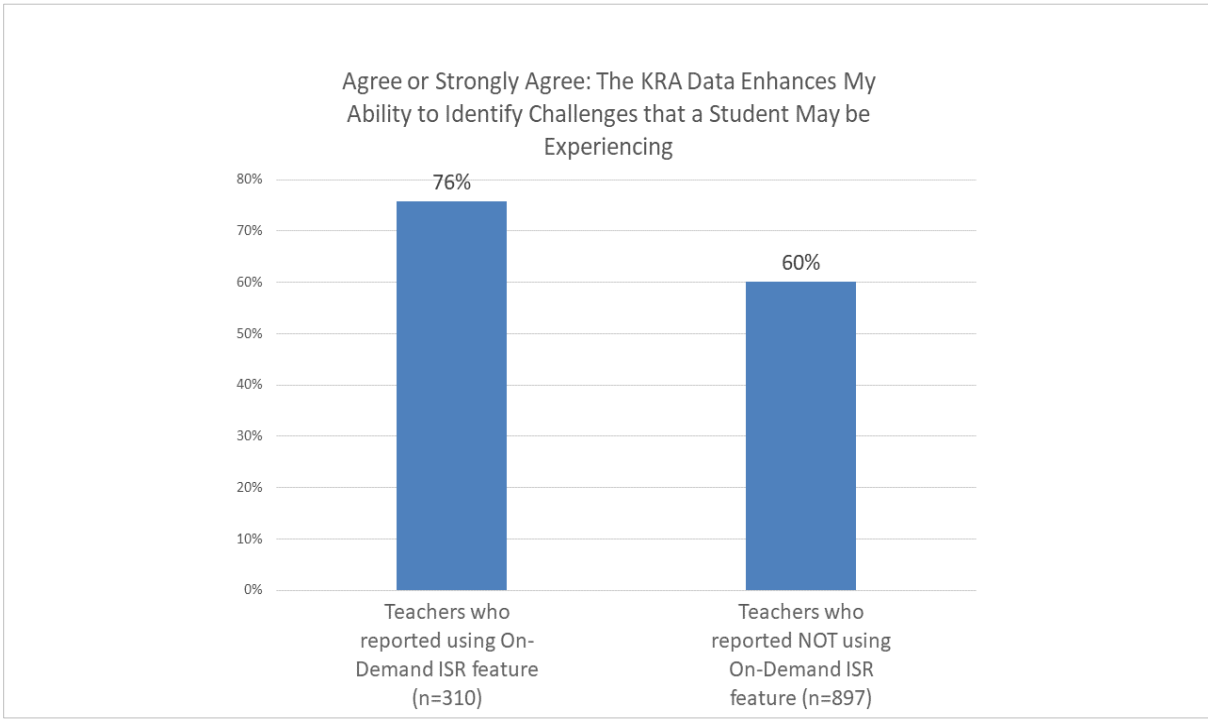
In addition to the analysis performed by ICF, the Johns Hopkins University School of Education Center for Technology in Education performed the supplemental analyses below.

On-Demand Individual Student Report (ISR) and Usefulness of KRA Data

The On-Demand ISR feature was a new feature in this 2018 KRA administration for the purpose of giving individual teachers access to student and class ISRs (with scaled scores) immediately upon completing the assessment (at any point in the administration window).

Teachers were asked about their use of the On-Demand ISR feature, and also about the extent to which "KRA data enhances [their] ability to identify challenges that a student may be experiencing." Teachers who reported that they had used the On-Demand ISR feature had higher rates of agreement with this statement about the use of KRA data than teachers who did not use the On-Demand ISR feature. 76% of teachers who both used the On-Demand ISR and responded to the question about KRA data (n=310) either agreed or strongly agreed that the KRA enhanced their ability to identify student challenges. In contrast, 60% of teachers who did not use the On-Demand ISR feature but responded to the question about KRA data (n=897) either agreed or strongly agreed that the KRA data enhanced their ability to identify student challenges.

Exhibit 25. On-Demand ISR and Usefulness of KRA Data



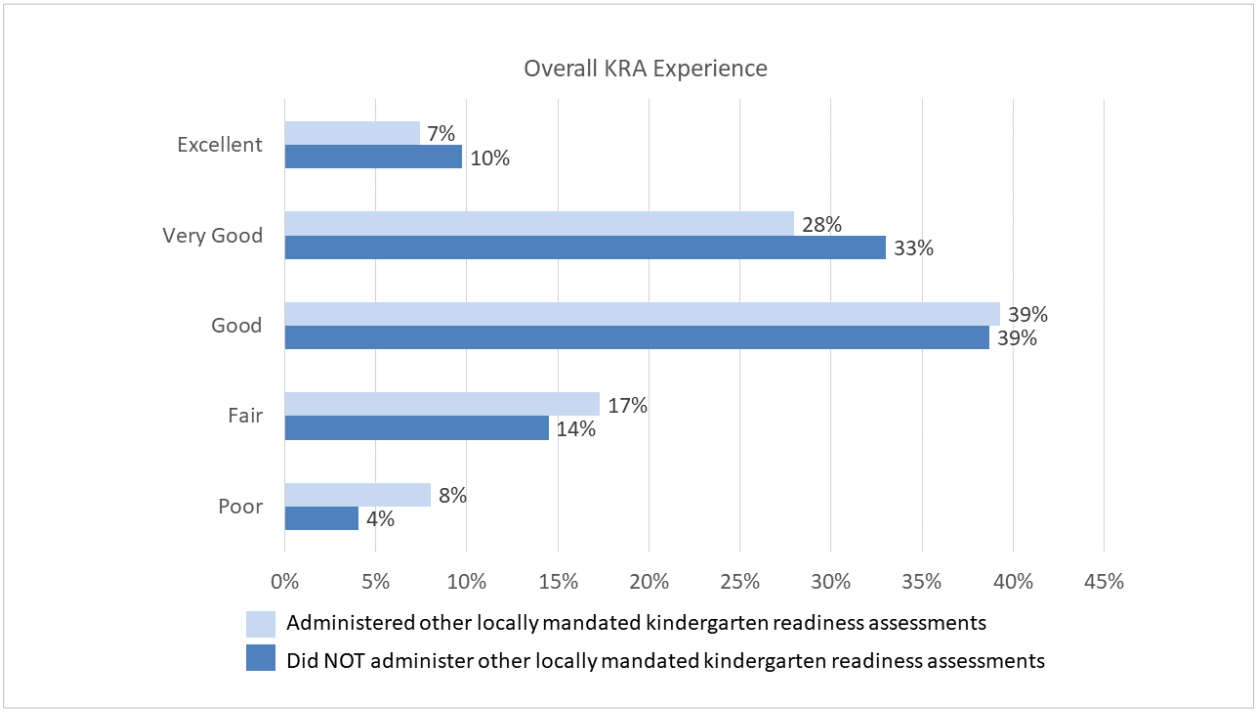
Census or Random Sample Administration and Usefulness of KRA Data

Teachers who administered the KRA to all students on their roster showed higher agreement with the statement that "the KRA data enhances my ability to identify challenges that a student may be experiencing," as compared to teachers who administered the KRA to a sample of students. Of the teachers who reported administering the full KRA to all students on their roster (n=659), 555 indicated their level of agreement with the statement about the usefulness of KRA data, and 73% either agreed or strongly agreed with the statement. Of the teachers who reported administering the KRA to a random sample of students on their roster (n=709), 587 indicated their level of agreement about the usefulness of KRA data, and 55% either agreed or strongly agreed with the statement. Teachers who reported a combination of the two methods were excluded from this analysis (n= 105).

Locally Mandated Assessments and Overall KRA Experience

Teachers who did not administer other locally mandated kindergarten readiness assessments (n=739) reported, on average, a slightly more positive overall KRA experience as compared to teachers who did administer other locally mandated kindergarten readiness assessments (n=486). 81% of teachers who did not administer other kindergarten readiness assessments rated their KRA administration experience "excellent," "very good," or "good," while 75% of teachers who did administer other kindergarten readiness assessments rated their KRA administration experience as "excellent," "very good," or "good."

Exhibit 26. Locally Mandated Assessments and Overall KRA Experience



Census or Random Sample Administration and Overall KRA Experience

Teachers who administered the KRA to a random sample of the students on their roster and teachers who administered the KRA to all students on their roster provided similar overall ratings for their experience with the assessment. Of the teachers who reported administering the full KRA to all students on their roster (n=659), 552 provided a rating of their overall KRA experience, and 78% reported that their experience was “Excellent,” “Very Good,” or “Good.” Of the teachers who reported administering the KRA to a random sample of students on their roster (n=709), 584 provided a rating of their overall KRA experience, and 78% reported that their experience was “Excellent,” “Very Good,” or “Good.” Teachers who reported a combination of the two methods were excluded from this analysis (n= 105).

Experience with KRA and Planning and Administration Time

Prior experience with the KRA had a nominal effect on the amount of time teachers needed to plan and administer the KRA in 2018. There were 609 teachers who indicated significant prior experience with the KRA (previously administering the KRA for at least five years). Additionally, 606 teachers indicated that they had minimal prior experience with the KRA (previously administering the KRA for three or less years). 43% of the teachers with a high degree of prior KRA experience reported needing thirty minutes or less of planning time. 40% of teachers with little prior experience with the KRA reported needing the thirty minutes or less of planning time.

In terms of administration time, 47% of teachers experienced with the KRA reported needing 16-30 minutes to administer the KRA to typically developing children, and 45% of teachers with minimal KRA experience reported needing 16-30 minutes to administer the KRA to typically developing children. For other subgroups of children, the highly experienced and less experienced teachers continued to report similar amounts of administration time: for students with disabilities, 20% of highly experienced teachers and 25% of less experienced teachers reported needing 16-30 minutes to administer. For English Learners, 23% of highly experienced teachers and 26% of less experienced teachers reported needing 16-30 minutes to administer.

MARYLAND STATE DEPARTMENT OF EDUCATION
EQUITY AND EXCELLENCE

READY FOR KINDERGARTEN

Maryland's Early Childhood Comprehensive Assessment System

The 2018-2019 Kindergarten Readiness Assessment Technical Report,
January 2019

The traditional greeting of the Masai people, one of the most accomplished and fabled tribes of Africa, is “And how are the children?” It acknowledges the high value that the Masai place on their children’s well-being. They hold that no matter the daily struggles we face, the primary responsibility of society is the well-being of its children.

The 2018-2019 Kindergarten Readiness Assessment Report data show that many of Maryland’s children are well and arrive at kindergarten with the skills and knowledge they need to succeed, but that is not the case for all children. Many of our most vulnerable children – children with disabilities, English learners, and children from low-income families – are still faced with persistent achievement gaps.

The Maryland State Department of Education is committed to equitable opportunities for all children. We are working to implement research-based, effective solutions:

- Supporting the expansion of Prekindergarten for all four-year olds and three-year olds from low-income families;
- Improving the early childhood workforce;
- Enhancing program quality;
- Implementing instructional and assessment resources for districts and child care programs;
- Increasing access to high-quality early education programs; and
- Strengthening family engagement.

I hope you will join me in asking each day, “And how are the children?” In doing this, we can make a collective impact to ensure all students achieve and thrive, regardless of socioeconomic status, gender and gender identity, ethnic background, immigration status, English proficiency, disability, or family background.

KAREN B. SALMON, PH.D., STATE SUPERINTENDENT OF SCHOOLS

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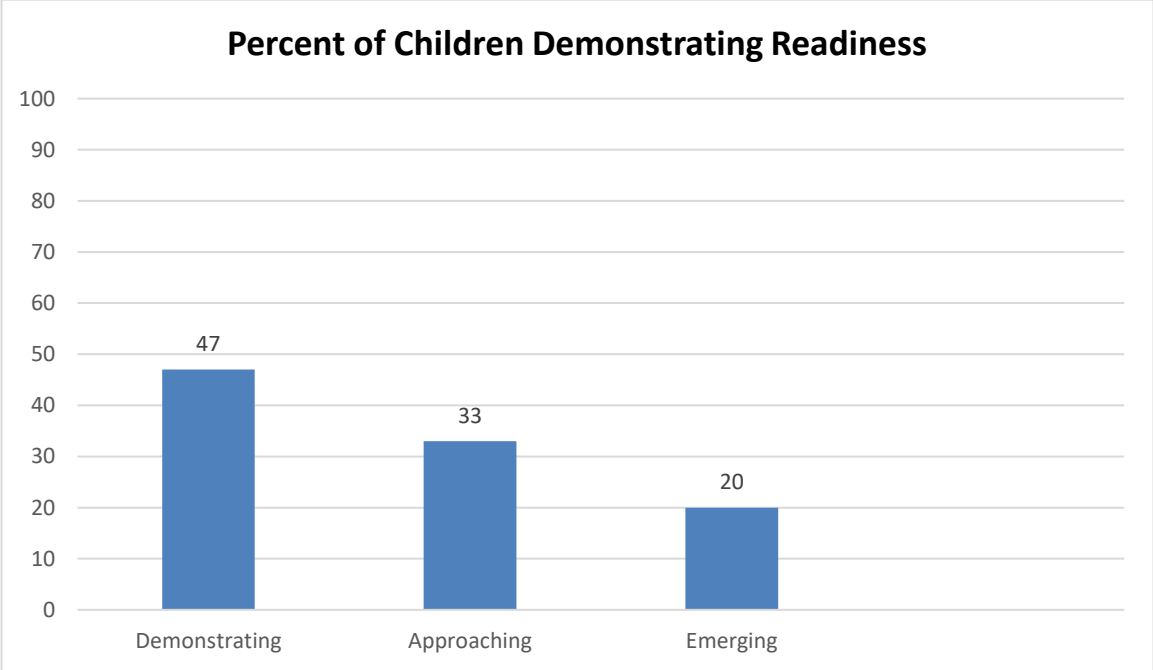
School Readiness Results for School Year 2018-2019

Based on the 2018-2019 Kindergarten Readiness Assessment (KRA) results, nearly half (47%) of all entering kindergarten children in Maryland displayed the foundational skills indicating they are fully ready for kindergarten. A third (33%) are approaching readiness. Twenty percent of children are assessed with emerging readiness skills (Graph 1). The school readiness results for the 2018-2019 school year show a continued increase from the administration of the KRA in 2017-2018 with 45 percent being assessed as fully ready.

Graph 1: School Readiness Results for School Year 2018-2019



New KRA Legislation and Weighting

In the spring 2016, The Maryland General Assembly passed a bill that required MSDE to have the KRA administered as a "representative sample." It also allowed for county boards of education and individual schools or teachers to conduct census administration. The statute allowed for LSSs or a principal, in mutual agreement with the kindergarten teachers, to administer the KRA on all students. The procedures regarding the implementation of the program remain the same as it was

done beginning in school year 2014-15. Local school systems must report to MSDE by June 1st regarding their decision to implement census administration. Due to the post Labor Day start to the school year, an extension to the close of the administration window was granted. The sampling and census administration must now be completed by October 10th.

For LSS's that selected administration by representative sample, to ensure equitability and also maintain an adequate system of training and preparation for teachers, every teacher assessed a random sample of students in their class. Ideally, selecting a sample of students that is representative of the student population in Maryland, and by county, would need to involve sampling measures that adequately account for the varying demographics across the state. This would involve selection and classification based on groups to include, ethnicity, prior care, disability status, English Language Learner status, FaRMs, and gender. Unfortunately, demographic information on kindergarten children in Maryland is not typically finalized until after the assessment window closes. This complicates selecting a representative sample to be assessed within the constraints of the allotted assessment window. Thus, a randomization process was chosen to establish representative samples for the State and each local school system. This approach is based on the assumption that the demographic values for a randomized sample will be statistically comparable to the whole population.

Since MSDE does not have demographic information available in time to select a representative sample through stratified random sampling using demographics, the determination of what would be a "sufficient" sampling of students was tested by county based on prior years' KRA data.

The Maryland State Department of Education considered the following in our identification of what would be the minimum sample of students needed by county to provide a sufficient and representative sample for administration of the Kindergarten Readiness Assessment (KRA):

1) What sample is sufficient to allow us to feel reasonably confident that we have a representative sample of our subgroup populations by county and for the state overall?
2) What sample is sufficient to report results with confidence and accuracy?

To determine the "minimum sufficient sample" by county we conducted a number of analyses using the KRA sample data and statistics from the fall 2015 administration. Analyses included the following:

- Creation of two random samples from the KRA cohort of 2015-16 for sample sizes ranging from 10 to 35 percent, i.e., at 10, 15, 20, 25, 30, and 35 percent;
- Comparison of the two random samples for each local school system to examine the KRA results against the census results of the local school systems; and
- Identification of subgroups represented by each local school system at sufficient sample sizes.

Based on these considerations and review of the data, Table 1 shows the sample of students to be assessed for those counties that selected to administer via a representative sample.

MSDE used a randomization program to randomly select students in each LSS to be assessed. Once students were selected to be part of the sample, the list of students to be assessed (by school and teacher) was submitted to the Early Learning Supervisor in each LSS via a secure server and uploaded into the R4K online system. Teachers, when opening their class roster on the KRA dashboards, were then required to assess only those students who were selected to be part of the state sample.

At the end of the assessment window, the assessment information on the sample and demographic information was merged to create a comprehensive file and determine the comparability of the sample demographics to the demographic profile of the kindergarten student population for each LSS.

Table 1:

	Percent Students Randomly Selected to be Assessed
Allegany County	Census (100%)
Anne Arundel County	21 %
Baltimore City	Census (100%)
Baltimore County	20%
Calvert County	27%
Caroline County	Census (100%)
Carroll County	31%
Cecil County	Census (100%)
Charles County	Census (100%)
Dorchester County	Census (100%)
Frederick County	31%
Garrett County	37%
Harford County	31%
Howard County	31%
Kent County	Census (100%)
Montgomery County	12%
Prince George's County	12%
Queen Anne's County	Census (100%)
St. Mary's County	Census (100%)
Somerset County	Census (100%)
Talbot County	Census (100%)
Washington County	Census (100%)
Wicomico County	Census (100%)
Worcester County	Census (100%)
Maryland School for the Blind	Census (100%)
Maryland School for the Deaf	Census (100%)

Weighting for State Level Results

As Table 1 above shows, the size of the random samples selected varied by LSS, from as few as 12 percent to a maximum of 37 %. In addition, 14 LSS's selected to administer the KRA to all their students. This difference in administration creates issues of unequal samples of students that, if not adjusted, would skew the state average in the direction of the districts that assessed a larger portion of their student population. In order to determine the state average performance level of students based on differential weighting of samples, MSDE calculated adjusted state means by using a weighting adjustment that takes into account the mean performance from each district, the sample size of the students actually

tested, and the total number of students who could have been assessed. These calculations are based on the assumption that the sampling was done randomly within each district, as it was. This method allowed us to sum the data to then calculate the state average performance.

Local School Systems administering KRA on all students (census administration) versus representative sampling

When administering the KRA with a sample of students, rather than census administration, reporting of assessment data in each LSS only consists of KRA results of the composite and the four domains and for those demographic variables that have at least a sample of 25 students that were assessed. In order to meet psychometric standards, it was determined that a sample of at least 25 students should be in a subgroup to yield results that are reliable and valid.
Table 2 below provides information of how the KRA data can be used.

Table 2:

	Census Administration	Sample Administration
To Benefit Students: identifies the individual learning needs of every student and determines necessary supports to help each child succeed.	✓	
To Support Classroom Instruction: enables teachers to monitor each student's progress and mastery of kindergarten standards, as well as differentiate instruction to address learning gaps and individual student needs.	✓	
To Inform Families: provides all families with an Individual Student Report (ISR), which provides information about their child's skills, abilities, and development.	✓	
To Offer Early Childhood Programs Feedback: indicates how well-prepared their children are for kindergarten and reveals areas where prior care instructional practices need to be modified to better promote kindergarten readiness.	✓	✓
To Advise Community Leaders & Policy Makers: offers rich information about kindergarten readiness and promotes well-informed programmatic, policy, and funding decisions.	✓	✓

School Readiness based on Demographic Categories

Table 3 provides a breakdown of the percentage of children that entered kindergarten in Maryland based on demographic data in 2018-2019. Graphs 2 and 3 show the percentage of students demonstrating readiness in Maryland based on the demographic subgroups.

Table 3: State Level Demographic Categories

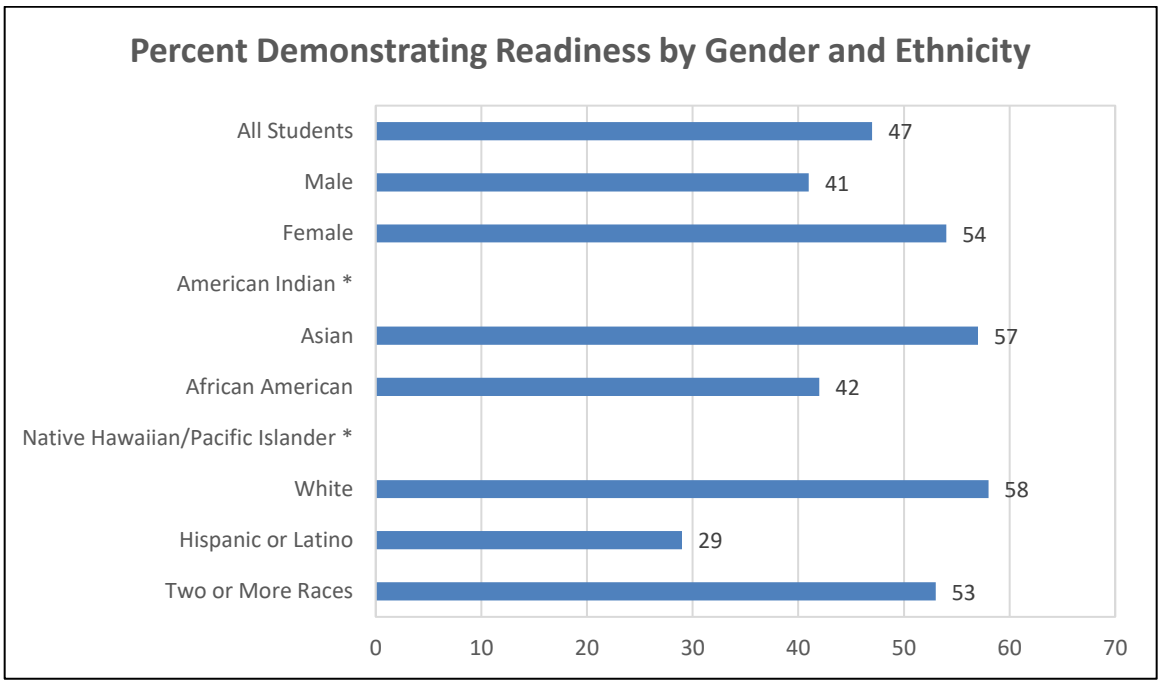
	2018-2019 Kindergarten Population*
Kindergarten Students	64,600
Gender	
Male	51%
Female	49%
Kindergarten Ethnicity	
American Indian	Less than 1%
Asian	7%
African American	32%
Native Hawaiian/Pacific Islander	Less than 1%
White	36%
Hispanic	19%
Two or More Races	6%
Kindergarteners by Student Group	
Children with Disabilities	9%
English Learners (EL)	15%
Free and Reduced-Priced Meals (FARM)	44%
Kindergartners by Prior Care	
Child Care Center	14%
Family Child Care	4%
Head Start	4%
Home/Informal Care	23%
Non-public Nursery	13%
Prekindergarten	40%

***** State level results that are reported were calculated based on data from each LSS that was weighted to account for differences in sampling. Weighting is discussed in more detail later.

Graph 2 provides the percentage of children demonstrating readiness by gender and ethnicity. More than half of females (54%) demonstrated full readiness, compared to 41 percent of males. Likewise, more than half of Asian children (57%), two or more races (53%), and White children (58%), were demonstrating readiness.

Forty-two percent of African American children and more than a quarter of all Hispanic children (29%) were assessed as demonstrating readiness.

Graph 2: Maryland Percentage Demonstrating Readiness by Gender & Ethnicity



*Student group too small to report percentage

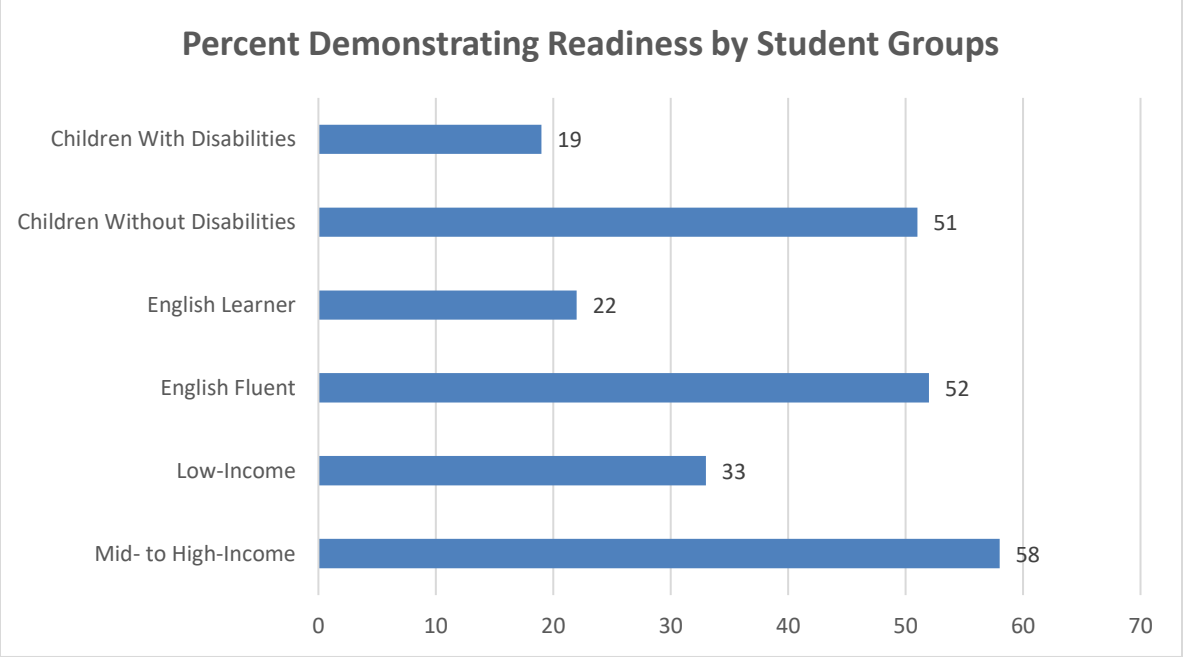
Children with disabilities, those learning the English Learners (ELs), and those from low-income families have lower school readiness than Maryland kindergartners as a whole. As a result, children from these subgroups require targeted or significant support to meet curricular expectations in kindergarten through grade 3.

Children from these subgroups comprise a large proportion of the kindergarten population. In 2018-2019, MSDE enrollment data indicate that

- 9% of kindergartners (5,895 children) have a disability;
- 15% (9,868 children) are English Learners (EL);
- 44% (28,520 children) come from low-income households, as indicated by Free and Reduced-Price Meals (FARM) guidelines.

Graph 3 shows that less than a quarter of children with disabilities (19%), compared to fifty-one percent of children without disabilities demonstrated school readiness. Twenty-two percent of English Learners were demonstrating readiness compared to fifty-two percent of children who are English fluent. A third (33%) of children from low-income households showed full school readiness compared to fifty-eight percent of children who are not.

Graph 3: Maryland Percentage Demonstrating Readiness by Student Groups

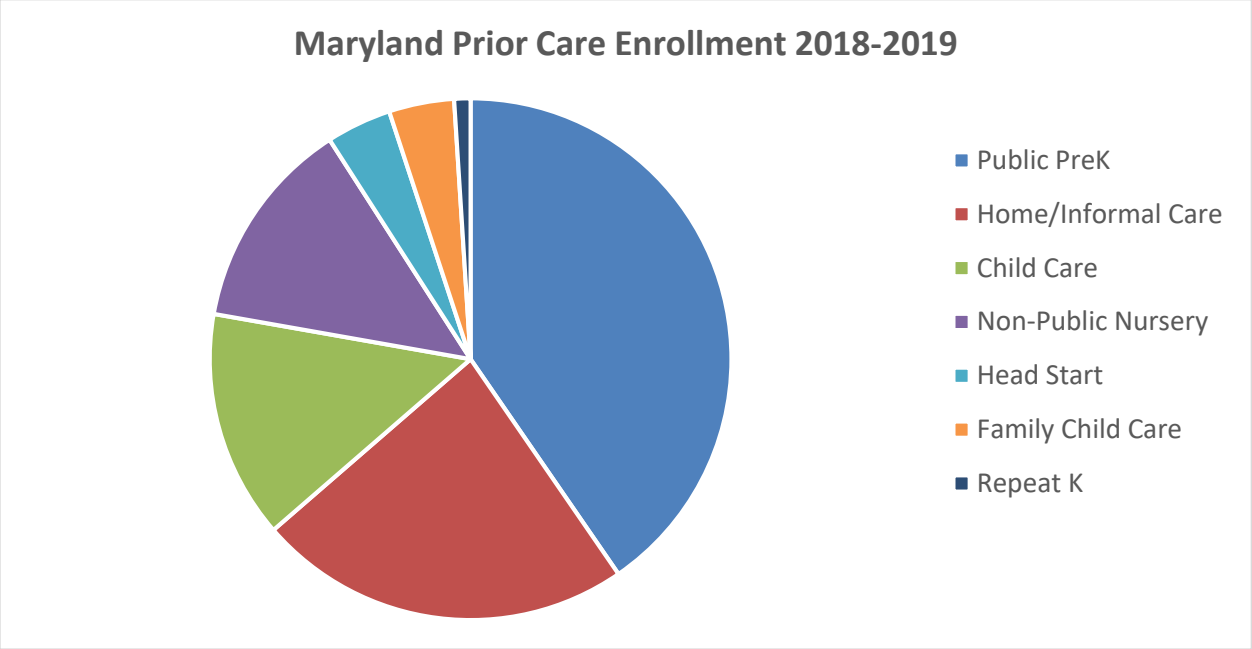


Graphs 4 shows the demographic breakdown of kindergarten children in 2018-2019 based on prior care arrangements, defined as early learning experiences as four-year olds. The highest percentage of children entering kindergarten came from Public Pre-K (40%) and Home/Informal (23%) prior care arrangements followed by Child Care Centers (14%) and Non-public Nursery (13%).

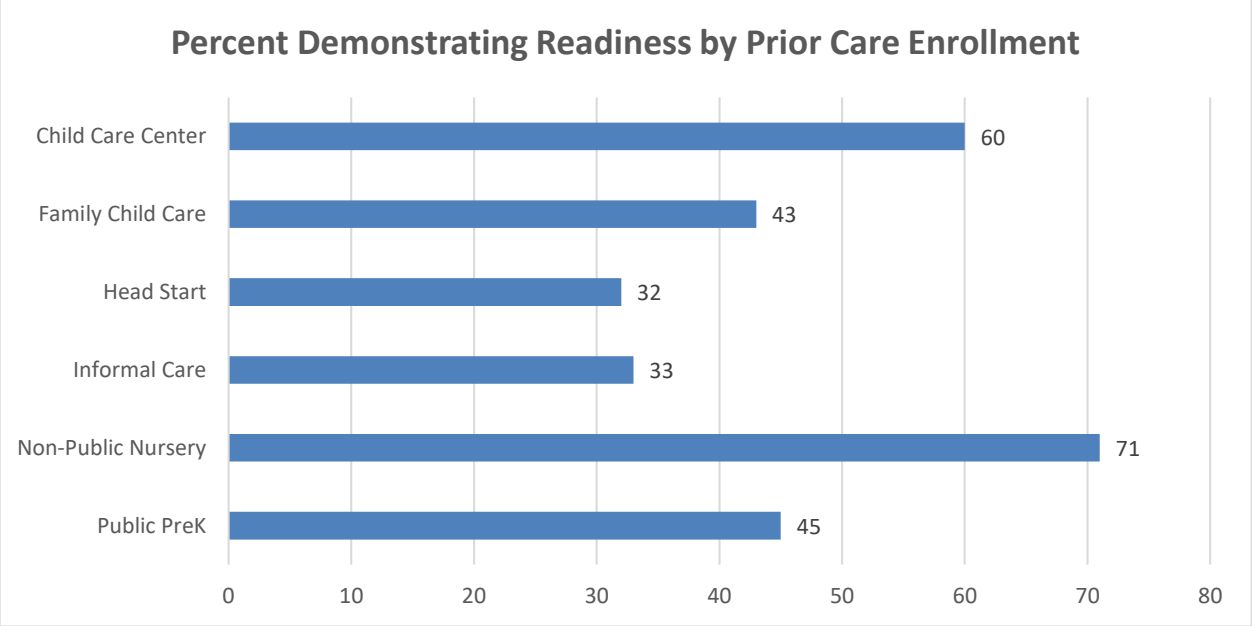
Graph 5 shows the percentage of entering kindergarten children assessed as demonstrating readiness disaggregated by their prior care arrangements. A higher percentage of children who came from Non-public Nursery schools (71%), Child Care Centers (60%), Family Child Care

(43%) and public Pre-K programs (45%) demonstrated full readiness when compared to children from Home/Informal care (33%), and Head Start (32%).

Graph 4: Maryland Kindergarten Children - Prior Care Enrollments as Four-year Olds



Graph 5: Maryland Demonstrating Readiness by Prior Care Enrollment



Note: Prior care groups represent demographically different populations (i.e., Head Start and PreK are mostly low-income)

Administration, Reporting and Interpreting KRA Results

The KRA represents an assessment that combines age-appropriate, standardized performance tasks that measure specific skills as well as focused observations of children's work and play to look at what each entering kindergartner knows and is able to do. The KRA measures the skills and behaviors that children should have learned prior to entering kindergarten based on Maryland's Prekindergarten College and Career-Ready Standards.

The fall 2018 administration was the fifth administration of the KRA overall and the first administration of KRA v2.0. KRA v2.0 is the enhanced version of the KRA v1.5, which has been administered in Maryland since 2015. The KRA v2.0 development was funded by an Enhanced Assessment Grant (EAG) awarded by the U.S. Department of Education in 2013. EAG funds supported the design and development of the KRA 2.0, including standards alignment, cognitive interviews, a pilot, and two field tests. Each activity in the development process informed the subsequent activity, providing critical evidence to support the validity and reliability of the KRA 2.0 for its intended purpose. Like the KRA v1.5, the KRA v2.0 is designed to measure children's preparedness for kindergarten instruction, as defined by the essential domains of school readiness, upon entry to kindergarten. Further, the KRA 2.0 is aligned to the states' early learning standards, specifically the end-of-prekindergarten standards.

The assessment information reflects performance for each of four developmental domains (Social Foundations, Physical Well-Being and Motor Development, Language and Literacy, and Mathematics) and the composite score. The following table summarizes the distribution of score points by percentage for each domain for KRA v2.0:

Distribution of KRA 2.0 Score Points by Domain	
Domain	**Percentage of Total Points**
Language and Literacy	35%
Mathematics	23%
Physical Well-Being and Motor Development	19%
Social Foundations	23%

It also establishes results for demographically defined subgroups of students such as:

- race/ethnicity;
- gender;
- prior early care;
- special education;
- English Learners (EL); and,
- Enrollment in free and reduced priced meals program.

Following an appended field test in 2017, classical item analyses were completed for all of the KRA v2.0 items, and a one-parameter item response theory (IRT) model (i.e., the Rasch model) was used for calibration and scaling. Concurrent calibration with fixed anchor items was used to create two new KRA 2.0 forms (i.e., KRA 2.0 Forms A and B) that are equated to the KRA 1.5 form. This pre-equating process allowed for the retention of the scoring scale, including the established cut scores and performance levels from the KRA 1.5.

For KRA v2.0, reporting of the domain level results is based on the average scale score for students. Reporting of the KRA scores as a Composite is based on Performance Level Descriptors (PLD's) that reflect the percentage of students who have reached one of the following levels of readiness:

- Demonstrating Readiness: Student demonstrates foundational skills and behaviors that prepare [him/her] for curriculum based on Maryland College and Career-Ready kindergarten standards.
- Approaching Readiness: Student demonstrates some foundational skills and behaviors that prepare [him/her] for curriculum based on Maryland College and Career-Ready kindergarten standards.
- Emerging Readiness: Student demonstrates limited foundational skills and behaviors that prepare [him/her] for curriculum based on Maryland College and Career-Ready kindergarten standards.
- Incomplete: A child was not administered one or more assessment items resulting in a "No Score" for those items due to circumstances, such as transferring out of the school or having a documented medical condition during assessment administration.

Children whose readiness skills and behaviors are "approaching and/or emerging" require differentiated instructional support to be successful in kindergarten and beyond. Detailed results of

composite and domains by state and jurisdiction are posted in Appendix B.

KRA v2.0 was administered to a total of 39 percent of children in Maryland. This percentage represents kindergartners in 14 local school systems that assessed all their children and 10 local school systems that administered by random sample. Additionally, 9 of the 10 local school systems that administered by random sample also administered to all students in select Title I or Judy Center schools.

What do the KRA results represent?

The key idea for interpreting KRA results is the standard that has been set for what professionals from Maryland consider school readiness based on the Maryland College and Career-Ready standards. The KRA results, as presented in Appendix B for the State of Maryland and its 24 jurisdictions as well as the Maryland School of the Deaf and Maryland School for the Blind represent incoming kindergarten students' set of skills, knowledge, and behaviors as expressed in the Composite score. The subset of skills, knowledge, and behaviors are research based, have been defined as critical for being ready for school, and comprise such skills across four domains of learning – Language/Literacy, Mathematics, Social Foundations, and Physical Well-Being and Motor Development. This means that a kindergartner must demonstrate these skills and behaviors for all of the four domains in order to reach a Composite score that represents the performance level Demonstrating Readiness. A student who has not yet demonstrated those skills in one of the domains has either a composite score of Approaching or Emerging readiness.

Availability of the 2018-19 School Readiness Report

On January 22, 2019, the school readiness information for school year 2018-2019 will be available online at ***https://earlychildhood.marylandpublicschools.org*** and at ***www.readyatfive.org***.

Background of Maryland's School Readiness Initiative

On January 20, 2000, the Subcabinet for Children, Youth, and Families submitted a report to the Joint Committee on Children, Youth, and Families outlining strategies to improve services for young children and to prepare them to enter school ready to learn. In 2001, The Maryland State Board of Education incorporated a school readiness goal in MSDE's strategic plan. Since that time, the annual school readiness information, based on The Maryland Model of School Readiness (MMSR), was used to measure progress toward this goal and an annual school readiness report has been issued since school year 2001-02. The MMSR Kindergarten Assessment was administered the last time in school year 2013-14.

Maryland continues to be committed to creating a world-class education system that prepares students for college and career success in the 21st century. Early education is an integral part of this vision. Assessing entering kindergarteners is the hallmark of Maryland's reform efforts in early education. It informs teachers, parents, early childhood programs, school administrators, and policymakers about the status of school readiness in the State, by county, school and classroom. This information is essential in addressing emerging achievement gaps or programmatic needs in early education programs. It is also a vital tool to gauge progress of child outcomes over time.

Maryland's Assessment System of Measuring School Readiness

As part of the Race to the Top - Early Learning Challenge grant, the MSDE's Divisions of Early Childhood Development and Special Education/Early Intervention Services, developed a comprehensive assessment system that not only advances continuous improvement of early learning among programs in early childhood education, but, most importantly, helps early childhood educators improve early learning opportunities for young learners.

The Ready for Kindergarten (R4K): Maryland's **Early Childhood Comprehensive Assessment System** aligns with the state standards for PreK-12 instruction. Developed in partnership with the Ohio Department of Education, the R4K provides one system for recognizing the needs and measuring the learning progress of all children from 3 to 6 years of age in several domains of child

learning[1].

The R4K has two components:

1. **Early Learning Assessment (i.e., formative assessment)** gauges the progress of learning in young children, 36 to 72 months, for seven developmental domains. The Early Learning Assessment (ELA) is based on developmental learning progressions that describe the pathway that children typically follow as they learn or the sequence in which knowledge and skills develop. Each child's progress is monitored along a continuum and tracked over time. In this way, early educators, working with 3- and 4-year-olds can create individualized learning opportunities and plan interventions, if needed, to ensure that children are on the path of kindergarten readiness.

2. **Kindergarten Readiness Assessment** (KRA) is administered to kindergartners, measuring school readiness in four developmental domains. The KRA provides a snapshot of school readiness levels for all incoming kindergartners. The readiness assessment makes it possible to confidently determine if entering students have the skills, knowledge, and abilities needed for kindergarten. The KRA also identifies the individual needs of children, enabling teachers to make informed instructional decisions.

Alignment of Kindergarten Readiness Assessment Standards with the Maryland College and Career-Ready Standards

The foundation for the R4K is a set of common language standards (CLS) that were initially developed by Maryland and Ohio, in conjunction with WestEd and the Technical Advisory Committee (TAC), in early 2013. The original CLS were based on an alignment study of Maryland and Ohio's standards for pre-kindergarten and kindergarten and incorporate the essential domains of school readiness as defined by the U.S. Department of Education. The CLS are based on a hierarchical structure and contain four levels: domain, strand, standard, and essential skills and knowledge (ESKs). The ESKs provide the most specific content descriptions, and item content and

[1] Both states are supported by a unique partnership with Johns Hopkins University – Center for Technology in Education (JHU-CTE) and WestEd

KRA assessment items were mapped to this level. The CLS cover essential domains for kindergarten readiness, which include Social Foundations (including approaches to learning and executive functioning), Language and Literacy, Mathematics, and Physical Well-Being and Motor Development. [2] The Early Learning Assessment (ELA) includes the additional domains of science, social studies, and fine arts.

Shortly after the EAG was awarded in October 2013, several other states collaborated with Maryland and Ohio to review and revise the CLS by utilizing a formal standards alignment and crosswalk protocol. The goal of the alignment and crosswalk protocol, which was facilitated by WestEd, was to identify the substantially identical content across all of the states and to inform revisions to the original CLS developed by Maryland and Ohio.

The alignment and crosswalk protocol activities were conducted between January and March 2014, resulting in minimal changes to the existing standards. The revised CLS were formally approved by leadership from all states on March 17–18, 2014.

The revised CLS that are the foundation of KRA v2.0 can be found in Appendix A.

KRA Item Types

A KRA item is one question or observation that is aligned to a specific ESK statement drawn from the CLS, and it results in a score. More than one question may be clustered around a common stimulus (e.g., a story), and each item in the cluster results in a score.
The KRA is composed of three item types: selected response, performance task, and observational rubric.

- **Selected-response** items consist of a question or prompt, that is read to the child along with three possible answer options. There is only one correct answer per question. The child indicates his or her response by touching one of the three answer options. Each selected-response items is worth one score point.

[2] An earlier version included the domains Science and Social Studies, which were eliminated based on an item review analysis and reduction process.

- **Performance-task** items consist of an activity or action that is completed by the child, typically after a prompt is read by the teacher. In some instances, manipulatives are provided to allow the student to demonstrate the skill being assessed. Performance-task items are scored with a rubric and can be worth up to one, two, or three points.
- **Observational-rubric** items describe specific behaviors or skills to be observed by the teacher during typical classroom activities. Observational-rubrics items are worth up to two points.

The KRA 2.0 Blueprint, shown in the table below, outlines the distribution of selected-response (SR) items, performance-task (PT) items, observational-rubric (OR) items, total items, total points, and percentage of total points across the domains, as defined in the Common Language Standards.

KRA 2.0 Blueprint						
Domain	**SR**	**PT**	**OR**	**Total Items**	**Total Points**	**Percentage of Total Points**
Language and Literacy	7	6	4	17	33	35%
Mathematics	2	11	0	13	22	23%
Physical Well-Being and Motor Development	0	0	9	9	18	19%
Social Foundations	0	0	11	11	22	23%
Total	9	17	24	50	95	100%

The items were reviewed and validated in terms of age-appropriateness, and cultural sensitivity. Each KRA 2.0 form consists of 50 items (9 selected response, 17 performance tasks, and 24 observational rubrics).

Administration of the KRA

The Ready for Kindergarten Online system consists of two key components: 1) the Ready for Kindergarten (R4K) Online website, which is the primary teacher interface, and 2) the KRA app for delivering a subset of the KRA items directly to children using child-friendly technologies.

Both of these technology components were Field Tested (November 4 – December 20, 2013) and the results and feedback informed the development.

Launched on August 18, 2014, the R4K site is the primary system interface for teachers. Upon login, teachers are taken to a dashboard page that includes customized information pertaining to the teacher's professional development (PD enrollments and the status of any required PD assessments) and their KRA completion percentage. From the dashboard, teachers can enter directly into the PD resources/assessments, or enter the KRA to continue assessing the children in their classroom.

Originally referred to as the Virtual Performance Assessment (VPA) application, the KRA App that supports administration of KRA v2.0 includes 17 items to be delivered directly to children. The items selected are all performance tasks, which reduces the burden on teachers in two key ways: a) No physical manipulatives are needed to administer the items if the teacher uses the KRA app, and b) the items are scored automatically based on the child's selection, reducing the amount of data entry required of the teacher and thus speeding up the assessment delivery time.

Teachers receive an Administration Guide which includes procedures for administering the KRA and how to provide levels of allowable supports to dual language learners and students with disabilities. Teacher dashboards and customized professional development provide contextualized resources to support instruction and the use of best practices in the classroom. Data from the *Ready for Kindergarten Online* system generates information and recommendations for instructional groupings, as well as targeted instruction based on individual child and class performance. To allow for consistent and meaningful reporting, the system is supported by a technology infrastructure that supports data collection, user management, professional development and reporting of student results.

In the spring 2016, The Maryland General Assembly passed a bill that requires MSDE to have the KRA administered as a "representative sample." It also allows for county boards of education and individual schools to conduct census administration. Assessments for sampling and census administration must be completed by October 10th. The assessment window is defined as beginning on the first day of school until October 10th of that school year. Dashboard access

provides teachers the immediate use of student assessment results. Individual Student Reports (IRSs) are available to teachers as soon as an individual student has completed administration of all 50 items. The ISR's for parents are available in multiple languages including: English, Spanish, Chinese, and French. MSDE printed and delivered ISR's in English for all students administered the assessment. In addition, all ISRs are available to print electronically in all languages within the online system.

Use of Data and Accountability

In Maryland, early childhood professionals share accountability for the results of providing early learning opportunities. Any assessment, determining such results, is rooted in each practitioner's interaction with the young child as a learner. This relationship provides for an in-depth understanding of the strengths and needs of individual learners. The assessment of young children should promote learning and improvement of early childhood programs, not simply measure it. The **R4K,** which includes the Kindergarten Readiness Assessment (KRA) and the Early Learning Assessment (ELA), provides a framework to assess what students should know and be able to do when they enter kindergarten to ensure they are ready to learn. The KRA provides data that teachers can use to identify learning gaps and ensure quality early learning opportunities for children by building on the strengths of every child. Customizable reports and Individual Student Reports (ISRs) can be created for families, teachers, and administrators at the school, district, or state levels.

Specifically, where every child is assessed, the KRA can support and advance children's early learning and academic achievement by:

- Informing prior education and care stakeholders of early learning standards and experiences that promote kindergarten readiness;
- Identifying individual children's needs and providing necessary supports to children and teachers;
- Assisting teachers in data-driven instructional decision making at the child and classroom level (census administration only); and
- Providing families with information about their children's learning and development;

Accessibility for Special Populations: Guidelines on Allowable Supports

The *Guidelines on Allowable Supports for Administration of the Kindergarten Readiness Assessment* document was developed and includes a list of universally designed allowable supports that can be used with any student participating in the KRA. If the universally designed supports are not sufficient to enable children with disabilities or English Learners to demonstrate their skills and knowledge, teachers are expected to use the appropriate Level the Field support(s) described in the *Guidelines on Allowable Supports for Administration of the Kindergarten Readiness Assessment*. Alternate Test Administration Manuals and Test Item Images Booklets were developed for children with significant vision and hearing impairments for which the standard KRA materials and items were not accessible.

Teacher Professional Development

The professional development of teachers is the key to successful administration of the KRA, as the quality of the assessment data depends on how well teachers implement the assessment. Professional development activities were organized around three stages of assessment, including pre-administration, administration, and post-assessment analysis and use of data to inform instruction.

A Trainer-of-Trainer (ToT) model is used statewide in Maryland. The ToT training session consists of a blended approach of two face-to-face meeting days with a set of online activities in between meetings. The ToT model is designed to:

- Build capacity for trainers to deliver training in online, blended, and face-to-face formats.
- Engage trainers in an online community for ongoing support from JHU CTE and fellow trainers.
- Model facilitation of online learning experiences.
- Model research-based coaching techniques.
- Incorporate time for reflection, planning, and practice.
- Provide customizable training materials to meet local needs.
- Provide clear expectations and accountability measures.

Trainers are provided with customizable training materials for online, blended, and face-to-face full and half day teacher trainings. They receive training agendas, PowerPoint files with detailed notes as well as optional scripts, activity handouts, video clips, practice assessment items with scenarios, and additional resources. During the ToT session, trainers become part of an online community where they access and share resources, communicate with other trainers and PD team members, and receive guidance and coaching as they implement teacher trainings and support teachers through the KRA administration.

Online Learning Communities. Community Exchange sites, as part of the *Ready for Kindergarten Online* system, provide a password-protected, user friendly online environment that encourages community members' collaboration, enhanced content delivery, and allows for file sharing for trainers and teachers through the assessment process.

The trainer community includes a repository of training resources and a forum for sharing knowledge, insights, observations, and questions. JHU-CTE staff facilitate and disseminate content for trainers through this site, who then work directly with teachers who participate in their local training sessions. The Community Exchange sites in Maryland serve teachers as they complete their training. Teachers participating in online and blended trainings can use the community space to engage in ongoing discussion based on specific prompts presented in the training modules. Trainers use these sites to post assessment-related tips, local updates, and to respond to teachers' questions or needs.

Validation by Simulation and Content Assessment. Upon completion of the assessment administration training, all teachers conducting the KRA are required to fulfill reliability qualifications through the successful completion of a simulation and a content assessment. The multimedia-rich simulation, accessed through the web, provides "real life" hands-on experience and practice for administering assessment items. Participants navigate through a kindergarten classroom and observe children engaging in classroom and outdoor activities as well as completing performance tasks. Participants then provide scores for the children on these items.

The content assessment contains twenty multiple-choice questions that address key concepts from the training. Total scores are calculated for both the simulation and content assessment, and a minimum satisfactory score is required for successful completion. Follow-up coaching and the ability to retake the assessment(s) are provided to teachers as needed. After the first year of full training, teachers only participate in a yearly "refresher" training.

Validity and Reliability

The KRA v2.0 Blueprint, item specifications, and item development process provide evidence for test content validity. As described previously, the KRA v2.0 is aligned to the CLS, which are based on the KRA states' early learning standards and incorporate the essential domains of school readiness as defined by the U.S. Department of Education (78 FR 5337). The KRA v2.0 Blueprint emphasizes all domains of school readiness and utilizes multiple item types to best assess the skills and behaviors within each domain.

Prior to item development, detailed item specifications aligned to the CLS were created by WestEd content experts and reviewed by content experts from the KRA states' departments of education. The item specifications ensured alignment to the KRA v2.0 Blueprint and CLS and describe the parameters for item development. A three step development process (i.e., pre-pilot, pilot, and field test), following research and best practice in assessment development, was used to thoroughly evaluate the items developed for the KRA. Cognitive interviews, a pilot, and two field tests were conducted. Each step of these processes further contributed to the validity and reliability of the KRA v2.0 and provided several opportunities for expert and stakeholder review and feedback, in addition to statistical analyses. Prior to field testing, every KRA v2.0 item went through a bias and content review. The bias and content review committees consisted of early childhood educators from the states. Staff from the state departments also reviewed and approved each item prior to field testing. Further, in an effort to ensure maximum accessibility for English learners, experts from the WIDA Consortium reviewed and provided feedback on every KRA v2.0 item prior to field testing. The extensive rounds of review and feedback ensure fidelity to the standards and appropriateness for use with children entering kindergarten.

As part of the process, three primary questions were asked:

- What item/task characteristics are needed to effectively measure the intended content in the KRA?
- What item characteristics are needed to ensure that the access needs of all children are considered?
- Which item types most strongly demonstrate those characteristics identified as most important and developmentally valid?

By asking these questions it was possible to evaluate the degree to which system components work together as intended (i.e., use of multiple measures to assess a specific skill), and evaluate the degree to which technology-supported items and traditional items perform to ensure and maintain comparability.

MSDE engaged local school system leaders and teachers throughout every phase of the development process, including the testing of the online assessment system. Stakeholder and expert input, including kindergarten teachers, was gathered and used at every level of development. Engagement included the following:

- **National Technical Advisory Committee or TAC (facilitated by the Council of Chief State School Officers.)** The TAC is comprised of 13 national scientists in the field of early childhood education and assessment.
- **State and Local Advisory Councils.** The State Councils represent the stakeholder groups impacted by the assessment.
- **Stakeholder and Expert Ad Hoc Committees.** Ad Hoc Groups conducted item content analysis and bias and sensitivity reviews and sub-groups reviewed the content of the assessment system's professional development and technology.
- **Multi-partner Leadership Teams.** Accessibility and accommodations workgroups for special populations reviewed *Guidelines on Allowable Supports for Administration of the Kindergarten Readiness Assessment.*

Measurement of the Internal Consistency of the KRA – Cronbach's Alpha (α)

After the administration of the KRA v1.0 in the fall of 2015, all KRA items were evaluated for their difficulty, discrimination (i.e., item-total correlation), and internal consistency. The internal structure of the KRA was examined using a common psychometric analysis procedure to obtain an estimate of the reliability or a measure of the extent the items on the KRA measure the same construct. Cronbach's Alpha (α) provides an internal consistency estimate of the assessment, which is based on the correlation between each test item with other test items to form one construct. Generally, the alpha increases when the correlation between test items increases. Table 4 shows that the inter-correlations among initial KRA assessment items were found to be strong. The Alpha of .93 for the KRA overall is considered in the "Excellent" range and alpha's by domain are considered "Good" or "Excellent" ranging from .77 for Mathematics to .91 for Social Foundations. The Cronbach Alpha's of the 2015-16 administration confirmed the results from the administration in 2014-15.

Table 4:

	Cronbach's Alpha (α)	Internal Consistency
KRA Overall	.93	Excellent (High-stakes testing)
Language & Literacy	.83	Good (Low-stakes testing)
Mathematics	.77	Good (Low-stakes testing)
Social Foundations	.91	Excellent (High-stakes testing)
Physical Well-Being & Motor Development	.81	Good (Low-stakes testing)

Internal Consistency Ranges: < 0.50=Unacceptable; 0.50 to 0.60=Poor; 0.60 to 0.70=Acceptable; 0.70 to 0.90=Good (Low-stakes testing); ≥ 0.90=Excellent (High-stakes testing);

Because this is the first operational administration of the KRA v2.0 forms (i.e., the KRA v2.0 forms were not administered in their entirety to a large number of students), correlations to demonstrate the interrelationships between the overall scores and the domain scores, or the calculation of reliability coefficients for the overall test and for the domains has not been completed yet. The classical item statistics from the 2017 field test of the KRA v2.0 items fall within acceptable ranges. Additionally, the IRT calibration, equating, and reporting scale provide further validity evidence based on the internal structure. The KRA v2.0 scaling and equating procedures suggest that the

KRA v2.0 reliability measures will be similar to the KRA v1.5 reliability measures:

- The classical item statistics for the KRA v2.0 items closely align with the KRA v1.5 item statistics;
- The conditional standard errors of measurement for the KRA v2.0 forms closely match those for the KRA v1.5 form; and
- The spread and distribution of the IRT difficulty parameters for the KRA v2.0 items closely align to the spread and distribution of the KRA v1.5;

Lastly, to support reliability of item scores, all early childhood educators who administer the KRA must complete training activities, including a simulator that models proper administration and scoring processes. Further, before any early childhood educator can administer the KRA, he or she must also pass a content assessment.

KRA Item Reduction and Standard Setting

After completion of the fall 2014 census administration of the KRA (i.e., version 1.0), feedback from the field indicated that the time and effort to administer the assessment was very challenging. In an effort to assuage these challenges and concerns from the field, the states decided to reduce the length of the KRA. The state leadership teams, in conjunction with the assessment, technology, and professional development partners, held a meeting to review the item data and to discuss the feedback received from teacher surveys and state teacher focus groups. The goal of this meeting was to agree upon a reduced set of items that would alleviate the burden of administration, yet still retain enough content to allow for the reporting of valid and reliable kindergarten readiness results. The length of the assessment was reduced by approximately 20%, from 63 to 50 items. Of the 13 items that were removed, five were selected-response or performance-task items and eight were observational-rubric items. The decision to remove these items was based on feedback that indicated that they were more difficult or time intensive to administer or they were not as critical to the evaluation of students' readiness for kindergarten. In addition, a few items were moved to other domains based on item level analysis. This resulted in a final assessment broken out into four domains, rather than the six originally developed. The resulting version of the KRA, called version 1.5, was the version administered in the fall of 2015, 2016, and 2017. KRA v2.0 is the enhanced

version of this reduced assessment, KRA v1.5.

The standard setting process immediately followed the item reduction decision making process in early 2015. The role of standard setting is to determine how performance, as defined by scores on the assessment, relate to the performance levels. In other words, what score determines whether a student should be classified as demonstrating, approaching, or emerging readiness?

After initial internal consistency estimates of reliability were obtained, a common Standard Setting Process called "Bookmarking" was used to determine cut scores for the KRA. A total of 23 kindergarten teachers and early learning specialists from Maryland and Ohio, who represented a range of educational backgrounds and subgroup populations, served as panelists in this process. An essential feature of this method is the mapping of items, based on skill/item difficulty, onto a proficiency distribution where cut scores are set. With this method, panelists review an ordered item booklet in which the content of the assessment is presented in the order of difficulty, based on how students actually performed on the items. Panelists are then asked to place their "bookmark" at that point in the ordered item booklet where they believe the items would separate students into the different performance levels. For the KRA, panelists were asked to set two bookmarks. The first bookmark identified the items that separated students from the emerging to approaching readiness levels, and the second bookmark at the point in the ordered item booklet that separated students that were approaching readiness from those that were demonstrating readiness. The key distinction between the levels focused on the degree of remediation required by kindergarten teachers for incoming kindergarteners. Students in the emerging level require significant support on a breadth of content or are lacking significant skills or behaviors in a particular domain. Those students demonstrating readiness are those who require no significant support and respond well to the kindergarten curriculum. These students are ready to begin with instruction based on the kindergarten content standards in the beginning of the school year. The approaching readiness students are those who fall in between the other two performance levels.

The purpose of the KRA is to measure students' readiness to engage with kindergarten curriculum at the start of school. Therefore, the focus of the performance level descriptors (PLDs) was placed on whether students demonstrate the skills and behaviors that reflect their readiness to engage in instruction based on kindergarten content standards.

- **Demonstrating Readiness**: The child demonstrates foundational skills and behaviors that prepare him or her for curriculum based on kindergarten standards.
- **Approaching Readiness**: The child demonstrates some foundational skills and behaviors that prepare him or her for curriculum based on kindergarten standards.
- **Emerging Readiness**: The child demonstrates minimal foundational skills and behaviors that prepare him or her for curriculum based on kindergarten standards.

These PLDs are critical to establishing a common understanding of readiness and for supporting the standard setting activities that determine the cut scores for each of these levels. The process of standard setting establishes the aforementioned performance levels by setting two cut scores on the overall KRA scale.

Standard Setting Validation

The fall 2015 administration of the KRA was the second complete census administration. However, it was the first administration that included only 50 items. (The fall 2014 administration included 63 items.) Also, the fall 2015 administration included numerous improvements to the overall administration, including enhancements to the technology system and professional development. Because this is the first administration of the 50-item version of the assessment and the enhancements and improvements to the administration process, a standard setting validation was conducted in early 2016 to ensure that the cut scores from the original standard setting were still appropriate.

A similar procedure (i.e., Bookmark method) was used for the standard setting validation. The goal of the validation process was for panelists to review the ordered item booklet and cut scores that were established during the original standard setting in order to determine if the cut scores needed to be adjusted. The panelists for this process were a group of 13 educators from Maryland and Ohio who had not participated in the original standard setting.

At the start of the meeting, the panelists were provided an overview of standard setting and its purpose, and they were trained on the process of placing bookmarks within the ordered item booklet. In this case, the training explained how each panelist would place two bookmarks within the ordered item booklet (i.e., cut scores) in order to establish the three performance levels. The first bookmark would

be used to identify the items that separate students from the emerging to approaching readiness levels, and the second bookmark would be used to identify the items that separate students who are approaching readiness from those who are demonstrating readiness.

After the overview and training, the panelists spent the remainder of the first day reviewing the ordered item booklet in detail in order to familiarize themselves with the content. Specifically, the panelists used an aligned item map to take notes and document the accumulation of skills and behaviors that a student needed to possess in order to correctly answer the items that appeared later in the booklet (later items are more difficult than those that precede them.) The panelists were split into two groups for this review.

Following the thorough review of the ordered item booklet, the whole group of panelists discussed the skills and knowledge, as described by the ordered item booklet and the previously established cut scores, that a student who is just entering a particular performance level is expected to master. The key distinction between the performance levels focused on the degree of remediation or support that a student required. Students in the approaching readiness level were described as those who could often demonstrate skills and behaviors with some adult assistance or support. Students in the demonstrating readiness were described as those who could demonstrate skills and behaviors independently and fluently, requiring little to no remediation. These students were characterized as "target students" for the approaching readiness and demonstrating readiness levels. Upon conclusion of the whole-group discussion about the target students, the panelists independently set their bookmarks for round one. Each panelist submitted their recommendations for the cut scores, and the median of the bookmark placements was determined for each table and for the overall group. (The median is selected as the best indicator of the group because it is not sensitive to extreme values, as is the mean.) The results of the first round were presented, and then the panelists engaged in discussions about the outcomes at their respective tables.

Once the table discussions were completed, the panelists set their second set of bookmarks (Round 2). They were encouraged to consider the group discussion when making their second selections, but still submitted their Round 2 bookmarks independently. During this discussion, the panelists were encouraged to consider the relationship to the original cut scores in order to determine if the original cut scores needed to be adjusted. Upon completion of the whole-group discussion, the panelists

independently set their final recommendations for the cut scores.

Results

The results of the final round aligned with the originally established cut scores (i.e., the median cut scores for approaching readiness and demonstrating readiness corresponded to the original cut scores). Table 5 includes a summary of the median, minimum, and maximum cut scores for all three rounds.

Table 5 – Summary of Cut Scores for All Standard Setting Validation Rounds

	Approaching Readiness			Demonstrating Readiness		
	Minimum	**Median**	**Maximum**	**Minimum**	**Median**	**Maximum**
Round 1	253	257	260	265	270	273
Round 2	257	257	260	267	270	273
Round 3	257	257	258	269	270	270

This approach ensured the validity of the assessment system regarding its interpretation of measuring kindergarten readiness, i.e., the degree to which students have the necessary skills to meet Maryland College and Career-Ready Standards by the time they matriculate into kindergarten.

Scaling of KRA v2.0

In fall 2017, Maryland and Ohio field tested the 78 KRA v2.0 items, in conjunction with their operational administrations of the KRA v1.5. The main goal of the field test in 2017 was to administer the 78 KRA v2.0 items simultaneously with the KRA v1.5, so that the KRA v2.0 items could be placed on the same scale. This additional year of field testing, analogous to an embedded field test model, allowed the KRA v2.0 items to be psychometrically scaled with the KRA v1.5 items, resulting in the development of multiple KRA v2.0 forms equated to the KRA v1.5 form.

Because of the structure of the KRA and unique administration requirements, the KRA v2.0 items were "appended" to the existing KRA (i.e., KRA 1.5), in lieu of the typical embedded field test model. After the fall 2017 administration, the 78 KRA v2.0 items were scaled with the KRA v1.5 items, allowing two new KRA v2.0 forms (i.e., KRA v2.0 Forms A and B) to be equated to each other and to the KRA v1.5. This pre-equating process allowed for comparable and continuous use of the scoring scale across all KRA forms, including the established cut scores and performance levels from the KRA v1.5, as described in the following table:

KRA 2.0—Performance Levels and Overall Scale Scores	
Performance Level	**Scale Score Range**
Demonstrating Readiness	270–298
Approaching Readiness	258–269
Emerging Readiness	202–257

Appendix A

Ready for Kindergarten: Maryland's Kindergarten Readiness Assessment

Common Language Standards Assessed

KRA 2.0 Blueprint

Common Language Standards

Domain	Strand	Code	**Standard** (yellow) **Essential Skill and Knowledge**	Learning Progression
Social Foundations (SF)	Social Emotional (1)	**SF.1.1**	**Recognize and identify emotions of self and others.**	Awareness and Expression of Emotion
		SF.1.1.A	Recognize and identify own emotions and the emotions of others.	
		SF.1.1.B	Express, understand, and respond to feelings (emotions) of self and others.	
		SF.1.1.C	Express concern for the needs of others and people in distress.	
		SF.1.2	**Look to adults for emotional support and guidance.**	Relationships with Adults
		SF.1.2.A	Separate from familiar adults in a familiar setting with minimal distress.	
		SF.1.2.B	Seek security and support from familiar adults in anticipation of challenging situations.	
		SF.1.2.C	Request and accept guidance from familiar adults.	
		SF.1.3	**Demonstrate ability to resolve conflicts with others.**	Conflict Resolution
		SF.1.3.A	Seek adult help when solving interpersonal conflicts.	
		SF.1.3.B	With modeling and support, negotiate to resolve social conflicts with peers.	
	Approaches to Learning / Executive Functioning (2)	**SF.2.1**	**Manage the expression of feelings, thoughts, impulses, and behaviors.**	Self Control
		SF.2.1.A	Refrain from demonstrating disruptive or defiant behaviors.	
		SF.2.1.B	Demonstrate appropriate use of own materials or belongings and those of others.	
		SF.2.1.C	Demonstrate the ability to delay gratification for short periods of time.	
		SF.2.2	**Demonstrate the ability to persist with a task.**	Persistence
		SF.2.2.A	Carry out tasks, activities, projects, or transitions, even when frustrated or challenged, with minimal distress.	
		SF.2.2.B	Focus on an activity with deliberate concentration despite distractions and/or temptations.	
		SF.2.3	**Demonstrate the ability to retain and apply information.**	Working Memory
		SF.2.3.A	Follow routines and multi-step directions.	
		SF.2.3.B	Remember and use information for a variety of purposes, with modeling and support.	
		SF.2.3.C	Use prior knowledge and information to assess, inform, and plan for future actions and learning.	
		SF.2.4	**Demonstrate the ability to solve problems.**	Problem Solving
		SF.2.4.A	Solve everyday problems based upon past experience.	
		SF.2.4.B	Solve problems by planning and carrying out a sequence of actions.	
		SF.2.4.C	Seek more than one solution to a question, problem, or task.	
		SF.2.4.D	Explain reasoning for the solution selected.	
		SF.2.5	**Seek and gather new information to plan for projects and activities.**	Initiative
		SF.2.5.A	Express a desire to learn by asking questions and seeking new information.	
		SF.2.5.B	Demonstrate independence in learning by planning and initiating projects.	
		SF.2.5.C	Seek new and varied experiences and challenges (take risks).	
		SF.2.5.D	Demonstrate self-direction while participating in a range of activities and routines.	
		SF.2.6	**Demonstrate cooperative behavior in interactions with others.**	Cooperation with Peers
		SF.2.6.A	Play or work with others cooperatively.	
		SF.2.6.B	Interact with peers in complex pretend play, including planning, coordination of roles, and cooperation.	
		SF.2.6.C	Demonstrate socially competent behavior with peers.	
		SF.2.6.D	Share materials and equipment with other children, with adult modeling and support.	

Common Language Standards

Domain	Strand	Code	**Standard** (yellow) **Essential Skill and Knowledge**	Learning Progression
Language and Literacy (LL)	Reading (1)	**LL.1.1**	**Comprehend and respond to interactive read-alouds of literary and informational text.**	Story/Text Comprehension
		LL.1.1.A	Before interactive read-alouds, make predictions and/or ask questions about the text by examining the title, cover, illustrations/photographs, graphic aids, and/or text.	
		LL.1.1.B	During interactive read-alouds, listen and ask and answer questions as appropriate.	
		LL.1.1.C	After interactive read-alouds, respond by retelling the text or part of the text in an appropriate sequence, using discussions, re-enactment, drawing, and/or writing as appropriate.	
		LL.1.1.D	Identify the beginning, middle, and end of literary text.	
		LL.1.1.E	Identify the main topic of informational text.	
		LL.1.2	**Demonstrate understanding of spoken words and sounds (phonemes).**	Phonological Awareness
		LL.1.2.A	Identify initial and final sounds in spoken words.	
		LL.1.2.B	Identify, blend, and segment syllables in spoken words.	
		LL.1.2.C	Blend and segment onsets and rimes of single-syllable spoken words.	
		LL.1.2.D	Recognize rhyming words in spoken language.	
		LL.1.3	**Know and apply letter-sound correspondence and letter recognition skills.**	Phonics and Letter Recognition
		LL.1.3.A	Recognize that words are made up of letters and their sounds.	
		LL.1.3.B	Demonstrate basic knowledge of one-to-one letter-sound correspondences by producing the most frequent sound for some consonants.	
		LL.1.3.C	Recognize and name some upper- and lowercase letters.	
		LL.1.4	**Demonstrate understanding of concepts about print.**	
		LL.1.4.A	Recognize words as a unit of print and that letters are grouped to form words.	
		LL.1.4.B	Demonstrate how print is read (e.g. left to right, top to bottom, front to back).	
	Speaking and Listening (2)	**LL.2.1**	**Communicate effectively in a variety of situations with different audiences, purposes, and formats.**	Communication
		LL.2.1.A	Speak or express thoughts, feelings, and ideas clearly enough to be understood in a variety of settings.	
		LL.2.1.B	Participate in conversations with adults and peers, staying on topic through multiple exchanges and adding appropriate ideas to support or extend the conversation.	
	Writing (3)	**LL.3.1**	**Produce letter-like shapes, symbols, letters, and words to convey meaning.**	Emergent Writing
		LL.3.1.A	With modeling and support, print letters of own name.	
		LL.3.1.B	With modeling and support, print meaningful words with letters and letter approximations.	
		LL.3.1.C	Use a combination of drawing, dictating and developmentally appropriate writing for a variety of purposes (e.g., tell a story, give an opinion, express ideas).	
	Language (4)	**LL.4.1**	**Demonstrate beginning understanding of the conventions of standard English grammar and usage when engaged in literacy activities.**	Grammar
		LL.4.1.A	Use familiar nouns and verbs to describe persons, animals, places, events, actions, etc.	
		LL.4.1.B	Develop understanding of singular and plural nouns (e.g. "dog" means one dog, "dogs" means more than one dog); form regular plural nouns orally by adding /s/ or /es/.	
		LL.4.1.C	Understand and begin to use question words.	
		LL.4.1.D	Use frequently occurring prepositions (e.g., "to," "from," "in," "out," "on," "off," "for," "of," "by," "with").	
		LL.4.1.E	Produce complete sentences in shared language activities.	
		LL.4.2	**Use words acquired through conversations and shared reading experiences.**	Vocabulary
		LL.4.2.A	Identify real-life connections between words and their uses (e.g., relate the word "helpful," used in a story, to own life by telling ways to be helpful).	
		LL.4.2.B	Determine the meanings of unknown words/concepts using the context of conversations, pictures that accompany text, or concrete objects.	
		LL.4.2.C	Use words for objects, actions, and attributes that reflect variety, specificity, and complexity.	

Domain	Strand	Code	**Standard** (yellow) **Essential Skill and Knowledge**	Learning Progression
Mathematics (MA)	Counting and Cardinality (1)	**MA.1.1**	**Know number name, count sequence, and relationships among number, numeral, and quantity.**	Number Sense
		MA.1.1.A	Count the number sequence to 20.	
		MA.1.1.B	Touch each concrete object as it is counted, pairing one number word with each object and saying each number word only once in consistent order.	
		MA.1.1.C	Use number cards arranged in a line to count and then determine what number comes before or after a specific number.	
		MA.1.1.D	Identify, without counting, small quantities of items (1–3) presented in an irregular or unfamiliar pattern (subitize).	
		MA.1.1.E	Recognize that the count remains the same regardless of the order or arrangement of the objects.	
		MA.1.1.F	Demonstrate understanding that the last number spoken tells the number of objects counted; respond correctly when asked “how many” after counting concrete objects.	
		MA.1.1.G	Name written numerals and pair them with concrete objects.	
	Operations and Algebraic Thinking (2)	**MA.2.1**	**Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**	Number Operations
		MA.2.1.A	Solve simple addition and subtraction problems with totals less than 5, using concrete objects.	
		MA.2.1.B	Use manipulatives to find the amount needed to complete the set.	
		MA.2.1.C	Manipulate sets to decompose numbers (e.g., 1 and 4 objects equal 5 objects; 2 and 3 objects equal 5 objects).	
	Measurement and Data (3)	**MA.3.1**	**Sort, classify, and compare objects.**	Classification
		MA.3.1.A	Using prior knowledge of grouping, sort objects by one attribute (e.g., “red or not red,” “round or not round,” or creating a set of “all red” or “all round” objects).	
		MA.3.1.B	Sort multiple groups by one attribute (e.g., “all blue, all red, all yellow” or “all bears, all cats, all dogs”).	
		MA.3.1.C	Identify the attribute by which objects are sorted.	
		MA.3.1.D	Count to identify the number of objects in each set, and compare categories using comparison vocabulary (e.g., "greater"/"more than," "less than," "same"/"equal to").	
		MA.3.2	**Describe and compare measurable attributes.**	Measurement
		MA.3.2.A	Directly compare and describe two objects with a measurable attribute (e.g., length, size, capacity and weight) in common, using words such as "longer"/"shorter," "heavier"/"lighter," or "taller"/"shorter."	
		MA.3.2.B	Order objects by measurable attribute (e.g., biggest to smallest).	
		MA.3.2.C	Measure length and volume (capacity) using non-standard measurement tools.	
	Geometry (4)	**MA.4.1**	**Describe two- and three-dimensional shapes.**	Shapes
		MA.4.1.A	Match similar shapes when given a variety of two- and three-dimensional shapes.	
		MA.4.1.B	Use names of two-dimensional shapes (e.g., square; triangle; circle) when identifying objects.	
		MA.4.1.C	Distinguish examples and non-examples of various two- and three-dimensional shapes.	
		MA.4.1.D	Use informal language to describe three-dimensional shapes (e.g., "box" for cube; "ball" for sphere; "can" for cylinder).	
Science (SC)	Skills and Processes / Life Science (1)	**SC.1.1**	**Construct knowledge of life science through questioning and observation.**	Inquiry and Observation
		SC.1.1.A	Raise questions about the world around them and be willing to seek answers to some of them by making careful observations and trying things out.	
		SC.1.1.B	Use evidence from investigations to describe observable properties of a variety of objects.	

Domain	Strand	Code	**Standard** (yellow) **Essential Skill and Knowledge**	Learning Progression
Social Studies (SS)	Government (1)	**SS.1.1**	**Demonstrate understanding of rules and responsible behavior.**	Responsible Behavior
		SS.1.1.A	Identify rules used at home and at school.	
		SS.1.1.B	Explain how rules promote order, safety, and fairness.	
	History (2)	**SS.2.1**	**Demonstrate an understanding of past, present, and future in the context of daily experiences.**	Events in the Context of Time
		SS.2.1.A	Describe the events of the day (things that have happened in the immediate past, that happen in the present, and that might happen in the future) using terms such as "morning"/"afternoon" and "night"/"day."	
		SS.2.1.B	Communicate about past events and anticipate what comes next during familiar routines and experiences.	
Physical Well-Being and Motor Development (PD)	Physical Education (1)	**PD.1.1**	**Demonstrate the ability to use large muscles to perform a variety of physical skills.**	Coordination–Large Motor
		PD.1.1.A	Show fundamental movement by demonstrating spatial concepts in movement patterns.	
		PD.1.1.B	Demonstrate locomotor skills with control, coordination, and balance during active play (e.g., running, hopping, jumping).	
		PD.1.1.C	Demonstrate coordination in using objects during active play (e.g., throwing, catching, kicking balls, riding tricycle).	
		PD.1.1.D	Use non-locomotor skills with control, balance, and coordination during active play (e.g., bending, stretching, and twisting).	
		PD.1.2	**Demonstrate the ability to use small muscles to perform fine motor skills in play and learning situations.**	Coordination–Small Motor
		PD.1.2.A	Coordinate the use of hands, fingers, and wrists to manipulate objects and perform tasks requiring precise movements.	
		PD.1.2.B	Use classroom and household tools independently with eye-hand coordination to carry out activities.	
		PD.1.2.C	Use a three-finger grasp of dominant hand to hold a writing tool.	
	Health (2)	**PD.2.1**	**Demonstrate the ability to apply prevention and intervention knowledge, skills, and processes to promote safe living, in the home, school, and community.**	Safety and Injury Prevention
		PD.2.1.A	With modeling and support, identify and follow basic safety rules.	
		PD.2.1.B	Identify ways adults help to keep us safe.	
		PD.2.1.C	With modeling and support, identify the consequences of unsafe behavior.	
		PD.2.1.D	With modeling and support, demonstrate ability to follow transportation and pedestrian safety rules.	
		PD.2.2	**Demonstrate personal health and hygiene practices.**	Personal Care Tasks
		PD.2.2.A	Independently complete personal care tasks (e.g., washing hands before eating and after toileting).	
		PD.2.2.B	Follow basic health practices (e.g., covering mouth/nose when coughing/sneezing).	

Common Language Standards

Domain	Strand	Code	**Standard** (yellow) **Essential Skill and**	Learning Progression
Fine Arts (FA)	**Music (1)**	**FA.1.1**	**Demonstrate awareness of and respond to the characteristics of musical sounds through voice, body movements, and class room instruments.**	**Music**
		FA.1.1.A	Listen and respond to repeated rhythmic patterns.	
		FA.1.1.B	Respond to changes heard in music: fast/slow, loud/soft, long/short, high /low.	
		FA.1.1.C	Sing songs that use the voice in a variety of ways.	
		FA.1.1.D	Demonstrate steady beat through singing, moving the body, or playing classroom instruments.	
		FA.1.1.E	Listen and respond to simple directions or verbal cues in singing games.	
	Visual Arts (2)	**FA.2.1**	**Identify, describe, experiment with, and create images and forms from observation, memory, imagination, and feelings.**	**Visual Arts**
		FA.2.1.A	Identify colors, lines, and shapes found in the environment and in works of art.	
		FA.2.1.B	Use colors, lines, and shapes to communicate ideas about the observed world.	
		FA.2.1.C	Explore and discuss how colors, lines, and shapes are used in artworks.	
		FA.2.1.D	Use colors, lines, and shapes to make artworks that express ideas and feelings.	
	Theater (3)	**FA.3.1**	**Use a variety of theatrical elements and conventions to demonstrate themes about life experiences, ideas, and feelings.**	**Theater**
		FA.3.1.A	Listen to and retells or performs nursery rhymes, finger plays, popular children's books/stories, and other media.	
		FA.3.1.B	Demonstrate themes and ideas about people and events through play.	
		FA.3.1.C	Create accompaniment to stories using natural and human-made sounds.	
	Dance (4)	**FA.4.1**	**Demonstrate knowledge of how elements of dance are used to communicate meaning.**	**Dance**
		FA.4.1.A	Demonstrate selected locomotor and non-locomotor movements that communicate ideas, thoughts, and feelings.	
		FA.4.1.B	Combine selected characteristics of the elements of dance, such as body parts and positions, shapes, levels, energy, fast and slow, and use of sensory stimuli to create movement.	
		FA.4.1.C	Reproduce movement demonstrated by the teacher.	

KRA 2.0 Blueprint

Domain	Strand	DA	OR	Total Items	Total Raw Points	Percentage of Total Raw Points
Social Foundations	Social Emotional		2	11	22	23%
	Approaches to Learning/Executive Functioning		8			
	Social Studies		1			
Language and Literacy	Reading	11	1	17	33	35%
	Speaking and Listening		1			
	Writing		1			
	Language	2	1			
Mathematics	Counting and Cardinality	4		13	22	23%
	Operations and Algebraic Thinking	2				
	Measurement and Data	5				
	Geometry	2				
Physical Well-Being and Motor Development	Physical Education		5	9	18	19%
	Health		4			
	Total	**26**	**24**	**50**	**95**	**100%**

DA = Direct Assessment (Selected Response and Performance Task) **OR** = Observational Rubrics

Appendix B

Definitions

Presentation of School Readiness Information

Definitions

- **Prior Care.** The categories of early care and education are considered as they impact on school readiness. Prior care reflects kindergarten students' enrollment within 12 months prior to starting kindergarten. The prior care types are as follows:

Informal Care	Care provided in a home by a relative or non-relative.
Head Start Program	A federal pre-school program for 3 to 5 year olds from low income families: funded by the U.S. Department of Health and Human Services and licensed by the Maryland Department of Education, Office of Child Care.
Prekindergarten in a public school	Public school prekindergarten education for four year old. Administration by local boards of education and regulated by the Maryland State Department of Education (MSDE) according to COMAR 13A.06.02 Prekindergarten Programs
Child Care Center	Child care provided in a facility, usually non-residential, for part or all of the day that provides care to children in the absence of a parent. The centers are licensed by the Maryland State Department of Education, Office of Child Care.
Family Child Care	Regulated care given to a child younger than 13 years old, in place of parental care for less than 24 hours, in a residence other than the child's residence and for which the provider is paid. Family child care is regulated by the Maryland State Department of Education, Office of Child Care.
Non-public Nursery Schools	Pre-school programs with an "education" focus for 2,3, or 4 year olds; approved or exempted by MSDE; usually part-day, nine months a year.

- **Student Groups.** The following categories of student groups are reported for the Kindergarten students.

    - **English Learners (EL).** Students who are not born in the United States (US) or whose native language is a language other than English or no age appropriate ability to understand, speak, read, or write English.
    - **Special Education.** Students with disabilities who receive special education services and have a current Individualized Education Plan (IEP).
    - **Free or Reduced Priced Meals.** Students whose applications meet family size and income guidelines for receiving free or reduced priced meals based on the United States Department of Agriculture (USDA) guidelines.

Kindergarten Readiness Assessment

Maryland State Data File Summary 2018-2019

Final Record Count for KRA Data File	***64,600***

Gender		
	Frequency	***Percent***
Male	33,230	51.44%
Female	31,370	48.56%

Ethnicity/Race†		
	Frequency	***Percent***
American Indian/Alaska Native	196	0.3%
Asian	4,262	6.6%
Black/African American	20,687	32.03%
Native Hawaiian/Other Pacific Islander	106	0.16%
White	23,277	36.04%
Hispanic/Latino	12,518	19.38%
Two or More Races (Non-Hispanic/Latino)	3,544	5.49%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	36,080	55.85%
Yes	28,520	44.15%

Special Education		
	Frequency	***Percent***
No	58,705	90.87%
Yes	5,895	9.13%

English Learners		
	Frequency	***Percent***
No	54,732	84.72%
Yes	9,868	15.28%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	2,384	3.84%
Prekindergarten	24,980	40.29%
Child Care Center	8,627	13.91%
Family Child Care	2,490	4.02%
Home/Informal Care	14,523	23.42%
Non-Public Nursery	8,219	13.26%
Repeated Kindergarten	780	1.26%

* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care and Ethnicity/Race percentages are based on the valid entries provided and may be less than the total number students.

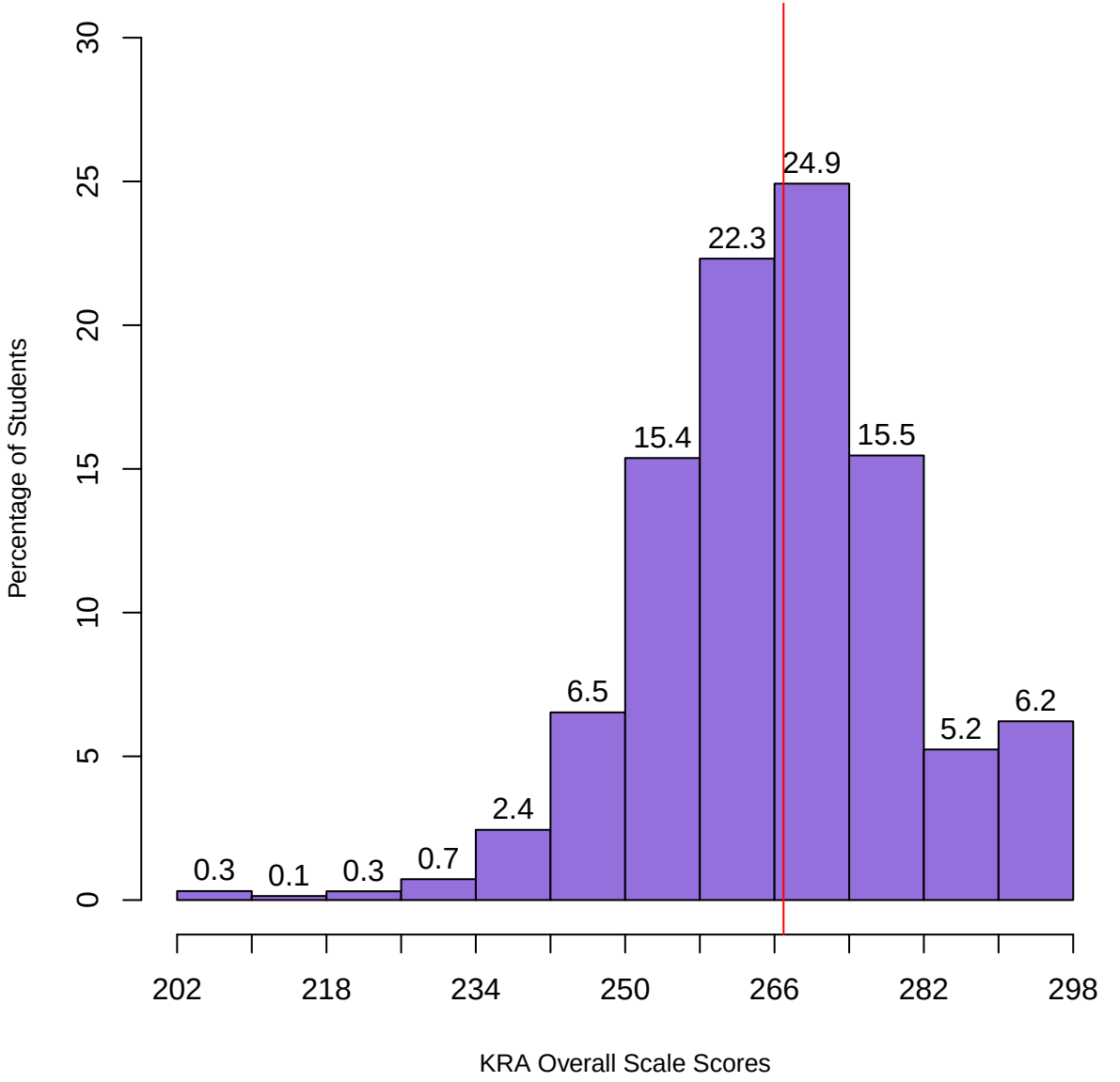
Weighted KRA Composite and Scale Scores for Maryland

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	271	272	274	278	272	57%	28%	15%
Black/African American	267	266	270	273	267	42%	36%	22%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	272	272	276	278	272	58%	29%	13%
Hispanic/Latino	261	261	269	272	263	29%	37%	34%
Two or More Races (Non-Hispanic/Latino)	271	270	274	276	271	53%	31%	16%
Gender								
Male	267	267	268	271	267	41%	34%	25%
Female	270	269	277	279	271	54%	31%	15%
Prior Care								
Head Start	264	263	269	272	264	32%	42%	26%
Prekindergarten	268	267	272	275	268	45%	35%	20%
Child Care Center	273	273	276	279	273	60%	31%	9%
Family Child Care	267	266	273	274	268	43%	33%	24%
Home/Informal Care	263	263	268	270	264	33%	33%	34%
Non-Public Nursery	277	277	280	282	277	71%	24%	5%
Special Education								
No	270	269	275	277	270	51%	33%	16%
Yes	258	258	256	260	257	19%	29%	52%
English Learners								
No	270	270	274	276	270	52%	31%	17%
Yes	259	258	266	270	261	22%	38%	40%
Free and Reduced Price Meals								
No	272	272	276	278	272	58%	29%	13%
Yes	264	263	269	272	264	33%	38%	29%
Aggregated Data	268	268	273	275	269	47%	33%	20%

*Too few students in this group for state reporting.

Overall Scale Score Distribution for Maryland (Unweighted)

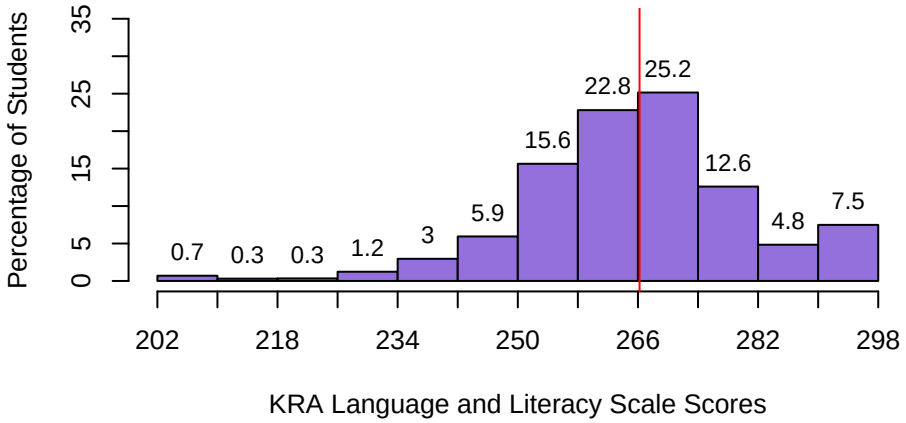
(The red line indicates the state's unweighted average score.)



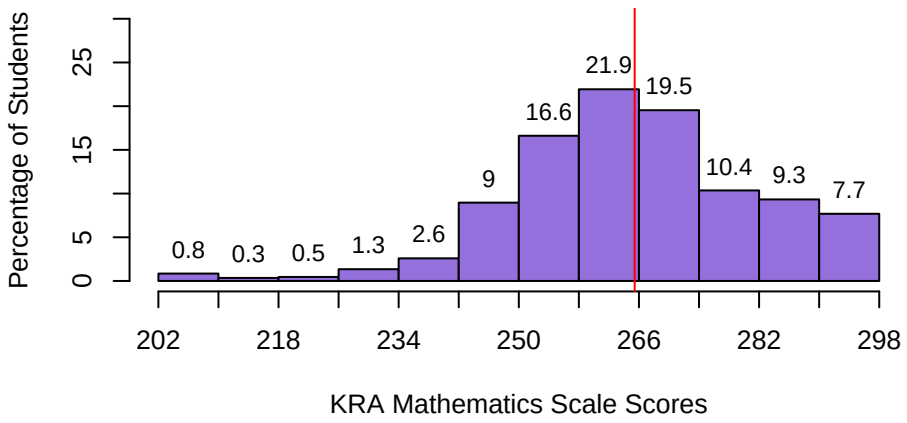
Domain Score Distributions for Maryland (Unweighted)

(The red line indicates the state's unweighted average score for a particular domain.)

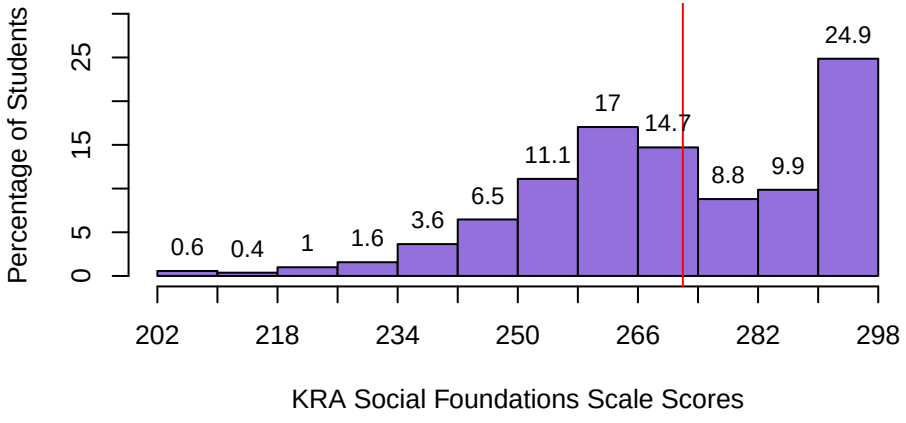
Language and Literacy



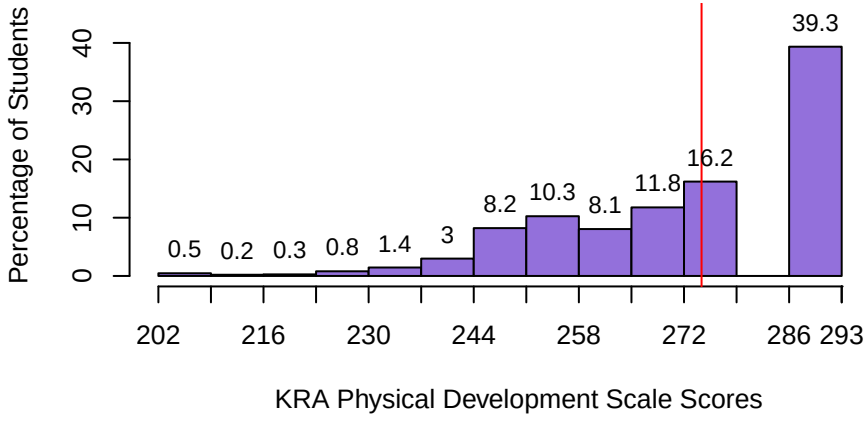
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Allegany County Data File Summary 2018-2019

Final Record Count for KRA Data File	***580***

Gender		
	Frequency	***Percent***
Male	293	50.52%
Female	287	49.48%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	3	0.52%
Asian	8	1.38%
Black/African American	19	3.28%
Native Hawaiian/Other Pacific Islander	0	0%
White	495	85.34%
Hispanic/Latino	12	2.07%
Two or More Races (Non-Hispanic/Latino)	43	7.41%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	156	26.9%
Yes	424	73.1%

Special Education		
	Frequency	***Percent***
No	500	86.21%
Yes	80	13.79%

English Learners		
	Frequency	***Percent***
No	580	100%
Yes	0	0%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	50	8.67%
Prekindergarten	389	67.42%
Child Care Center	21	3.64%
Family Child Care	14	2.43%
Home/Informal Care	71	12.31%
Non-Public Nursery	30	5.2%
Repeated Kindergarten	2	0.35%

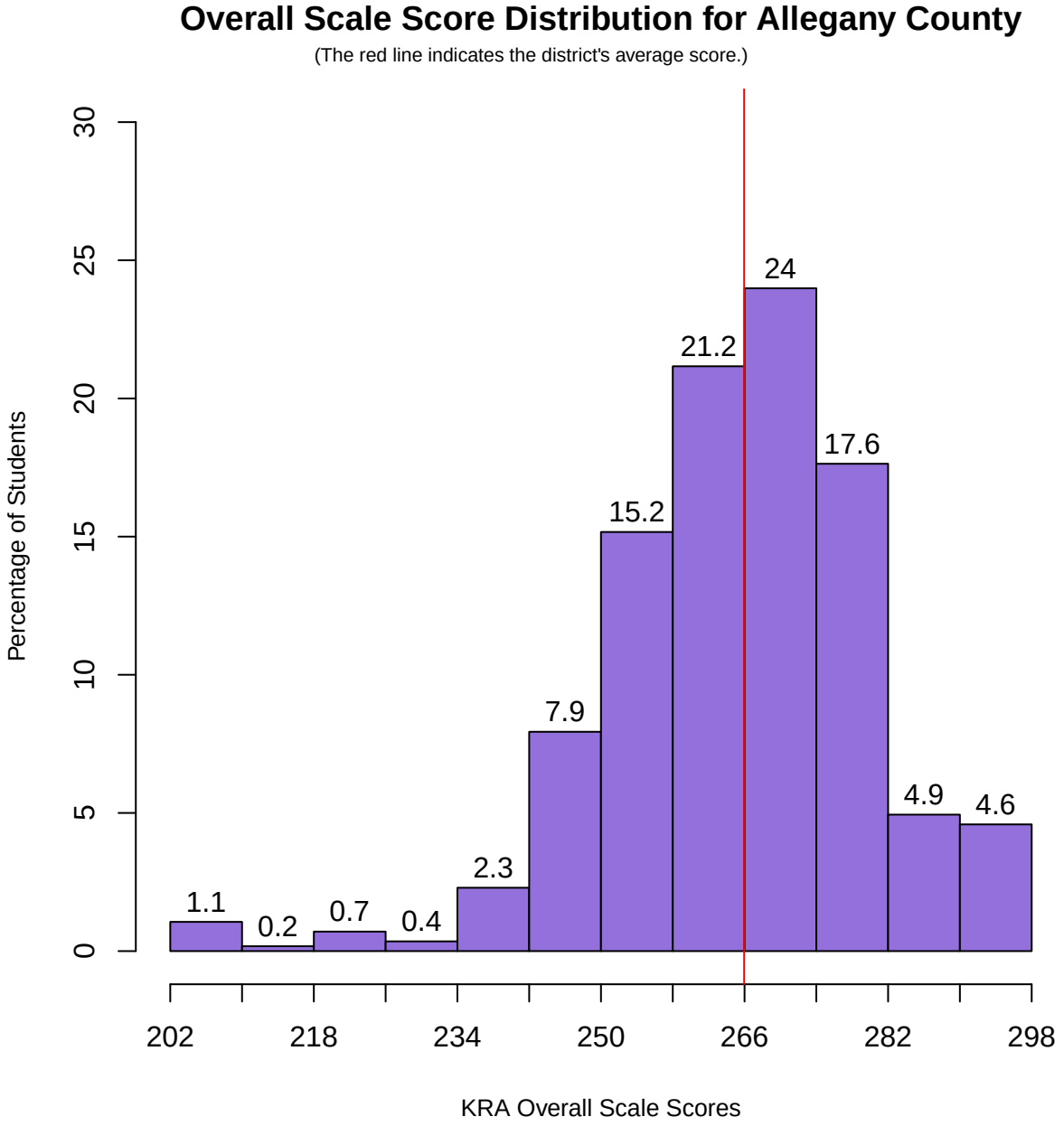
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Allegany County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	263.75	264.25	264	270.25	264.12	25%	37.5%	37.5%
Black/African American	259.88	264.29	272.65	274.94	264.12	47.1%	29.4%	23.5%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	265.47	265.32	272.14	271.83	266.3	42.4%	32.2%	25.4%
Hispanic/Latino	272.58	270.83	281.5	280.83	273.25	66.7%	33.3%	0%
Two or More Races (Non-Hispanic/Latino)	260.4	260.98	263.56	264.44	260.74	20.9%	44.2%	34.9%
Gender								
Male	262.87	263.16	266.53	267.08	263.30	35.1%	31.9%	33%
Female	267.29	267.08	276.76	276.09	268.65	47.5%	34.4%	18.1%
Prior Care								
Head Start	261.80	262.86	269.86	270.39	263.33	24.5%	46.9%	28.6%
Prekindergarten	266.85	266.44	273.64	273.44	267.64	49.2%	31%	19.8%
Child Care Center	261.29	262.86	268.95	271.67	263.24	23.8%	42.9%	33.3%
Family Child Care	257.69	257.85	264.31	265.38	259.85	23.1%	15.4%	61.5%
Home/Informal Care	256.70	257.41	261.81	260.64	257.39	10.1%	39.1%	50.7%
Non-Public Nursery	273.14	274.38	277.07	277.48	273.31	62.1%	20.7%	17.2%
Special Education								
No	267.24	267.45	274.52	274.34	268.22	45%	35.5%	19.5%
Yes	251.89	250.88	253.94	254.60	252.19	18.8%	18.8%	62.5%
English Learners								
No	265.07	265.11	271.62	271.56	265.96	41.3%	33.2%	25.6%
Yes	*	*	*	*	*	*	*	*
Free and Reduced Price Meals								
No	271.54	271.04	276.30	274.27	271.42	58.9%	25.8%	15.2%
Yes	262.73	262.96	269.92	270.57	263.98	34.9%	35.8%	29.3%
Aggregated Data	265.07	265.11	271.62	271.56	265.96	41.3%	33.2%	25.6%

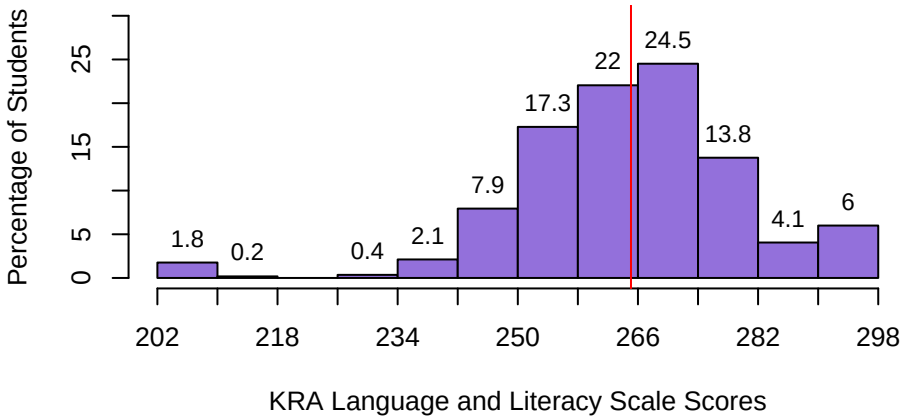
* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Allegany County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
1.1
0.2
0.7
0.4
2.3
7.9
15.2
21.2
24
17.6
4.9
4.6
202
218
234
250
266
282
298
KRA Overall Scale Scores

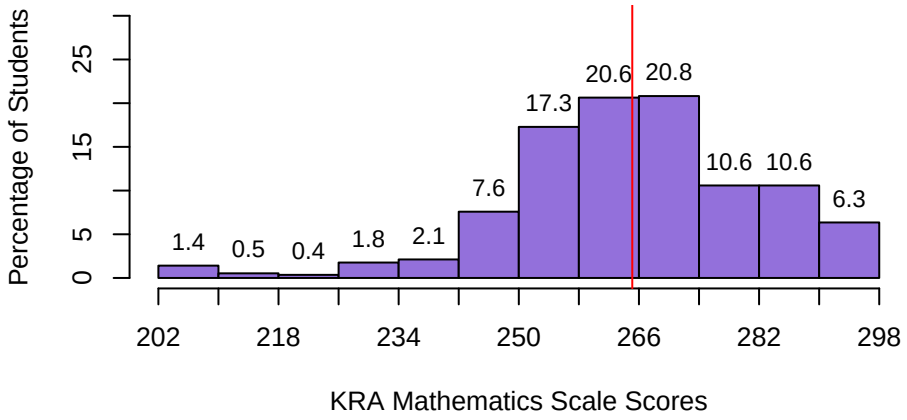
Domain Score Distributions for Allegany County

(The red line indicates the district's average score for a particular domain.)

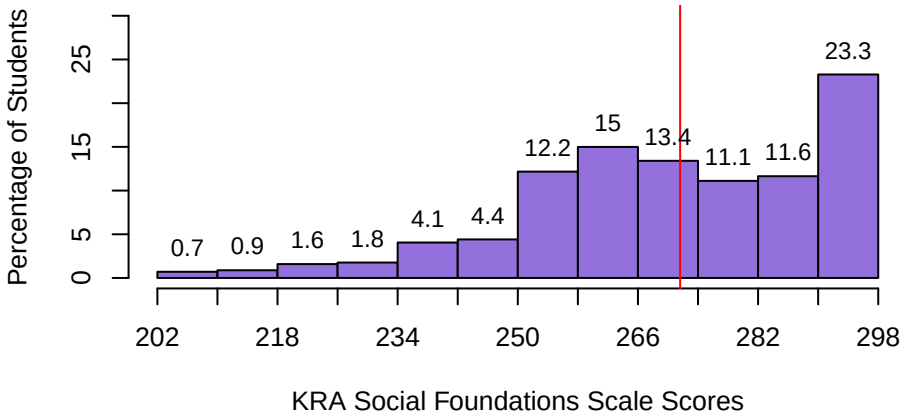
Language and Literacy



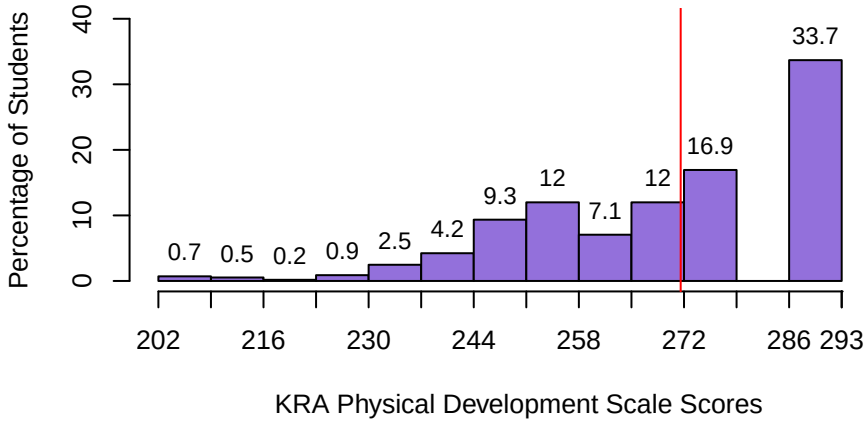
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Anne Arundel County Data File Summary 2018-2019

Final Record Count for KRA Data File (21% Sample of Enrolled Kindergartners)	***1,295***

Gender		
	Frequency	***Percent***
Male	677	52.28%
Female	618	47.72%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	2	0.15%
Asian	57	4.4%
Black/African American	249	19.23%
Native Hawaiian/Other Pacific Islander	4	0.31%
White	671	51.81%
Hispanic/Latino	219	16.91%
Two or More Races (Non-Hispanic/Latino)	93	7.18%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	839	64.79%
Yes	456	35.21%

Special Education		
	Frequency	***Percent***
No	1,161	89.65%
Yes	134	10.35%

English Learners		
	Frequency	***Percent***
No	1,142	88.19%
Yes	153	11.81%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	29	2.62%
Prekindergarten	339	30.68%
Child Care Center	213	19.28%
Family Child Care	61	5.52%
Home/Informal Care	192	17.38%
Non-Public Nursery	263	23.8%
Repeated Kindergarten	8	0.72%

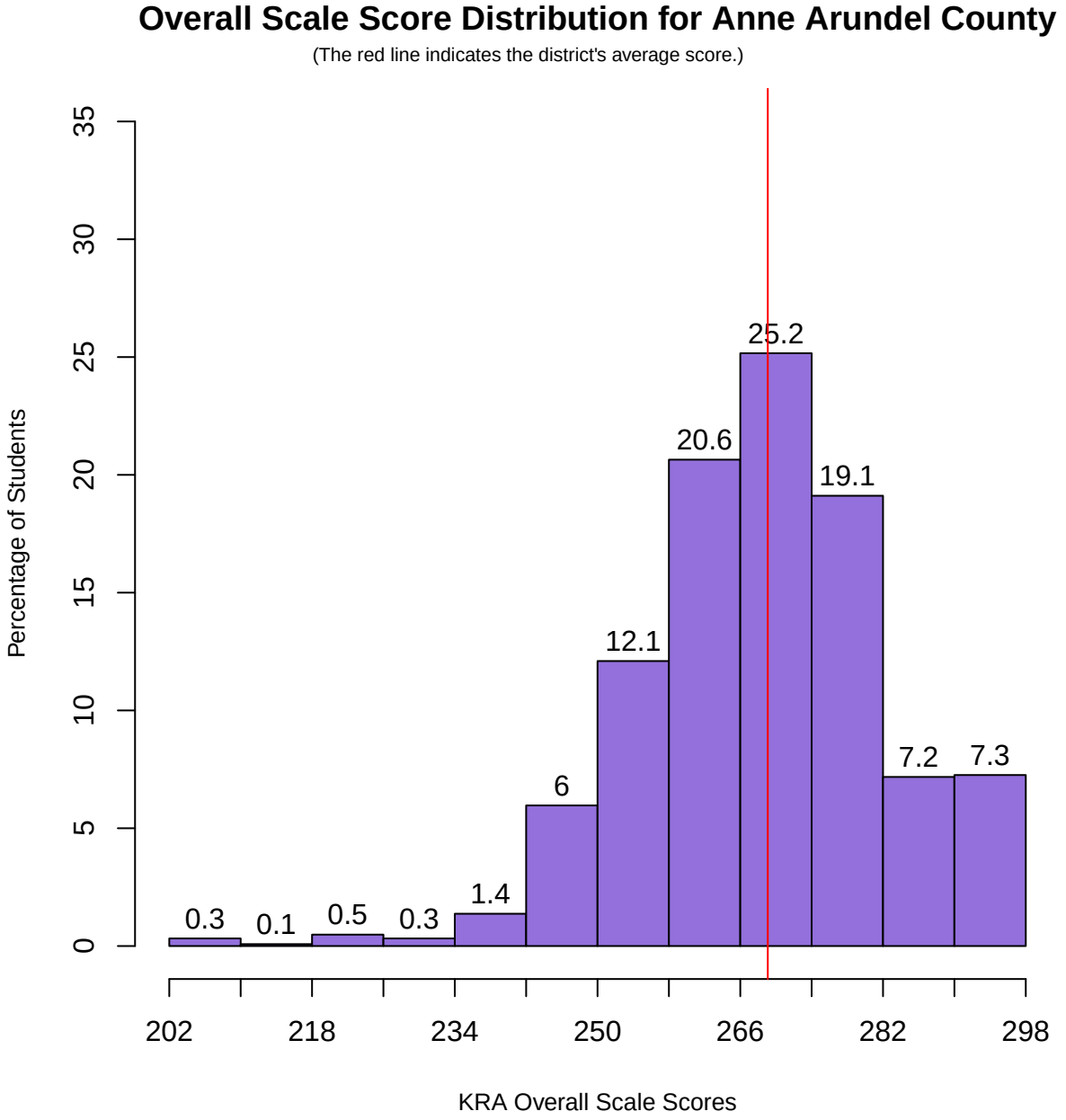
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Anne Arundel County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	268.39	269.2	274.55	278.23	269.95	50%	35.7%	14.3%
Black/African American	266.64	262.85	269.97	272.83	265.92	39.8%	38.1%	22%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	271.09	270.55	276.02	277.51	271.42	56.7%	29.2%	14.1%
Hispanic/Latino	262.48	262.04	270.89	272.73	264.27	29.3%	42.9%	27.8%
Two or More Races (Non-Hispanic/Latino)	271.21	269.3	275.02	276.43	271.18	54.4%	27.8%	17.8%
Gender								
Male	266.83	266.40	269.37	271.68	266.65	41.7%	34%	24.3%
Female	270.77	268.72	278.85	280.31	271.82	55.9%	32.8%	11.3%
Prior Care								
Head Start	262.41	262.34	267.34	267.21	263.03	24.1%	37.9%	37.9%
Prekindergarten	266.67	265.50	271.52	273.90	267.15	42.5%	36.1%	21.4%
Child Care Center	271.48	269.92	273.79	277.61	270.99	51.9%	34.5%	13.6%
Family Child Care	268.48	266.25	273.55	276.68	268.88	53.3%	23.3%	23.3%
Home/Informal Care	263.26	263.13	268.45	269.91	264.04	37.8%	33.3%	28.9%
Non-Public Nursery	275.18	273.31	280.13	282.18	275.11	66.7%	28.7%	4.6%
Special Education								
No	270.11	269.01	276.07	277.89	270.70	51.7%	34.6%	13.6%
Yes	256.06	254.02	253.94	256.69	254.66	18.4%	23.2%	58.4%
English Learners								
No	269.83	268.69	274.47	276.19	269.99	51.2%	32.8%	16%
Yes	260.26	258.65	269.15	272.50	262.33	27.2%	38.8%	34%
Free and Reduced Price Meals								
No	271.69	270.43	276.67	278.11	271.85	57.1%	30.2%	12.7%
Yes	263.02	261.95	268.49	271.30	263.86	31.9%	39.6%	28.4%
Aggregated Data	268.69	267.50	273.84	275.75	269.09	48.4%	33.5%	18.1%

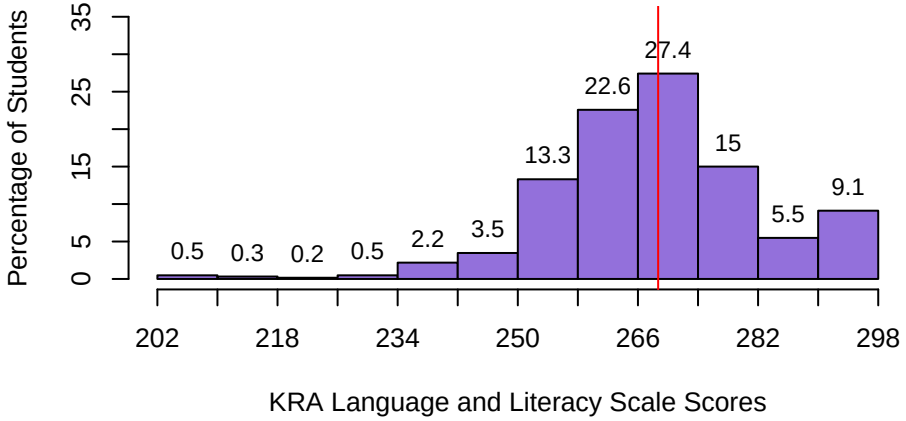
* Fewer than 25 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Anne Arundel County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
35
0.3
0.1
0.5
0.3
1.4
6
12.1
20.6
25.2
19.1
7.2
7.3
202
218
234
250
266
282
298
KRA Overall Scale Scores

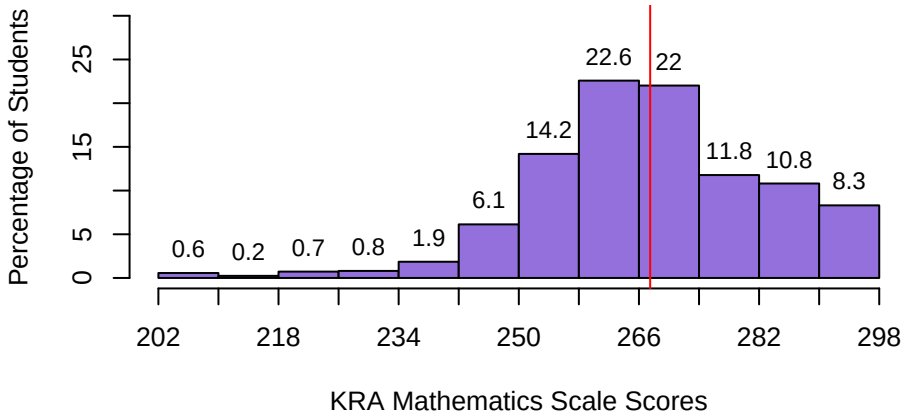
Domain Score Distributions for Anne Arundel County

(The red line indicates the district's average score for a particular domain.)

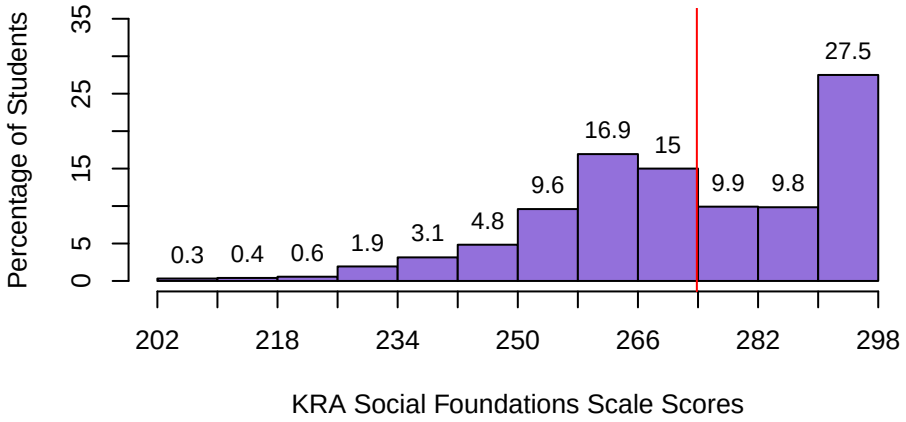
Language and Literacy



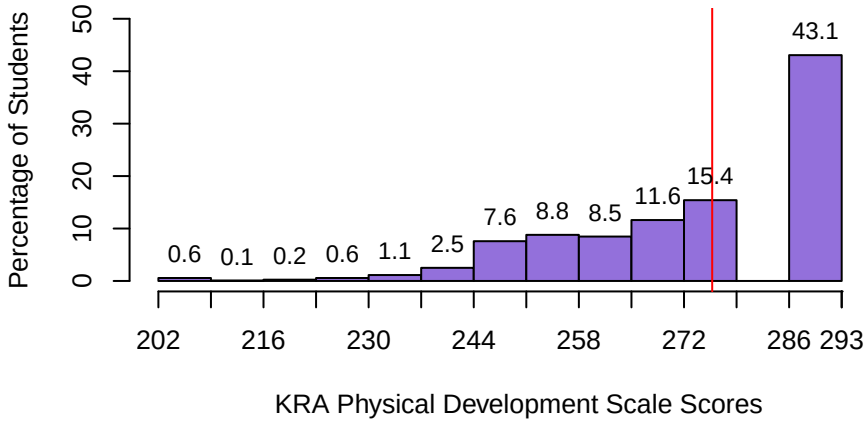
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Baltimore City Data File Summary 2018-2019

Final Record Count for KRA Data File	***6,242***

Gender		
	Frequency	***Percent***
Male	3,161	50.64%
Female	3,081	49.36%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	12	0.19%
Asian	49	0.79%
Black/African American	4,684	75.04%
Native Hawaiian/Other Pacific Islander	14	0.22%
White	558	8.94%
Hispanic/Latino	797	12.77%
Two or More Races (Non-Hispanic/Latino)	128	2.05%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	2,425	38.85%
Yes	3,817	61.15%

Special Education		
	Frequency	***Percent***
No	5,731	91.81%
Yes	511	8.19%

English Learners		
	Frequency	***Percent***
No	5,637	90.31%
Yes	605	9.69%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	471	8.22%
Prekindergarten	4,000	69.78%
Child Care Center	143	2.49%
Family Child Care	60	1.05%
Home/Informal Care	723	12.61%
Non-Public Nursery	89	1.55%
Repeated Kindergarten	246	4.29%

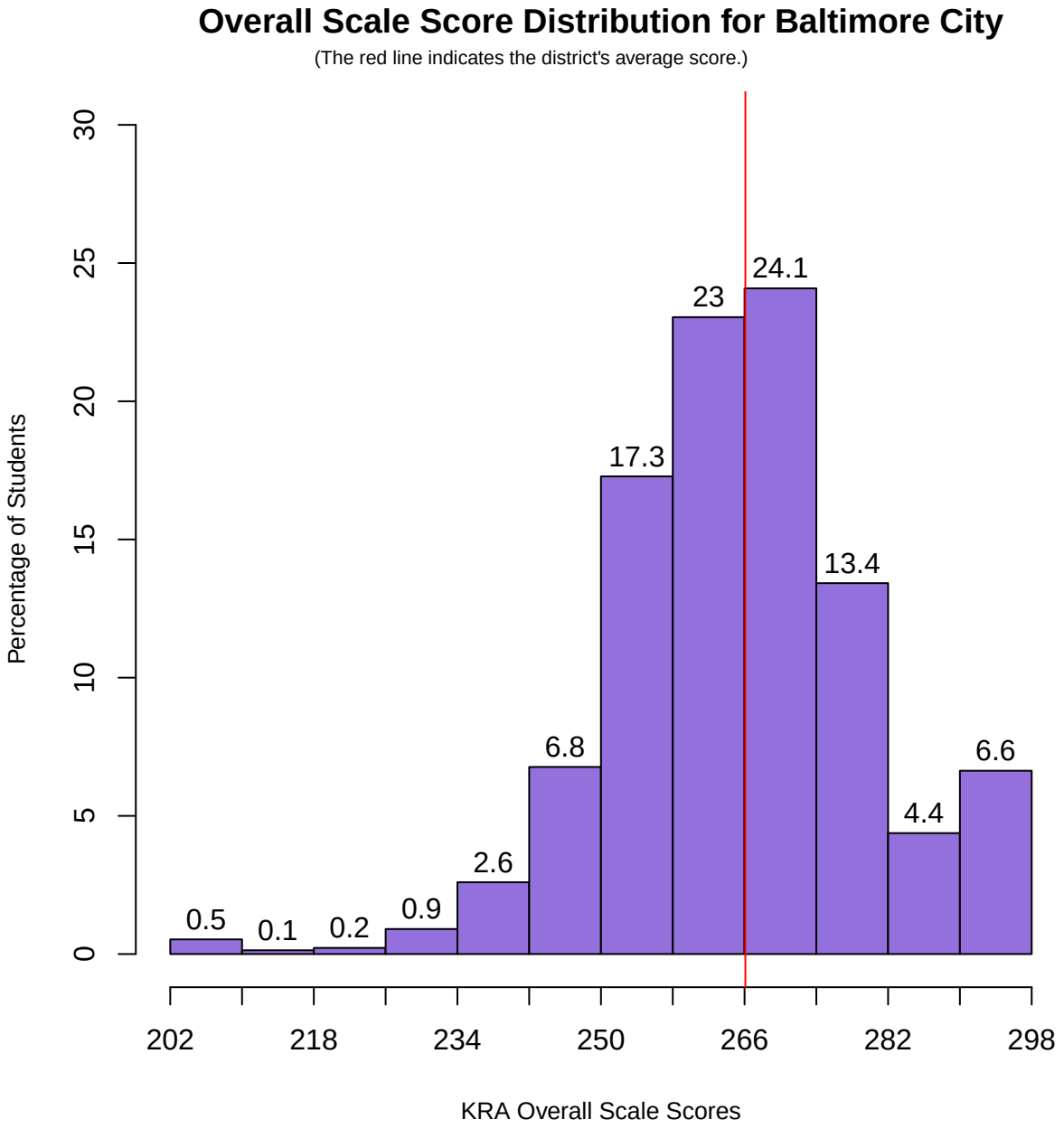
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Baltimore City

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	266.25	264.50	271.00	274.75	266.42	33.3%	50%	16.7%
Asian	272.43	273.04	283.62	280.64	275.09	70.2%	17%	12.8%
Black/African American	265.97	264.17	270.03	272.89	265.94	37.6%	37.2%	25.1%
Native Hawaiian/Other Pacific Islander	253.50	259.50	260.93	267.71	258.64	21.4%	35.7%	42.9%
White	272.13	272.31	277.31	278.80	272.74	60.8%	24.9%	14.3%
Hispanic/Latino	258.40	256.47	270.47	272.60	261.10	26.4%	36.4%	37.2%
Two or More Races (Non-Hispanic/Latino)	270.04	269.93	276.88	279.01	271.33	56.2%	26.4%	17.4%
Gender								
Male	264.45	263.50	266.89	270.01	264.27	33.7%	35.8%	30.5%
Female	266.87	264.67	275.17	277.22	267.96	44.2%	35.5%	20.4%
Prior Care								
Head Start	262.36	261.12	266.87	270.20	262.73	26.4%	41.8%	31.7%
Prekindergarten	268.11	266.31	273.14	275.61	268.25	44.9%	35.8%	19.3%
Child Care Center	267.21	265.77	272.81	276.10	267.65	41.9%	42.6%	15.4%
Family Child Care	259.81	257.17	267.35	268.94	260.46	23.1%	34.6%	42.3%
Home/Informal Care	255.46	254.31	263.23	265.74	257.54	17.8%	30.7%	51.5%
Non-Public Nursery	272.22	272.00	276.99	280.13	272.66	62.8%	18.6%	18.6%
Special Education								
No	266.53	264.92	272.42	275.05	267.10	41.1%	36.1%	22.8%
Yes	255.68	254.68	254.80	256.94	254.83	13.8%	30.1%	56.1%
English Learners								
No	266.77	265.21	271.32	273.91	266.90	40.9%	35.7%	23.4%
Yes	255.52	253.87	267.90	270.53	258.80	20.3%	35.4%	44.3%
Free and Reduced Price Meals								
No	267.84	266.26	274.08	275.93	268.53	46.9%	31.9%	21.2%
Yes	264.22	262.67	268.98	272.04	264.52	33.7%	38%	28.3%
Aggregated Data	265.64	264.08	270.98	273.57	266.09	38.9%	35.6%	25.5%

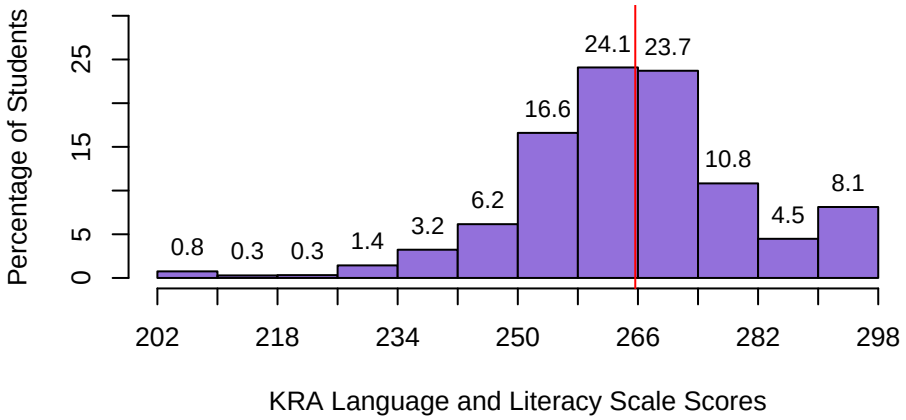
* The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Baltimore City
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
0.5
0.1
0.2
0.9
2.6
6.8
17.3
23
24.1
13.4
4.4
6.6
202
218
234
250
266
282
298
KRA Overall Scale Scores

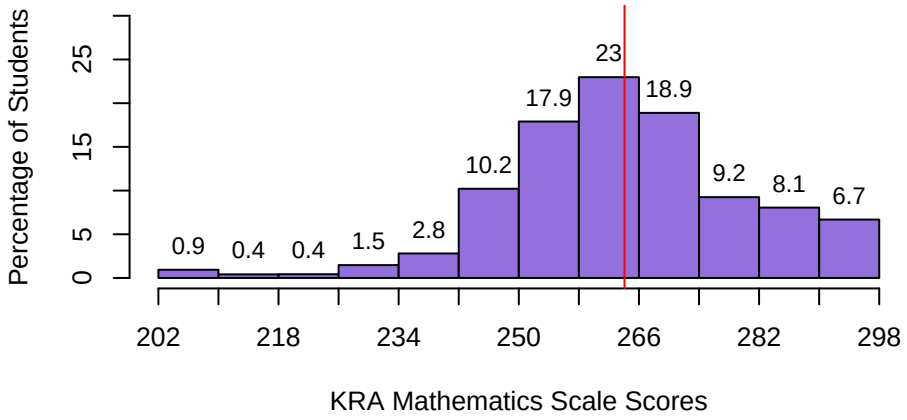
Domain Score Distributions for Baltimore City

(The red line indicates the district's average score for a particular domain.)

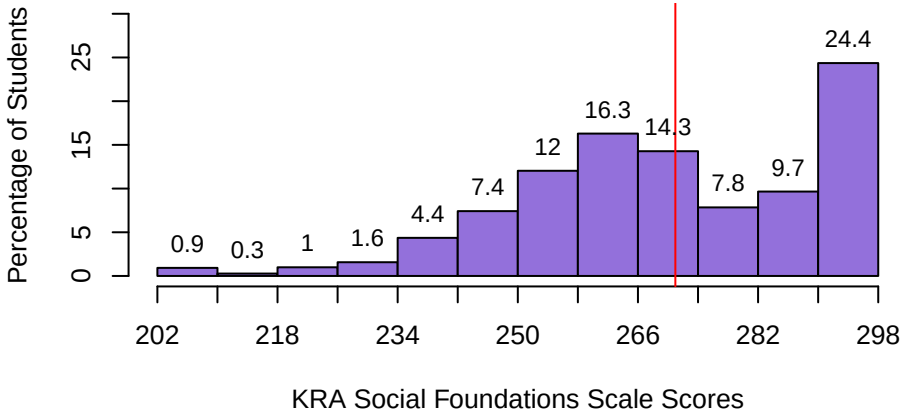
Language and Literacy



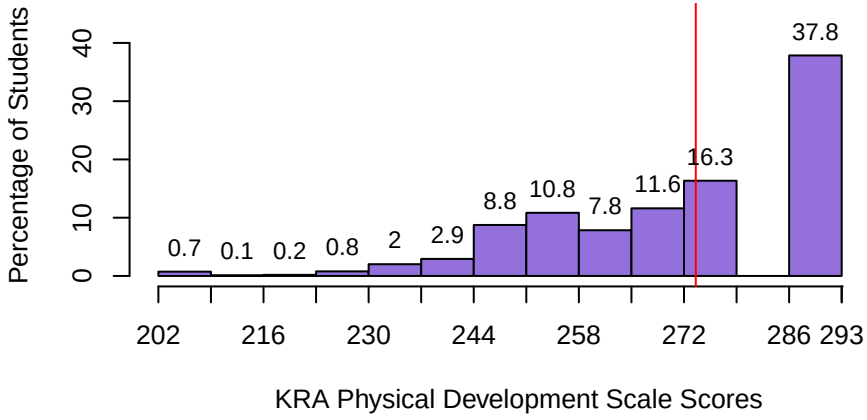
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Baltimore County Data File Summary 2018-2019

Final Record Count for KRA Data File (20% Sample of Enrolled Kindergartners)	***1,678***

Gender		
	Frequency	***Percent***
Male	863	51.43%
Female	815	48.57%
Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	7	0.42%
Asian	146	8.7%
Black/African American	573	34.15%
Native Hawaiian/Other Pacific Islander	1	0.06%
White	652	38.86%
Hispanic/Latino	196	11.68%
Two or More Races (Non-Hispanic/Latino)	103	6.14%
Free & Reduced Priced Meals		
	Frequency	***Percent***
No	944	56.26%
Yes	734	43.74%
Special Education		
	Frequency	***Percent***
No	1,463	87.19%
Yes	215	12.81%
English Learners		
	Frequency	***Percent***
No	1,514	90.23%
Yes	164	9.77%
Predominant Prior Care†		
	Frequency	***Percent***
Head Start	49	2.93%
Prekindergarten	837	50.03%
Child Care Center	276	16.5%
Family Child Care	78	4.66%
Home/Informal Care	181	10.82%
Non-Public Nursery	227	13.57%
Repeated Kindergarten	25	1.49%

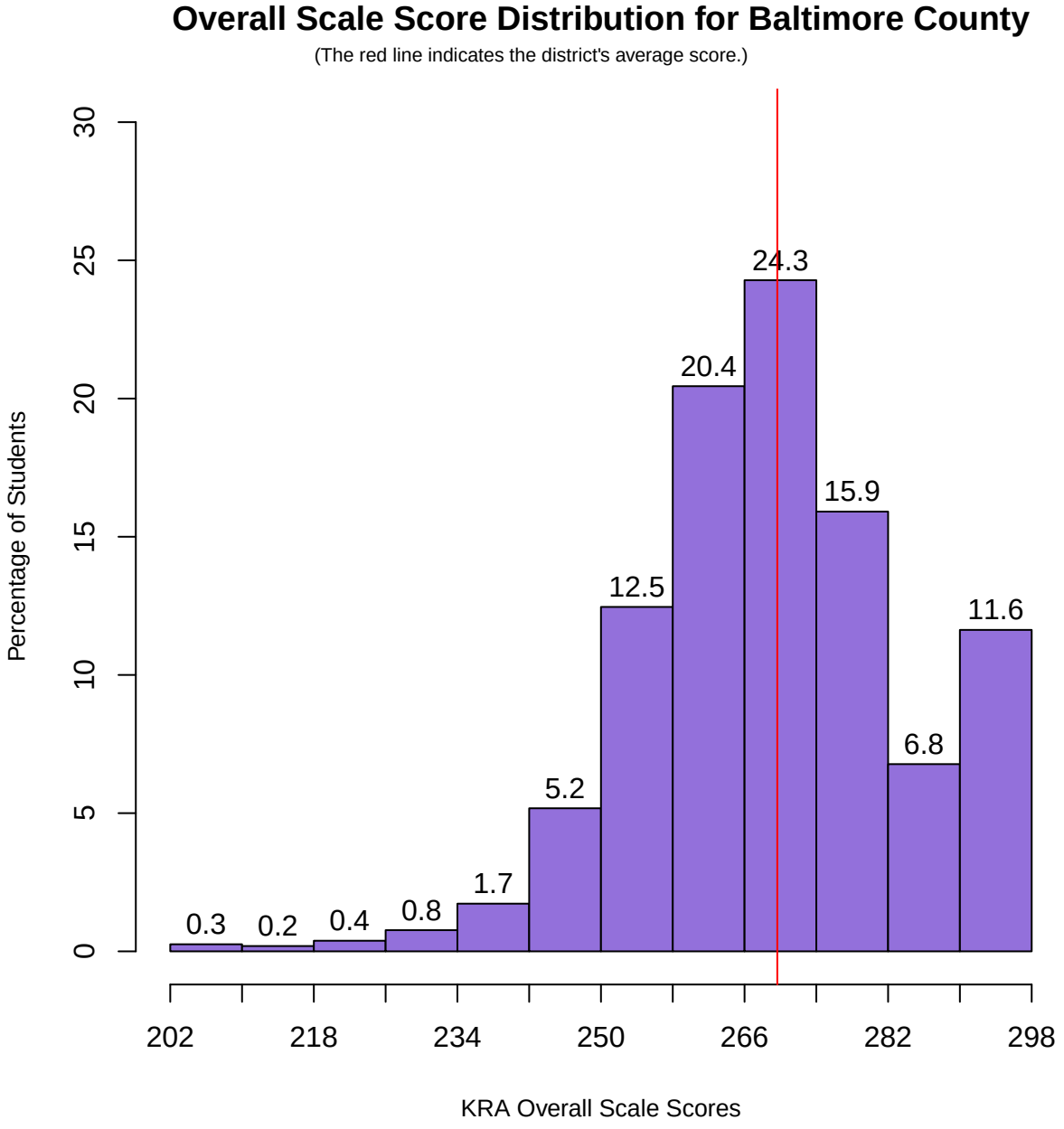
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Baltimore County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	268.03	267.98	269.9	274.44	268.13	46.7%	32.6%	20.7%
Black/African American	268.87	267.38	268.44	271.82	267.53	43.2%	36.9%	19.9%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	274.18	275.57	276.12	278.4	274.26	63.7%	24.9%	11.4%
Hispanic/Latino	260.55	260.29	265.54	269.92	261.97	23%	38%	39%
Two or More Races (Non-Hispanic/Latino)	270.11	268.21	271.27	272.76	269.26	50%	29.2%	20.8%
Gender								
Male	268.15	268.27	266.27	269.57	266.78	41.4%	34.1%	24.5%
Female	271.83	271.51	276.91	279.67	272.71	57.9%	29.2%	12.9%
Prior Care								
Head Start	269.14	268.10	270.07	272.93	267.74	38.1%	52.4%	9.5%
Prekindergarten	267.97	267.15	268.94	272.29	267.28	43.4%	35%	21.6%
Child Care Center	276.51	276.15	278.12	280.09	275.93	71.3%	19.9%	8.8%
Family Child Care	266.67	269.11	271.96	274.75	268.37	44%	32%	24%
Home/Informal Care	259.92	261.09	263.47	267.13	261.10	21.7%	40%	38.3%
Non-Public Nursery	279.28	280.34	280.49	282.72	279.35	73.6%	22.7%	3.7%
Special Education								
No	271.45	271.26	273.76	276.53	271.34	53%	32.2%	14.8%
Yes	258.46	259.01	253.65	258.73	256.81	22%	28%	50%
English Learners								
No	271.43	271.24	272.39	275.19	270.86	53.2%	31.1%	15.7%
Yes	256.52	257.28	262.72	267.97	258.80	15.3%	36.9%	47.8%
Free and Reduced Price Meals								
No	273.72	274.24	275.08	277.55	273.48	61.5%	24.5%	13.9%
Yes	265.13	264.23	266.77	270.54	264.78	34%	40.8%	25.3%
Aggregated Data	269.94	269.84	271.42	274.46	269.65	49.4%	31.7%	18.9%

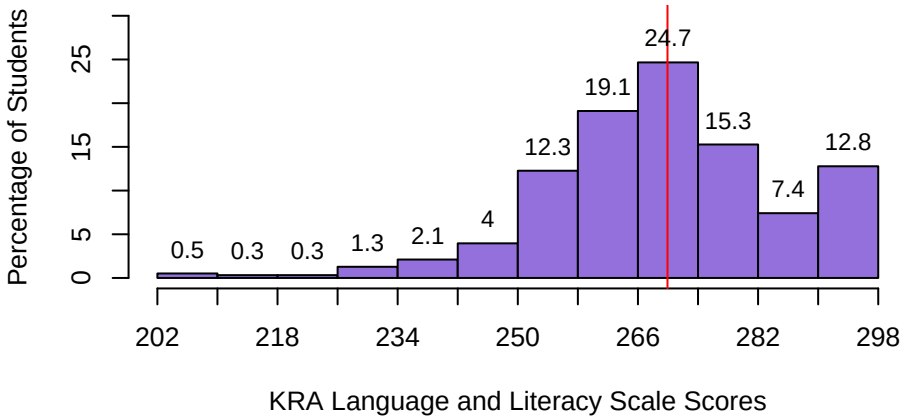
* Fewer than 25 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Baltimore County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
0.3
0.2
0.4
0.8
1.7
5.2
12.5
20.4
24.3
15.9
6.8
11.6
202
218
234
250
266
282
298
KRA Overall Scale Scores

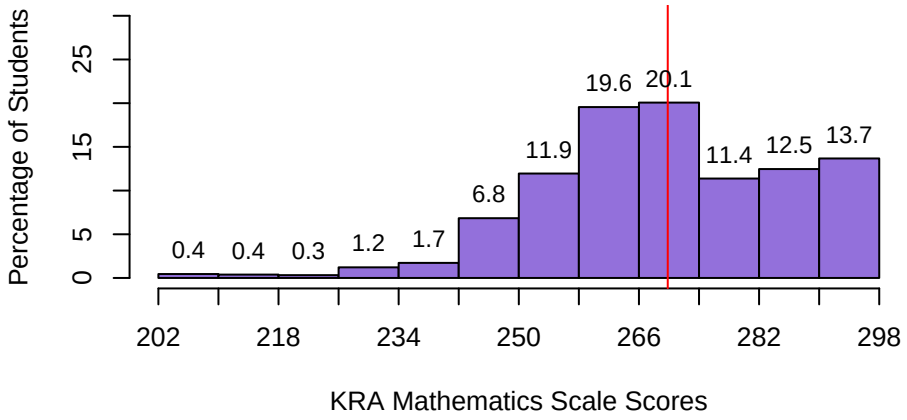
Domain Score Distributions for Baltimore County

(The red line indicates the district's average score for a particular domain.)

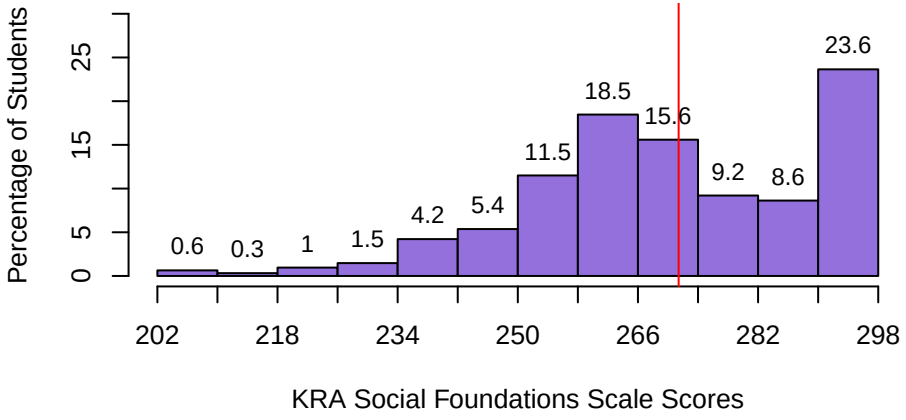
Language and Literacy



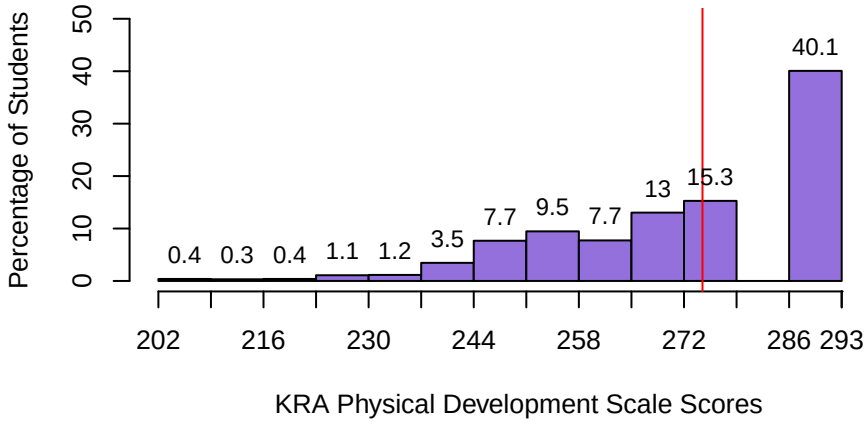
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Calvert County Data File Summary 2018-2019

Final Record Count for KRA Data File (27% Sample of Enrolled Kindergartners)	***293***

Gender		
	Frequency	***Percent***
Male	157	53.58%
Female	136	46.42%
Ethnicity/Race†		
	Frequency	***Percent***
American Indian/Alaska Native	1	0.34%
Asian	6	2.05%
Black/African American	29	9.93%
Native Hawaiian/Other Pacific Islander	1	0.34%
White	205	70.21%
Hispanic/Latino	17	5.82%
Two or More Races (Non-Hispanic/Latino)	33	11.3%
Free & Reduced Priced Meals		
	Frequency	***Percent***
No	230	78.5%
Yes	63	21.5%
Special Education		
	Frequency	***Percent***
No	251	85.67%
Yes	42	14.33%
English Learners		
	Frequency	***Percent***
No	286	97.61%
Yes	7	2.39%
Predominant Prior Care†		
	Frequency	***Percent***
Head Start	2	0.68%
Prekindergarten	137	46.92%
Child Care Center	65	22.26%
Family Child Care	17	5.82%
Home/Informal Care	41	14.04%
Non-Public Nursery	30	10.27%
Repeated Kindergarten	0	0%

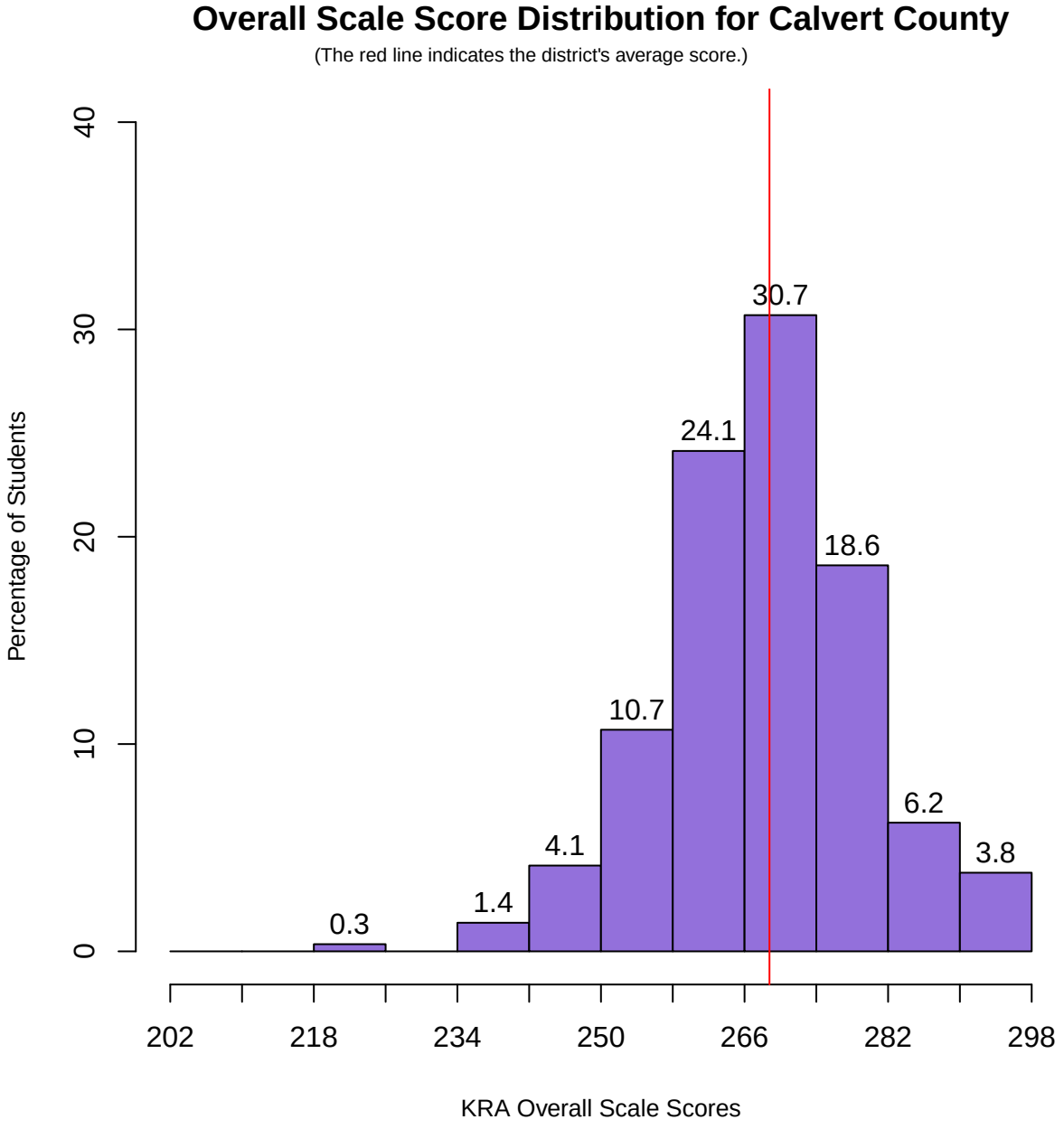
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care and Ethnicity/Race percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Calvert County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	*	*	*	*	*	*	*	*
Black/African American	265.69	264.59	263.97	271.76	264.45	31%	44.8%	24.1%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	269.56	270.03	274.3	276.11	269.69	47.1%	41.2%	11.8%
Hispanic/Latino	*	*	*	*	*	*	*	*
Two or More Races (Non-Hispanic/Latino)	267.48	266.82	271.24	275.58	268.06	48.5%	27.3%	24.2%
Gender								
Male	267.68	267.93	268.88	270.63	266.58	35.3%	45.5%	19.2%
Female	269.97	269.85	277.36	281.30	271.34	56%	34.3%	9.7%
Prior Care								
Head Start	*	*	*	*	*	*	*	*
Prekindergarten	270.01	270.34	271.24	274.68	269.15	46.3%	42.6%	11%
Child Care Center	269.69	266.86	278.51	280.43	270.4	50.8%	40%	9.2%
Family Child Care	*	*	*	*	*	*	*	*
Home/Informal Care	261.49	263.36	263.05	267.74	261.74	23.1%	38.5%	38.5%
Non-Public Nursery	269.97	273.07	275.1	276.33	271.13	53.3%	30%	16.7%
Special Education								
No	269.33	269.31	275.23	278.06	269.92	49.4%	38.6%	12%
Yes	265.15	265.80	258.05	260.37	261.85	17.1%	51.2%	31.7%
English Learners								
No	268.75	268.75	272.73	275.44	268.75	44.7%	40.1%	15.1%
Yes	*	*	*	*	*	*	*	*
Free and Reduced Price Meals								
No	269.36	269.23	274.85	276.99	269.67	47.6%	39.3%	13.1%
Yes	266.39	267.26	265.10	270.20	265.43	34.4%	44.3%	21.3%
Aggregated Data	268.74	268.82	272.80	275.56	268.78	44.8%	40.3%	14.8%

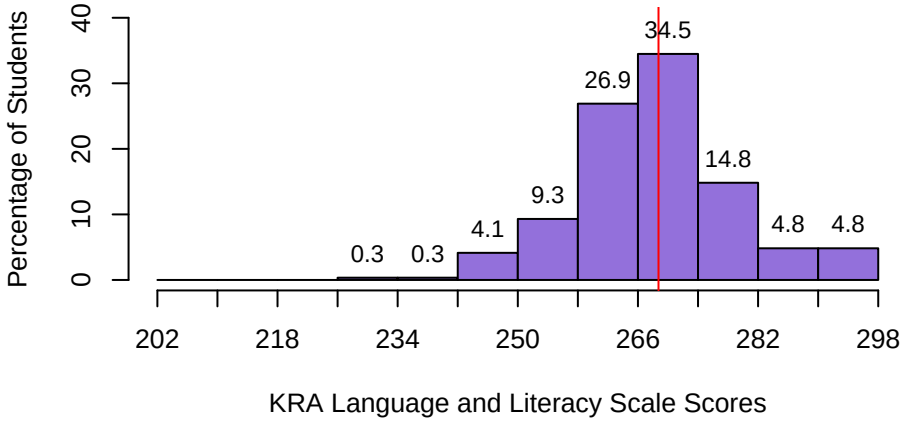
* Fewer than 25 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Calvert County
(The red line indicates the district's average score.)
Percentage of Students
0
10
20
30
40
0.3
1.4
4.1
10.7
24.1
30.7
18.6
6.2
3.8
202
218
234
250
266
282
298
KRA Overall Scale Scores

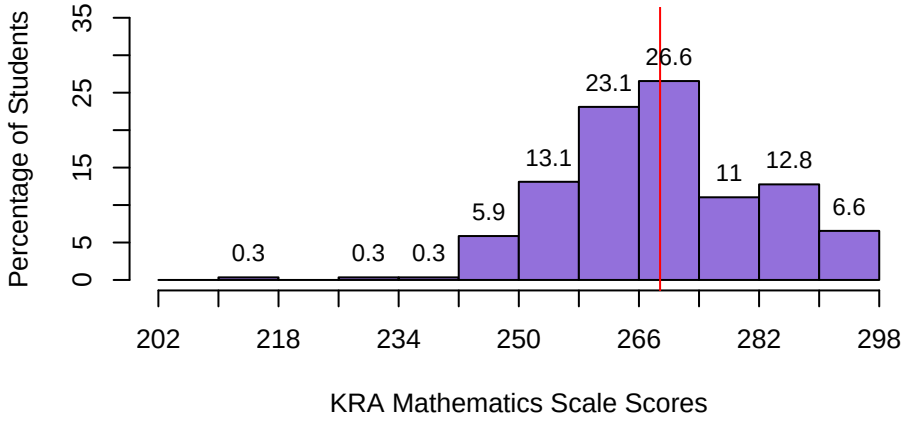
Domain Score Distributions for Calvert County

(The red line indicates the district's average score for a particular domain.)

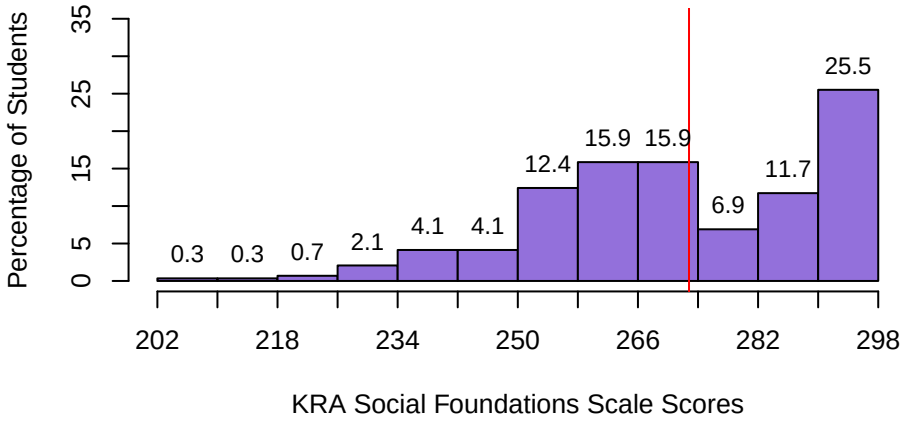
Language and Literacy



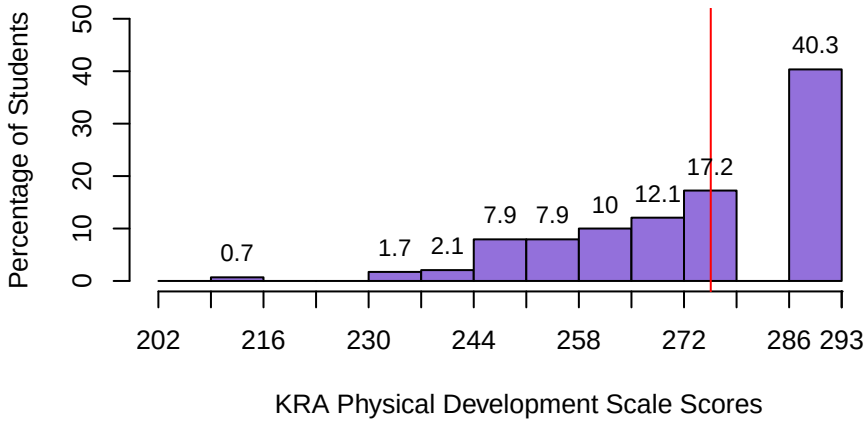
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Caroline County Data File Summary 2018-2019

Final Record Count for KRA Data File	***428***

Gender		
	Frequency	***Percent***
Male	216	50.47%
Female	212	49.53%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	2	0.47%
Asian	7	1.64%
Black/African American	63	14.72%
Native Hawaiian/Other Pacific Islander	0	0%
White	257	60.05%
Hispanic/Latino	67	15.65%
Two or More Races (Non-Hispanic/Latino)	32	7.48%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	217	50.7%
Yes	211	49.3%

Special Education		
	Frequency	***Percent***
No	392	91.59%
Yes	36	8.41%

English Learners		
	Frequency	***Percent***
No	368	85.98%
Yes	60	14.02%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	10	2.35%
Prekindergarten	302	71.06%
Child Care Center	32	7.53%
Family Child Care	16	3.76%
Home/Informal Care	34	8%
Non-Public Nursery	27	6.35%
Repeated Kindergarten	4	0.94%

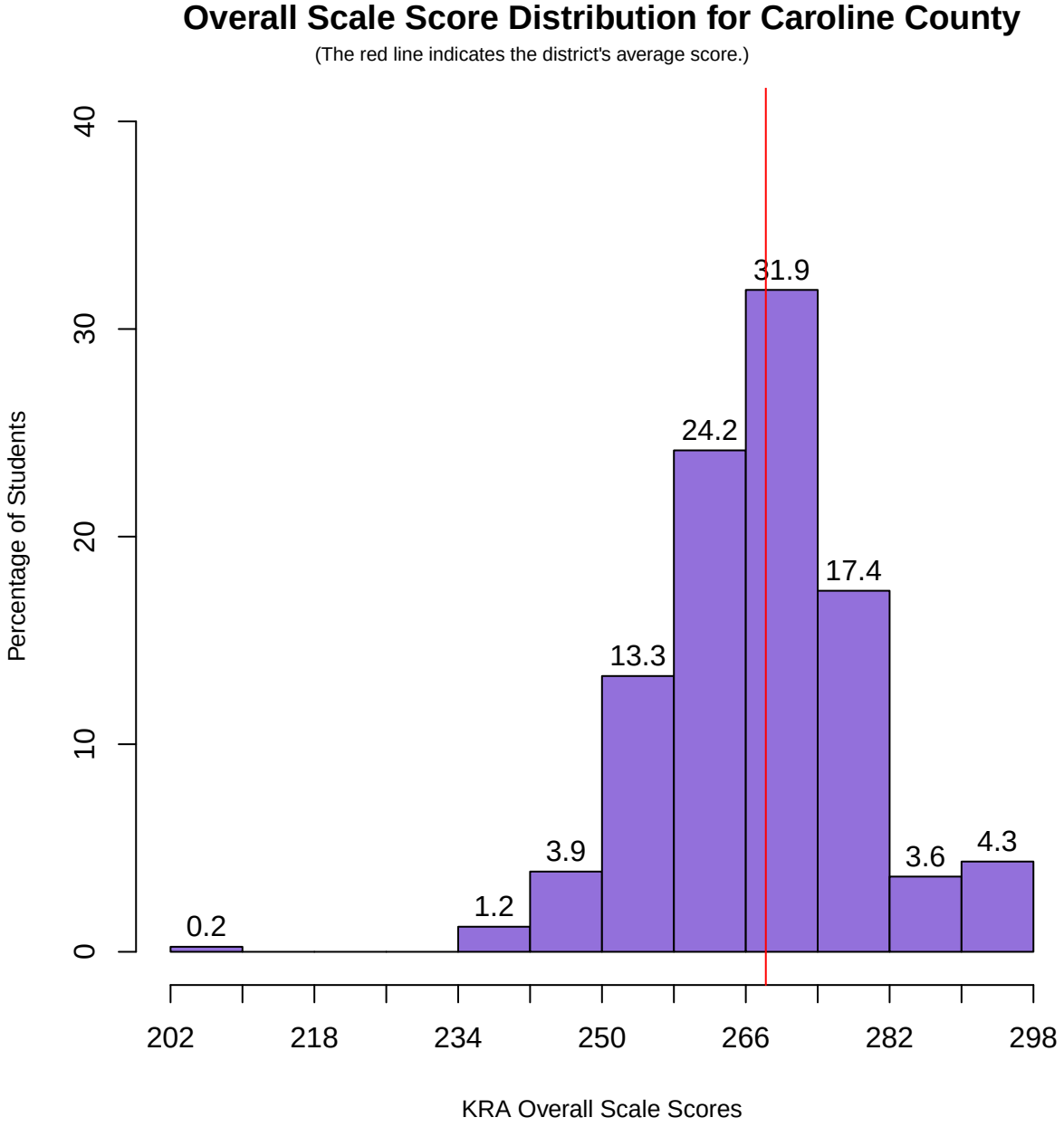
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Caroline County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	258.14	257.43	260.71	261.57	260	28.6%	28.6%	42.9%
Black/African American	263.64	265.68	275.42	275.14	266.41	42.4%	45.8%	11.9%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	267.52	270.21	277.51	277.89	269.84	49.8%	37.8%	12.4%
Hispanic/Latino	261.44	262.59	276.77	277.58	265.64	34.4%	39.1%	26.6%
Two or More Races (Non-Hispanic/Latino)	264.39	267.1	271.42	276.58	266.29	35.5%	35.5%	29%
Gender								
Male	263.84	266.15	272.36	273.69	265.80	38.3%	39.8%	21.8%
Female	267.27	269.57	280.34	280.45	270.63	51.4%	37.5%	11.1%
Prior Care								
Head Start	264.12	264.12	280.25	279.12	267.50	37.5%	50%	12.5%
Prekindergarten	266.12	268.94	277.34	277.77	268.88	47.8%	37.8%	14.4%
Child Care Center	270.33	270.93	276.10	278.77	271.43	56.7%	33.3%	10%
Family Child Care	263.19	265.38	272.31	276.62	266.50	25%	43.8%	31.2%
Home/Informal Care	259.67	258.20	267.27	267.53	261.63	16.7%	46.7%	36.7%
Non-Public Nursery	265.63	268.52	280.96	280.48	268.96	48.1%	40.7%	11.1%
Special Education								
No	266.21	268.59	277.19	277.87	268.94	47.8%	37.7%	14.5%
Yes	258.57	260.09	267.49	268.66	260.57	14.3%	48.6%	37.1%
English Learners								
No	266.56	268.98	276.58	277.53	268.96	46.9%	38.5%	14.6%
Yes	259.43	261.05	275.05	274.38	263.76	32.8%	39.7%	27.6%
Free and Reduced Price Meals								
No	267.93	270.36	277.93	278.23	270.39	51.7%	36.5%	11.8%
Yes	263.10	265.28	274.75	275.91	265.99	37.9%	40.9%	21.2%
Aggregated Data	265.57	267.87	276.37	277.09	268.23	44.9%	38.6%	16.4%

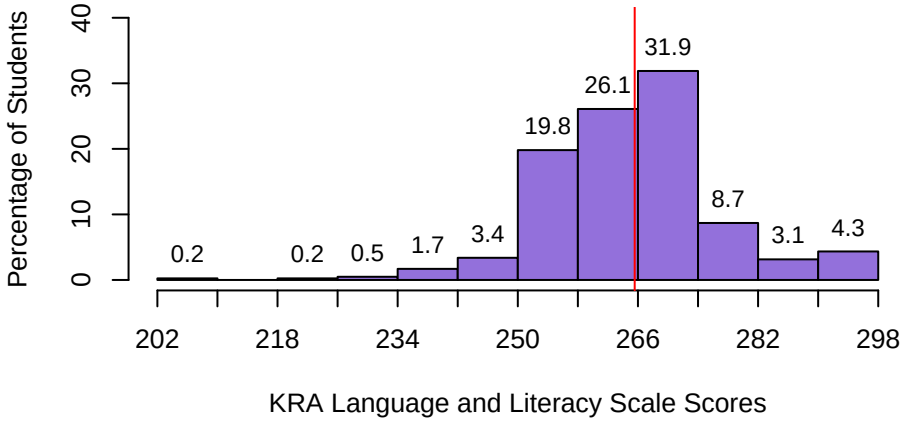
* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Caroline County
(The red line indicates the district's average score.)
Percentage of Students
0
10
20
30
40
0.2
1.2
3.9
13.3
24.2
31.9
17.4
3.6
4.3
202
218
234
250
266
282
298
KRA Overall Scale Scores

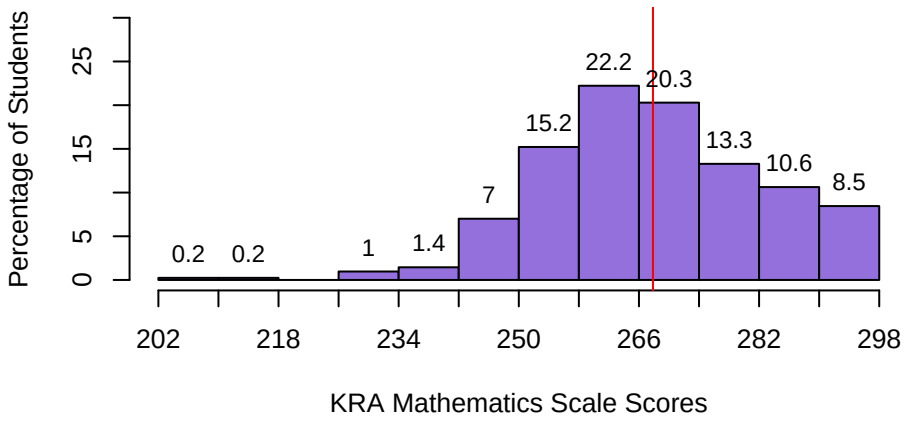
Domain Score Distributions for Caroline County

(The red line indicates the district's average score for a particular domain.)

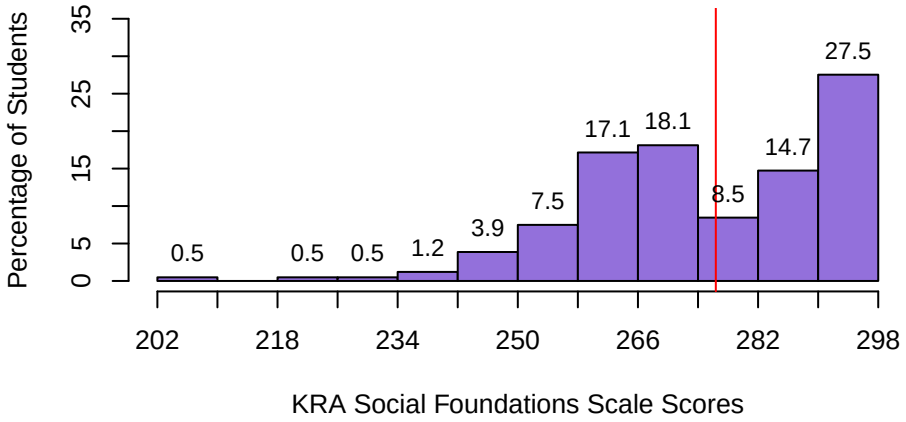
Language and Literacy



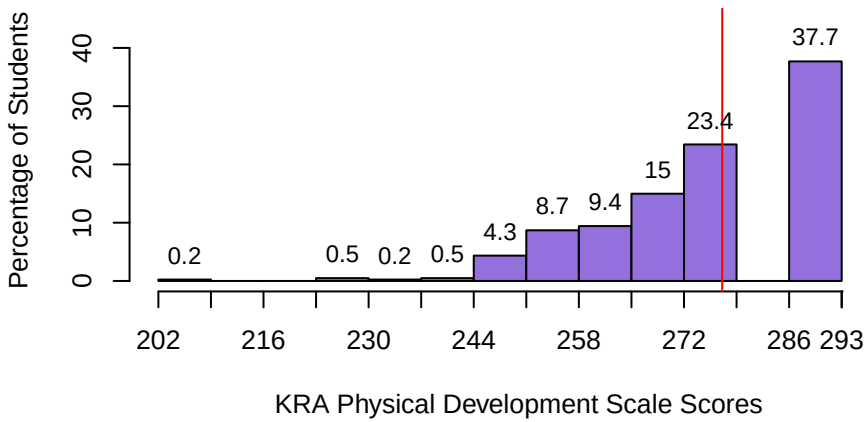
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Carroll County Data File Summary 2018-2019

Final Record Count for KRA Data File (31% Sample of Enrolled Kindergartners)	***532***

Gender		
	Frequency	***Percent***
Male	277	52.07%
Female	255	47.93%
Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	0	0%
Asian	10	1.88%
Black/African American	25	4.7%
Native Hawaiian/Other Pacific Islander	1	0.19%
White	431	81.02%
Hispanic/Latino	42	7.89%
Two or More Races (Non-Hispanic/Latino)	23	4.32%
Free & Reduced Priced Meals		
	Frequency	***Percent***
No	408	76.69%
Yes	124	23.31%
Special Education		
	Frequency	***Percent***
No	495	93.05%
Yes	37	6.95%
English Learners		
	Frequency	***Percent***
No	529	99.44%
Yes	3	0.56%
Predominant Prior Care†		
	Frequency	***Percent***
Head Start	17	3.21%
Prekindergarten	150	28.3%
Child Care Center	121	22.83%
Family Child Care	18	3.4%
Home/Informal Care	44	8.3%
Non-Public Nursery	179	33.77%
Repeated Kindergarten	1	0.19%

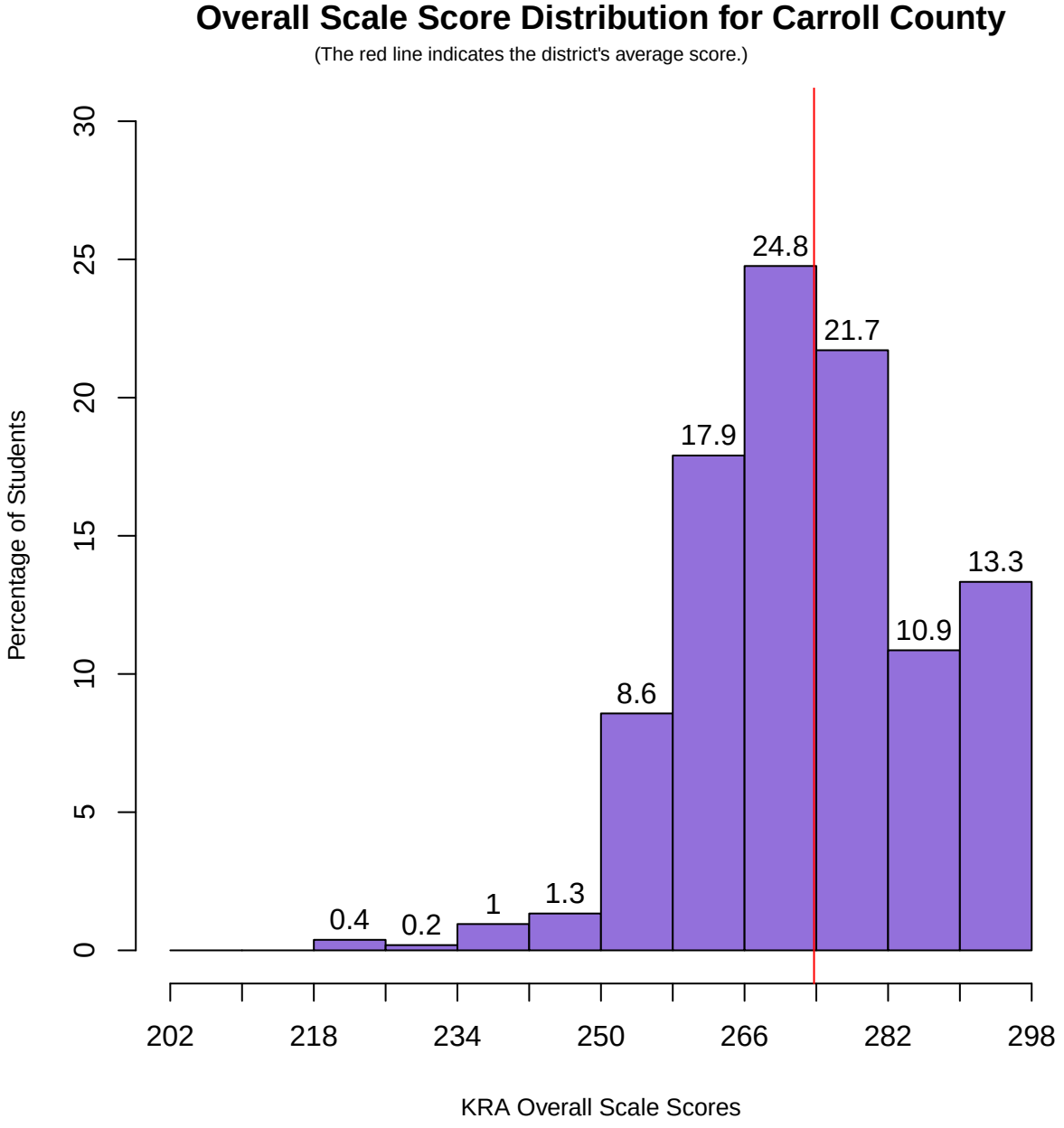
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Carroll County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	*	*	*	*	*	*	*	*
Black/African American	272	269.68	278.24	280.4	272.96	52%	40%	8%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	273.9	272.15	279.87	280.58	274.3	62.5%	29.7%	7.8%
Hispanic/Latino	269.93	268.45	272.79	274.31	269.31	47.6%	31%	21.4%
Two or More Races (Non-Hispanic/Latino)	*	*	*	*	*	*	*	*
Gender								
Male	272.10	271.08	275.67	276.42	271.75	55.5%	31.6%	12.9%
Female	274.73	272.56	282.91	283.85	275.89	66.8%	27.7%	5.5%
Prior Care								
Head Start	*	*	*	*	*	*	*	*
Prekindergarten	272.05	269.36	275.74	275.54	271.36	54.1%	31.5%	14.4%
Child Care Center	272.92	272.79	280.31	280.79	273.98	59.7%	32.8%	7.6%
Family Child Care	*	*	*	*	*	*	*	*
Home/Informal Care	268.59	267.64	276.07	272.89	268.64	40.9%	45.5%	13.6%
Non-Public Nursery	276.6	274.74	283.14	284.96	277.47	73.6%	22.5%	3.9%
Special Education								
No	274.12	272.62	280.15	280.91	274.59	63.3%	28.8%	8%
Yes	262.83	260.20	265.20	267.29	261.91	28.6%	42.9%	28.6%
English Learners								
No	273.55	271.95	279.31	280.11	273.87	61.1%	29.7%	9.2%
Yes	*	*	*	*	*	*	*	*
Free and Reduced Price Meals								
No	275.01	273.38	281.55	281.20	275.45	66.2%	27.2%	6.7%
Yes	267.82	266.43	271.09	275.94	267.98	43.3%	38.3%	18.3%
Aggregated Data	273.37	271.79	279.16	280.00	273.75	61%	29.7%	9.3%

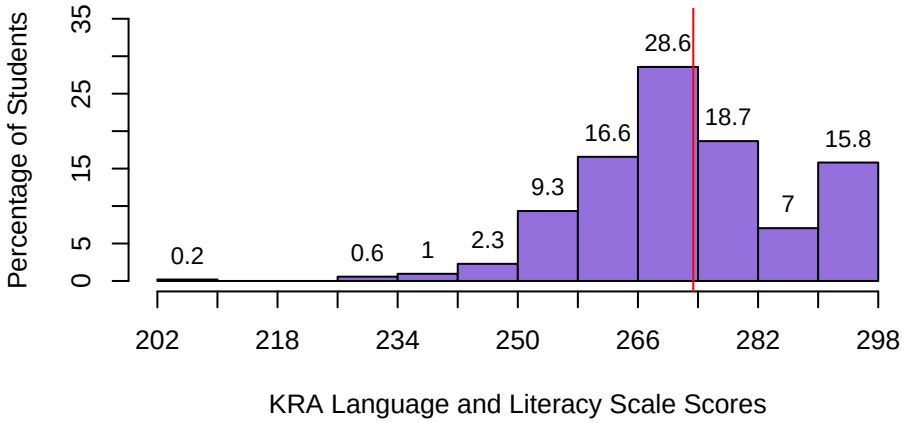
* Fewer than 25 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Carroll County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
0.4
0.2
1
1.3
8.6
17.9
24.8
21.7
10.9
13.3
202
218
234
250
266
282
298
KRA Overall Scale Scores

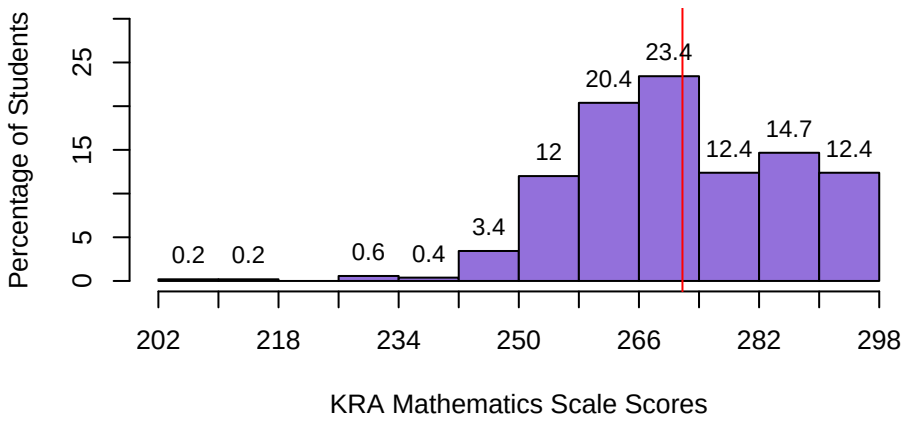
Domain Score Distributions for Carroll County

(The red line indicates the district's average score for a particular domain.)

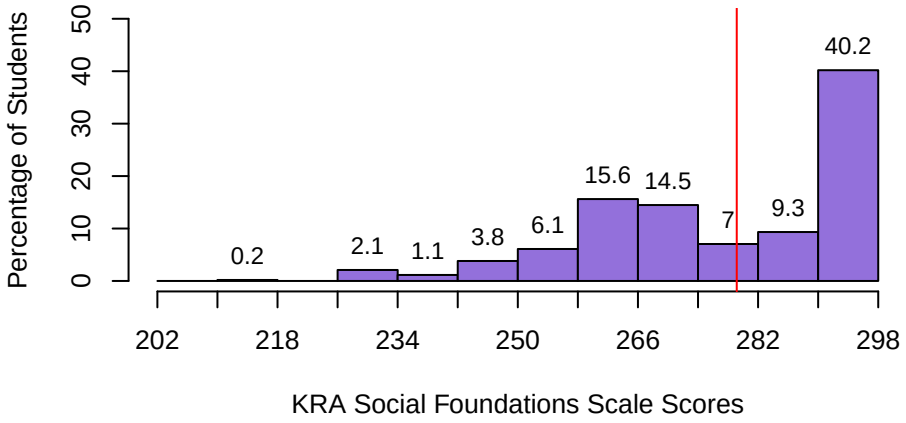
Language and Literacy



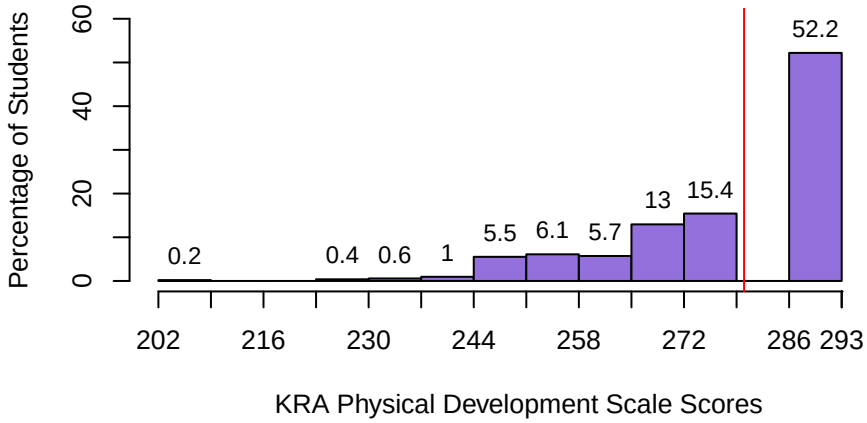
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Cecil County Data File Summary 2018-2019

Final Record Count for KRA Data File	***1,047***

Gender		
	Frequency	***Percent***
Male	539	51.48%
Female	508	48.52%
Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	3	0.29%
Asian	5	0.48%
Black/African American	82	7.83%
Native Hawaiian/Other Pacific Islander	1	0.1%
White	810	77.36%
Hispanic/Latino	73	6.97%
Two or More Races (Non-Hispanic/Latino)	73	6.97%
Free & Reduced Priced Meals		
	Frequency	***Percent***
No	562	53.68%
Yes	485	46.32%
Special Education		
	Frequency	***Percent***
No	922	88.06%
Yes	125	11.94%
English Learners		
	Frequency	***Percent***
No	1,014	96.85%
Yes	33	3.15%
Predominant Prior Care†		
	Frequency	***Percent***
Head Start	66	6.36%
Prekindergarten	481	46.38%
Child Care Center	148	14.27%
Family Child Care	45	4.34%
Home/Informal Care	225	21.7%
Non-Public Nursery	71	6.85%
Repeated Kindergarten	1	0.1%

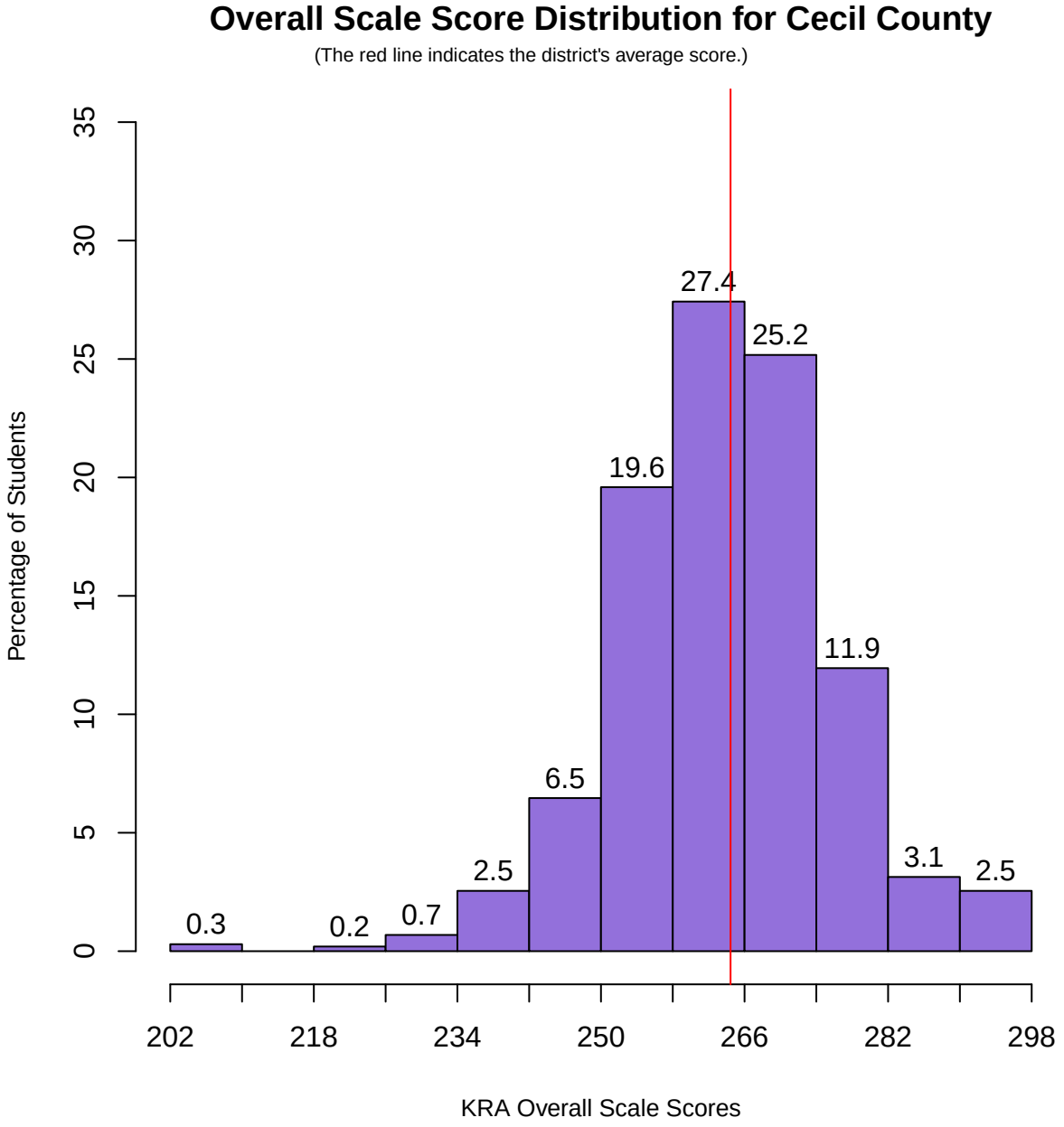
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Cecil County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	273.4	266.4	274	280.6	269.8	40%	40%	20%
Black/African American	260.72	257.1	269.27	272.65	261.65	29.1%	39.2%	31.6%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	263.63	262.1	273.08	272.98	264.89	33.2%	41.4%	25.4%
Hispanic/Latino	259.31	255.99	269.25	272.83	260.86	15.5%	47.9%	36.6%
Two or More Races (Non-Hispanic/Latino)	263.08	261.31	275.53	274.93	265.04	29.2%	47.2%	23.6%
Gender								
Male	261.39	260.15	267.75	268.48	261.98	24.6%	41%	34.4%
Female	265.04	262.51	278.00	278.12	267.03	38.8%	43.1%	18.1%
Prior Care								
Head Start	263.74	260.78	273.23	275.89	264.46	29.2%	44.6%	26.2%
Prekindergarten	263.34	261.70	272.95	274.20	264.85	34%	41.1%	24.9%
Child Care Center	267.64	264.44	274.54	275.89	267.94	44.4%	36.6%	19%
Family Child Care	262.53	260.62	266.78	267.13	262.00	17.8%	53.3%	28.9%
Home/Informal Care	258.45	257.06	271.57	269.55	260.73	17.6%	45.5%	36.9%
Non-Public Nursery	267.79	266.80	275.51	274.13	268.20	45.1%	39.4%	15.5%
Special Education								
No	263.91	262.09	274.39	274.44	265.35	33.7%	43%	23.4%
Yes	257.42	255.20	260.11	263.47	257.50	15.3%	34.7%	50%
English Learners								
No	263.49	261.58	273.05	273.21	264.69	32.4%	42%	25.6%
Yes	252.65	252.39	262.81	272.16	256.52	3.2%	41.9%	54.8%
Free and Reduced Price Meals								
No	264.94	263.38	274.26	274.45	266.05	36.1%	42.9%	21%
Yes	261.11	258.89	270.98	271.69	262.58	26.2%	41%	32.8%
Aggregated Data	263.16	261.30	272.74	273.17	264.44	31.5%	42%	26.4%

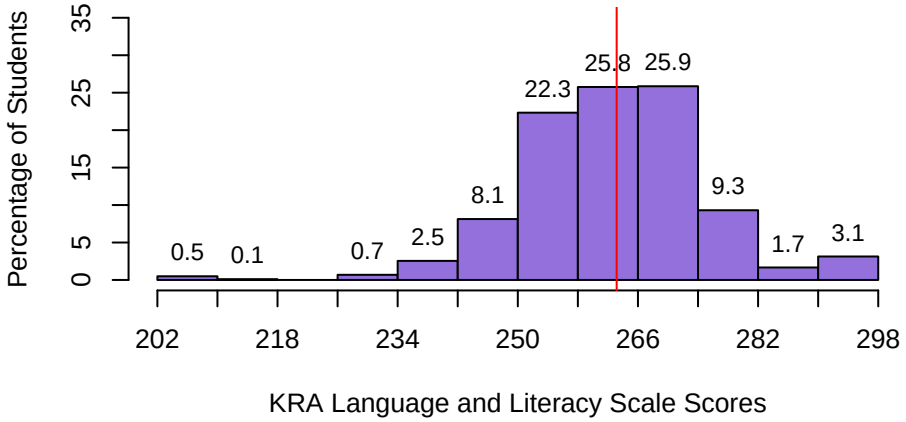
* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Cecil County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
35
0.3
0.2
0.7
2.5
6.5
19.6
27.4
25.2
11.9
3.1
2.5
202
218
234
250
266
282
298
KRA Overall Scale Scores

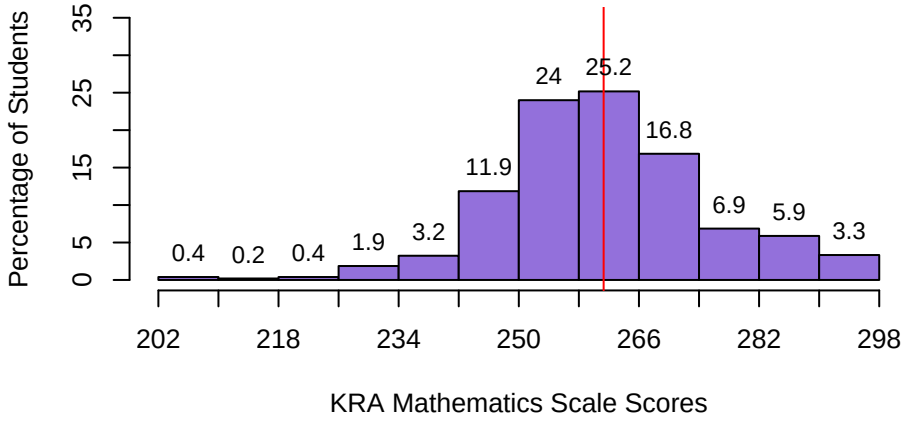
Domain Score Distributions for Cecil County

(The red line indicates the district's average score for a particular domain.)

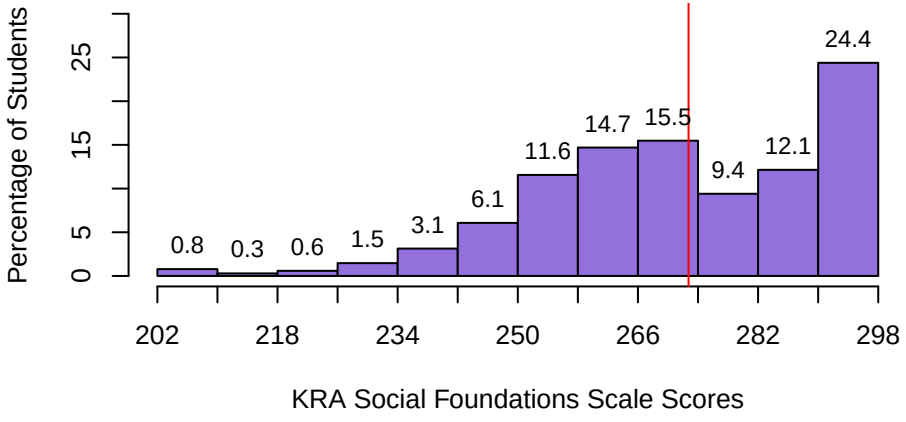
Language and Literacy



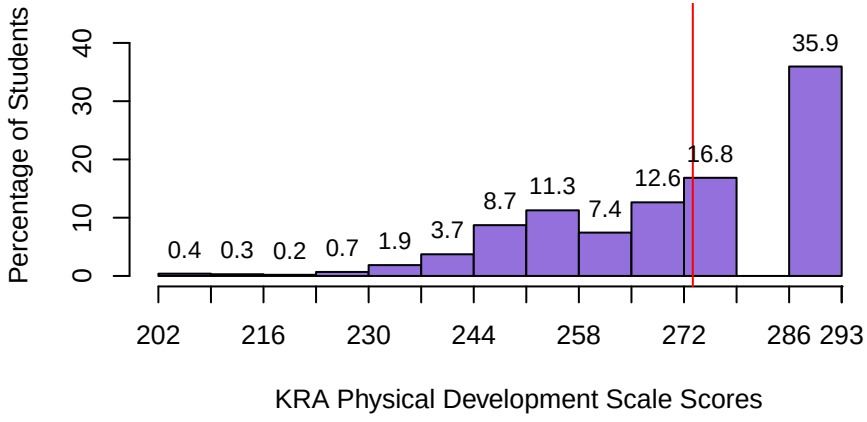
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Charles County County Data File Summary 2018-2019

Final Record Count for KRA Data File	***1,709***

Gender		
	Frequency	***Percent***
Male	891	52.14%
Female	818	47.86%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	7	0.41%
Asian	47	2.75%
Black/African American	884	51.73%
Native Hawaiian/Other Pacific Islander	2	0.12%
White	439	25.69%
Hispanic/Latino	179	10.47%
Two or More Races (Non-Hispanic/Latino)	151	8.84%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	1,070	62.61%
Yes	639	37.39%

Special Education		
	Frequency	***Percent***
No	1,557	91.11%
Yes	152	8.89%

English Learners		
	Frequency	***Percent***
No	1,635	95.67%
Yes	74	4.33%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	24	1.41%
Prekindergarten	801	47.15%
Child Care Center	329	19.36%
Family Child Care	47	2.77%
Home/Informal Care	362	21.31%
Non-Public Nursery	129	7.59%
Repeated Kindergarten	7	0.41%

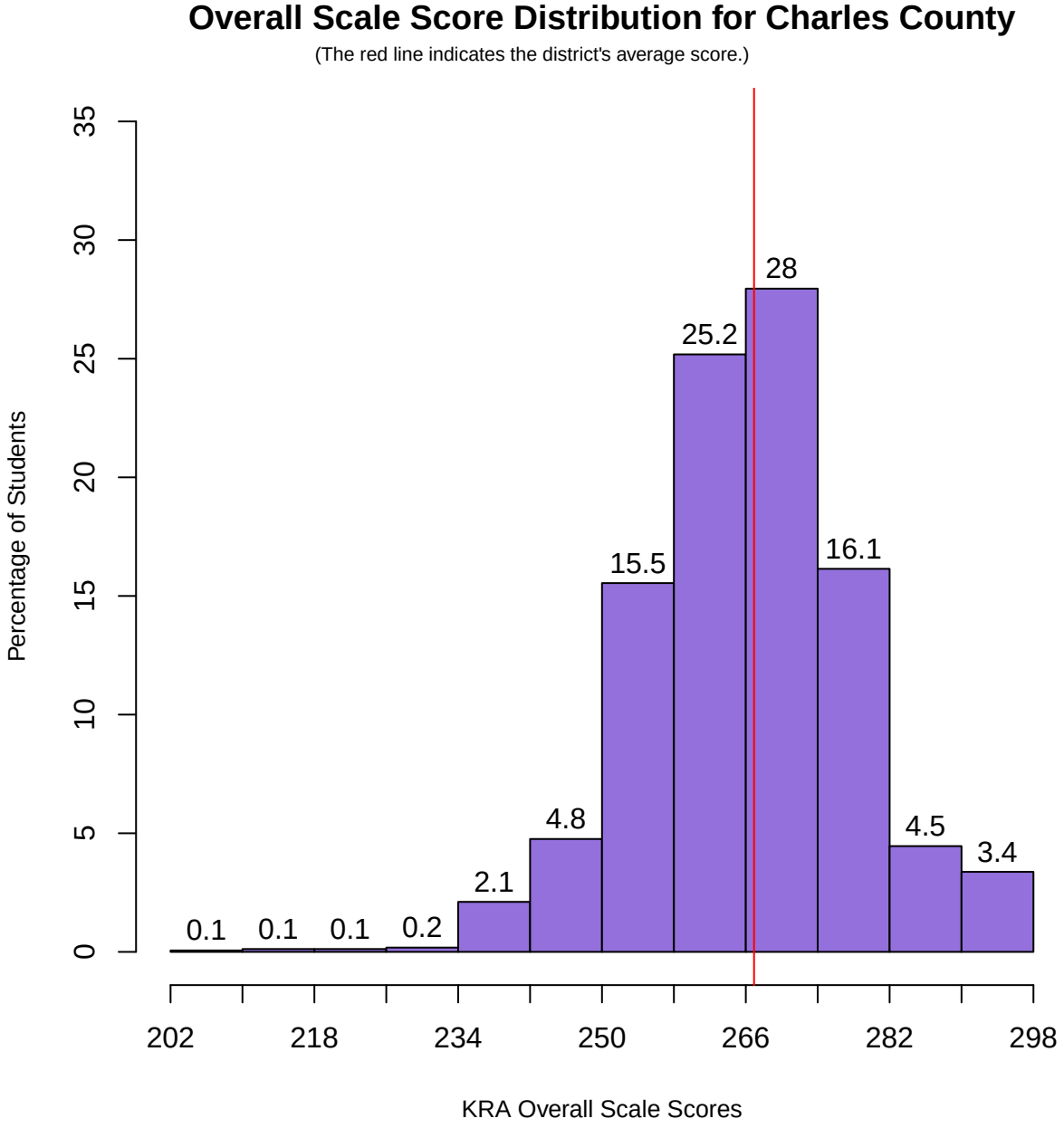
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Charles County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	265	266.43	274	286.57	268	28.6%	57.1%	14.3%
Asian	264.26	266.79	269.3	271.43	265.94	36.2%	36.2%	27.7%
Black/African American	266.61	264.98	270.17	272.69	266.24	36.9%	40.9%	22.2%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	267	269.39	274.77	276.94	268.78	47.5%	38.4%	14.1%
Hispanic/Latino	263.69	263.45	270.66	271.63	264.7	31%	40.2%	28.7%
Two or More Races (Non-Hispanic/Latino)	266.87	267.17	274.31	276.4	268.25	42.9%	40.1%	17%
Gender								
Male	264.69	265.10	267.01	269.63	264.57	32.3%	40.4%	27.4%
Female	268.17	267.45	276.91	278.78	269.45	47.4%	39.7%	12.9%
Prior Care								
Head Start	260.58	259.62	265.46	268.71	261.42	16.7%	33.3%	50%
Prekindergarten	266.75	266.40	271.34	274.84	267.18	39.9%	40.2%	19.9%
Child Care Center	268.61	267.70	272.88	274.88	268.27	45.9%	38.8%	15.3%
Family Child Care	266.87	267.59	275.11	272.46	267.98	39.1%	50%	10.9%
Home/Informal Care	262.80	263.33	270.25	270.97	264.09	30.3%	41.4%	28.3%
Non-Public Nursery	269.68	271.21	277.12	277.77	271.11	51.6%	38.3%	10.2%
Special Education								
No	267.12	267.14	273.12	275.20	267.81	41.7%	40.7%	17.5%
Yes	258.01	256.22	256.91	261.17	257.09	15.2%	32.6%	52.2%
English Learners								
No	266.85	266.74	272.15	274.32	267.32	40.7%	40.4%	18.9%
Yes	255.88	255.45	263.53	267.82	258.16	13.5%	32.4%	54.1%
Free and Reduced Price Meals								
No	267.36	267.49	272.56	274.45	267.80	42.7%	40.1%	17.2%
Yes	264.65	264.08	270.40	273.32	265.39	34%	39.9%	26%
Aggregated Data	266.36	266.23	271.77	274.03	266.92	39.5%	40.1%	20.4%

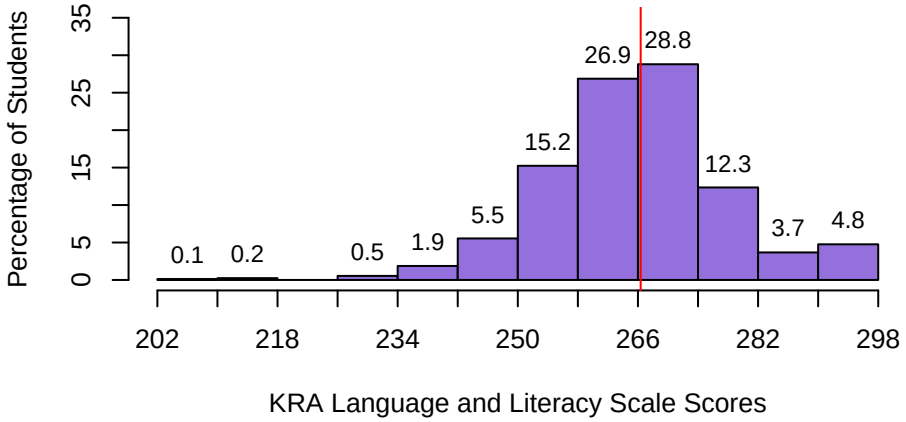
* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Charles County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
35
0.1
0.1
0.1
0.2
2.1
4.8
15.5
25.2
28
16.1
4.5
3.4
202
218
234
250
266
282
298
KRA Overall Scale Scores

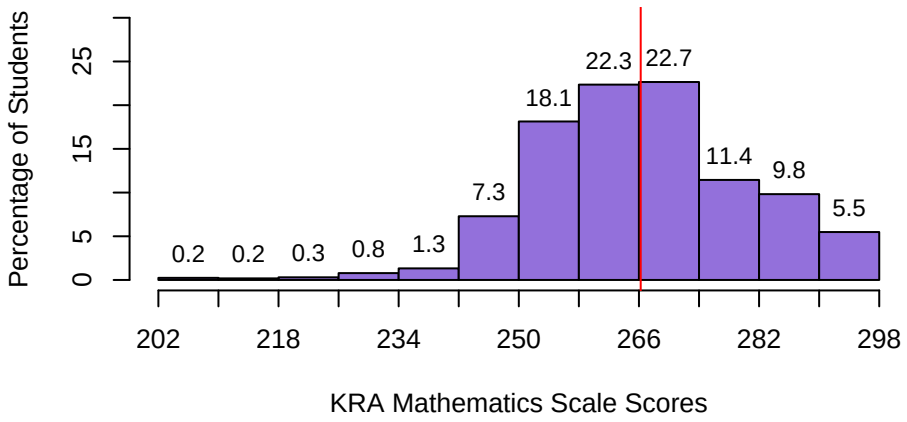
Domain Score Distributions for Charles County

(The red line indicates the district's average score for a particular domain.)

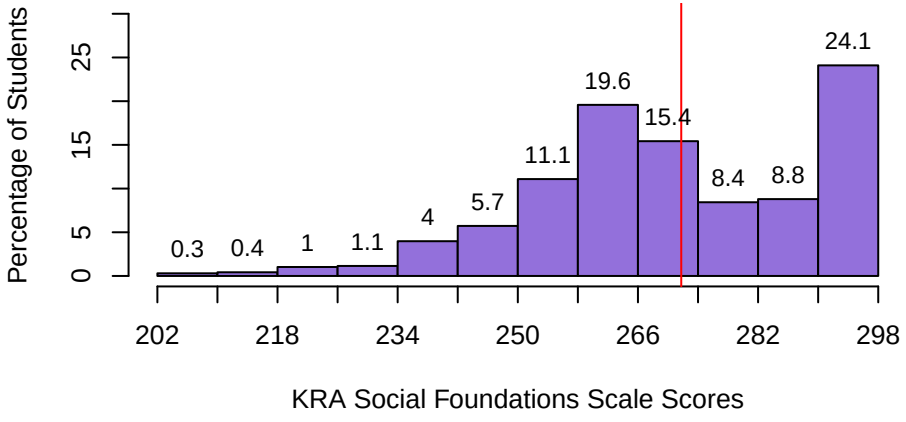
Language and Literacy



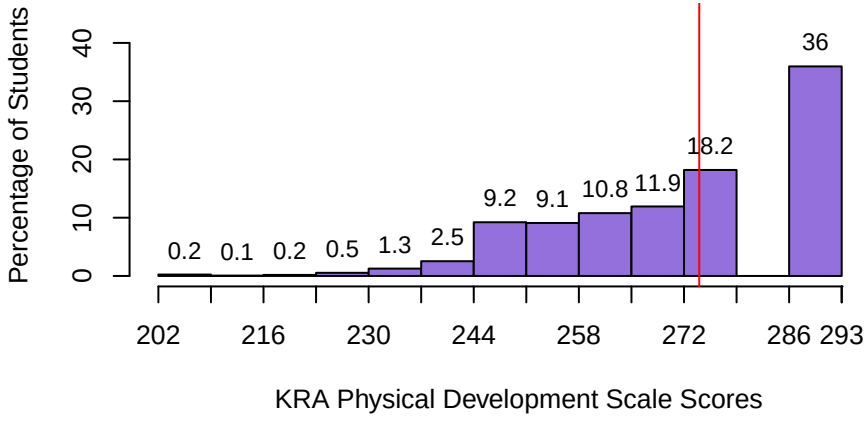
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Dorchester County Data File Summary 2018-2019

Final Record Count for KRA Data File	***351***

Gender		
	Frequency	***Percent***
Male	173	49.29%
Female	178	50.71%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	1	0.28%
Asian	5	1.42%
Black/African American	151	43.02%
Native Hawaiian/Other Pacific Islander	1	0.28%
White	136	38.75%
Hispanic/Latino	37	10.54%
Two or More Races (Non-Hispanic/Latino)	20	5.7%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	144	41.03%
Yes	207	58.97%

Special Education		
	Frequency	***Percent***
No	318	90.6%
Yes	33	9.4%

English Learners		
	Frequency	***Percent***
No	331	94.3%
Yes	20	5.7%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	26	7.41%
Prekindergarten	247	70.37%
Child Care Center	20	5.7%
Family Child Care	36	10.26%
Home/Informal Care	1	0.28%
Non-Public Nursery	11	3.13%
Repeated Kindergarten	10	2.85%

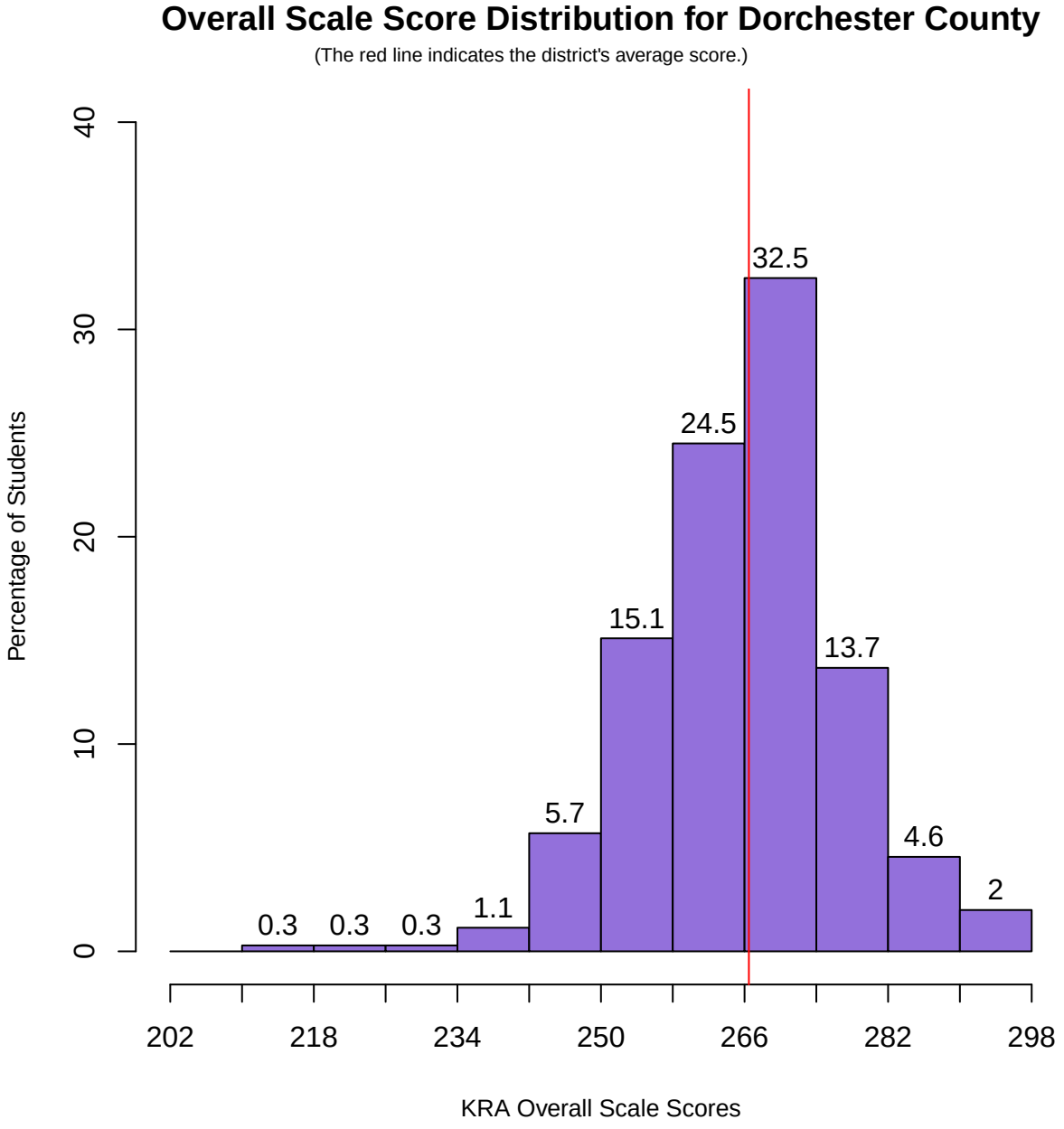
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Dorchester County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	277.2	286.4	281	287	280	80%	20%	0%
Black/African American	263.01	258.73	274.35	275.75	264.05	33.1%	40.4%	26.5%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	267.57	268.29	281.14	280.99	270.16	53.7%	36%	10.3%
Hispanic/Latino	256.68	256.19	268.51	267.92	259.68	13.5%	48.6%	37.8%
Two or More Races (Non-Hispanic/Latino)	266.05	261.55	283.6	279.4	268.45	40%	45%	15%
Gender								
Male	263.02	261.18	272.03	273.98	264.14	31.8%	41.6%	26.6%
Female	265.95	264.47	281.84	280.78	268.76	48.9%	37.1%	14%
Prior Care								
Head Start	256.08	252.54	262	262.31	256.27	7.7%	42.3%	50%
Prekindergarten	266.47	264.65	279.02	280.19	268.31	43.3%	42.5%	14.2%
Child Care Center	267.6	267.6	281	276.45	269.8	65%	15%	20%
Family Child Care	254.11	252.89	270.64	269.03	258.19	27.8%	25%	47.2%
Home/Informal Care	*	*	*	*	*	*	*	*
Non-Public Nursery	265	266.82	287.45	282.36	269.36	54.5%	36.4%	9.1%
Special Education								
No	265.01	263.58	278.14	278.51	267.19	43.1%	38.4%	18.6%
Yes	259.67	255.76	266.12	266.94	259.67	15.2%	48.5%	36.4%
English Learners								
No	264.91	263.21	277.37	277.90	266.83	42.3%	38.7%	19%
Yes	257.85	256.85	271.05	269.55	260.80	10%	50%	40%
Free and Reduced Price Meals								
No	267.42	266.90	282.42	280.92	269.90	54.2%	34.7%	11.1%
Yes	262.48	260.03	273.24	274.99	264.11	30.9%	42.5%	26.6%
Aggregated Data	264.51	262.85	277.01	277.42	266.48	40.5%	39.3%	20.2%

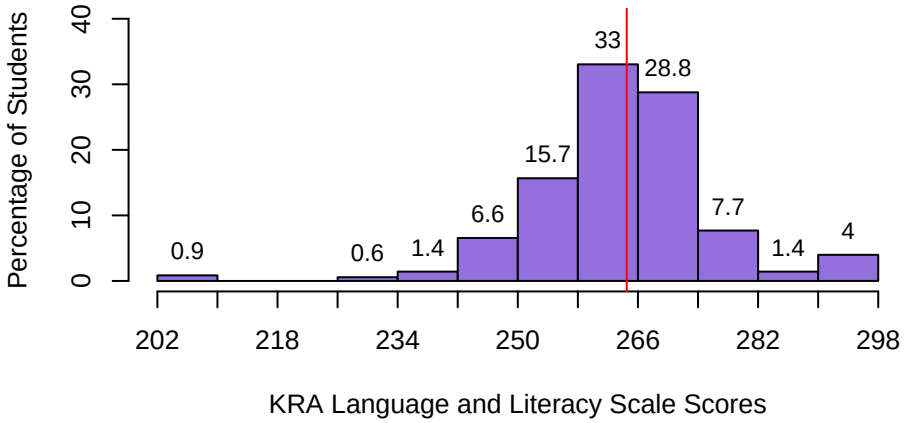
* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Dorchester County
(The red line indicates the district's average score.)
Percentage of Students
0
10
20
30
40
0.3
0.3
0.3
1.1
5.7
15.1
24.5
32.5
13.7
4.6
2
202
218
234
250
266
282
298
KRA Overall Scale Scores

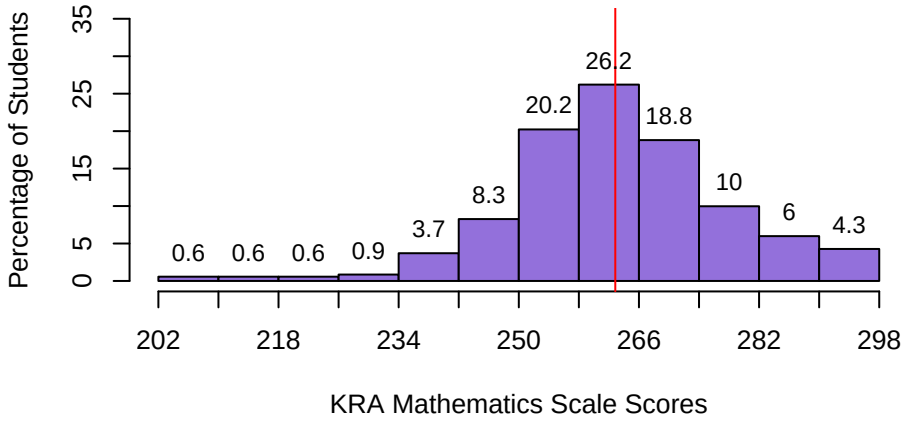
Domain Score Distributions for Dorchester County

(The red line indicates the district's average score for a particular domain.)

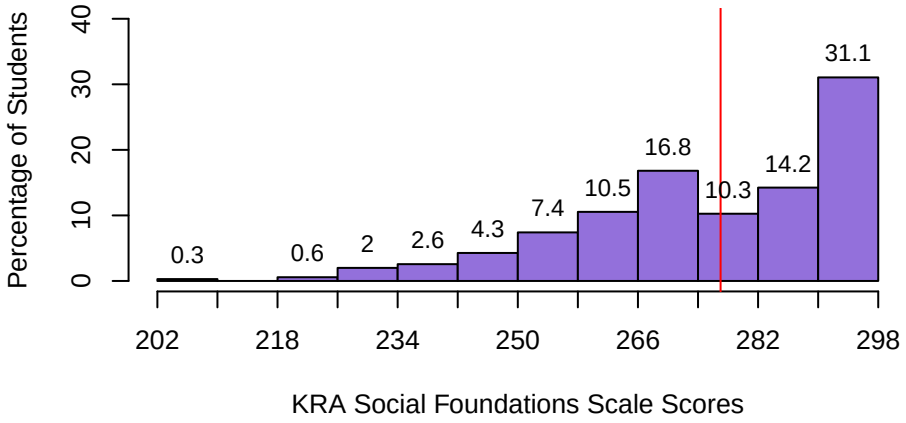
Language and Literacy



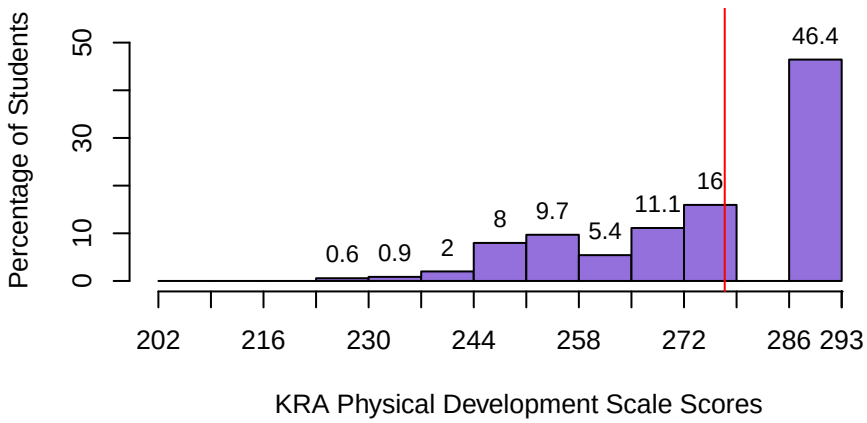
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Frederick County Data File Summary 2018-2019

Final Record Count for KRA Data File (31% Sample of Enrolled Kindergartners)	***928***

Gender		
	Frequency	***Percent***
Male	455	49.03%
Female	473	50.97%
Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	1	0.11%
Asian	46	4.96%
Black/African American	122	13.15%
Native Hawaiian/Other Pacific Islander	0	0%
White	565	60.88%
Hispanic/Latino	141	15.19%
Two or More Races (Non-Hispanic/Latino)	53	5.71%
Free & Reduced Priced Meals		
	Frequency	***Percent***
No	673	72.52%
Yes	255	27.48%
Special Education		
	Frequency	***Percent***
No	831	89.55%
Yes	97	10.45%
English Learners		
	Frequency	***Percent***
No	840	90.52%
Yes	88	9.48%
Predominant Prior Care†		
	Frequency	***Percent***
Head Start	21	2.28%
Prekindergarten	361	39.2%
Child Care Center	223	24.21%
Family Child Care	53	5.75%
Home/Informal Care	103	11.18%
Non-Public Nursery	157	17.05%
Repeated Kindergarten	3	0.33%

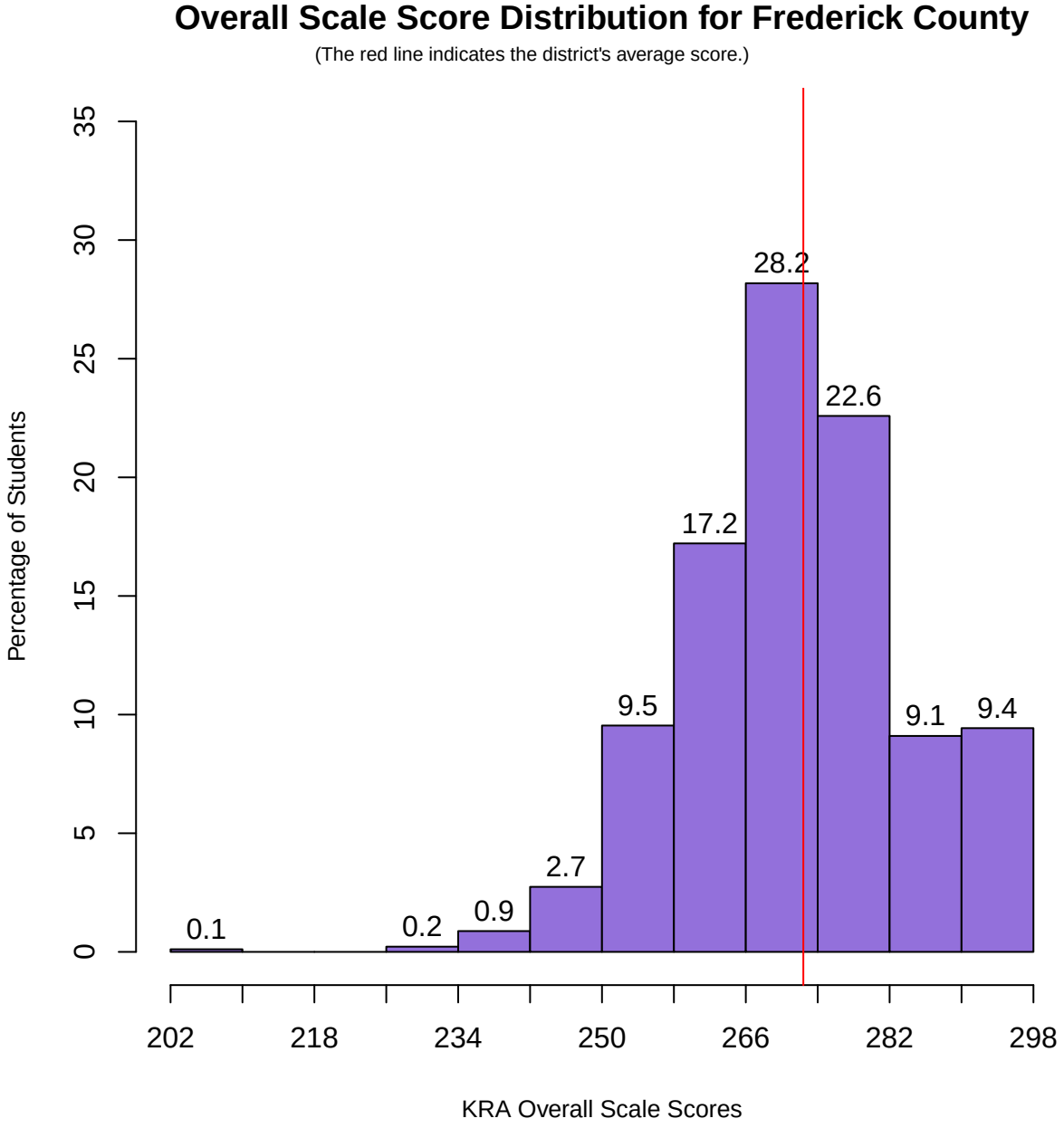
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Frederick County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	270.2	270.31	275.89	279.4	271.13	51.1%	35.6%	13.3%
Black/African American	269.59	266.14	274.36	278.59	269.37	48.3%	38.1%	13.6%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	273.83	272.75	280.53	281.98	274.56	67.6%	24.4%	8.1%
Hispanic/Latino	263.99	262.57	276.62	278.42	266.45	38.4%	38.4%	23.2%
Two or More Races (Non-Hispanic/Latino)	272.37	271.87	278.88	280.67	273.38	61.5%	23.1%	15.4%
Gender								
Male	270.42	268.91	274.24	277.30	270.35	51.1%	32.6%	16.3%
Female	272.55	271.33	283.18	284.14	274.38	67.5%	25%	7.5%
Prior Care								
Head Start	*	*	*	*	*	*	*	*
Prekindergarten	268.78	267.4	277.36	279.42	270.03	52%	31.5%	16.6%
Child Care Center	275.47	273.36	279	283.07	275.26	67.1%	30.6%	2.3%
Family Child Care	273.02	275.7	280.55	283.04	274.87	73.6%	18.9%	7.5%
Home/Informal Care	265.48	264.11	273.94	272.76	266.25	39.2%	32.4%	28.4%
Non-Public Nursery	276.08	274.81	285.4	286.06	277.73	76.3%	19.2%	4.5%
Special Education								
No	272.31	270.89	279.94	281.81	273.26	61.6%	29.3%	9.1%
Yes	264.27	263.50	268.50	271.57	264.73	40.2%	23.9%	35.9%
English Learners								
No	272.54	271.21	279.11	281.08	273.22	62.1%	27.8%	10%
Yes	261.53	259.86	275.73	277.91	264.52	33.7%	37.2%	29.1%
Free and Reduced Price Meals								
No	274.10	272.82	281.43	282.61	274.96	67.8%	24.8%	7.4%
Yes	264.55	262.97	271.72	275.89	265.54	37.1%	39.1%	23.8%
Aggregated Data	271.50	270.14	278.79	280.78	272.40	59.4%	28.7%	11.8%

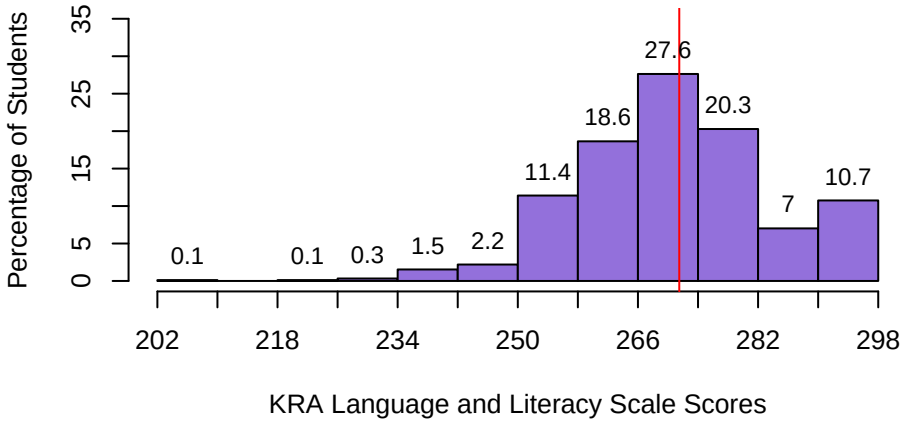
* Fewer than 25 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Frederick County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
35
0.1
0.2
0.9
2.7
9.5
17.2
28.2
22.6
9.1
9.4
202
218
234
250
266
282
298
KRA Overall Scale Scores

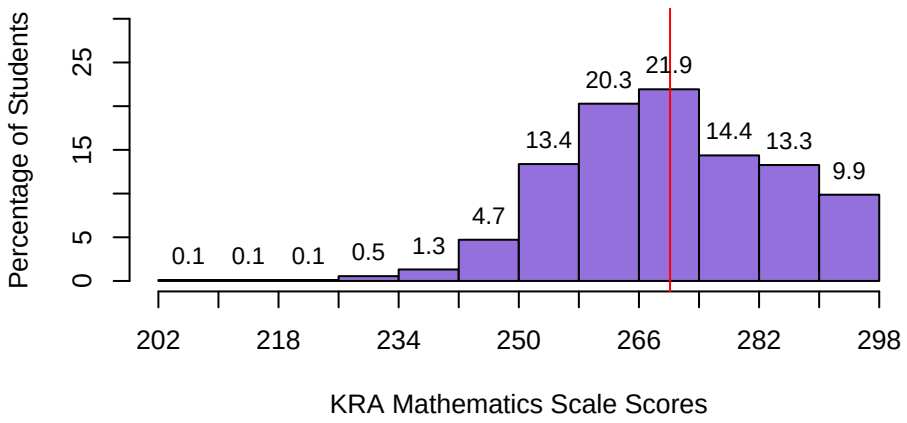
Domain Score Distributions for Frederick County

(The red line indicates the district's average score for a particular domain.)

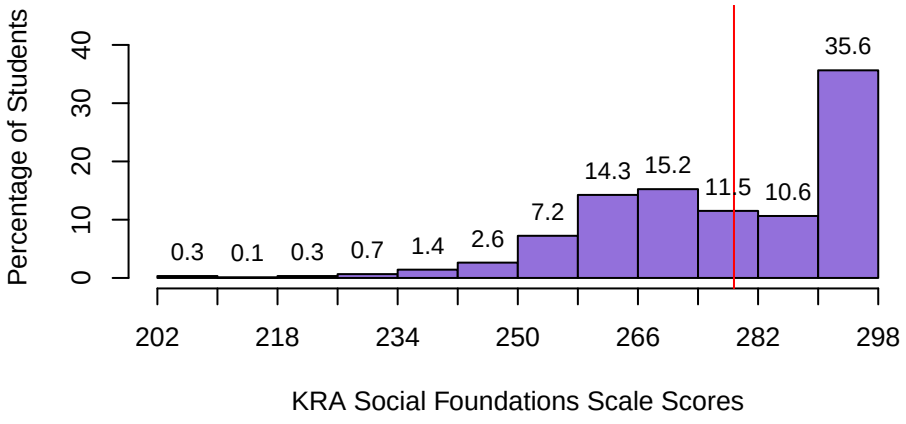
Language and Literacy



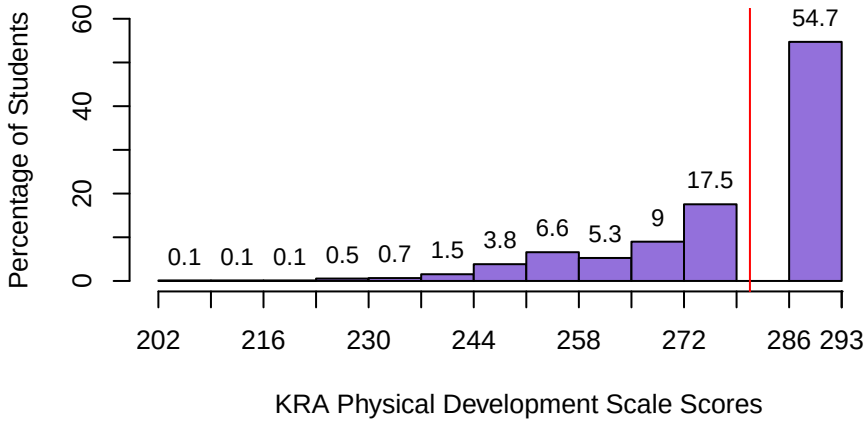
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Garrett County Data File Summary 2018-2019

Final Record Count for KRA Data File (37% Sample of Enrolled Kindergartners)	***94***

Gender		
	Frequency	***Percent***
Male	50	53.19%
Female	44	46.81%
Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	0	0%
Asian	0	0%
Black/African American	1	1.06%
Native Hawaiian/Other Pacific Islander	0	0%
White	91	96.81%
Hispanic/Latino	1	1.06%
Two or More Races (Non-Hispanic/Latino)	1	1.06%
Free & Reduced Priced Meals		
	Frequency	***Percent***
No	52	55.32%
Yes	42	44.68%
Special Education		
	Frequency	***Percent***
No	85	90.43%
Yes	9	9.57%
English Learners		
	Frequency	***Percent***
No	94	100%
Yes	0	0%
Predominant Prior Care†		
	Frequency	***Percent***
Head Start	13	13.83%
Prekindergarten	54	57.45%
Child Care Center	1	1.06%
Family Child Care	7	7.45%
Home/Informal Care	14	14.89%
Non-Public Nursery	2	2.13%
Repeated Kindergarten	3	3.19%

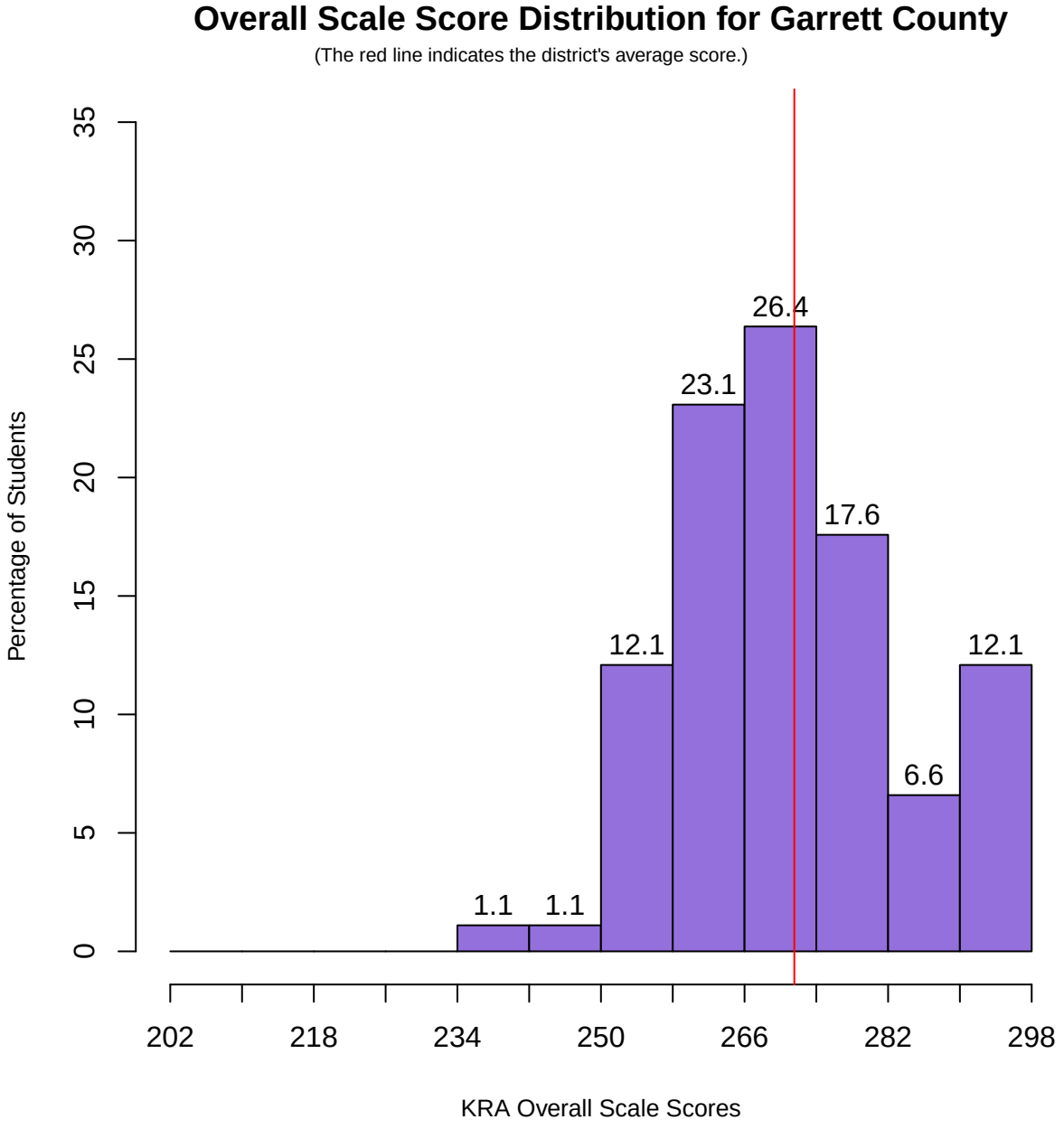
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Garrett County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	*	*	*	*	*	*	*	*
Black/African American	*	*	*	*	*	*	*	*
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	269.17	271.4	276.25	279.8	271.38	54.5%	31.8%	13.6%
Hispanic/Latino	*	*	*	*	*	*	*	*
Two or More Races (Non-Hispanic/Latino)	*	*	*	*	*	*	*	*
Gender								
Male	266.98	270.92	272.33	275.81	268.77	47.9%	33.3%	18.8%
Female	272.28	271.30	281.67	285.16	274.65	62.8%	30.2%	7%
Prior Care								
Head Start	*	*	*	*	*	*	*	*
Prekindergarten	272.79	274.71	278.38	282.88	274.65	65.4%	26.9%	7.7%
Child Care Center	*	*	*	*	*	*	*	*
Family Child Care	*	*	*	*	*	*	*	*
Home/Informal Care	*	*	*	*	*	*	*	*
Non-Public Nursery	*	*	*	*	*	*	*	*
Special Education								
No	270.72	272.65	279.16	282.78	273.22	60.2%	31.3%	8.4%
Yes	*	*	*	*	*	*	*	*
English Learners								
No	269.48	271.1	276.75	280.23	271.55	54.9%	31.9%	13.2%
Yes	*	*	*	*	*	*	*	*
Free and Reduced Price Meals								
No	271.76	274.37	280.08	283.20	274.69	66.7%	23.5%	9.8%
Yes	266.57	266.93	272.50	276.45	267.55	40%	42.5%	17.5%
Aggregated Data	269.48	271.10	276.75	280.23	271.55	54.9%	31.9%	13.2%

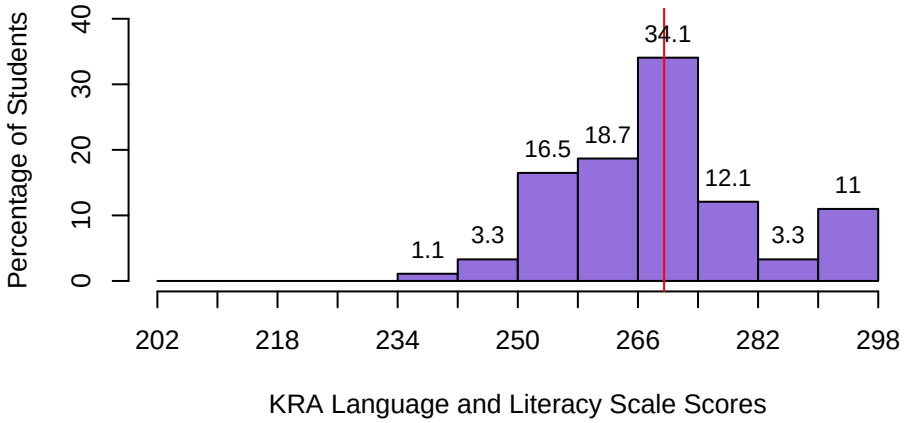
* Fewer than 25 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Garrett County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
35
1.1
1.1
12.1
23.1
26.4
17.6
6.6
12.1
202
218
234
250
266
282
298
KRA Overall Scale Scores

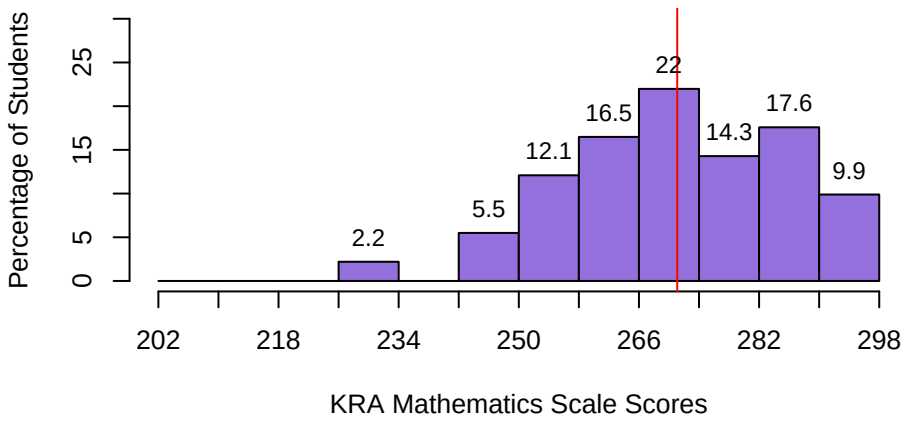
Domain Score Distributions for Garrett County

(The red line indicates the district's average score for a particular domain.)

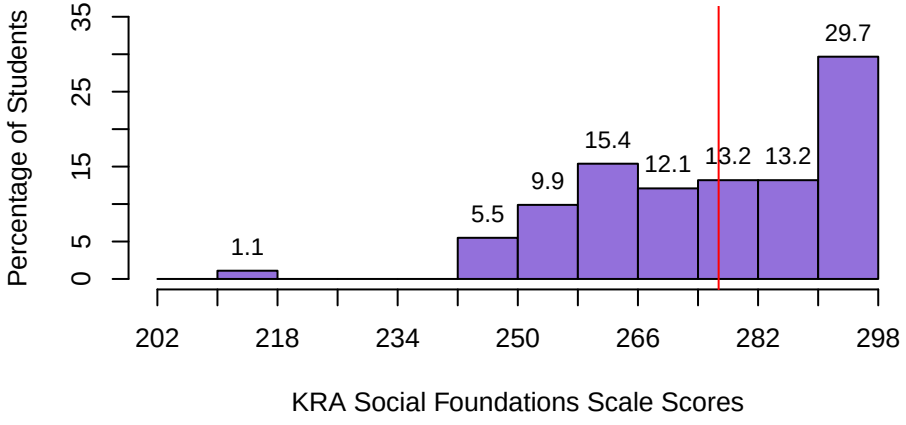
Language and Literacy



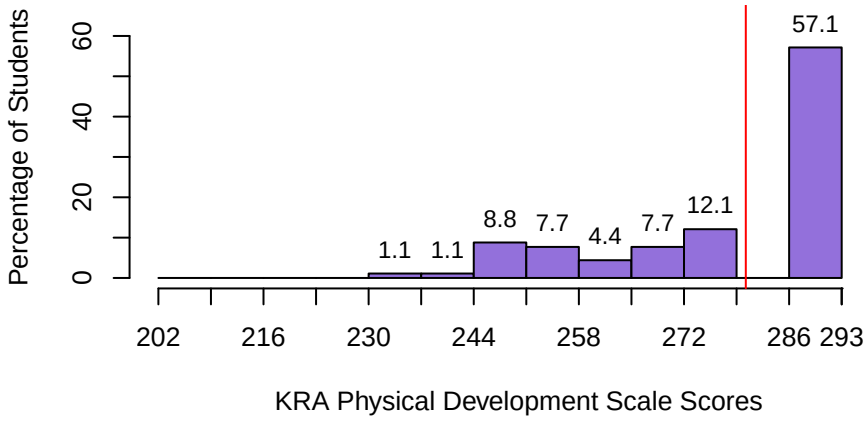
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Harford County Data File Summary 2018-2019

Final Record Count for KRA Data File (31% Sample of Enrolled Kindergartners)	***809***

Gender		
	Frequency	***Percent***
Male	422	52.16%
Female	387	47.84%
Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	1	0.12%
Asian	21	2.6%
Black/African American	135	16.69%
Native Hawaiian/Other Pacific Islander	1	0.12%
White	527	65.14%
Hispanic/Latino	71	8.78%
Two or More Races (Non-Hispanic/Latino)	53	6.55%
Free & Reduced Priced Meals		
	Frequency	***Percent***
No	556	68.73%
Yes	253	31.27%
Special Education		
	Frequency	***Percent***
No	747	92.34%
Yes	62	7.66%
English Learners		
	Frequency	***Percent***
No	784	96.91%
Yes	25	3.09%
Predominant Prior Care†		
	Frequency	***Percent***
Head Start	19	2.37%
Prekindergarten	361	45.07%
Child Care Center	154	19.23%
Family Child Care	35	4.37%
Home/Informal Care	97	12.11%
Non-Public Nursery	133	16.6%
Repeated Kindergarten	2	0.25%

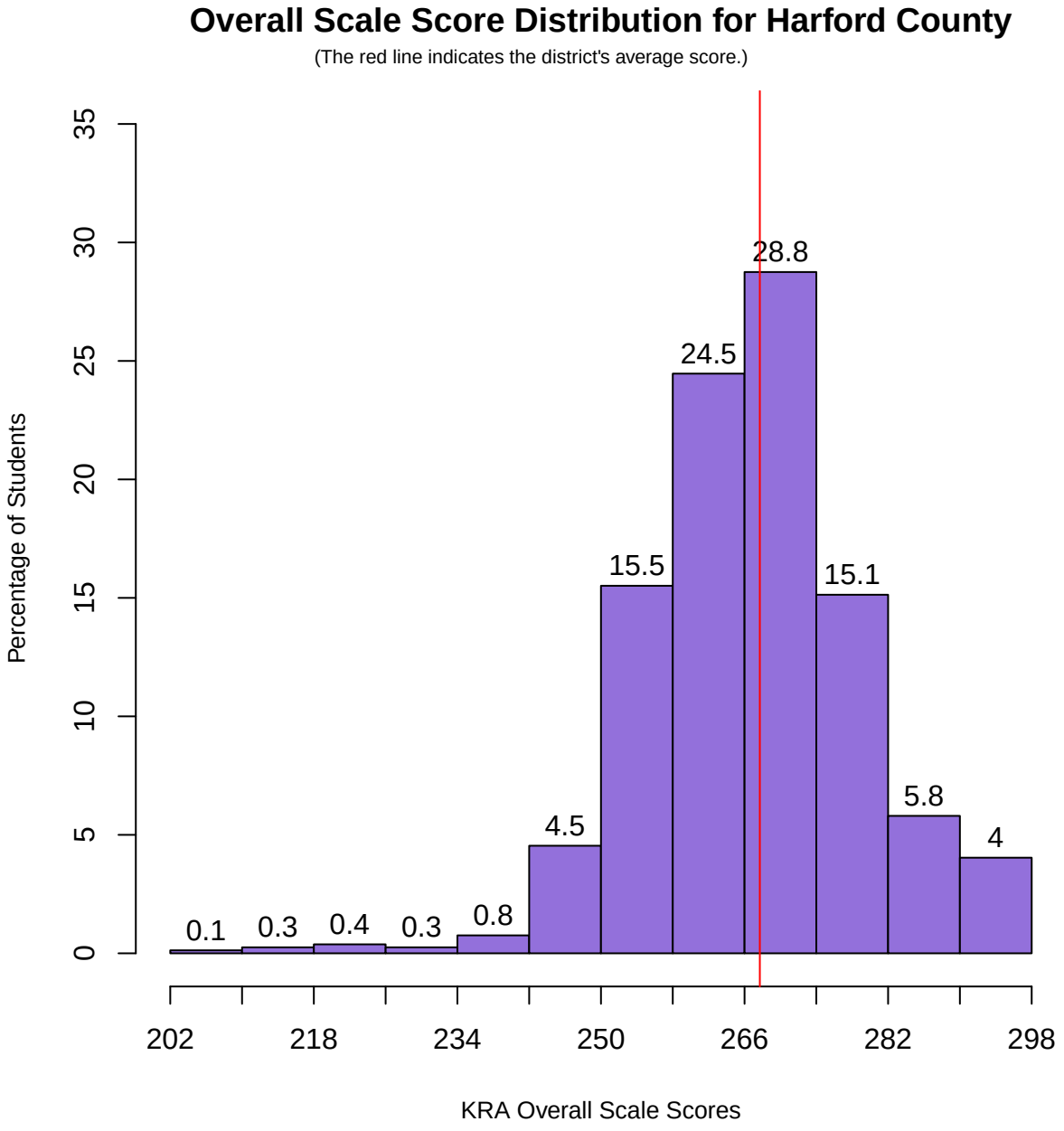
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Harford County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	*	*	*	*	*	*	*	*
Black/African American	263.17	263.19	265.29	268.12	263.04	25.6%	42.6%	31.8%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	268.81	270.55	272.2	274.04	269.07	47.9%	36.6%	15.5%
Hispanic/Latino	261.9	263.17	266.07	268.16	262.96	31.9%	37.7%	30.4%
Two or More Races (Non-Hispanic/Latino)	270.88	272.06	272.37	278.18	271.02	43.1%	49%	7.8%
Gender								
Male	265.87	267.65	266.19	268.77	265.42	35.5%	40.3%	24.2%
Female	269.09	269.93	275.54	277.35	270.20	50.4%	36.1%	13.5%
Prior Care								
Head Start	*	*	*	*	*	*	*	*
Prekindergarten	267.51	267.61	270.59	272.69	267.51	42.4%	37.6%	19.9%
Child Care Center	270.17	271.3	270.99	274.59	269.73	51.3%	36.7%	12%
Family Child Care	266.59	269.85	275.35	272.88	268.24	47.1%	38.2%	14.7%
Home/Informal Care	260.24	262.26	265.01	264.57	261.1	19.1%	41.5%	39.4%
Non-Public Nursery	271.1	275.42	275.01	277.9	272	53.4%	39.8%	6.8%
Special Education								
No	268.36	269.90	272.00	274.28	268.75	44.7%	39.1%	16.1%
Yes	256.23	255.03	254.79	256.24	255.44	17.7%	29%	53.2%
English Learners								
No	267.78	269.20	271.03	273.26	268.05	43.6%	38.5%	17.8%
Yes	256.04	254.68	259.12	260.80	257.00	12%	32%	56%
Free and Reduced Price Meals								
No	269.28	271.07	272.32	274.67	269.62	49.6%	36.8%	13.6%
Yes	263.32	263.65	267.02	268.94	263.51	27.3%	41.8%	30.9%
Aggregated Data	267.41	268.74	270.66	272.87	267.70	42.6%	38.3%	19%

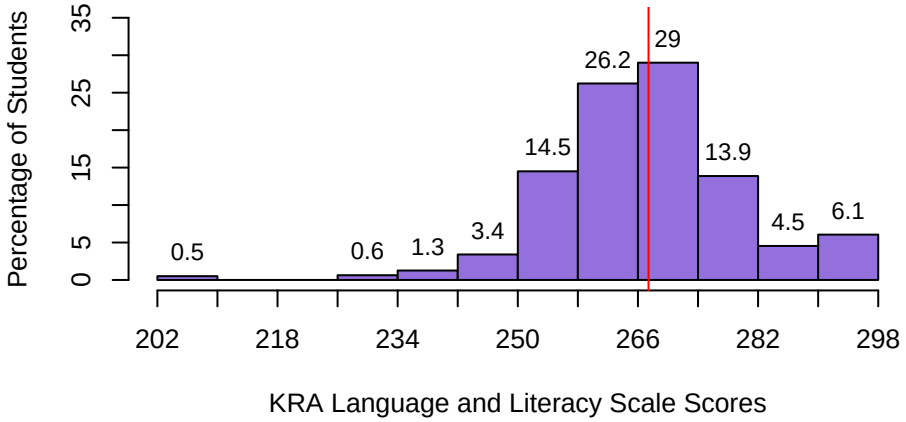
* Fewer than 25 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Harford County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
35
0.1
0.3
0.4
0.3
0.8
4.5
15.5
24.5
28.8
15.1
5.8
4
202
218
234
250
266
282
298
KRA Overall Scale Scores

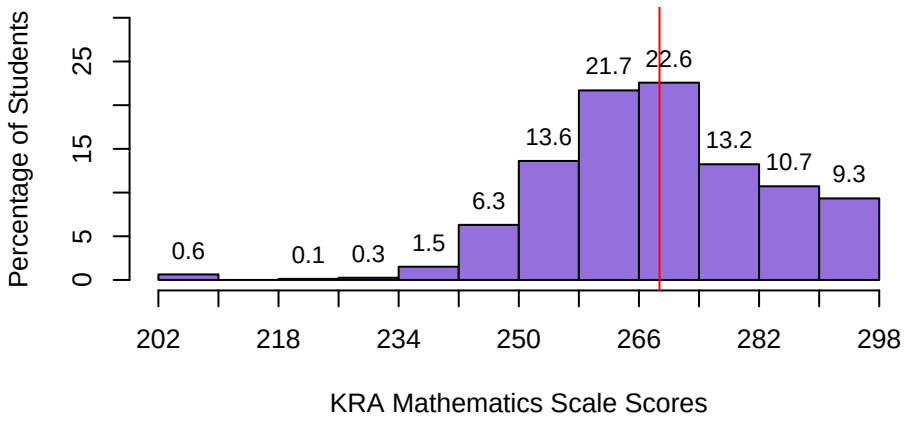
Domain Score Distributions for Harford County

(The red line indicates the district's average score for a particular domain.)

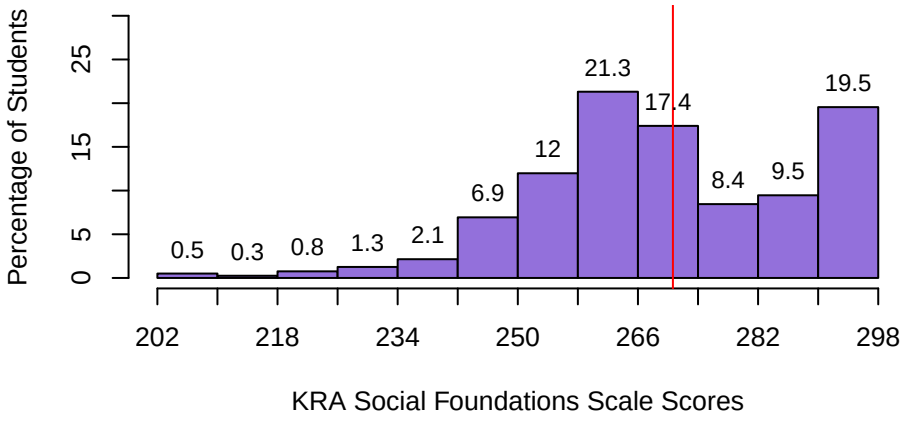
Language and Literacy



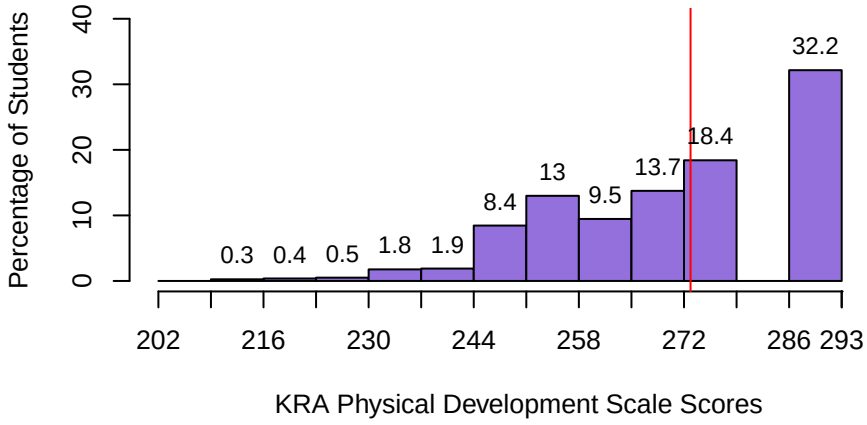
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Howard County Data File Summary 2018-2019

Final Record Count for KRA Data File (31% Sample of Enrolled Kindergartners)	***1,253***

Gender		
	Frequency	***Percent***
Male	638	50.92%
Female	615	49.08%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	5	0.4%
Asian	303	24.18%
Black/African American	257	20.51%
Native Hawaiian/Other Pacific Islander	3	0.24%
White	464	37.03%
Hispanic/Latino	137	10.93%
Two or More Races (Non-Hispanic/Latino)	84	6.7%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	941	75.1%
Yes	312	24.9%

Special Education		
	Frequency	***Percent***
No	1,134	90.5%
Yes	119	9.5%

English Learners		
	Frequency	***Percent***
No	1,148	91.62%
Yes	105	8.38%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	52	4.43%
Prekindergarten	408	34.75%
Child Care Center	309	26.32%
Family Child Care	34	2.9%
Home/Informal Care	106	9.03%
Non-Public Nursery	261	22.23%
Repeated Kindergarten	4	0.34%

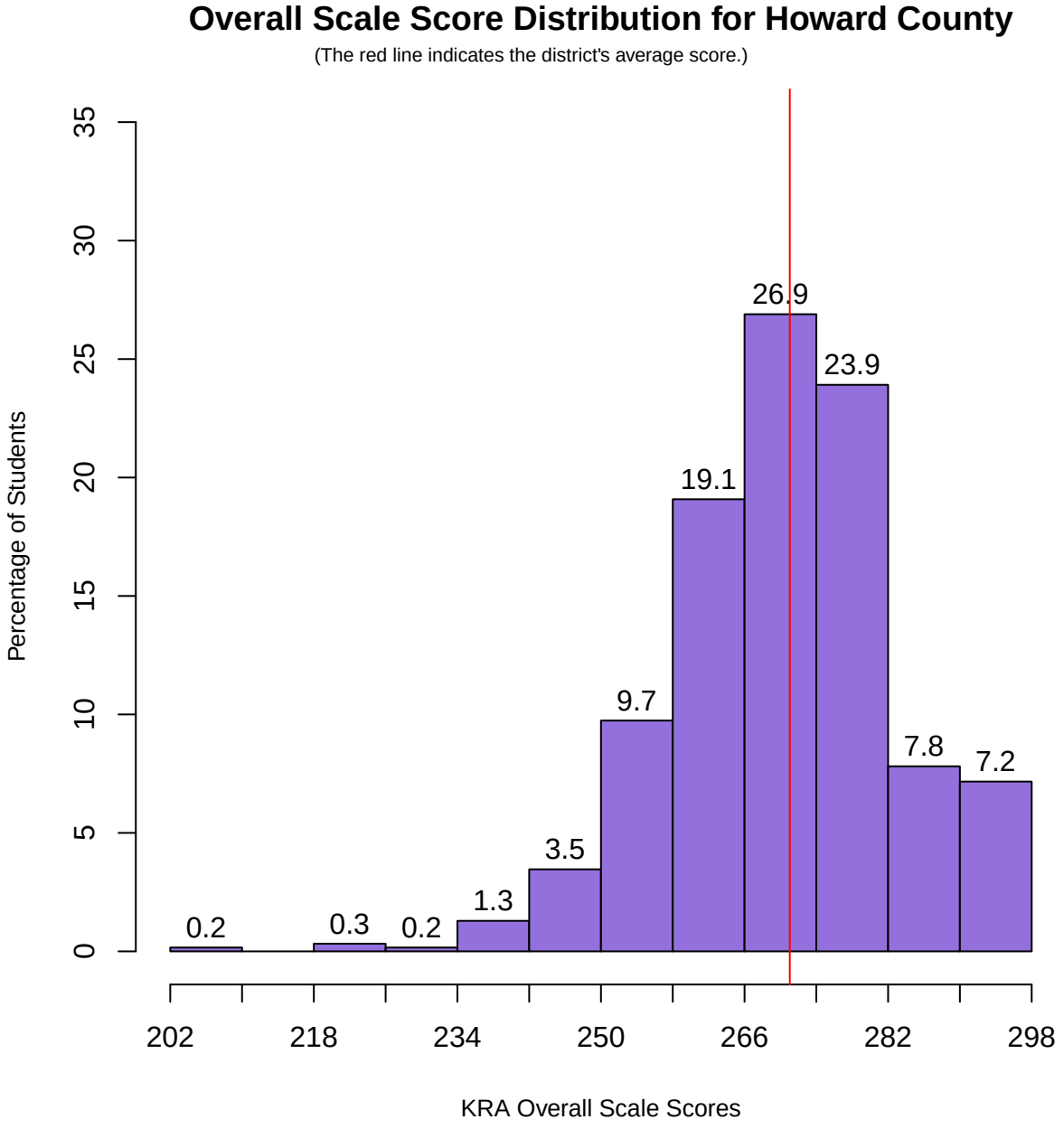
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Howard County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	270.79	273.49	275.36	279.51	272.19	61.4%	26.5%	12.1%
Black/African American	267.18	267.3	271.67	273.88	267.3	45.3%	34.6%	20.1%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	272.99	275.33	278.44	280.57	274.09	67.4%	26.6%	6%
Hispanic/Latino	261.77	262.9	272.69	276.18	264.81	31.6%	41.2%	27.2%
Two or More Races (Non-Hispanic/Latino)	270.85	272.38	278.14	279.23	272.38	54.8%	38.1%	7.1%
Gender								
Male	268.78	270.54	271.29	274.31	269.03	50%	32.3%	17.7%
Female	270.89	272.67	280.04	282.56	273.12	63%	28.9%	8.2%
Prior Care								
Head Start	265.10	266.67	268.60	274.77	266.08	36.5%	40.4%	23.1%
Prekindergarten	265.94	266.31	270.84	274.90	266.78	44.1%	34.9%	20.9%
Child Care Center	273.80	275.23	277.86	280.31	274.18	66%	28.8%	5.2%
Family Child Care	270.32	270.68	279.53	275.97	271.74	52.9%	35.3%	11.8%
Home/Informal Care	264.57	266.79	273.34	276.60	267.18	50.5%	26.7%	22.9%
Non-Public Nursery	273.72	278.22	280.59	281.60	275.64	69.1%	26.3%	4.6%
Special Education								
No	270.95	272.93	277.71	280.23	272.47	60.7%	29.5%	9.8%
Yes	258.88	258.73	255.21	260.32	257.31	14.5%	41%	44.4%
English Learners								
No	271.02	272.72	276.82	279.19	272.11	60.4%	29%	10.6%
Yes	256.82	259.32	262.24	269.35	259.45	12.4%	47.6%	40%
Free and Reduced Price Meals								
No	272.30	274.66	277.80	280.16	273.48	65%	27%	8%
Yes	262.29	262.28	268.89	272.91	263.65	30.2%	41.6%	28.2%
Aggregated Data	269.82	271.59	275.59	278.36	271.04	56.4%	30.6%	13%

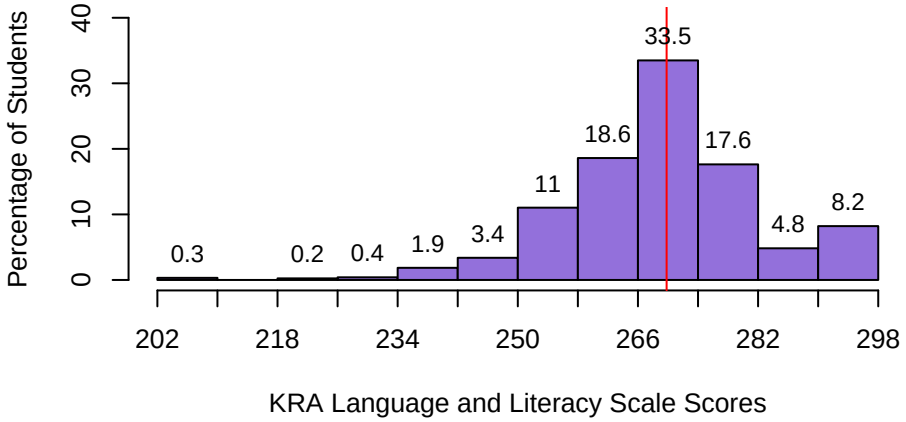
* Fewer than 25 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Howard County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
35
0.2
0.3
0.2
1.3
3.5
9.7
19.1
26.9
23.9
7.8
7.2
202
218
234
250
266
282
298
KRA Overall Scale Scores

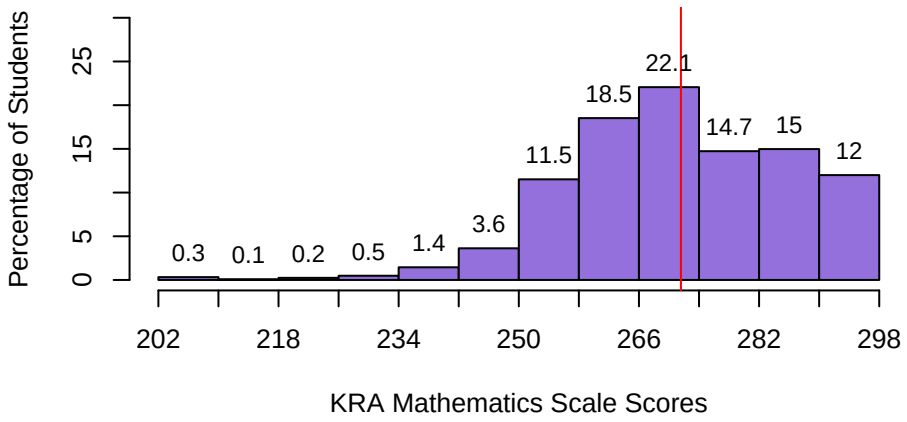
Domain Score Distributions for Howard County

(The red line indicates the district's average score for a particular domain.)

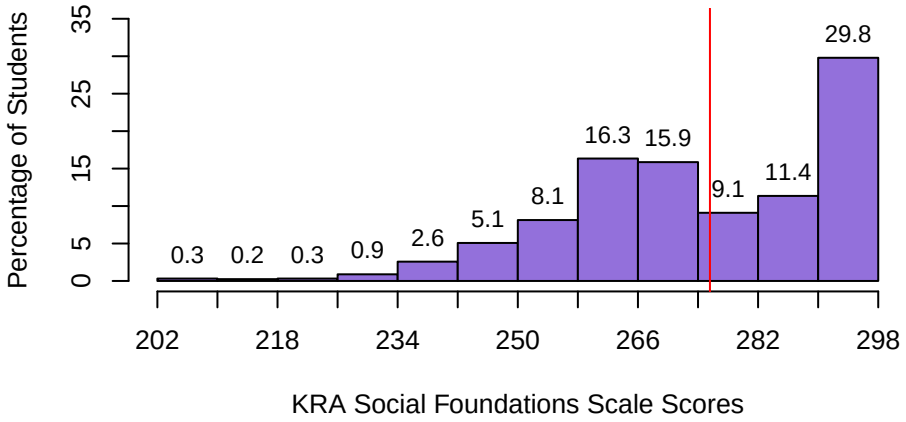
Language and Literacy



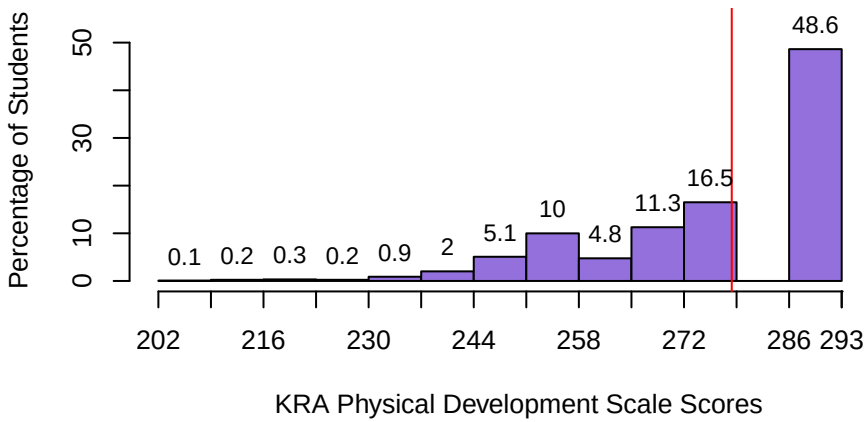
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Kent County Data File Summary 2018-2019

Final Record Count for KRA Data File		***137***
Gender		
	Frequency	***Percent***
Male	78	56.93%
Female	59	43.07%
Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	0	0%
Asian	0	0%
Black/African American	40	29.2%
Native Hawaiian/Other Pacific Islander	0	0%
White	71	51.82%
Hispanic/Latino	16	11.68%
Two or More Races (Non-Hispanic/Latino)	10	7.3%
Free & Reduced Priced Meals		
	Frequency	***Percent***
No	57	41.61%
Yes	80	58.39%
Special Education		
	Frequency	***Percent***
No	124	90.51%
Yes	13	9.49%
English Learners		
	Frequency	***Percent***
No	124	90.51%
Yes	13	9.49%
Predominant Prior Care†		
	Frequency	***Percent***
Head Start	1	0.74%
Prekindergarten	124	91.85%
Child Care Center	1	0.74%
Family Child Care	0	0%
Home/Informal Care	5	3.7%
Non-Public Nursery	4	2.96%
Repeated Kindergarten	0	0%

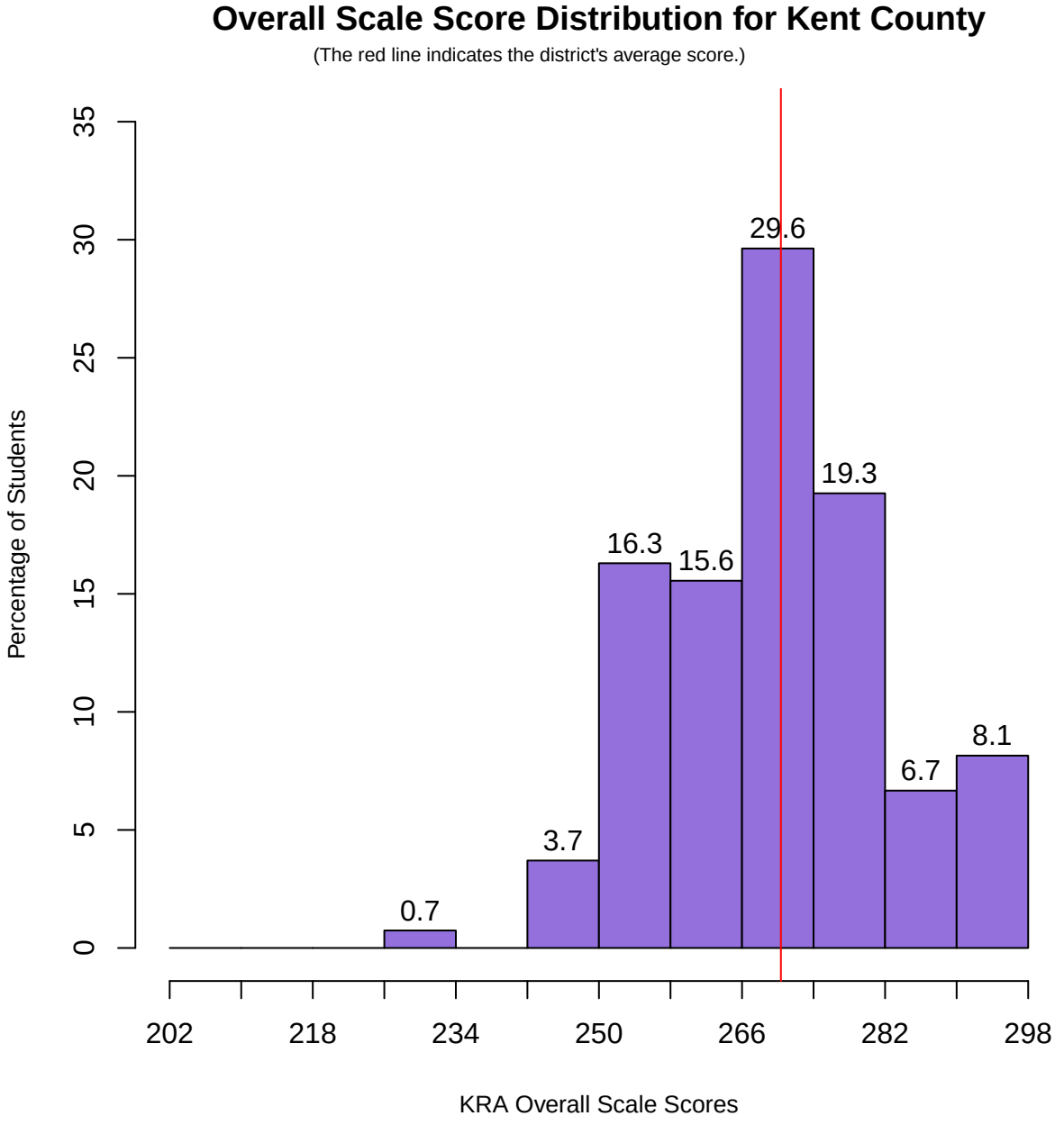
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Kent County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	*	*	*	*	*	*	*	*
Black/African American	262.32	262.9	270.43	273.43	264.35	32.5%	35%	32.5%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	272.78	275.16	284.55	283.67	275.32	72.5%	20.3%	7.2%
Hispanic/Latino	262.31	262.44	268.44	272.12	263.94	25%	50%	25%
Two or More Races (Non-Hispanic/Latino)	266.9	268.5	280.1	285.2	270.3	50%	30%	20%
Gender								
Male	265.61	267.88	274.05	276.64	267.78	48.7%	27.6%	23.7%
Female	271.10	271.64	283.37	282.90	273.66	59.3%	30.5%	10.2%
Prior Care								
Head Start	*	*	*	*	*	*	*	*
Prekindergarten	268.44	269.9	278.38	279.63	270.7	52.8%	30.9%	16.3%
Child Care Center	*	*	*	*	*	*	*	*
Family Child Care	*	*	*	*	*	*	*	*
Home/Informal Care	256.6	261.4	270	272.6	260.8	40%	0%	60%
Non-Public Nursery	*	*	*	*	*	*	*	*
Special Education								
No	268.89	270.68	279.07	280.39	271.28	56.6%	27%	16.4%
Yes	259.77	258.69	269.23	269.85	261.62	23.1%	46.2%	30.8%
English Learners								
No	268.89	270.37	279.55	280.30	271.28	57.4%	25.4%	17.2%
Yes	259.77	261.62	264.77	270.77	261.62	15.4%	61.5%	23.1%
Free and Reduced Price Meals								
No	272.16	274.68	282.18	281.96	274.72	73.7%	15.8%	10.5%
Yes	264.97	265.76	275.17	277.49	267.15	38.5%	38.5%	23.1%
Aggregated Data	268.01	269.53	278.13	279.38	270.35	53.3%	28.9%	17.8%

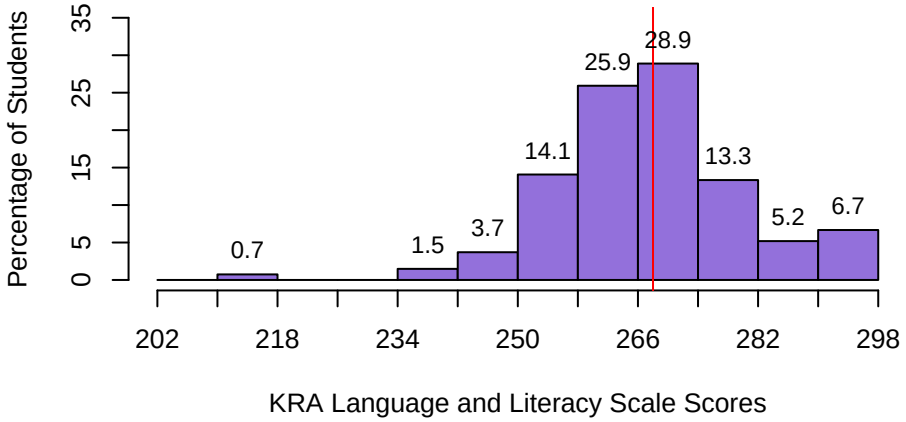
* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Kent County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
35
0.7
3.7
16.3
15.6
29.6
19.3
6.7
8.1
202
218
234
250
266
282
298
KRA Overall Scale Scores

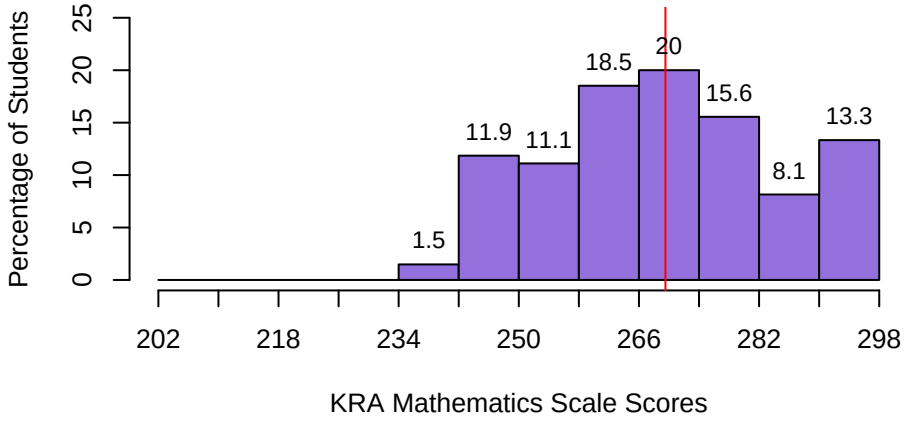
Domain Score Distributions for Kent County

(The red line indicates the district's average score for a particular domain.)

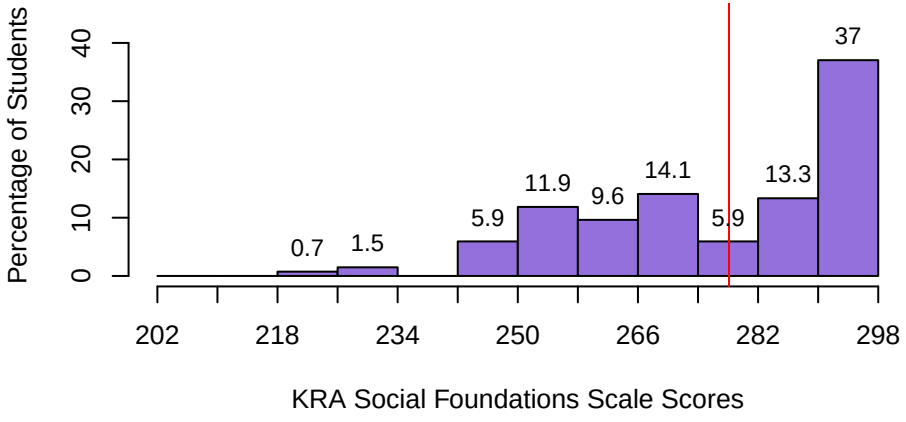
Language and Literacy



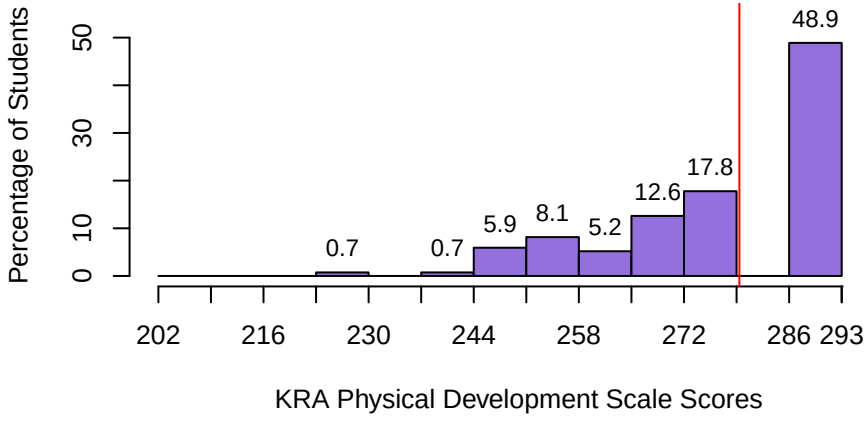
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

MD School for the Blind Data File Summary 2018-2019

Final Record Count for KRA Data File	*3*

Gender		
	Frequency	***Percent***
Male	1	33.33%
Female	2	66.67%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	0	0%
Asian	0	0%
Black/African American	1	33.33%
Native Hawaiian/Other Pacific Islander	0	0%
White	1	33.33%
Hispanic/Latino	1	33.33%
Two or More Races (Non-Hispanic/Latino)	0	0%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	3	100%
Yes	0	0%

Special Education		
	Frequency	***Percent***
No	0	0%
Yes	3	100%

English Learners		
	Frequency	***Percent***
No	3	100%
Yes	0	0%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	0	0%
Prekindergarten	0	0%
Child Care Center	0	0%
Family Child Care	0	0%
Home/Informal Care	0	0%
Non-Public Nursery	0	0%
Repeated Kindergarten	0	0%

* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for MD School for the Blind

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	*	*	*	*	*	*	*	*
Black/African American	*	*	*	*	*	*	*	*
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	*	*	*	*	*	*	*	*
Hispanic/Latino	*	*	*	*	*	*	*	*
Two or More Races (Non-Hispanic/Latino)	*	*	*	*	*	*	*	*
Gender								
Male	*	*	*	*	*	*	*	*
Female	*	*	*	*	*	*	*	*
Prior Care								
Head Start	*	*	*	*	*	*	*	*
Prekindergarten	*	*	*	*	*	*	*	*
Child Care Center	*	*	*	*	*	*	*	*
Family Child Care	*	*	*	*	*	*	*	*
Home/Informal Care	*	*	*	*	*	*	*	*
Non-Public Nursery	*	*	*	*	*	*	*	*
Special Education								
No	*	*	*	*	*	*	*	*
Yes	*	*	*	*	*	*	*	*
English Learners								
No	*	*	*	*	*	*	*	*
Yes	*	*	*	*	*	*	*	*
Free and Reduced Price Meals								
No	*	*	*	*	*	*	*	*
Yes	*	*	*	*	*	*	*	*
Aggregated Data	*	*	*	*	*	*	*	*

* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.

Kindergarten Readiness Assessment

MD School for the Deaf Data File Summary 2018-2019

Final Record Count for KRA Data File	***31***

Gender		
	Frequency	***Percent***
Male	21	67.74%
Female	10	32.26%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	0	0%
Asian	0	0%
Black/African American	7	22.58%
Native Hawaiian/Other Pacific Islander	0	0%
White	16	51.61%
Hispanic/Latino	2	6.45%
Two or More Races (Non-Hispanic/Latino)	6	19.35%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	31	100%
Yes	0	0%

Special Education		
	Frequency	***Percent***
No	0	0%
Yes	31	100%

English Learners		
	Frequency	***Percent***
No	31	100%
Yes	0	0%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	0	0%
Prekindergarten	31	100%
Child Care Center	0	0%
Family Child Care	0	0%
Home/Informal Care	0	0%
Non-Public Nursery	0	0%
Repeated Kindergarten	0	0%

* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

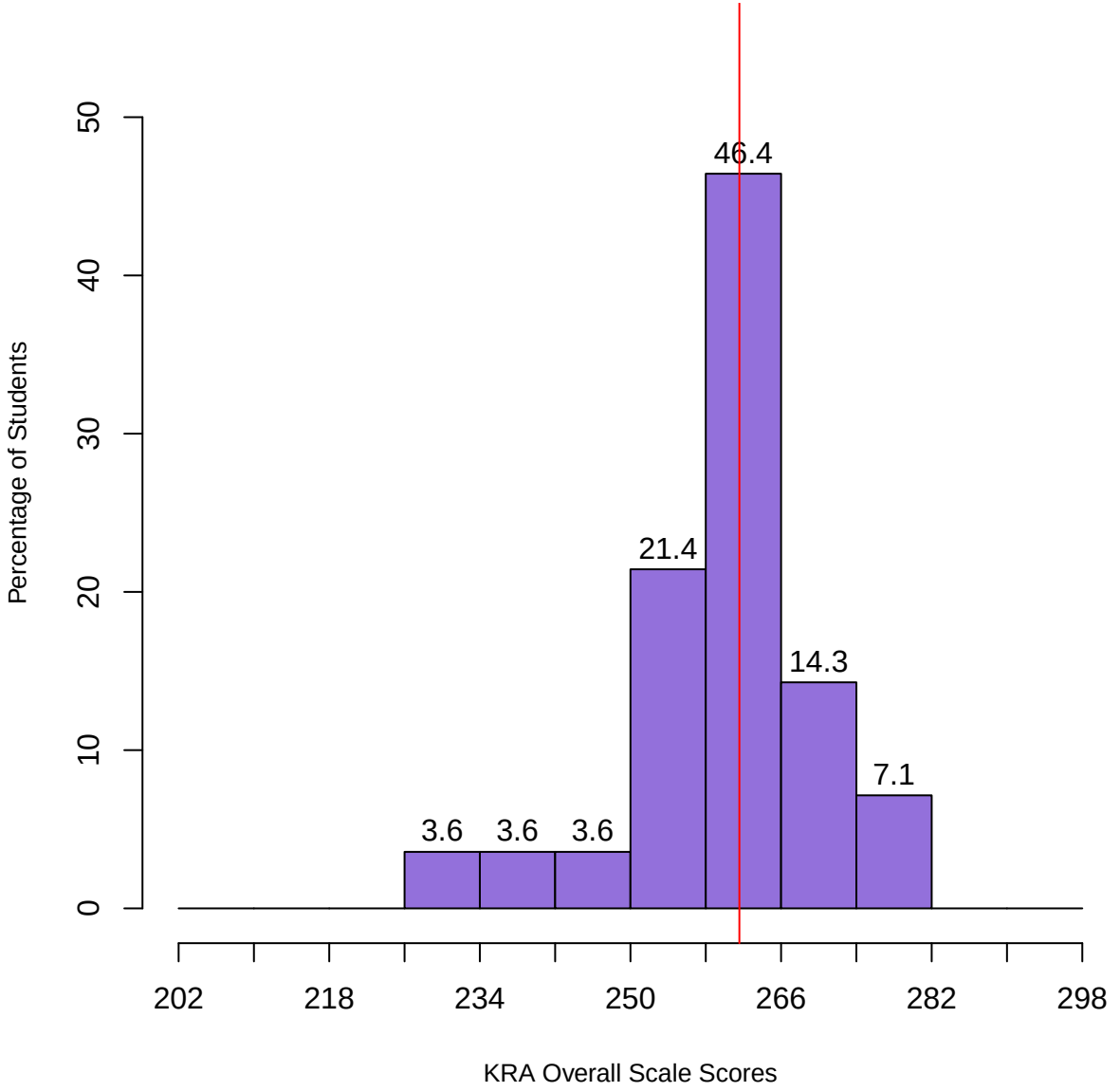
KRA Composite and Scale Scores for MD School for the Deaf

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	*	*	*	*	*	*	*	*
Black/African American	251.6	254	249.8	266.2	253.4	0%	40%	60%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	260.62	269.69	259.31	274.44	263.19	18.8%	62.5%	18.8%
Hispanic/Latino	*	*	*	*	*	*	*	*
Two or More Races (Non-Hispanic/Latino)	261.8	270.6	261	278.6	263.8	20%	60%	20%
Gender								
Male	258.94	266.89	257.11	273.17	261.28	11.1%	66.7%	22.2%
Female	259.90	267.60	259.10	275.40	262.10	20%	50%	30%
Prior Care								
Head Start	*	*	*	*	*	*	*	*
Prekindergarten	259.29	267.14	257.82	273.96	261.57	14.3%	60.7%	25%
Child Care Center	*	*	*	*	*	*	*	*
Family Child Care	*	*	*	*	*	*	*	*
Home/Informal Care	*	*	*	*	*	*	*	*
Non-Public Nursery	*	*	*	*	*	*	*	*
Special Education								
No	*	*	*	*	*	*	*	*
Yes	259.29	267.14	257.82	273.96	261.57	14.3%	60.7%	25%
English Learners								
No	259.29	267.14	257.82	273.96	261.57	14.3%	60.7%	25%
Yes	*	*	*	*	*	*	*	*
Free and Reduced Price Meals								
No	259.29	267.14	257.82	273.96	261.57	14.3%	60.7%	25%
Yes	*	*	*	*	*	*	*	*
Aggregated Data	259.29	267.14	257.82	273.96	261.57	14.3%	60.7%	25%

* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.

Overall Scale Score Distribution for MD School for the Deaf

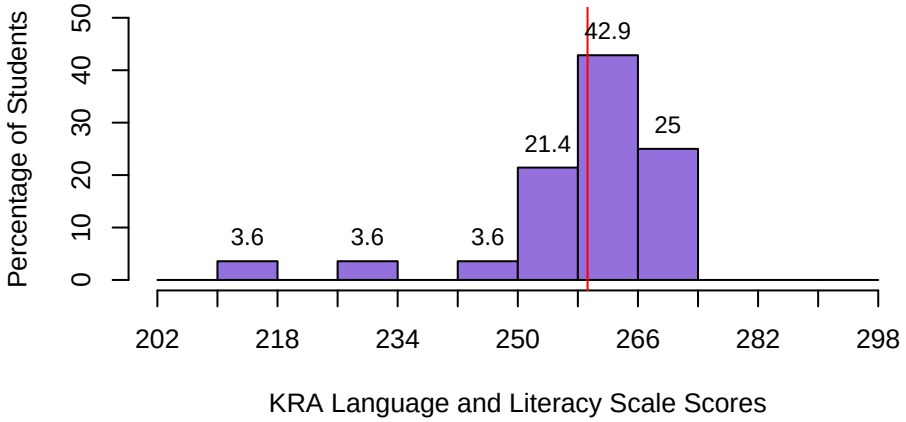
(The red line indicates the district's average score.)



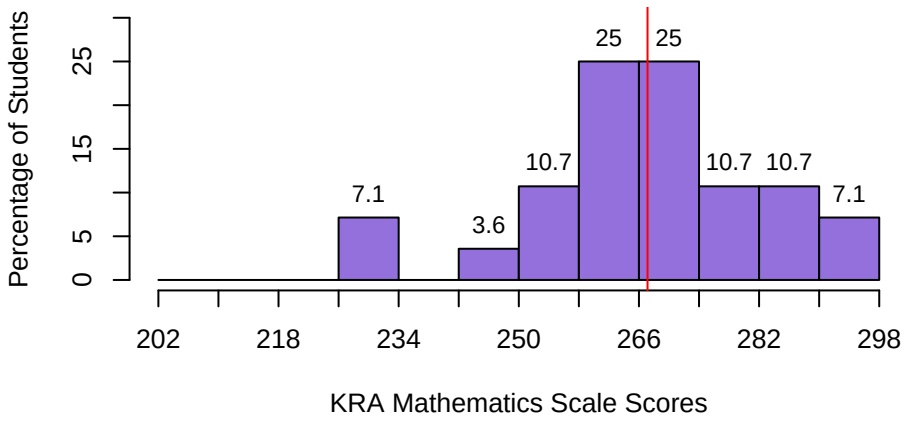
Domain Score Distributions for MD School for the Deaf

(The red line indicates the district's average score for a particular domain.)

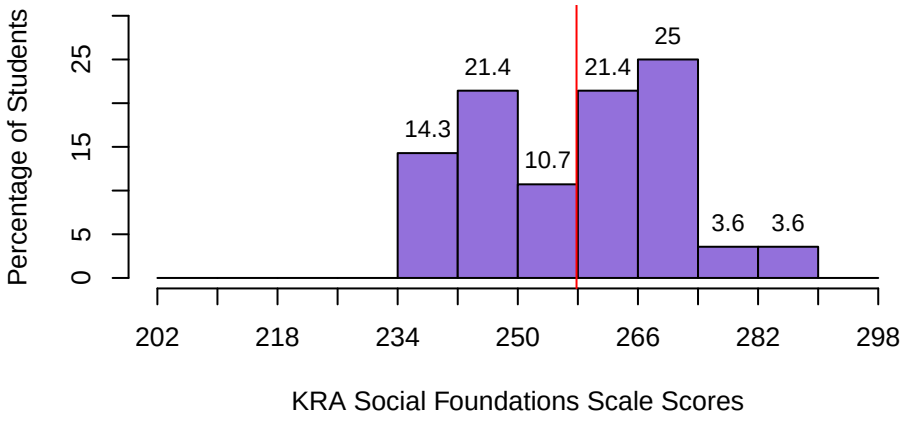
Language and Literacy



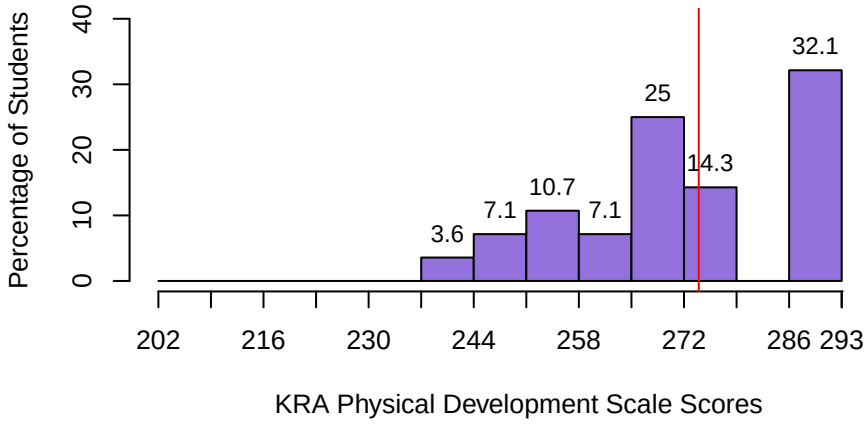
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Montgomery County Data File Summary 2018-2019

Final Record Count for KRA Data File (12% Sample of Enrolled Kindergartners)	***1,381***

Gender		
	Frequency	***Percent***
Male	710	51.41%
Female	671	48.59%
Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	5	0.36%
Asian	194	14.05%
Black/African American	287	20.78%
Native Hawaiian/Other Pacific Islander	5	0.36%
White	395	28.6%
Hispanic/Latino	427	30.92%
Two or More Races (Non-Hispanic/Latino)	68	4.92%
Free & Reduced Priced Meals		
	Frequency	***Percent***
No	874	63.29%
Yes	507	36.71%
Special Education		
	Frequency	***Percent***
No	1,211	87.69%
Yes	170	12.31%
English Learners		
	Frequency	***Percent***
No	970	70.24%
Yes	411	29.76%
Predominant Prior Care†		
	Frequency	***Percent***
Head Start	38	2.75%
Prekindergarten	168	12.17%
Child Care Center	150	10.86%
Family Child Care	37	2.68%
Home/Informal Care	666	48.23%
Non-Public Nursery	302	21.87%
Repeated Kindergarten	20	1.45%

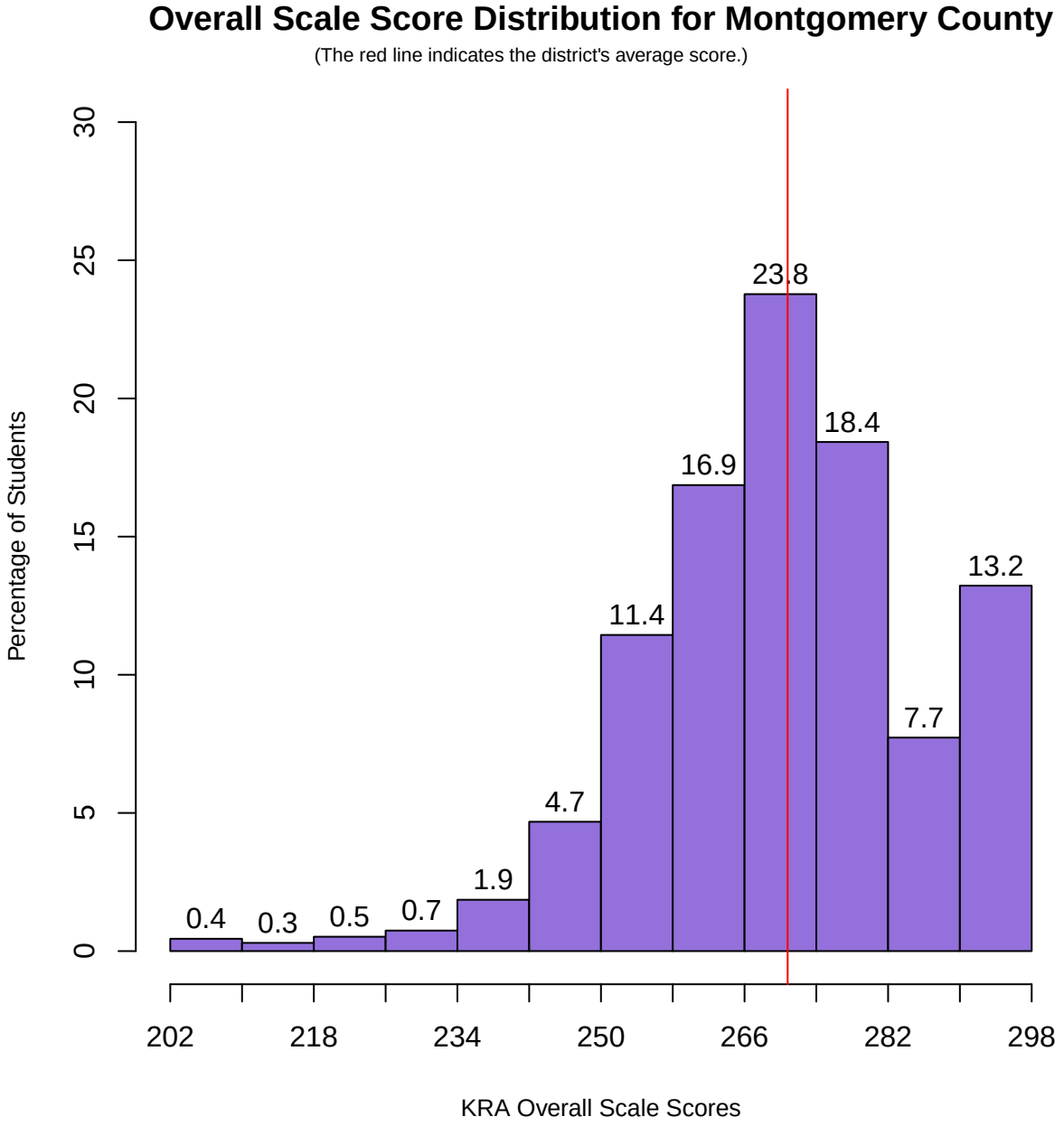
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Montgomery County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	275.21	275.93	275.87	279.78	275.02	66.7%	23.3%	10.1%
Black/African American	268.06	268.9	267.23	271.01	267.29	46%	31.4%	22.6%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	278.35	278.93	275.6	279.36	276.6	70.1%	21.4%	8.5%
Hispanic/Latino	263.53	264.4	269.41	272.53	265.04	34.9%	36.6%	28.5%
Two or More Races (Non-Hispanic/Latino)	276.6	277.18	274.76	277.94	275.58	70.1%	16.4%	13.4%
Gender								
Male	270.33	271.20	268.53	271.92	269.18	49%	29.4%	21.6%
Female	271.88	272.42	275.64	279.32	272.54	58.6%	27.1%	14.3%
Prior Care								
Head Start	267.23	268.89	274.31	275.23	268.89	42.9%	40%	17.1%
Prekindergarten	266.73	267.58	267.65	271.79	266.44	40%	37%	23%
Child Care Center	276.29	277.35	274.87	278.80	274.95	65.3%	27.9%	6.8%
Family Child Care	270.43	268.19	271.59	272.08	268.30	40.5%	37.8%	21.6%
Home/Informal Care	266.52	267.22	268.21	271.95	266.73	43.3%	30.3%	26.4%
Non-Public Nursery	280.64	281.38	279.90	283.16	279.68	78.9%	17.8%	3.4%
Special Education								
No	273.38	274.14	275.00	278.56	273.29	58.6%	28.7%	12.7%
Yes	254.86	255.23	250.60	253.93	253.29	18.6%	25.7%	55.7%
English Learners								
No	275.24	276.10	274.67	277.78	274.37	65.2%	23.1%	11.7%
Yes	261.33	261.73	265.66	270.18	262.46	26.6%	40.4%	33%
Free and Reduced Price Meals								
No	275.49	276.30	274.77	278.09	274.59	65.6%	22.9%	11.6%
Yes	263.34	263.90	267.06	270.97	264.17	32.7%	37.8%	29.4%
Aggregated Data	271.08	271.79	271.97	275.50	270.80	53.6%	28.3%	18.1%

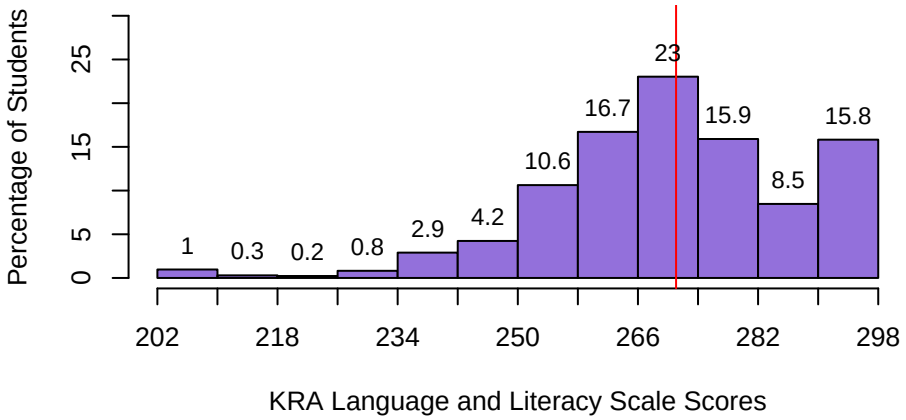
* Fewer than 25 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Montgomery County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
0.4
0.3
0.5
0.7
1.9
4.7
11.4
16.9
23.8
18.4
7.7
13.2
202
218
234
250
266
282
298
KRA Overall Scale Scores

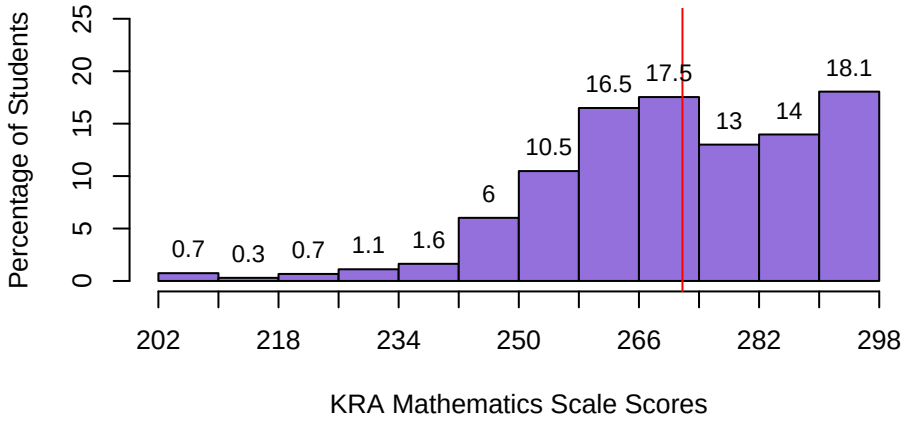
Domain Score Distributions for Montgomery County

(The red line indicates the district's average score for a particular domain.)

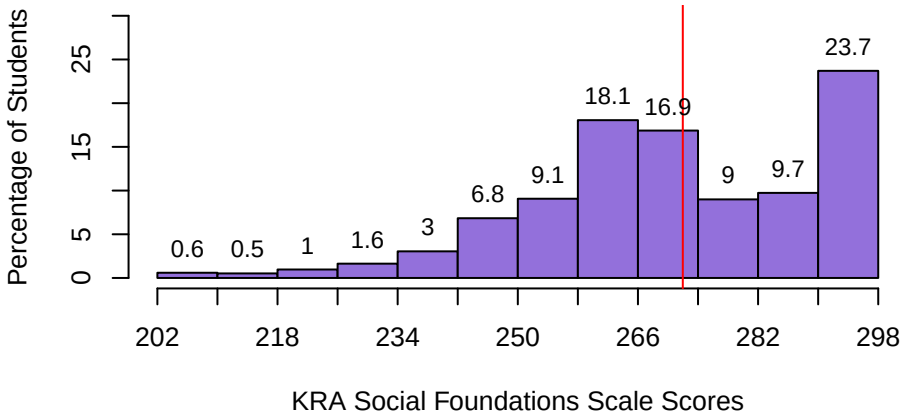
Language and Literacy



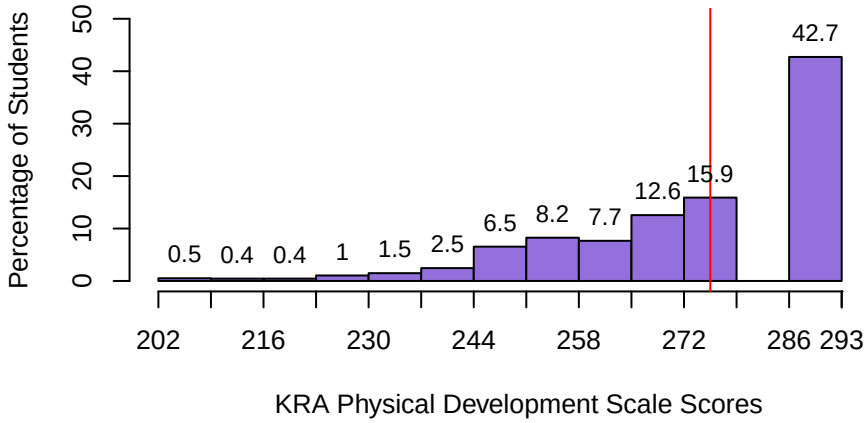
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Prince George's County Data File Summary 2018-2019

Final Record Count for KRA Data File (12% Sample of Enrolled Kindergartners)	***1,179***

Gender		
	Frequency	***Percent***
Male	626	53.1%
Female	553	46.9%
Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	3	0.25%
Asian	38	3.22%
Black/African American	651	55.22%
Native Hawaiian/Other Pacific Islander	2	0.17%
White	62	5.26%
Hispanic/Latino	411	34.86%
Two or More Races (Non-Hispanic/Latino)	12	1.02%
Free & Reduced Priced Meals		
	Frequency	***Percent***
No	432	36.64%
Yes	747	63.36%
Special Education		
	Frequency	***Percent***
No	1,083	91.86%
Yes	96	8.14%
English Learners		
	Frequency	***Percent***
No	830	70.4%
Yes	349	29.6%
Predominant Prior Care†		
	Frequency	***Percent***
Head Start	16	1.43%
Prekindergarten	498	44.54%
Child Care Center	140	12.52%
Family Child Care	77	6.89%
Home/Informal Care	344	30.77%
Non-Public Nursery	39	3.49%
Repeated Kindergarten	4	0.36%

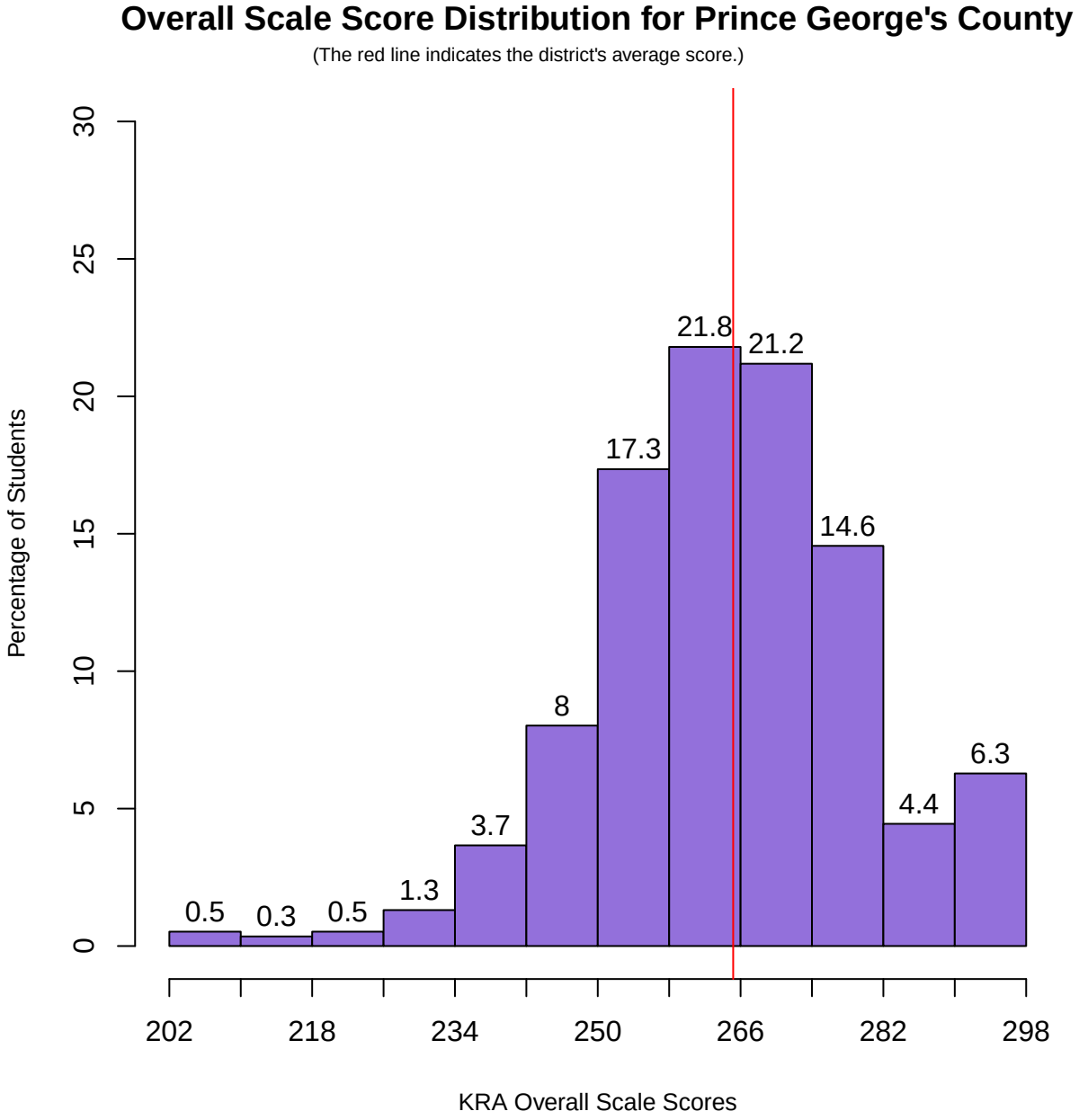
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Prince George's County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	261.16	263.16	265.89	270.05	264.11	32.4%	29.7%	37.8%
Black/African American	269.42	267.14	269.92	272.71	268.13	47%	32.4%	20.6%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	270.16	269.25	275.82	277.54	270.8	54.1%	23%	23%
Hispanic/Latino	256.71	255.88	265.65	269.98	259.34	22.5%	33.7%	43.8%
Two or More Races (Non-Hispanic/Latino)	*	*	*	*	*	*	*	*
Gender								
Male	264.07	262.73	264.56	267.99	263.42	32.6%	34.6%	32.8%
Female	265.70	263.83	273.54	276.68	267.17	45.3%	29.6%	25.1%
Prior Care								
Head Start	*	*	*	*	*	*	*	*
Prekindergarten	267.05	265.16	269.63	273.63	266.74	44.4%	31.9%	23.8%
Child Care Center	273.89	270.84	274.7	278.29	272.36	54.7%	33.8%	11.5%
Family Child Care	263.14	262.46	267.61	270.2	263.89	32.9%	32.9%	34.2%
Home/Informal Care	257.62	256.92	264.92	267.97	259.63	22%	33.1%	44.9%
Non-Public Nursery	277	274.95	278.63	279.61	276.42	65.8%	28.9%	5.3%
Special Education								
No	266.19	264.59	270.91	274.04	266.66	41.1%	32.9%	26%
Yes	249.65	248.22	244.71	249.95	248.51	9.6%	25.5%	64.9%
English Learners								
No	268.77	266.68	270.49	273.40	268.00	46.7%	31.5%	21.8%
Yes	255.65	255.23	264.72	268.93	258.58	19.5%	34%	46.5%
Free and Reduced Price Meals								
No	270.20	267.68	271.24	274.18	269.20	47.2%	30.6%	22.2%
Yes	261.79	260.73	267.36	270.86	262.89	33.6%	33.2%	33.2%
Aggregated Data	264.83	263.25	268.76	272.06	265.17	38.5%	32.3%	29.2%

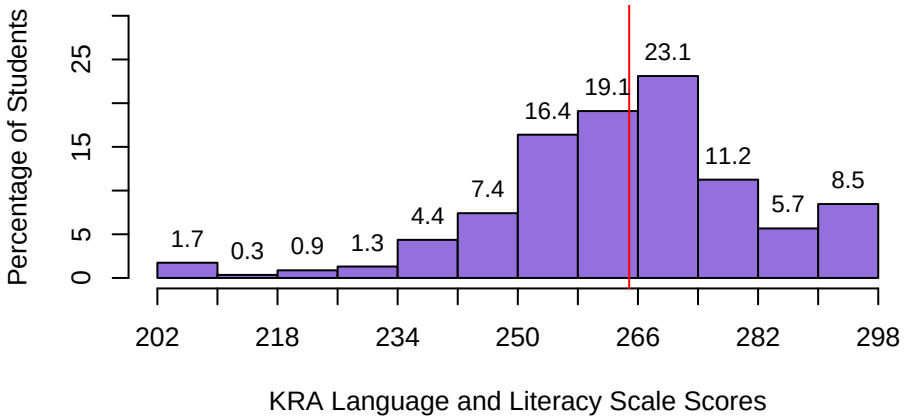
* Fewer than 25 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Prince George's County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
0.5
0.3
0.5
1.3
3.7
8
17.3
21.8
21.2
14.6
4.4
6.3
202
218
234
250
266
282
298
KRA Overall Scale Scores

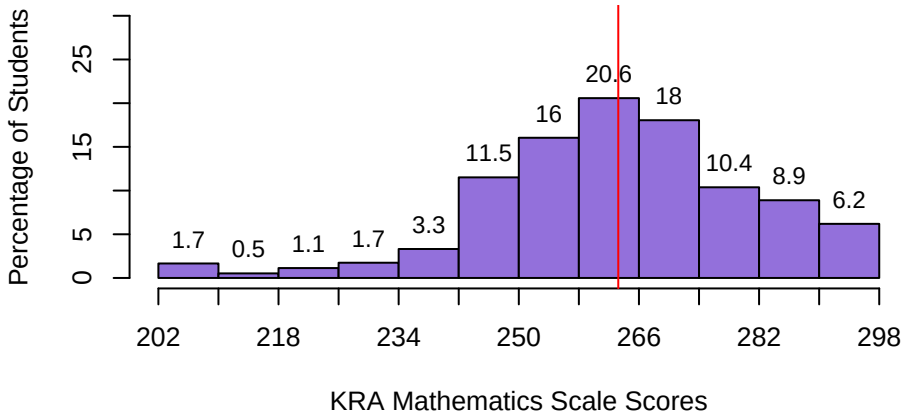
Domain Score Distributions for Prince George's County

(The red line indicates the district's average score for a particular domain.)

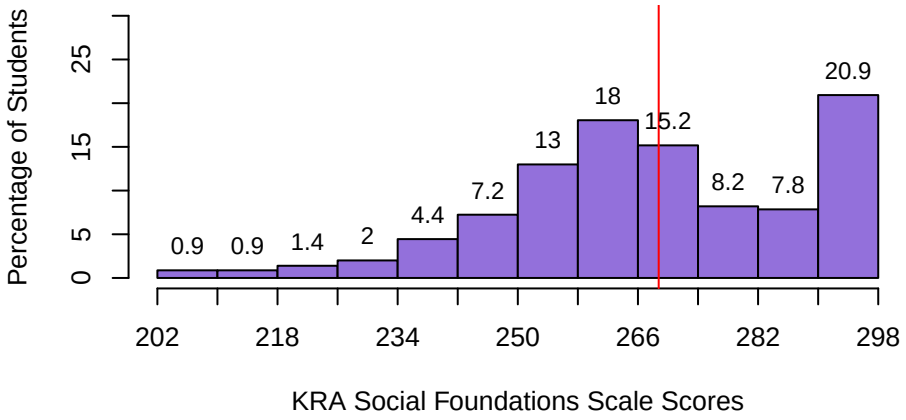
Language and Literacy



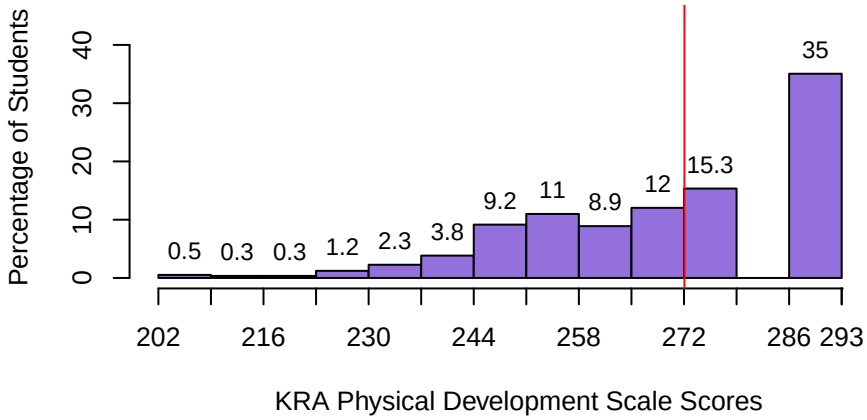
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Queen Anne's County Data File Summary 2018-2019

Final Record Count for KRA Data File	***504***

Gender		
	Frequency	***Percent***
Male	264	52.38%
Female	240	47.62%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	2	0.4%
Asian	2	0.4%
Black/African American	23	4.56%
Native Hawaiian/Other Pacific Islander	0	0%
White	400	79.37%
Hispanic/Latino	54	10.71%
Two or More Races (Non-Hispanic/Latino)	23	4.56%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	371	73.61%
Yes	133	26.39%

Special Education		
	Frequency	***Percent***
No	452	89.68%
Yes	52	10.32%

English Learners		
	Frequency	***Percent***
No	469	93.06%
Yes	35	6.94%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	26	5.18%
Prekindergarten	146	29.08%
Child Care Center	114	22.71%
Family Child Care	47	9.36%
Home/Informal Care	81	16.14%
Non-Public Nursery	85	16.93%
Repeated Kindergarten	3	0.6%

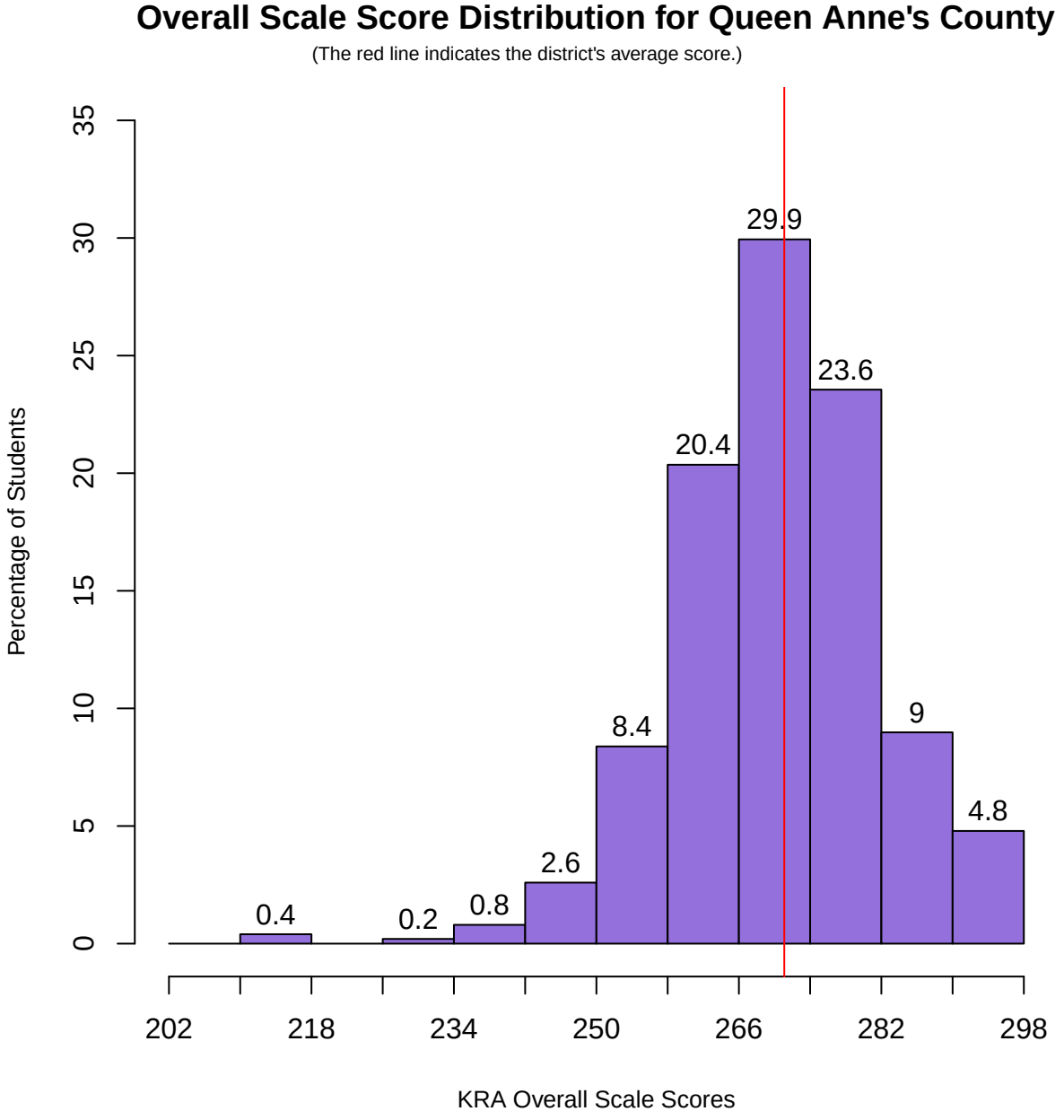
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Queen Anne's County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	*	*	*	*	*	*	*	*
Black/African American	265.91	263.22	272.3	272.7	266.39	43.5%	26.1%	30.4%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	269.63	270.54	281.68	283.44	272.36	63.3%	27.6%	9%
Hispanic/Latino	261.23	260.3	276.4	282.17	265.11	24.5%	56.6%	18.9%
Two or More Races (Non-Hispanic/Latino)	265.52	269.78	278	280.43	269.7	52.2%	34.8%	13%
Gender								
Male	267.45	268.96	278.18	280.36	270.00	53.6%	32.3%	14.1%
Female	269.16	269.03	282.93	285.18	272.32	61.3%	30.3%	8.4%
Prior Care								
Head Start	263.92	263.35	277.23	279.96	266.54	30.8%	53.8%	15.4%
Prekindergarten	264.10	265.94	276.77	278.15	267.54	46.9%	36.6%	16.6%
Child Care Center	271.44	272.06	281.95	285.67	273.86	64.9%	28.9%	6.1%
Family Child Care	270.54	270.39	282.09	283.00	272.91	58.7%	34.8%	6.5%
Home/Informal Care	265.98	266.59	279.30	280.64	268.90	53.8%	26.2%	20%
Non-Public Nursery	272.92	273.28	286.06	289.04	275.81	75.3%	22.4%	2.4%
Special Education								
No	269.41	270.39	282.02	284.39	272.34	61%	30.7%	8.2%
Yes	258.40	256.96	266.75	267.62	260.40	25%	36.5%	38.5%
English Learners								
No	269.05	269.85	280.91	282.89	271.77	60.6%	29.3%	10.1%
Yes	257.47	257.21	273.91	279.32	261.91	11.8%	58.8%	29.4%
Free and Reduced Price Meals								
No	269.65	270.41	282.15	283.94	272.56	62.6%	27.9%	9.5%
Yes	264.39	265.05	275.65	279.03	267.01	42.4%	40.9%	16.7%
Aggregated Data	268.27	269.00	280.44	282.65	271.10	57.3%	31.3%	11.4%

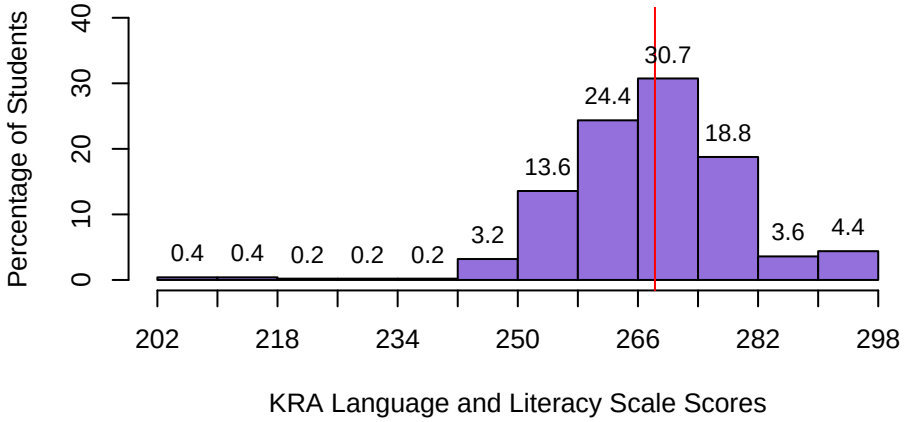
* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Queen Anne's County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
35
0.4
0.2
0.8
2.6
8.4
20.4
29.9
23.6
9
4.8
202
218
234
250
266
282
298
KRA Overall Scale Scores

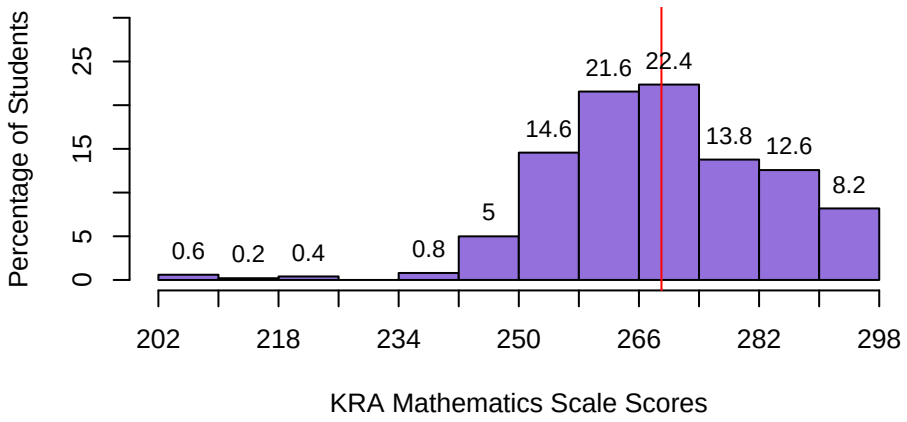
Domain Score Distributions for Queen Anne's County

(The red line indicates the district's average score for a particular domain.)

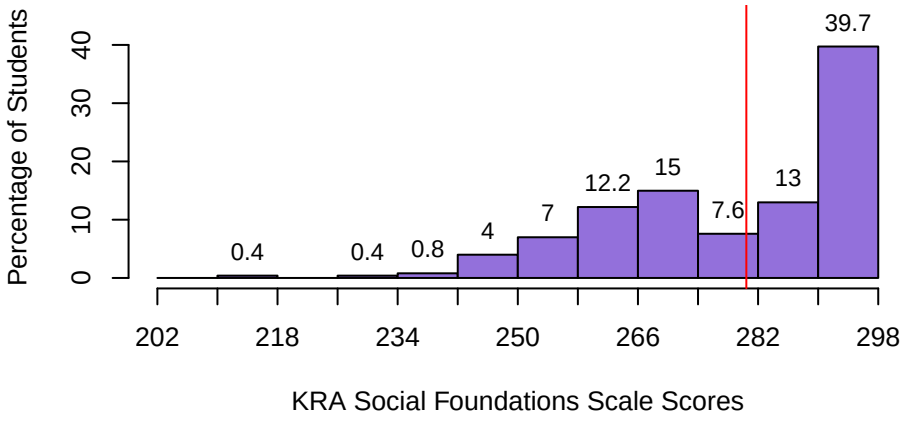
Language and Literacy



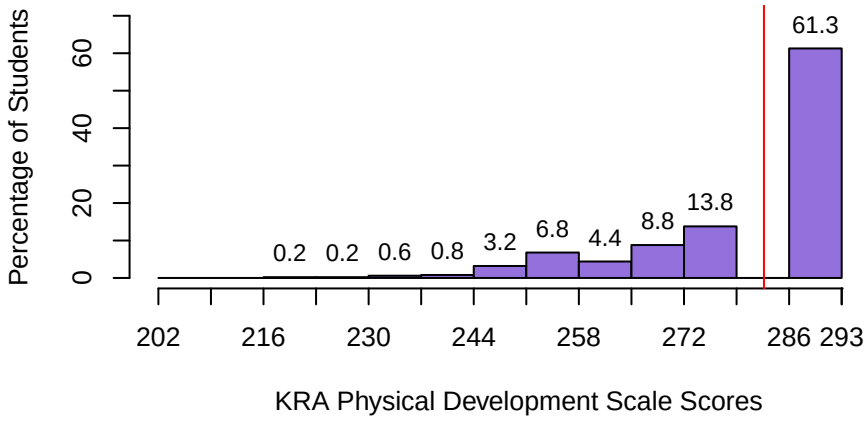
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Somerset County Data File Summary 2018-2019

Final Record Count for KRA Data File	***246***

Gender		
	Frequency	***Percent***
Male	133	54.07%
Female	113	45.93%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	1	0.41%
Asian	2	0.81%
Black/African American	119	48.37%
Native Hawaiian/Other Pacific Islander	1	0.41%
White	85	34.55%
Hispanic/Latino	27	10.98%
Two or More Races (Non-Hispanic/Latino)	11	4.47%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	62	25.2%
Yes	184	74.8%

Special Education		
	Frequency	***Percent***
No	216	87.8%
Yes	30	12.2%

English Learners		
	Frequency	***Percent***
No	239	97.15%
Yes	7	2.85%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	9	3.7%
Prekindergarten	202	83.13%
Child Care Center	4	1.65%
Family Child Care	4	1.65%
Home/Informal Care	14	5.76%
Non-Public Nursery	1	0.41%
Repeated Kindergarten	9	3.7%

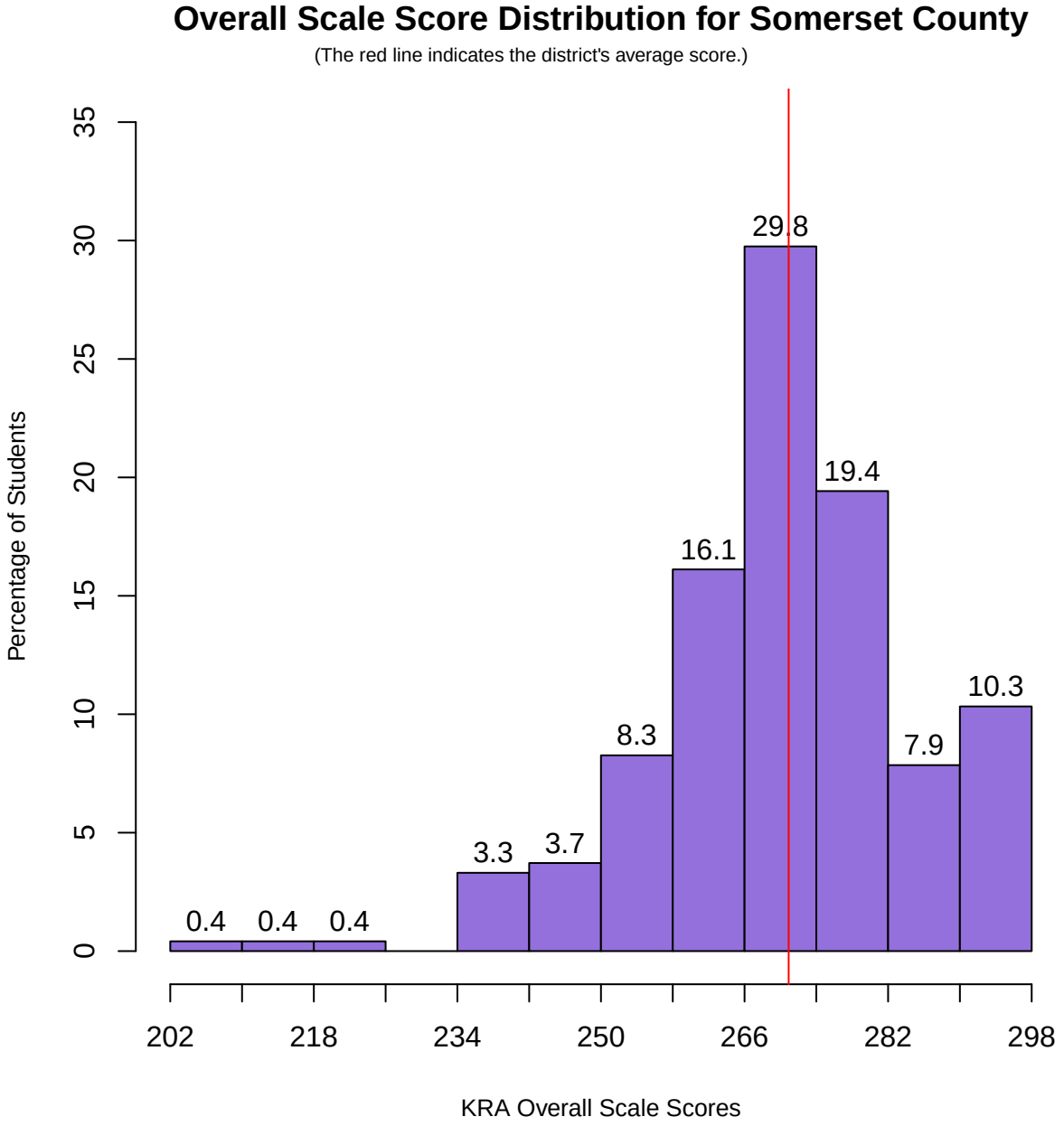
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Somerset County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	*	*	*	*	*	*	*	*
Black/African American	270.51	267.85	273.36	276.74	269.79	55.6%	30.8%	13.7%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	273.42	271.13	278.92	276.87	273.19	68.2%	17.6%	14.1%
Hispanic/Latino	270.15	268.73	277.85	275.85	270.62	69.2%	11.5%	19.2%
Two or More Races (Non-Hispanic/Latino)	267.6	264.7	272.6	271.5	267.8	30%	50%	20%
Gender								
Male	269.05	268.51	271.79	271.55	268.48	53.1%	26.9%	20%
Female	273.79	269.38	280.22	281.89	273.75	67.9%	23.2%	8.9%
Prior Care								
Head Start	265.89	261.22	274.44	273.44	265.44	44.4%	33.3%	22.2%
Prekindergarten	271.96	269.78	275.95	277.01	271.75	63.2%	22.9%	13.9%
Child Care Center	*	*	*	*	*	*	*	*
Family Child Care	*	*	*	*	*	*	*	*
Home/Informal Care	260.64	258.21	265.14	264.21	260.29	14.3%	50%	35.7%
Non-Public Nursery	*	*	*	*	*	*	*	*
Special Education								
No	272.87	270.58	278.31	279.15	272.97	64.3%	25.4%	10.3%
Yes	259.34	256.66	256.52	255.62	255.83	27.6%	24.1%	48.3%
English Learners								
No	271.35	269.02	275.83	276.54	271.03	60%	25.5%	14.5%
Yes	267.86	265.29	271.29	269.57	267.00	57.1%	14.3%	28.6%
Free and Reduced Price Meals								
No	275.77	271.03	279.25	276.40	274.03	63.3%	23.3%	13.3%
Yes	269.76	268.21	274.52	276.31	269.89	58.8%	25.8%	15.4%
Aggregated Data	271.25	268.91	275.69	276.33	270.92	59.9%	25.2%	14.9%

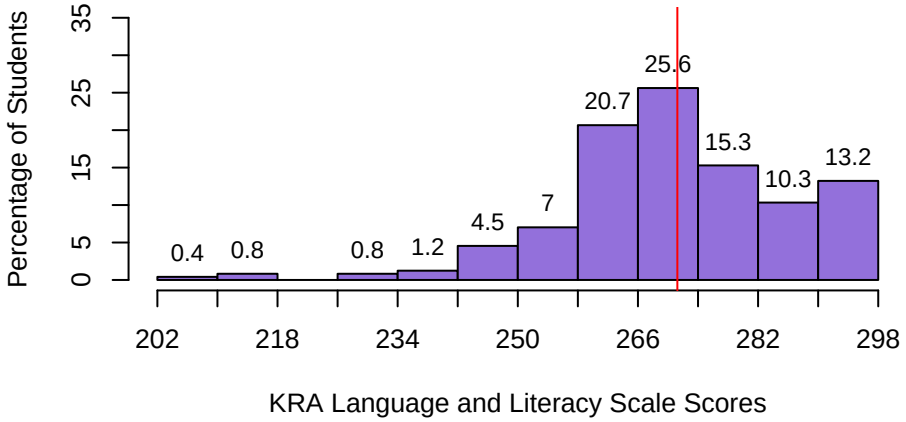
* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Somerset County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
35
0.4
0.4
0.4
3.3
3.7
8.3
16.1
29.8
19.4
7.9
10.3
202
218
234
250
266
282
298
KRA Overall Scale Scores

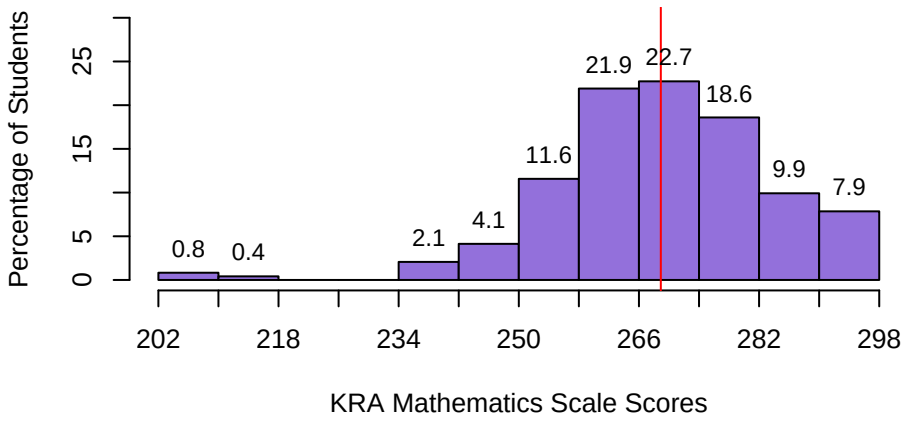
Domain Score Distributions for Somerset County

(The red line indicates the district's average score for a particular domain.)

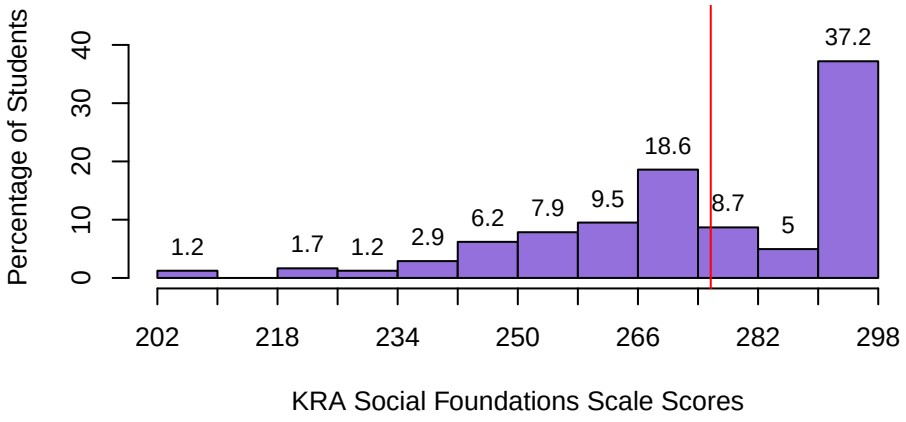
Language and Literacy



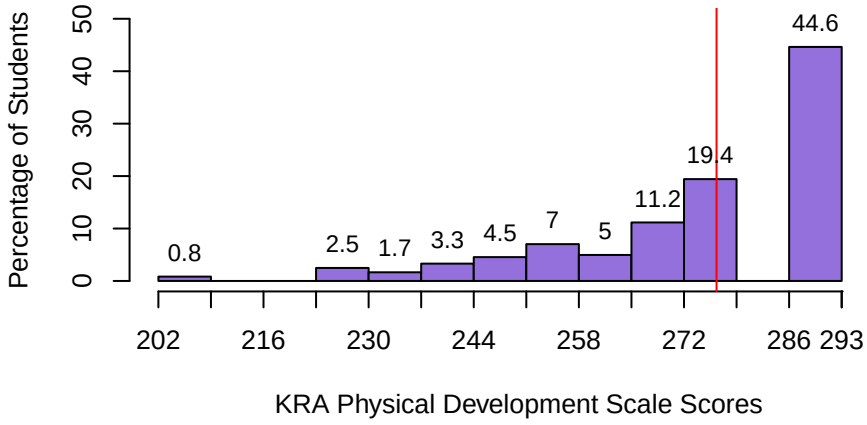
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

St. Mary's County Data File Summary 2018-2019

Final Record Count for KRA Data File	***1,201***

Gender		
	Frequency	***Percent***
Male	625	52.04%
Female	576	47.96%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	2	0.17%
Asian	28	2.33%
Black/African American	200	16.65%
Native Hawaiian/Other Pacific Islander	3	0.25%
White	762	63.45%
Hispanic/Latino	102	8.49%
Two or More Races (Non-Hispanic/Latino)	104	8.66%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	754	62.78%
Yes	447	37.22%

Special Education		
	Frequency	***Percent***
No	1,108	92.26%
Yes	93	7.74%

English Learners		
	Frequency	***Percent***
No	1,182	98.42%
Yes	19	1.58%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	93	8.17%
Prekindergarten	662	58.12%
Child Care Center	92	8.08%
Family Child Care	18	1.58%
Home/Informal Care	144	12.64%
Non-Public Nursery	126	11.06%
Repeated Kindergarten	4	0.35%

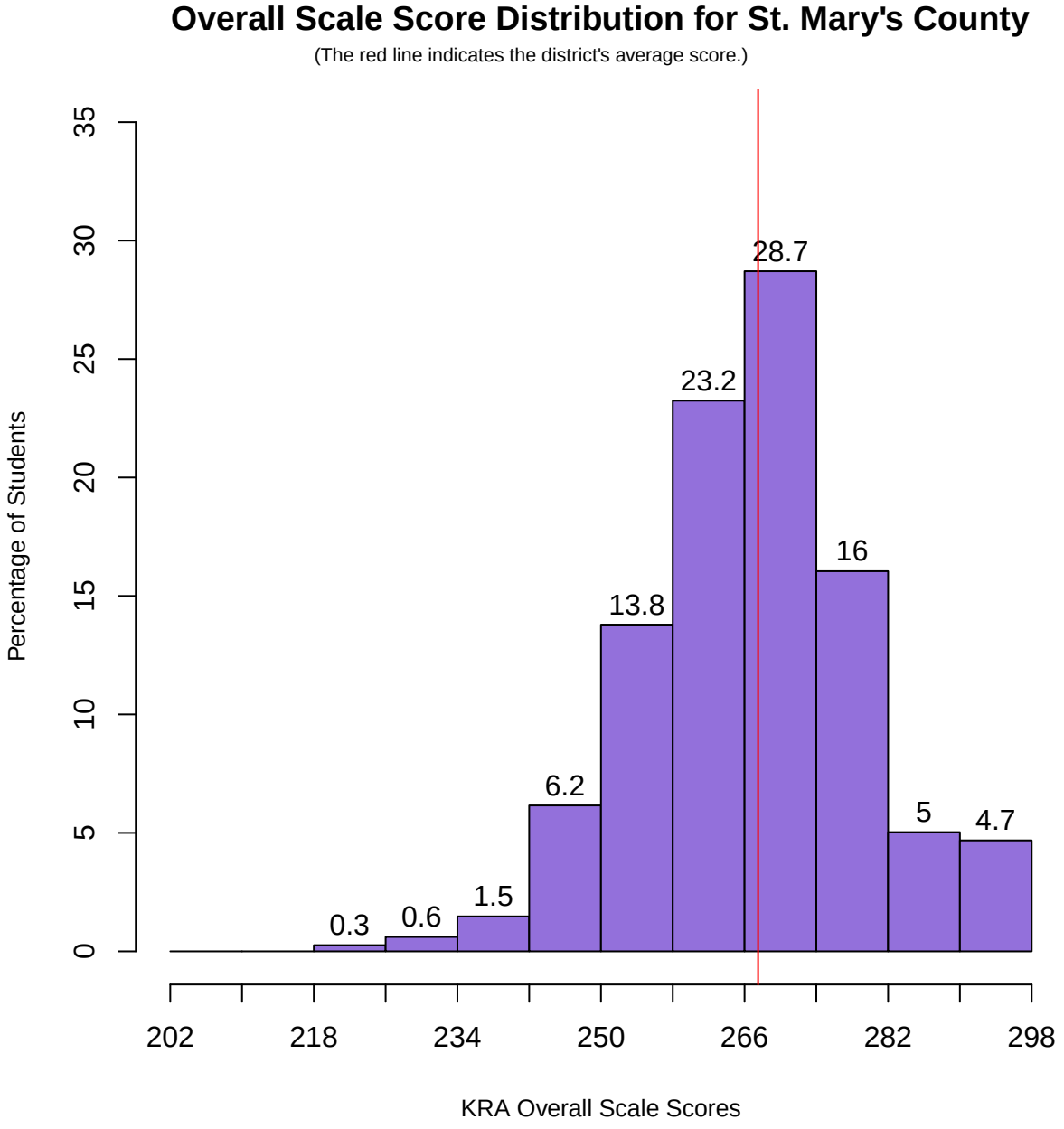
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for St. Mary's County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	269.71	266.5	275.93	279.54	269.86	53.6%	35.7%	10.7%
Black/African American	261.22	258.12	266.93	269.15	261.41	21.9%	43.2%	34.9%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	268.57	268.73	274.95	277.09	269.49	49.8%	35.1%	15.1%
Hispanic/Latino	264.94	263.24	271.01	274.02	265.98	33%	41.2%	25.8%
Two or More Races (Non-Hispanic/Latino)	266.57	263.79	269.12	272.54	265.75	35.3%	40.2%	24.5%
Gender								
Male	264.95	264.23	268.06	271.44	264.99	32.2%	41.6%	26.2%
Female	269.00	267.93	277.83	279.04	270.23	53.4%	33.2%	13.4%
Prior Care								
Head Start	263.26	263.21	269.53	272.84	264.27	29.3%	40.2%	30.4%
Prekindergarten	267.51	266.15	272.81	275.50	267.83	44.1%	37.9%	17.9%
Child Care Center	270.00	269.05	276.88	279.20	270.96	48.4%	39.6%	12.1%
Family Child Care	265.56	263.17	274.33	275.94	266.61	33.3%	50%	16.7%
Home/Informal Care	261.01	262.04	265.51	267.99	261.94	25.4%	38.4%	36.2%
Non-Public Nursery	272.15	271.96	278.63	279.38	272.90	60.8%	31.7%	7.5%
Special Education								
No	267.86	267.01	274.56	276.78	268.67	45.2%	38.5%	16.3%
Yes	255.30	253.84	250.84	254.61	253.48	9.1%	26.1%	64.8%
English Learners								
No	267.09	266.19	272.95	275.25	267.68	42.9%	37.7%	19.4%
Yes	255.68	254.84	261.11	265.58	257.26	10.5%	31.6%	57.9%
Free and Reduced Price Meals								
No	269.90	269.61	275.78	277.97	270.62	53.1%	35%	11.9%
Yes	261.89	259.99	267.70	270.28	262.32	24.5%	41.9%	33.6%
Aggregated Data	266.90	266.01	272.75	275.09	267.51	42.4%	37.6%	20%

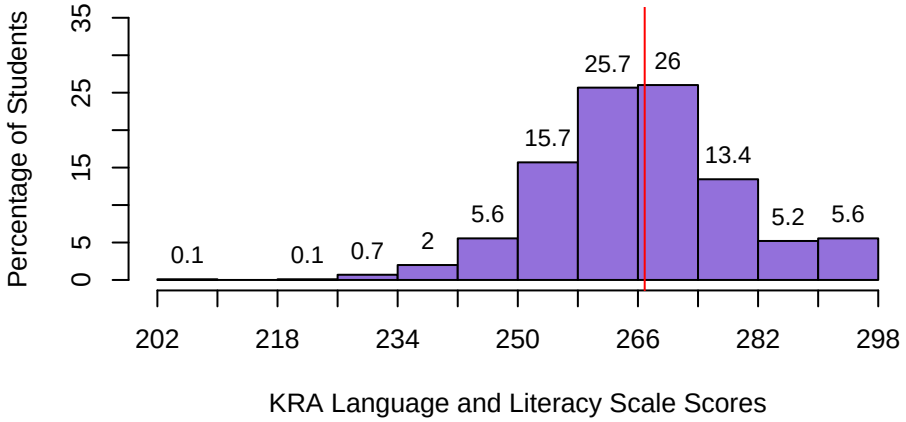
* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for St. Mary's County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
35
0.3
0.6
1.5
6.2
13.8
23.2
28.7
16
5
4.7
202
218
234
250
266
282
298
KRA Overall Scale Scores

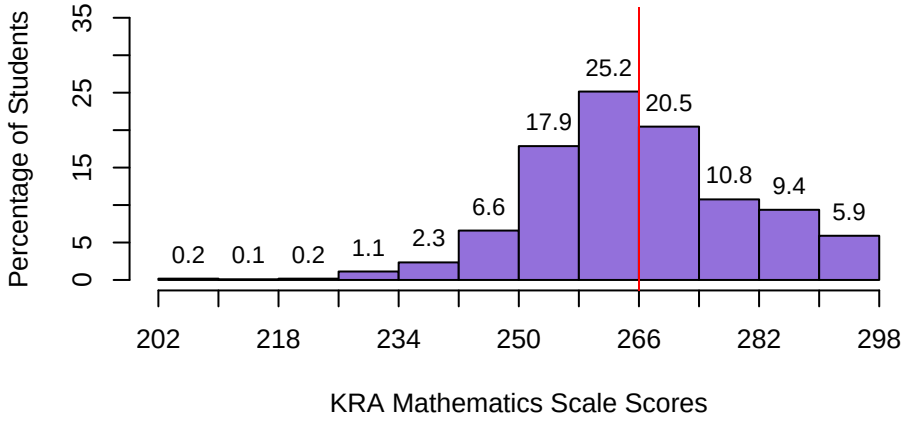
Domain Score Distributions for St. Mary's County

(The red line indicates the district's average score for a particular domain.)

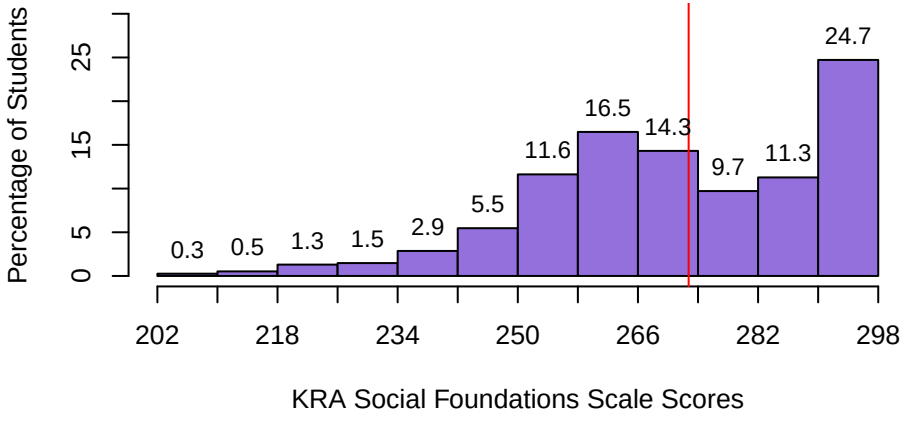
Language and Literacy



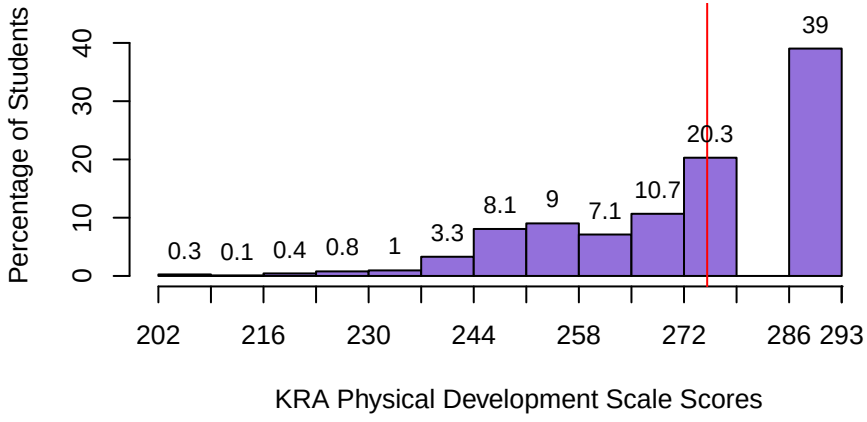
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Talbot County Data File Summary 2018-2019

Final Record Count for KRA Data File	***281***

Gender		
	Frequency	***Percent***
Male	140	49.82%
Female	141	50.18%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	0	0%
Asian	4	1.42%
Black/African American	51	18.15%
Native Hawaiian/Other Pacific Islander	0	0%
White	145	51.6%
Hispanic/Latino	61	21.71%
Two or More Races (Non-Hispanic/Latino)	20	7.12%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	137	48.75%
Yes	144	51.25%

Special Education		
	Frequency	***Percent***
No	259	92.17%
Yes	22	7.83%

English Learners		
	Frequency	***Percent***
No	236	83.99%
Yes	45	16.01%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	40	14.55%
Prekindergarten	121	44%
Child Care Center	66	24%
Family Child Care	7	2.55%
Home/Informal Care	16	5.82%
Non-Public Nursery	25	9.09%
Repeated Kindergarten	0	0%

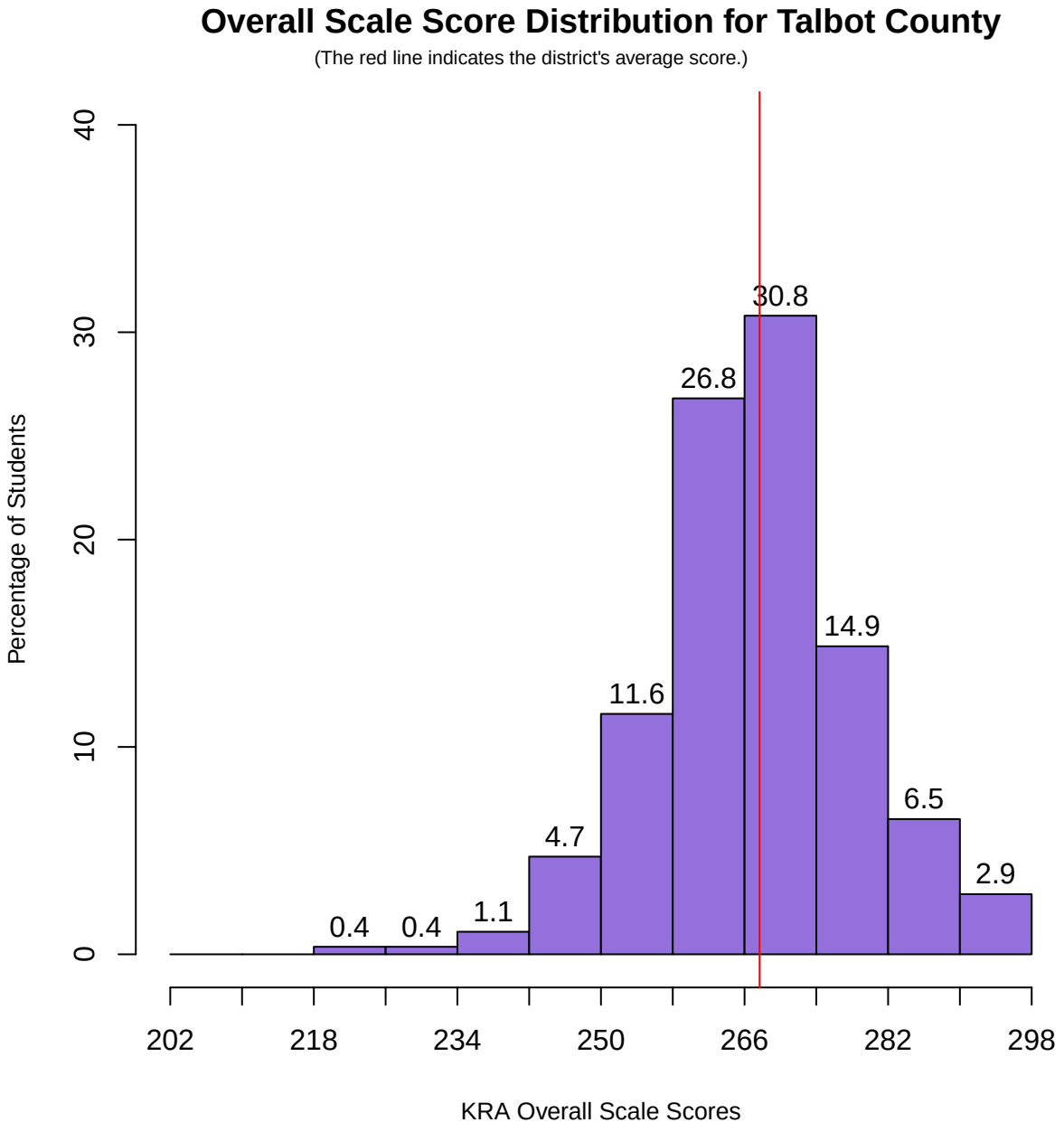
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Talbot County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	*	*	*	*	*	*	*	*
Black/African American	268.52	265	274.84	270.88	267.98	40%	48%	12%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	270.1	268.44	277.32	274.99	270.35	52.4%	36.4%	11.2%
Hispanic/Latino	258.61	257.32	265.98	267.05	260.51	20.3%	40.7%	39%
Two or More Races (Non-Hispanic/Latino)	270.6	267.9	274.8	271.35	269.4	40%	45%	15%
Gender								
Male	266.79	264.45	271.69	269.99	266.59	36.7%	41.7%	21.6%
Female	267.71	266.20	276.95	274.75	268.77	47.4%	39.4%	13.1%
Prior Care								
Head Start	263.32	259.23	270.62	270.60	263.77	20%	55%	25%
Prekindergarten	265.39	264.38	271.87	270.54	266.02	36.4%	42.1%	21.5%
Child Care Center	273.86	271.03	276.74	274.68	272.38	59.1%	33.3%	7.6%
Family Child Care	277.29	267.43	287.57	278.43	275.00	85.7%	14.3%	0%
Home/Informal Care	256.75	255.94	267.31	266.12	260.50	18.8%	43.8%	37.5%
Non-Public Nursery	269.32	270.64	287.36	280.76	272.68	64%	36%	0%
Special Education								
No	268.07	266.13	275.26	273.00	268.39	44.1%	39.8%	16.1%
Yes	257.77	255.95	263.27	264.82	259.36	18.2%	50%	31.8%
English Learners								
No	269.54	267.61	276.50	273.55	269.58	48.5%	39.8%	11.7%
Yes	255.49	253.56	263.00	266.20	257.87	8.9%	44.4%	46.7%
Free and Reduced Price Meals								
No	271.53	268.80	280.20	275.65	271.65	57.1%	33.8%	9%
Yes	263.27	262.07	268.82	269.28	263.98	28%	46.9%	25.2%
Aggregated Data	267.25	265.32	274.30	272.35	267.67	42%	40.6%	17.4%

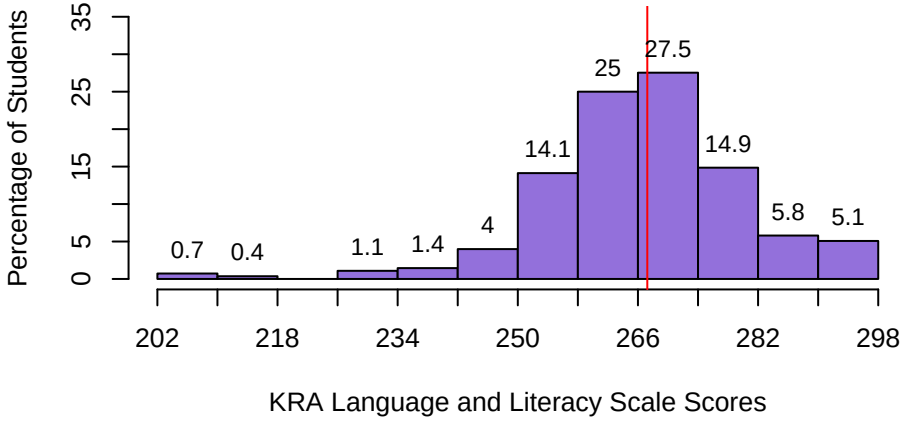
* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Talbot County
(The red line indicates the district's average score.)
Percentage of Students
0
10
20
30
40
0.4
0.4
1.1
4.7
11.6
26.8
30.8
14.9
6.5
2.9
202
218
234
250
266
282
298
KRA Overall Scale Scores

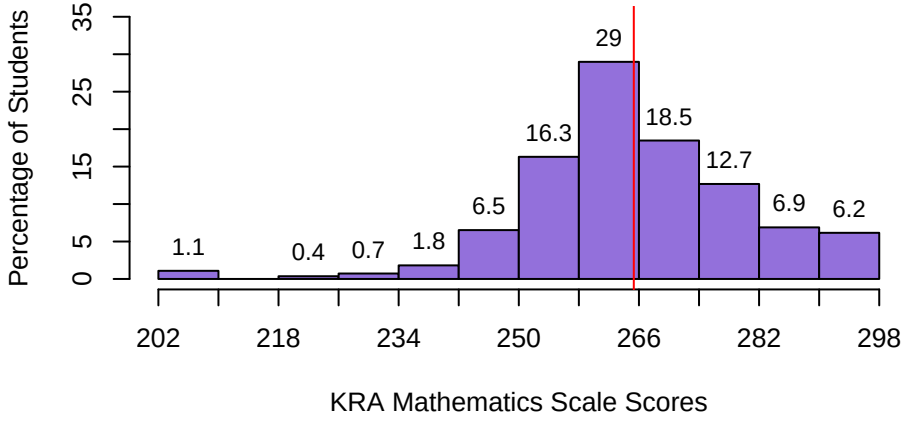
Domain Score Distributions for Talbot County

(The red line indicates the district's average score for a particular domain.)

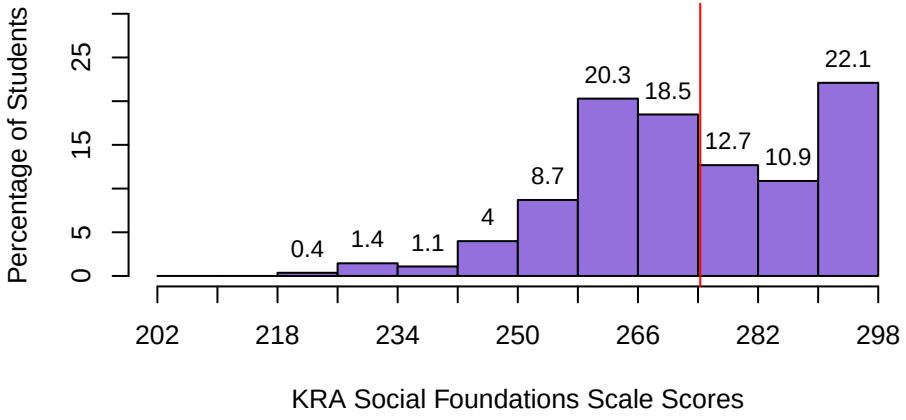
Language and Literacy



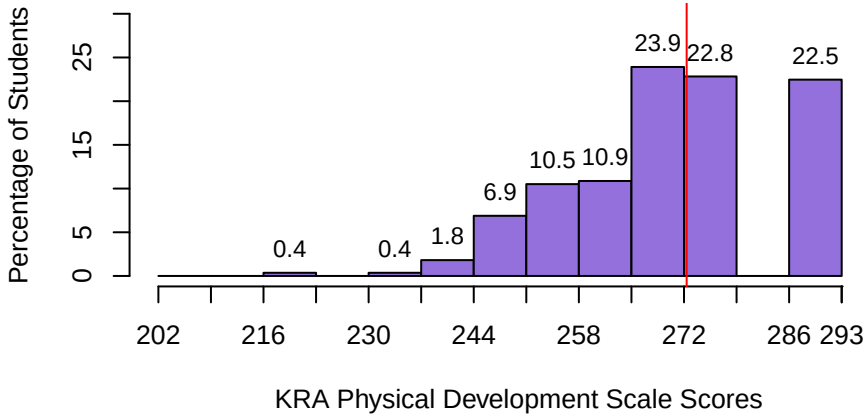
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Washington County Data File Summary 2018-2019

Final Record Count for KRA Data File	***1,618***

Gender		
	Frequency	***Percent***
Male	892	55.13%
Female	726	44.87%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	2	0.12%
Asian	35	2.16%
Black/African American	209	12.92%
Native Hawaiian/Other Pacific Islander	2	0.12%
White	1,028	63.54%
Hispanic/Latino	193	11.93%
Two or More Races (Non-Hispanic/Latino)	149	9.21%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	830	51.3%
Yes	788	48.7%

Special Education		
	Frequency	***Percent***
No	1,474	91.1%
Yes	144	8.9%

English Learners		
	Frequency	***Percent***
No	1,576	97.4%
Yes	42	2.6%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	140	8.75%
Prekindergarten	707	44.19%
Child Care Center	177	11.06%
Family Child Care	110	6.88%
Home/Informal Care	310	19.38%
Non-Public Nursery	154	9.62%
Repeated Kindergarten	2	0.12%

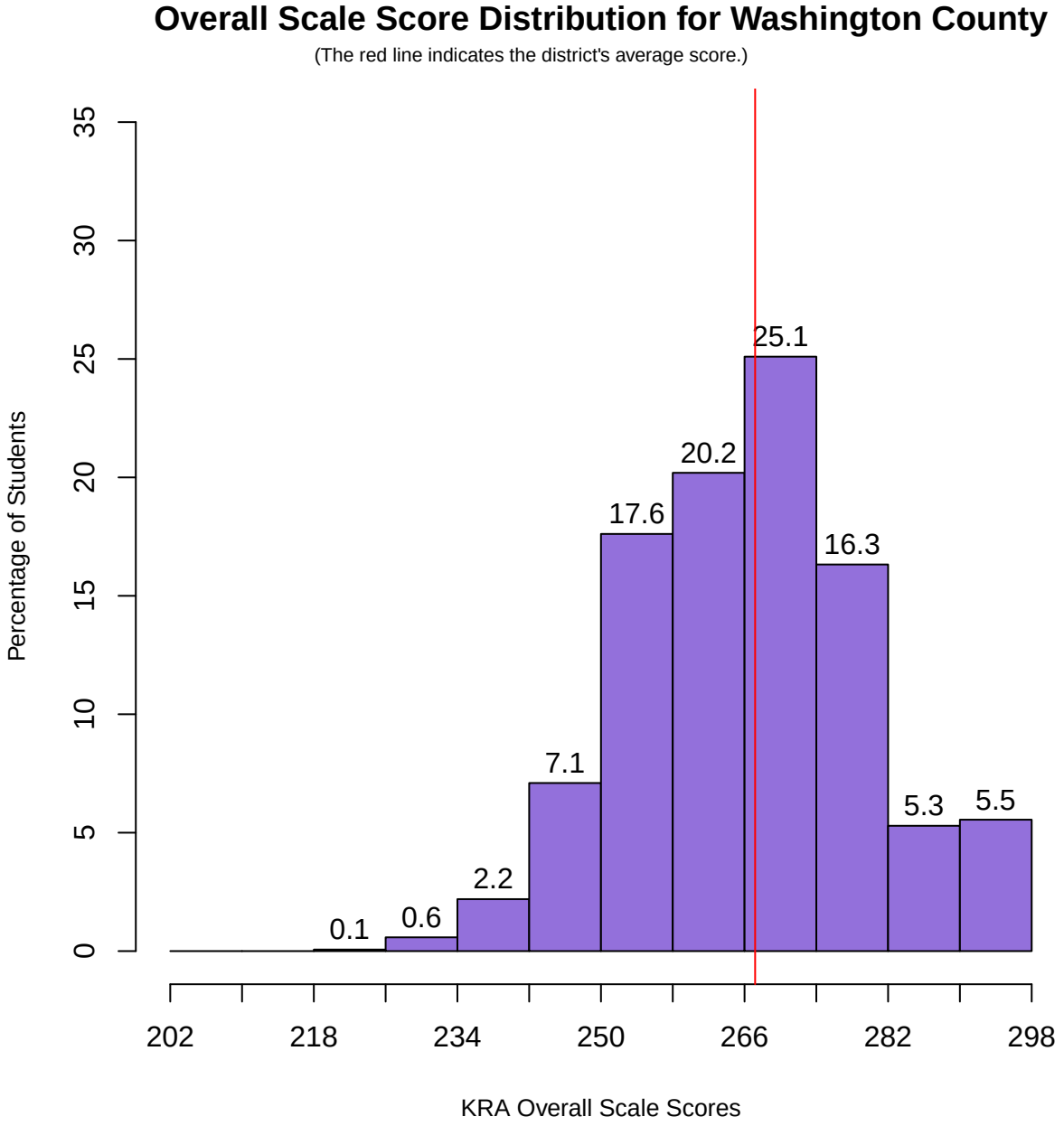
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Washington County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	268.43	270.03	276.51	280.43	270.77	57.1%	25.7%	17.1%
Black/African American	262.76	260.44	269.73	276.45	263.84	33.3%	34.3%	32.3%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	267.63	267.05	274.33	276.62	268.52	47.1%	32.5%	20.4%
Hispanic/Latino	261.99	260.67	272.49	275.04	264.19	33%	31.3%	35.7%
Two or More Races (Non-Hispanic/Latino)	264.75	262.71	270.99	274.61	265.37	35%	34.3%	30.7%
Gender								
Male	264.94	264.20	269.28	272.57	265.27	37.1%	33.3%	29.6%
Female	267.49	266.19	278.10	280.87	269.47	49.7%	31.7%	18.6%
Prior Care								
Head Start	257.86	255.33	263.77	268.23	258.45	14.4%	37.9%	47.7%
Prekindergarten	270.36	268.85	277.15	280.52	271.08	54.3%	32%	13.7%
Child Care Center	268.87	267.05	276.20	278.04	269.52	51.7%	31%	17.2%
Family Child Care	264.24	263.09	273.92	278.34	266.25	37.7%	39.6%	22.6%
Home/Informal Care	256.77	257.26	265.35	267.03	259.02	19%	31.2%	49.8%
Non-Public Nursery	270.23	271.38	276.17	279.19	270.97	56.4%	30.2%	13.4%
Special Education								
No	266.68	265.66	274.33	277.23	267.84	44.7%	32.7%	22.6%
Yes	259.52	258.89	261.61	266.41	259.70	22.2%	31%	46.8%
English Learners								
No	266.46	265.50	273.48	276.50	267.46	43.5%	32.8%	23.7%
Yes	252.50	250.35	266.38	270.50	256.73	17.5%	25%	57.5%
Free and Reduced Price Meals								
No	269.42	268.82	276.81	278.92	270.48	54.1%	29.2%	16.7%
Yes	262.64	261.24	269.64	273.67	263.74	31.1%	36.1%	32.8%
Aggregated Data	266.10	265.11	273.30	276.35	267.18	42.8%	32.6%	24.6%

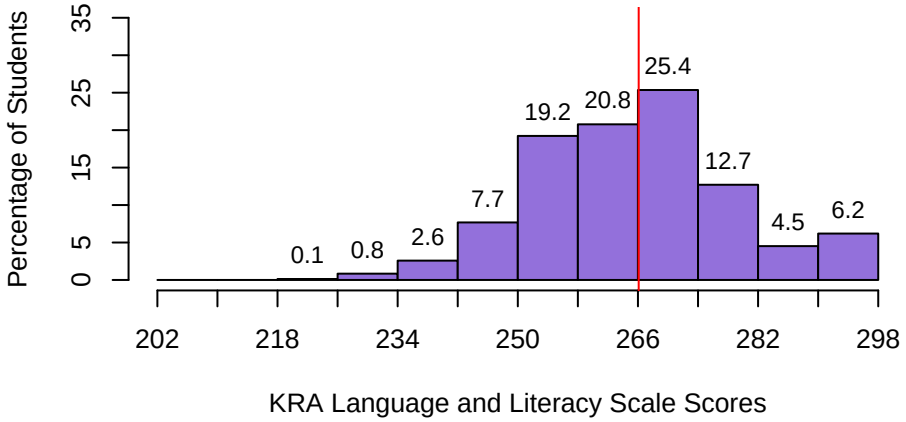
* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Washington County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
35
0.1
0.6
2.2
7.1
17.6
20.2
25.1
16.3
5.3
5.5
202
218
234
250
266
282
298
KRA Overall Scale Scores

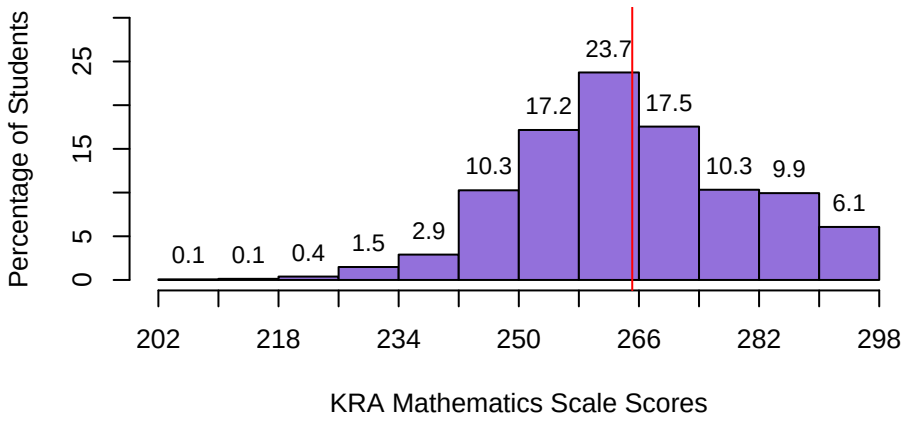
Domain Score Distributions for Washington County

(The red line indicates the district's average score for a particular domain.)

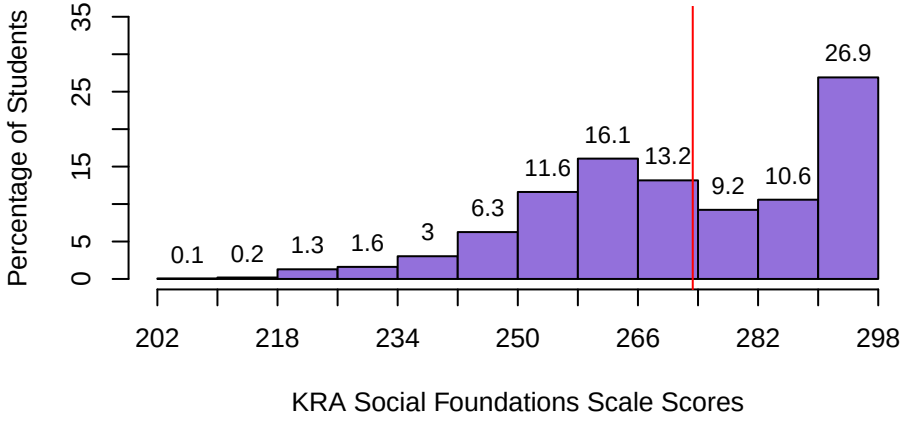
Language and Literacy



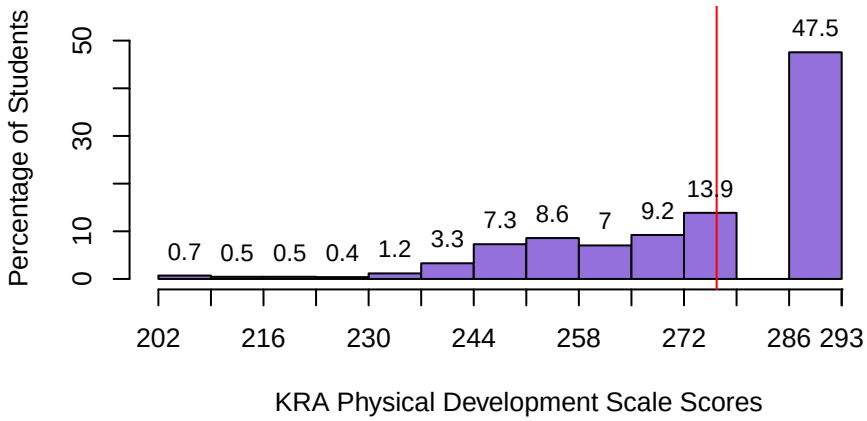
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Wicomico County Data File Summary 2018-2019

Final Record Count for KRA Data File	***1,173***

Gender		
	Frequency	***Percent***
Male	615	52.43%
Female	558	47.57%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	9	0.77%
Asian	37	3.15%
Black/African American	441	37.6%
Native Hawaiian/Other Pacific Islander	1	0.09%
White	436	37.17%
Hispanic/Latino	124	10.57%
Two or More Races (Non-Hispanic/Latino)	125	10.66%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	492	41.94%
Yes	681	58.06%

Special Education		
	Frequency	***Percent***
No	1,096	93.44%
Yes	77	6.56%

English Learners		
	Frequency	***Percent***
No	1,064	90.71%
Yes	109	9.29%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	73	6.33%
Prekindergarten	692	60.02%
Child Care Center	107	9.28%
Family Child Care	20	1.73%
Home/Informal Care	212	18.39%
Non-Public Nursery	19	1.65%
Repeated Kindergarten	30	2.6%

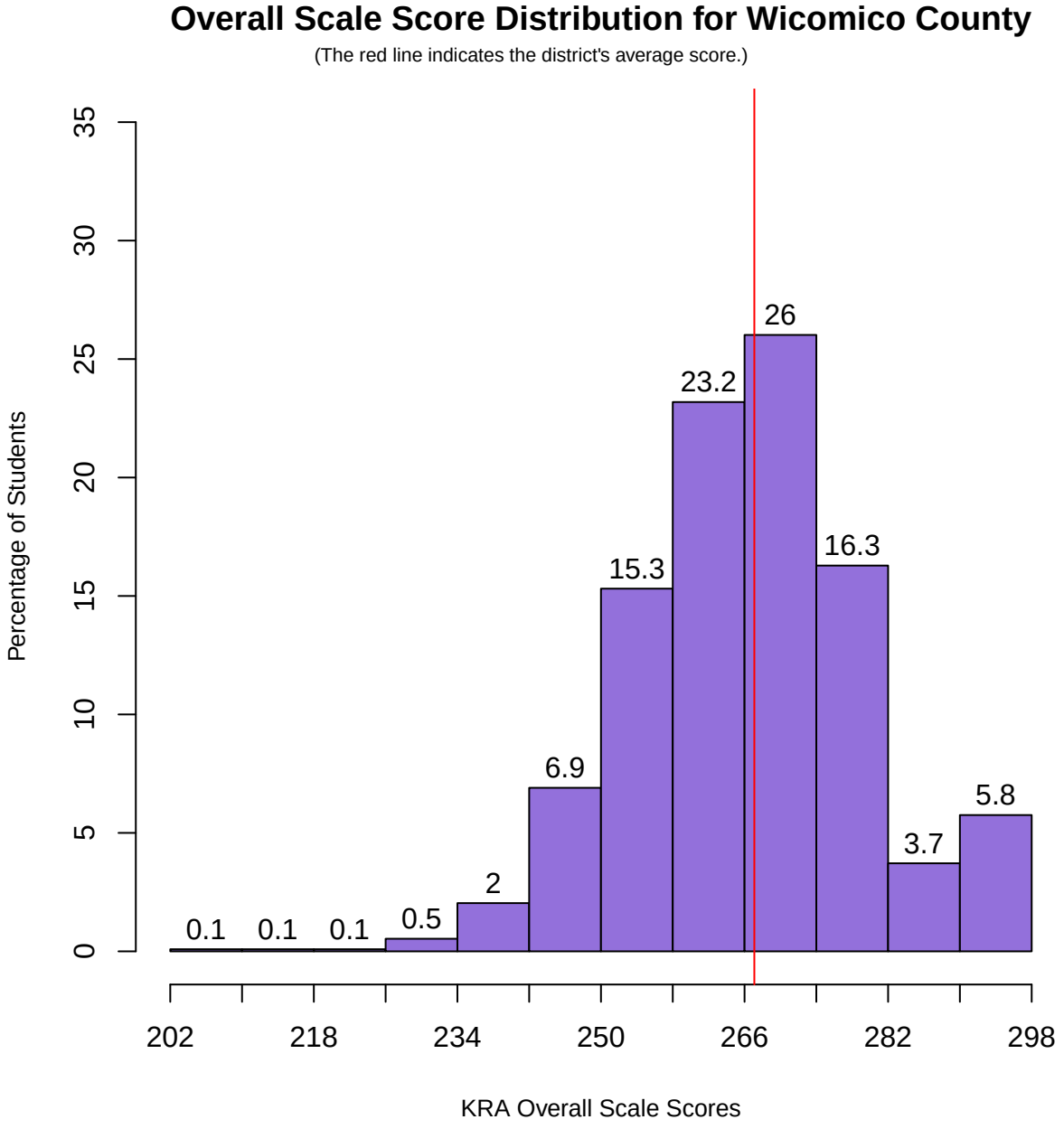
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Wicomico County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	251.78	251.78	263.67	266.56	256.33	11.1%	22.2%	66.7%
Asian	271.14	272.66	281.29	285.23	274	57.1%	34.3%	8.6%
Black/African American	265.37	262	274.36	278.67	266.71	41.8%	35.1%	23.2%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	267.4	265.26	276.76	277.27	268.52	43.9%	37.9%	18.2%
Hispanic/Latino	258.93	256.12	272.33	274.66	261.97	25.8%	35%	39.2%
Two or More Races (Non-Hispanic/Latino)	266.94	263.14	273.7	276.03	267.44	44.1%	36.4%	19.5%
Gender								
Male	264.42	262.10	270.54	273.90	265.21	34.8%	36.9%	28.3%
Female	267.07	263.92	280.12	281.52	269.17	48.5%	35.3%	16.2%
Prior Care								
Head Start	261.37	256.73	270.77	276.99	262.49	29.6%	35.2%	35.2%
Prekindergarten	268.75	266.03	278.32	280.65	270.03	51%	35.9%	13%
Child Care Center	268.25	264.09	274.71	280.84	268.59	40.6%	45.3%	14.2%
Family Child Care	264.84	261.05	275.16	270.74	264.95	31.6%	42.1%	26.3%
Home/Informal Care	255.76	254.02	266.88	267.38	258.42	15.7%	31.9%	52.5%
Non-Public Nursery	269.89	273.37	281.84	277.84	273.37	52.6%	31.6%	15.8%
Special Education								
No	266.34	263.51	276.16	278.68	267.80	42.7%	36.7%	20.6%
Yes	256.39	255.28	259.92	261.03	257.13	21.3%	28%	50.7%
English Learners								
No	266.67	263.82	275.66	278.03	267.85	43.8%	35.5%	20.7%
Yes	255.99	254.64	269.46	272.49	259.72	17.1%	41.9%	41%
Free and Reduced Price Meals								
No	267.04	264.58	276.88	278.63	268.49	46.3%	34.5%	19.2%
Yes	264.66	261.75	273.74	276.67	266.04	37.6%	37.3%	25.1%
Aggregated Data	265.68	262.96	275.08	277.51	267.09	41.3%	36.1%	22.6%

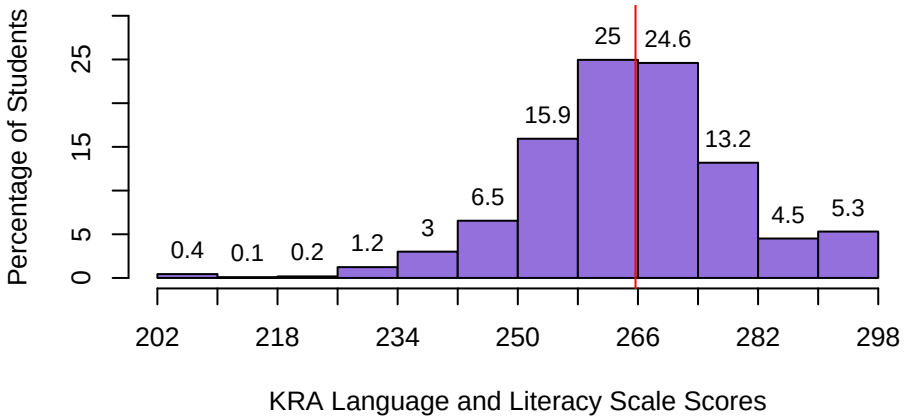
* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Wicomico County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
35
0.1
0.1
0.1
0.5
2
6.9
15.3
23.2
26
16.3
3.7
5.8
202
218
234
250
266
282
298
KRA Overall Scale Scores

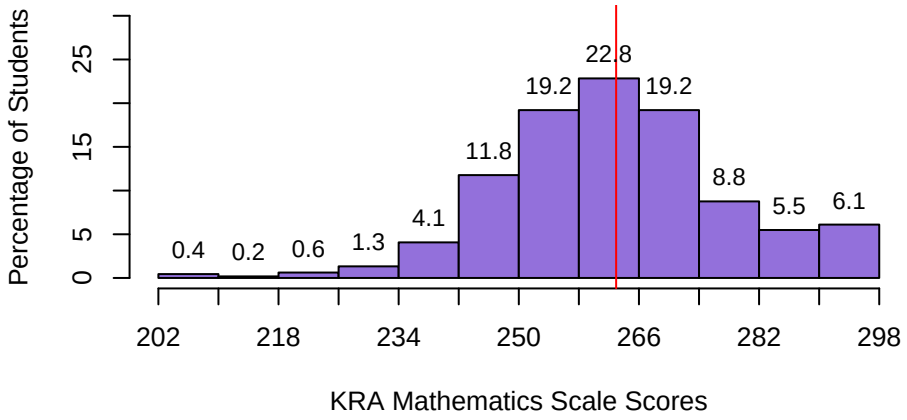
Domain Score Distributions for Wicomico County

(The red line indicates the district's average score for a particular domain.)

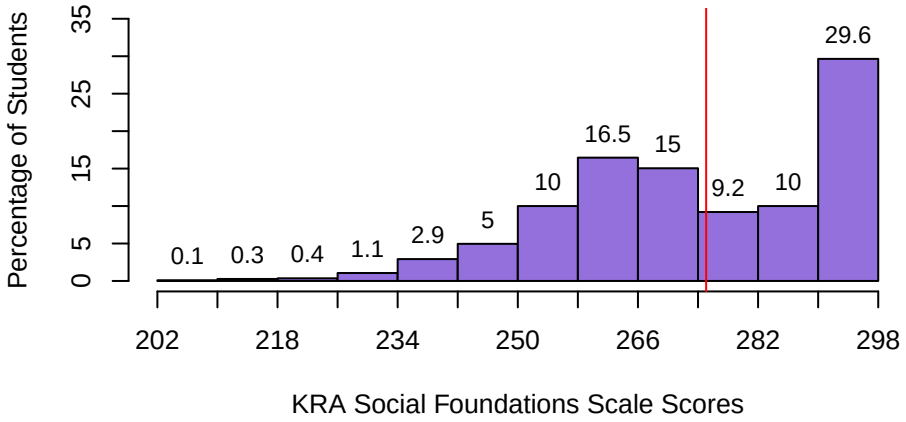
Language and Literacy



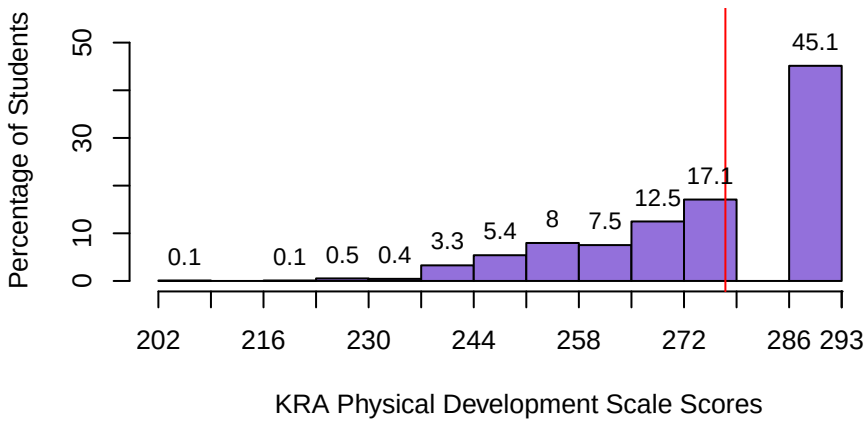
Mathematics



Social Foundations



Physical Development



Kindergarten Readiness Assessment

Worcester County Data File Summary 2018-2019

Final Record Count for KRA Data File	***437***

Gender		
	Frequency	***Percent***
Male	240	54.92%
Female	197	45.08%

Ethnicity/Race		
	Frequency	***Percent***
American Indian/Alaska Native	0	0%
Asian	5	1.14%
Black/African American	84	19.22%
Native Hawaiian/Other Pacific Islander	0	0%
White	277	63.39%
Hispanic/Latino	33	7.55%
Two or More Races (Non-Hispanic/Latino)	38	8.7%

Free & Reduced Priced Meals		
	Frequency	***Percent***
No	246	56.29%
Yes	191	43.71%

Special Education		
	Frequency	***Percent***
No	398	91.08%
Yes	39	8.92%

English Learners		
	Frequency	***Percent***
No	421	96.34%
Yes	16	3.66%

Predominant Prior Care†		
	Frequency	***Percent***
Head Start	9	2.07%
Prekindergarten	331	76.09%
Child Care Center	31	7.13%
Family Child Care	4	0.92%
Home/Informal Care	33	7.59%
Non-Public Nursery	25	5.75%
Repeated Kindergarten	2	0.46%

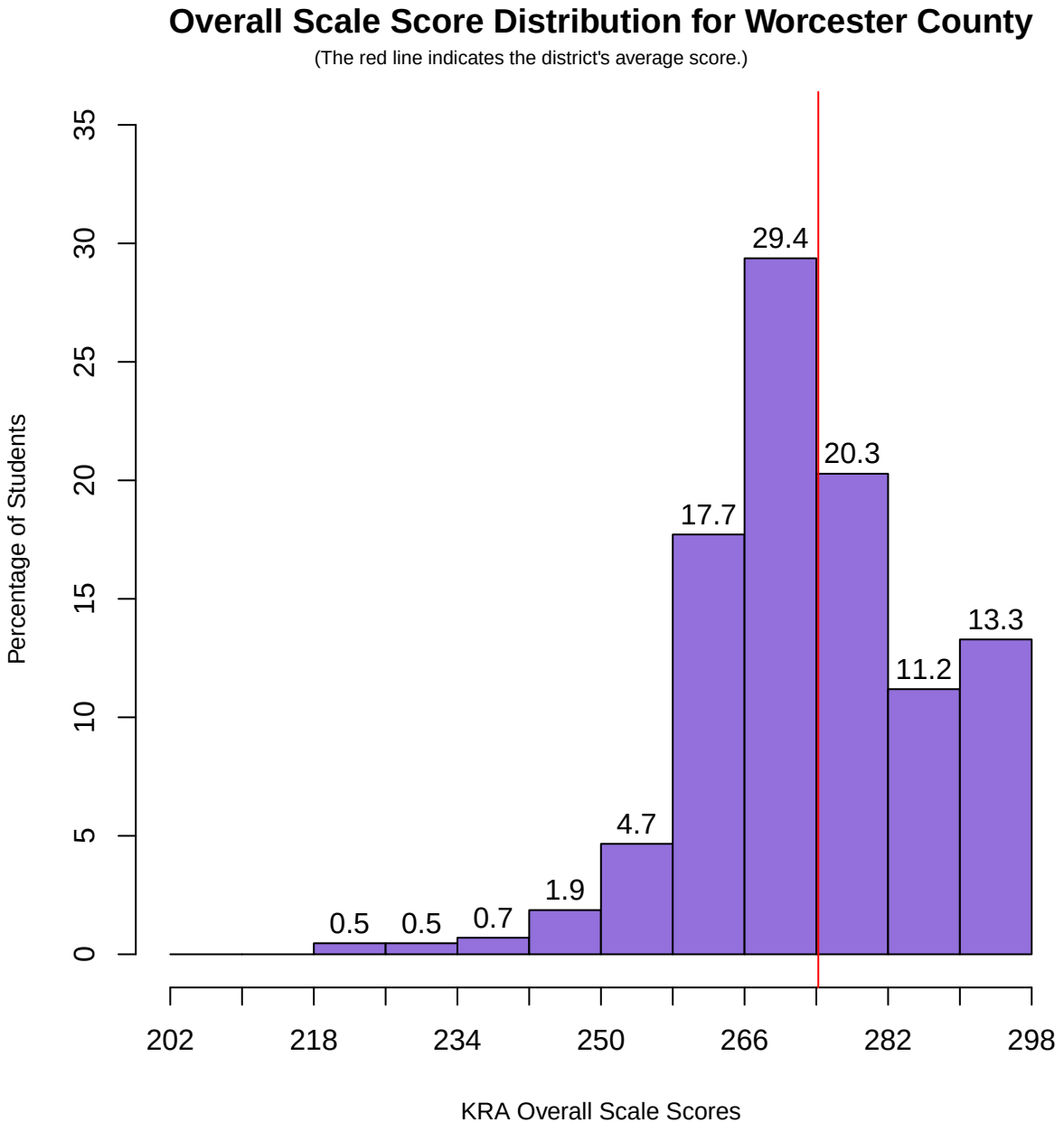
* The sum of the percentages may not equal 100 because of rounding error.

† Predominant Prior Care percentages are based on the valid entries provided and may be less than the total number students.

KRA Composite and Scale Scores for Worcester County

	Average Domain Scale Scores				Composite Scores			
	Language and Literacy	Mathematics	Social Foundations	Physical Development	Overall Average Scale Score	Percent Demonstrating	Percent Approaching	Percent Emerging
Ethnicity/Race								
American Indian/Alaska Native	*	*	*	*	*	*	*	*
Asian	275	278	285.2	282.4	276.8	100%	0%	0%
Black/African American	269.76	268.45	273.51	274.64	269.48	55.4%	31.3%	13.3%
Native Hawaiian/Other Pacific Islander	*	*	*	*	*	*	*	*
White	273.86	277.52	283.17	281.67	276.36	71.2%	24.1%	4.7%
Hispanic/Latino	274.13	276.84	279.19	280.55	275	71%	25.8%	3.2%
Two or More Races (Non-Hispanic/Latino)	266.69	268.31	271.31	273.56	267.83	41.7%	36.1%	22.2%
Gender								
Male	271.62	274.09	276.38	277.16	272.50	60.9%	30.6%	8.5%
Female	273.57	275.98	284.48	282.46	276.31	72.2%	21.1%	6.7%
Prior Care								
Head Start	262.17	265.17	269.5	268.5	264.5	33.3%	50%	16.7%
Prekindergarten	273.72	275.54	279.7	279.69	274.87	69.5%	23.9%	6.6%
Child Care Center	269.67	274.57	281.83	280.73	273.33	56.7%	33.3%	10%
Family Child Care	*	*	*	*	*	*	*	*
Home/Informal Care	264.13	267.39	275.97	275.19	267.03	35.5%	48.4%	16.1%
Non-Public Nursery	273.96	281.4	290.48	285.24	279.36	80%	16%	4%
Special Education								
No	273.44	275.96	281.67	281.36	275.42	69.3%	25.3%	5.4%
Yes	262.84	264.53	263.29	261.00	261.92	31.6%	36.8%	31.6%
English Learners								
No	272.62	275.19	279.90	279.40	274.30	65.9%	26.3%	7.7%
Yes	269.13	268.33	283.87	283.80	272.07	66.7%	26.7%	6.7%
Free and Reduced Price Meals								
No	274.99	278.60	284.84	283.04	277.70	74.1%	22.6%	3.3%
Yes	269.25	270.18	273.77	275.01	269.67	55.4%	31.2%	13.4%
Aggregated Data	272.50	274.95	280.04	279.56	274.22	66%	26.3%	7.7%

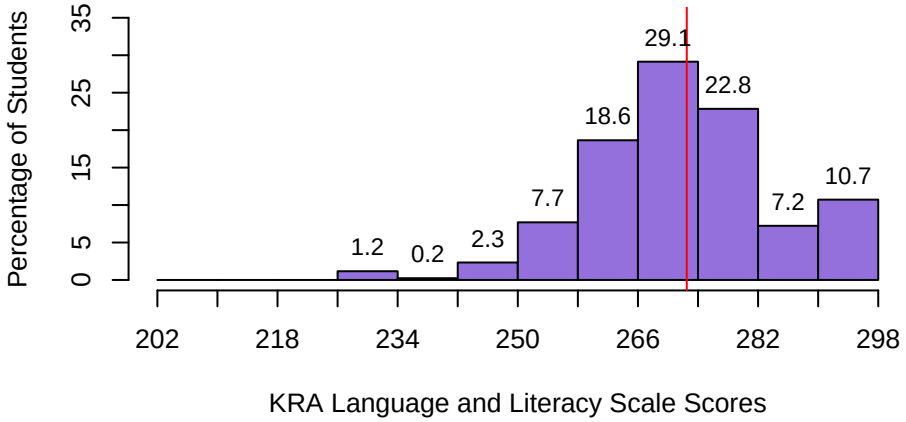
* Fewer than 5 students in this group.
** The sum of the percentages may not equal 100 because of rounding error.


Overall Scale Score Distribution for Worcester County
(The red line indicates the district's average score.)
Percentage of Students
0
5
10
15
20
25
30
35
0.5
0.5
0.7
1.9
4.7
17.7
29.4
20.3
11.2
13.3
202
218
234
250
266
282
298
KRA Overall Scale Scores

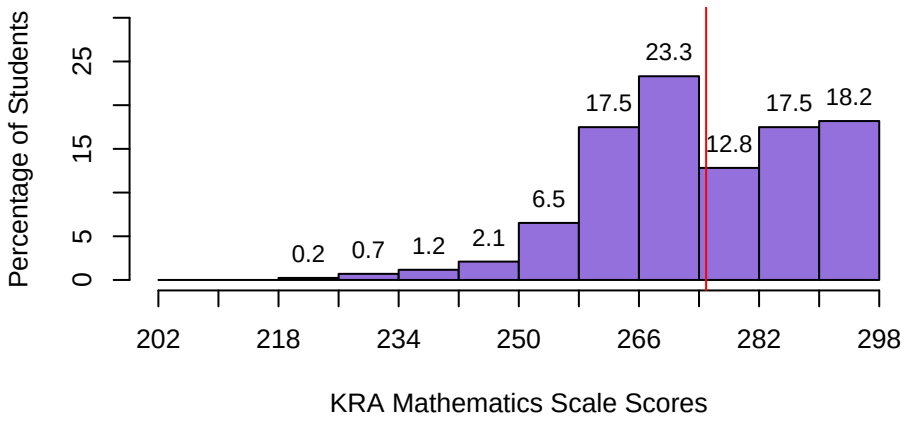
Domain Score Distributions for Worcester County

(The red line indicates the district's average score for a particular domain.)

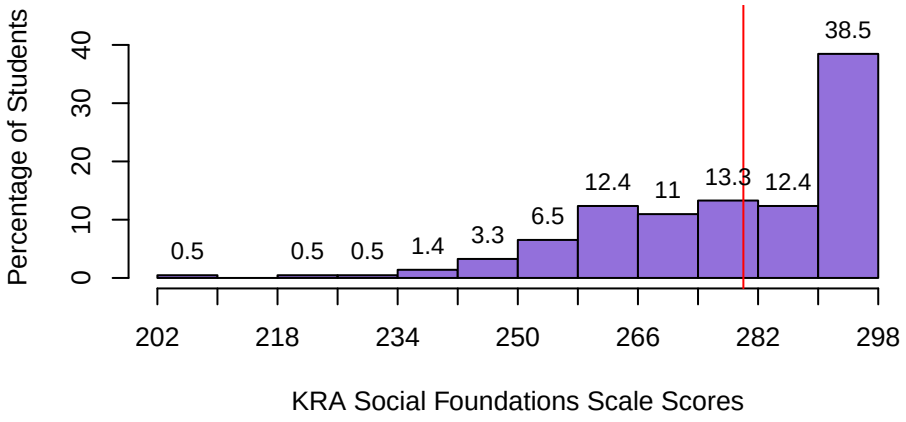
Language and Literacy



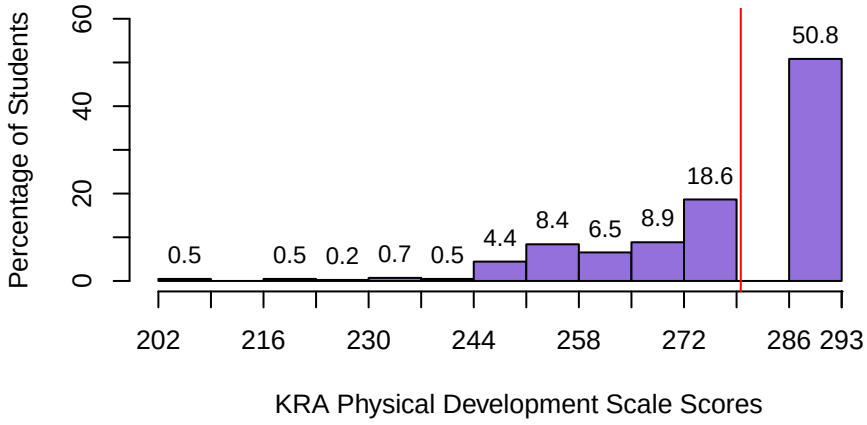
Mathematics



Social Foundations



Physical Development



Appendix C

Frequently Asked Questions

FREQUENTLY ASKED QUESTIONS

Kindergarten Readiness Assessment (KRA) Q&A

ASSESSMENT OVERVIEW

Why is assessment important?

Understanding children's developmental characteristics as they enter school, and the types of early experiences that are linked to school success, is vital to all of Maryland's education stakeholders, including early care and education providers, teachers, policymakers, community leaders, and families, among others. Assessing students at the start of kindergarten is one way to understand children's individual developmental strengths and challenges. It can also help stakeholders strategically address the preparedness of all children for the challenges of subsequent grades.

What is the purpose of the Kindergarten Readiness Assessment (KRA)?

The purpose of the KRA is to support and advance children's early learning and academic achievement. The data collected will be used to:

- Identify individual children's needs and determines necessary supports for success
- Support teachers with data to inform instruction and address gaps in student learning
- Provide families with information about their children's learning and development
- Offer feedback to prior care and child care programs to promote kindergarten readiness
- Inform community leaders and policy stakeholders about kindergarten readiness and help with program and funding decisions

Who is assessed with the Kindergarten Readiness Assessment?

In the spring 2016, The Maryland General Assembly passed a bill that requires MSDE to have the KRA administered as a "representative sample." It also allows for county boards of education and individual schools or teachers to conduct census administration (i.e. administer to all students). The statute allows for LSSs or a principal, in mutual agreement with the kindergarten teachers, to administer the KRA on all students. Local school systems must have reported to MSDE by June 1 regarding their decision to implement census administration.

Who can be trained to administer the KRA?

All public elementary schools in Maryland are responsible for administering the KRA. It is required that the KRA be administered by teachers who are employees of the school system and hold a teaching license/certificate/permit issued by the MSDE. Teachers have two days of training that includes completing two assessments, one related to content and one using a simulator. A score of 80% or better must be obtained by teachers to be certified to administer the KRA. A training 'refresher' assessment is required each subsequent year.

When is the KRA administered?

In the spring 2016, The Maryland General Assembly passed a bill that requires MSDE to have the KRA administered as a "representative sample." It also allows for county boards of education

and individual schools or teachers to conduct census administration (i.e. administer to all students). Assessments for sampling and census administration must be completed by October 10th.

Can parents opt out of having their child take the KRA?

No. This is a statewide assessment given to students as part of the instructional program and for state reporting.

How many standards are assessed in the KRA?

The KRA assesses 28 standards in four domains of learning: Social Foundations, Language and Literacy, Mathematics, and Physical Development and Well-Being.

What type of assessment formats are included in the KRA?

There are three item types on the KRA: selected response, performance tasks, and observational rubrics. Teachers have the option to add comments and upload artifacts to document students' growth in learning and to facilitate communication with parents and families.

Will schools be held accountable for children who do poorly on the KRA?

No. School systems receive kindergartners with a variety of previous learning experiences. The KRA results will inform not only teachers, but also policymakers and program administrators about general trends of incoming kindergarteners' school readiness skills and help create policies and programs that support children before they start kindergarten.

TECHNOLOGY

What is used to administer the KRA?

All data entry is electronic. The assessment can be accessed through wired internet connections through the R4K online system.

A hard copy version of the assessment is made available, via kits, to teachers who have no computer or similar devices for internet access or who choose to administer the items to a student directly using the kit. While the hard copy versions can be used with students in the classroom, all teachers are responsible for entering data electronically, including transferring data from hard copy versions of the assessment to the R4K online system.

IMPLEMENTATION

Who administers the KRA?

The KRA is a standardized assessment that requires a qualified teacher to administer the assessment to students. The teacher must be fully trained by a trainer who successfully completed the training, content assessment, and simulator in the online system.

How long does the KRA take to administer?

Based on teacher survey feedback, the KRA takes approximately 40 minutes per student to administer. The time varies depending on whether the KRA App or the hard copy kit was used , as well as how the teacher collected the observational data.

What type of data will teachers, schools, and districts receive from the KRA?

The assessment technology features a reporting system that provides teachers with in Individual Student Report (ISR) that is given to the student's family. Assessment information is being reported overall and by domain at the district, school, class, and student level.

How are teachers trained to administer the KRA?

Teachers receive online and/or face-to-face training on the administration of the KRA. The training modules are organized around pre-administration, administration, and post- administration topics.

How will teachers find out what students know and are able to do?

Interpreting assessment data is included in the administration and post-administration training modules. Teachers receive information and resources on using the online site to gather student performance data as part of the administration module. Using the data to inform instruction forms the basis of the post-administration module. The various reports and visual displays are available during and after the administration window.

How will teachers share assessment information with parents?

Post-administration training modules will guide teachers in communicating assessment results to parents and families, including helping families understand their child's performance on the KRA. Individual Student Reports (ISR) are to be shared with parents and are now available in English, Spanish, Chinese, and French languages.[1]

Observations can be subjective. How does the KRA address that?

With the KRA, the assessment information of groups of students is shared with others and requires, therefore, a set of objective criteria for observing. The KRA includes three features that increase the objectivity of rating items in accordance with standard assessment practices:

- A required simulation test as part of the teacher training to establish inter-rater reliability;
- Selective response and performance task items;

[1] Teachers inform parents about the KRA during the regular parent-teacher conferences.

- Observational rubrics that define learning situations.

SPECIAL EDUCATION

Does Maryland require the participation of all students with disabilities on the Kindergarten Readiness Assessment (KRA)?
Yes. Maryland is requiring all students to participate, following the decision-making process, to be implemented by the child's instructional team, for item administration outlined in the *Guidelines on Allowable Supports* (*Guidelines*) document. A quick guide version of the *Guidelines* document is also included in the KRA kit.

Will all items be administered to students with disabilities?
Yes all items are to be administered following the decision-making process for administering the KRA to students with disabilities.

Which members of the student's instructional team can be trained on the KRA to provide input on decision-making?
Currently, the following categories of teachers can be certified in administering the Kindergarten Readiness Assessment (KRA). KRA online modules are available for the student's instructional team to access for additional information related to administration procedures and the *Guidelines* document.

- General education Kindergarten educators.
- General education content specialists or resource teachers.
- Self-contained and resource specialized educators: Specialized educators who teach in self-contained classrooms exclusive to Kindergarten students or may contain Kindergarten students and specialized educators who provide services to Kindergarten students
- K inclusion specialized educators: Specialized educators who co-teach in a Kindergarten classroom the entire day.

Are supports available to all students? Which supports are unique to students with disabilities?
All students, including students with disabilities and English learners (EL), can benefit from accessing Universally Designed Allowances (UDAs). The basic premise of the UDAs is to support all learners accessing and responding to the KRA, and to eliminate the greatest number of barriers possible, while maintaining valid and reliable results that can be interpreted confidently. These allowances are aligned to best practices for access to instruction and assessment for all young learners.

Even with the use of UDAs, a student's instructional team may decide to provide additional individualized supports to students with disabilities. For the purposes of the KRA administration,

the use of such individualized strategies has been identified as “Level the Field” supports. “Level the Field” supports provide equal access and opportunity for participation in the assessment without substantially altering what the student is expected to do or impacting the validity or reliability of assessment results. “Level the Field” supports are unique to students with disabilities and ELs.

What constitutes "not within a student's abilities" to access the KRA items?
Some items may not be within a student’s abilities given any allowable support. Therefore, the item is “Not Scorable.”

Will the “Not Scorable” option be available to observational items?
Yes, a student can receive a score of “Not Scorable” on all items, including observational items.

What is the difference between the score of “0” and “Not Scorable”?
The rating of Not Scorable should only be applied when a child is not able to access an item due to the child’s disability. After consultation with the special education teacher, the rating of Not Scorable is applied when an item requires demonstration of a skill such as hopping, and the child is not able to respond due to a physical disability that restricts or prevents gross motor movements related to the skill being assessed. A Not Scorable rating would not be appropriate when the response to the item reflects the child’s functioning at an earlier developmental level and their ability to respond is not otherwise affected by their disability; in this instance the appropriate rating is a “0” since the child was able to access the item, but did not demonstrate the skill according to the criteria. A child’s overall and domain scores are impacted with a Not Scorable.

ENGLISH LEARNERS

How are entering kindergarten students identified as English learners (ELs)? If a language other than or in addition to English is spoken in the home, the student’s English proficiency is measured based on the results of the listening and speaking portions of the
KWAPT created by the WIDA Consortium. Typically, the KWAPT is the screening instrument used for kindergarten students as they were registered in order to identify students who potentially qualify for ESOL services in kindergarten.

- If the student attended a public pre-K during the previous school year, he/she may have been screened during the spring of their pre-K year.
- If you do not know who your ESOL teacher or contact is, check with your school’s principal, testing coordinator, or the person in the school systems ESOL Office.
- If you are an ESOL teacher assigned to an elementary school, collaborate with the school’s staff to schedule the administration of the listening and speaking portions of the KWAPT to potential ELs. Meet with the kindergarten teacher(s) in order to share the KWAPT results.

Who should receive Level the Field support? (Level the Field supports should be considered for each student and each assessment item separately. It is quite possible that a student may need the support in some but not all items.)

- **ELs with Beginning (Low) English Language Proficiency** *–corresponds to a raw score of 0-10 on the KWAPT Listening and Speaking Conversion Table that is used for screening to determine a student's eligibility* for *ESOL services.* ELs at the beginning (low) level of English language proficiency tend to have the greatest need for supports. These students may be able to respond with gestures to songs, chants, or stories modeled by teachers and typically are able, at most, to answer questions with only one or two words in English.
- **ELs with Intermediate (Mid) English Language Proficiency –***corresponds to a raw score of 11-18 on the KWAPT Listening and Speaking Conversion Table.* ELs at the intermediate (mid)level typically have developed some proficiency in English (e.g., able to act out songs and stories using gestures and possibly retell short narrative stories through pictures; repeat sentences from rhymes and patterned stories).

Who should <u>not</u> receive Level the Field supports?

- **ELs with Advanced (High) English Language Proficiency** *-corresponds to a raw score of 19-28 on the KWAPT Listening and Speaking Conversion Table.* ELs at the advanced (high) English language proficiency level would be expected to have less of a need for assistance with understanding the assessment items. For example, these students are able to order pictures of events using sequential language, arrange objects or pictures according to descriptive oral discourse, and tell original stories with emerging detail.

How does the KWAPT raw score relate to the Oral Proficiency Score?

Listening and Speaking Conversion Table on the KWAPT	
Raw Score	**Oral Proficiency Score**
0 – 10	Low - Beginning
11 – 18	Mid - Intermediate
19 – 28	High - Advanced
29 – 30	Exceptional – Not considered an EL

How should we interpret the results of the KRA for an EL?

It is important to consider the results of the KRA in the context of each EL's English proficiency level at the time the assessment is given. The lower the student's proficiency in English the more difficult it is to measure what skills the student may already have acquired in his or her home language. If a school team determines the need for an EL to be placed in an intervention, it is important that it is appropriate for his/her level of English proficiency level and the student has sufficient English skills to benefit from the intervention. Decisions can be addressed by a team of educators that includes the student's teacher and an ESOL professional as well as the student's family.

Should the student's family be involved?

It would be very helpful to have input from the student's family regarding the development of the student's home language as well as input from the classroom teacher on how the student is adapting to the kindergarten setting. Many families of ELs are not familiar with the United States' educational system; it's critical to provide outreach to these families so they understand what the assessment is measuring and how the results will be used.

Can an ESOL teacher administer the KRA?

Yes, an ESOL teacher can administer the KRA as long as he/she has received training by the local school system's staff trained by Johns Hopkins University Center for Technology in Education. This training provides all details necessary for administering, scoring, and interpreting the KRA's results.

SCHOOL READINESS IN MARYLAND

The 2018-2019 Kindergarten Readiness Assessment Report

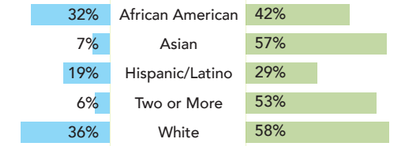
READINESS MATTERS

64,600 KINDERGARTENERS

39% KINDERGARTENERS ASSESSED BY KRA

47% DEMONSTRATE READINESS

Race/Ethnicity DEMOGRAPHICS & READINESS

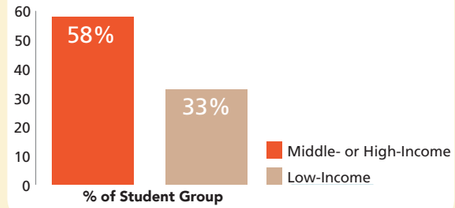


44% OF KINDERGARTENERS LIVE IN LOW-INCOME HOUSEHOLDS

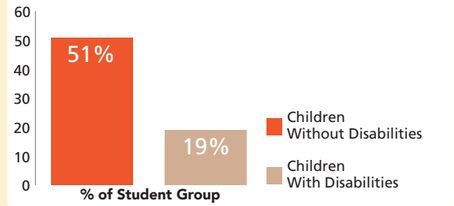
9% OF KINDERGARTENERS HAVE IDENTIFIED DISABILITIES

15% OF KINDERGARTENERS ARE ENGLISH LEARNERS

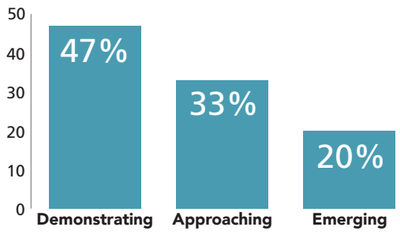
READINESS BY Household Income



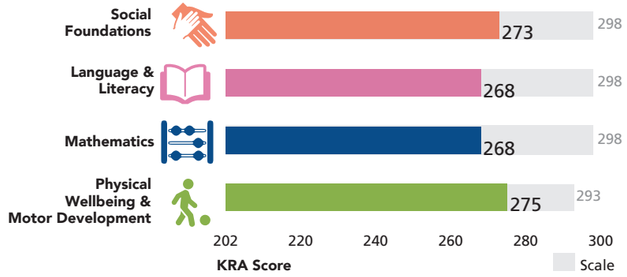
READINESS BY Disability Status



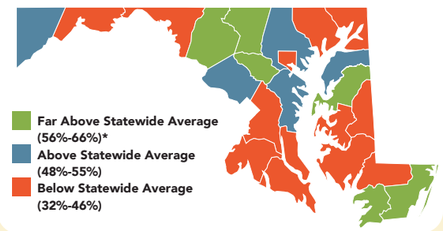
Maryland OVERALL READINESS



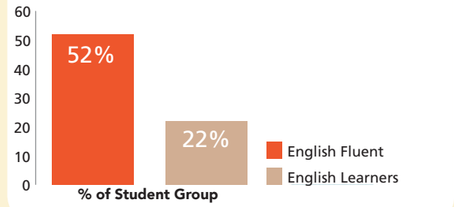
Domain AVERAGE SCALE SCORE



Jurisdiction READINESS



READINESS BY Language Status



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All of Maryland's children have the potential for success in school, career, and life. Let's do our part by ensuring that *every* child is given the support they need to be ready for kindergarten.

PUBLICLY FUNDED

PreK Enrollment

41% OF CHILDREN ARE ENROLLED IN PREK

44% OF THOSE ARE ENROLLED IN A FULL-DAY PROGRAM

Percent of Children Enrolled in Publicly Funded PreK the Year Prior to Kindergarten (2017-2018)

Prior Care DEMOGRAPHICS & READINESS