



Fall 2015

Summative Assessment Report: VDOE

The goal of the Virginia Preschool Initiative-Plus (VPI+) expansion grant in the first year is to have at least 85% of children who participate in VPI+ classrooms reach normative averages across all Essential Domains of School Readiness. In years 2 to 4, the goal is to increase the percentage of children who reach normative averages at the end of preschool. Similarly, beginning in the second year of the project, the goal is to have the same percentages of children reaching readiness benchmarks at kindergarten entry.

This summative assessment report provides the Virginia Department of Education and the 11 school divisions participating in VPI+ with information on children's development in fall 2015. The data can be used to better understand what skills and abilities the children had when they enrolled in the VPI+ preschool program in the fall and also can be used to inform instruction and programming in the second half of the school year. Another summative assessment report will be issued in the spring. Those data can be used to assess how well the state and divisions are reaching their goals of increasing the kindergarten readiness of children in VPI+ and to identify areas of instruction that could be improved the following year to support children's development and learning.

Domains, Skills, and Measures

The grant award requires that all programs have an instructional focus on the Essential Domains of School Readiness¹. As defined in the National Research Council report *Early Childhood Assessment: Why, What and How* (2008)², these domains are

- Language and literacy development
- Cognition and general knowledge (including early mathematics and early scientific development)
- Approaches toward learning (including the utilization of the arts)
- Physical well-being and motor development (including adaptive skills)
- Social and emotional development.

Described here are the **domains** and the skills (or abilities) within each domain and the **measure** or measures used to assess those skills.³ For each measure, we describe the types of **scores** used in this report

¹ From Preschool Development Grants –Expansion Grants, Application for Initial Funding, CFDA Number 84.419b.

² National Research Council (2008). *Early Childhood Assessment: Why, What, and How*. C.E. Snow and S.B. Van Hemel (Eds). The National Academies Press, Washington, D.C.

³ For additional information about each measure, including reliability and validity, a technical appendix is available upon request.

(e.g., raw or standard scores, means and standard deviations) and how the scores were used to identify children as below average or low, within the average range or average, or above average. We refer to these as cut points. The cut points were identified with the assistance of the developers of the measures and/or in collaboration with VDOE staff to measure whether children are performing normatively.

Language and Literacy Development

PALS-PreK measure. To assess children’s literacy skills, SRI used a measure already in use in VPI classrooms: the Phonological Awareness Literacy Screening for Preschoolers (PALS-PreK). PALS-PreK assesses children’s knowledge of important emerging literacy skills used in preschool, kindergarten, and first grade. Teachers administer eight tasks: name writing, upper-case alphabet knowledge, lower-case alphabet knowledge, beginning sound awareness (beginning phonemic identity), letter sounds, print and word awareness, rhyme awareness, and nursery rhyme awareness. Many tasks include practice items to ensure the child understands what will be asked of him or her. We report the scores for the six tasks that are asked of all children in preschool. We do not report lower-case alphabet knowledge or letter sounds because they are not required of all children. Divisions received all their PALS-PreK data from the University of Virginia and may want to refer to these data download reports if interested in the additional tasks.

Score. We present the raw scores for each task. Raw scores were then used to determine whether the children were below, within, or above expected developmental ranges for a 4-year old preschool student in the spring before entering kindergarten based on cut points recommended by the developers.

Cognition and General Knowledge

The cognition and general knowledge domain includes several skills (e.g., general cognitive ability, early mathematics skills). We used two direct assessment measures of cognitive and general knowledge. Early math skills were assessed using the Woodcock-Johnson Applied Problems subtest (Applied Problems), and general cognitive flexibility was assessed using the Dimensional Change Card Sort (DCCS) task.

Applied Problems measure. The Applied Problems subtest is a widely used norm-referenced measure of a limited number of early math skills (e.g., counting, number sense) in which the assessor asks a child a series of questions and records the child’s answers until the child answers incorrectly for six items.

Score. The report presents age-adjusted standard scores generated by a software program that converts a child’s raw score to a standard score based on gender and age. Standard scores have a mean of 100 and a standard deviation of 15. Standard scores were then used to determine whether the child scored one standard deviation below the mean (below average or less than 85), within average range (85 to 115), or one standard deviation above the mean (above average or greater than 115).

DCCS measure. In the DCCS task, children are asked to sort picture cards in three phases of increasingly difficulty. Children sort the cards based first on one dimension (e.g., color), then on another dimension (e.g., shape), such that in the third phase they are asked to sort using two dimensions (shape/border). These are referred to as the pre-switch, post-switch and border phases.

Score. Children who failed the pre-switch phase received a score of 0. If a child passed the pre-switch phase but failed the post-switch phase, he or she received a score of 1. The score was 2 if a child passed the first two phases but failed the border phase. A child who passed all three phases received a score of 3. Those scores were then converted to categories of below average (0, 1), average (2), and above average (3).

These cutoffs were based on data collected by the developers of the DCCS that showed the majority of healthy 3-year-old children (between 36 and 47 months of age) fail the post-switch phase and the majority of 4- and 5-year olds pass this phase, and most 4-year-olds fail the border phase.

Approaches Toward Learning

The approaches toward learning domain is typically defined as the extent to which the child enjoys learning new tasks, demonstrates curiosity and initiative, and shows persistence when confronted with new skills or tasks. This domain does not typically reflect what skills children need to acquire but rather how children approach learning across different skills, and it is considered critical for school readiness and success in school.

T-CRS-2 measure. For the VPI+ summative evaluation, SRI selected a teacher-report measure of children’s approaches toward learning - the Teacher-Child Rating Scale (T-CRS-2)⁴ has 38 items and four subscales: task orientation, assertiveness, peer social skills, and behavior control. The task orientation subscale taps into the construct identified by the National Research Council’s definition of approaches to learning.

Scores. The items were summed for each subscale based on guidelines in the T-CRS-2 manual. Then, on the basis of gender and age (preschool vs. kindergarten), the child received a percentile rank ranging from 1 to 99 for each subscale score. Higher percentiles indicated greater well-being and lower percentiles represented more problem behavior in that area. For example, a percentile rank score of 35 meant that 35% of the norm group scored as well as or lower than the child and 65% of the norm group scored higher. Children were identified as below average if their percentile rank was less than 50% to identify children who were meeting or exceeding the normative average (i.e., the targeted goal of VDOE’s VPI+ grant).

Social and Emotional Development

The social and emotional development domain includes several related skills, including getting along well with others and being able to express and regulate one’s emotions. SRI selected a teacher-report measure to identify children’s skills and abilities in peer relations and behavior. The peer social skills and behavior control subscales of the T-CRS-2 assess these skills in the social and emotional development domain. We also used a direct assessment of self-regulation – the Head Toes Knees Shoulders (HTKS) task to assess self-regulation.

T-CRS-2 measure and score. See Approaches Toward Learning dimension above.

HTKS measure. The HTKS task requires children to play a game in which they must do the opposite of what the assessor asks. The task has three parts, and children must demonstrate a certain number of items correct in each part to continue the task.

Score. Children received a total raw score summed across the items. Based on the data and consultation with the developers, the evaluators used the cut-points observed in a research study of a sample of preschool children in fall of preschool. Children were identified as scoring low if they could not complete any of the test items (i.e., score of 0) and average if their raw summed score was between 1 and

⁴ The T-CRS as well as questions about children’s motor skills and general health were asked of teachers using an online survey system.

33. Children who demonstrated a score of 34 and above were identified as above average. These cut-offs were identified by the developers as representing children in their study sample who were performing in the bottom 10th percentile and the top 25th percentile. The cut-off scores for the spring summative assessments may change based on analyses of the Virginia sample and/or research currently being conducted by the developers. Furthermore, the developers of the HTKS recommend that teachers and instructional staff focus on how many children performed “low” or “below average” (below or at 10th percentile), average (11th to 74th percentile) or above average (75th percentile or above) and not the specific scores. Thus, children’s raw scores are not included in the classroom-level reports.

Physical Well-being and Motor Development (including adaptive skills)⁵

This domain covers children’s general physical health and fine and gross motor skills.

Measures. Teachers were asked to rate children’s motor development across gross and fine motors skills (running, jumping, kicking, throwing, catching, hopping, bouncing a ball, holding a pencil) and asked to note whether a child could or could not perform these skills. Teachers could also use a rating of “don’t know.”⁶

Score. These skills were scored as absent/present. If a child could both run and jump, the child was scored as average. If a child could only do 1 of the 2 gross motor skills or neither, the child was rated as below average. For the fine motor skills, if the child was rated as holding a pencil properly, then they were rated as average or above. If not, the child was rated as below average or “emerging.”

How to Interpret and Use Results

The summative assessment data have two purposes. The first purpose is to track the state’s goal of getting VPI+ children ready for kindergarten across the five essential domains of school readiness. VDOE has identified the following goals:

- Percentage of children in PALS-PK spring developmental range and PALS-K readiness benchmark—85% in year 1, 90% in year 2, 92% in year 3, 95% in year 4
- Percentage of children who meet or exceed the normative average in cognition, approaches to learning, social-emotional, and physical motor skills— 85% in year 1, 90% in year 2, 92% in year 3, 95% in year 4.

The second purpose of the summative assessment data is for VPI+ coordinators and teachers to identify specific areas where children need additional support or where staff need additional support to in turn support young children’s learning across domains. The division- and classroom-level reports can be used to answer questions related to division- and classroom-strengths and areas in need of improvement.

⁵ Teachers were also asked to rate the general physical health of children on the online survey. These ratings were used a risk characteristic and are included below.

⁶ Approximately 10 to 20% of children were rated as “don’t know” on most of the gross motor skills. Thus, we reported on three skills where the majority of children were rated: running without difficulty, jump up with both feet and land on both, and hold a pencil properly. Some teachers may have felt that they had not had a chance to observe the child at length and thus did not rate the child.

To provide assessment information that informs both purposes, we present the data in three ways in the exhibits that follow. For each measure we present the percentage of children scoring below average, in the average range, and above average. Then, for each measure we present the mean scores by division or classroom so individual divisions can see how the children are performing relative to the state or the rest of the division. Finally, for each measure we present the mean scores by different demographic groups for individual divisions or classroom teachers to examine how children in these subgroups are performing relative to the state or the rest of the division. When examining the results, consider the following questions:

1. Are there skills or abilities in which more than half the children are scoring within the average range or above? If so, are any specific instructional strategies or activities contributing to children's development in this area? These might be worth sharing at leadership academies or with coaches. Also, VPI+ staff may consider discussing best practices in these areas and what might be needed to continue to support children's development and growth throughout the preschool year or to enhance instruction in this area in the following year.
2. Are there skills or abilities in which more than half the children are scoring below average? If so, could these areas be targets for additional instruction? These might be worth sharing at leadership academies or with coaches to identify instructional strategies or activities that would promote learning or development in this area.
3. Are there skills or abilities on which the children's average scores across the divisions or classrooms are below average? If so, consider how the state or division could support instruction and learning supports in these areas.
4. Are there subgroups that are performing consistently below average⁷ relative to normative data on same-age peers? Are certain groups of students more often beginning or ending preschool below average? Are there differentiated supports that could be provided to these groups of students to help close the gaps?

Limitations

There is considerable variability in children's development, especially between the ages of 3 and 6 years. For example, some children may demonstrate strong motor skills but less proficiency in literacy, and other children may be fairly strong in early literacy but may still be developing their motor skills or self-regulation and social skills. These variations across children and across developmental domains for individual children are considered normal. The direct assessments were conducted by trained researchers not clinicians and reflect what was observed on that day. The teacher ratings also reflect a point in time.⁸

⁷ We report two subgroups, gender and race/ethnicity, to understand how the groups perform relative to the state or division as a whole. We identified the following subgroups as risk subgroups because children with these characteristics traditionally perform lower than their more advantaged peers: children with an IEP or identified disability, children who are in poor/fair health, children in households where English is not the home language, children in households at or below 100% of the federal poverty level, and children whose mothers do not have a high school education.

⁸ Only the measure of early math skills (Applied Problems subtest) and the TCRS subscales are considered norm referenced.

Thus, we provide these cautions for examining and interpreting the assessment results and urge you to follow these guidelines:

- Data should not be used in decision-making about the retention or promotion of children to the next grade level.
- Data should not be used as a screener or for diagnostic purposes.
- Data should not be used for teacher evaluation.
- Data should not be shared with families. Parents and family members may not understand the cut points, which may lead to unnecessary concerns.
- Division staff should view only their division's data. Classroom teachers should view only the data for individual children in their classroom.

Fall 2015 Assessment Results

Below, we present the summative assessment results for fall 2015. Children were included in the assessments if the division identified them as enrolled in a VPI+ classroom before the fall data collection period. The sample sizes, denoted as N to reflect the number of children with data for that measure or n to reflect the subgroup or the number of children with both demographic or risk data for the measure, will range across each division, measure, and subgroup. We did not report any subgroup scores if the group had fewer than 10 children. Data also may be missing if the division did not serve children in that category (e.g., a division may not serve children who have a home language other than English). The third reason that data may be missing is if a division did not have the data available at the time of reporting.

Exhibit 1. Children Scoring Below, at, or Above Average on the Literacy Domain

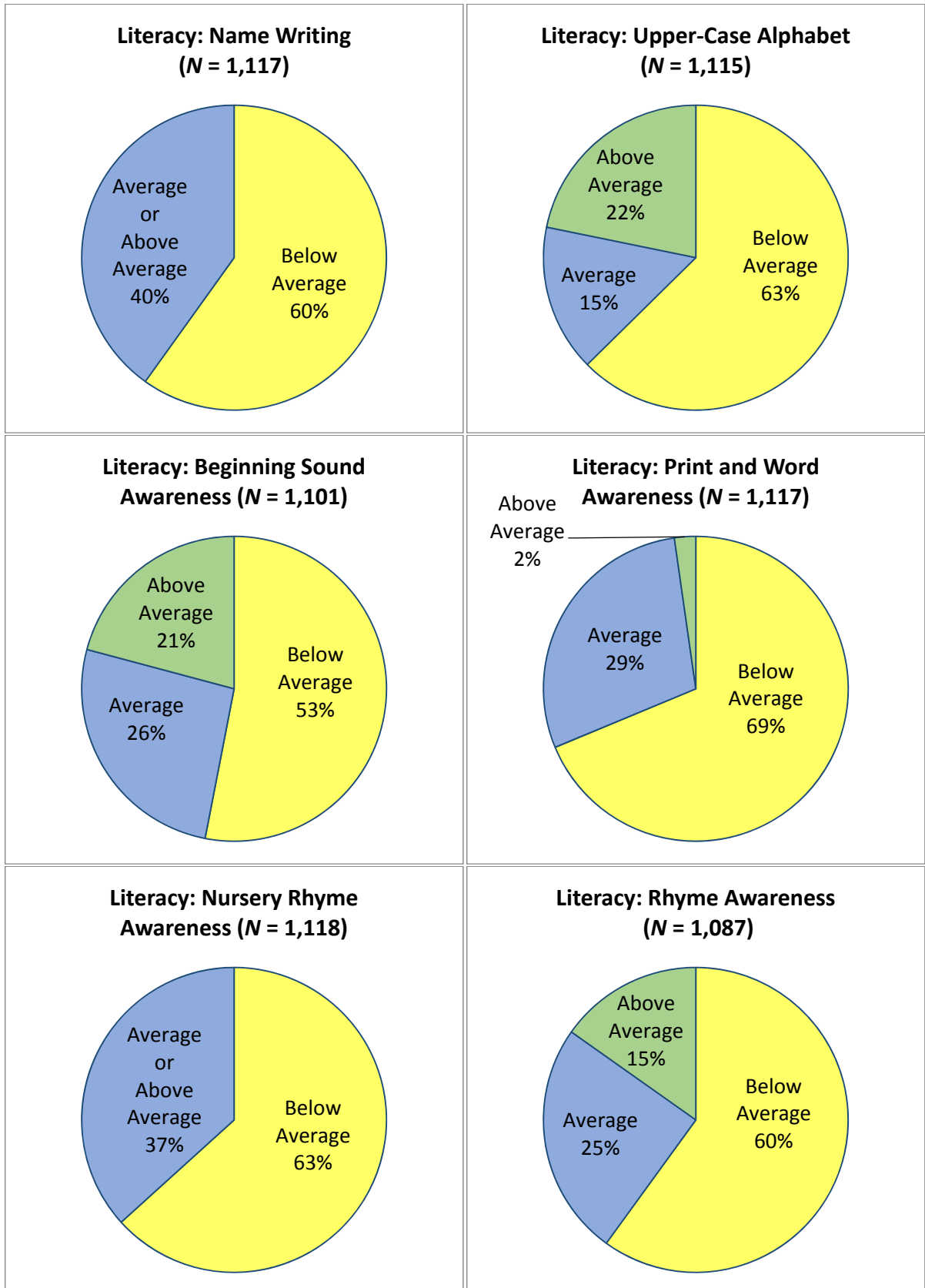


Exhibit 2. Average Scores by Division on Literacy: Name Writing

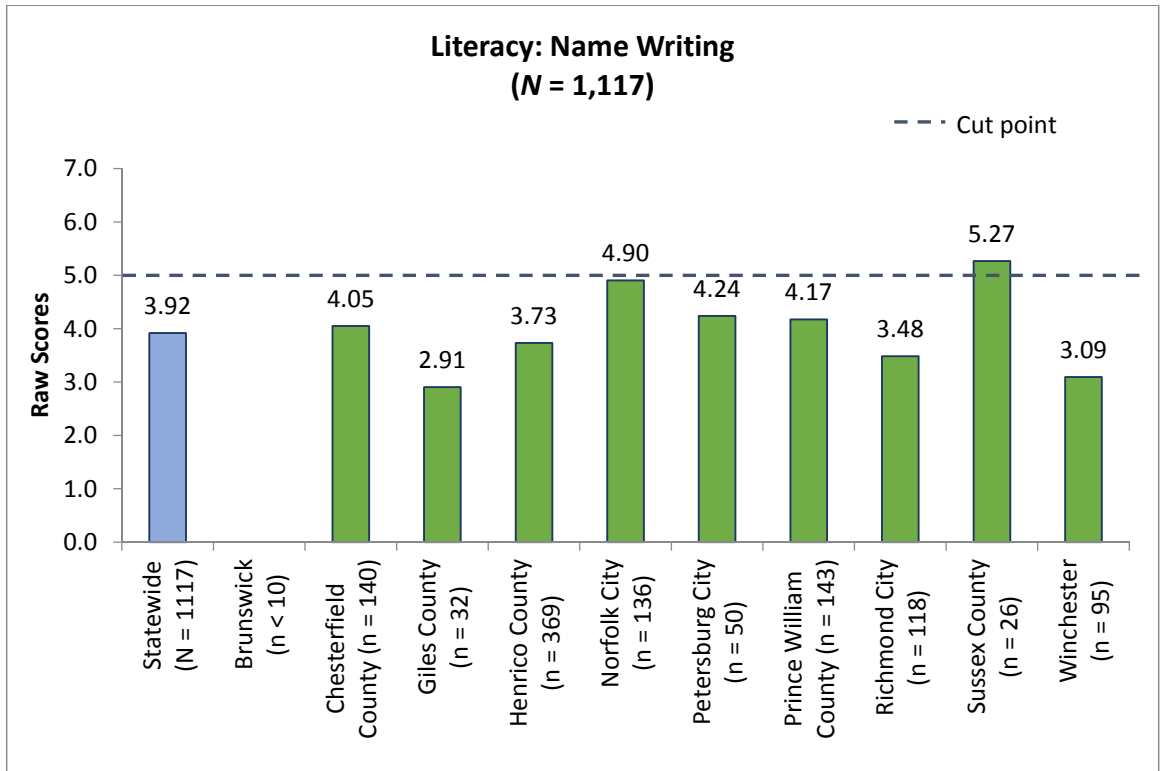


Exhibit 3. Average Scores by Demographics on Literacy: Name Writing

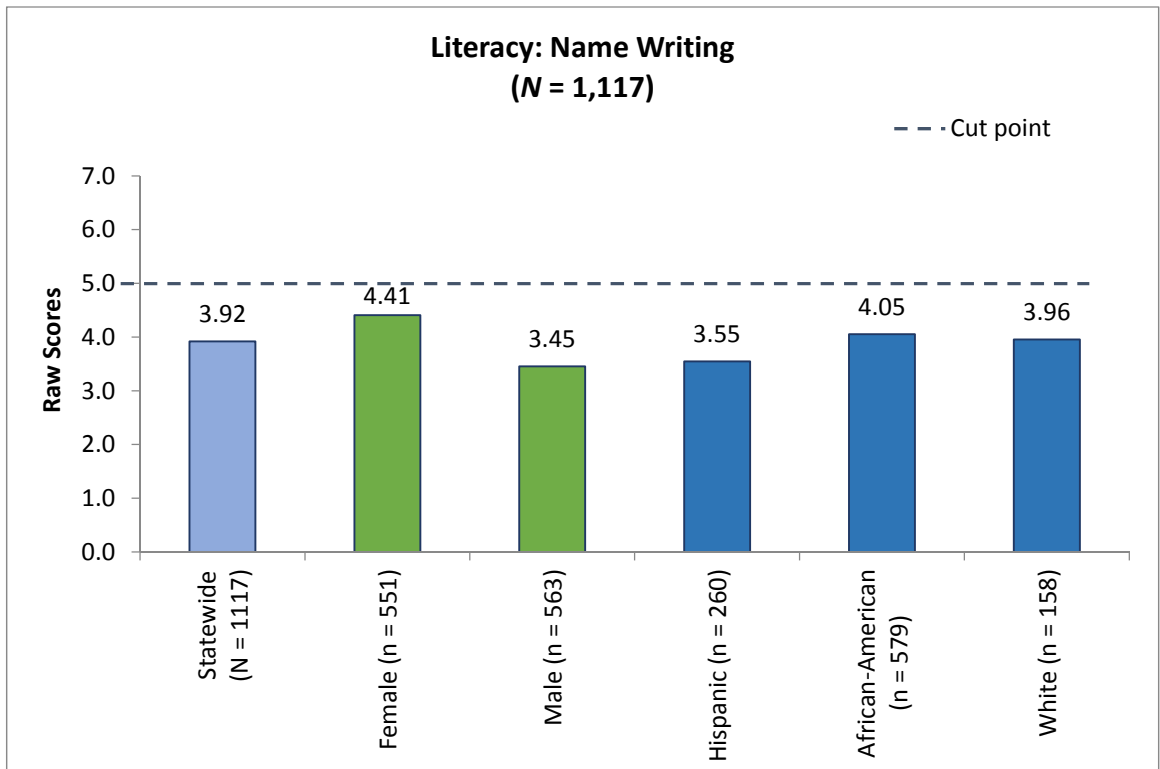


Exhibit 4. Average Scores by Risk Factors on Literacy: Name Writing

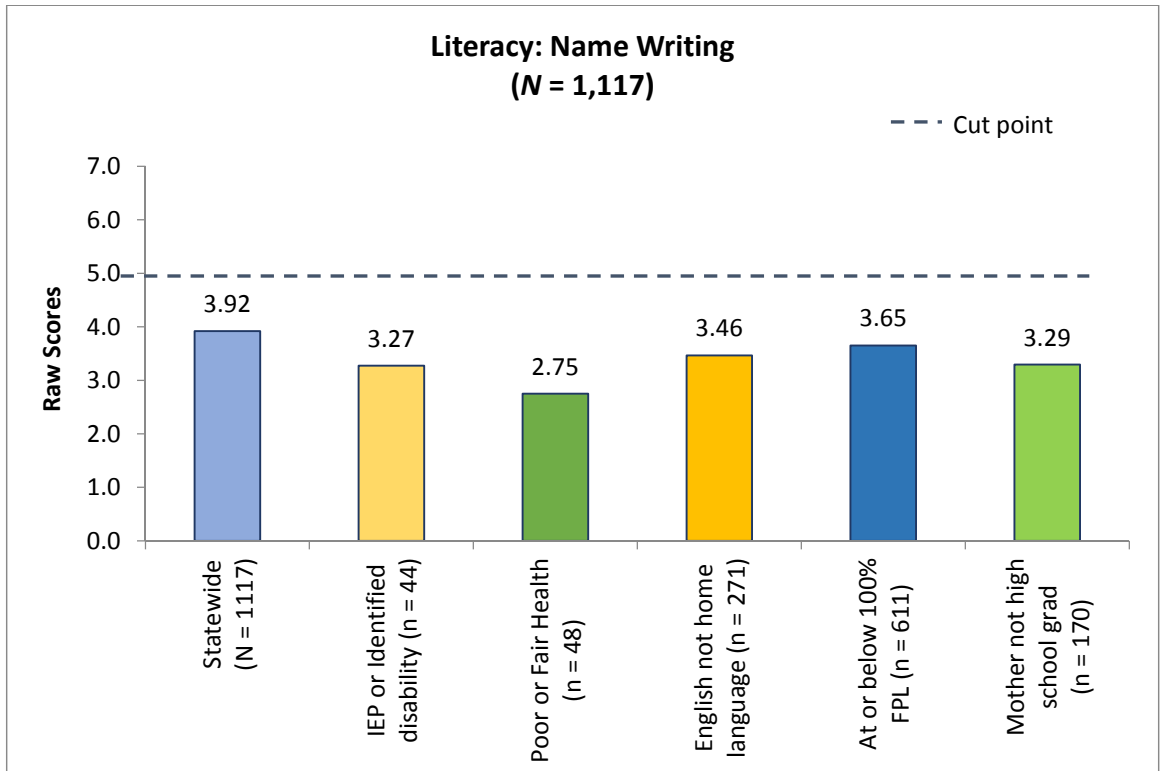


Exhibit 5. Average Scores by Division on Literacy: Upper-Case Alphabet

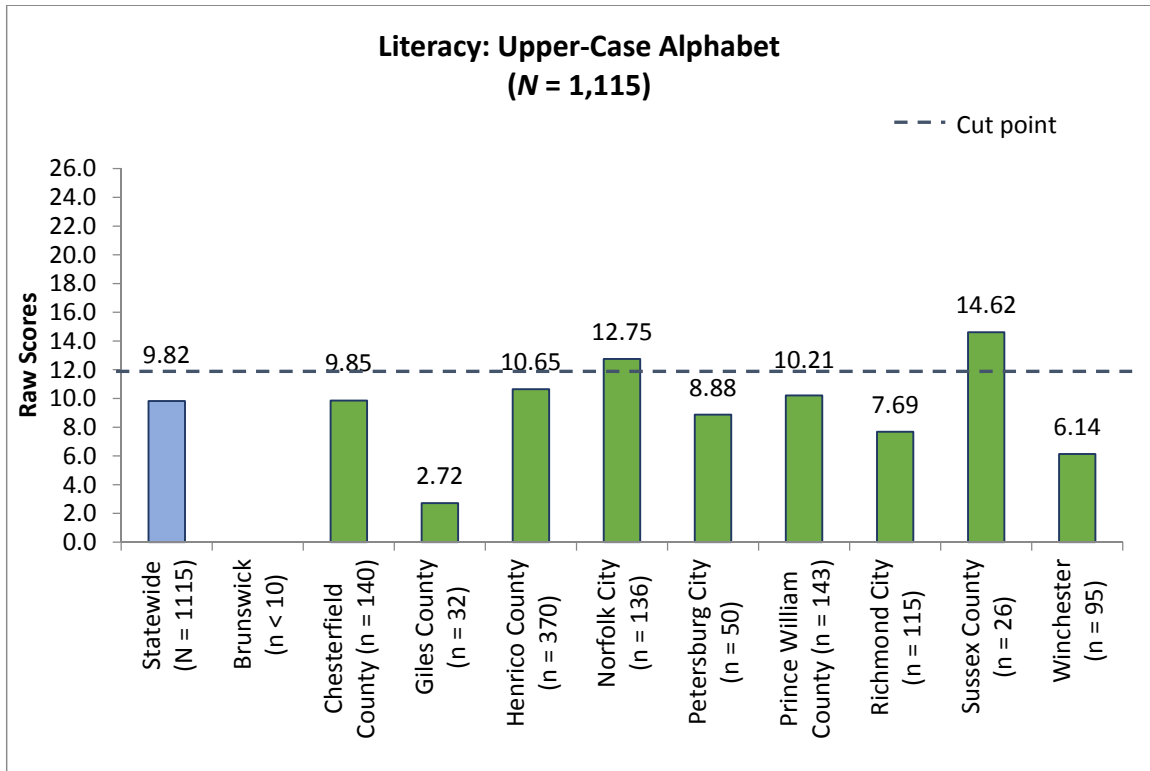


Exhibit 6. Average Scores by Demographics on Literacy: Upper-Case Alphabet

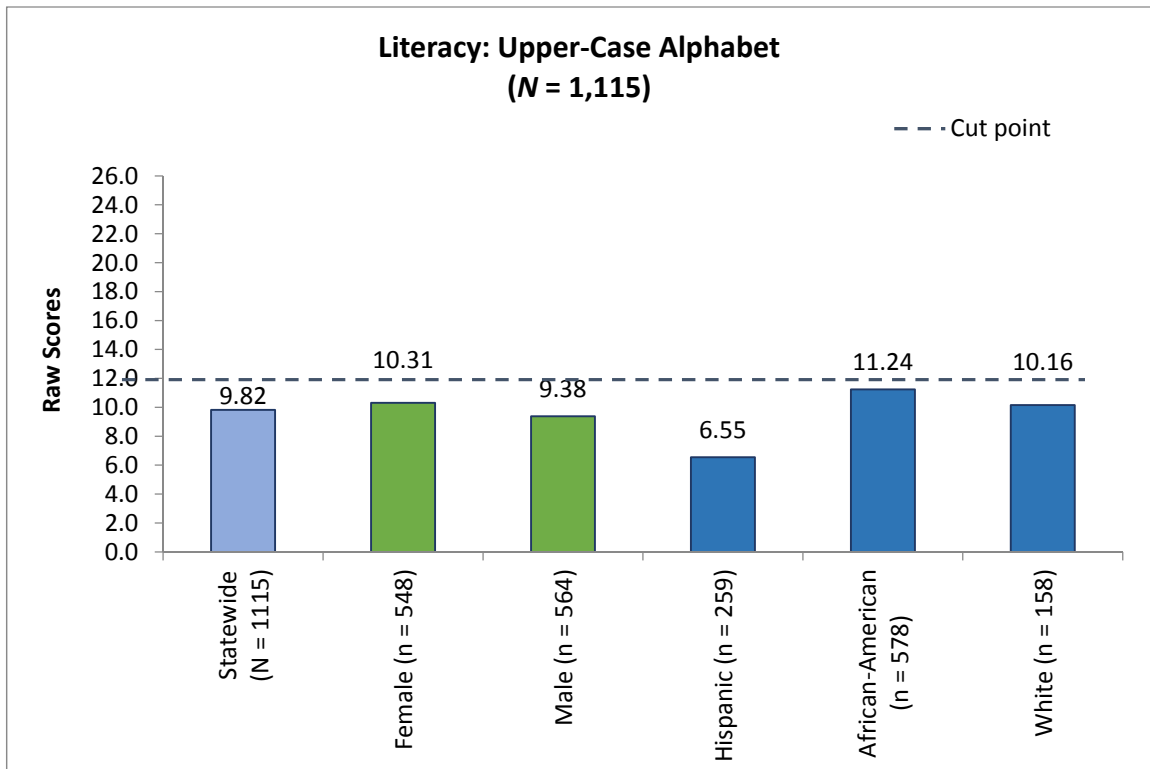


Exhibit 7. Average Scores by Risk Factors on Literacy: Upper-Case Alphabet

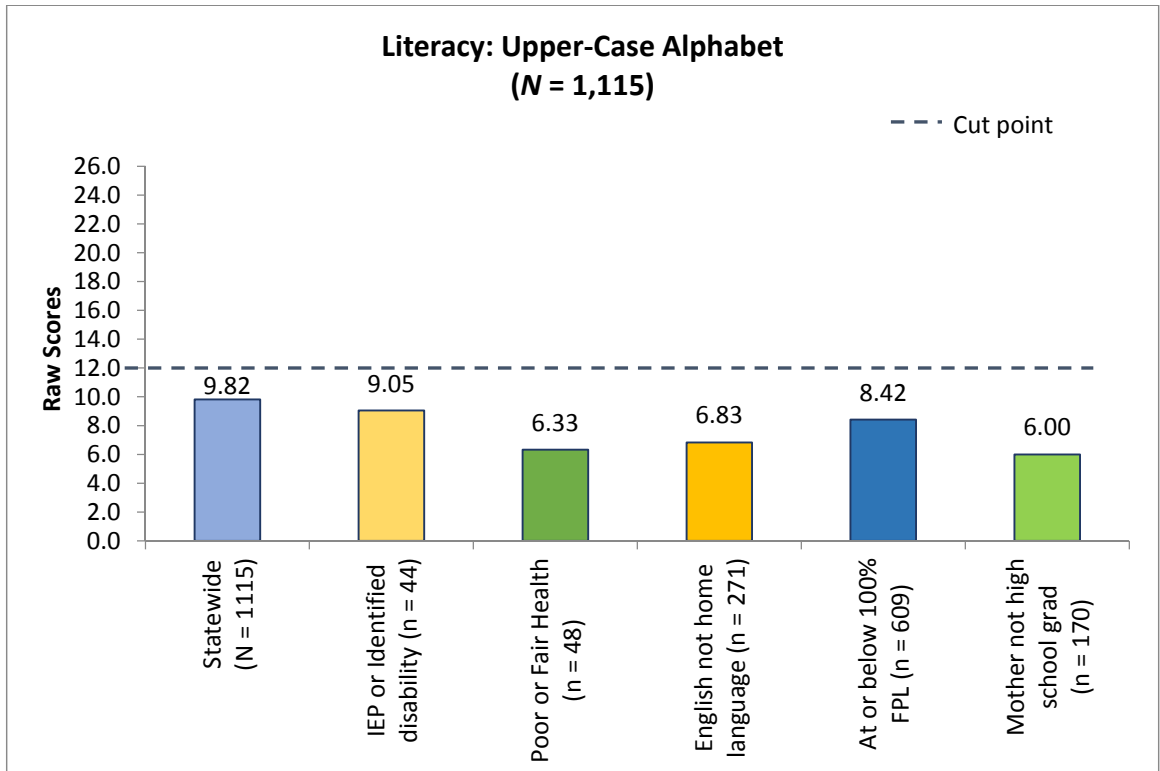


Exhibit 8. Average Scores by Division on Literacy: Beginning Sound Awareness

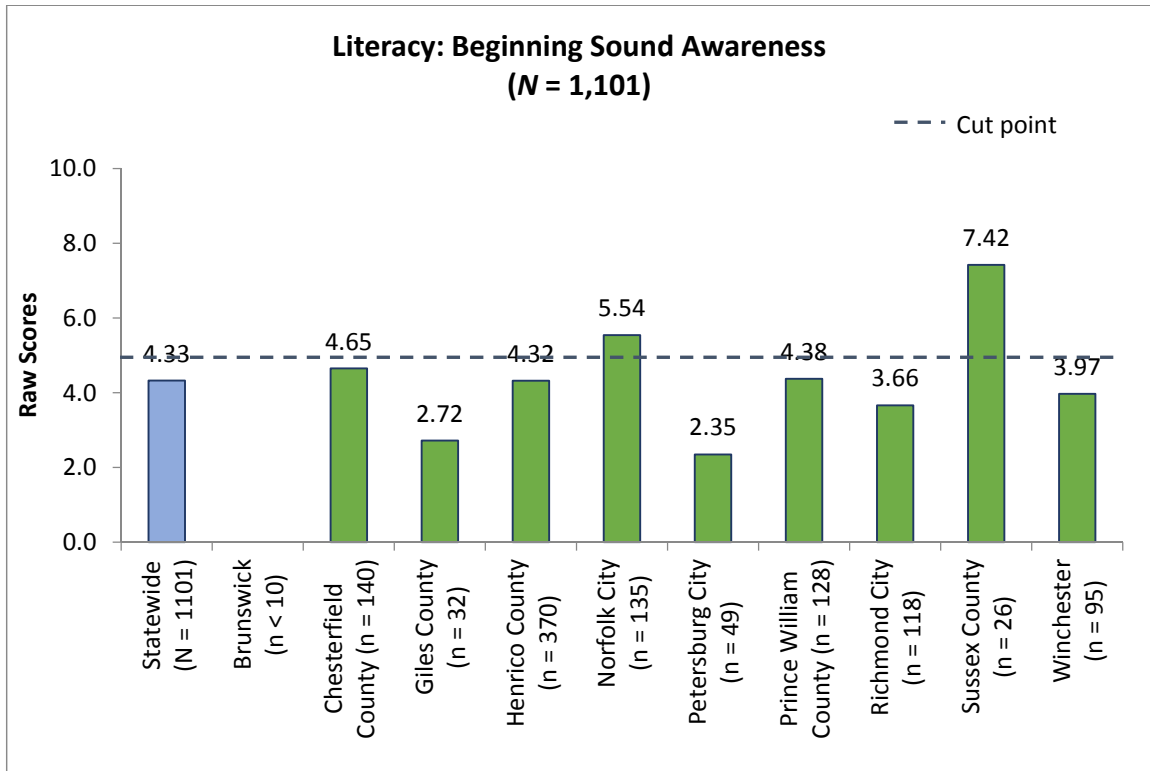


Exhibit 9. Average Scores by Demographics on Literacy: Beginning Sound Awareness

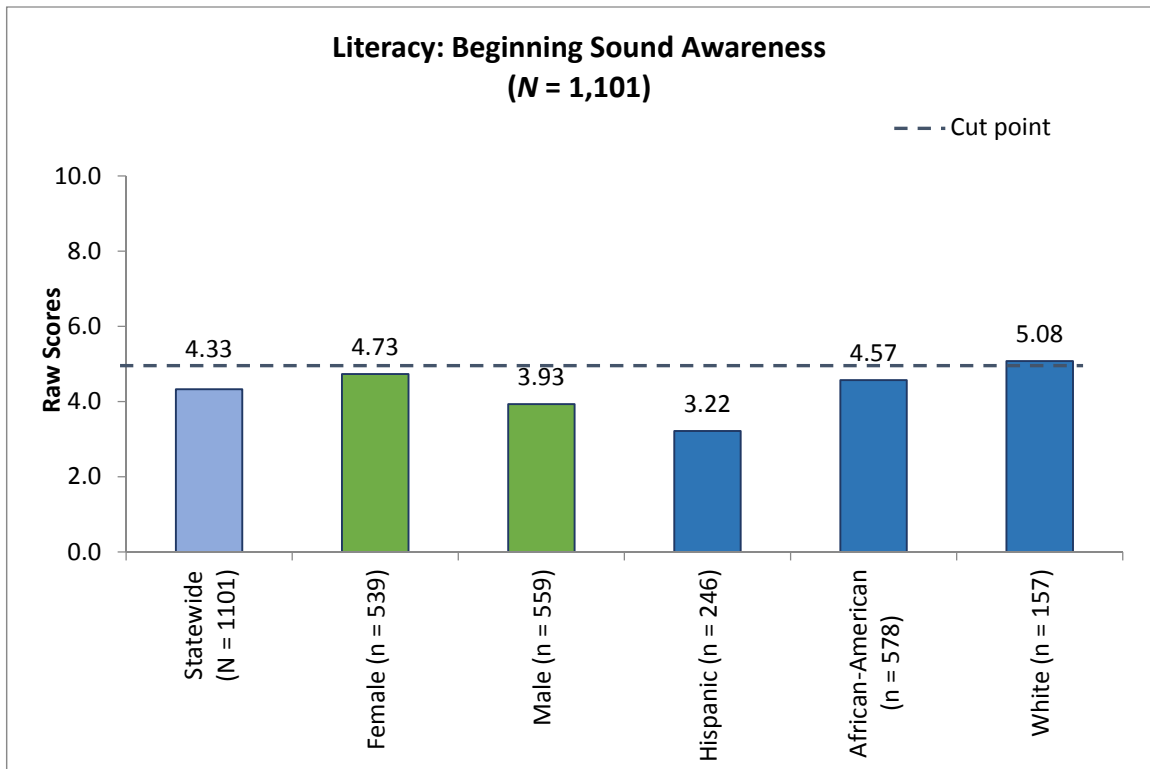


Exhibit 10. Average Scores by Risk Factors on Literacy: Beginning Sound Awareness

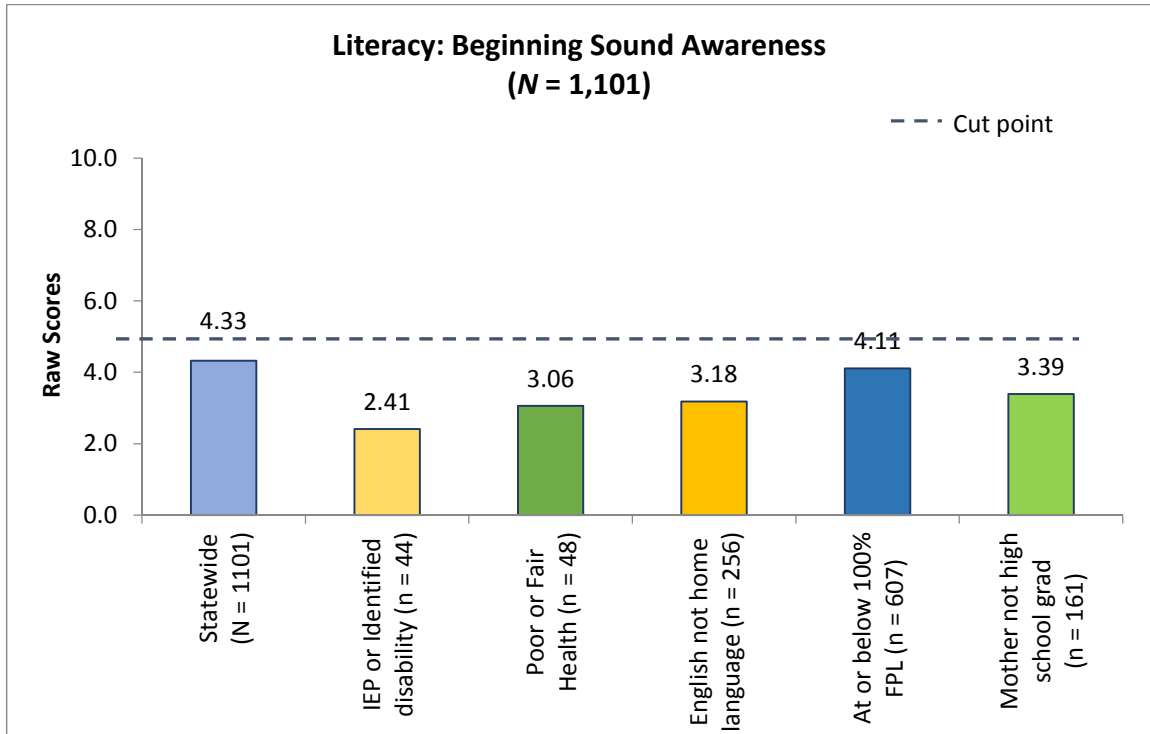


Exhibit 11. Average Scores by Division on Literacy: Print and Word Awareness

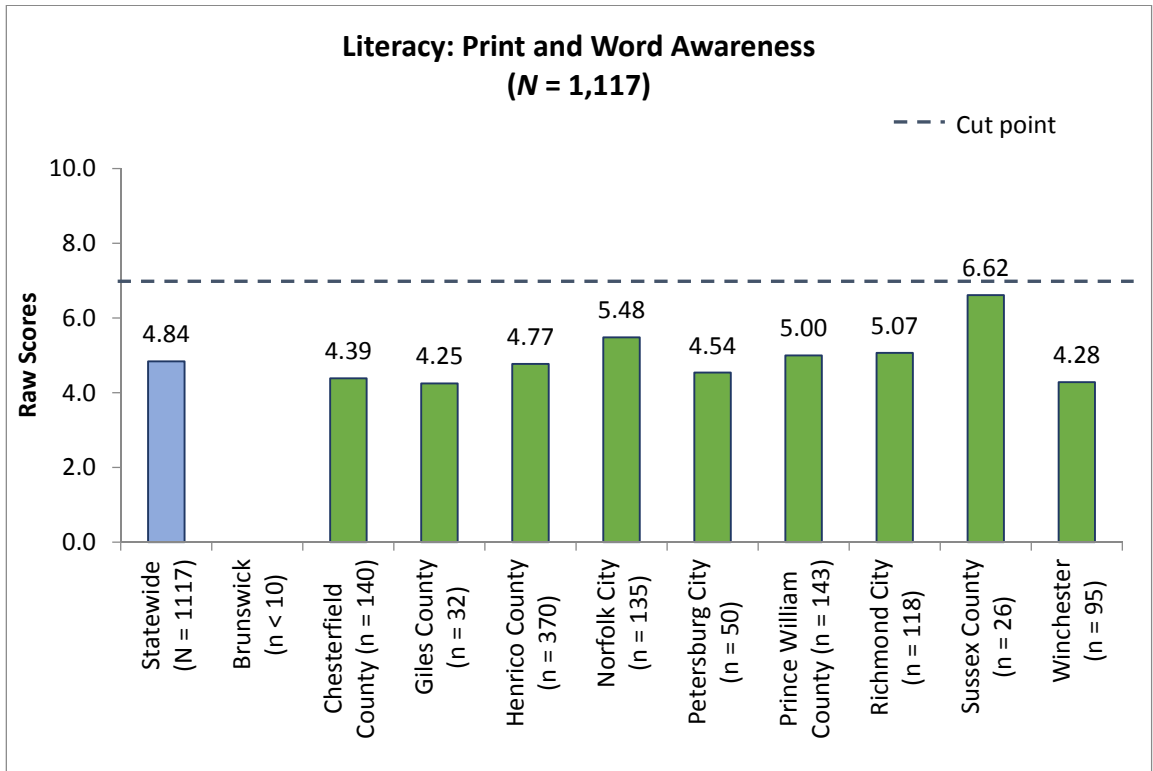


Exhibit 12. Average Scores by Demographics on Literacy: Print and Word Awareness

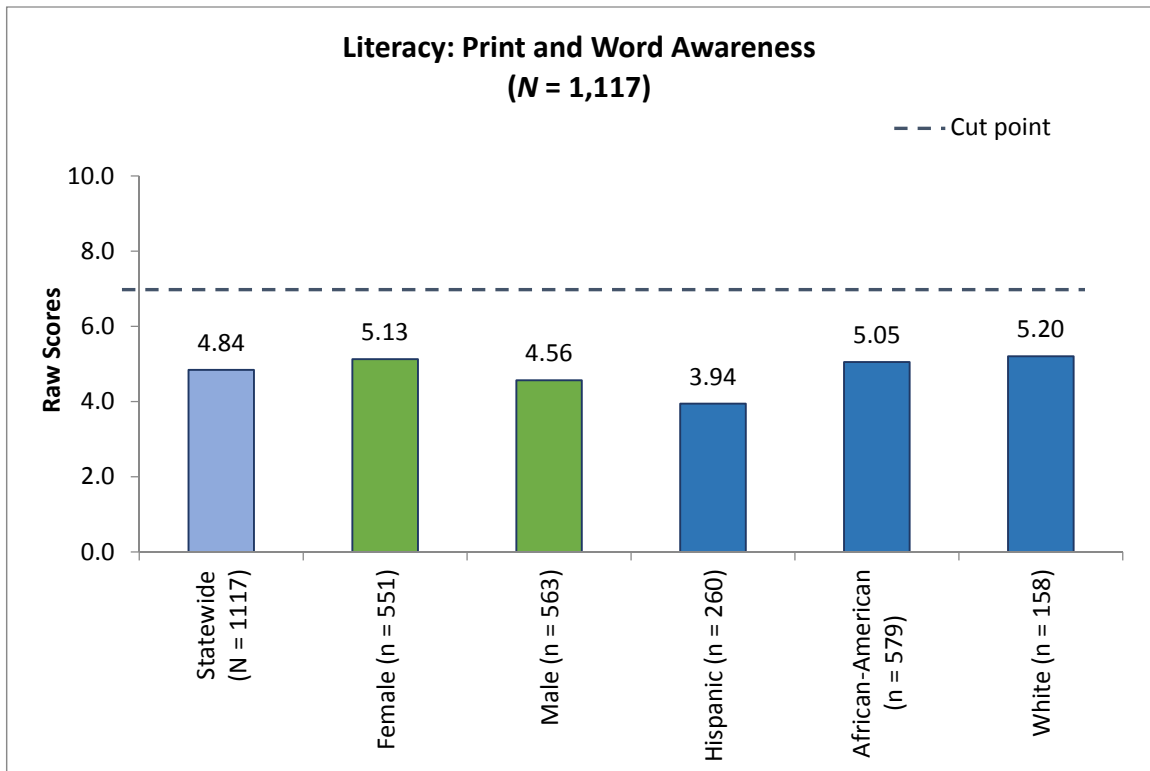


Exhibit 13. Average Scores by Risk Factors on Literacy: Print and Word Awareness

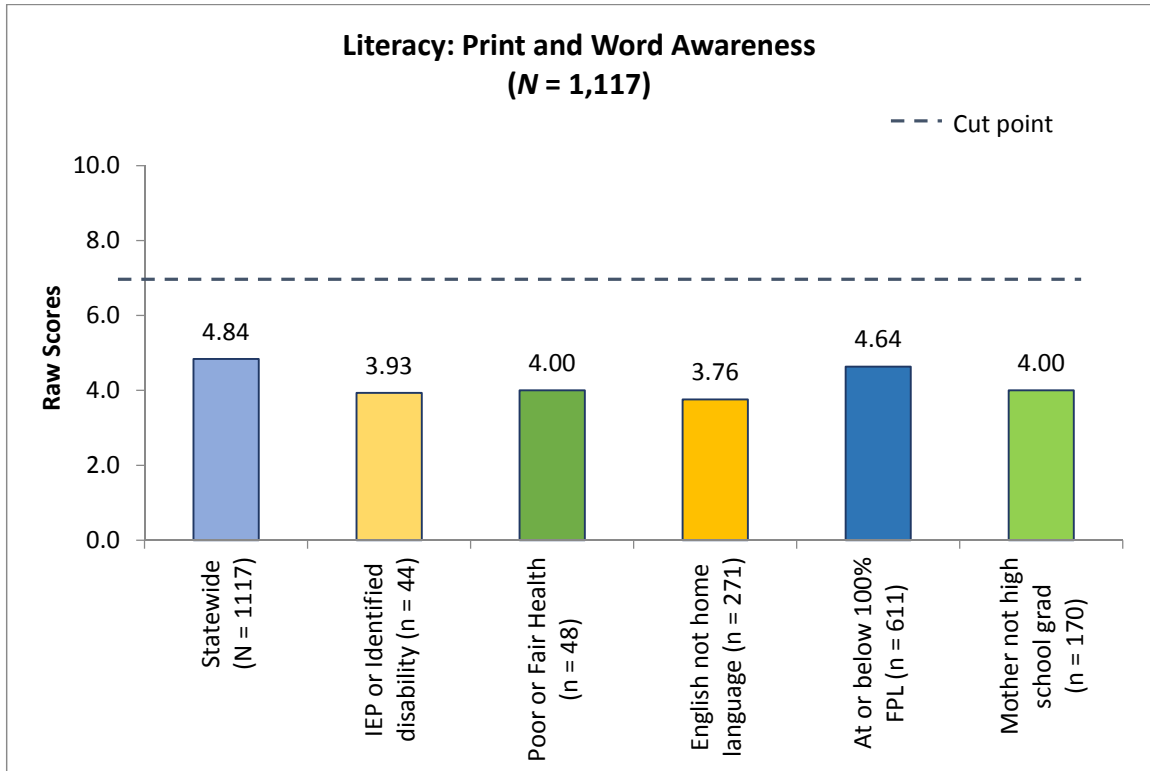


Exhibit 14. Average Scores by Division on Literacy: Rhyme Awareness

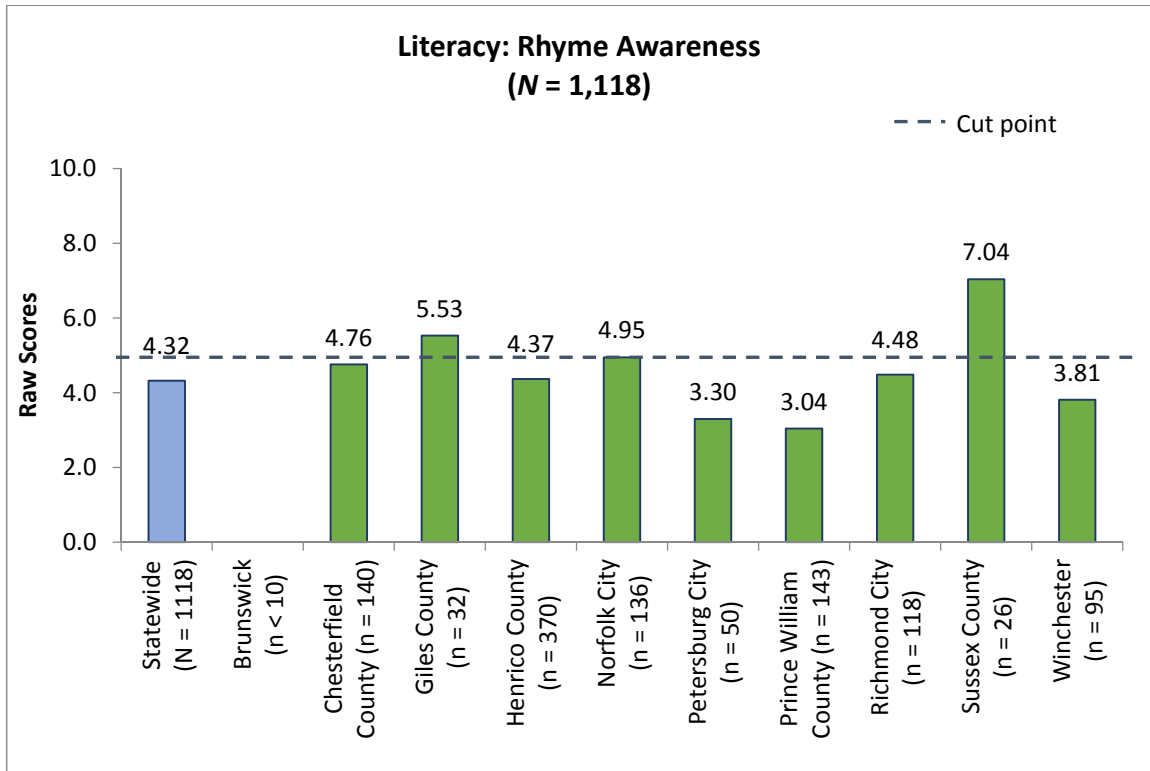


Exhibit 15. Average Scores by Demographics on Literacy: Rhyme Awareness

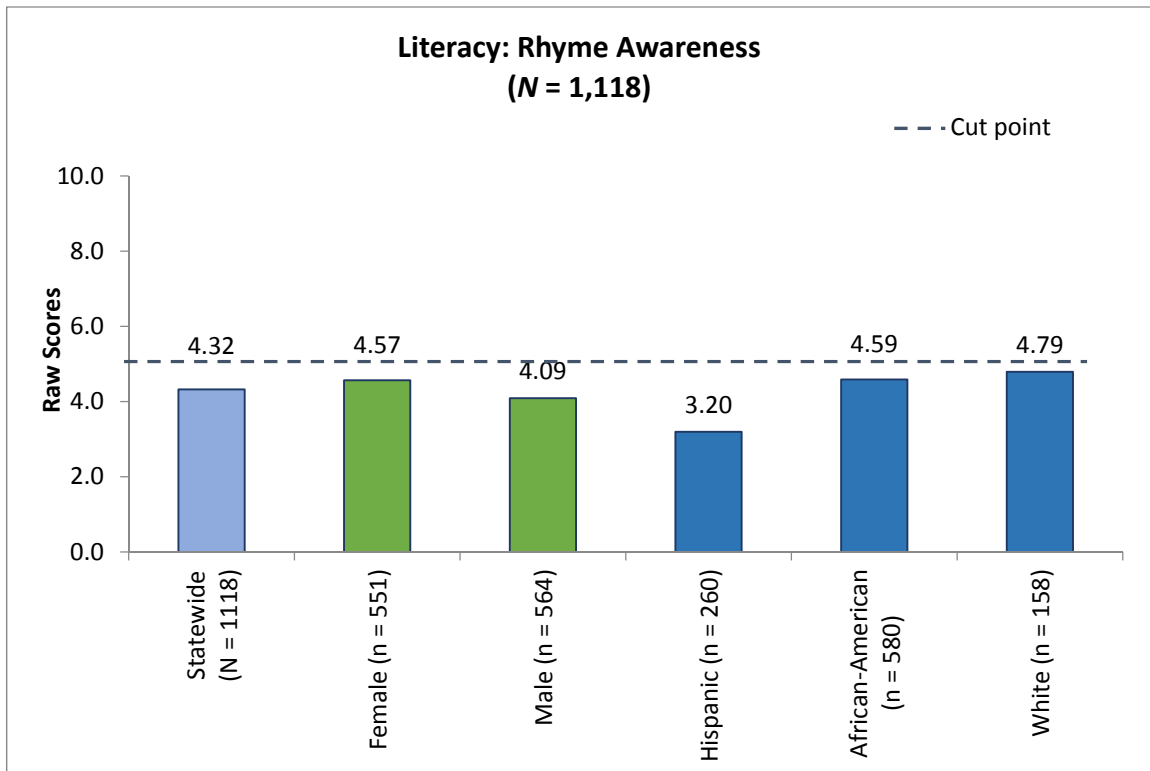


Exhibit 16. Average Scores by Risk Factors on Literacy: Rhyme Awareness

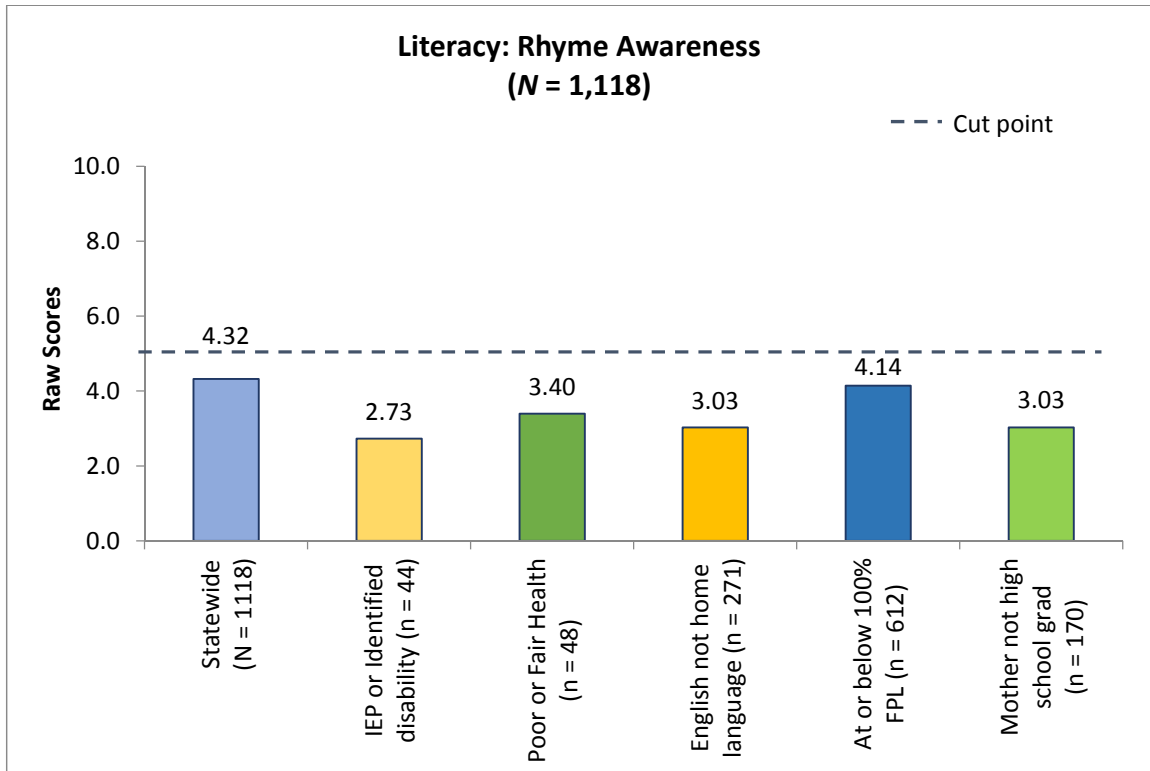


Exhibit 17. Average Scores by Division on Literacy: Nursery Rhyme Awareness

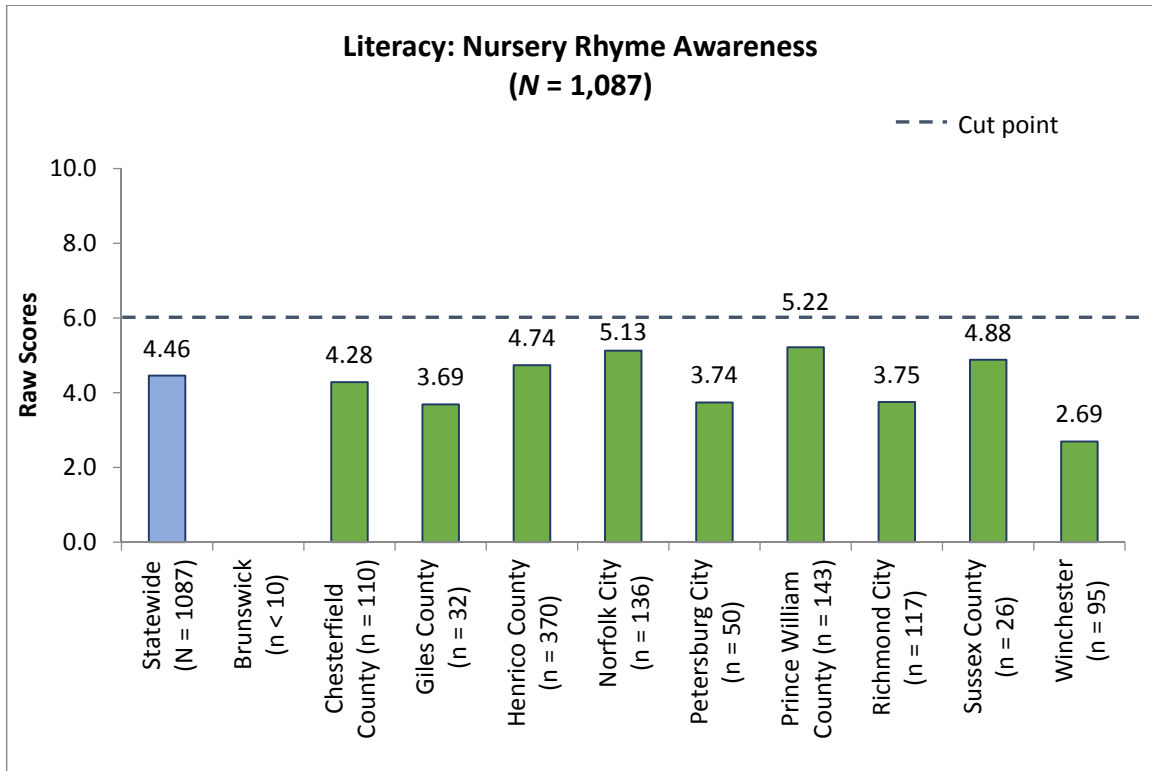


Exhibit 18. Average Scores by Demographics on Literacy: Nursery Rhyme Awareness

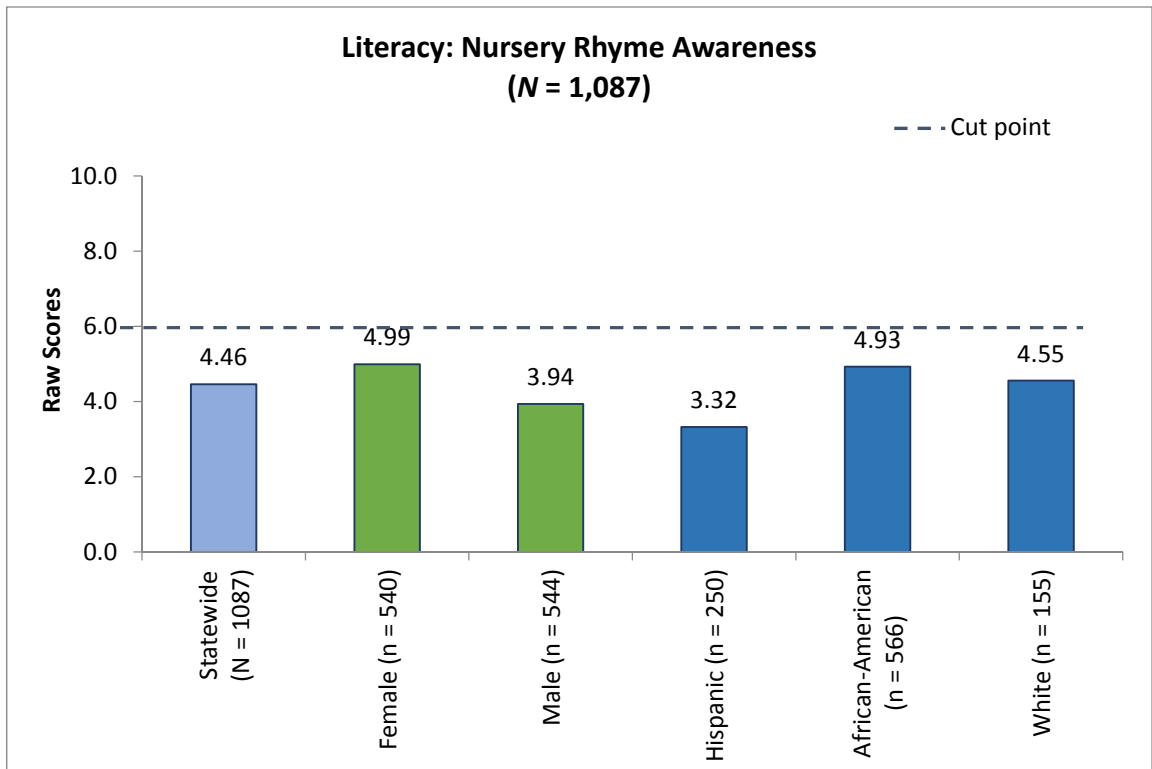


Exhibit 19. Average Scores by Risk Factors on Literacy: Nursery Rhyme Awareness

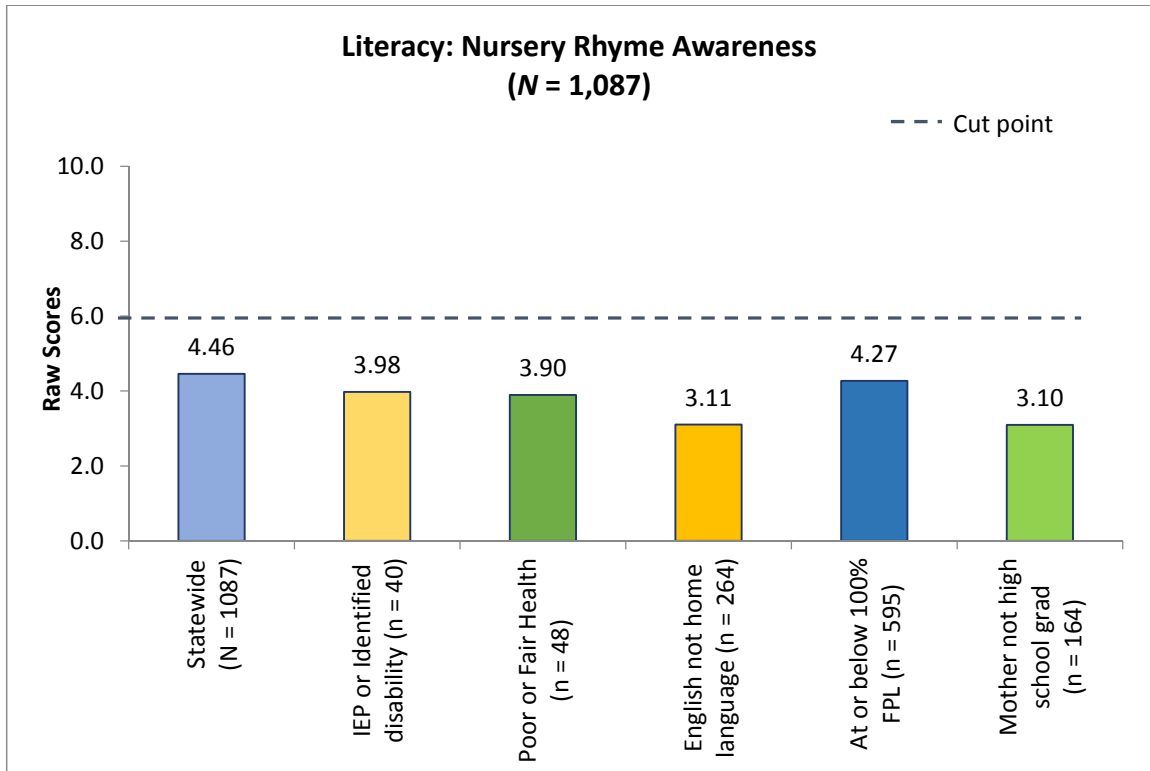


Exhibit 20. Children Scoring Below, at, or Above Average on the Cognition and General Knowledge Domain

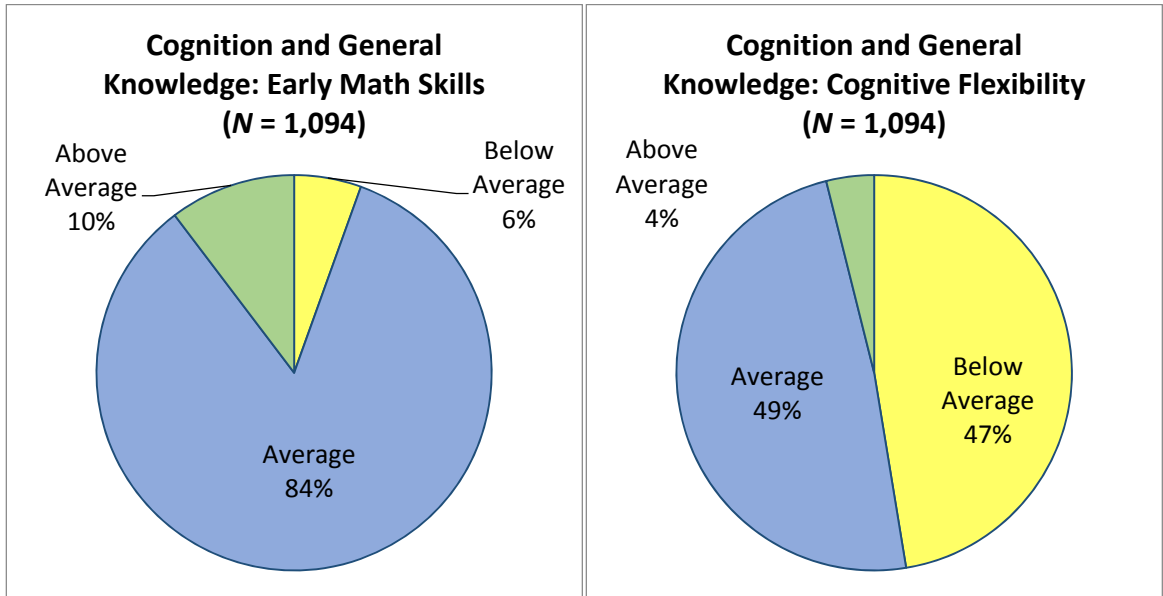


Exhibit 21. Average Scores by Division on Cognition and General Knowledge: Early Math Skills

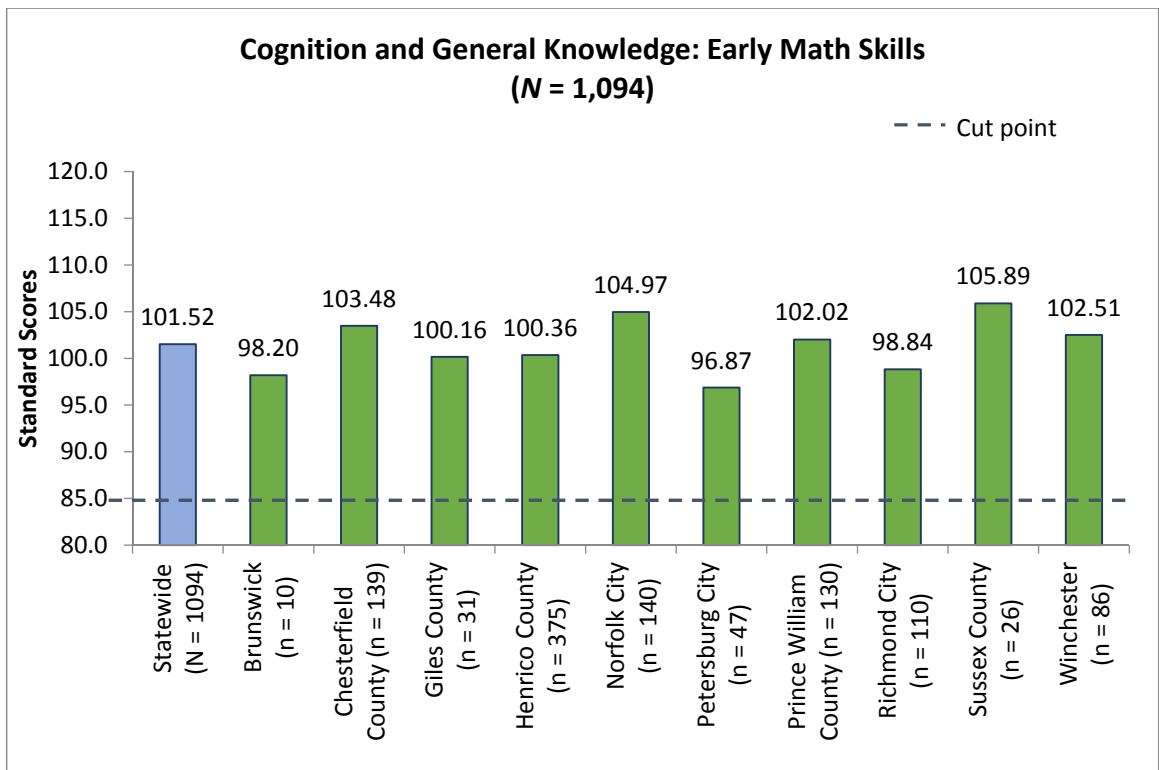


Exhibit 22. Average Scores by Demographics on Cognition and General Knowledge: Early Math Skills

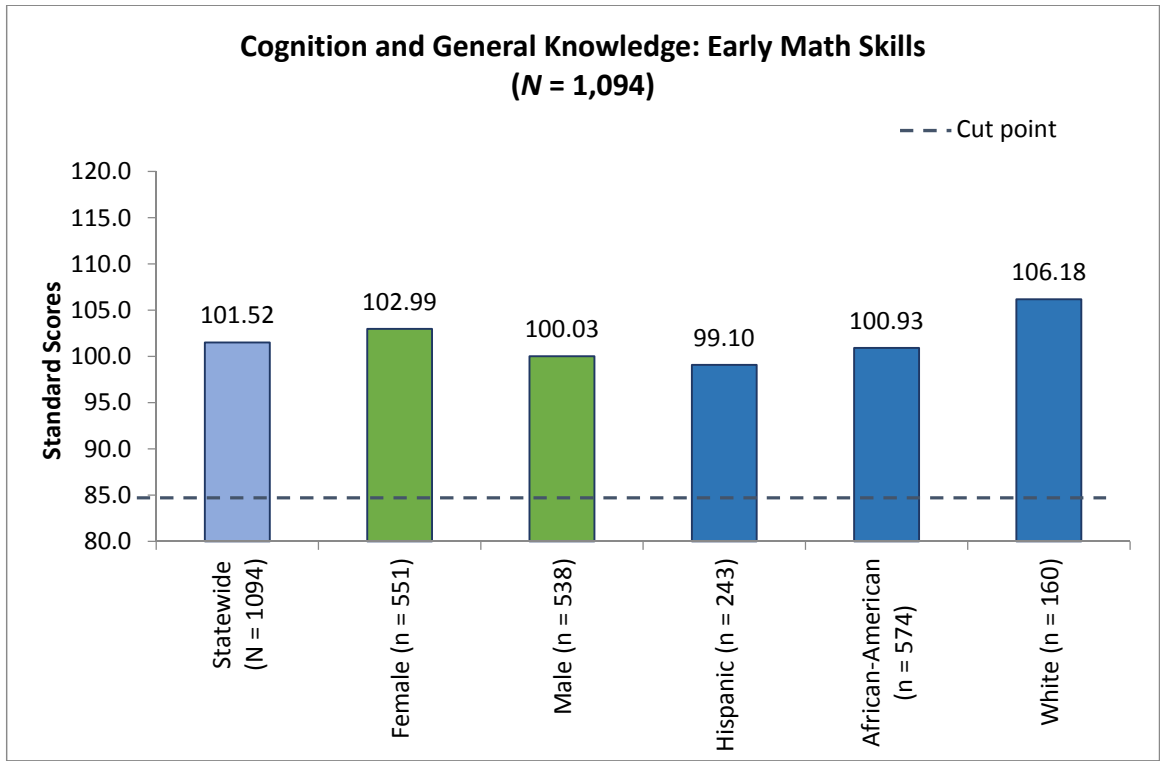


Exhibit 23. Average Scores by Risk Factors on Cognition and General Knowledge: Early Math Skills

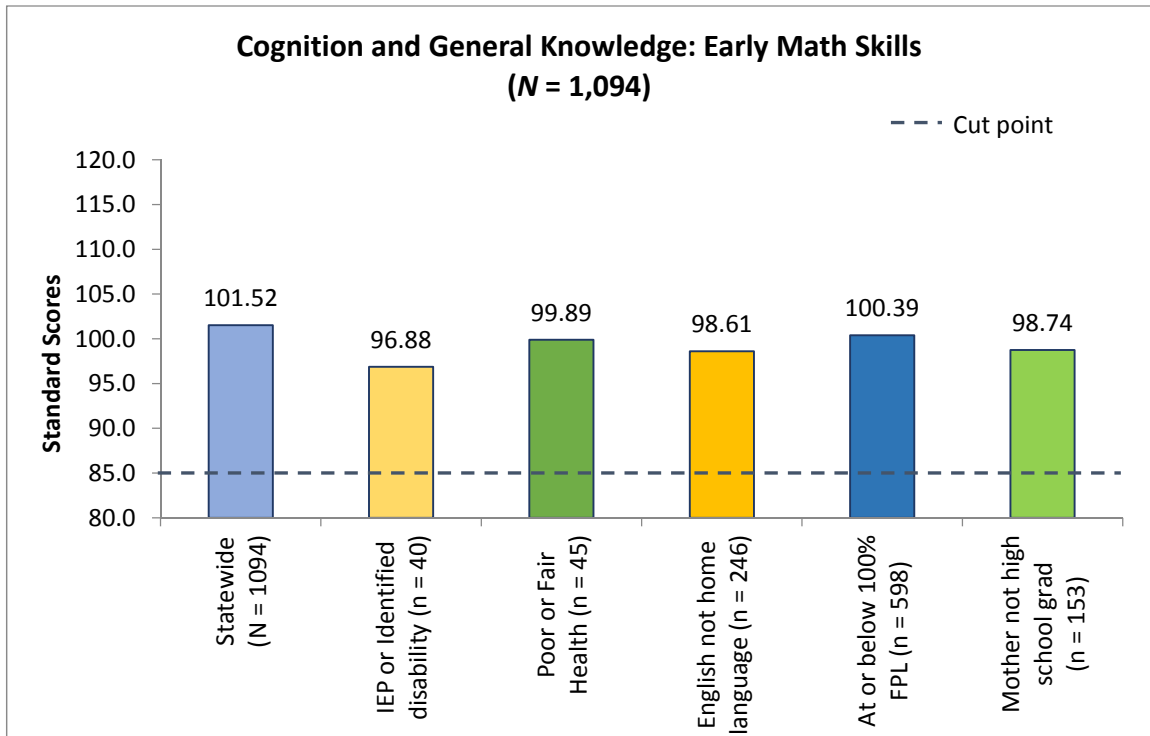


Exhibit 24. Average Scores by Division on Cognition and General Knowledge: Cognitive Flexibility

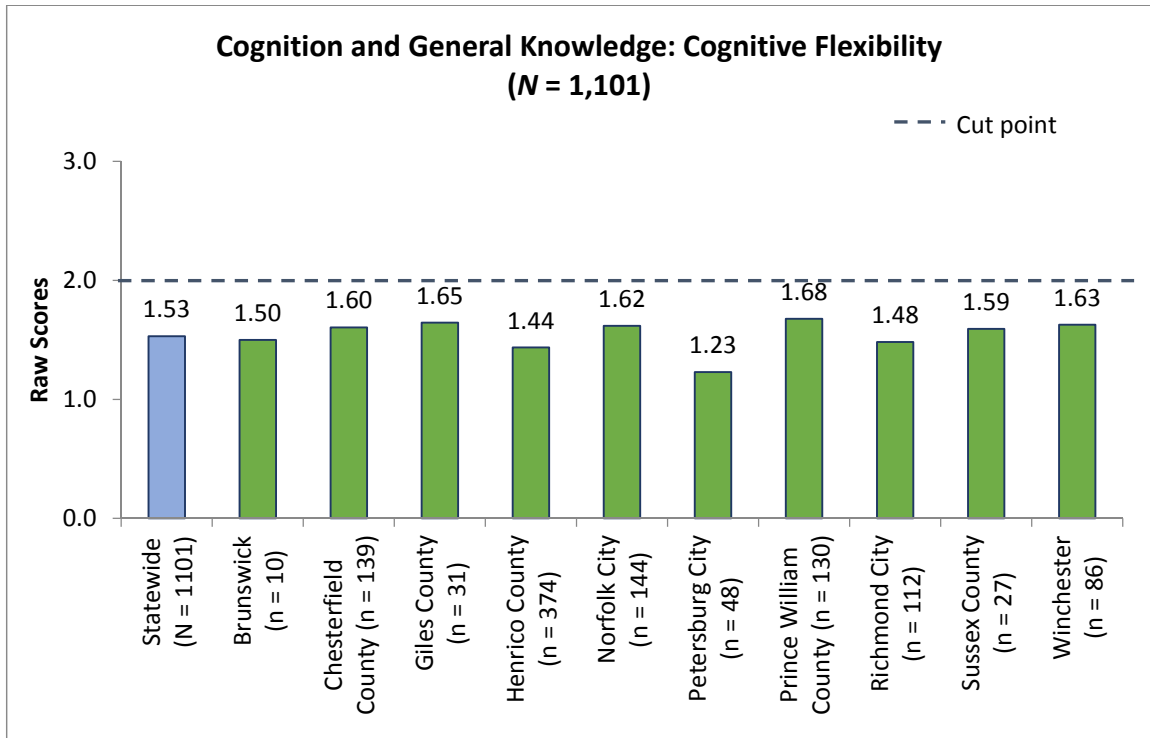


Exhibit 25. Average Scores by Demographics on Cognition and General Knowledge: Cognitive Flexibility

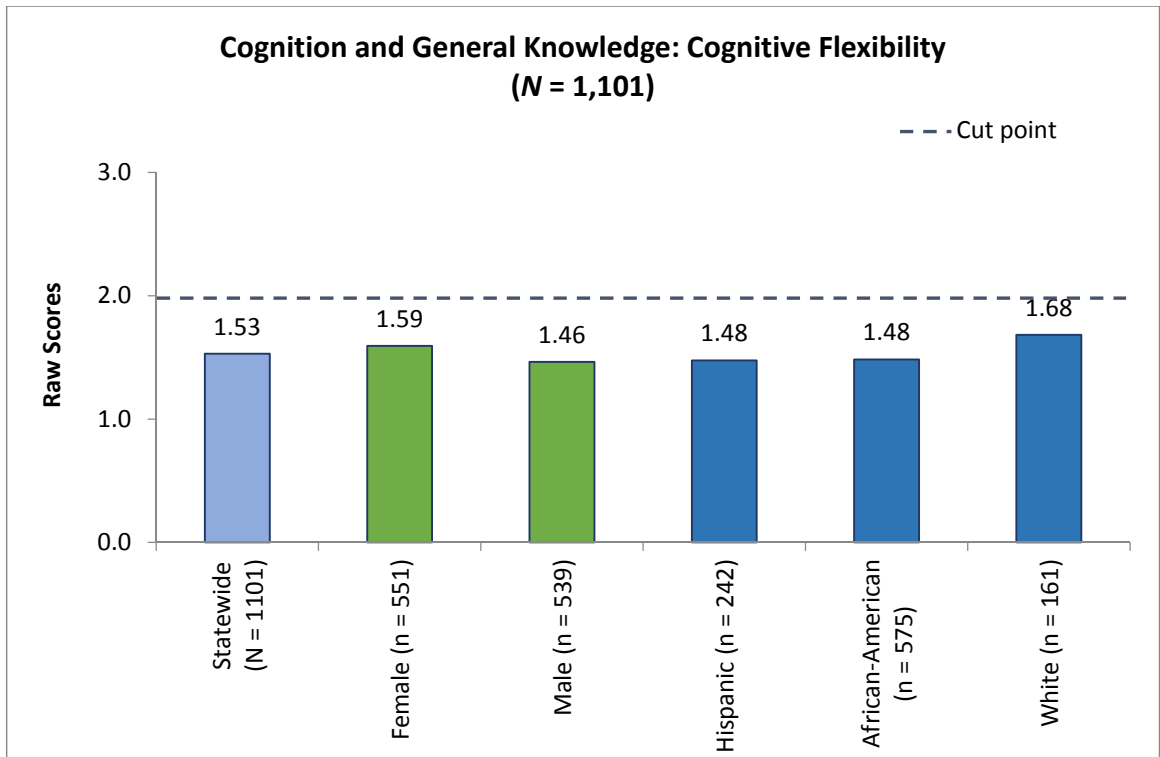


Exhibit 26. Average Scores by Risk Factors on Cognition and General Knowledge: Cognitive Flexibility

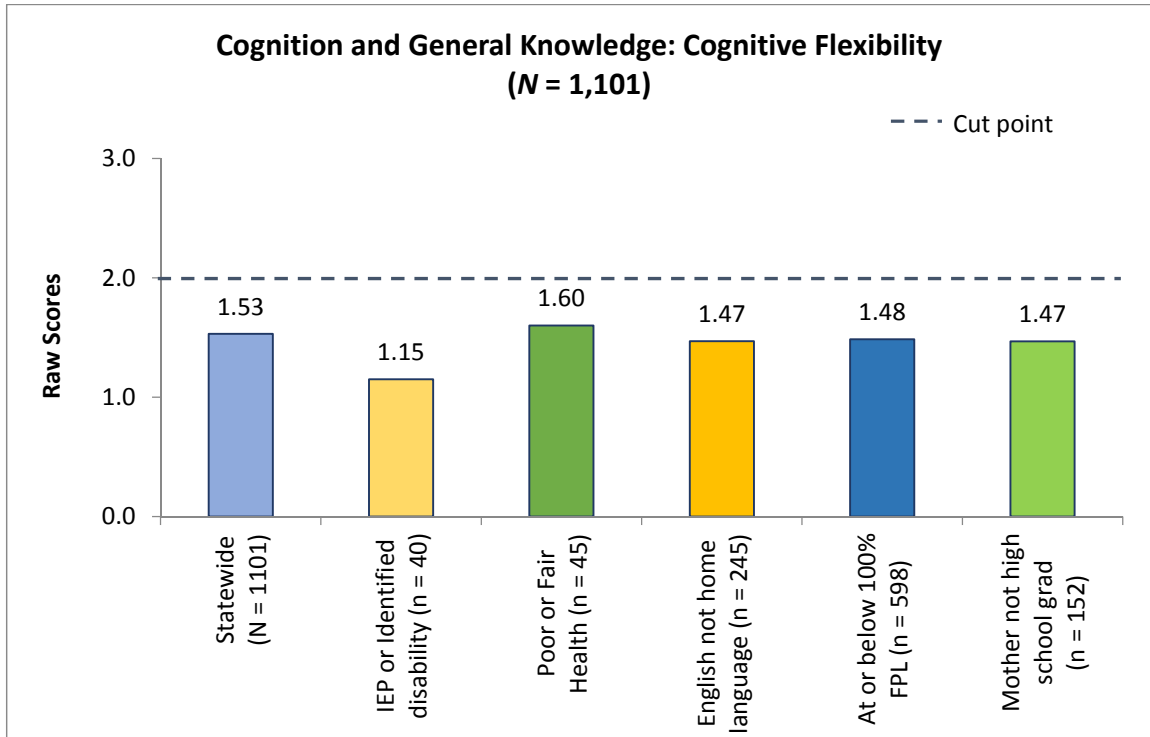


Exhibit 27. Children Scoring Below, at, or Above Average on the Approaches to Learning Domain

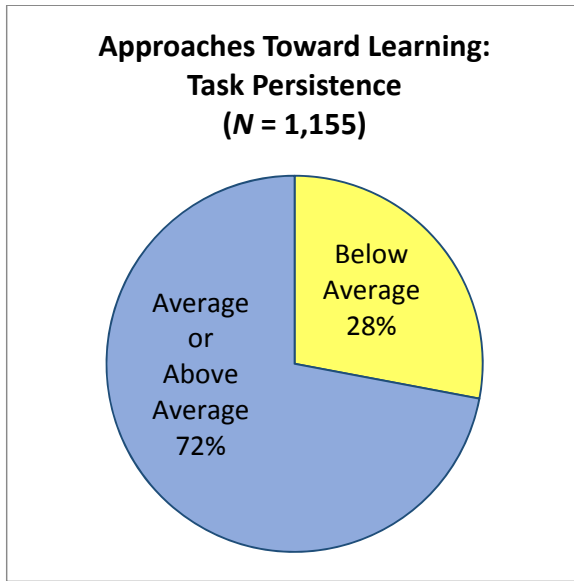


Exhibit 28. Average Scores by Division on Approaches to Learning: Task Persistence

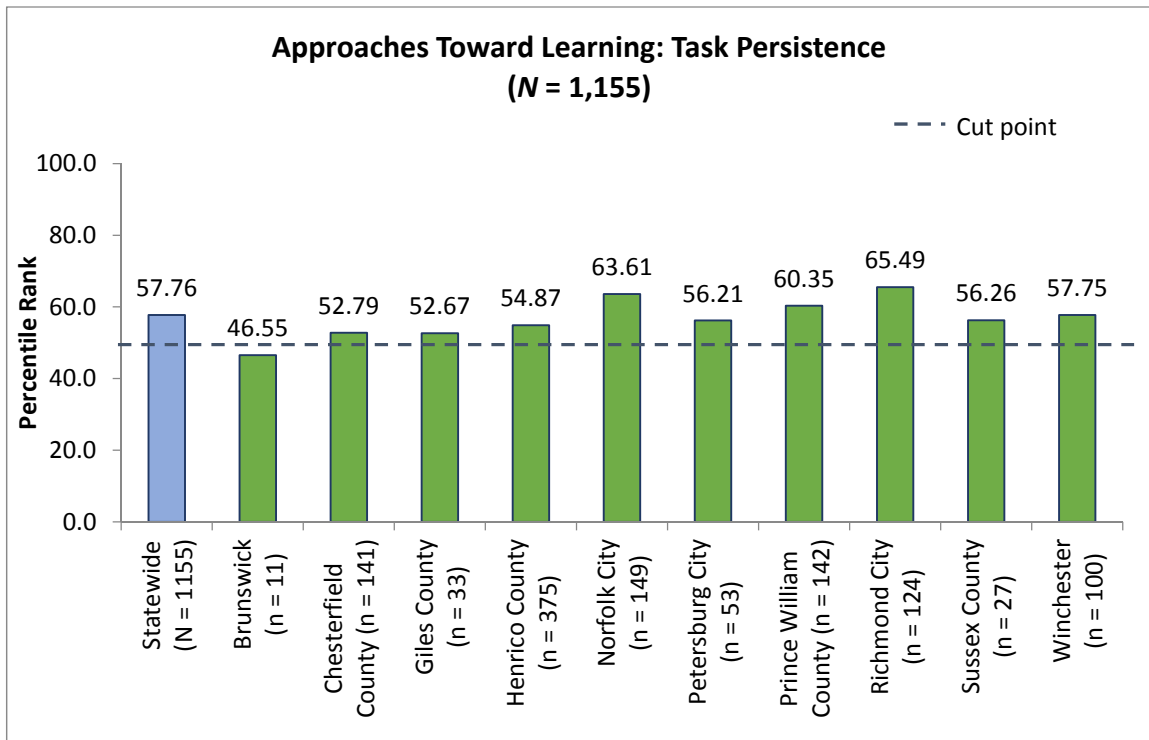


Exhibit 29. Average Scores by Demographics on Approaches to Learning: Task Persistence

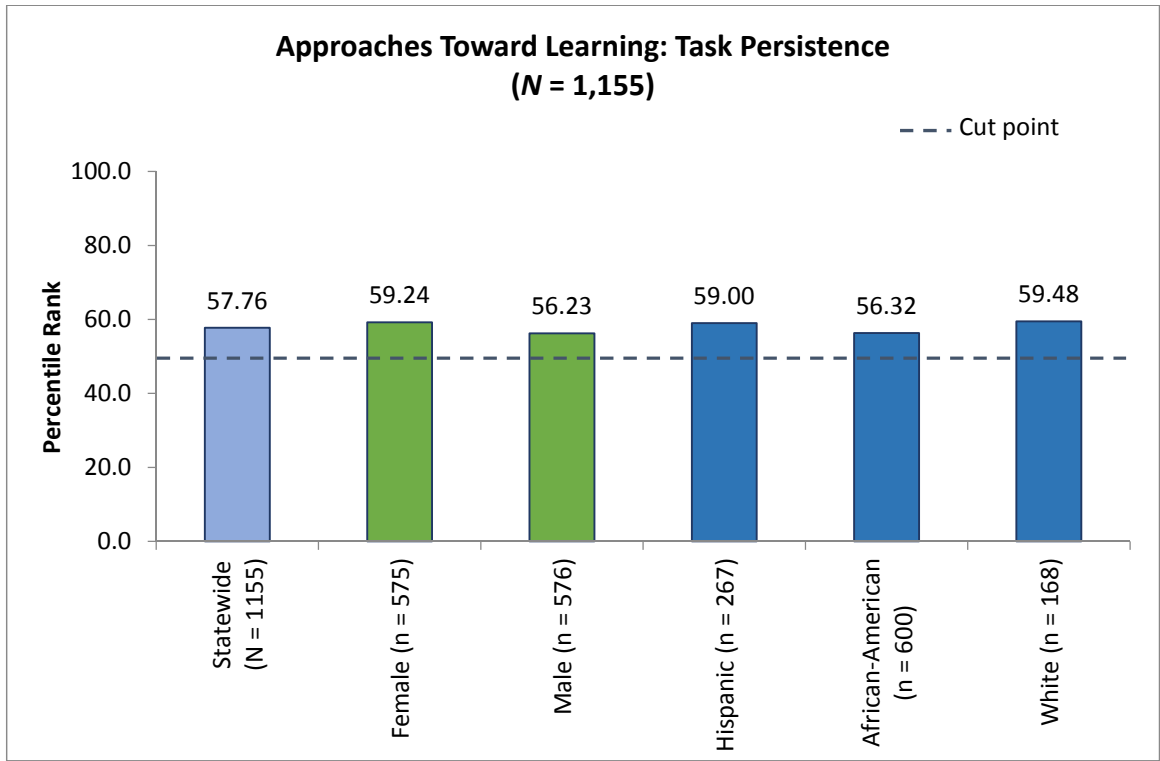


Exhibit 30. Average Scores by Risk Factors on Approaches to Learning: Task Persistence

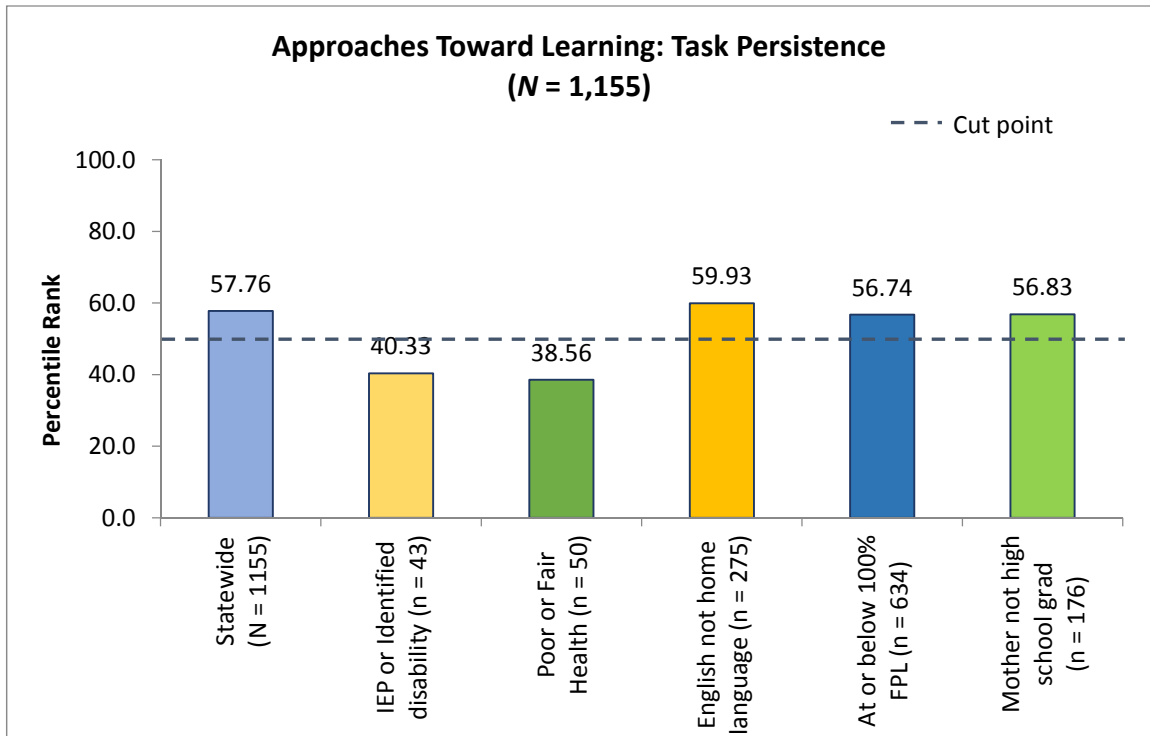
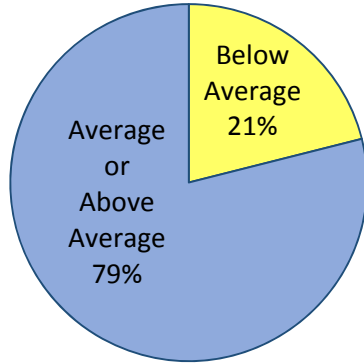
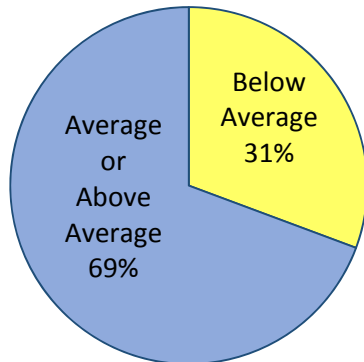


Exhibit 31. Children Scoring Below, at, or Above Average on the Social and Emotional Development Domain

**Social and Emotional Development:
Social Skills
(N = 1,154)**



**Social and Emotional Development:
Behavior Problems
(N = 1,141)**



**Social and Emotional Development:
Self-Regulation
(N = 1,083)**

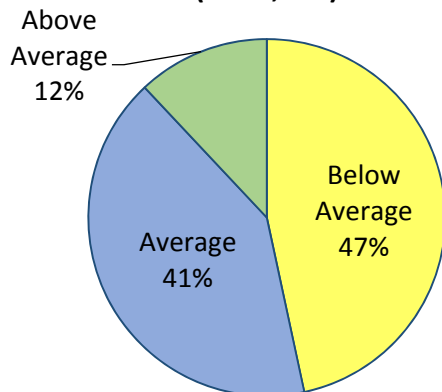


Exhibit 32. Average Scores by Division on Social and Emotional Development: Social Skills

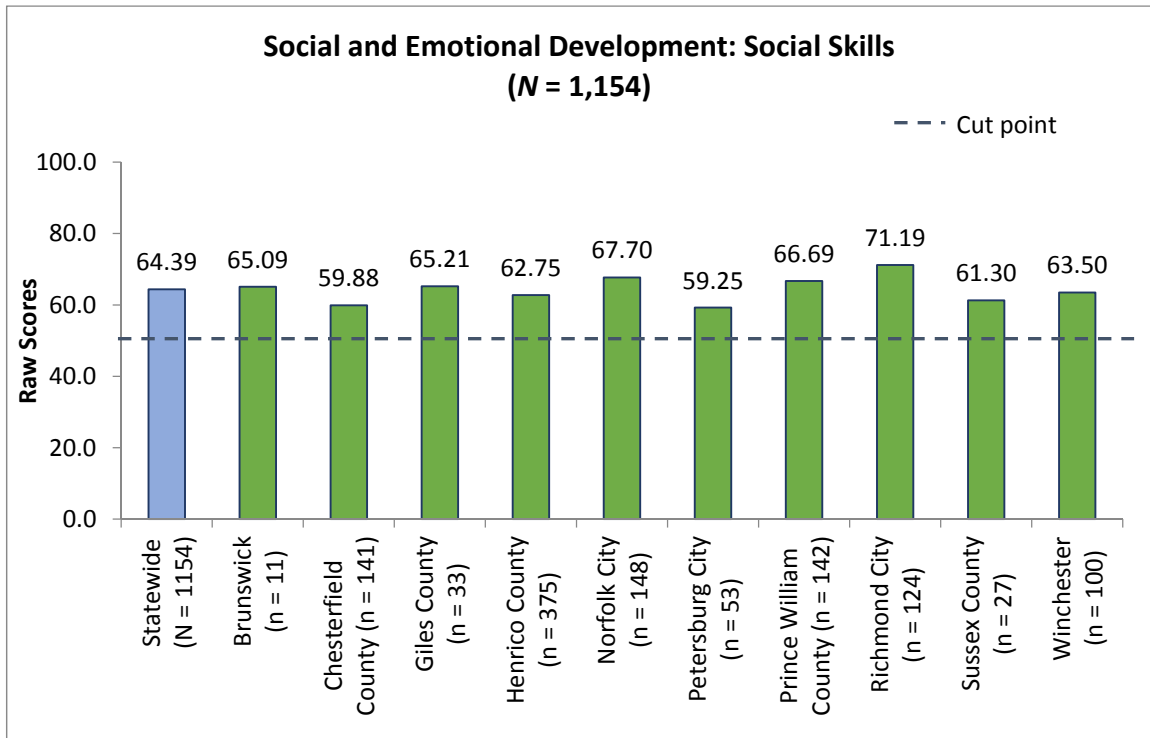


Exhibit 33. Average Scores by Demographics on Social and Emotional Development: Social Skills

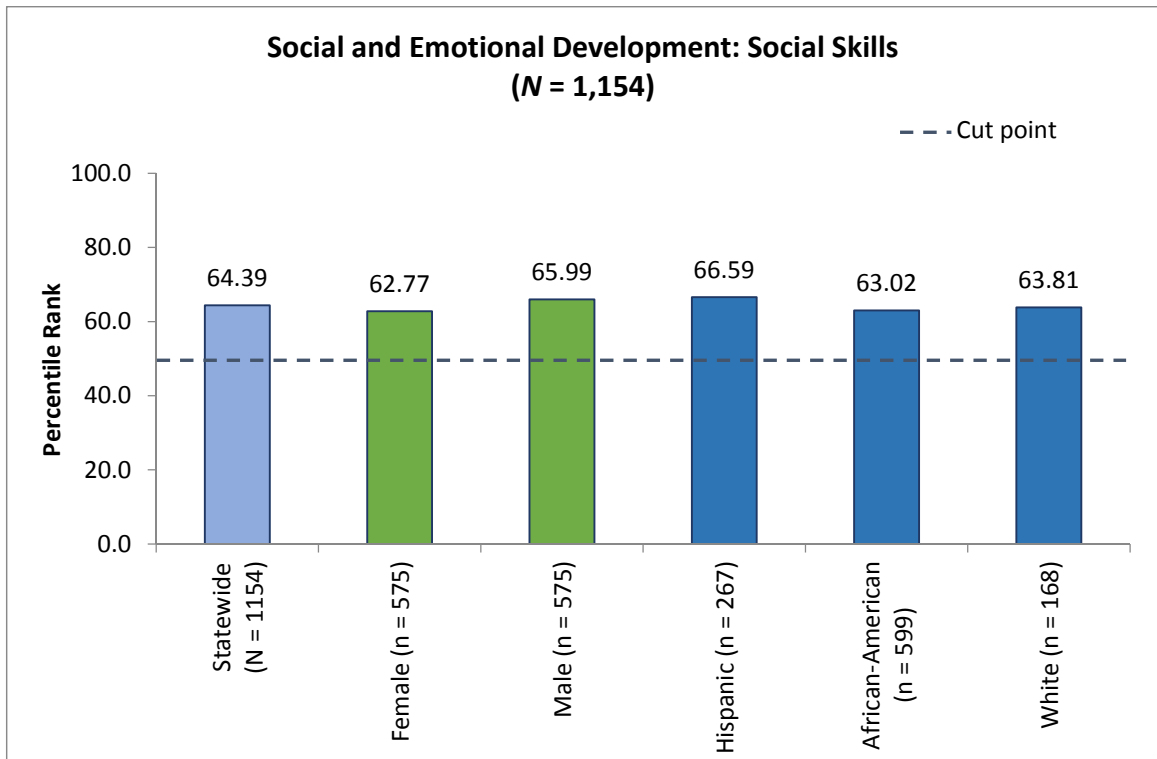


Exhibit 34. Average Scores by Risk Factors on Social and Emotional Development: Social Skills

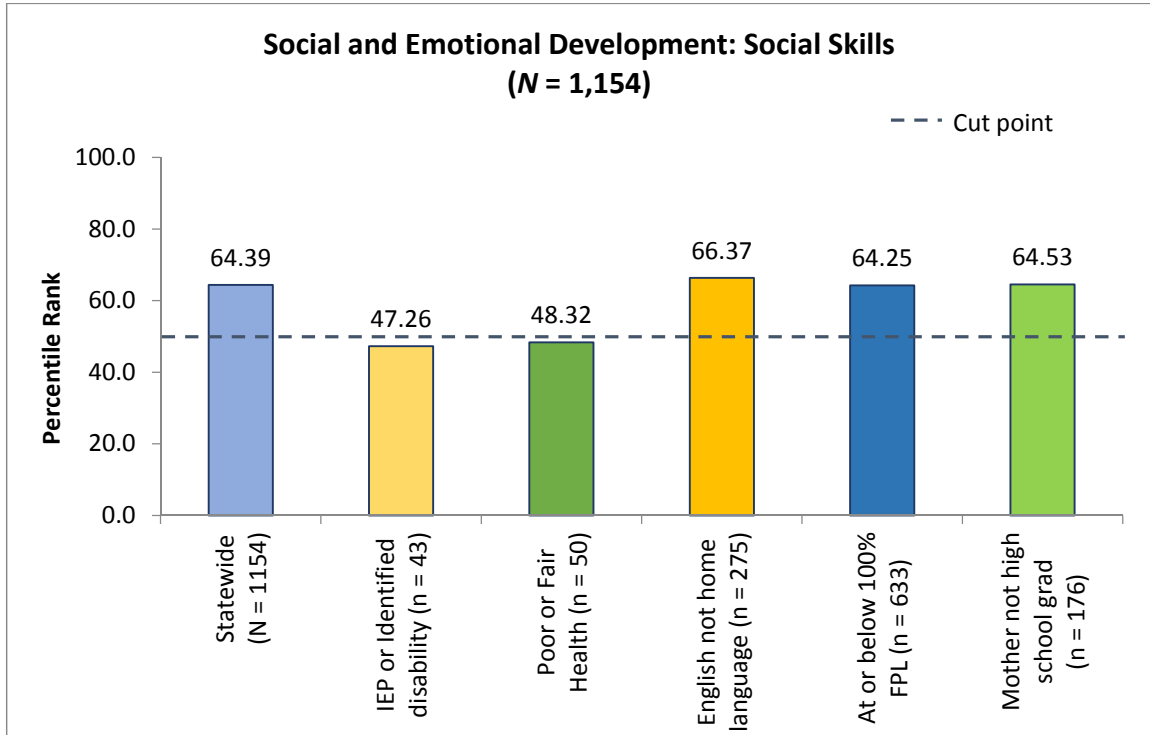


Exhibit 35. Average Scores by Division on Social and Emotional Development: Behavior Problems

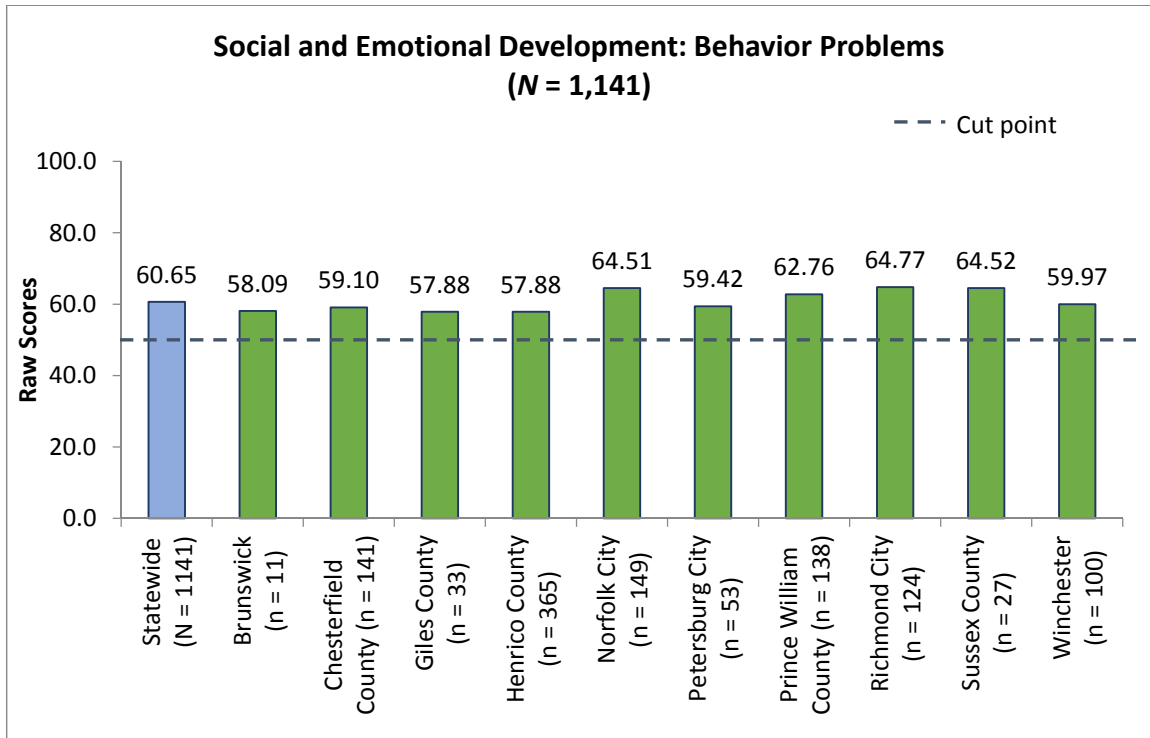


Exhibit 36. Average Scores by Demographics on Social and Emotional Development: Behavior Problems

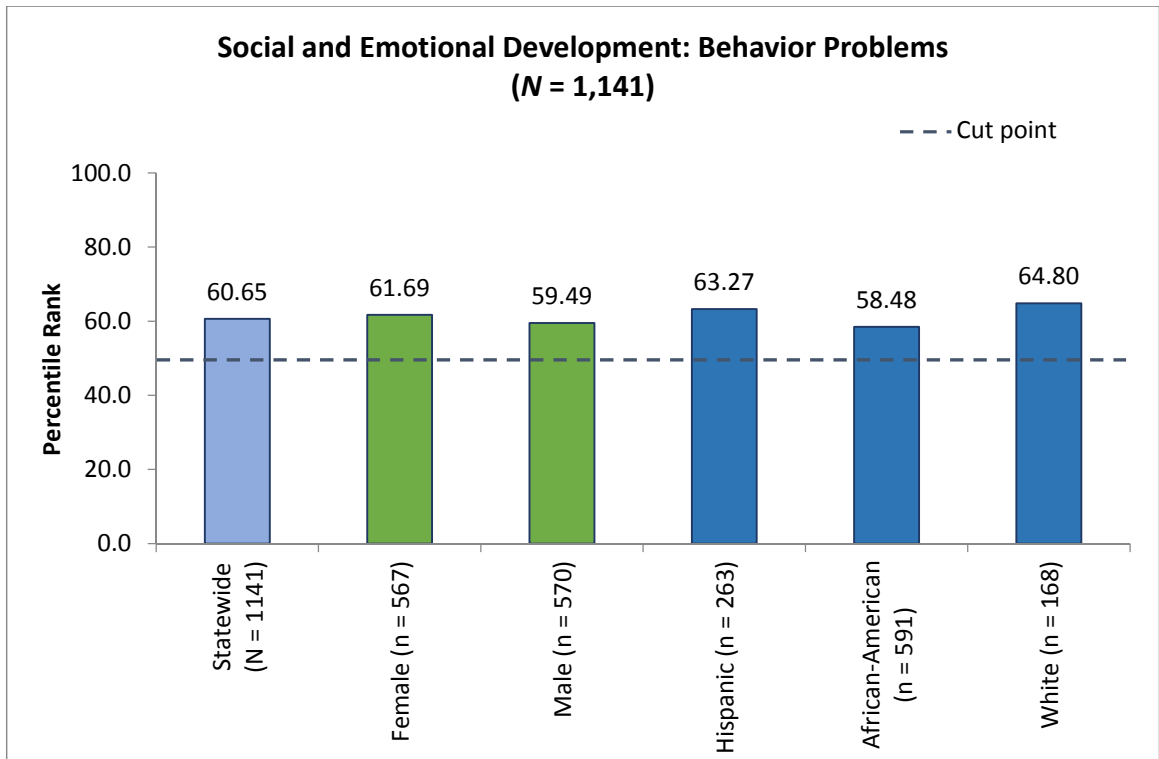


Exhibit 37. Average Scores by Risk Factors on Social and Emotional Development: Behavior Problems

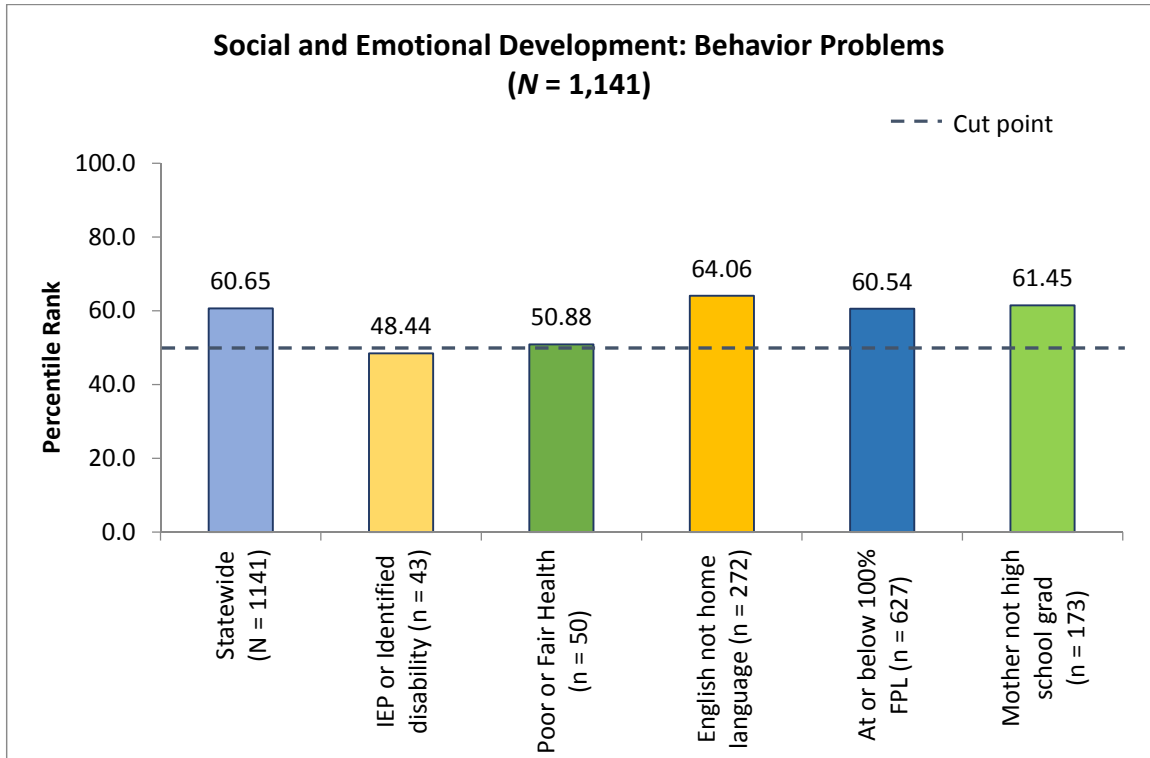


Exhibit 38. Average Scores by Division on Social and Emotional Development: Self-Regulation

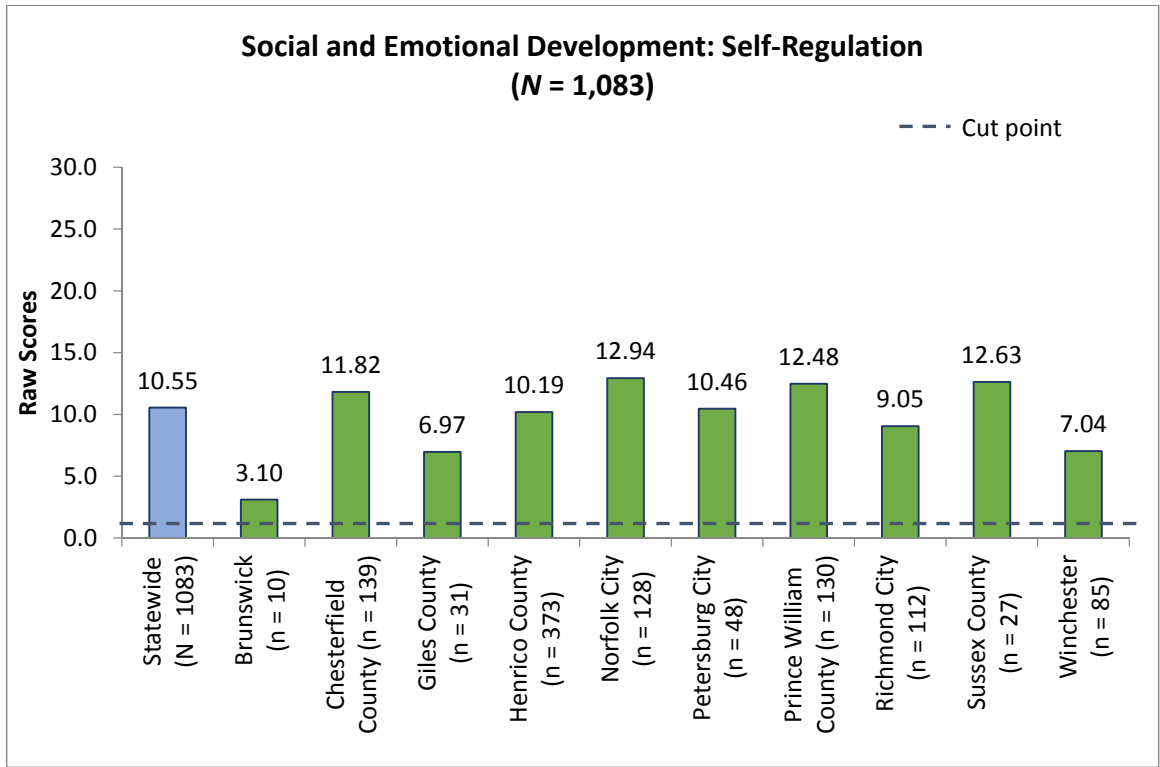


Exhibit 39. Average Scores by Demographics on Social and Emotional Development: Self-Regulation

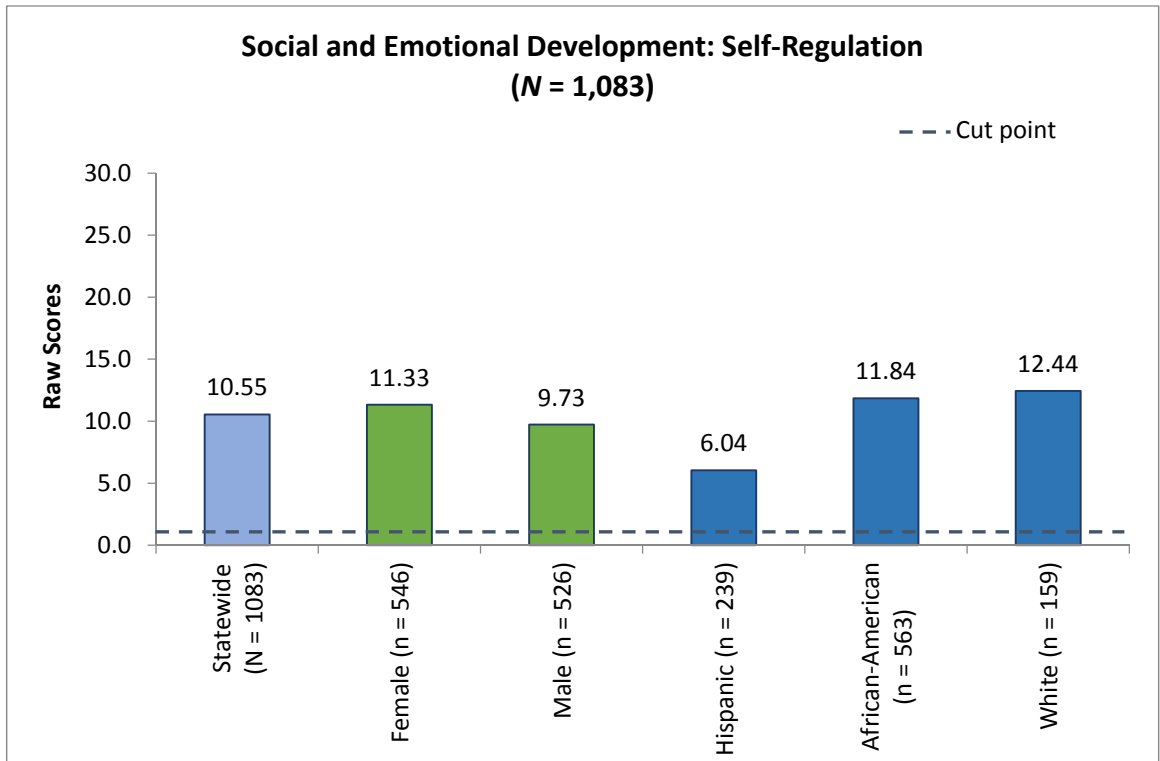


Exhibit 40. Average Scores by Risk Factors on Social and Emotional Development: Self-Regulation

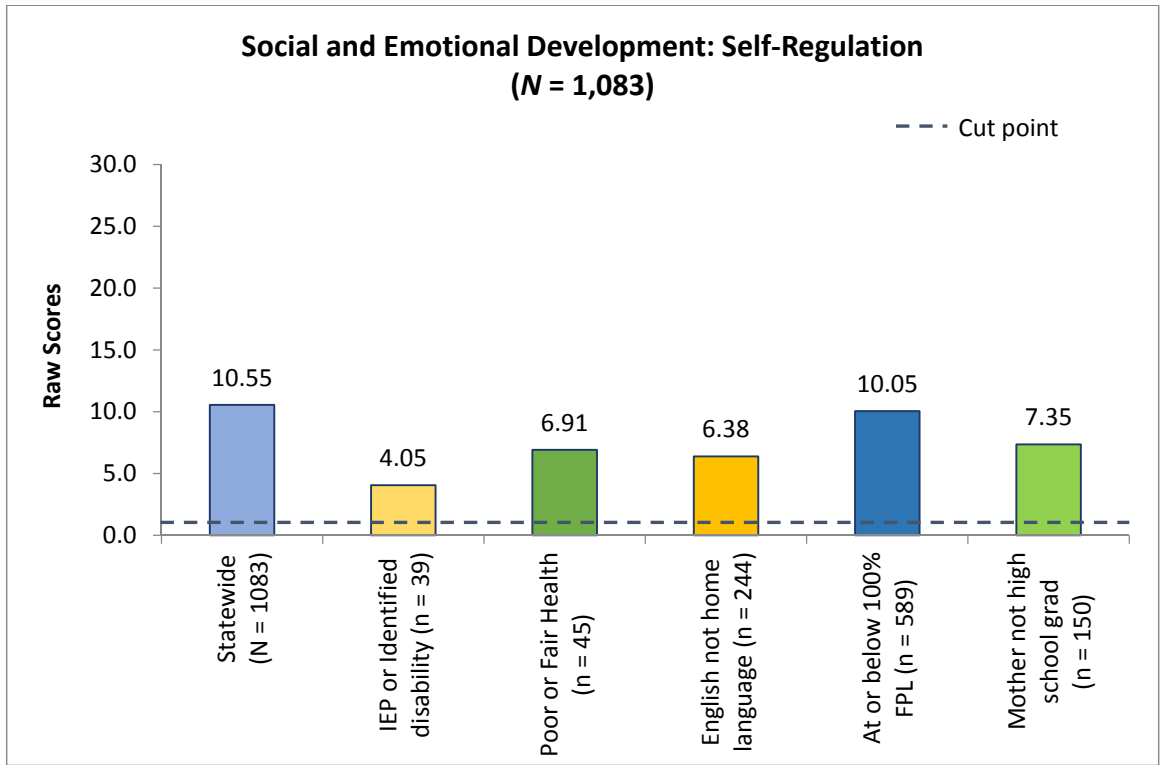


Exhibit 41. Children Scoring Below, at, or Above Average on the Physical Well-Being and Motor Development Domain

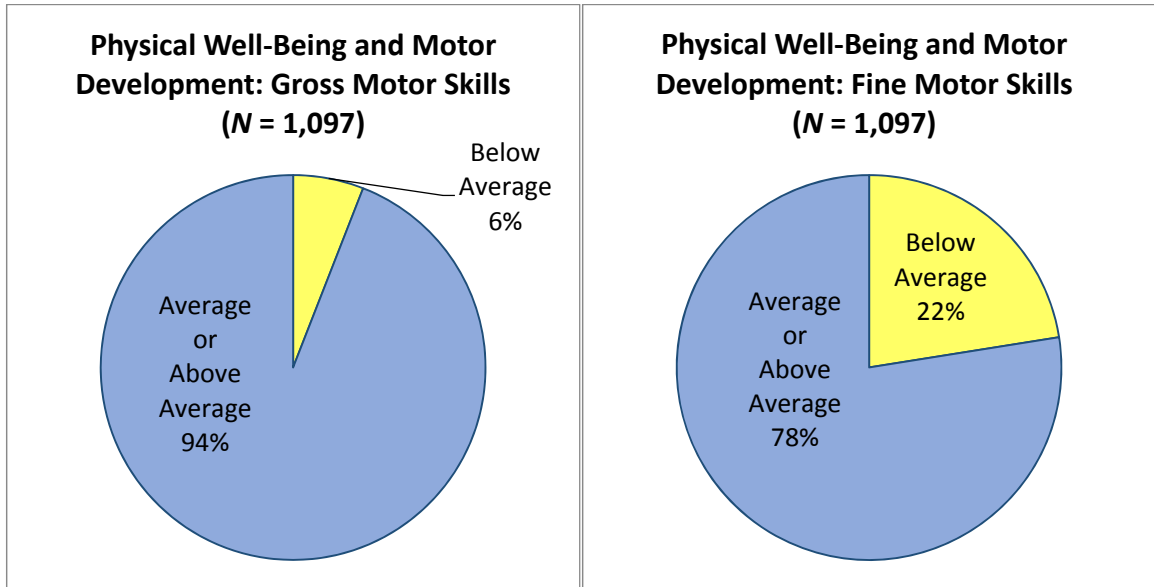


Exhibit 42. Average Scores by Division on Physical Well-Being and Motor Development: Gross Motor Skills

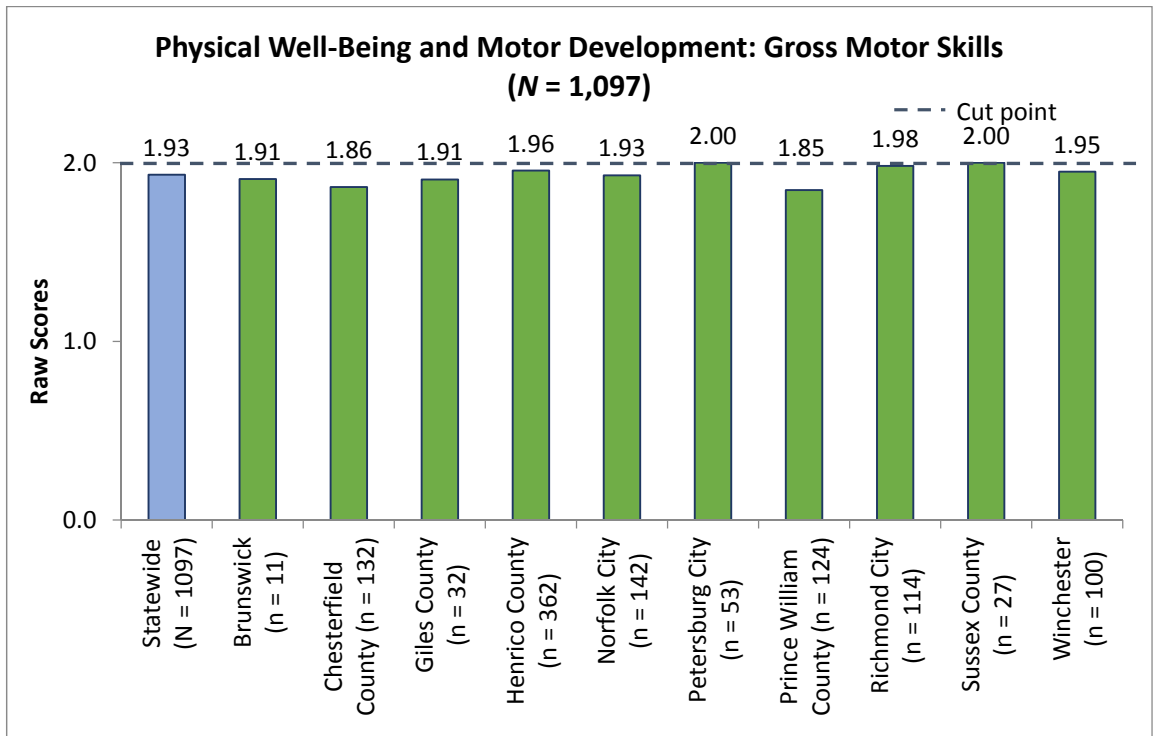


Exhibit 43. Average Scores by Demographics on Physical Well-Being and Motor Development: Gross Motor Skills

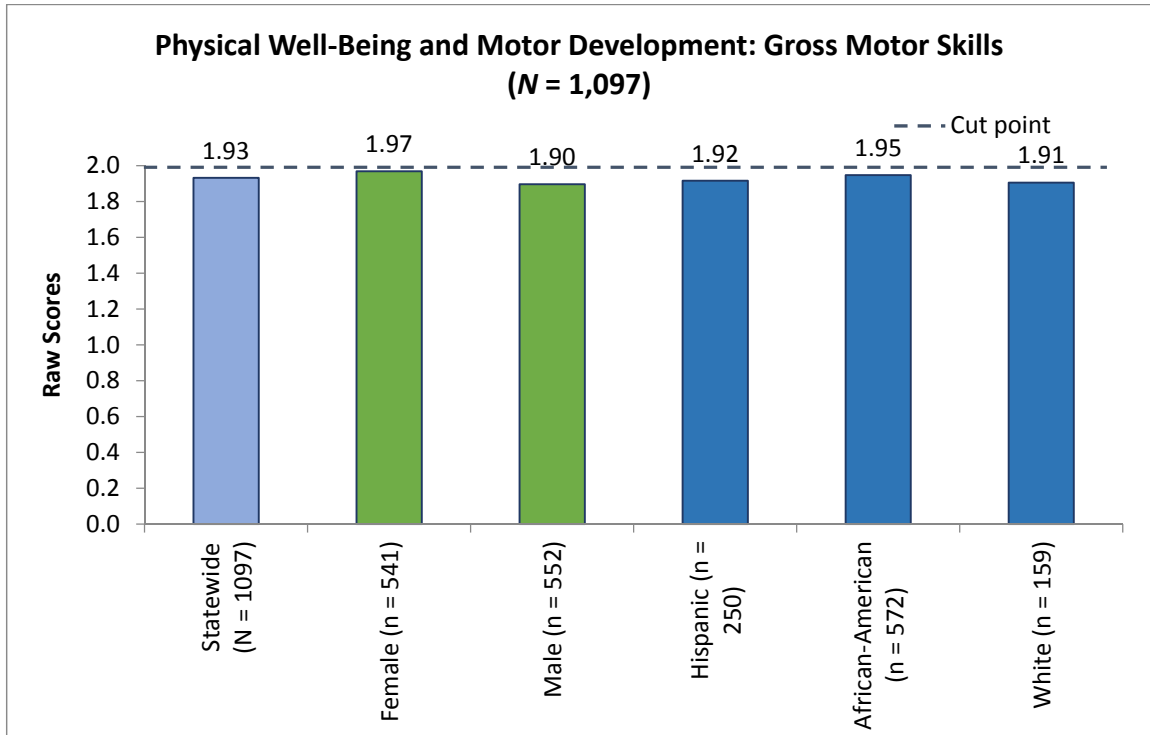


Exhibit 44. Average Scores by Risk Factors on Physical Well-Being and Motor Development: Gross Motor Skills

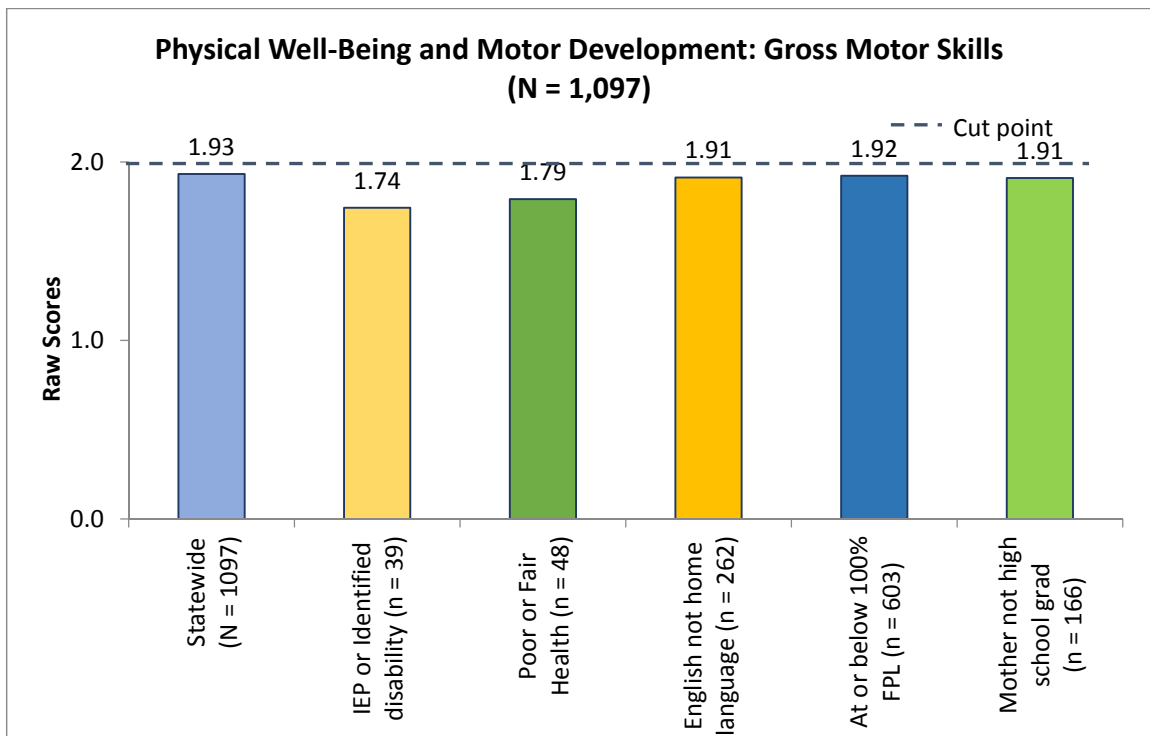


Exhibit 45. Average Scores by Division on Physical Well-Being and Motor Development: Fine Motor Skills

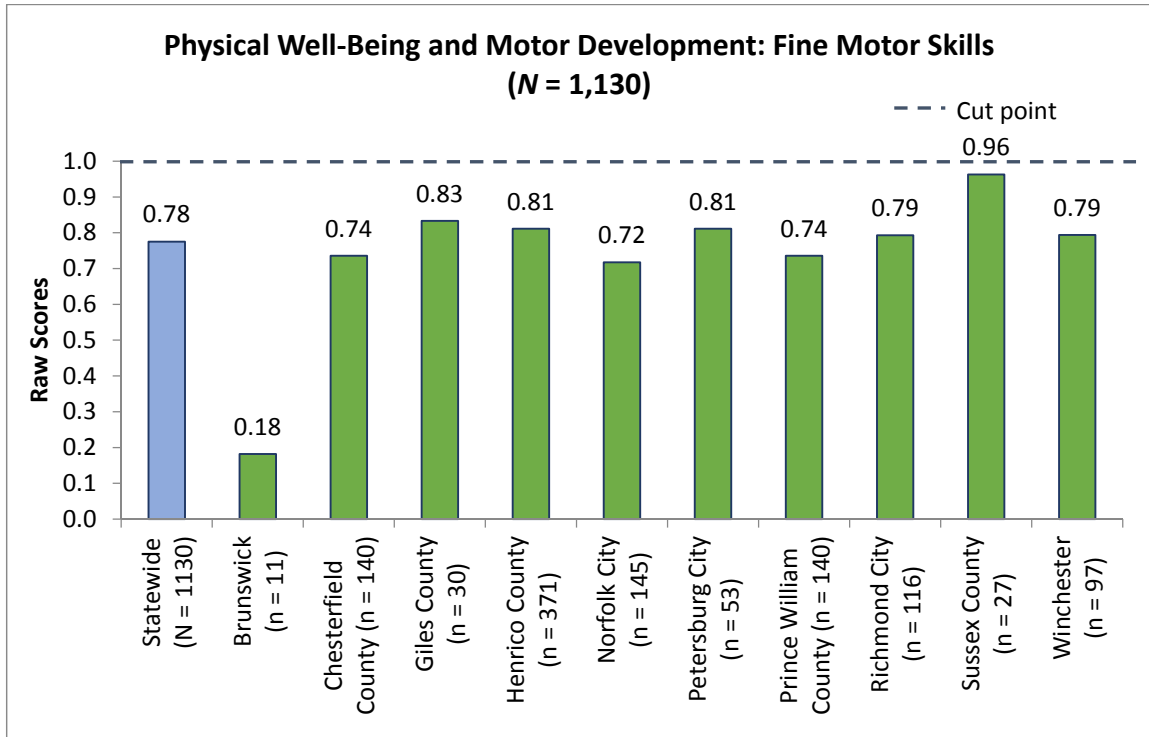


Exhibit 46. Average Scores by Demographics on Physical Well-Being and Motor Development: Fine Motor Skills

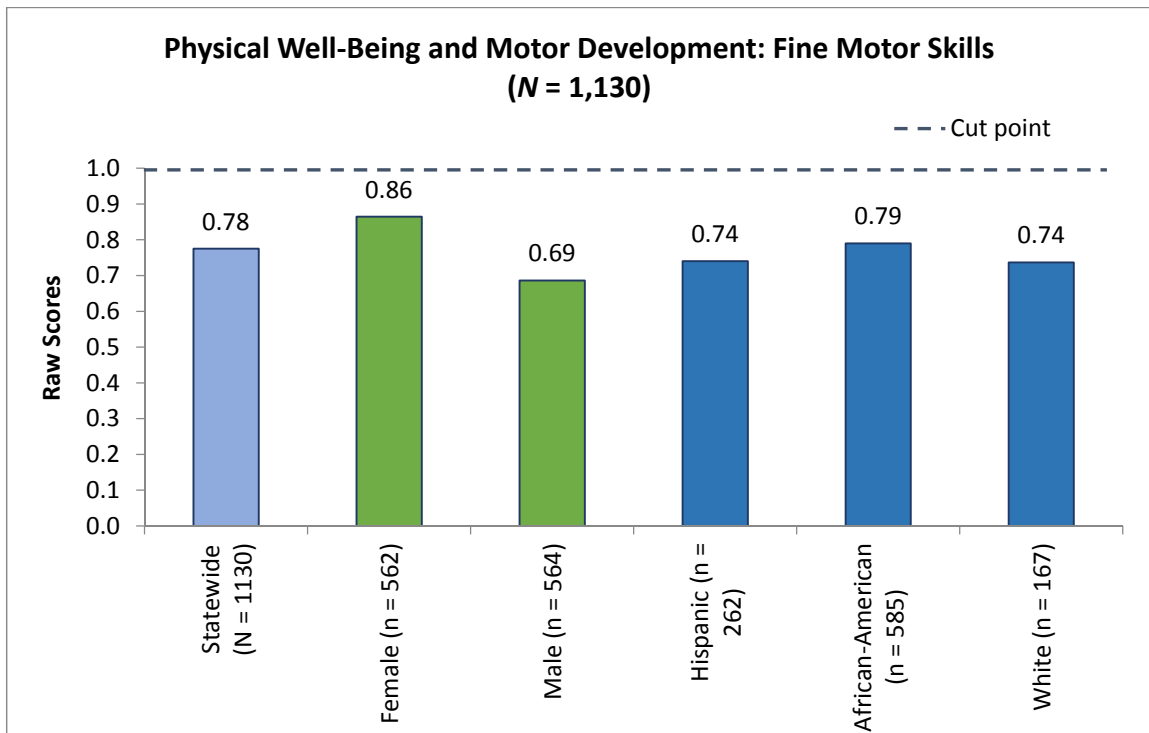


Exhibit 47. Average Scores by Risk Factors on Physical Well-Being and Motor Development: Fine Motor Skills

