



Virginia's  
**School Readiness  
Report Card 2016**

Prepared for the Commonwealth of Virginia by



**SMART  
BEGINNINGS**

*Virginia Early Childhood Foundation*

# Acknowledgements

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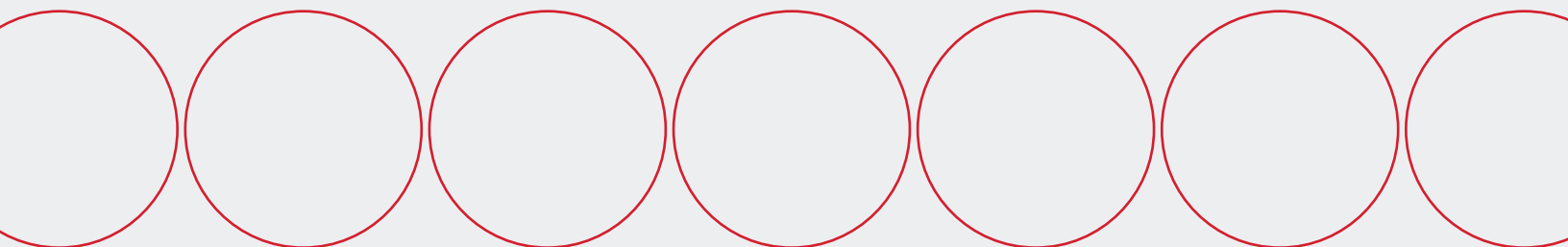
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A young child with a joyful expression, laughing with their mouth wide open and eyes closed. The child is surrounded by numerous colorful balloons in shades of blue, yellow, purple, green, and pink. The background is a soft, out-of-focus light color.

**In Brief:** Trends in school readiness for  
Virginia's children over the decade





# Introduction

In recognition of the Commonwealth's ten-year investment in Smart Beginnings (2006-2016), the Virginia Early Childhood Foundation is proud to present this edition of Virginia's School Readiness Report Card through the lens of a decade's trends in key indicators of school readiness. The trends in state averages over the ten-year term are positive on nearly all of the indicators tracked by VECF. In other words, a top-line view of the data provides the perspective that, in most aspects, children are faring better now than they were ten years ago in terms of readiness for school and school success. **But a closer look brings a more sobering view** that is the reality for many of Virginia's families. In one (and arguably the most influential) indicator – children birth to age 4 living in poverty – the trend line over the decade has grown worse. As the numbers and percentage of children living in poor families increases, we must anticipate that in coming years, the insidious impact of poverty will likely threaten the gains evidenced in other indicators over the past few years.

As well, the strength of the positive trends shown in state averages masks the steep remaining challenges faced by some groups of children in Virginia. While the trend line for children who are black, Hispanic, and living in poverty has improved over the decade in many indicators, the disparities among these groups and the general population of children birth through age four are startling.



To ensure that all children in Virginia are healthy and well prepared to begin kindergarten and be successful in school and life, it is essential that we have data to guide our efforts. Virginia's School Readiness Report Card 2016 and the companion mapping tool provide an opportunity to examine ten-year trend lines on key data indicators that help us understand strengths and gaps and inform targeted interventions.

In this document, we provide descriptions of a succinct set of data indicators that begin to help us address the needs outlined above, including:

**RISK:** Data to help us understand – in both realistic and granular ways – the circumstances in which Virginia's children are growing and learning

**RESULTS:** Educational outcomes to provide a glimpse of the effectiveness of Virginia's system in supporting all children

To prepare well for a second decade of intentional school readiness strategies, VECF and our partners are committed to harnessing these data to spur and sharpen our efforts as we reaffirm the profound importance of supporting smart beginnings for all children, in all families and communities, across the Commonwealth.



# Looking Back: Trends in risk factors and school outcomes over the past decade

**RISK:** The foundation for school readiness is laid long before a child enters kindergarten. The early childhood period, beginning at birth, is a window of opportunity for parents, caregivers, and communities to foster optimal child development. Numerous studies have shown the positive benefits of a stimulating early childhood environment on children’s development and later school performance. Given that parents and families are an infant’s first and most influential teachers, it is important to track key indicators of risk present at birth that have shown strong associations with poor school outcomes. Statewide trends over the past decade (or the most recently available data) for the four risk indicators tracked in the School Readiness

Report Card are shown in Table 1. These risk indicators are described in detail in the Appendix.

In Virginia statewide, there has been significant progress in the past decade on three of the four risk indicators. Compared to 2005, there were 1,352 fewer births (a 53% decline) to teens (15-17 yrs) and 7,359 fewer births (a 47% decline) to mothers who have not earned a high school diploma in 2014. A smaller decrease was seen in the rate of low birthweight births (babies born at less than 2500 grams or about 5.5 pounds), but with over 100,000 births annually in Virginia, even a small percentage improvement in the rate (4.4%) translated into 514 fewer low birthweight births in 2014 compared to 2005.

**Table 1. Trends over the past decade on key indicators of risk, Virginia.**

Indicator	Trend Data Years	Baseline Rate Recent Rate	Change from Baseline (%)	Children Impacted*
Poverty, Ages 0-4 yrs	2005	15.6 %	<b>+8.5%</b>	<b>+6,570</b>
	2014	16.9 %		
Teen (15-17 yrs) Births	2005	16.3 per 1,000	<b>-53.1%</b>	<b>-1,352</b>
	2014	7.7 per 1,000		
Maternal Education <12 yrs	2005	14.8 %	<b>-46.7%</b>	<b>-7,359</b>
	2014	7.9 %		
Low Birthweight (<2,500 g)	2005	8.2 %	<b>-4.4%</b>	<b>-514</b>
	2014	7.9 %		

\*The change in the number of children at risk in the recent year compared to the baseline year.

The only risk indicator of the four that worsened over the past decade was the percentage of children ages 0-4 years living in poverty. The global financial crisis of 2007-2009 and its aftermath contributed to a reversal of Virginia’s decreasing poverty trend among young children in Virginia. The rising child poverty rate is concerning; of all the risk factors associated

with whether or not young children succeed in school, living in poverty is the one most consistently associated with compromised child development. If poverty rates continue to climb, the improvements in school outcomes expected from reductions over the past decade in teen births and births to mothers with low education may be undermined.

**RESULTS:** The School Readiness Report Card highlighted six school outcomes using available data representing important milestones that, when met, facilitate students' successful navigation through the K-12 public school system. The results indicators are described in detail in the Appendix. Educational outcomes provide a glimpse of the effectiveness of the system in supporting all children.

Statewide data showing the change in rates across the past decade for each of the six school outcomes are found in Table 2. Data were pulled from the most recent ten-year sequence for each outcome. Virginia's Board of Education recently increased the minimum standard expected of students on the Virginia

Standards of Learning (SOL) assessments, so only years with the new standards were included in this report. Improvements were seen in all six outcomes between the baseline and most recent year. The largest difference was seen in the percentage of 9th grade repeaters where there was a 44% reduction (4,794 fewer students) in 2014/15 compared to 2005/06. The high school dropout rate also had a large reduction (40%, or 3,477 fewer students) in 2015 compared to 2008. The percentages of students failing to meet the PALS benchmark in the Fall of kindergarten, repeating a grade between kindergarten and 3rd grade, and the percentage of 3rd grade students failing the math SOL all decreased by 28-34% compared to the baseline year.

**Table 2. Trends over the past decade on key indicators of school performance, Virginia.**

Indicator	Trend Data Years	Baseline Rate Recent Rate	Change from Baseline (%)	Children Impacted*
Did not meet PALS Benchmark, Fall of K	2005	17.8%	<b>-28.7%</b>	<b>-4,346</b>
	2014	12.7%		
K-3rd Grade Repeaters	2005/06	9.7%	<b>-33.9%</b>	<b>-2,095</b>
	2012/13	6.4%		
Failed 3rd Grade Reading SOL	2012/13	27.7%	<b>-11.3%</b>	<b>-2,650</b>
	2014/15	24.6%		
Failed 3rd Grade Math SOL	2011/12	36.4%	<b>-29.9%</b>	<b>-9,309</b>
	2014/15	25.5%		
9th Grade Repeaters	2005/06	9.4%	<b>-43.8%</b>	<b>-4,794</b>
	2014/15	5.3%		
High School Dropout	2008	8.7%	<b>-39.7%</b>	<b>-3,477</b>
	2015	5.2%		

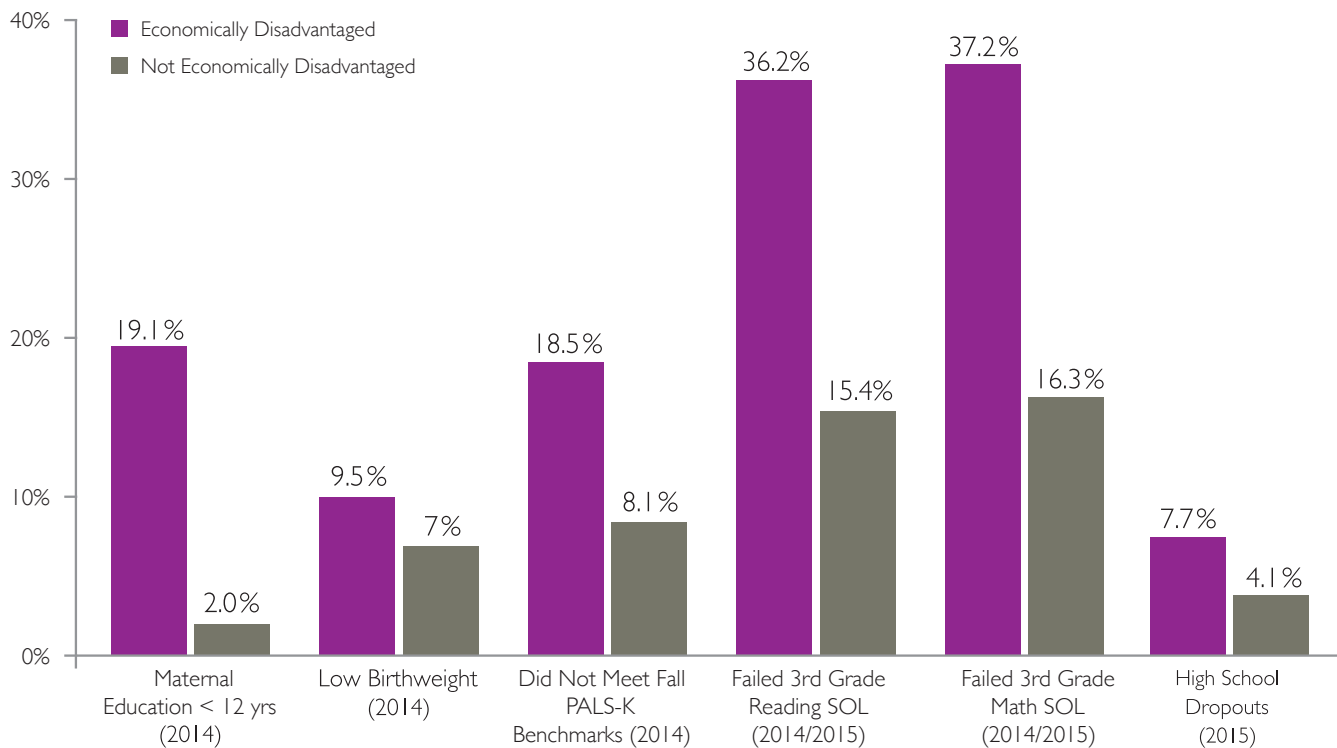
\*The change in the number of children with poor school performance in the recent year compared to the baseline year.

# Looking Deeper: Trends in risk factors and school outcomes over the past decade by economic status and race/ethnicity

Although the substantial improvements in eight of the nine indicators are laudable, a deeper look at the data reveals disparities by economic status and race/ethnicity that persist even in the face of large statewide improvements overall.

In Figure 1, the most recently available data for selected risk indicators and school outcomes are shown

by economic status. Economically disadvantaged families had higher rates of all risk indicators at birth and higher rates of all the six poor school outcomes in this report. There was nearly a ten-fold difference in low maternal education at birth among low income mothers (19.1%) compared to those with higher income (2.0%). Failure rates among students from economically disadvantaged families for the Fall PALS-K, and 3rd grade reading and math SOL assessments were more than double that of students from families that were not economically disadvantaged.

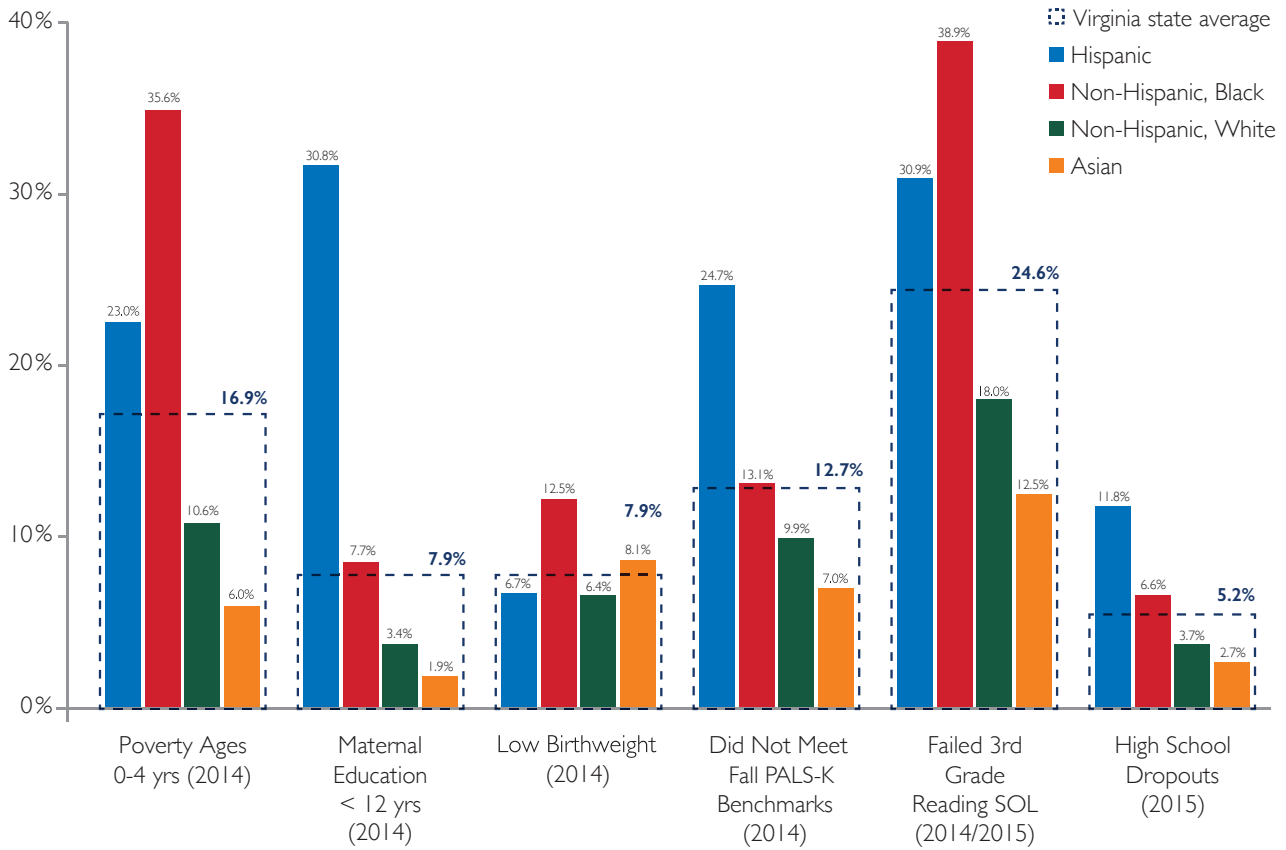


**Figure 1. Selected Indicators of Risk and Poor School Outcomes by Economic Status, Virginia**



The most recent data on selected risk indicators and school outcomes by race/ethnicity is shown in Figure 2. The early childhood poverty rate for black and Hispanic families was significantly higher than the state average. As a group, black and Hispanic students are at higher risk for poor school outcomes. These students are more likely to be born to a teenage

mother, born to a mother who did not complete high school, and grow up in poverty than their classmates. Black infants are also more likely to be born low birthweight. Given these elevated risks and the strong relationship between economic disadvantage and poor school outcomes shown in Figure 1, the increased risk for poor school outcomes is not unexpected.



**Figure 2. Selected Indicators of Risk and Poor School Outcomes by Race/Ethnicity, Virginia**

# Looking Ahead: Planning for the next decade

Virginia's School Readiness Report Card provides an opportunity to celebrate the fact that in general in almost every regard, children in Virginia are faring better now than they were ten years ago. This significant success is the result of many combined and collaborative efforts in Virginia. We have strong networks of support for school readiness, programs with evidence of effectiveness, and viable data to substantiate and inform this work.

A more granular look at the data, however, makes it clear that some groups of children are not faring as well, and that poverty is at the root of these disparities.

The numbers signal the reality that groups of children who are poor and children of color are not represented as well in the successes and are not thriving on pace with other children.

Rather than rest on laurels that much of the population is faring well, we must redouble our efforts and target resources to populations growing in number yet struggling with conditions and performance. The fact that even with disparities, the trend in most indicators for all populations of young children in Virginia are improving gives us confidence that our interventions are working, but must work better. To ensure that every child in Virginia has similar opportunities for upward mobility, we need to strategically adapt and innovate Virginia's systems of support to meet the challenge of overcoming the disparities. This proposition is not simple. "Business as usual" won't solve these thorny problems.

Forging into the second decade of our work, VECF is committed to zeroing in on the gaps and seeking opportunities for families and children who are not fully experiencing Virginia's successes. Ensuring that all children have a strong start is a complex challenge and requires complex solutions. We must uncover the levers that can provide a broad economic lift across populations and ensure that young people growing up in Virginia can access opportunities and contribute to Virginia's future prosperity. We look forward to working with our public and private sector partners to bring "next generation" models and strategies as we strive to

- improve data sharing across our agencies and systems;
- overcome characteristics of malaise, overwhelm, risk aversion, and territorialism that can be barriers to progress; and
- promote a root-cause problem-solving approach to supporting better futures for Virginia's at risk families.

As we offer this report and analysis to the Commonwealth, we are struck by how data so often prompt questions more than answer them. But continuing to probe and question is our privilege, responsibility, and commitment.

VECF believes in the potential of introducing and testing private-sector strategies and entrepreneurial approaches to Virginia's system of services for children and families to confront the status quo and adapt nimbly to new opportunities. It is our hope that this report can bring sharper vision, ambition, and readiness for change as Virginia's leaders work to provide a clear path and upward trajectory for all young children in Virginia.

A photograph of two young children blowing bubbles. The child on the left has blonde hair and is wearing a blue and white striped shirt. The child on the right has dark curly hair and is wearing a yellow shirt. They are both looking towards the camera with their mouths open, blowing bubbles. The background is a soft, out-of-focus green, suggesting an outdoor setting. A large, stylized red graphic is overlaid on the bottom left of the image.

Appendix: Understanding school readiness indicators and trends



## RISK: Overview

The four indicators of risk included in this report were selected based on 1) evidence for a strong relationship to health, developmental, and school outcomes; 2) availability of quality data at both the state and local levels on an annual basis; and 3) the potential for their effects to be reduced through prevention, early intervention, and policy change.

Although there is evidence that factors such as poverty, low maternal education, and teenage births have independent effects on child health and development, these factors do not occur in isolation. For example:

- Poverty is associated with dropping out of school, teen childbearing, and low birthweight.<sup>1, 2</sup>
- Adolescent pregnancy and childbirth are significant contributors to high school dropout rates among girls.<sup>3</sup>
- Low maternal education is associated with higher rates of unemployment and lower compensation, including pay and benefits.<sup>4, 5</sup>
- High maternal education has been associated with a substantial attenuation of risk for poor developmental outcomes among low birthweight infants.<sup>6, 7</sup>
- Twin studies of preterm, low birthweight infants suggest that the early environment affects verbal and non-verbal cognitive development at 2 years of age, and that environmental factors account for more variation in cognitive development over the first 6 years of life than medical factors.<sup>8, 9</sup>

Risk factors are conditions that are associated with children having an increased chance of experiencing developmental or school problems. Importantly, the mere presence of a risk factor does not mean a child is destined for school failure. There is a large body of research demonstrating that for many children, participation in high-quality early intervention programs that promote optimal child health and development reduces or even eliminates the risk associated with conditions into which they were born. Early educational intervention can have substantive short- and long-term effects on cognition, social-emotional development, school progress, antisocial behavior, and even crime.<sup>10</sup> For example, participants in high quality early intervention programs such as the Perry Preschool and the Abecedarian program have experienced meaningful cognitive, social, and school effects lasting into adulthood.<sup>11, 12</sup> An evaluation of several state-funded preschool programs showed positive impact at least through kindergarten, and some states have demonstrated sustained impact beyond the kindergarten year.<sup>13</sup>

Thus, for most children, the circumstances into which they're born don't need to dictate their life circumstances. With strong and decisive leadership, a clear plan, and measurement along the way, we can improve children's outcomes with cost-effective interventions that mitigate the effects of these and other risk factors.

# RISK: Children Living in Poverty

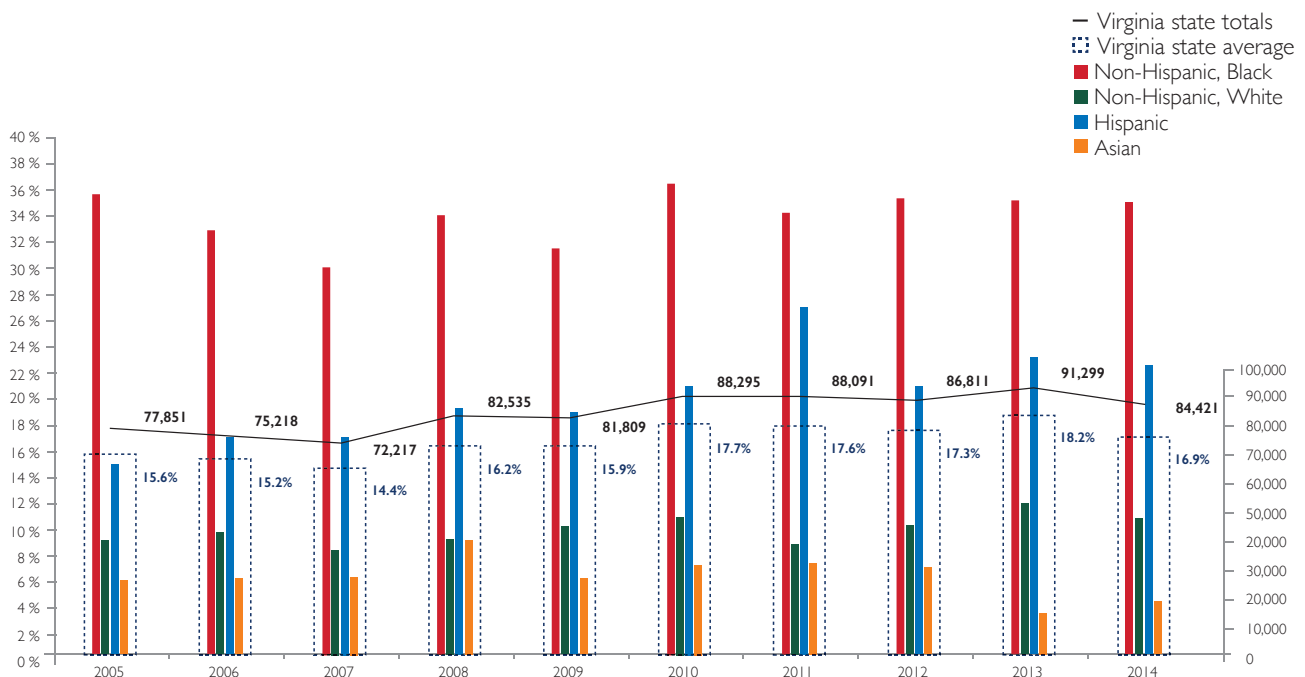
Of all the risk factors associated with whether or not young children succeed in school, living in poverty<sup>14</sup> is the factor most consistently associated with compromised child development.<sup>15</sup> At the family level, living in poverty limits access to goods and services as well as accumulated wealth (e.g., the value of a home, vehicles, savings, household possessions).<sup>16</sup> Pathways through which income can affect children’s development include: 1) quality of the home environment (e.g., reading to children, learning-oriented toys), 2) quality of child care environment, 3) parental physical and mental health (e.g., depression can lead to impaired parent-child interactions), and 4) constrained choice of neighborhoods and schools.<sup>17</sup>

Many economically disadvantaged families are forced to live in areas of highly concentrated poverty, which can exacerbate children’s risk. Neighborhood poverty can directly influence child health and development through air and water quality; exposures to lead paint, mold, and dust; access to nutritious foods and

safe places to exercise; and access to quality medical care and schools.<sup>18</sup> Moreover, recent research suggests that the stresses associated with poverty can shape children’s biological stress and emotional health.<sup>19</sup>

Children from disadvantaged backgrounds are especially likely to enter school with health and nutrition problems and without having had access to quality health care and child care – all factors that can undermine readiness to learn.<sup>20</sup> A childhood in poverty places children at greater risk of repeating a grade, scoring lower than others on standardized tests that measure verbal ability, being diagnosed with learning disabilities, and having lower skills in the areas of reading, working with numbers, problem solving, and memorizing.<sup>21</sup> Early childhood is the stage at which income appears to have the greatest influence on school outcomes<sup>22</sup> and is the most cost-effective place to intervene.<sup>23, 24</sup>

## Number and Percentage of Children Ages 0-4 Living in Poverty, Virginia, 2005-2014



Source: U.S. Census Bureau, American Community Survey 1-Year Estimates (Table B17001), <http://factfinder.census.gov/>



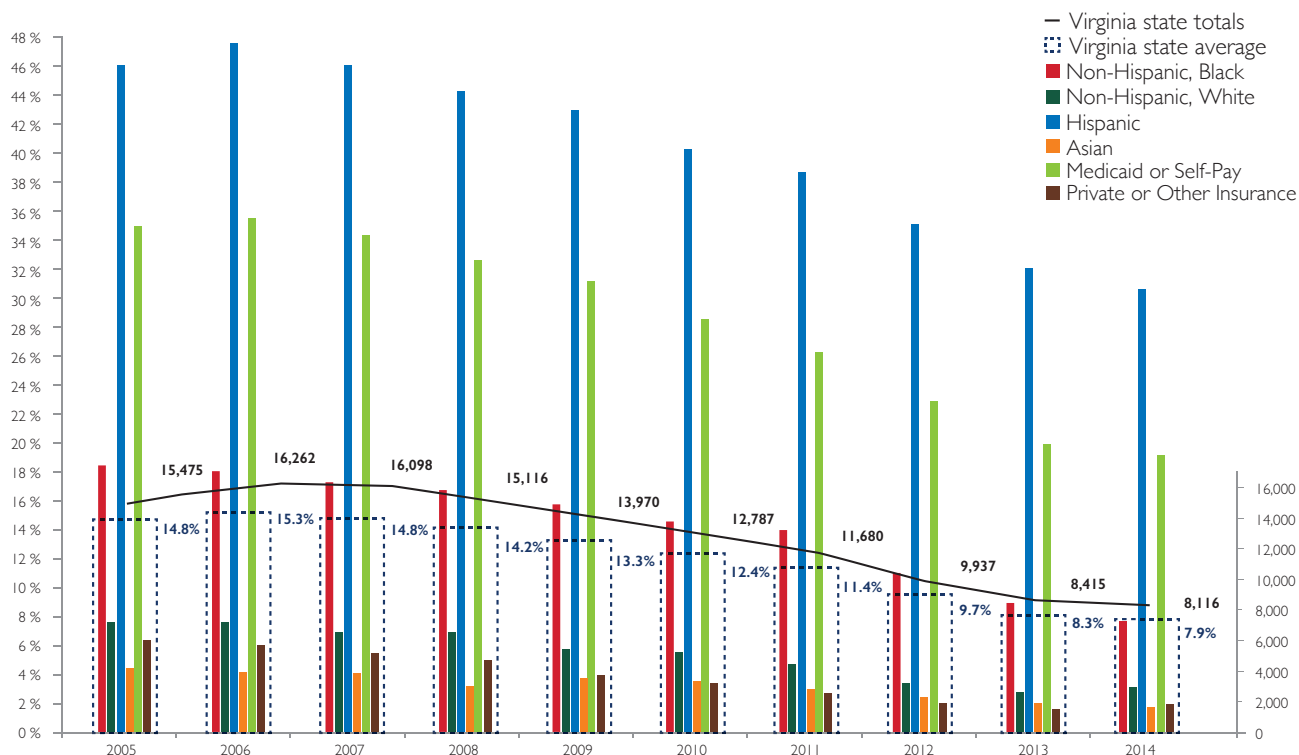
# RISK: Low Maternal Education

The level of education that a mother reaches is one of many interrelated social determinants that predict a child’s health, development, and school success. Failure to earn a high school diploma is associated with higher rates of unemployment and lower compensation, including pay and benefits,<sup>25, 26</sup> which increases the likelihood of children growing up in poverty. Nationally, in 2014, the median annual earning of school dropouts was \$9,360 less than adults with a high school degree, which would result in a gap of over \$420,000 across a 45 year career. Compared to high school graduates, those with a college degree earned an additional \$27,000, which would be a \$1.6 million dollars total difference over a career.<sup>27</sup> Financial strains can negatively affect a mother’s

stress levels, mental health, and parenting – all of which are associated with behavior problems and poor achievement in preschoolers.<sup>28</sup>

Low maternal education is associated with poorer nutrition, less cognitive stimulation in the home environment, and less knowledge of and access to early intervention services compared to more educated mothers.<sup>29</sup> These factors in the early home environment contribute substantially to later school performance. For example, children born to mothers who did not complete high school have lower scores on cognitive assessments, lower school achievement, and are more likely to experience early grade retention than children born to more educated mothers.<sup>30, 31</sup>

## Number and Percentage of Births to Mothers with <12 Years of Education, Virginia, 2005-2014



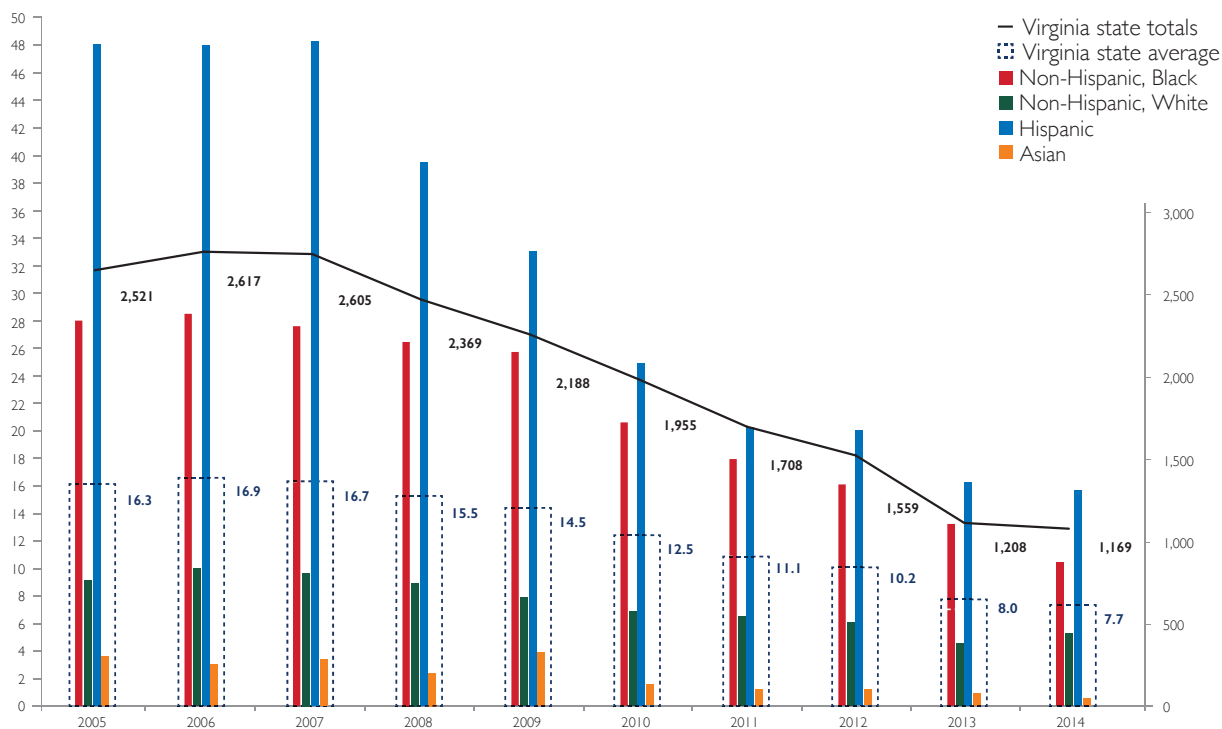
Source: Virginia Resident Live Birth Certificate Data compiled by the Office of Family Health Services, Virginia Department of Health.

# RISK: Births to Teenage Mothers

Teenage parenthood is associated with a number of health risks beginning in the prenatal period and extending into childhood. Teen mothers are less likely than older mothers to receive prenatal care and more likely to experience pregnancy complications and deliver low birthweight infants.<sup>32, 33</sup> The children of teenage mothers are more likely to have lower school achievement and drop out of high school, have more health and behavior problems, give birth as a teenager, and face unemployment as a young adult.<sup>34, 35</sup>

The impact of young maternal age on children's developmental outcomes is difficult to disentangle from other social determinants of health and development. For example, pregnancy and birth to adolescents are significant contributors to high school dropout rates among girls. Only about 50% of teen mothers receive a high school diploma by 22 years of age, versus approximately 90% of women who had not given birth during adolescence. Similarly, most teen mothers have to face the increased costs associated with their infant (e.g., food, diapers, child care) with very limited resources. As a result, three fourths of all children of single teenage parents grow up in poverty in the U.S.<sup>36</sup>

## Number and Rate of Births per Thousand to Mothers Ages 15-17 Years, Virginia, 2005-2014



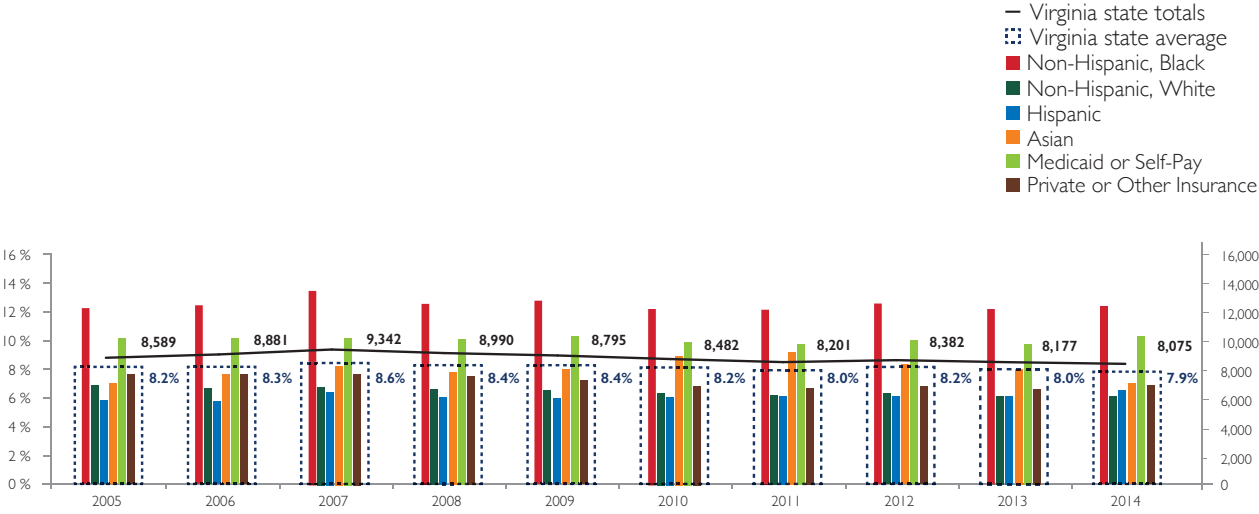
Source: Virginia Resident Live Birth Certificate Data compiled by the Office of Family Health Services, Virginia Department of Health.

# RISK: Low Birthweight

Low birthweight (LBW, <2500 grams or about 5.5 pounds or less) and its principal antecedent, preterm delivery (<37 completed weeks gestation), together form the second leading cause of infant mortality<sup>39</sup> and contribute substantially to the overall burden of childhood disability in the United States.<sup>40</sup> Although the rates have leveled off recently, there has been a substantial increase in preterm/low birthweight births over the past thirty years. Nationally, in 2014, over 318,000 infants (or 8.0% of all live births) were born LBW.<sup>41</sup> This increase has been in large part due to medical advances that allow infants at smaller weights to survive. Some of this trend is also attributed to a corresponding increase in the rate of multiple births, but the LBW rate has also been increasing among singleton births.<sup>42</sup>

Despite the encouraging trend of better survival rates for LBW infants, children born LBW remain at risk for a number of problems that make it harder for them to enter school ready to learn and to succeed academically. Compared to normal birthweight infants, LBW infants experience higher rates of long-term disabilities, delayed social and motor development, and attention-related disorders.<sup>43, 44</sup> A National Education Goals Panel study found that LBW infants were more likely than peers born at normal weights to be enrolled in special education classes and to repeat a grade at ages 4 to 17 years.<sup>45</sup> Risk for long-term health and developmental problems is especially high for infants at the lowest birthweights (<1500 grams or about 3.3 pounds or less).<sup>46, 47</sup> There is evidence, however, that early intervention, particularly involving parents as well as children, can be successful in improving school readiness and cognitive outcomes for infants born low birthweight.<sup>48, 49</sup>

## Number and Percentage of Infants Born Low Birthweight (<2500g), Virginia, 2005-2014



Source: Virginia Resident Live Birth Certificate Data compiled by the Office of Family Health Services, Virginia Department of Health.



# RESULTS





## RESULTS: Overview

The results section for the School Readiness Report Card uses available data to describe educational outcomes that research shows can be directly affected by strengthening early childhood development programs. These indicators represent important milestones that, when met, facilitate students' successful navigation through the K-12 public school system. All of these data were provided by the Virginia Department of Education, which collects and reports this information as part of the K-12 accountability system.

The data that are available are extremely limited. Most indicators are not specific outcomes connected with any of the early childhood programs currently in place. Therefore, while these results are informative and provide the best information currently available

statewide, they should be viewed as a starting point, perhaps more of a pointer to areas where more work needs to be done and more information is needed to ensure that effective programs are in place.

What is missing are child indicators associated with most taxpayer-funded early childhood programs, comprehensive information – beyond early literacy skills – by which we can gauge children's kindergarten readiness, and information about long-term ability to sustain gains made in the early years. All of this information would be useful for making wise investments – to inform and guide early learning efforts.



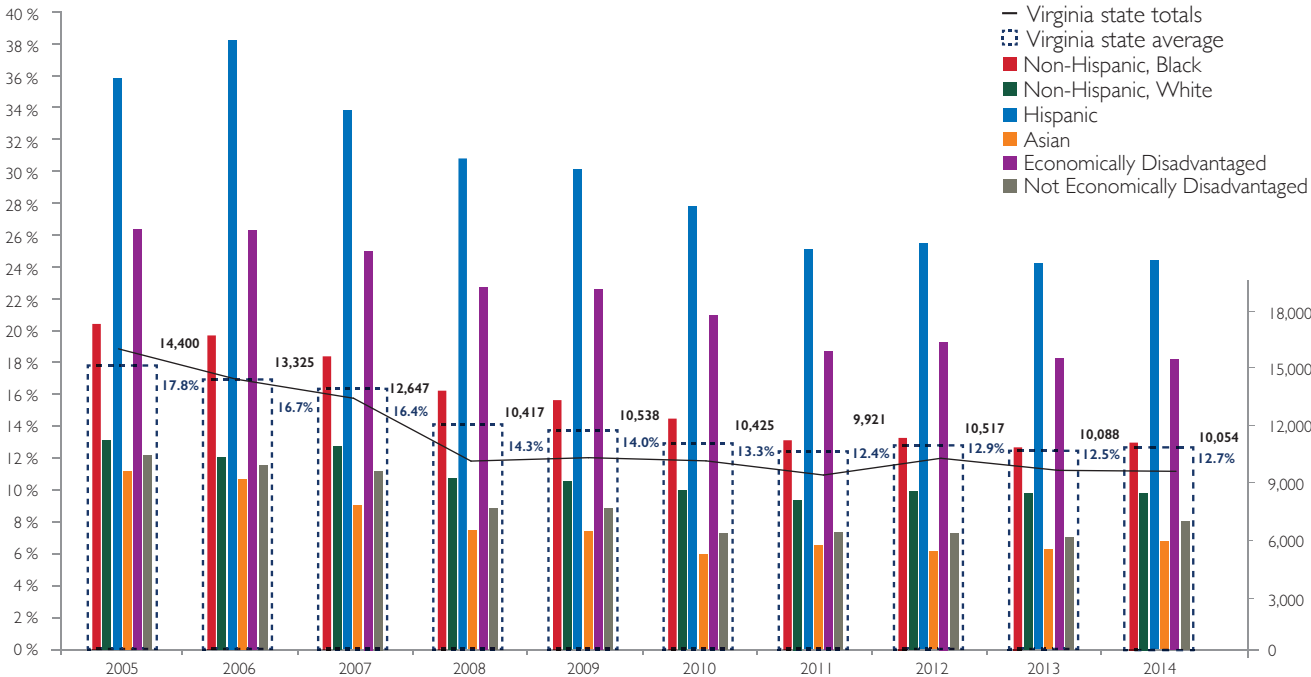


# RESULTS: Kindergarteners Needing Literacy Intervention

The Phonological Awareness Literacy Screening for Kindergarten (PALS-K) is a measure of children’s knowledge of several important literacy fundamentals: phonological awareness, alphabet recognition, concept of word, knowledge of letter sounds and spelling.<sup>50</sup> In Virginia, PALS-K is administered to kindergarten children in the fall of their kindergarten year. The measure is intended to identify students who are at risk of reading difficulties and delays based on performing below grade-level expectations in several important literacy fundamentals. As a diagnostic tool, PALS-K can be used to assess what students already know about the English literacy fundamentals and what they need to learn to become capable readers by third grade. PALS-K has demonstrated good evidence of reliability and construct, concurrent, and predictive validity.<sup>51</sup>

PALS-K offers one important window into children’s school readiness in the fall of their kindergarten year. By focusing on fundamental literacy skills, the measure can help identify children who need extra support – beyond what is provided in the typical classroom – to be on track for literacy success. Through Virginia’s Early Intervention Reading Initiative (EIRI), the state provides schools with additional funding to ensure that children receive appropriate interventions to facilitate their reading success by third grade. The full PALS toolkit, available to Virginia’s school divisions, helps teachers match children’s skill deficits to appropriate instruction that can help fill the gaps. PALS is available at no cost to Virginia’s schools, as part of the state’s EIRI, and nearly all school divisions use the measure to identify students who need additional support to learn to read.

## Number and Percentage of Children in Fall of Kindergarten Not Meeting PALS-K Benchmarks and Requiring Literacy Interventions, Virginia, 2005-2014



Source: Virginia Department of Education.

# RESULTS: K-3<sup>rd</sup> Grade Repeaters

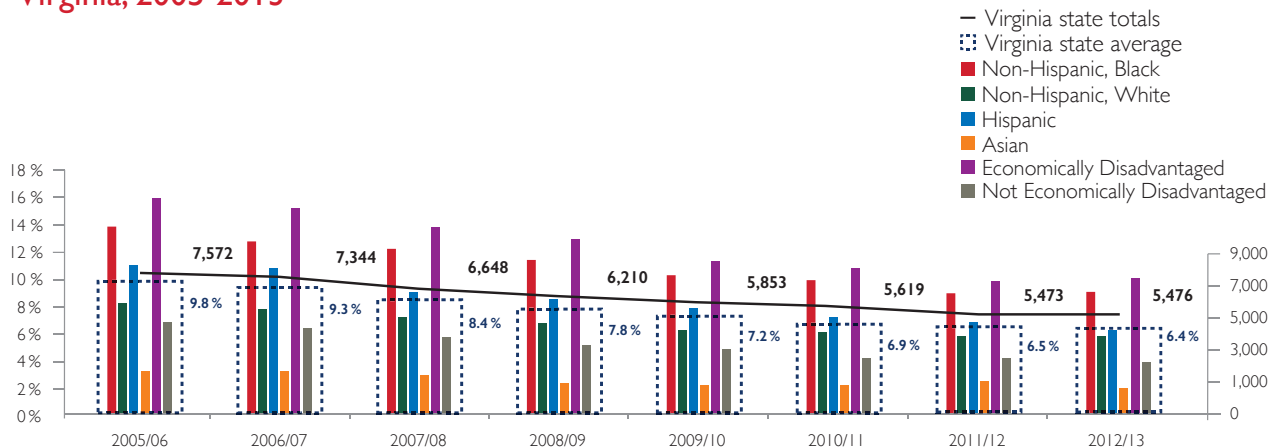
Retentions (or repeating a grade) in grades K through 3 are costly to the state. Each retention adds one extra year of schooling to a child’s education, which is funded by local, state, and federal sources that for the last 10 years, have averaged over \$11,000 per child per year.

Children from low income families tend to be retained at higher rates than those from families of greater economic means. However, this difference is mitigated when children leave kindergarten with strong literacy skills. In Virginia, regardless of economic circumstances, less than 1% of children who finish kindergarten and meet PALS-K screening benchmarks are retained, compared to 28% of children who do not meet PALS-K benchmarks.<sup>52</sup> Further, preschool attendance supports children’s development of strong early literacy skills. Children who attend Virginia Preschool Initiative (VPI) programs are less likely to repeat kindergarten and have a better chance of meeting or exceeding minimum competencies on

the PALS-K assessment.<sup>53</sup> Minority children – who are more likely to live in poverty – and children with disabilities have been shown to gain the most from VPI participation through first grade, despite the fact that these children are more likely to attend schools with higher concentrations of poverty.<sup>54</sup>

Researchers debate the impact of retention for students. In general, research suggests that retention in the lower grades is often associated with limited benefit and potentially negative consequences.<sup>55</sup> In a literature review that identified 11 empirical studies evaluating the impact of retention on children in kindergarten and first-grade, reviewers concluded that “the majority of research shows that, contrary to popular belief, retention during kindergarten or 1st grade usually fails to improve academic performance and often has negative effects on student achievement in the long run.”<sup>56</sup>

## Number and Percentage of Kindergarten Class Not Promoted On-time to Third Grade, Virginia, 2005-2013



Source: Virginia Department of Education.

# RESULTS: Failed Third Grade SOLs

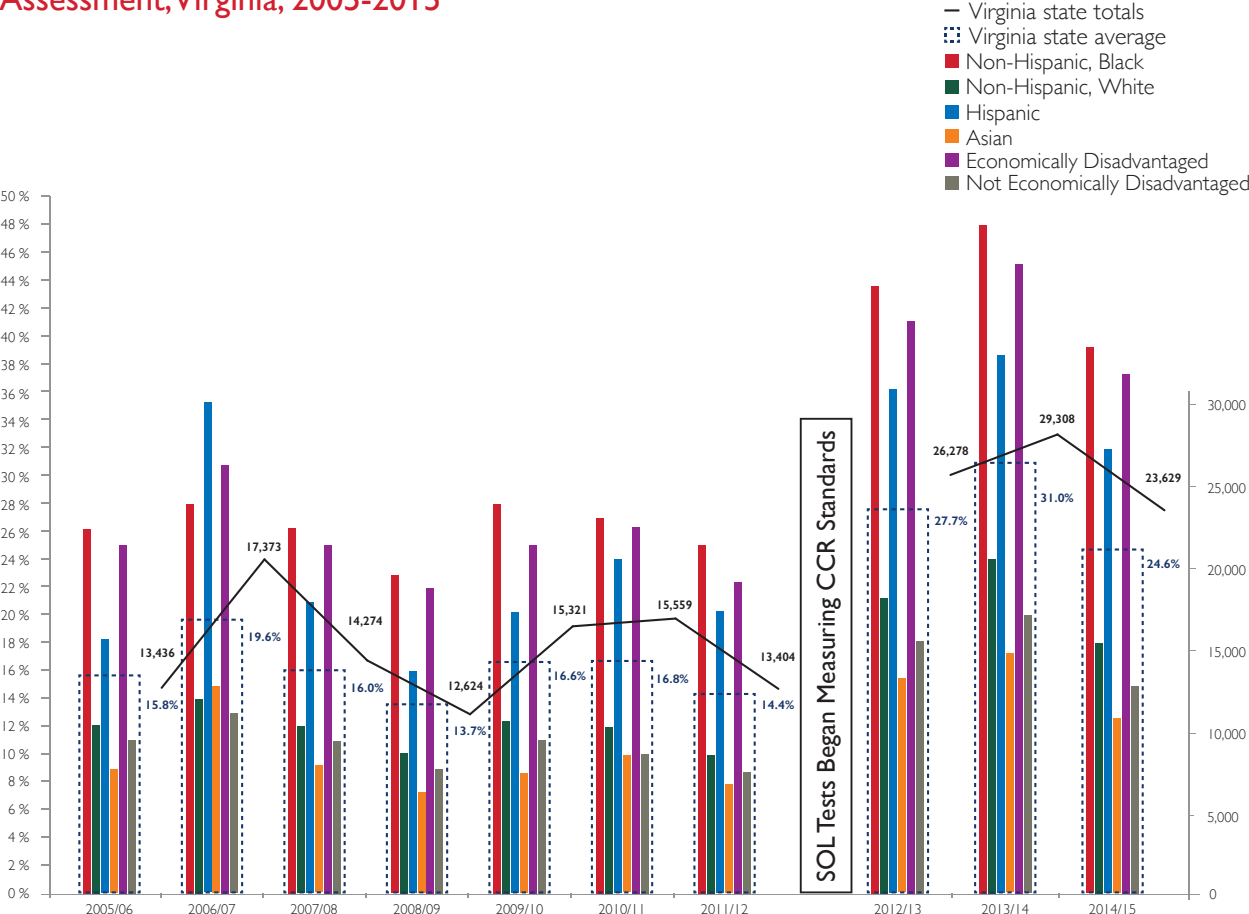
Third grade is a pivotal year for children in school. By the end of third grade, children are expected to read independently, and importantly, to read to learn. This is a significant change from expectations in grades kindergarten through the beginning of grade 3, when children are learning to read. Children who leave third grade reading below grade level are less likely to graduate from high school, and if they do graduate from high school, are less likely to enroll in college.<sup>57</sup>

On an annual basis, Virginia has access to third grade students' reading outcomes based on the Virginia Standards of Learning (SOL) assessments. At least through 2013 when Virginia changed state learning standards, these important indicators of student achievement establish lower levels of proficiency than the National Assessment of Educational Progress

(NAEP). For example, research suggests that 5th grade proficiency on Virginia's SOL reading assessment administered through 2012 were considered equivalent to a score below NAEP's basic score, and Virginia's eighth-grade SOL level of proficiency through the 2012 assessment was considered to be equivalent to the NAEP basic score.<sup>58</sup> Thus, students who fail to meet Virginia's minimum proficiency measures should be considered the most struggling readers; some children who pass the state test are likely to be reading below grade level according to other standards, such as NAEP.

Beginning in 2012/13, Virginia began assessing third grade reading with tests that measured higher standards. How these proficiency standards compare with other standards, such as NAEP, is not yet clear.

## Number and Percentage of Virginia Students Failing the Third Grade SOL Reading Assessment, Virginia, 2005-2015



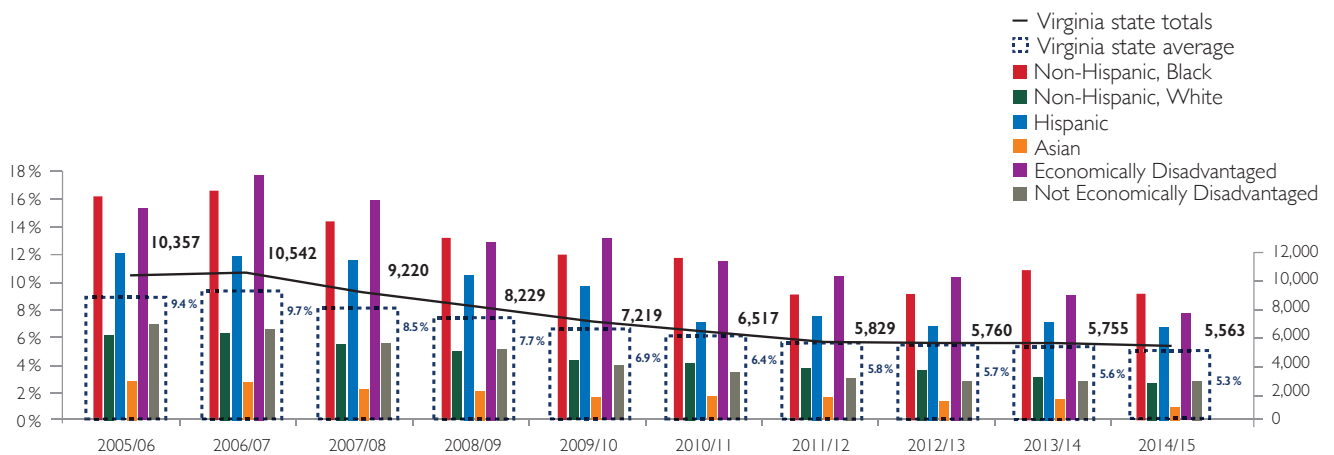
Source: Virginia Department of Education.

# RESULTS: 9<sup>th</sup> Grade Repeaters

Like the transition into school in kindergarten, successful transition into and through ninth-grade is important for students' chances of graduating from high school. More students are retained in 9th grade than any other grade in the K-12 school system.<sup>59</sup> Further, repeating 9th grade is an important predictor of dropping out of high school. For some students, ninth grade retention takes place after entering high school unprepared for the rigors of high-school level work. However, research shows that some students

who are successful through 8th grade fall "off-track" in 9th grade and become at-risk of dropping out of high school in the 9th grade year.<sup>60</sup> Evidence from evaluations of preschool programs, including Virginia and other state preschool programs, has shown positive effects of program participation on a variety of factors – better student attendance, test score gains, and reduced retention rates in middle and high school.<sup>61, 62</sup>

## Number and Percentage of 9<sup>th</sup> Graders Retained, Virginia, 2005-2015



Source: Virginia Department of Education.

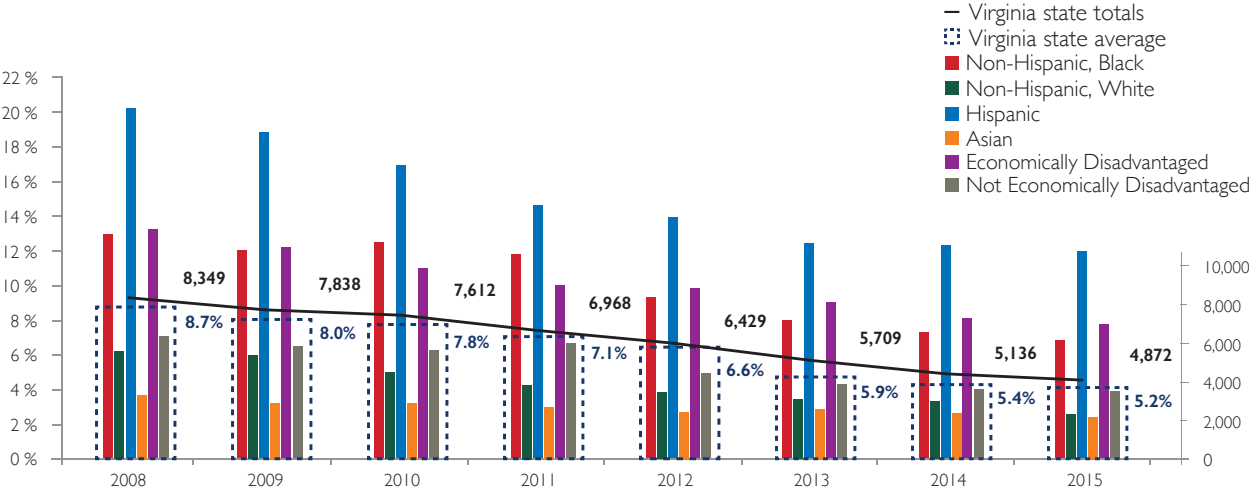


# RESULTS: High School Dropouts

Dropping out of high school is associated with a variety of risks throughout adulthood. If adults without a high school diploma are fortunate enough to be employed full-time, their median weekly earnings are approximately 71% that of individuals whose highest education is a high school diploma; this translates into a median yearly earning difference of more than \$9,000.<sup>63</sup> High school drop outs are at risk not only in the short-term after they leave high school but over the course of their lives, they are severely disadvantaged compared to students who complete high school. Dropouts are more likely to be poor – dropouts have higher rates of unemployment, work fewer hours when they are employed, and have lower earnings than high school graduates. As a result of lower employment and income, high school dropouts pay fewer taxes to support public spending, with some studies estimating that dropouts pay one-half to two-thirds of the taxes paid by high school graduates.<sup>64</sup> As we discussed in the risk section of this report, mothers’ education is a significant risk factor for children’s school success. Continuing to decrease high school dropout rates should improve children’s school readiness skills.

Evidence shows that high quality early care and education programs can reduce high school dropout rates<sup>65</sup> and the need for interventions in later years. Further, economists and education researchers alike typically recommend including high quality early childhood intervention programs in state and local services aimed at eliminating high school dropouts.<sup>66</sup> In Virginia, the majority of students leave high school with a diploma, and graduation rates have steadily increased since 2008 (the first year Virginia was able to calculate the percentage of students who entered 9th grade and graduated on time within 4 years). Nonetheless, thousands of students drop out each year, and the percentage of students dropping out varies widely in Virginia’s communities and across populations. Students from economically struggling families and minorities have higher dropout rates than their more advantaged and white peers.

## Number and Percentage of High School Dropouts, Virginia, 2008-2015



Source: Virginia Department of Education. Graduation year is based on incoming students earning a diploma in four years or less.





# End Notes

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