



Virginia's Biennial School Readiness Report Card 2018

Prepared for the Commonwealth of Virginia by



Dedication

The 2018 School Readiness Report Card is dedicated with great respect to Marcia A. Invernizzi, who retired from the University of Virginia's Curry School of Education this summer after distinguished contributions to the field of reading education. Most notably known in Virginia as the co-creator of the Phonological Awareness Literacy Screener (PALS) and PI for the Early Intervention Reading Initiative (EIRI), Marcia has led a volume of work to ensure access to evidence-based practices and supports for teachers and children who can benefit from tools and interventions to deepen early language and learning. She is a founder of Book Buddies, which is a one-on-one reading intervention that has been nationally recognized, and has worked with IES to develop PALS español. While she will continue to contribute to the field following her retirement from UVA, VECF is grateful for the opportunity to recognize Dr. Invernizzi, her generous support and partnership in VECF's body of work, and the significant enduring legacy she has created for the field of reading education and millions of teachers and students in classrooms in Virginia and across the country.

Acknowledgements

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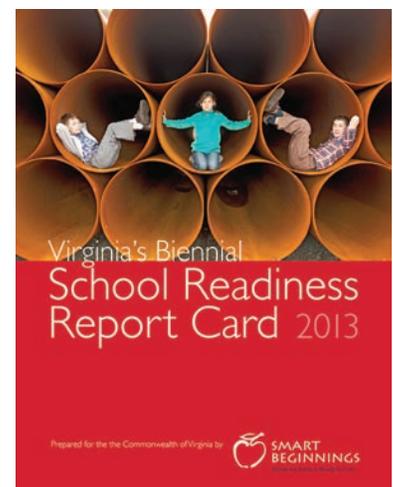
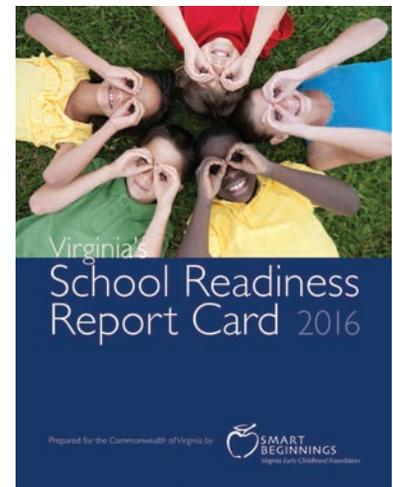




Introduction

The Virginia Early Childhood Foundation (VECF) has published two previous Report Cards assessing the overall status of school readiness in the Commonwealth. The 2016 report presented data showing ten-year trends, corresponding to the then ten-year history of VECF's leadership role in early childhood system-building. This edition uses a shorter time frame, reviewing trends over the past five years in two domains – Risks and Results. The most recent five years of data were selected in order to provide timely data and identify meaningful trends that may be harder to detect due to random year to year variation.

The analysis to follow presents only selected highlights to illustrate the most salient trends. Data for all indicators, local and state, including disaggregation by race/ethnicity and by income status, are available through the Virginia School Readiness Interactive Map Tool (www.virginiareportcard.com/map.php) found on VECF's School Readiness Report Card website (www.virginiareportcard.com).





Risk Indicators

Table 1 shows data for key risk indicators. Two important health-related risk factors – the percentage of births to mothers with less than a high school education and the rate of low birth-weight deliveries, show little or no improvement in the five-year span. One positive trend: the teen birth rate (for ages 15-17) continues a steady decline, mirroring the strong national trend.

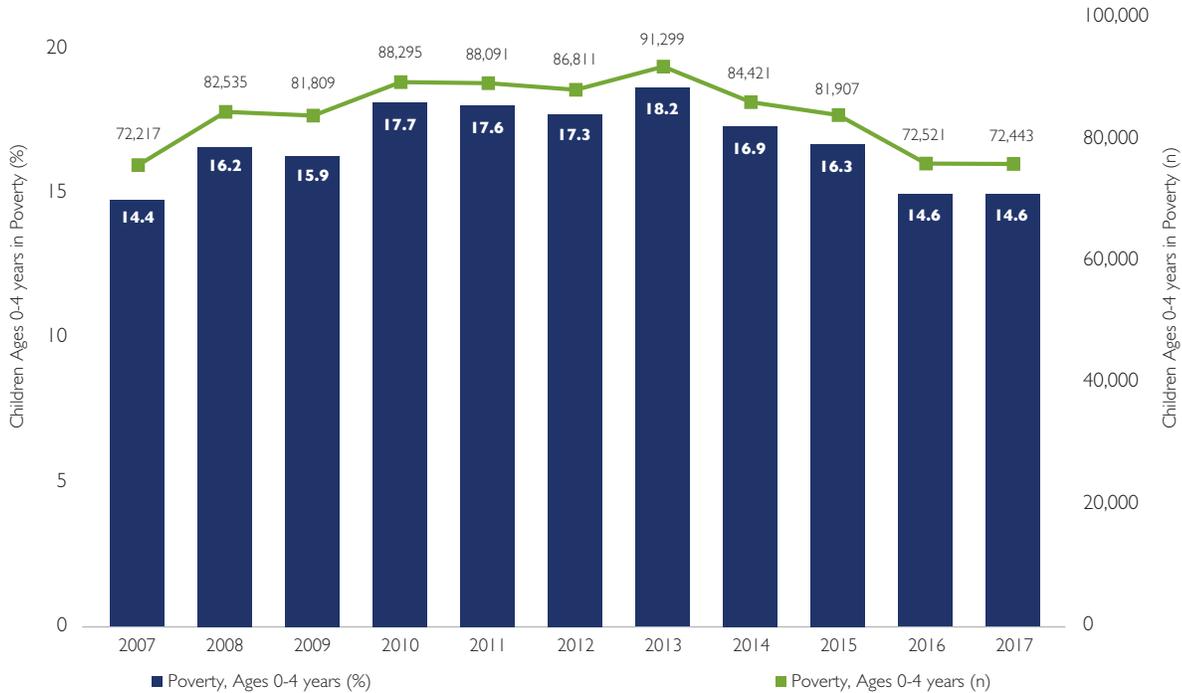
Child poverty data, shown in greater detail in Figure 1, are more worrisome. While it is encouraging that the high rates seen following the 2008 recession are slowly declining, the 2017 poverty rate for Virginia children birth-to-four still exceeds the pre-recession level. Most troublesome is the potential threat to child development posed by the prolonged duration of this unusually high (for Virginia) rate of poverty. Young children with prolonged exposure to poverty are more likely to start school already behind and to struggle in their early school years.

Table 1. Trend over the past 5 years on key indicators of risk, Virginia.

INDICATOR	2012	2013	2014	2015	2016
Poverty, Ages 0-4 yrs	17.3	18.2	16.9	16.3	14.6
Teen (15-17) Births	10.2	8.0	7.7	6.9	6.2
Maternal Education <12 yrs	9.7	10.0	9.4	9.6	9.5
Low Birth Weight (<2500g)	8.2	8.0	7.9	7.9	8.1

Figure 1 also shows the large year-to-year increases in the number of children birth-four living in poverty. Note that most children born in 2009 entered kindergarten in the 2014-15 school year, so the front edge of a multi-year wave with high numbers of children in prolonged poverty has reached school age. This wave will continue for the next 5-6 school years. The previous (2016) Report Card noted these substantial recession-induced increases and warned of their possible future impact on various outcomes. The multiple risks associated with this prolonged poverty exposure may have started to show up in lower state averages on the PALS-K measure and on standardized test scores, especially on 3rd grade SOL tests (see the Results section below). Interpreting trends on these indicators will have to take this “prolonged-poverty wave” into account at least for the next 5-6 years.

Figure 1. Trend over 10 years of number and percentage of young children in poverty.



Note also that there are severe ethnic/racial disparities in most risk factors. Since many risks are associated with child poverty, this single indicator can best illustrate overall risk disparities. Census data for 2016 (American Community Survey) for the birth-five population in Virginia show that the estimated poverty rate for black children (29 percent) was nearly quadruple the rate for non-Hispanic white children (8 percent); and the rate for Hispanic children (26 percent) more than triple the non-Hispanic white rate. The potential impact of both circumstances – prolonged recession-induced child poverty and severe racial/ethnic poverty disparities – is discussed later in this report.





Results Indicators

While there is a general trend toward modest 5-year improvements on some Results (academic performance) indicators, the data are somewhat mixed and indeed challenging to interpret.

Table 2 shows 5-year data on six indicators of school performance. The indicators showing modest improvement include the K-3 retention rate, the 9th grade retention rate, and the drop-out rate. These gains are somewhat encouraging, but they should be interpreted with some caution. Retention rates, for example, can fluctuate over time in part because retention practices are influenced by subjective factors such as shifting education policy priorities. For instance, retention rates declined nationwide when educators favored “social promotion” and increased when social promotion fell out of favor. It is difficult to determine if changes in retention rates are due to demonstrable changes in student “promotability,” or to shifting retention criteria and practices.

In contrast, five-year results on 3rd grade SOL scores and on PALS-K performance are less encouraging. On SOL tests, both Reading and Math performance increased and peaked in school year 2015-16; and then both declined for two consecutive years through school year 2017-18, though performance on both is still higher than it was five years ago.

The percentage of kindergarteners who fail to meet the literacy benchmark score on the Fall PALS-K measure has increased (i.e. performance has worsened) for four straight years – from 12.5 percent in 2013-14 to 16.0 percent in 2017-18. However, this 4-year trend may be impacted by a change that took place in the 2015-16 school year, when the literacy threshold score was raised, making it harder to “pass.” This should have caused a higher fail rate for 2015-16, and it did, from 12.9 to 13.8 percent.

Table 2. Trend over the past 5 years on key indicators of school performance, Virginia.

Indicator	2013/14	2014/15	2015/16	2016/17	2017/18
Not Meeting Fall PALS-K benchmarks	12.5	12.7	13.9	14.6	16.0
K-3rd Grade repeaters ¹	6.9	6.5	6.4	6.2	5.7
Failed 3rd Grade Reading SOL	31.2	24.8	24.1	25.6	27.6
Failed 3rd Grade Math SOL	33.4	25.9	23.5	25.3	27.0
9th Grade repeaters	5.7	5.5	5.4	5.1	5.1
High School dropouts ²	5.4	5.2	5.3	5.8	

¹ School year refers to year of cohort's expected entry into 3rd grade

² School year refers to expected on-time graduation of cohort

Logically one would expect that in succeeding years the fail rate, all other things being equal, would stabilize at its new level, but in fact the performance decline continued for two additional years, to 14.6 in 2016-17 and 16.0 in 2017-18. This suggests that the decline in the past two years may be a genuine performance decline rather than an artifact of the threshold change.

The results on an alternate PALS-K metric – statewide average sum scores – support this interpretation. Sum scores are not affected by the change in threshold, and as shown in Table 3, these scores over four years have declined slightly from their 2013 peak. The simultaneous two-year drop in PALS-K pass rates and sum scores may be an early warning signal of a genuine decline in the literacy skills of Virginia five-year olds.

Table 3: Fall PALS-K average statewide sum scores, past 5 years.

	2013/14	2014/15	2015/16	2016/17	2017/18
Fall PALS-K Score	62	61	61	60	59

Source: PALS Office, Curry School of Education, University of Virginia

Possible Impact of Increased Poverty on Results:

The “Risk” section above suggests one plausible interpretation of the recent declines in PALS-K and SOL results. As discussed above, starting in school year 2013-14, each pool of students taking the PALS-K has included a far greater number of students than in previous years who lived in poverty for their entire first five years of life. This will be true of all succeeding cohorts for the next 5-6 years. As stated earlier, children with prolonged exposure to poverty are more likely to start school already behind, hence a dip in average PALS-K scores and “Pass” rates, while unwelcome, is not unexpected.

The impact of this prolonged poverty exposure on 3rd grade SOL results is obviously delayed until the cohorts enter 3rd grade. The first “higher poverty” cohort reached third grade in the 16-17 school year, which is also the first year in the past five showing a decline in SOL scores. While the data can’t prove that higher child poverty caused the recent PALS-K and SOL performance decline, it is a plausible argument given that these outcomes and their timing both align with this interpretation. At the very least, the recent decline may signal an emerging negative poverty-associated trend that bears careful monitoring.

Impact of Persistent Racial/Ethnic, Economic and Geographic Disparities:

Figures 2 and 3 display data showing the magnitude of key Results disparities, clearly demonstrating their severity. The largest performance gap on both the PALS-K and the 3rd grade Reading SOL is between economically disadvantaged vs. non-disadvantaged students (14.0 points and 21.6 points respectively, with non-disadvantaged students performing better). This is another indication of the toxic impact of poverty on school readiness and early academic achievement. Also notable: the second largest disparity on 3rd grade reading is the Black-White gap, which at 20.4 points is nearly as wide as the disadvantaged vs. non-disadvantaged gap of 21.6.

Figure 2. Selected indicators of poor school performance by race/ethnicity, Virginia.

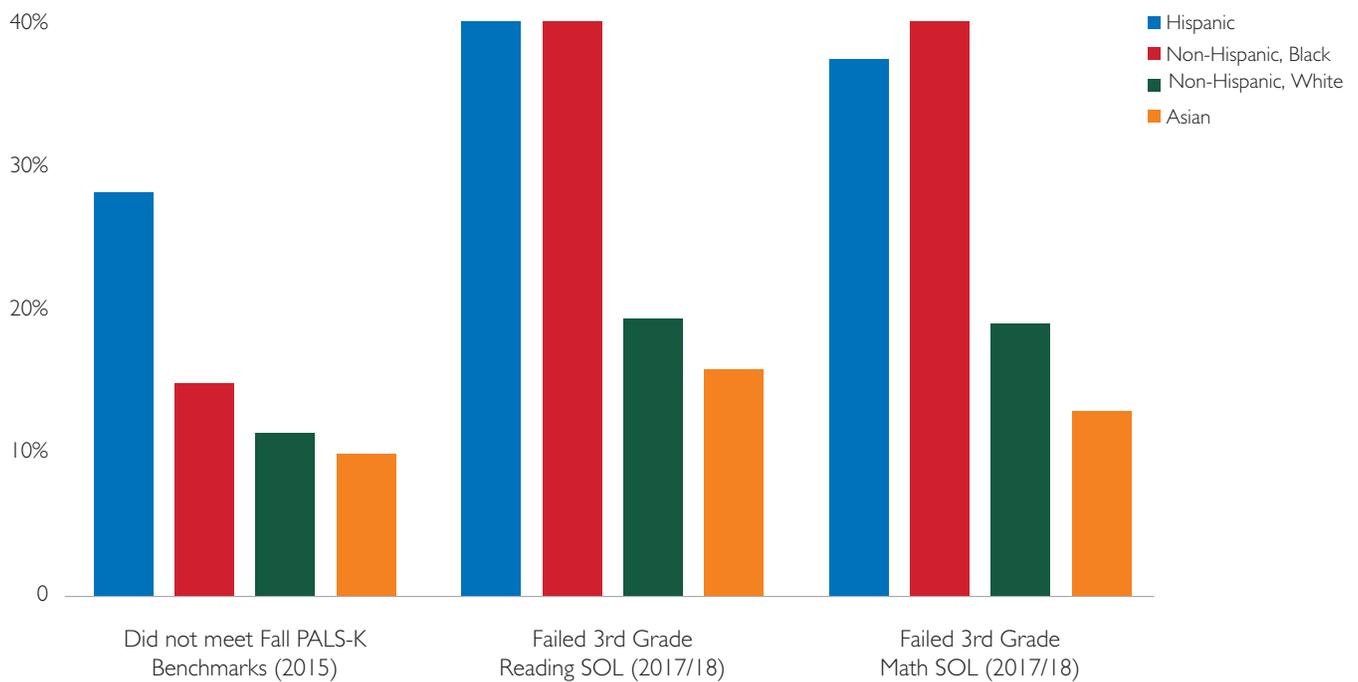
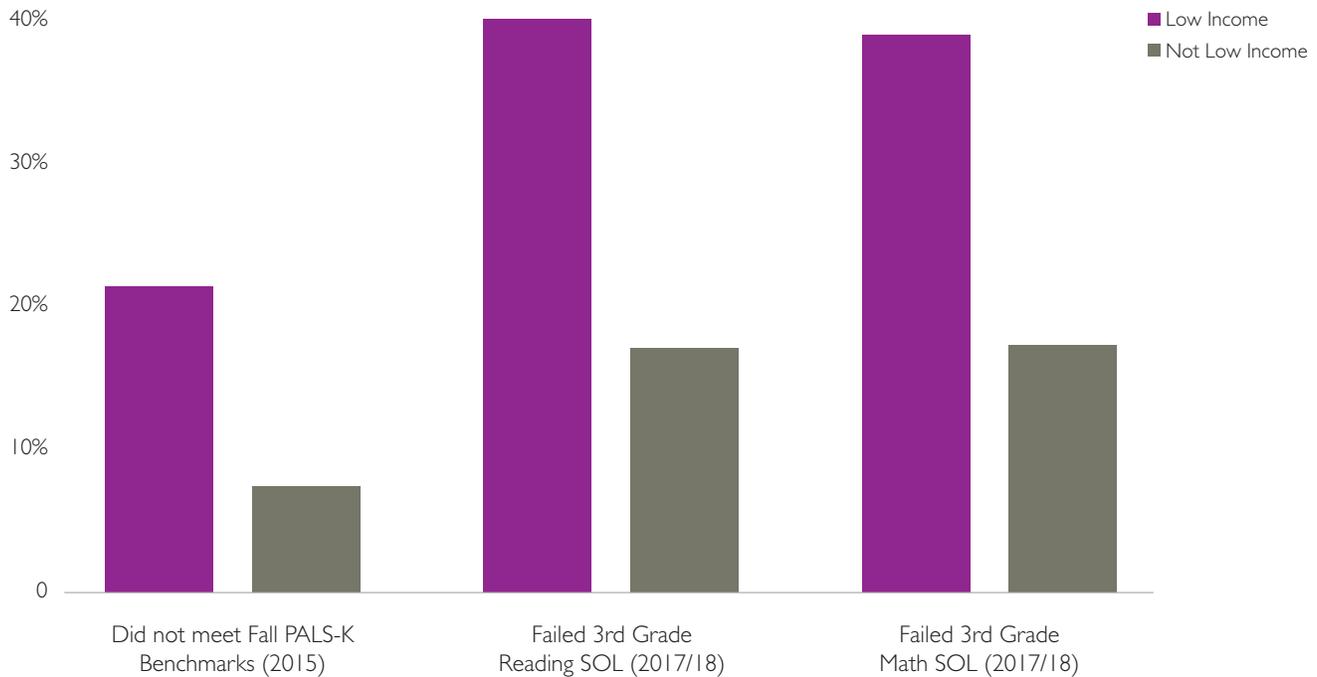


Figure 3. Selected indicators of poor school performance by economic status, Virginia.



While the nature and magnitude of these persistent disparities are very troubling, it is most relevant in the context of this report to inquire whether these disparities or “achievement gaps” are changing over time. This question is addressed by data in Figures 4 and 5 showing 5-year trend lines for selected student groups on PALS-K performance and 3rd grade SOL Reading performance. While the performance of the respective student groups varies over time, **the gaps between groups stay constant** – visually, the trend lines for each group vary in unison, such that the distance between the lines remains nearly the same year after year (3rd grade Math SOL results, not pictured, show the same pattern). These data strongly support a conclusion that racial/ethnic and income-based achievement gaps generally are not improving; and in fact the reading performance of Hispanic students relative to others has worsened (Figure 5).



Figure 4. Students not meeting the Fall PALS-K benchmark by race/ethnicity and economic status, Virginia 2011/12-2015/16.

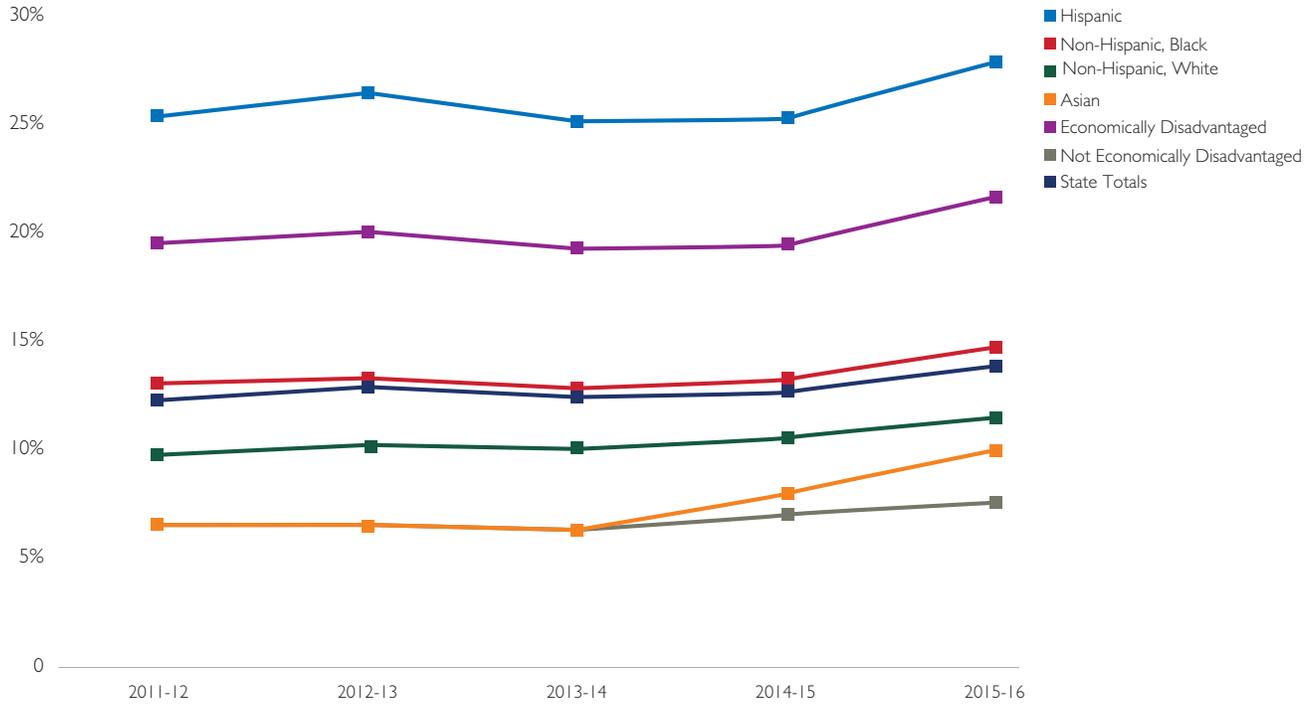


Figure 5. Third grade reading SOL failure rate by race/ethnicity and economic status, Virginia 2013/14-2017/18.

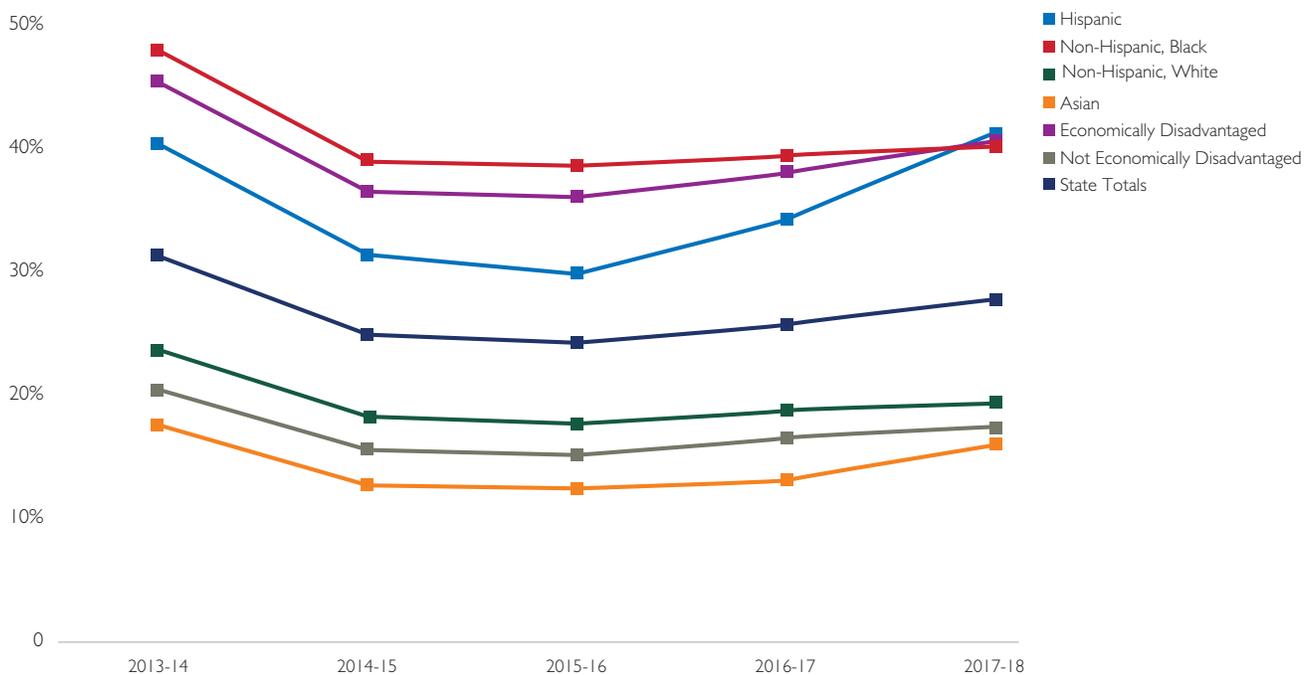
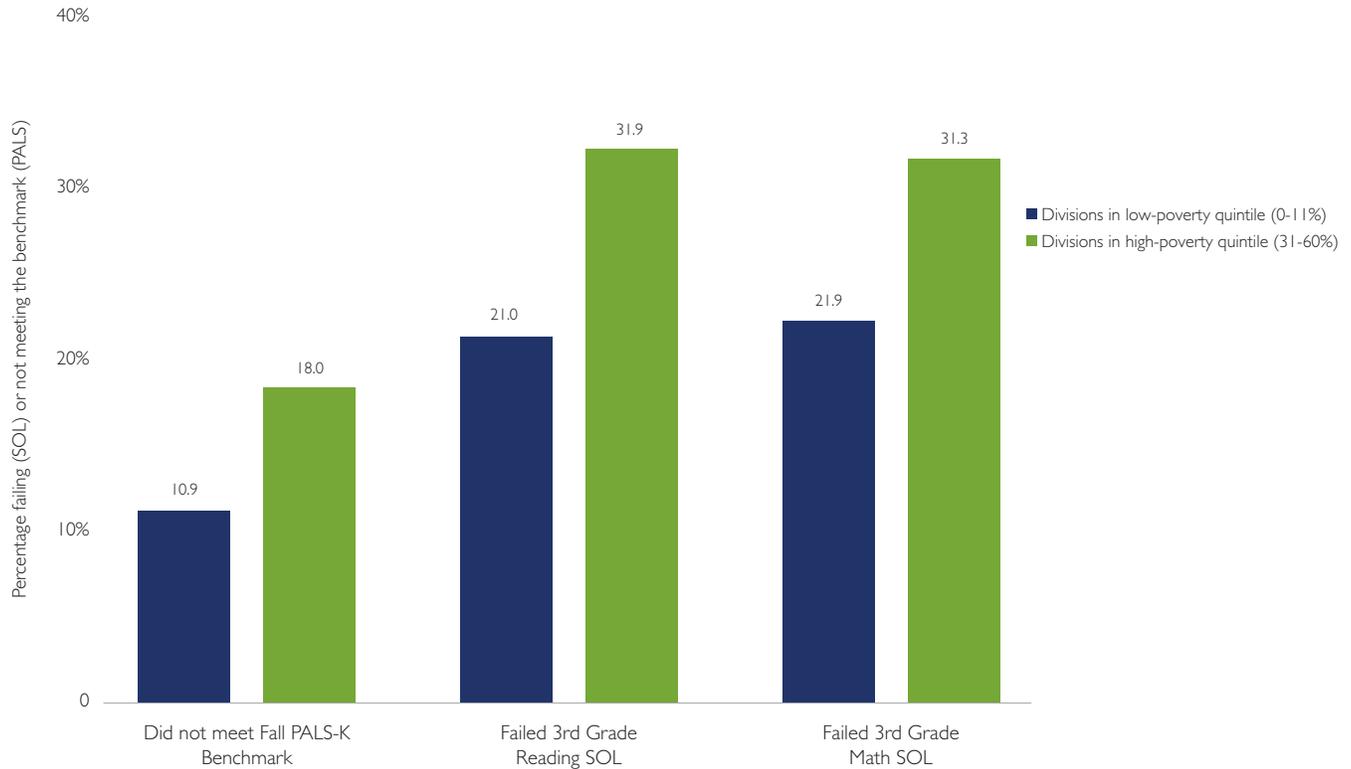


Figure 6. Percentage of students not meeting the Fall PALS-K benchmark or failing the 3rd grade math or reading SOL by the child (ages 0-4) poverty rate in the students' school division, Virginia 2015-16 school year.



Geographic disparities are also a prominent concern. Communities differ on a variety of Results (academic performance) indicators, and this variability is often related to community poverty levels. One simple illustration of such disparities is presented in Figure 6. The graph shows average PALS-K results and SOL 3rd grade results for two groups – the 26 school divisions (top quintile of all divisions) with the highest birth-four poverty rates vs. the 26 (bottom quintile) with the lowest rates. As expected, results are much worse for the “high poverty” group of communities. Clearly, communities with higher rates of early childhood poverty are more likely to produce lower PALS-K and SOL 3rd grade results, emphasizing both stark geographic disparities and once again the relevance of the child poverty risk factor.





Findings

Based on the current data reviewed here, it is difficult to make confident assertions regarding the effectiveness and progress of Virginia’s recent school readiness efforts. The available data present a mixed picture, and changes up or down are of small magnitude.

Despite these limitations, the data do suggest the following conclusions:

- Most early childhood risk indicators show little or no change in the last five years. One major exception is the recent slow but steady decline in the child poverty rate, though the current rate remains worse than the pre-recession level.
- School readiness results are mixed and changes are quite modest. While some less-proximate indicators (drop-out rate, 9th grade retention rate) have improved, more proximate indicators (PALS-K results, 3rd-grade SOL scores) show slight recent declines.
- Evidence suggests that these recent declines may be related to the cumulative effect of eight years of high child poverty post-recession. The unusually high numbers of children who from 2009 through 2016 were exposed to prolonged poverty are now at or near school age, so PALS-K and SOL performance is likely to be negatively impacted for the next several years.
- Severe and very troubling racial/ethnic, economic and geographic disparities show no improvement.



Conclusion

The School Readiness Report Card gathers, synthesizes and interprets a broad array of relevant data to help various stakeholders track the status of state and local school readiness initiatives; and it serves as a reliable repository through which stakeholders have ready access to essential data over time, at the state and locality level, helping them take a longitudinal perspective and respond to trends revealed by the data. Collecting and organizing this wealth of data, synthesizing and interpreting it in a biennial report, and providing ready access to the data over time are all essential steps in strengthening Virginia’s school readiness efforts.

Yet while the Report Card has a key role in supporting school readiness initiatives, its five-year history has also revealed limitations pointing to **challenging systemic shortcomings** which will have to be addressed if Virginia will succeed with its school readiness efforts and investments.

Challenge One – Limited Data and Analytic Systems:

Despite the ability of the Report Card to collect and synthesize a wealth of relevant data, there remain severe gaps in available data, making it very challenging to provide more functional analyses that can drive broad, system-level and policy-level initiatives. There may well be indicators, not yet developed or incorporated in routine data collection efforts, that are potentially more valid and useful indicators of overall school readiness. Examples of fundamental data gaps include:

- the lack of “reach” data for many domains of early childhood services, making it difficult to estimate numbers served and, more critically, the scope and nature of unmet needs
- lack of objective data to assess the quality of various programs or initiatives; or lack of processes to assemble and integrate data on quality from the variety of sources that collect such data
- lack of standardized, validated measures to assess multiple dimensions of a student’s school readiness, beyond the early literacy dimension measured by the PALS-K instrument
- relevant early childhood data are produced by a variety of agencies, yet state government lacks a data system that can effectively assemble and integrate data from these multiple sources

It is encouraging that several current Virginia data initiatives have begun to address these shortcomings.

- An Early Childhood Integrated Data System (ECIDS) initiative spearheaded by VECF has prompted some early steps to build a more integrated data system with uniform cross-agency processes for data identification, collection, sharing and utilization.
- One critical feature of ECIDS is to pursue adding relevant early childhood data sets to be accessed by the Virginia Longitudinal Data System.
- A recent Data Capacity Initiative conducted by VECF is enhancing the capacity of its local and regional Smart Beginnings partners to collect, manage and utilize relevant data to change practice and policy and influence investments.
- UVA's Curry School of Education is piloting the development of a battery of objective measures, supplementing PALS, to assess school readiness across additional domains of numeracy, social skills, and self-regulation. With the recent addition of an end-of-year post-test, this pilot initiative could enhance the ability to understand student progress as well as assess overall state and local school readiness.

Challenge Two – Lack of Cohesive System Framework:

In Virginia's effort to create an early childhood system that optimizes early development and school readiness, the most consequential barrier to more progress is simply this: Virginia has yet to adopt the guiding vision and viable governance/leadership framework needed to get the job done. Certainly various services and initiatives are in place, many of which are commendable and effective, yet any attempt at assessing the overall status of school readiness efforts is handicapped by the absence of a comprehensive vision and of a plan that articulates priorities, goals, measurable objectives, action steps, and leadership accountabilities. Virginia has multiple services and initiatives and even some successes but does not yet have a **system** – a cohesive framework to drive a highly functional and effective effort for the first five years – the most fertile of brain development.

Both challenges above can be overcome – and doing so will provide both the objective data needed to better track the status of school readiness efforts and the framework in which to make valid judgements about this status.

Opportunities Ahead:

Building on Virginia's bi-partisan legislative support for a strong start to the workforce pipeline, and with the recent addition of Governor and Mrs. Northam's dedicated leadership to early education plus increased public sector capacity from Virginia's first Chief School Readiness Officer, the Commonwealth is at a tipping point in its school readiness efforts. Together with Virginia's business community, legislators, and the Administration, VECF is promoting a comprehensive business plan through an "Early Childhood Success Act" to outline in statute a collaboratively designed cohesive public-private, data-informed, early childhood system bolstered by local and regional innovation. While Virginia has made incremental progress with its early childhood policies and investments, without a durable plan outlining goals, principles, and standards in statute, we are limited in our ability to effectively plan, resource, manage, and continuously improve school readiness efforts. By joining forces to articulate a shared vision and action plan for our youngest citizens, we can position Virginia firmly on the path to school readiness and academic success, delivering a more capable workforce and a more prosperous and livable Commonwealth.