

# EXPLORING THE COST OF ILLITERACY



**Delaware**  
Department of Education

report prepared by:

Matthew Faiello, Ph.D. & Andrew Johnson

Data Management Office

## About this Document

This document brings together global, national, and Delaware-specific evidence to clarify why literacy is an urgent priority and what it means for students, families, and the state. It summarizes international and U.S. research on the costs of illiteracy and links early reading proficiency to long-term outcomes, then situates Delaware's challenge with recent trends from National Assessment of Educational Progress (NAEP), Smarter Balanced Assessment (SBAC), and SAT results and with changes in dropout rates. It also quantifies the economic impact through a Delaware dropout cost table that totals more than \$3.2 billion in projected lifetime costs for cohorts since 2012, providing a clear statement of what is at stake for policy and practice.

The document then distills a broad literature review into five policy priorities and shows how these ideas connect to practice in Delaware. Readers will find a concise synthesis of themes such as:

- sustained, curriculum-aligned professional learning and coaching
- evidence-backed curricula and instructional frameworks
- early, targeted supports and extended time
- equity through culturally and linguistically responsive instruction and academic language
- system-level coherence across teacher preparation, licensure, leadership, and policy infrastructure

Appendices include a snapshot of Delaware literacy data, a brief spotlight on current programs and initiatives aligned with these policy themes, and a summary of the review methods used to identify the five policy themes.

# Executive Summary

## Impact of Low Literacy

Globally, illiteracy drains an estimated \$1.19 trillion each year, with roughly one in five people unable to read and tens of millions of children lacking access to basic schooling (Cree, Kay, & Steward, 2023). In the United States, reading trajectories set early: students who are not proficient by third grade are more than four times as likely to drop out, and 90% of high school dropouts were below proficient in grade 3 (Hernandez, 2012; Cassidy, 2024).

Individuals without diplomas face unemployment rates 50% to 60% higher than average and are 3.5 times more likely to be arrested (Hanson & Stipek, 2014). National analyses estimate each dropout costs the economy about \$272,000 in reduced tax contributions, increased social spending, and justice-system costs (NCES, 2017). Applied to Delaware's cohorts since 2012, 11,885 dropouts incur an estimated cost of \$3.2 billion to the state in lost revenue and increased public expenditure; a stark reminder of the stakes for families and the state (NCES, 2017).

## Delaware Trends in Reading Achievement

Fourth-grade NAEP scores declined from 226 (2013) to 208 (2022) before inching up to 210 (2024); eighth-grade scores fell from 266 (2013) to 249 (2024). In 2022, only 25% of Delaware fourth graders met or exceeded proficiency on the NAEP versus 32% nationally (NCES, 2024). State assessments show pre-pandemic SBAC ELA proficiency between 50% and 60% across grades 3-8, a pandemic-era plunge that included a 17-point drop in grade 4, and an incomplete recovery by 2025 with overall proficiency still 12 points below pre-pandemic levels ([SBAC dashboard prototype](#)). SAT ELA scores slipped from 495 (2017) to 466 (2024), with a modest uptick to 470 (2025). Meanwhile, public pre-K enrollment rose from 8% (2017) to 13% (2025), and public K-3 enrollment rebounded to 93% (2025) after a 2021 dip (87%), which underscores both urgency and opportunity.

## Literacy Interventions

The Perry Preschool randomized trial produced higher graduation, employment, and adult earnings, with sizable public returns (Schweinhart et al., 2005; Heckman et al., 2010). The Abecedarian Project, beginning in infancy, led to more years of education and a nearly fourfold increase in bachelor's degree completion by age 30; benefit-cost analyses estimate a 2.5 to 1 return (Campbell et al., 2012; Barnett & Masse, 2007). In the early grades, evidence-aligned programs and one-to-one or small-group interventions improve decoding, fluency, and comprehension, particularly when implemented during the school day and with sustained dosage (Jacob et al., 2014; Al Otaiba et al., 2023; Nickow, Oreopoulos, & Quan, 2020).

Decades of research on Direct Instruction document moderate to large effects when exposure is sustained, while national adoption of synthetic phonics in England yielded lasting benefits, especially for students most at risk (Stockard et al., 2018; Machin & McNally, 2008; Machin, McNally, & Viarengo, 2018). Extended learning time reduces summer learning loss and its contribution to widening gaps, while structured in-school remediation, from individualized tutoring to small-group instruction, yields sizable and lasting gains when dosage and design remain responsive (Atteberry & McEachin, 2021; Nickow, Oreopoulos, & Quan, 2020; Marinelli, Berlinski, & Busso, 2024).

Well-implemented bilingual approaches tend to outperform English-only models, with strong cross-language relationships, particularly in phonological awareness, mediated by instruction and writing systems (August, Shanahan, & Escamilla, 2009; Gottardo, Chen, & Huo, 2021). For older elementary learners, academic language is the gateway to complex informational texts; for preschoolers, decontextualized letter instruction yields the strongest gains, including for dual-language learners (Phillips Galloway, McClain, & Uccelli, 2020; Roberts, 2021). These findings align with calls to integrate equity and translational science into daily practice (Goodwin & Jiménez, 2020; Arya & Maul, 2021).

### **System-Level Coherence**

Sustained coaching linked to curriculum can improve teaching by roughly half a standard deviation and meaningfully boost student learning, particularly in early literacy (Kraft, Blazar, & Hogan, 2018). Large-scale efforts that align teacher preparation, licensure, curriculum, and school leadership show promise. Mississippi's K-3 initiative under the Literacy-Based Promotion Act, often called the "Mississippi Miracle," improved teachers' literacy knowledge and classroom observation ratings, which in turn strengthened ELA outcomes and narrowed gaps for Black and Hispanic students (Folsom, Smith, Burk, & Oakley, 2017; Spencer, 2024; Mumma & Winters, 2023). Principals are pivotal multipliers of instructional quality and retention, which underscores the need for leadership pipelines and integrated professional learning systems (Grissom, Egalite, & Lindsay, 2021; Woulfin & Gabriel, 2020).

Policy actions with the strongest promise include setting clear preparation standards, including supports for English learners and struggling readers; auditing and improving licensure and coursework; adopting vetted curricula with transparent transitions; and funding sustained teacher and leader learning tied to evaluation (Holston, Putman, & Peske, 2024; Neuman, Quintero, & Reist, 2023). Grounding reforms in translational science can bridge research and classroom realities while avoiding unintended consequences of rapid scale up, so that more children read proficiently by the milestones that matter (Petscher et al., 2020; Shanahan, 2020; Solari et al., 2020; Duke & Cartwright, 2021; Dewitz & Graves, 2021).

---

## **Illiteracy**

Illiteracy carries staggering economic and social costs, affecting individuals, communities, and entire states. Globally, it drains an estimated \$1.19 trillion from the economy each year, with one in five people unable to read and tens of millions of children lacking access to basic schooling (Cree et al., 2023). In the United States, students who fall behind in reading by third grade face dramatically higher dropout rates, diminished lifetime earnings, and increased risks of unemployment and incarceration (Hernandez, 2012; Cassidy, 2024). According to Cassidy (2024), ninety percent of high school dropouts were below proficient in reading in third grade, and students not proficient by third grade are over four times more likely to drop out.

Delaware's literacy landscape reflects these national concerns: fourth-grade NAEP reading scores dropped from 225 in 2011 to 208 in 2022 (including a 10 point drop from 218 to 208 between 2019 and 2022), before edging up to 210 in 2024. Eighth-grade scores fell from 266 in 2011 to 249 in 2024. (NAEP, 2024) Delaware ranks 42<sup>nd</sup> out of 51 states (including DC) in fourth grade reading and 47<sup>th</sup> out of 51 states in eighth grade reading. Only 26 percent of Delaware fourth graders are at or above proficiency compared to the national average of 31 percent. (NAEP, 2024)

On Delaware's end of year administration of the SBAC, proficiency rates across grades three to eight once hovered between 50 to 60 percent before pandemic closures caused a sharp decline, with grade four seeing a 17-point drop and overall proficiency remaining 12 points below pre-pandemic levels by 2025. SAT English Language Arts (ELA) scores for eleventh graders tell a similar story, falling from 490 in 2016 to 466 in 2024. At the same time, public pre-K enrollment grew from 8 percent in 2017 to 13 percent in 2025, while K-3 enrollment rebounded to 93 percent in 2025 after dipping to 87 percent in 2021. Yet despite gains in early learning access, high school dropout rates surged to 3.9 percent in 2023 before modestly recovering to 2.3 percent in 2024, contributing to more than \$3 billion in projected lifetime economic costs to Delaware over the past decade. See "Appendix 1. Delaware's Literacy Snapshot" for more information.

### ***The Cost of Illiteracy***

The economic and social costs of illiteracy are stunning. Individuals lacking a high school diploma experience unemployment at rates 50-60 percent higher than the national average and are 3.5 times more likely to be arrested than high school graduates (Hanson & Stipek, 2014). In California, the cost of housing one prisoner costs seven times more than the cost of educating a single K-12 child (Wilson, 2016). Furthermore, illiteracy perpetuates cycles of intergenerational poverty, as parents lacking literacy often pass the conditions of illiteracy, economic hardship, and poverty onto their children (Thengal, 2013; Campbell, 2015). Adults without a high school degree are not eligible to work 90 percent of jobs in the United States, and the jobs they can work offer poverty level wages (Carnevale et al, 2020). The average high school dropout costs the economy \$272,000 over their lifetime in terms of lower tax

contributions, reliance on social services, and higher rates of criminal activity and incarceration (NCES, 2017).

Applying this projection to the Delaware context, Table 1 shows the number of high school students who dropped out per year between 2012 and 2024 and the associated cost to the state. Over the past 12 years, 11,885 students have dropped out of Delaware public high schools and are projected to cost the state more than \$3 billion in lost revenue and public expenditures over their lifetimes.

Table 1: *Number of Delaware 9<sup>th</sup>-12<sup>th</sup> graders who dropped out of school, 2012-2024, and the projected economic cost to the state.*

<b>School Year</b>	<b>Number dropped out</b>	<b>Cost to Delaware (lifetime)</b>
2012	1527	\$412,290,000
2013	1106	\$298,620,000
2014	817	\$220,590,000
2015	868	\$234,360,000
2016	547	\$147,690,000
2017	700	\$189,000,000
2018	699	\$188,730,000
2019	559	\$150,930,000
2020	560	\$151,200,000
2021	594	\$160,380,000
2022	1083	\$292,410,000
2023	1768	\$477,360,000
2024	1057	\$285,390,000
<b>Total</b>	<b>11,885</b>	<b>\$3,208,950,000</b>

While the data on illiteracy reveal deep economic, academic, and social costs for both individuals and communities, the flip side of the story offers hope: investing in literacy delivers transformative returns. Decades of research consistently shows that when children and families gain access to high-quality literacy programs in early childhood, elementary school, or adult education, the benefits ripple outward, improving academic achievement, economic stability, civic participation, and overall well-being. Understanding these positive outcomes is essential for framing literacy not only as an educational priority but as a cornerstone of economic growth, public health, and social mobility.

## ***Benefits of Literacy***

Having a literate population is one of the most foundational elements of a well-functioning society. People who have attained a baseline level of literacy are more likely to be employed, more likely to own their own home, less likely to be divorced, more likely to participate in voting and community engagement, and less likely to engage in vice behaviors like smoking and drinking (Dugdale & Clark, 2008). Interventions to build literacy have been effective in early childhood, the elementary years, and even in family and adult education contexts. Notably, however, if a child is behind in reading by the time they reach 3<sup>rd</sup> grade, they are statistically much less likely to ever catch up to their peers (Juel, 1988; Hernandez, 2012).

In the realm of early childhood, a meta-analysis of 22 experimental and quasi-experimental studies found that participation in pre-school leads to reductions in special education placement and grade retention and increases the likelihood of high school graduation (McCoy et al, 2017). The two most famous and compelling early childhood interventions are the Perry Preschool and Abecedarian Project (Conti et al, 2016). The Perry Preschool study conducted by Schweinhart et al (2005) was a randomized control trial in Ypsilanti Michigan that took place between 1962 and 1967. 123 children identified as at risk of school failure were randomly assigned to receive either a high-quality pre-school program or were placed in the control group and received no intervention. Data was collected from ages 3 to 11, with longitudinal follow-ups at age 14, 15, 19, 27, and 40. The results of the intervention were significant; 65 percent of the program group graduated high school compared to 45 percent in the control group. The program group also outperformed the control group on achievement tests, notably on language tests up to age 7, and literacy tests at ages 19 and 27. Program participants also had higher levels of employment and income in adulthood. Participants were also less likely to be arrested multiple times, and committed violent, property, and drug crimes at lower levels in adulthood. Schweinhart et al found that the Perry Preschool program delivered a return of \$244,812 per participant on an investment of \$15,166. Other analyses dispute the magnitude of this return on investment but still conclude that the program had a significant return on investment, perhaps as high as 7 to 10 percent annually (Heckman et al, 2010).

The Abecedarian Project differed from Perry in that it provided educational services to children ages 1 until kindergarten for up to 10 hours a day and 250 days a year. The study randomly assigned 112 children born between 1972 and 1977 to either receive the intervention or be part of the control group. Children selected were at risk for impeded intellectual and social development. Follow ups occurred at age 21 with 104 of the 112 original participants, as well as at age 30 with 101 participants. Children who participated in the program were retained in school at much lower levels, had a lower rate of high school drop-out, and a higher rate of attending a 4-year college (Barnett & Masse, 2007). At the age 30 follow-up, participants had completed more years of education on average than the control group, and were almost 4 times more likely to have completed a bachelor's degree by 30 (Cambell et al, 2012). Notably, there was no statistically significant difference in crime rate or average income between the

participant and control groups, although participants were more likely to be employed and less likely to have received public assistance. The cost per child was \$63,476 and the total benefit was calculated at \$158,278 for a net benefit of \$94,802. The benefit-cost ratio of 2.5:1 was impactful but less significant than the returns seen from Perry (Barnett & Masse, 2007).

At the elementary level, literacy interventions have also shown promising, but mixed results. Early returns from the Reading Partners program, in which volunteers read to and tutor students in grades K-5, show that the program positively impacts reading comprehension, site word efficiency, and fluency for children below grade level in reading (Jacob et al, 2014). The *myView* literacy program is a comprehensive ELA curriculum for students in K-5 grounded in the science of reading. Over 3,000 4<sup>th</sup> and 5<sup>th</sup> grade students in either *myView* or comparison schools were assessed in how their ELA performance on the Texas ELA assessment changed between Spring 2021 and Spring 2022. According to Resendez (2023), Rising fourth grade students outperformed their control group peers by 18 points and Rising fifth graders by 6 points on the assessment, with achievement gains remaining significant across gender, race/ethnicity, and income. The Superkids program is a phonics-based K-2 reading program, and in a study that matched teachers who used the program with similar teachers who implemented their regular curriculum, researchers found that the program increased achievement by 1/10<sup>th</sup> to 1/4<sup>th</sup> of a standard deviation compared to control participants (Borman & Dowling, 2009). A middle school reading program designed specifically to help students with reading disabilities improved achievement for experimental group students compared to their control group peers (Hock et al, 2017). Numerous meta-analyses have confirmed that interventions delivered one-on-one and in small groups improve reading skills for upper elementary students, including students with disabilities (Al Otaiba et al, 2024). However, other studies show that interventions proven to be effective in the early elementary years are not as effective or entirely ineffective when implemented in the later elementary years (Hanselman & Borman, 2013). This highlights the importance of early intervention when trying to bolster literacy.

Additionally, literacy initiatives that target the entire family have shown promising results for children, their parents, and society at large. Family literacy programs improve student achievement as well as their social skills. Parents who stay in the program become more invested in their children's education and more active in the school community. Programs also demonstrate a positive effect on nutrition and dropout rates for children, as well as joblessness and welfare dependency for parents, and a better home atmosphere for the entire family (Padak & Rasinski, 2003).

Family-focused literacy efforts yield benefits for children, parents, and communities. Well-designed family literacy programs boost students' academic achievement and social skills, increase parents' engagement with schools, and are linked to better child nutrition and lower dropout rates, as well as reduced parental joblessness and welfare dependency. These changes contribute to a more positive home environment overall (Padak & Rasinski, 2003). A key mechanism is the home literacy environment: children's book ownership correlates with richer language and literacy development in

both the near term and over time. Homes with larger children’s book collections tend to read together more often, and these book-rich settings are associated with stronger emergent skills such as vocabulary and print or letter knowledge (Funge, Sullivan, & Tarter, 2017; Skibbe & Foster, 2019; Weigel, Martin, & Bennett, 2006). In one study of low-income neighborhoods, where 60% of kindergartners owned no books, providing five books per child in child-care centers nearly doubled literacy interactions over seven months (Neuman, 1999).

Observational research indicates these advantages accumulate. Across 27 countries, growing up in book-rich homes predicts about three additional years of schooling compared with bookless homes, even after controlling for parental education, occupation, and social class, with diminishing returns at very large collections (Evans et al., 2010). Similarly, even after accounting for both parents’ reading fluency, the number of books in the home remains linked to children’s reading fluency, which is consistent with a modest environmental effect of book ownership (van Bergen et al., 2016). Programs that distribute books, such as the Dolly Parton Imagination Library (DPIL), intentionally leverage this modifiable factor. Parents report that monthly deliveries expand home libraries, expose children to new titles, and encourage public library use (Funge, Sullivan, & Tarter, 2017; Singh, Sylvia, & Ridzi, 2015). Longer participation in DPIL is associated with higher odds of frequent or daily reading after controlling for demographics and language background (Ridzi, Sylvia, & Singh, 2014), and with higher kindergarten readiness in language and math after adjusting for child and family factors (Samiei, Bush, Sell, & Imig, 2016; Skibbe & Foster, 2019).

## **Literacy Policy**

The evidence on the costs of illiteracy and the transformative benefits of strong literacy skills makes clear that piecemeal or short-term solutions are not enough. Sustained progress requires deliberate, research-informed policies that connect classrooms, teacher preparation, curriculum, and leadership into a coherent system of support. Across decades of studies, literacy experts consistently highlight the importance of grounding reforms in proven practices rather than shifting trends or fragmented initiatives.

Delaware’s literacy challenges, documented through declining NAEP scores, pandemic-era learning loss, and rising dropout rates, highlight the urgent need for a coherent and evidence-based approach to literacy reform. While the state has made gains in early learning access, too many students still fall behind by third grade, and too few interventions are implemented at the scale and intensity needed to close gaps. Research from across the country, including successes such as Mississippi’s “Literacy-Based Promotion Act,” shows that states can reverse these trends when policy, curriculum, professional learning, and leadership are tightly aligned. (Folsom, Smith, Burk, & Oakley, 2017)

The following section offers a starting point for Delaware, drawing on the national research base to identify five policy priorities with the greatest potential to improve literacy outcomes across the state. These include:

- sustained, curriculum-aligned professional learning and coaching
- evidence-aligned curricula and instructional frameworks
- early, targeted supports and extended time
- equity through culturally and linguistically responsive instruction and academic language
- system-level coherence across teacher preparation, licensure, leadership, and policy infrastructure

Together, these recommendations provide an initial foundation for Delaware to strengthen reading achievement and expand educational opportunity for all students.

### ***Theme 1: Sustained, Curriculum-Aligned Professional Learning and Coaching***

Short-term workshops and generic professional development seldom shift teaching or improve student outcomes; meaningful change requires sustained, curriculum-aligned learning and coaching. Research consistently shows that marginal, generic in-service training produces little to no measurable effect (Jacob & Lefgren, 2004; Harris & Sass, 2011). By contrast, coaching has been shown to have strong effects, improving instruction substantially (about 0.49 standard deviations) and boosting student learning meaningfully (about 0.18 standard deviations), especially in early literacy (Kraft, Blazar, & Hogan, 2018). One experiment comparing centralized training with in-class coaching found that coaching doubled the gains (0.24 vs. 0.12 standard deviations) and encouraged teachers to shift practice toward small-group reading (Cilliers, Fleisch, Prinsloo, & Taylor, 2020).

When states integrate coaching into professional development at scale, teacher knowledge, instructional quality, and student engagement rise. For example, Mississippi's K-3 initiative, commonly referred to as the "Mississippi Miracle", improved teachers' literacy knowledge and classroom ratings within two years (Folsom, Smith, Burk, & Oakley, 2017). Effective infrastructures deliberately connect curriculum, professional learning, and leadership so that coaching directly reinforces daily materials and classroom assessments (Woulfin & Gabriel, 2020).

Bridging from preservice preparation to classroom practice is essential, and tools and design principles that embed preservice training with targeted interventions, along with actionable guidance and rehearsal opportunities, can strengthen early-grade reading instruction (Hindman, Morrison, Connor, & Connor, 2020). Tiered supports that extend into teachers' first years on the job build on this foundation and help solidify effective practice (Bose, 2023).

### ***Theme 2: Evidence-Backed Curricula and Instructional Frameworks***

Evidence-backed curricula turn research into practical routines that bring structure, reduce variability, and strengthen instructional consistency. A half-century meta-analysis found that Direct Instruction produces moderate-to-large, educationally meaningful effects, with stronger outcomes when students receive greater exposure (Stockard, Wood, Coughlin, & Rasplica Khoury, 2018). In England, the national shift to synthetic phonics generated lasting benefits, particularly for students most likely to struggle (Machin & McNally, 2008; Machin, McNally, & Viarengo, 2018). Students taught with phonics also showed longer-run language gains compared with peers taught through other methods (Hirata & Rocha e Oliveira, 2019).

Beyond foundational skills, content-rich English language arts designs that deliberately build knowledge have been shown to improve language development and comprehension in the primary grades (Cabell & Hwang, 2020). Large-scale reforms in Brazil illustrate the power of whole-school, early-grade instructional packages with aligned materials, which led to measurable achievement gains (Costa & Carnoy, 2015).

At the same time, audits of widely used phonemic-awareness materials reveal frequent misalignment with the evidence base, highlighting the importance of vetting and adopting high-quality curricula (Brown, Patrick, Fields, & Craig, 2021). Consistent with the findings of the National Early Literacy Panel (2008), structured, frequent, adult-directed small-group or one-on-one instruction proves more effective than simply creating literacy- or language-rich classroom environments.

### ***Theme 3: Early, Targeted Supports and Extended Time***

Early reading difficulties often persist, with challenges in the first years of schooling setting patterns that can make later progress in literacy much harder to achieve. Children who struggle at the end of grade 1 have an 88 percent chance of remaining poor readers by grade 4 (Juel, 1988).

Many fourth-grade students performing at or below the NAEP Basic level face challenges with fluency and other foundational skills, underscoring the need for these gaps to guide educational policy and practice (White, Sabatini, & White, 2021). Importantly, screening tools that integrate phonological awareness along with broader language skills, rather than relying on single isolated measures, are more effective in identifying students who require additional support (Accardo, Capute, & Shapiro, 1998).

Tutoring is one of the most effective levers for improving student learning. A large meta-analysis found consistent, sizable impacts (about 0.37 standard deviations), with the strongest results in the early grades and when tutoring occurs during the school day (Nickow, Oreopoulos, & Quan, 2020). Evidence from Colombia shows that remedial small-group tutorials with structured materials can produce lasting literacy gains, with results improving over time as dosage and design were refined (Marinelli, Berlinski, & Busso, 2024). Extended learning time also matters, summer learning loss contributes substantially to widening achievement gaps, with many students losing much of the year's gains (Atteberry & McEachin, 2021).

Policy approaches that combine remediation with promotion can also drive gains. In Florida, test-based promotion paired with remedial support produced large short-term improvements (Schwerdt, West, & Winters, 2017). While some effects faded, benefits remained substantial by grade 10 compared with peers in the same grade (Schwerdt, West, & Winters, 2017). The test-based promotion policy associated with the “Mississippi Miracle” also showed positive results, with English language arts effects concentrated among Black and Hispanic students (Mumma & Winters, 2023).

Comprehensive statewide literacy strategies can drive especially large improvements in student outcomes. This potential is exemplified by the “Mississippi Miracle” and the accompanying Literacy-Based Promotion Act: the state rose from near the bottom in 2013 to well above the national average in grade 4 reading by 2019 (Spencer, 2024). More broadly, early literacy policy packages have been shown to boost grade 3 reading scores, narrow achievement gaps, and even create positive spillover effects in math (Westall & Cummings, 2023; Marinelli, Berlinski, & Busso, 2024; Spencer, 2024). Scaling vocabulary and knowledge-building interventions with fidelity can further strengthen early language development, especially in classrooms that emphasize interactive engagement (Neuman, Samudra & Danielson, 2021).

#### ***Theme 4: Equity Through Culturally and Linguistically Responsive Instruction and Academic Language***

Achieving equity requires research and translational science to advance in tandem, ensuring that evidence is applied in ways that honor diverse needs, contexts, and lived experiences. A broadened science of reading that centers equity, language, knowledge, and sociocultural context makes these connections both clear and actionable (Goodwin & Jiménez, 2020; Arya & Maul, 2021).

Strong evidence shows that native-language literacy supports English literacy, and well-implemented bilingual approaches consistently outperform English-only models (August, Shanahan, & Escamilla, 2009). Cross-language relationships are especially robust in phonological awareness, though their impact depends on the type of instruction, the writing system, and the broader learning context (Gottardo, Chen, & Huo, 2021). Systematic reviews show that language-focused, culturally responsive interventions for diverse learners produce positive outcomes when implemented with fidelity and high-quality adaptation (Larson et al., 2020; Cyclic, De Anda, Moore, & Huerta, 2021). Common principles across special education, English learner instruction, and multicultural literacy include dialogue and collaboration, explicit teaching, inquiry-driven learning, and the use of visuals that connect new content to students’ cultural knowledge (Piazza, Rao, & Protacio, 2015).

Beyond decoding skills, academic language is pivotal for upper-elementary students’ reading comprehension, as it develops gradually through adolescence and is essential for accessing complex informational texts (Phillips Galloway, McClain, & Uccelli, 2020). Conversely, evidence also shows that preschoolers, especially dual-language, benefit

from decontextualized letter instruction rather than contextualized instruction (i.e., storybook reading, real words, personal names) (Roberts, 2021).

### ***Theme 5: System-Level Coherence Across Teacher Preparation, Licensure, Leadership, and Policy Infrastructure***

Lasting change in education requires a coherent system in which teacher preparation, licensure, leadership, and policy infrastructure are intentionally aligned. Successful reforms share common features: they address problems teachers see as real, remain consistent with prevailing norms and values, and build broad public support while strengthening the core infrastructure of education (Cohen & Mehta, 2017).

Coherence across curriculum, professional development, coaching, and leadership reinforces improvement at classroom, school, and system levels (Woulfin & Gabriel, 2020). Principals exert significant influence, both on student learning and on conditions that support and retain effective teachers, making their principal preparation and equitable placement a central lever for reform (Grissom, Egalite, & Lindsay, 2021). Advances in translational science also offer promise, helping bridge the gap between reading research and classroom practice by grappling with the complexities of scaling evidence-based approaches in real-world settings (Solari et al., 2020).

From a national perspective, many states now mandate evidence-based reading practices. Yet without attention to oral language, writing, background knowledge, culturally responsive teaching, and aligned supports such as curriculum-based training and strong principal leadership, these reforms risk placing the burden disproportionately on teachers (Neuman, Quintero, & Reist, 2023). To strengthen coherence, states can take concrete actions: set detailed preparation standards including supports for English learners and struggling readers, audit preparation programs, adopt strong licensure tests and publish pass rates, require the use of vetted curricula with funding and transparency for transitions, and invest in sustained teacher and leader learning through coaching and networks, all tied to ongoing evaluation (Holston, Putman, & Peske, 2024).

The science of reading should be grounded in a continually evolving evidence base and translated into updated models that shape teacher preparation, licensure, leadership, and classroom practice (Petscher et al., 2020; Duke & Cartwright, 2021). Bridging the persistent gap between research and practice requires an integrated framework (Graham, 2020). Achieving such coherence depends on deeper communication between researchers and educators, along with careful attention from administrators to avoid the unintended consequences of hastily converting basic research into large-scale policy or practice (Shanahan, 2020; Dewitz & Graves, 2021).

### ***Policy Themes in Action***

As a brief spotlight on how policy can translate into practice, the Educator Excellence Team at Delaware Department of Education (DDOE) shows how two of the literacy policy priorities, sustained, curriculum-aligned professional learning and coaching and system-level coherence across preparation, licensure, leadership, and policy, are already being implemented to strengthen Delaware’s educator pipeline and support literacy improvement efforts statewide. “Appendix 2. Educator Excellence Spotlight” for more information.

Led by Dr. Keeley Powell, the team is advancing statewide efforts to develop and retain effective educators from preparation through recruitment, induction, coaching, leadership, and long-term retention. Their work on sustained professional learning includes the Delaware Teacher Growth and Support System (DTGSS), which combines job-embedded coaching, leadership development, and evidence-based feedback, with more than half of teachers reporting improvements in instructional practice. The Comprehensive Induction Program provides statewide mentoring for early-career teachers, with 90 percent saying it influences their decision to remain in the profession, while the Year-Long Teacher Residency Program immerses aspiring teachers in classrooms with expert mentors, with more than 90 percent planning to continue teaching in Delaware.

At the same time, the team promotes system-level coherence by aligning preparation programs, licensure, leadership pipelines, and staffing policies. The Science of Reading Initiative has raised teacher candidate assessment scores from 58 to 82 percent through program audits and coursework revisions. Teacher and Paraprofessional Apprenticeships create stackable career pathways into teaching, the Delaware Principal Pipeline Project develops equity-focused leadership pipelines, and the Recruitment and Retention Planning Initiative helps districts create long-term staffing plans to address shortages and strengthen educator pipelines. Together, these initiatives illustrate how Delaware can put research-based literacy policies into action to improve teaching quality and student learning statewide.

## Sources

Accardo, I. P., Capute, A., & Shapiro, B. (1998). Early Identification of Children At Risk for Reading Disabilities: Phonological Awareness and Some Other Promising Predictors.

Al Otaiba, S., McMaster, K., Wanzek, J., & Zaru, M. W. (2023). What we know and need to know about literacy interventions for elementary students with reading difficulties and disabilities, including dyslexia. *Reading Research Quarterly*, 58(2), 313–332.

Arya, D. J., & Maul, A. (2021). Why sociocultural context matters in the science of reading and the reading of science: Revisiting the science discovery narrative. *Reading Research Quarterly*, 56, S273-S286.

Atteberry, A., & McEachin, A. (2021). School's out: The role of summers in understanding achievement disparities. *American Educational Research Journal*, 58(2), 239-282.

August, D., Shanahan, T., & Escamilla, K. (2009). English language learners: Developing literacy in second-language learners—Report of the National Literacy Panel on Language-Minority Children and Youth. *Journal of literacy research*, 41(4), 432-452.

Barnett, W. S., & Masse, L. N. (2007). Comparative benefit–cost analysis of the Abecedarian program and its policy implications. *Economics of Education Review*, 26(1), 113–125.

Borman, G. D., & Dowling, N. M. (2009). Student and teacher outcomes of the Superkids quasi-experimental study. *Journal of Education for Students Placed at Risk*, 14, 207-225.

Bose, S. (2023). Professional development for the science of reading. *Phi Delta Kappan*, 104(5), 38-43.

Brown, K. J., Patrick, K. C., Fields, M. K., & Craig, G. T. (2021). Phonological awareness materials in Utah kindergartens: A case study in the science of reading. *Reading Research Quarterly*, 56, S249-S272.

Cabell, S. Q., & Hwang, H. (2020). Building content knowledge to boost comprehension in the primary grades. *Reading Research Quarterly*, 55, S99-S107.

Campbell, C. (2015). The socioeconomic consequences of dropping out of high school: Evidence from an analysis of siblings. *Social Science Research*, 51, 108–118.

Campbell, F. A., Pungello, E. P., Burchinal, M., Kainz, K., Pan, Y., Wasik, B. H., & Ramey, C. T. (2012). Adult outcomes as a function of an early childhood educational program: An Abecedarian Project follow-up. *Developmental Psychology*, 48(4), 1033–1043.

Carnevale, A. P., Smith, N., & Strohl, J. (2013, June 26). *Recovery: Projections of jobs and education requirements through 2020* (Georgetown University Center on Education and the Workforce).

Cassidy, B. (2024, February). *Preventing a lost generation: Facing a critical moment for students' literacy* [White paper]. U.S. Senate Committee on Health, Education, Labor, and Pensions (Ranking Member's office).

Cilliers, J., Fleisch, B., Prinsloo, C., & Taylor, S. (2020). How to improve teaching practice?: An experimental comparison of centralized training and in-classroom coaching. *Journal of Human resources*, 55(3), 926-962.

Cohen, D. K., & Mehta, J. D. (2017). Why reform sometimes succeeds: Understanding the conditions that produce reforms that last. *American educational research journal*, 54(4), 644-690.

Conti, G., Heckman, J. J., & Pinto, R. (2016). The effects of two influential early childhood interventions on health and healthy behavior. *The Economic Journal*, 126(596), F28–F65.

Costa, L. O., & Carnoy, M. (2015). The effectiveness of an early-grade literacy intervention on the cognitive achievement of Brazilian students. *Educational Evaluation and Policy Analysis*, 37(4), 567-590.

Cree, A., Kay, A., & Steward, J. (2023, September). *The economic & social cost of illiteracy: A snapshot of illiteracy in a global context (Final report)*. World Literacy Foundation.

Cycyk, L. M., De Anda, S., Moore, H., & Huerta, L. (2021). Cultural and linguistic adaptations of early language interventions: Recommendations for advancing research and practice. *American Journal of Speech-Language Pathology*, 30(3), 1224-1246.

Dewitz, P., & Graves, M. F. (2021). The science of reading: Four forces that modified, distorted, or ignored the research finding on reading comprehension. *Reading Research Quarterly*, 56, S131-S144.

Dugdale, G., & Clark, C. (2008). *Literacy changes lives: An advocacy resource*. National Literacy Trust.

Duke, N. K., & Cartwright, K. B. (2021). The science of reading progresses: Communicating advances beyond the simple view of reading. *Reading Research Quarterly*, 56, S25-S44.

Folsom, J. S., Smith, K. G., Burk, K., & Oakley, N. (2017). Educator Outcomes Associated with Implementation of Mississippi's K-3 Early Literacy Professional Development Initiative. REL 2017-270. Regional Educational Laboratory Southeast.

Goodwin, A. P., & Jiménez, R. T. (2020). The science of reading: Supports, critiques, and questions.

Gottardo, A., Chen, X., & Huo, M. R. Y. (2021). Understanding within-and cross-language relations among language, preliteracy skills, and word reading in bilingual learners: Evidence from the science of reading. *Reading Research Quarterly*, 56, S371-S390.

Graham, S. (2020). The sciences of reading and writing must become more fully integrated. *Reading research quarterly*, 55, S35-S44.

Grissom, J. A., Egalite, A. J., & Lindsay, C. A. (2021). How principals affect students and schools. Wallace Foundation, 2(1), 30-41.

Hanselman, P., & Borman, G. D. (2013). The impacts of Success for All on reading achievement in grades 3–5: Does intervening during the later elementary grades produce the same benefits as intervening early? *Educational Evaluation and Policy Analysis*, 35(2), 237–251.

Hanson, K., & Stipek, D. (2014, May 16). Schools v. prisons: Education's the way to cut prison population [Op-Ed]. *The Mercury News*.

Harris, D. N., & Sass, T. R. (2011). Teacher training, teacher quality and student achievement. *Journal of public economics*, 95(7-8), 798-812.

Heckman, J. J., Moon, S. H., Pinto, R., Savelyev, P. A., & Yavitz, A. (2010). The rate of return to the HighScope Perry Preschool Program. *Journal of Public Economics*, 94(1–2), 114–128.

Hernandez, D. J. (2012). *Double jeopardy: How third-grade reading skills and poverty influence high school graduation*. The Annie E. Casey Foundation.

Hindman, A. H., Morrison, F. J., Connor, C. M., & Connor, J. A. (2020). Bringing the science of reading to preservice elementary teachers: Tools that bridge research and practice. *Reading Research Quarterly*, 55, S197-S206.

Hirata, G., & Rocha e Oliveira, P. (2019). Lasting effects of promoting literacy—do when and how to learn matter?. *Education Economics*, 27(4), 339-357.

Hock, M. F., Brasseur-Hock, I. F., Hock, A. J., & Duvel, B. (2017). The effects of a comprehensive reading program on reading outcomes for middle school students with disabilities. *Journal of Learning Disabilities*, 50(2), 195-212.

Holston, S., Putman, H., & Peske, H. (2024). Five Policy Actions to Strengthen Implementation of the Science of Reading.

Jacob, B. A., & Lefgren, L. (2004). The impact of teacher training on student achievement: Quasi-experimental evidence from school reform efforts in Chicago. *Journal of Human Resources*, 39(1), 50-79.

Jacob, R., Smith, T., Willard, J., & Rifkin, R. (2014). *Reading Partners: The implementation and effectiveness of a one-on-one tutoring program delivered by community volunteers*. MDRC.

Juel, C. (1988). Learning to read and write: A longitudinal study of 54 children from first through fourth grades. *Journal of educational Psychology*, 80(4), 437.

Kraft, M. A., Blazar, D., & Hogan, D. (2018). The effect of teacher coaching on instruction and achievement: A meta-analysis of the causal evidence. *Review of educational research*, 88(4), 547-588.

Larson, A. L., Cycyk, L. M., Carta, J. J., Hammer, C. S., Baralt, M., Uchikoshi, Y., ... & Wood, C. (2020). A systematic review of language-focused interventions for young children from culturally and linguistically diverse backgrounds. *Early Childhood Research Quarterly*, 50, 157-178.

Machin, S., & McNally, S. (2008). The literacy hour. *Journal of Public Economics*, 92(5-6), 1441-1462.

Machin, S., McNally, S., & Viarengo, M. (2018). Changing how literacy is taught: Evidence on synthetic phonics. *American Economic Journal: Economic Policy*, 10(2), 217-241.

Marinelli, H. A., Berlinski, S., & Busso, M. (2024). Remedial education: Evidence from a sequence of experiments in Colombia. *Journal of Human Resources*, 59(1), 141-174.

McCoy, D. C., Yoshikawa, H., Ziol-Guest, K. M., Duncan, G. J., Schindler, H. S., Magnuson, K., Yang, R., Koepp, A., & Shonkoff, J. P. (2017). Impacts of early childhood education on medium- and long-term educational outcomes. *Educational Researcher*, 46(8), 474-487.

Mumma, K., & Winters, M. (2023). The effect of retention under Mississippi's test-based promotion policy." Technical Report Working Paper 2023-1, Wheelock Educational Policy Center, Boston, MA.

National Center for Education Statistics. (n.d.). *NAEP report card: 2024 Reading—State average scores (grade 4)*. U.S. Department of Education, from <https://www.nationsreportcard.gov/reading/states/scores/?grade=4>

National Center for Education Statistics. (n.d.). *NAEP report card: 2024 Reading—State achievement-level results (grade 4)*. U.S. Department of Education, from <https://www.nationsreportcard.gov/reading/states/achievement/?grade=4>

National Center for Education Statistics. (2017). *Trends in high school dropout and completion rates in the United States: Introduction*. U.S. Department of Education, from <https://nces.ed.gov/programs/dropout/intro.asp>

National Institute for Literacy. (2008). Developing early literacy: Report of the national early literacy panel. A scientific synthesis of early literacy development and implications for intervention. ERIC Clearinghouse.

Neuman, S. B., Quintero, E., & Reist, K. (2023). Reading Reform across America: A Survey of State Legislation. Albert Shanker Institute.

Neuman, S. B., Samudra, P., & Danielson, K. (2021). Effectiveness of scaling up a vocabulary intervention for low-income children, pre-K through first grade. *The Elementary School Journal*, 121(3), 385-409.

Nickow, A., Oreopoulos, P., & Quan, V. (2020). The impressive effects of tutoring on prek-12 learning: A systematic review and meta-analysis of the experimental evidence.

Padak, N., & Rasinski, T. (2003, April). *Family literacy programs: Who benefits?* Ohio Literacy Resource Center, Kent State University.

Petscher, Y., Cabell, S. Q., Catts, H. W., Compton, D. L., Foorman, B. R., Hart, S. A., ... & Wagner, R. K. (2020). How the science of reading informs 21st-century education. *Reading research quarterly*, 55, S267-S282.

Phillips Galloway, E., McClain, J. B., & Uccelli, P. (2020). Broadening the lens on the science of reading: A multifaceted perspective on the role of academic language in text understanding. *Reading Research Quarterly*, 55, S331-S345.

Piazza, S. V., Rao, S., & Protacio, M. S. (2015). Converging recommendations for culturally responsive literacy practices: Students with learning disabilities, English language learners, and socioculturally diverse learners. *International Journal of Multicultural Education*, 17(3), 1-20.

Resendez, M. (2023, January). *The effectiveness of Savvas K12 Learning's myView Literacy program: Results from Texas State assessment data in Spring 2021 and 2022* (Report). JEM & R, LLC.

Roberts, T. A. (2021). Learning letters: Evidence and questions from a science-of-reading perspective. *Reading Research Quarterly*, 56, S171-S192.

Schwerdt, G., West, M. R., & Winters, M. A. (2017). The effects of test-based retention on student outcomes over time: Regression discontinuity evidence from Florida. *Journal of Public Economics*, 152, 154-169.

Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005). *The High/Scope Perry Preschool study through age 40: Summary, conclusions, and frequently asked questions*. HighScope Educational Research Foundation.

Shanahan, T. (2020). What constitutes a science of reading instruction?. *Reading Research Quarterly*, 55, S235-S247.

Solari, E. J., Terry, N. P., Gaab, N., Hogan, T. P., Nelson, N. J., Pentimonti, J. M., ... & Sayko, S. (2020). Translational science: A road map for the science of reading. *Reading Research Quarterly*, 55, S347-S360.

Spencer, N. (2024). Comprehensive early literacy policy and the "Mississippi Miracle". *Economics of Education Review*, 103, 102598.

Stockard, J., Wood, T. W., Coughlin, C., & Rasplika Khoury, C. (2018). The effectiveness of direct instruction curricula: A meta-analysis of a half century of research. *Review of educational research*, 88(4), 479-507.

Thengal, N. (2013). Social and economic consequences of illiteracy. *International Journal of Behavioral Social and Movement Sciences*, 2(2), 124-130.

Westall, J., & Cummings, A. (2023). The Effects of Early Literacy Policies on Student Achievement. Education Policy Innovation Collaborative.

White, T. G., Sabatini, J. P., & White, S. (2021). What Does “Below Basic” Mean on NAEP Reading?. Educational Researcher, 50(8), 570-573.

Wilson, R. T. (2016). Literacy and its significance in modern life. *Colleagues*, 13(1), Article 5.

Woulfin, S., & Gabriel, R. E. (2020). Interconnected infrastructure for improving reading instruction. Reading Research Quarterly, 55, S109-S117.

## Appendix 1: Delaware's Literacy Snapshot

Delaware's literacy landscape reflects both long-standing instructional challenges and the profound disruptions caused by the COVID-19 pandemic. A decade of achievement data, enrollment trends, and policy efforts paints a complex picture: while early learning access has expanded, student reading performance remains uneven, particularly in the wake of pandemic-era learning loss.

### National Reading Achievement

State and national assessments highlight persistent concerns in foundational literacy. **Delaware's NAEP Reading scores** for grade 4 fell from 225 in 2011 to 208 in 2022, dipping below the NAEP Basic benchmark before inching up to 210 in 2024. Grade 8 scores followed a similar downward trajectory, dropping from 266 in 2011 to 249 in 2024. See figure 1.

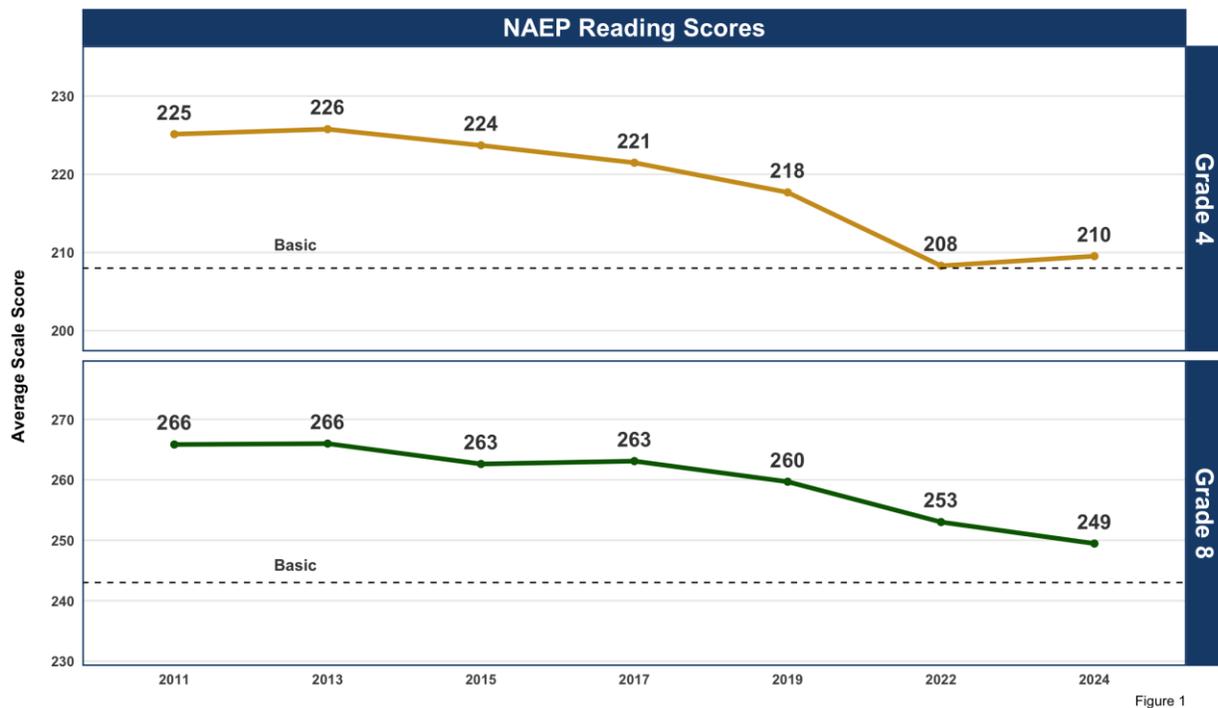


Figure 1 shows Delaware's average NAEP Reading scores for grades 4 and 8 from 2011 through 2024. The dashed horizontal line marks the NAEP Basic cut score, set at 208 for grade 4 and 243 for grade 8.

**State Standardized Assessments**

On the **ELA SBAC**, proficiency rates for grades 3 to 8 remained between 50% and 60% before 2020 but dropped abruptly after pandemic-related closures, with grade 4 experiencing the largest decline, a 17-point decrease. By 2025, recovery was still incomplete, as overall proficiency reached 41%, remaining 12 points below pre-pandemic levels. See figure 2.

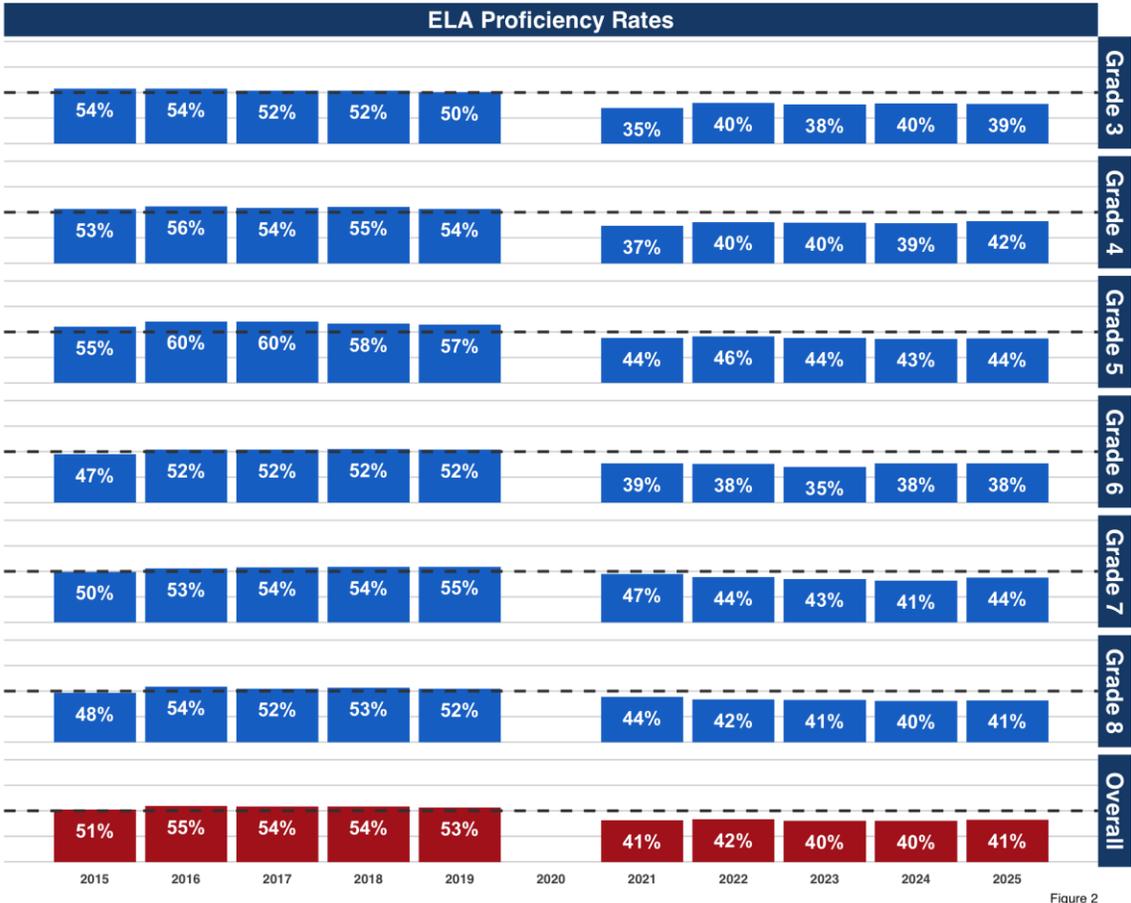


Figure 2

Figure 2 shows the SBAC ELA proficiency rates for Delaware students (Delaware School Success Framework eligible) in grades 3 to 8 from 2015 to 2025, with proficiency defined as scoring at Level 3 or higher for each grade level. The bottom row shows the overall proficiency rates across all grades relative to their Level 3 cut scores (the horizontal dashed line represents the 50% proficiency mark).

**Explore Further:** DDOE Analytics, in collaboration with Cape Henlopen School District, is developing an **SBAC Dashboard** to provide an interactive view of student performance (link to prototype: <https://mattfaiello.shinyapps.io/standardComparison/>). The dashboard enables users to examine results by grade and content area, track performance against the Level 3 proficiency benchmark, analyze individual claim

scores, and explore flexible aggregation options to easily compare results across LEAs or regions.

Delaware’s **SBAC ELA claim scores for grade 3** students remained relatively stable through 2019 before falling sharply during the pandemic. Reading dropped from 2434 in 2019 to 2406 in 2021, Writing from 2419 to 2370, Listening & Speaking from 2435 to 2407, and Research & Inquiry from 2423 to 2396. Scores rebounded slightly after 2021 but by 2025 remained below pre-pandemic levels across all domains. See figure 3.

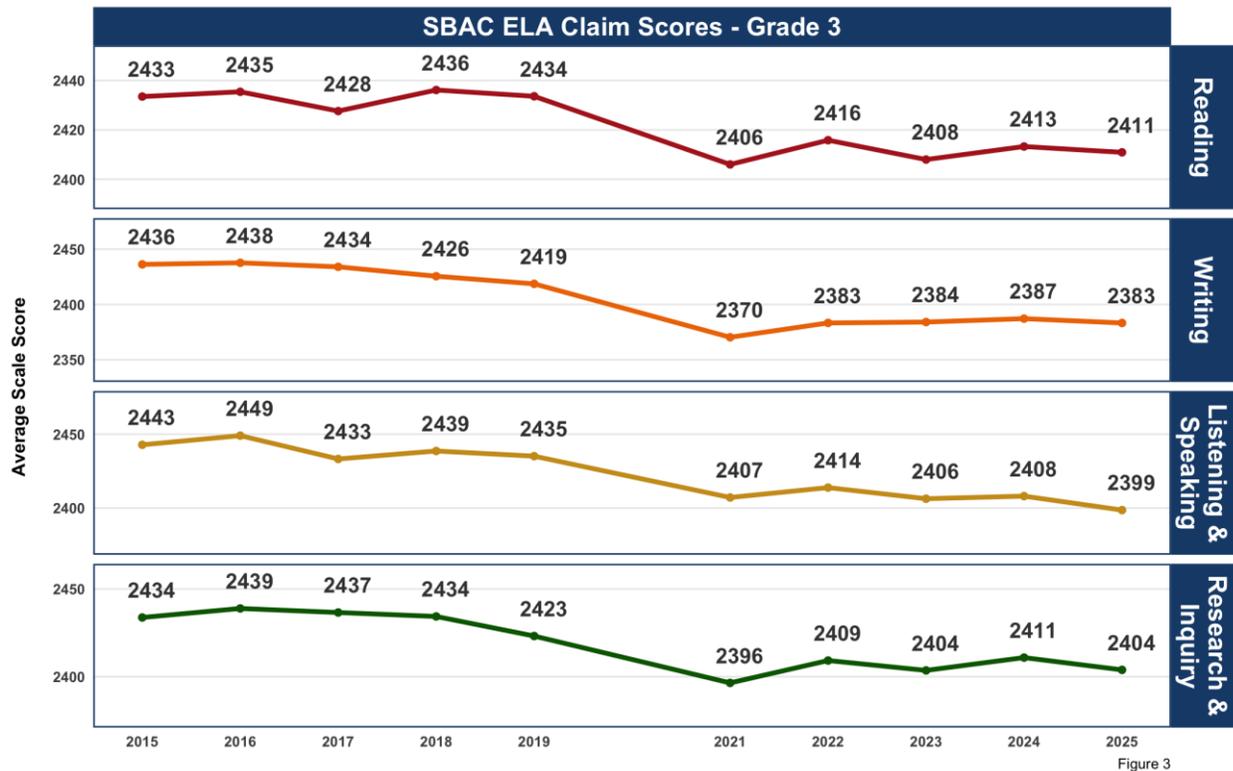


Figure 3 shows Delaware’s the mean SBAC ELA claim scores for grade 3 students in Reading, Writing, Listening & Speaking, and Research & Inquiry from 2015 through 2025.

Delaware's **SAT ELA scores for grade 11** students fluctuated over the past decade, rising from 490 in 2016 to a peak of 495 in 2017 before declining to 482 in 2019. Scores rebounded to 488 in 2020 but then fell steadily to 479 in 2022, 472 in 2023, and a low of 466 in 2024 before inching up to 470 in 2025. See figure 4.

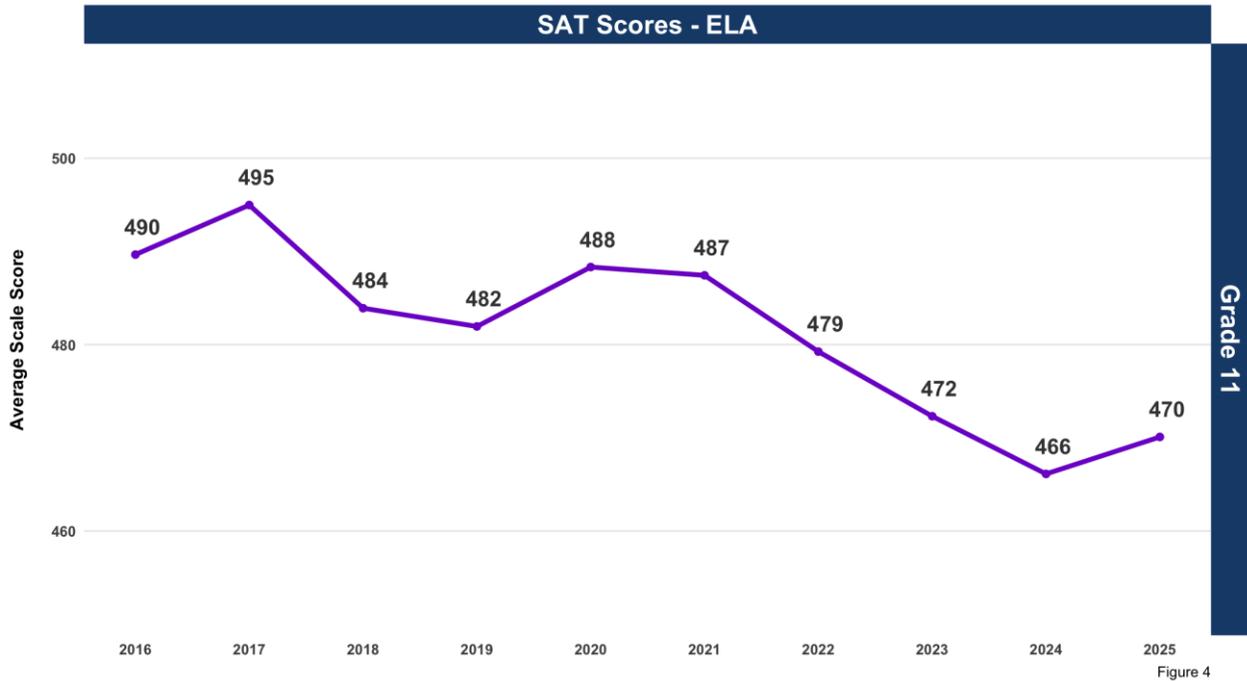


Figure 4 shows Delaware's average SAT ELA scale scores for grade 11 students from 2016 through 2025.

## Enrollment and Access to Early Learning

Amid ELA performance declines, Delaware has expanded access to early learning opportunities. **Public Pre-K enrollment** climbed from 8% in 2017 to 13% in 2025, offering more children exposure to structured early literacy experiences. **K-3 public school enrollment** rebounded to 93% in 2025 after pandemic-era dips (87% in 2021), signaling strong participation in public early education. See figure 5.

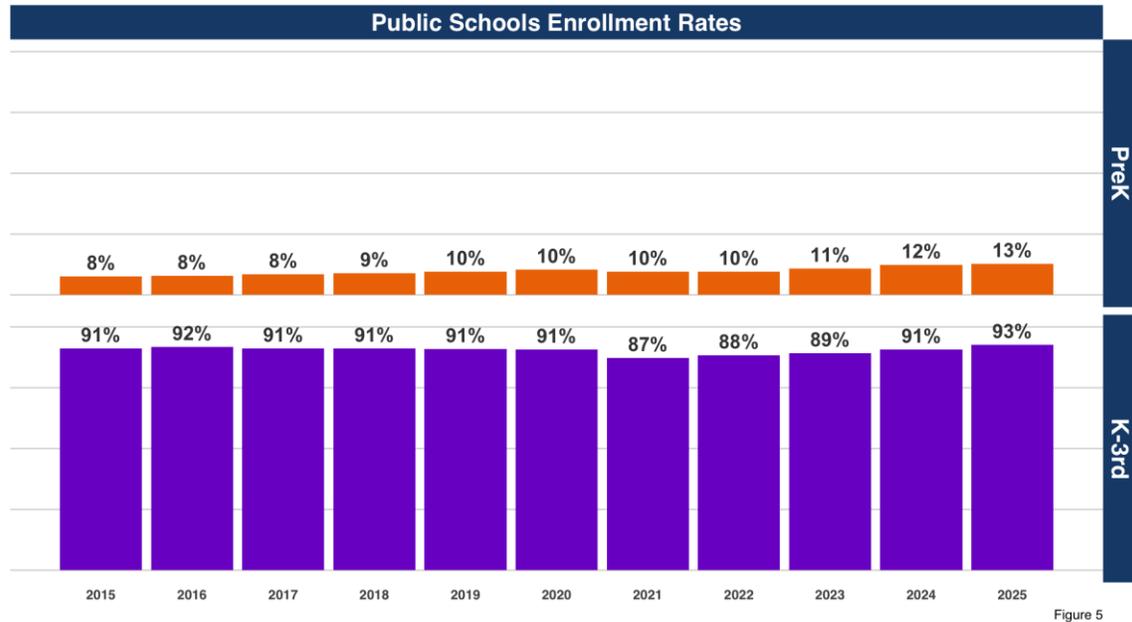


Figure 5 shows the percentage of Delaware’s population, as reported by the Delaware Population Consortium, enrolled in public schools (student unit counts) across two age groups: 3- and 4-year-olds in public Pre-K programs and 5- to 8-year-olds in early grades (K-3<sup>rd</sup>).

## High School Persistence

High school **dropout rates** fell steadily from 2.2% in 2015 to 1.3% by 2019 but spiked to 3.9% in 2023 before declining to 2.3% in 2024. See figure 6.

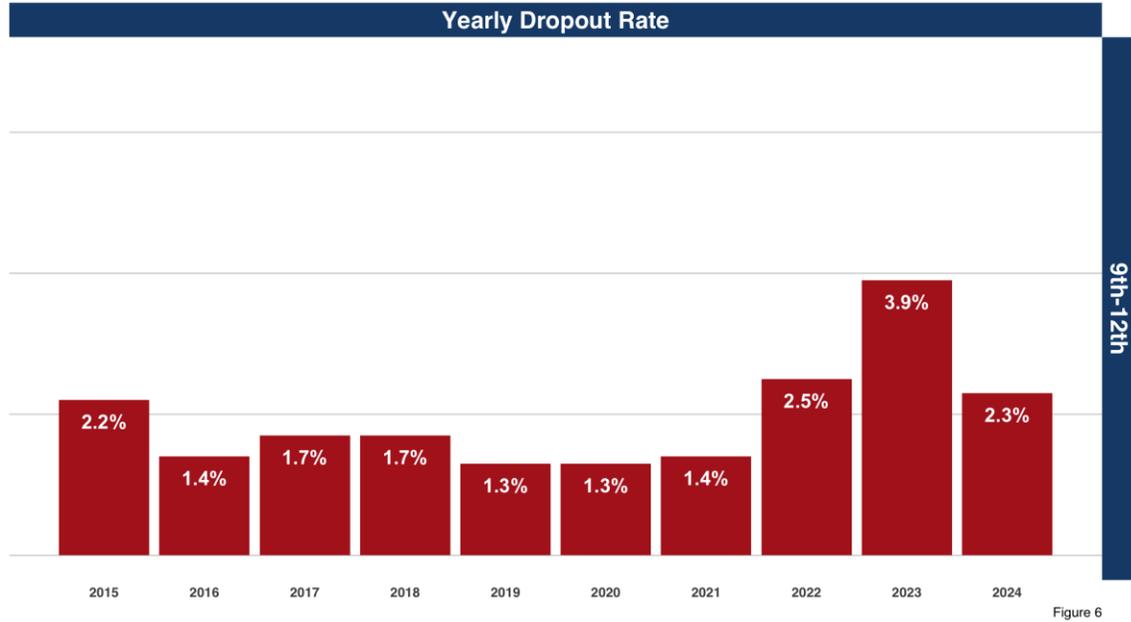


Figure 6 shows the annual dropout rates for Delaware public high school students (grades 9–12) as a percentage of total student unit count enrollment from 2012 to 2024.

## **Appendix 2: Educator Excellence Spotlight**

The Educator Excellence Team, led by Dr. Keeley Powell, plays a central role in statewide efforts to strengthen and sustain a high-quality, diverse educator workforce across Delaware’s public local education agencies (LEAs). Their initiatives span the entire educator pipeline, from preparation through recruitment and retention, improving instructional quality, expanding leadership capacity, and strengthening workforce stability. This work positions the team as a catalyst for lasting, systemic improvements in teaching and learning across Delaware.

Their work centers on two interconnected themes highlighted in the literacy policy literature review:

- 1. Sustained, Curriculum-Aligned Professional Learning and Coaching**
- 2. System-Level Coherence Across Teacher Preparation, Licensure, Leadership, and Policy Infrastructure**

### ***Theme 1: Sustained, Curriculum-Aligned Professional Learning and Coaching***

The Educator Excellence team supports a continuum of professional learning that begins with teacher preparation and continues through the early career stages, ensuring educators are well-prepared, consistently supported, and equipped to deliver high-quality, curriculum-aligned instruction.

- **Delaware Teacher Growth and Support System (DTGSS)**
  - Led by Dr. Angela Socorso, the DTGSS operates statewide across nearly all districts and charter schools, serving as both an evaluation framework and a sustained professional learning system. Through credentialing sessions, structured learning walks, monthly Leadership Lift sessions, and teacher-led DTGSS workshops, administrators and educators engage in job-embedded coaching, goal setting, and evidence-based feedback cycles aligned to curriculum priorities. This layered professional learning model builds leaders’ capacity to deliver high-quality feedback and supports teachers in refining instruction. By strengthening instructional practice, DTGSS is designed to drive improvements in student learning outcomes, particularly in areas such as literacy where rigorous teaching and equitable access are essential. Approximately 55% of teachers agree or strongly agree that DTGSS will positively impact their instructional practice, compared with just over 30% who expressed the same confidence in the previous evaluation system, DPAS-II.
- **Comprehensive Induction Program**

- Led by Dr. Tiffany Green, the Comprehensive Induction Program supports all early-career teachers across the state by providing coaching from trained Induction Coaches who align their guidance with foundational, structural, and instructional priorities. The program aligns with the New Teacher Center’s model, which partners with education agencies and institutions to define high-quality induction programs that accelerate teacher effectiveness, boost retention, strengthen leadership, enhance student learning, and promote equitable outcomes. Educators also participate in professional learning sessions focused on high-quality instructional practices connected to DTGSS. The program has grown significantly in recent years, with early feedback showing strong, positive perceptions. Notably, 90% of teacher mentees reported that the support they receive through the induction program positively influences their decision to remain in both their current role and school building.
- **Year-Long Teacher Residency Program**
  - Led by Dr. Keeley Powell, the Year-Long Teacher Residency Program placed nearly 100 residents this year across multiple districts and charter schools. Residents participate in full-time classroom immersion with expert mentor teachers while completing coursework aligned to the science of reading and core instructional materials. Supported by stipends ranging from \$20,000 to \$40,000, the program has expanded for three consecutive years, helping to address Delaware’s need for well-prepared new teachers. A survey of 2024-25 participants showed that 94% plan to continue teaching in Delaware, and 80% intend to pursue credentials in critical shortage areas.

***Theme 5: System-Level Coherence Across Teacher Preparation, Licensure, Leadership, and Policy Infrastructure***

Lasting improvements in education require a cohesive system that links teacher preparation, licensure, leadership development, and policy frameworks. The Educator Excellence team advances this vision by aligning preparation programs, leadership pipelines, and workforce planning to create an integrated infrastructure that supports and sustains a high-quality, diverse educator workforce across the state.

- **Teacher Preparation Partnerships on Science of Reading Initiative**
  - The Teacher Preparation Partnerships on Science of Reading Initiative completed Phase I audits of all teacher preparation programs to assess alignment with the science of reading. As a result, Delaware State University and Delaware Technical Community College, working in partnership with Deans for Impact, the Council of Chief State School Officers, and DDOE, revised their coursework. Faculty engaged in

sustained professional learning to support these changes, leading functional skills assessment scores to rise from 58% to 82%. Updated courses are now launching, with data collection on teacher candidate outcomes scheduled for the fall.

- **Registered Teacher & Paraprofessional Apprenticeships Program**
  - Led by Ann Hlabangana-Clay, the Registered Teacher and Paraprofessional Apprenticeships Program now includes 30 teacher apprentices and, this fall, launched paraprofessional cohorts in Seaford and Appoquinimink with 10 apprentices, creating stackable pathways from paraprofessional to teacher. The program integrates coursework, curriculum-aligned fieldwork, licensure requirements, and mentorship to ensure strong alignment across preparation, licensure, and retention policies, the science of reading, and Delaware’s broader workforce strategy. It has already seen early success, with its first teacher apprentice cohort graduating and now teaching in Delaware schools.
  
- **Delaware Principal Pipeline Project**
  - Led by Brandie Foxx, the Delaware Principal Pipeline Project engages district and charter leaders statewide across four cohorts to develop 3- to 5-year equity-focused leadership pipeline plans using the Wallace Foundation Principal Pipeline Self-Study. These plans incorporate the Professional Standards for Educational Leaders to ensure strong alignment with state policy and practice, with participation now expanding across all four cohorts.
  
- **Recruitment and Retention Planning Initiative**
  - Led by Ann Hlabangana-Clay, the Recruitment and Retention Planning Initiative helps district and charter leaders develop 3- to 5-year staffing plans using a tool created in partnership with Learning Forward and the DDOE. Aligned with Delaware’s efforts to connect teacher preparation, licensure, and leadership development to statewide policy, the initiative builds a coherent teacher pipeline that strengthens preparation programs, supports licensure innovation, grows leadership capacity, and establishes sustainable staffing strategies to address shortages, advance equity, and support candidates and LEAs across the state.

## Appendix 3: Policy Literature Review Process

The literature review process was approached using a deductive thematic framework, grounded in three foundational primary sources (see *primarySources.csv*). These sources served as theoretical anchors, shaping both the initial conceptual framework and the iterative sampling strategy guiding the review.

### ***Identification of Core Deductive Themes***

The three primary sources were:

1. **Developing Early Literacy: Report of the National Early Literacy Panel (2008)** – A meta-analysis linking early literacy skills – alphabet knowledge, phonological awareness, and rapid automatized naming – to later reading outcomes, providing strong evidence for instructional alignment.
2. **Reading Reform Across America: A Survey of State Policy (2023)** – Analyzes 223 state laws (2019-2022) across 45 states, focusing on legislation supporting evidence-based reading instruction.
3. **State Reading Policy Action Guide (NCTQ) (2024)** – Actionable policy guidance for teacher preparation, licensure, and literacy leadership with moderate evidence strength.

Together, these sources informed the initial five a priori themes for the deductive thematic analysis:

1. Sustained, Curriculum-Aligned Professional Learning and Coaching
2. Evidence-Aligned Curricula and Instructional Frameworks
3. Early, Targeted Supports and Extended Time
4. Equity Through Culturally and Linguistically Responsive Instruction and Academic Language
5. System-Level Coherence: Teacher Preparation, Licensure, Leadership, and Policy Infrastructure

### ***Literature Sampling***

Building from the primary sources, citation chaining (or snowball sampling) was employed. This iterative technique involved two complementary strategies:

- **Backward chaining:** Examining the reference lists of primary sources to identify antecedent studies aligned with one or more of the five themes.

- **Forward chaining:** Locating studies that had cited the initial sources, thereby capturing more recent scholarship contributing to the thematic areas.

This iterative, network-based approach resulted in 60 potentially relevant sources, expanding the evidence base for each thematic area.

### ***Refinement and Inclusion Criteria***

All sources underwent thematic scrutiny for conceptual alignment and empirical contribution. Sources deemed “edge cases” with insufficient thematic relevance were excluded (n = 13). The final synthesis incorporated 47 sources providing conceptual and empirical depth across the five themes.