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Opening Doors Series

Same Keys, New Doors: Foundational Skills and the Demands of a Changing World



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Same Keys, New Doors: Foundational Skills and the Demands of a Changing World

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Abstract

As artificial intelligence (AI) and other emerging technologies accelerate change in education and the labor market, concerns about learners' readiness have intensified. The urgency is compounded by the nature and speed of information flow today, which raises demands on the knowledge, judgment, and critical thinking required to navigate an increasingly complex world. This policy report examines the role of foundational skills—particularly literacy—as essential enablers of durable skills such as adaptive problem solving. We focus on literacy because it underpins individuals' ability to access, evaluate, and use information in a rapidly changing environment. Drawing on data from the Organisation for Economic Co-operation and Development (OECD)'s Programme for the International Assessment of Adult Competencies (PIAAC) and the U.S. Department of Education's National Assessment of Educational Progress (NAEP), the analysis shows a widening divergence in skill distributions in the United States. Over the past decade, performance at the lower end of the distributions of skills has declined among both adults and students, while performance at the upper end has remained largely stable. Adults with literacy proficiency below key thresholds are far less likely to demonstrate high levels of adaptive problem solving, and recent cohorts of students show increasing proportions performing below basic achievement levels by the end of high school, leaving them potentially less well prepared for the future. Taken together, these patterns suggest not a uniform erosion of skills, but a growing separation. This policy report also suggests that foundational skills should be understood as dynamic competencies and that policies aimed at advancing higher order and AI-related skills must explicitly address foundational skill development. It concludes with recommendations for policymakers, educators, funders, practitioners, and researchers to invest in systems that open—and keep open—doors to opportunity across the life course.

Keywords: foundational skills, literacy, adaptive problem solving, artificial intelligence, education policy, workforce readiness, skill divergence, PIAAC, NAEP, lifelong learning

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Authors Note

This issue brief is the first in a series from the ETS Policy Research Center. Our aim with this series is to clarify what education research can reliably tell us, highlight connections that often go unnoticed, and offer insights that support informed policy decisions in educational, workforce, and community settings.

To inform this space, the series will draw on research and contributions from across disciplines to explore how learning opportunities shape future trajectories and well-being and how policy and practice best support learning across the lifespan. Each paper will highlight strategies and approaches that can serve as effective doorstops: measures and interventions that open—and hold open—doors to opportunity for all learners.

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Same Keys, New Doors: Foundational Skills and the Demands of a Changing World

Much has been written—and much more will be written—about artificial intelligence (AI)’s impact and influence on education, skills, learning, and work. Given AI’s meteoric rise and still unsettled implications, this attention is not only unsurprising, but welcome.

Against this backdrop, perspectives on AI in education and workforce training range widely. On one end are initiatives such as the White House’s AI Education Initiative, which calls for a coordinated national effort to expand AI education and skills for students and teachers through task-force leadership, partnerships, and new programs aimed at preparing a future workforce (Exec. Order No. 14,277, 2025). On the other end are more reflexive views that caution that AI, particularly in the learning space, can supplant the cognitive struggle necessary for genuine advancement—stated differently, “Unless we chew the cognitive challenge, we do not digest the content” (Walther, 2026, para. 14).

This issue brief explores what it means to “chew the cognitive challenge” in a changing world. We begin with a discussion of why literacy—the key that has long opened doors to success—is even more critical today by examining its relationship to problem solving skills. Problem solving requires judgment, critical thinking, and knowledge. It always has. Today, the need for problem solving skills is even more pressing due to the ubiquity of data and digital technology in our lives.

Using current and historic data on foundational literacy skills across student and adult populations, we find a concerning pattern of skills divergence, with higher and lower performers moving further apart. From a public policy perspective, the issue is not only the widening skills divergence, but also what can be done to meet learners where they are so they can develop the skills they need to succeed.

What Foundations (Still) Support

Strong foundational skills such as literacy are non-negotiable as a basis for future learning and well-being. While not sufficient on its own for success, literacy provides the essential base on which higher order durable skills, such as problem solving and critical thinking, depend (Combs et al., 2009; Greene & Yu, 2016; Hernandez, 2012; Kirsch et al., 2025; Organisation for Economic Co-operation and Development [OECD], 2013, 2016, 2021, 2024a; Santos-Meneses et al., 2023; Spector & Ma, 2019; UNESCO, 2025; World Bank Group, 2025). How? Foundational skills help equip individuals with the skills and accrued knowledge needed

to make, interpret, and evaluate evidence and arguments—the core processes underlying higher order reasoning. Strong foundational skills are also positively associated with a range of important life outcomes, including higher rates of employment, stronger wages, better self-reported health, higher levels of civic engagement, and greater trust in others and institutions (Autor, 2019; Fogg et al., 2018; Hanushek & Woessmann, 2008; Kirsch & Braun, 2016; Kirsch et al., 2016; OECD, 2016, 2019; Sands et al., 2021).

These skills are often assumed to exist based on educational attainment; that is, those with degrees are expected to have strong foundational skills, and those without degrees are assumed not to. Research and assessment data show that both assumptions can be faulty. Some adults acquire robust literacy skills through alternative pathways such as work, training, or life experience, whereas others complete formal education without developing the literacy proficiency that's needed for complex reasoning and problem solving (Blair et al., 2021; Fogg et al., 2019; OECD, 2025; Talwar et al., 2023). What matters, then, may not be credentials alone, but how foundational skills are distributed across populations and how they shape and reflect opportunity.

To better understand this, we turn to large-scale assessments such as the Programme for the International Assessment of Adult Competencies (PIAAC) 2013 and 2023, developed and coordinated by the OECD. The PIAAC assessment provides information on key foundational skills including literacy, numeracy, and adaptive problem solving, that are necessary for everyday work and life. Adults aged 16–65 in the United States and internationally are assessed and surveyed on an array of information including labor market returns, educational attainment, and civic engagement. Data for literacy and numeracy are reported across proficiency levels from Below Level 1 through Level 5, and adaptive problem solving is reported across four proficiency levels: Levels 1–4 (OECD, n.d.).¹ Proficiency levels offer an empirically grounded way to characterize performance, revealing information on the cognitive processes and task demands that distinguish skill groups—in other words, a glimpse into what adults are likely able to do with the foundational skills demands they encounter at home and work. We focus here on literacy.

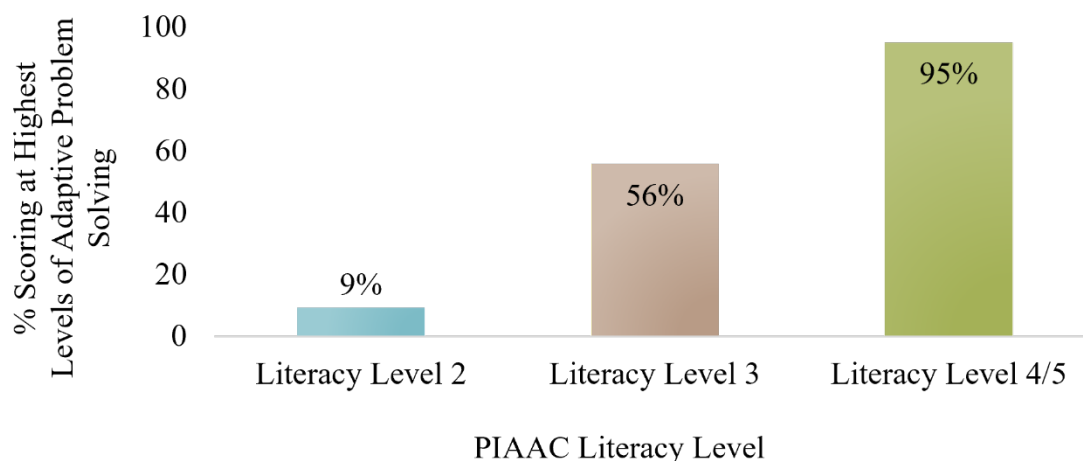
Proficiency levels for literacy capture increasing capacity to locate, interpret, integrate, and evaluate information in texts of growing length, complexity, and ambiguity. Reaching Level 3 is viewed as a key threshold for effective participation in modern, information-rich economic

and social environments (Kirsch et al., 2025; OECD, 2021). At a high level, adults at Level 3 literacy are able to construct meaning across complex texts and apply inferential and evaluative reasoning to the texts they read.

PIAAC's assessment of adaptive problem solving allows us to examine how literacy skills relate to adults' capacity to solve problems. The OECD defines adaptive problem solving as the ability to achieve a goal in situations that are changing and uncertain, where solutions are not immediately obvious (OECD, 2021). Adaptive problem solving draws on both cognitive skills, such as reasoning and understanding information, and metacognitive skills, such as monitoring progress and adjusting strategies. The full proficiency-level descriptors for PIAAC literacy and adaptive problem solving, as defined in the *OECD Indicators Report* (OECD, 2025), are presented in Appendix A.

PIAAC data reveal that adults with Level 2 literacy skills (slightly below the key threshold) rarely reach the highest levels of adaptive problem solving—only 9% do so (Figure 1).² In contrast, 56% of adults who meet the Level 3 threshold attain the highest levels of adaptive problem solving. Among adults with Level 4/5 literacy, 95% do.³ Taken together with prior research, these data underscore the relationship between foundational literacy and higher order adaptive problem solving—a relationship that is clear throughout adulthood (Kirsch et al., 2025; OECD, 2013, 2016, 2021).

Figure 1. Percentage of U.S. Adults Reaching the Highest Levels of Adaptive Problem Solving, by Literacy Proficiency Level

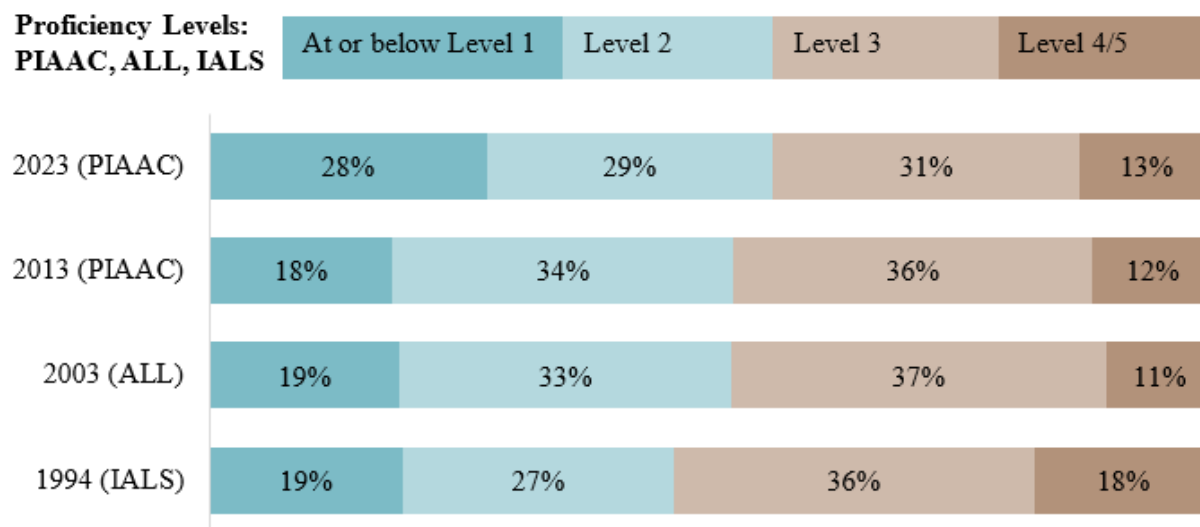


Note. Data are from OECD (2024b). Analysis focuses on adults at Level 2 and above. Estimates flagged as not meeting reporting standards in the OECD International Data Explorer were excluded from analysis to ensure consistency with OECD data quality guidelines—this included all respondents at or below Literacy Level 1.

It is important to note here that although the pattern appears clear (i.e., those with the highest levels of literacy also reach the highest levels of adaptive problem solving), it's also the case that many U.S. adults do not reach the highest levels in either domain. In fact, in the 2023 cycle of PIAAC (the most recent cycle) just 13% of the U.S. population demonstrated the highest levels of literacy while 32% reached the highest levels of adaptive problem solving.

In addition to providing current data on key skills, PIAAC was designed to psychometrically link to proficiency level results from earlier adult skills assessments—the 1994 International Adult Literacy Survey (IALS) and the 2003 Adult Literacy and Lifeskills (ALL) survey (Paccagnella, 2016)—allowing us to observe broad comparisons over time.⁴ Figure 2 shows growing proportions of U.S. adults at the lowest end of the distribution of literacy proficiency: 19% of adults 16–65 performed at or below Level 1 in 1994, whereas 28% did by 2023. At the other end of the distribution, 18% of the adult population in 1994 performed at the highest levels, which dropped to 13% in 2023. The share of adults performing at or above Level 3 in the literacy key benchmark fell from 54% in 1994 to 44% in 2023.

Figure 2. Literacy Over Time: U.S. Population, Aged 16–65, Percent at Each Proficiency Level of PIAAC Cycles I, II; ALL; and IALS

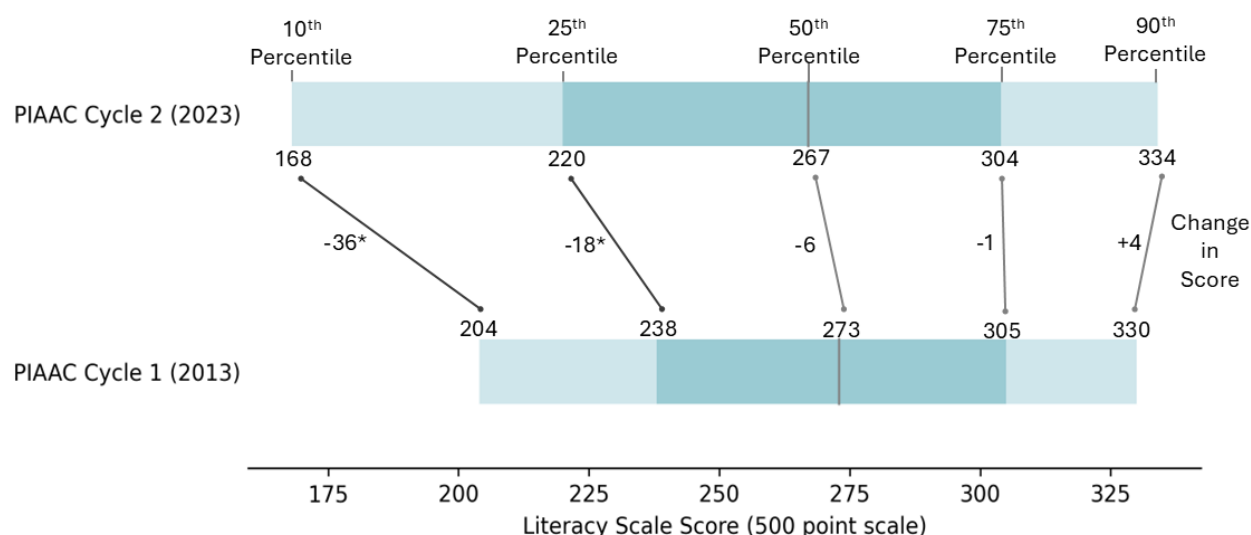


Note. Data are from OECD (2024b).

Proficiency distributions (Figure 2) shed light on what adults can do as measured in PIAAC. Figure 3 reveals a different view of the two cycles of PIAAC by providing the percentile

distribution of U.S. adults' literacy scores in PIAAC 2013 and again in 2023—revealing in more detail where gains and losses may be occurring along the full range of PIAAC performance. What is immediately evident in Figure 3 is the pronounced decline at the lowest end of the distribution: Literacy scores at the 10th percentile fell 36 score points from 204 to 168. In contrast, performance at the 75th and 90th percentiles, the upper end of the distribution, remained largely stable.⁵

Figure 3. PIAAC Literacy Scores by Percentiles for Total U.S. Adults, Aged 16–65, for Cycle 1 (2013) and Cycle 2 (2023)



Note. Data are from OECD (2024b).

*Indicates difference is statistically significant ($p < .05$) from previous cycle.

The pattern in the percentile distributions again suggests not a uniform shift in adult skills, but a growing separation. From a public policy perspective, the concern is not only about the diverging distribution of foundational skills among adults, which is critical, but more broadly whether systems are helping learners acquire them over time. We turn next to data from an assessment of America's students to explore this question further.

Early Indicators of Future Readiness

In the fall of 2025, though not for the first time, news outlets sounded the alarm over declining reading and mathematics scores among U.S. students. Headlines read: “U.S. High School Students Lose Ground in Math and Reading, Continuing Yearslong Slide” (Ma &

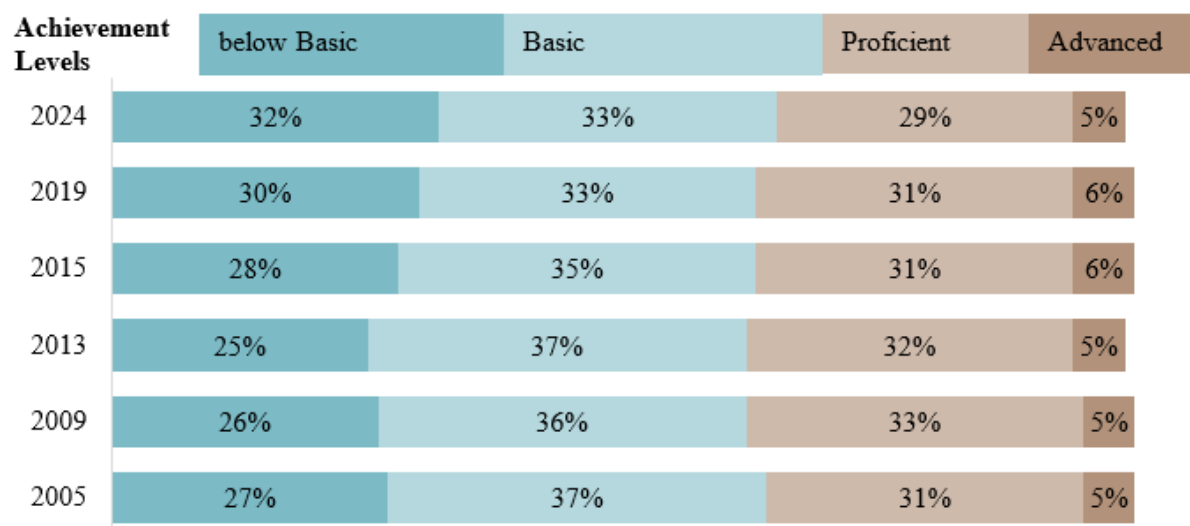
Feather, 2025) and “Twelfth-Grade Math and Reading Scores in U.S. Hit New Low” (Barnum, 2025). The data behind the headlines were from the National Center for Education Statistics (NCES)’s National Assessment of Educational Progress (NAEP): the Department of Education’s periodic assessment of U.S. 4th, 8th, and 12th graders in core subjects including mathematics and reading (NCES, 2026b).

The gist of the stories below the headlines centered on the declines in students’ average scores. For example, the national average NAEP reading performance for 12th grade students dropped from 286 in 2005 to 283 in 2024,⁶ which certainly isn’t the trend a nation would want to see for its graduating seniors who are at a critical transition point in their lives and heading off into the workforce or pursuing postsecondary education. Although averages provide a succinct picture of student performance, they can also miss aspects of a more complex story in the NAEP data (Castellano et al., 2025; Kevelson et al., 2025). Viewing student performance by NAEP achievement levels offers more context about “what students should know and be able to do” (NCES, 2026a, para. 2).

NAEP data are provided across three proficiency levels: NAEP Basic, NAEP Proficient, and NAEP Advanced. For more information on the NAEP achievement levels for 12th grade students, see Appendix C. Each level corresponds to progressively higher achievement. Research suggests that NAEP Proficient reflects solid academic performance on challenging material and is associated with, on average, a greater likelihood of patterns linked to postsecondary educational progress and related outcomes (Davidson, 2025; Ogut et al., 2023). Other research suggests that cohorts of students with higher NAEP achievement go on to have stronger lifetime earnings and more favorable life outcomes (Doty et al., 2022); and, while not causal, a study of U.S. states shows that those with stronger NAEP performance also exhibit higher levels of well-being and social capital (Sands et al., 2021).

As with the PIAAC data, the distributional changes in NAEP student performance by achievement level over the past 2 decades are concerning. Figure 4 shows the reading achievement level for 12th grade students between 2005 and 2024. The percentage of students performing below the NAEP Basic achievement level for reading grew by 5 percentage points (from 27% to 32%), while the percentage of students at higher levels (NAEP Proficient and NAEP Advanced) remained relatively constant (no statistical difference).

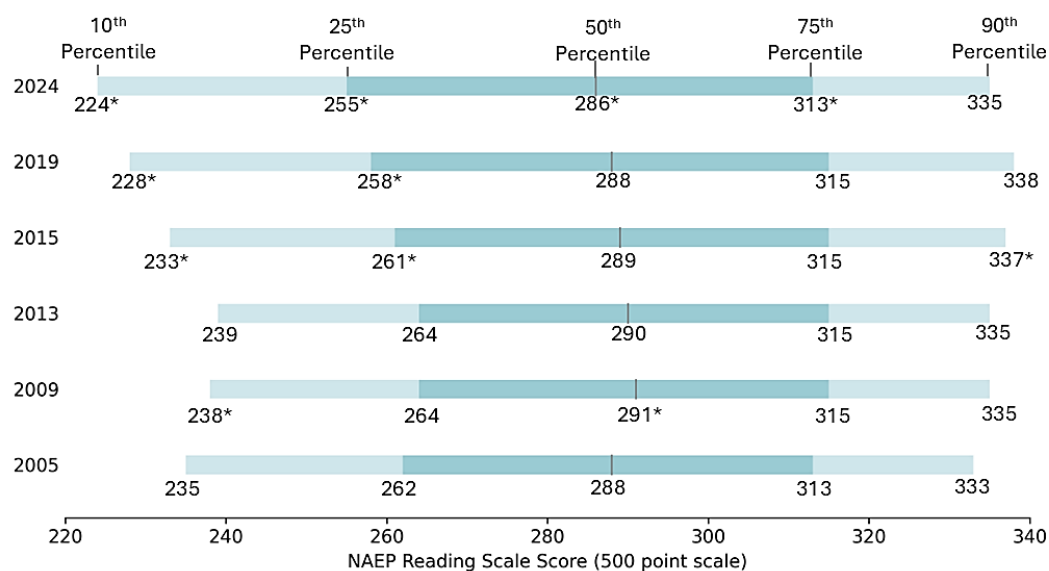
Figure 4. Percentage of 12th Grade Students Within NAEP Achievement Levels for Reading



Note. Data are from NCES (n.d.).

As with the PIAAC data, we provide NAEP reading data by percentile distribution to get a different view of student performance over time (see Figure 5).

Figure 5. Grade 12 Reading Scale Scores by Percentiles by All Students (Total National), 2005–2024



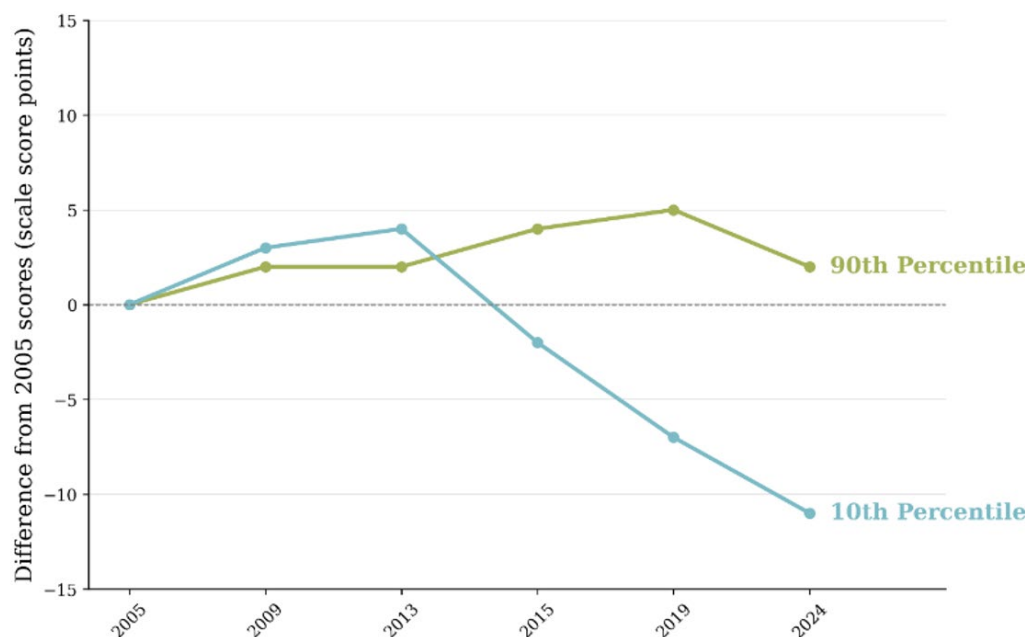
Note. Data are from NCES (n.d.).

*Indicates difference is statistically significant ($p < .05$) from previous cycle.

In Figure 5, we see that the score for students at the 10th percentile, or those scoring lower than 90% of their peers, fell 11 points from 2005 to 2024, and at the 25th percentile student performance dipped 7 points. Meanwhile, students at the 90th percentile, or those performing higher than 90% of their peers, remained statistically stable (333 in 2005 compared to 335 in 2024).

Figure 6 makes this trend more visible by showing the change in reading scores at the 10th and 90th percentiles relative to 2005. The 90th percentile hovered within a few points of its 2005 value throughout, and the 10th percentile rose modestly through 2013 before beginning a steady decline, ending 11 points below its 2005 value in 2024.

Figure 6. NAEP Grade 12 Reading Scores Relative to 2005: 2005–2024



Note. Data are from NCES (n.d.).

Although much attention has been paid to learning loss during the COVID-19 pandemic, it is important to recognize that the reading declines at the lower ends of the distribution are not solely a pandemic story. Scores at the 10th and 25th percentiles were largely stable—with some modest gains—from 2005 through 2013 and have been steadily declining since. Meanwhile, scores at the top remained mostly stable throughout.

These trends may reflect—and perpetuate—long-standing differences in the opportunities and supports available to students as they develop early foundations. For example, when students lack opportunity to acquire key early competencies, the challenges they face may compound over time, including more limited access to advanced content, weaker engagement, and fewer opportunities to develop higher order skills (Sawchuk, 2025; Wang et al., 2019). This can translate to long-term impacts. Data show that students who score below the 25th percentile in reading are less likely to be accepted to a 4-year college (32%) compared to students in the 75th percentile or above (75%; NCES, 2024). Moreover, only 35% of graduating 12th grade students were “academically prepared” for college-level reading, meaning that roughly one third of graduating seniors would be prepared for college-level reading without further remediation (Fields, 2014; NCES, 2024).

Although the NAEP data, as well as the data from PIAAC, clearly show where foundational skills may be eroding, they do not by themselves explain how or why these patterns emerge. Understanding the systems, mechanisms, and contexts that impede learning, including the points at which development becomes constrained, is essential for designing effective policy responses.

Doorstops: Opening—and Holding—Doors for All Learners

What we are witnessing is not a broad downturn in critical foundational skills for learners across the United States, but a widening divergence between the highest and lowest performing learners: a divergence with complex antecedents and profound implications for learners and the nation.

The development and use of skills depend on the opportunities that individuals have to learn, work, and adapt in changing conditions. These opportunities are shaped not only by the networks and supports within which people are embedded, but also by the broader conditions that enable well-being including access to affordable health care and housing, representative governance, stable employment with livable wages and opportunities for advancement, safe communities with ample public services, environmental protections, access to justice, and many others (The Annie E. Casey Foundation, 2026; Gallagher et al., 2020; Hengtgen & Rodick, 2025; Kirsch et al., 2016; OECD, 2024a; Sands et al., 2021).

When access to these underlying conditions is shaped by systemic barriers and uneven distribution, opportunities may diverge over time, contributing to intergenerational *accumulation*

of advantage and disadvantage (Kirsch et al., 2016; UNESCO, 2025; World Bank Group, 2025).

This process refers to the way disparities in access to opportunities and supportive systems at various levels compound across the life course. When large proportions of students and adults face barriers to developing their skills, as suggested by the NAEP and PIAAC results shown in this paper, it may be signaling a strain within a larger system of opportunity. A society that neglects these signals risks closing doors to many within it.

Historically, when the skills required for a given time and place outpaced what many had the opportunity to acquire, social and economic penalties often followed. That's not new. What is new is the speed with which digital technologies and AI are disrupting and churning the current social and economic order, particularly in education and the labor market (Deming, 2024; World Economic Forum, 2023). Creating and sustaining the policies and systems needed to advance all learners for this change will require coordinated, long-term effort across policy, funding, research, and practice. The payoff of those efforts may extend beyond individuals to stronger workplaces, more resilient communities, and broader economic and social benefits. Toward this goal, we offer the following set of recommendations aimed at opening doors—and keeping doors open—for all learners:

- **Policymakers.** The widening divergence between the top and bottom of the skill distribution for students and adults, a trend that has been unfolding over decades, is an important signal that current policy frameworks are not reaching all learners. Policymakers have a critical role to play in ensuring that systems of learning, workforce development, and support are designed around the realities learners face and the complexity of the skills they are expected to use. Aligning education and employment policies with a clearer understanding of how foundational skills develop and support higher order competencies can expand access to opportunity and increase the relevance and responsiveness of programs and interventions.
- **Funders and Program Leaders.** The growing divergence in skill levels observed for students and adults here, along with the strong association between foundational skills and higher order capacities such as adaptive problem solving, points to the importance of investments that treat skill development as cumulative and highly interconnected. Sustaining and expanding efforts that apply tested frameworks and design principles in

support of foundational skills and their connection to higher order skills can ensure resources are used effectively, with clear connections between what is taught, how it's assessed, and what learners need to succeed.

- **K–12 Educators.** The declining performance at the lower end of the distribution for 12th grade students shown here, which has been persistent for decades, points to the need for sustained attention and support for the development of foundational skills. AI only raises the stakes for getting this right. In fact, as demands on literacy grow across work and civic life, K–12 educators should continue to reinforce pathways to foundational skills throughout the K–12 continuum by emphasizing and monitoring deep comprehension, reasoning, and adaptive thinking across the curriculum, framing these not only as academic objectives but also as core capacities for lifelong learning.
- **Adult Education and Workforce Practitioners.** The association between foundational skills and adaptive problem solving observed here suggests that literacy skills are best viewed not as entry-level concerns but as capacities to be integrated into training efforts to advance higher order skills. These findings can be used to help advance support for adult education and workforce upskilling efforts and funding by providing additional insights about how learning opportunities can build upon existing capacities and be scaffolded for greater success.
- **Researchers.** Although the data presented here establish associations between foundational skills and problem solving across the adult population, the mechanisms underlying these relationships, as well as the contextual factors that shape who develops these capacities and under what conditions, should be more deeply explored. Researchers should continue to examine how foundational skills are applied and demanded across evolving learning, work, and technological contexts as well as in place-based research. In addition, studies could explore how explicitly integrating foundational skills into the measurement and teaching of durable skills, such as adaptive problem solving and critical thinking, affects learners' capacities for navigating complex and novel challenges at all stages.

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Appendix A

Literacy and Adaptive Problem Solving Proficiency Levels as Defined in the OECD Report, *Education at a Glance: OECD Indicators* (OECD, 2025, pp. 36–37)

In PIAAC Cycle 2, proficiency in each domain is measured on a continuous scale and categorized into levels to aid interpretation. While the specific score ranges and descriptions for each level are detailed in the official assessment framework, the general structure is as follows (see Tables 2.4, 2.5 and 2.6 in the PIAAC international report for more detailed descriptions (OECD, 2024)).

Literacy Proficiency Levels

Below Level 1: Tasks at this level require the respondent to read brief texts on familiar topics and locate a single piece of explicitly stated information. The text structure is simple and the information that needs to be located is identical in form to what is in the question or directive. Only basic vocabulary knowledge is required. There is no need to understand the structure of sentences or make inferences. Texts are short, and there is little competing information.

Level 1: Tasks at this level require the respondent to read relatively short digital or print texts to locate a single piece of explicitly stated information. There is little, if any, competing information. The information in the question or directive is identical to or synonymous with the information in the text. Some tasks may require the respondent to enter personal information onto a document, such as a form. Only basic vocabulary knowledge is required, and the tasks rely mainly on simple matching or locating strategies.

Level 2: At this level, tasks require respondents to make matches between the text and information, including some that may require low-level inferences. Some competing information may be present. The texts may be continuous, non-continuous, or mixed, and the task may require integration of two or more pieces of information. The information may need to be compared or contrasted. There is some use of digital tools and navigation across pages may be necessary.

Level 3: Tasks at this level require the respondent to integrate several pieces of information and to recognize the relationship between different parts of a text, or to evaluate their relevance. There may be a need to perform multi-step operations, compare, and contrast or reason about the

information. Texts are often dense or lengthy, and multiple distractors are present. Navigation across a variety of digital environments or layout features may be required.

Level 4: Tasks at this level require the respondent to perform multiple-step operations to integrate, interpret, or synthesize information from complex or lengthy texts. The texts may be unfamiliar in topic, with complex structures. Competing information is often present, and a high level of inferencing is necessary. The tasks may require critical evaluation of information and distinguishing relevant from irrelevant content.

Level 5: At this highest level, tasks require the respondent to search for and integrate information across multiple, dense texts; construct syntheses; make high-level inferences or use specialised background knowledge. Texts are complex and lengthy and may contain dense or ambiguous information. Tasks demand a high level of abstraction, logic, and reasoning, and often require evaluating the reliability of different sources or resolving conflicting pieces of information.⁷

Adaptive Problem-Solving

Below Level 1: Tasks at this level require carrying out simple, routine procedures in highly familiar contexts. The problem to be solved is immediately apparent and involves no unexpected developments or need for goal setting. Success can be achieved through straightforward recognition and recall, with minimal need to adjust responses or monitor progress. The environment is predictable, and only a single action or step is typically necessary.

Level 1: Tasks require executing a short sequence of steps in response to a clearly defined and concrete problem. Situations are familiar, interfaces are standard, and the necessary knowledge is commonly held. There may be some need to identify relevant options or perform simple adjustments, but no significant reasoning or re-planning is needed. Respondents succeed by applying familiar strategies or known procedures with limited need for adaptation.

Level 2: Tasks involve resolving problems in somewhat unfamiliar situations. Respondents need to interpret the problem context, plan steps, and monitor progress. Situations may involve partial or evolving information, moderate amounts of irrelevant or distracting information, and the need

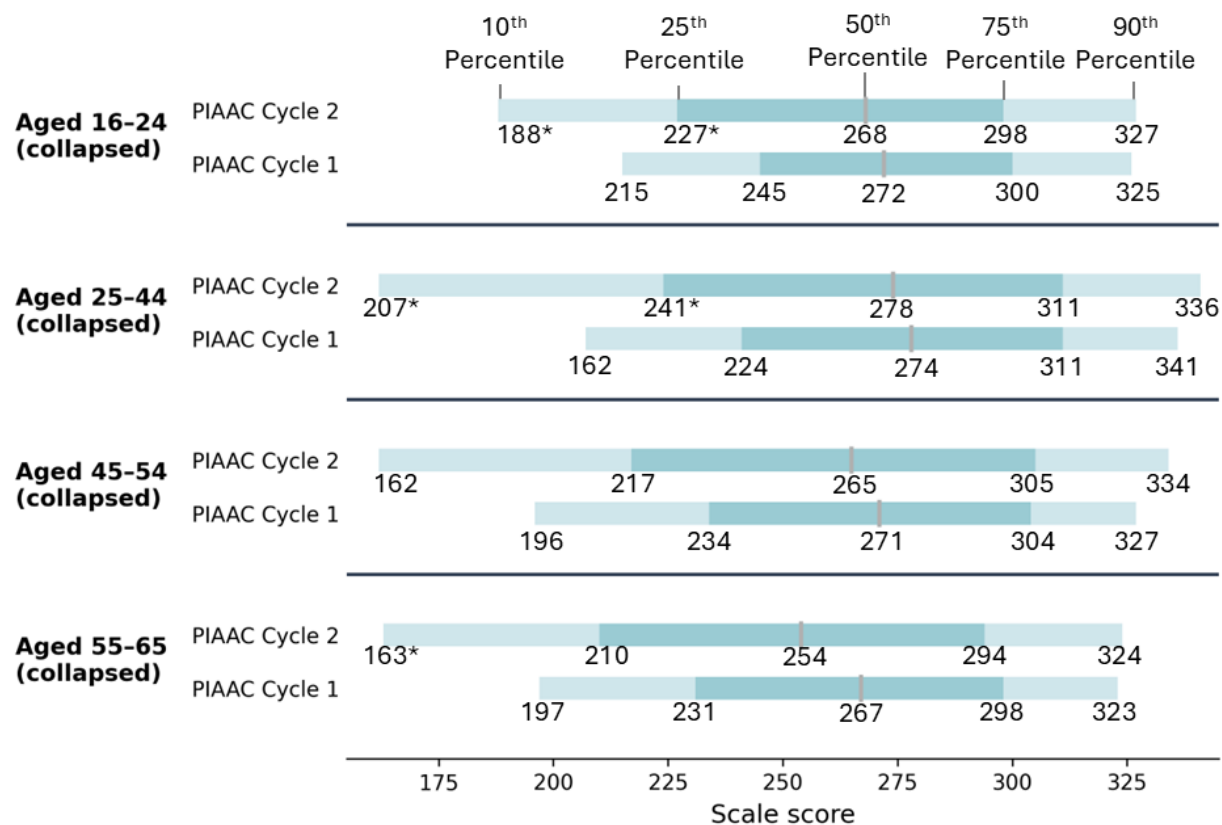
to choose among alternatives. Success depends on adaptive reasoning—identifying what is relevant, discarding what is not, and adjusting strategies mid-process.

Level 3: Tasks involve multiple steps, ambiguous goals, or constraints that emerge during the task. Respondents must evaluate options, deal with unexpected information or outcomes, and show flexibility in problem-solving. Success requires coordinated use of planning, reasoning, and monitoring, as well as learning from feedback. Respondents are required to manage cognitive complexity and demonstrate self-regulation in dynamic situations.

Level 4: Tasks involve solving complex problems in unfamiliar and evolving situations with competing goals and multiple constraints. Respondents must independently set objectives, plan multi-step strategies, evaluate the relevance and reliability of information, and adjust their approach based on feedback or new conditions. High-level reasoning, abstraction, and critical thinking are essential. These tasks reflect sophisticated real-life problem solving skills under uncertainty and require sustained cognitive effort and decision-making autonomy.

Appendix B

Figure B.1. Literacy Scores by Percentiles for U.S. Adults 16–65, Cycles 1 (2013) and 2 (2023), by Age Cohorts



Note. Data are from OECD (2024b).

Appendix C

NAEP Reading Achievement Level Descriptions

Table C1. Examples of What Students Performing at Each NAEP Achievement Level Can Likely Do in Reading at Each Assessment Domain

Assessment Domain	NAEP Basic	NAEP Proficient	NAEP Advanced
4 th Grade	- Sequence or categorize events from a literary text. - Determine the relevant meaning of familiar words using context from a section of an informational text.	- Describe the impact of a character's actions or explain how characters influence one another. - Provide an opinion using relevant information from the text.	- Determine the meaning of nonliteral phrases. - Distinguish the theme of a text.
8 th Grade	- Identify basic literary elements such as the order of events, character traits, and main idea. - Determine the main idea of an informational text drawing on explicit features from the text.	- Make inferences and draw conclusions about literary elements such as character interactions and plot features. - Identify one or both sides of an argument in an informational text.	- Interpret descriptive or figurative language and how those impact the meaning of the text. - Use text evidence from multiple sources to substantiate claims made by an author
12 th Grade	- Draw general conclusions based on concepts presented explicitly in the text. - Make inferences that demonstrate basic understanding of literary elements, like the author's purpose.	- Critique an author's use of descriptive or figurative language. - Synthesize several documents and support one or more opinions using relevant evidence from the text.	- Explain how literary elements connect to the overall purpose of a text and how they develop throughout the text. - Synthesize information across texts to develop and support the student's own argument.

Note. See National Assessment Governing Board (2022, 2025).

Notes

¹ For a full description what is measured by domain and proficiency levels, refer to the PIAAC 2nd cycle database at <https://www.oecd.org/en/data/datasets/piaac-2nd-cycle-database.html>

² Collapsing Levels 4 and 5 into a single High Performers category follows established PIAAC reporting practice. Because Level 5 represents only about 1% of U.S. adults on its own, grouping it with Level 4 (12%) yields a single, more stable top category of high performers (13%)—consistent with how the OECD reports top performers as those scoring at Levels 4 or 5 in literacy (OECD, 2024b).

³ This pattern is consistent across age cohorts. Disaggregated results by age cohort (16–24, 25–44, 45–54, and 55–65) show the share of adults reaching the highest levels of adaptive problem solving rises substantially with each literacy proficiency level. At every age, adults with the strongest literacy skills are substantially more likely to reach the highest levels of adaptive problem solving, with no indication that younger or older adults are driving the overall results. Age-cohort estimates are available in the OECD International Data Explorer: <https://piaacdataexplorer.oecd.org/ide/idepiaac/>.

⁴ While this linkage allows for broad comparisons over time, these trends are best interpreted as indicators of broad distributional patterns rather than precise estimates of change.

⁵ Appendix B provides a graphical representation of these PIAAC percentile scores within age cohorts.

⁶ Unless otherwise noted, all mean differences were statistically significant ($p < .05$)

⁷ Appendix A cites OECD (2025) for proficiency levels for literacy and adaptive problem solving. Numeracy proficiency levels were not included here.

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