TEACHER PREP REVIEW

Strengthening Elementary Reading Instruction

June 2023

National Council
on Teacher Quality

CONTENTS

A clear solution to our nation's literacy crisis

All children deserve to learn to read, and all teachers deserve the preparation and support that will allow them to help their students achieve this goal. Yet more than one-third of fourth graders—1.3 million children[1] in the U.S.—cannot read at a basic level.[2] Not learning how to read has lifelong consequences. Students who are not reading at grade level by the time they reach fourth grade are four times more likely to drop out of high school,[3] which in turn leads to additional challenges for them as adults: lower lifetime earnings;[4] higher rates of unemployment;[5] a higher likelihood of entering the criminal justice system;[6] and a greater chance of needing to access government benefits to meet their household's basic needs, such as food and health care.[7] Even more alarming, the rate of students who cannot read proficiently by fourth grade climbs even higher for students of color, those with learning differences, and those who grow up in low-income households, perpetuating disparate life outcomes.[8] This dismal data has nothing to do with the students and families, and everything to do with inequities in access to **effective literacy instruction**.

The status quo is far from inevitable. In fact, **we know the solution to this reading crisis, but we are not using the solution at scale**. More than 50 years of research compiled by the National Institutes of Health, and continued through further research, provides a clear picture of how skilled reading develops and of effective literacy instruction. These strategies and methods—collectively called scientifically based reading instruction, which is grounded in the science of reading—could dramatically reduce the rate of reading failure. Past estimates have found that while 3 in 10 children struggle to read (and that rate has grown higher since the pandemic), research indicates that more than 90% of all students could learn to read if they had access to teachers who employed scientifically based reading instruction.[9]
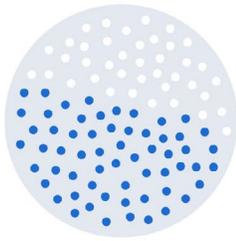
Currently, just over 60% of children are learning to read by 4th grade.
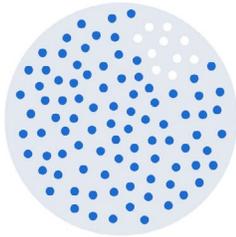
With effective reading instruction, we could take that to more than 90%.

This means that nearly 1,000,000 additional children would reach fourth grade able to read each year.

Unfortunately, too many teachers are not trained in scientifically based reading instruction during their teacher preparation programs, so they unknowingly enter the classroom well intentioned but inadequately prepared to teach kids to read. In fact, a recent survey conducted by Education Week found most elementary special education and K–2 teachers (72%) say they use literacy instructional methods that incorporate practices debunked by cognitive scientists decades ago.[10] Researchers have discovered that these strategies that are contrary to research-based practices—like teaching kids to look at the picture to help guess a word, or skipping words they do not know—not only are unhelpful,[11] but also take up valuable instructional time that should be dedicated to research-based reading instruction.[12]

Giving teachers the knowledge and skills they need to teach reading effectively is a fundamental step for remedying this untenable situation, improving life outcomes for all children, and reversing historical patterns of inequity. Through intentional program design, teacher preparation programs have a pivotal role to play in ensuring all children receive the high-quality reading instruction they deserve. And state education leaders—who control teacher preparation program requirements, regulations, and approvals—can also enact policies to transform reading instruction for generations of students.

The purpose of the *Teacher Prep Review* is to guarantee teachers have expertise in reading instruction (as well as other essential areas NCTQ assesses)[13] before being trusted to teach children to read. By regularly reviewing the reading coursework provided by nearly 700 elementary teacher preparation programs, the National Council on Teacher Quality seeks basic evidence that programs are using what is empirically known about how to teach reading—so every child can learn to read.

What is scientifically based reading instruction, and how does NCTQ measure it in teacher preparation?

Scientifically based reading instruction is grounded in the research on how students learn to read. It builds off the 2000 National Reading Panel report, which emphasizes the importance of alphabetics (phonemic awareness and phonics), fluency, vocabulary, and comprehension. A 2016 report by the Institute of Education Sciences (updated in 2019) examined the research since the National Reading Panel's release, confirming and extending the findings of the 2000 report and offering teachers actionable, evidence-based recommendations to teach reading.[14]

Elementary teachers need to understand and know how to explicitly and systematically teach the five components of scientifically based reading instruction, including: (1) developing students' awareness of the sounds made by spoken words (**phonemic awareness**); (2) systematically mapping those speech sounds onto letters and letter combinations (**phonics**);[15] (3) providing students extended practice reading words with learned letter-sound combinations so they learn to read words with automaticity, without a lot of effort, at a good rate, and with expression (**fluency**)—allowing them to devote their mental energy to the meaning of the text; (4) building word knowledge using student-friendly definitions and engaging practice opportunities (**vocabulary**),[16] a skill closely associated with the final component; (5) ensuring students have the skills, knowledge, and strategies to understand what is being read to them and eventually what they will read themselves (**comprehension**).

Process of NCTQ's evaluation: Five core components and instructional approaches

The 2023 *Teacher Prep Review* includes 693 programs in 50 states and the District of Columbia. This sample was culled from the full set of 1,146 programs eligible to be rated, including programs in all public institutions that actively produce elementary teachers and all private institutions with an annual production of at least 10 elementary teachers. NCTQ requested relevant materials from all programs, but those that did not provide sufficient documentation could not be rated and are not included in the final sample. While programs preparing early childhood or special education teachers should also focus on scientifically based reading instruction, this review focused on those preparing elementary teachers.

To assess if aspiring teachers are likely to acquire knowledge of these five components as part of their preparation program, NCTQ first identifies the required courses relating to reading instruction for each elementary program, a list each program is asked to verify. NCTQ then requests syllabi and related course material for all elementary reading courses. A team of reading experts[17] evaluates the course materials across four instructional approaches—including the planned lecture topics (as a measure of instructional time), assigned readings, assignments and assessments, and opportunities for practice—looking for clear evidence teacher candidates are accountable for learning each component. For more information about the topics that count toward each component for this analysis, see page 21 of the *Technical Report*.

NCTQ looks for clear evidence that aspiring teachers learn about **each of the five core components of scientifically based reading instruction** through **four different instructional approaches.**

Core Components

Phonemic Awareness

The ability to focus on and manipulate the individual phonemes in spoken words

Phonics

The relationship between the sound of spoken words and the individual letters or groups of letters representing those sounds in written words

Fluency

The ability to read a text accurately and quickly while using phrasing and emphasis to make what is read sound like spoken language

Vocabulary

Knowledge about the meanings, uses, and pronunciation of words

Comprehension

Constructing meaning that is reasonable and accurate by connecting what has been read to what the reader already knows and thinking about all of this information

MEASURED BY

Instructional Approaches

Instructional Hours

Course time dedicated to teaching the core components or assessing students in the core components

Objective Measures of Knowledge

Includes tests, quizzes, and written graded assignments

Practice/Application

Practice providing instruction, in a simulated or real classroom setting, or practice giving an assessment

Background Materials

Textbooks, articles, videos, or other materials identified in a "required reading" section

Every program is given the opportunity to review its preliminary analysis and provide a response and additional materials for consideration before publication. This includes a confidential review of their preliminary score (with detailed information about course-level findings) with the option to submit additional evidence for analysis. For this edition of the *Teacher Prep Review*, approximately 17% of the sample chose to provide further evidence, a cooperative process that led to scoring updates for a number of those programs.[18]

For each program, NCTQ awards points to each of the five components based on the sum of the individual course findings. Programs can earn up to three points for each of the four instructional approaches (background materials, instructional time, objective measures of knowledge, and practice) within each component, for a total of 12 possible points. Programs are deemed to have provided adequate coverage of a component when they obtain at least eight of the 12 points. Grades are based on the number of components a program adequately addresses. Programs lose a letter grade in instances where they teach candidates at least four practices that run contrary to the research. For more information about the scoring process, see Appendix B.

In addition to the analysis of the five core components, NCTQ also provides feedback on whether programs provide instruction on how to support struggling readers, English learners, and students who speak language varieties other than mainstream English, although this feedback does not affect a program's grade.

See the Methodology in brief (Appendix B) for more information. A more detailed methodology and the rubrics NCTQ uses to evaluate programs under the Reading Foundation standard are fully detailed in the *Reading Foundations Technical Report*. The *Reading Foundations Technical Report* provides more information about the scoring rubric, details on how the instructional approach targets were set, the sample of programs, information about contrary practices, and specifics on how the analysis was completed.

For a brief overview of the analysis process, watch this video.

Changes to the 2023 Review

After a multiyear revision process—including engagement with an expert advisory panel, an open comment period, and review by a technical advisory group[19]—NCTQ made several changes from the previous 2020 *Review*, including:

- Increased expectations for the minimum amount of instructional time programs should devote to each of the five core components.

- Reviewed program material for the presence of reading practices contrary to the research.

- Evaluated the opportunities programs provide for candidates to practice instruction in each component.

- Added analysis on the extent to which programs prepare aspiring teachers to teach English learners, struggling readers, and students who speak language varieties other than mainstream English language.

For more details on these changes, see Appendix A.

1

Only 25% of programs adequately address all five core components of reading instruction

To be effective, elementary teachers need to understand and know how to teach all five components of scientifically based reading instruction. Because of the interconnectivity of these components, a teacher who lacks an understanding of one will be less effective teaching the others, and students who miss instruction on one component may struggle to become fully literate.

Based on a review of the four instructional approaches—instructional hours,[20] objective measures of knowledge, practice, and background materials—dedicated to each of the five components, NCTQ found 25% of teacher preparation programs fully address all five components of scientifically based reading instruction. More concerning is that another 25% of programs do not adequately address any of the five components.

Figure 1.

Number of components programs adequately address
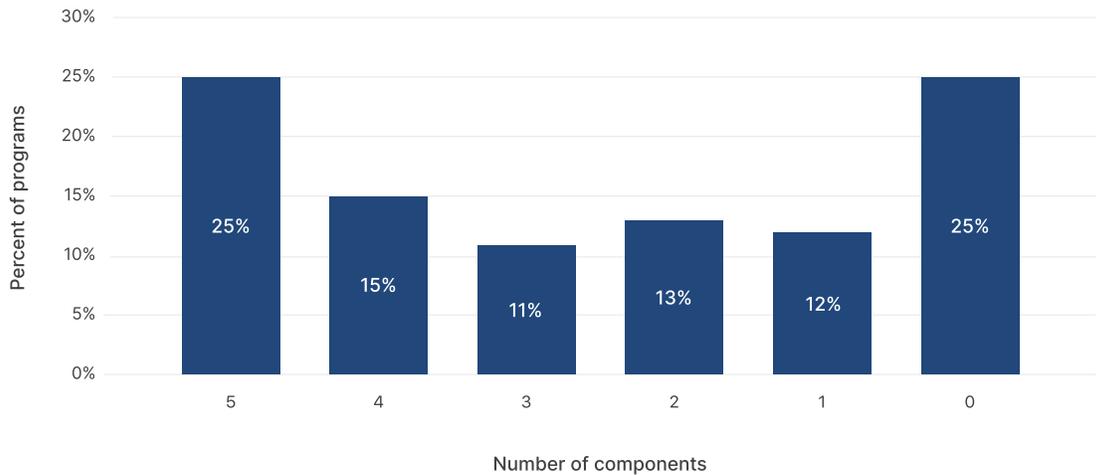
Note: n = 693. Percentages are rounded and may not add to 100%.

What does it mean to adequately address a component?

A program is determined to adequately address a component when it earns sufficient points (eight out of 12, or 67% of possible points) for evidence of background materials, instructional hours, practice/application, and objective measures of knowledge. For more on how this is scored, see Appendix B.

Content contrary to research-based practices

Research is clear on how skilled reading develops and on the practices most likely to result in all children becoming skilled readers, as well as the instructional methods their teachers should not be using—methods that run counter to the research. Forty percent of programs are still teaching multiple practices contrary to long-standing research, which can undermine the effect of scientifically based reading instruction. This report refers to these practices as content contrary to research-based practices, or "contrary practices."

Percent of programs teaching content contrary to research-based practices

Percent of programs

Practice	Percent
Running records	36.5%
Guided reading	33.3%
Specific assessments, such as DRA, IRI, and QRI	22.9%
Balanced literacy	15.6%
Miscue analysis	14.1%
Reader's Workshop	13.9%
Leveled text	9.8%
Three-cueing systems	9.5%
Embedded/implicit phonics	0.4%
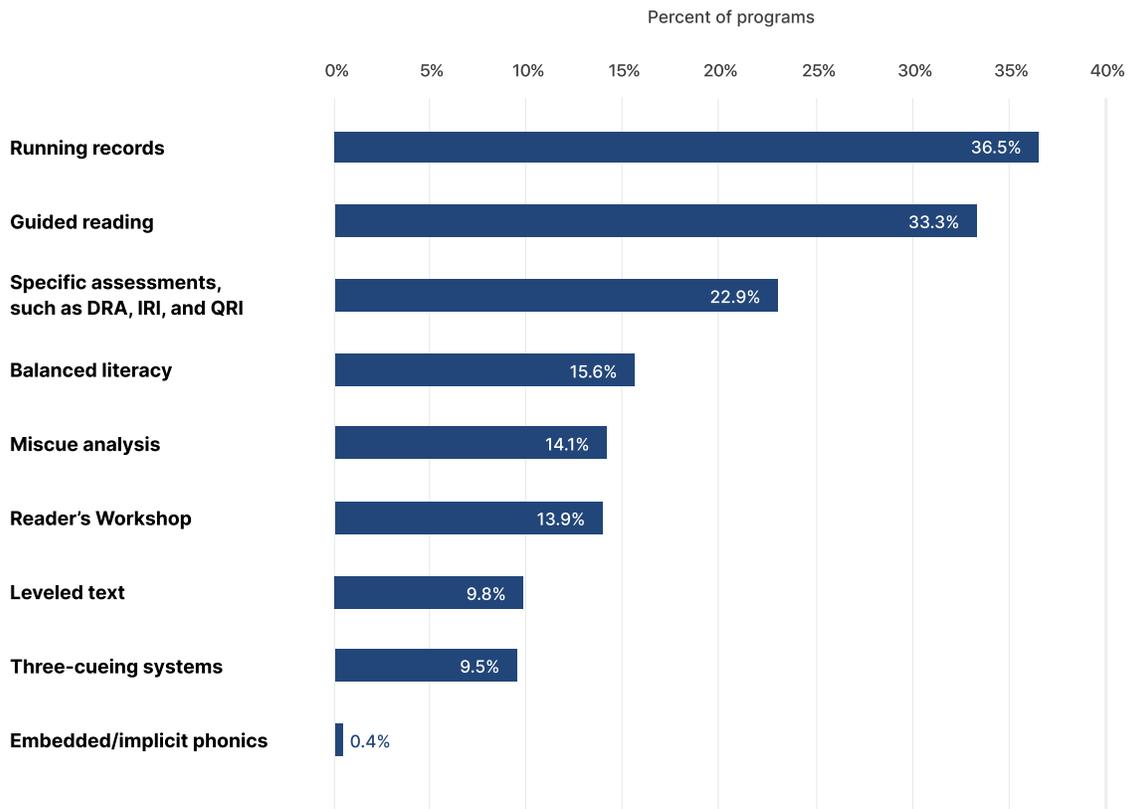
Note: n = 693. View data online to see which programs teach which practices.

See how your state compares.

View this data online to filter by state or explore individual program data.

Why are these practices so concerning?

When programs teach practices not supported by research alongside practices that are aligned, it legitimizes these ineffective methods, risks confusing aspiring teachers, and may lead new teachers to implement debunked practices that hinder many students from becoming proficient readers. No medical school would ever teach aspiring doctors using practices known to be ineffective, yet these practices remain all too common when preparing elementary teachers to teach reading.

Misaligned assessment strategies make up several practices that top the list of those still being taught that run contrary to research. For example, **running records** is an assessment in which a teacher observes a student's oral reading of a passage and records the number of errors to calculate the accuracy level.[21] Intended in part as a formative assessment, running records are used to identify a student's "reading level," to determine appropriate student groupings, and to monitor student growth.[22] Though widely popular, studies on running records show these assessments produce inconsistent results based on both teachers' accuracy in scoring[23] and students' accuracy in reading different texts. Further, running records assessments may include the use of miscue analysis to determine why students make errors, which is often rooted in three-cueing models of understanding reading, in which students are invited to use clues such as pictures and context to guess a word with which they are unfamiliar.[24]

A description of these practices and the evidence demonstrating that they run contrary to the research can be found in Appendix C.

Dive Deeper: Which instructional materials are aligned with scientifically based reading instruction?

See how well programs' instructional materials—such as textbooks, articles, and videos—align to scientifically based reading instruction and find high-quality exemplars in NCTQ's Reading Instructional Materials database.

Search the database.

Exemplary programs

Despite the challenges that exist in the current landscape, there are programs that serve as great examples from which others can learn. Among the 173 programs addressing all five components are 48 exemplary programs that comfortably exceed the targets of the *Review* and do so without teaching candidates any methods that run contrary to research.

These programs best provide candidates with the foundation needed to effectively teach reading from day one.

State	School	Program
Alabama	Alabama A&M University	Graduate
Alabama	Samford University	Undergraduate
Alabama	Samford University	Graduate
Arkansas	University of Arkansas at Monticello	Undergraduate
Colorado	Fort Lewis College	Undergraduate
Colorado	University of Colorado Boulder	Undergraduate
Colorado	University of Colorado Denver	Undergraduate
Colorado	University of Northern Colorado	Graduate
Colorado	Western Colorado University	Undergraduate
Georgia	Georgia College and State University	Undergraduate
Illinois	Olivet Nazarene University	Undergraduate
Indiana	Marian University Indianapolis	Undergraduate
Kansas	Wichita State University	Undergraduate
Louisiana	Louisiana State University - Alexandria	Undergraduate
Louisiana	Southern University and A&M College	Undergraduate
Louisiana	University of Louisiana at Monroe	Undergraduate
Louisiana	University of New Orleans	Graduate
Massachusetts	Gordon College	Undergraduate
Michigan	Ferris State University	Undergraduate
Mississippi	Jackson State University	Undergraduate
Mississippi	Mississippi State University	Undergraduate
Mississippi	University of Southern Mississippi	Undergraduate
New Mexico	Western New Mexico University	Undergraduate
New Mexico	Western New Mexico University	Graduate
North Carolina	East Carolina University	Undergraduate
North Carolina	Lenoir-Rhyne University	Undergraduate
North Carolina	University of North Carolina Asheville	Undergraduate
North Carolina	University of North Carolina at Chapel Hill	Graduate
North Carolina	Western Carolina University	Undergraduate

State	School	Program
Ohio	Mount St. Joseph University	Undergraduate
Ohio	University of Dayton	Undergraduate
Ohio	University of Findlay	Undergraduate
Ohio	University of Rio Grande	Undergraduate
Rhode Island	Rhode Island College	Undergraduate
Tennessee	Middle Tennessee State University	Undergraduate
Tennessee	Tennessee Wesleyan University	Undergraduate
Texas	Houston Baptist University	Undergraduate
Texas	Sul Ross State University	Undergraduate
Texas	Texas A&M University - Texarkana	Undergraduate
Utah	Southern Utah University	Undergraduate
Utah	Utah State University	Undergraduate
Utah	Utah Valley University	Undergraduate
Virginia	Christopher Newport University	Graduate
Virginia	James Madison University	Undergraduate
Virginia	Regent University	Undergraduate
Virginia	University of Virginia	Graduate
Virginia	Virginia Polytechnic Institute and State University	Graduate
Wisconsin	University of Wisconsin - Stevens Point	Undergraduate

Programs can earn up to 12 points per component (e.g., phonics, phonemic awareness, fluency, vocabulary, comprehension) and need to earn at least eight points to be deemed to provide adequate coverage. Exemplary programs are those that average at least 10 points across the five components and do not teach any of the nine contrary practices.

For more details about these exemplary programs and what they do, see the Promising Practices section of this report.

Undergraduate vs. Graduate programs

Undergraduate and graduate programs are preparing candidates for the same job: elementary teacher. Yet across all measures, on average, graduate programs provide less comprehensive coverage of the five components. In fact, nearly 40% of graduate programs in the sample were found to adequately address zero components, compared to 19% of undergraduate programs. However, nine graduate programs not only address but exceed the targets for component coverage, showing exemplary preparation in reading is possible in graduate programs.

Figure 3.

Components adequately addressed by undergraduate programs vs. graduate programs
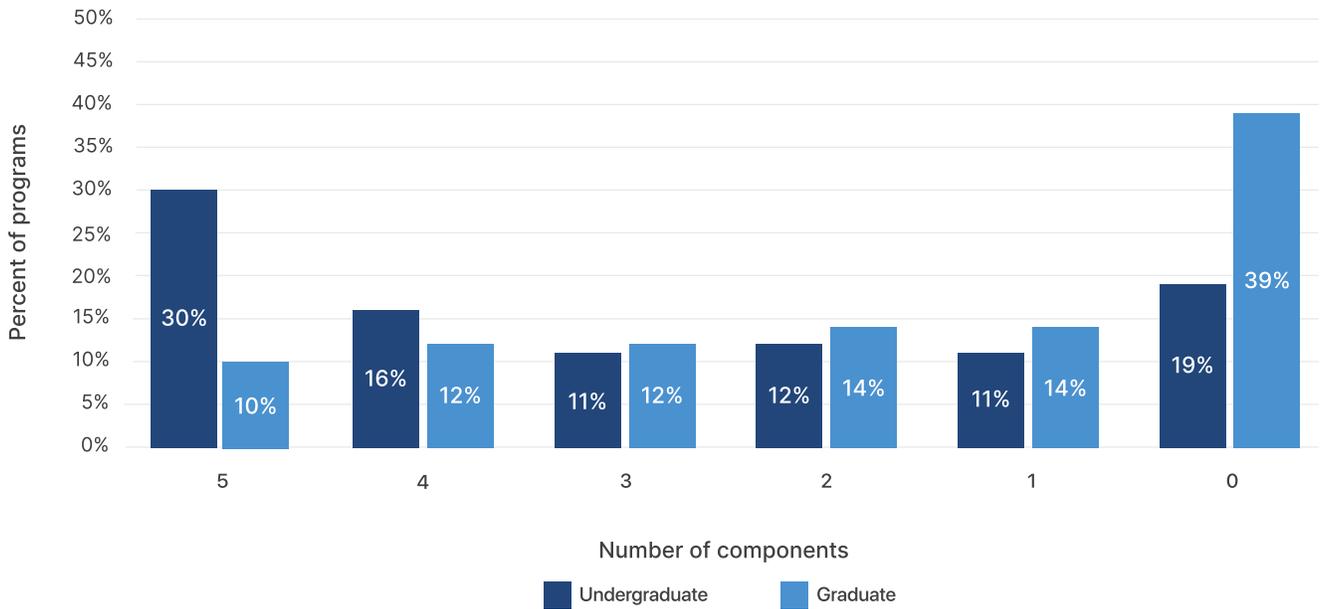
Note: Undergraduate programs n = 513. Graduate programs n = 180. Percentages are rounded and may not add to 100%.

2

Phonemic awareness receives the least attention across programs

To become skilled readers, children need to develop the ability to identify and manipulate the individual sounds within spoken words and link those sounds to the written word. This fundamental reading skill is known as **phonemic awareness**. Strong phonemic awareness skills allow children to isolate, blend, segment, and manipulate phonemes (the smallest units of sound within a language system) in different ways, priming them to develop phonics skills, in which they connect the sounds they *hear* to the letters they *see*. Phonological awareness, which falls within the category of phonemic awareness, is "the ability to recognize words are made up of individual sound units."[25]

By connecting phonemes to the printed words (or the "graphemes"), students develop the understanding that speech maps to print (or the "orthographic principle"). The development of this understanding, achieved through phonemic awareness and phonics instruction, is the necessary underpinning of three other essential components of reading: fluency, vocabulary, and comprehension.

Examples of phonemic and phonological awareness skills

Rhyming	Blending	Substitution
Teacher: Can you think of a word that rhymes with "cat"? **Student:** Rat! Hat!	**Teacher:** What word do these sounds make - /c/ - /a/ - /t/? **Student:** Cat!	**Teacher:** What word do I get if I change the /c/ sound in CAT to a /p/? **Student:** Pat!

Two out of three teacher preparation programs fail to adequately address phonemic awareness.

Phonemic awareness plays a critical role in developing strong reading skills; therefore, teacher preparation programs need to provide an adequate focus on this foundational skill. In the past decade of the *Teacher Prep Review*, phonemic awareness is consistently the least addressed component.[26]

Instructional hours dedicated to phonemic awareness

Only 117 of 693 programs (17%) provide aspiring teachers with at least seven instructional hours on phonemic awareness—slightly more than two weeks of course time (courses often meet for about three hours a week). Roughly half of the programs (342) dedicate less than a week's worth of course time (fewer than three instructional hours) to phonemic awareness.

Figure 4.

Number of instructional hours programs dedicate to phonemic awareness

Legend:
- **Does not meet** the minimum number of instructional hours for adequate coverage
- **Meets** the minimum number of instructional hours for adequate coverage
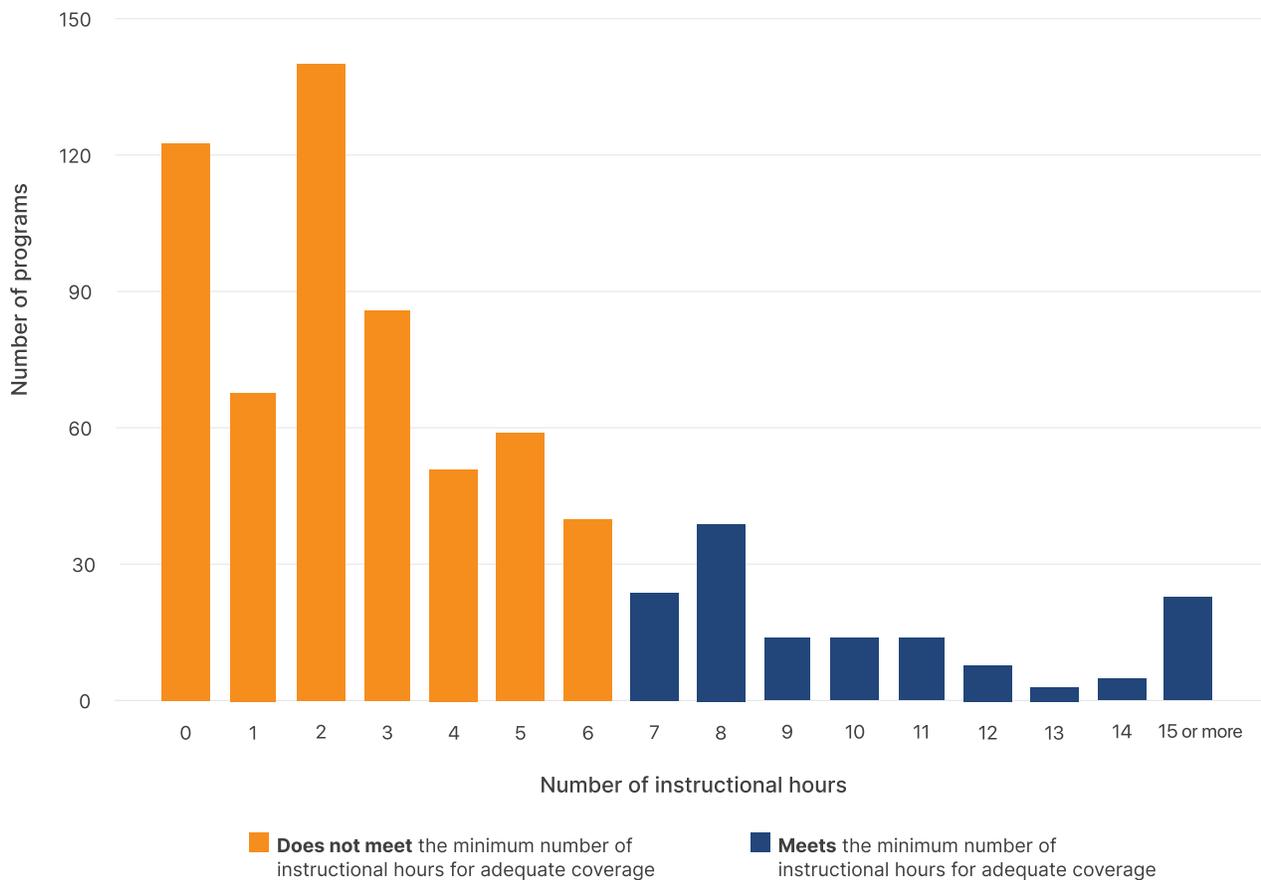
The minimum number of instructional hours needed to address the core concepts for each component was determined based on feedback from the Expert Advisory Panel and the results from the Open Comment Survey (see Appendix A for those recommendations).

Details on instructional hours dedicated to phonics, fluency, vocabulary, and comprehension can be found in Appendix D.

High-performing programs ensure their courses not only dedicate instructional time and use strong *background materials*, but also assess candidates by requiring them to *demonstrate knowledge* and provide *practice opportunities* on the techniques they learn. For phonemic awareness, 69% of programs adequately assess candidates using objective measures of knowledge (tests, quizzes, and written assessments). Twelve percent of programs require adequate opportunities to practice teaching phonemic awareness.

In addition to multiple hours of instruction on phonemic awareness, this course from **Southern University and A&M College** (Undergraduate, LA) includes assignment and practice opportunities for foundational reading lessons focused on phonemic awareness, fluency, and phonics.

Example assignment and practice opportunities

IRIS Center Early Reading Case Studies

Students will use the STAR Sheets from the IRIS Center Early Reading Case Studies to develop, implement, evaluate, and revise foundational reading activities in phonemic awareness, phonics, and fluency. Students will implement the activities with each other to practice the instructional activities with each other. The instructor and the students will evaluate the instructional practice, and students will revise the activites based on feedback. In addition, students will read, write reports, and present on two IRIS Center Early Reading Case Studies as part of the midterm examination and two case studies as part of the final examination.

Lesson plans and unit plans

For the midterm examination, students will use high-quality curriculum materials (quality based on evaluations completed by the Louisiana Department of Education (LDOE)), course textbooks, IRIS Center Early Reading Case Study STAR Sheets, Louisiana Literacy resources from the LDOE, and guidance from ReadingRockets.org, etc. to develop a foundational skills reading block that includes phonemic awareness, phonics, and fluency activities that are embedded within lesson plans that utilized the Universal Design for Learning. These activities will be implemented as part of the students' Level 2 Field Experiences and revised based on evaluation of those field experiences. For the final examination, students will expand the skills block lesson plan into a unit plan that includes five days of foundational skills reading block activites for each of the following types of foundational reading instruction: phonemic awareness, phonics, and fluency.

Performance across the five components

Phonemic awareness helps lay the foundation for reading, but all the components are critical to develop strong readers. While phonemic awareness receives the least attention, programs generally perform strongest in comprehension, which helps students understand what they read.

Percent of programs adequately addressing each component of scientifically based reading instruction
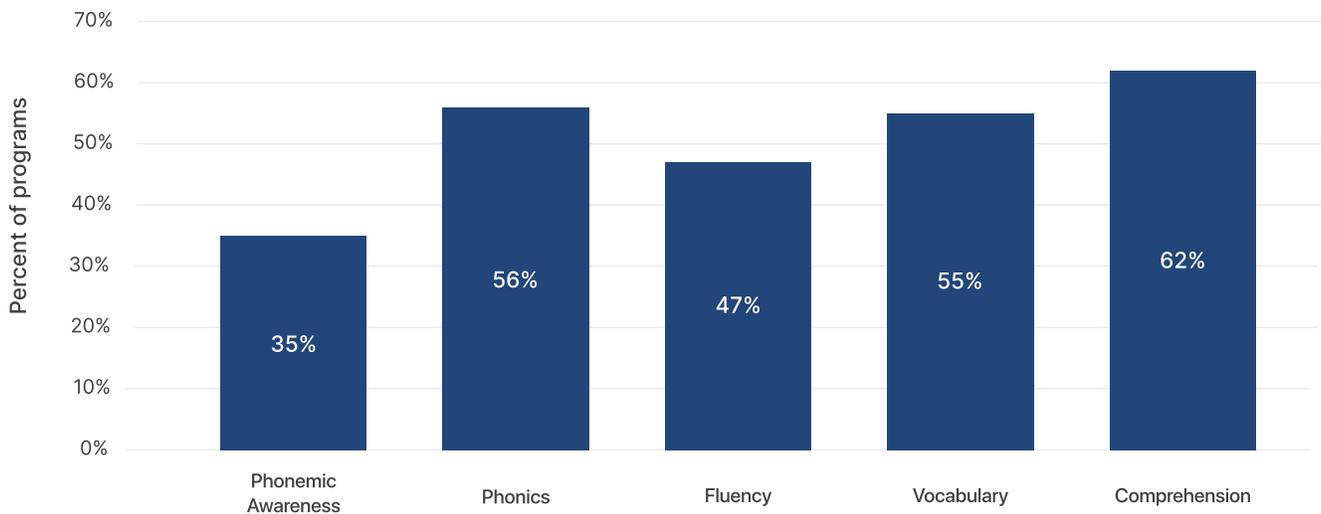
Note: n = 693. View this data online to see which programs adequately cover which components.

See how your state compares.

View this data online to filter by state or explore individual program data.

In eight states (**Arkansas, Colorado, Florida, Idaho, Louisiana, Mississippi, North Carolina and Utah[27]**), at least 50% of their programs adequately address *all five* components, while in four states with five or more programs in the sample (**Kansas, New Jersey, Oregon, and Washington**), at least 50% of programs do not adequately address *any* of the five components.

See **here** for more information about how preparation in reading varies across states.

3

Nearly one-third of programs do not provide any practice opportunities connected to the core components of reading, despite widespread agreement among practitioners and researchers on the importance of practice

It seems intuitive: To get better, you need to practice. Experts agree. In a survey of stakeholders from teacher preparation programs, state education agencies, schools, and districts,[28] 80% of respondents believed preparation programs should require teacher candidates to demonstrate knowledge through both an objective measure of knowledge (e.g., text, quiz, or assignment) *and* application of knowledge (e.g., a practice opportunity). In teacher preparation, practice takes many forms, such as one-on-one tutoring with a student, administering a mock assessment to fellow teacher candidates, or conducting a lesson during a field experience. Regardless of the format, practicing the concepts is essential to preparing new teachers.[29]

Although there is widespread agreement on the importance of practice, three in 10 (30%) programs do not provide *any* practice opportunities for any of the five components. To provide adequate practice opportunities within a component, programs must provide *more than* one practice opportunity in a component. Often, programs may require candidates to practice teaching a reading lesson, but do not set parameters around the content of that practice lesson (e.g., specifying that it focuses on teaching a phonics skill). As a result, many more programs require *some* practice, but do not earn credit toward the Reading Foundations standard for practice of any component.

Aspiring teachers need multiple opportunities to practice each component, but 30% of programs require no practice opportunities on *any* component.

Figure 6.

Opportunities to practice for each component

Component	Multiple opportunities to practice	Some opportunity to practice	No opportunities to practice
Phonemic awareness	12%	30%	57%
Phonics	27%	29%	44%
Fluency	10%	25%	65%
Vocabulary	11%	27%	62%
Comprehension	21%	32%	46%

■ Multiple opportunities to practice   ■ Some opportunity to practice   ■ No opportunities to practice
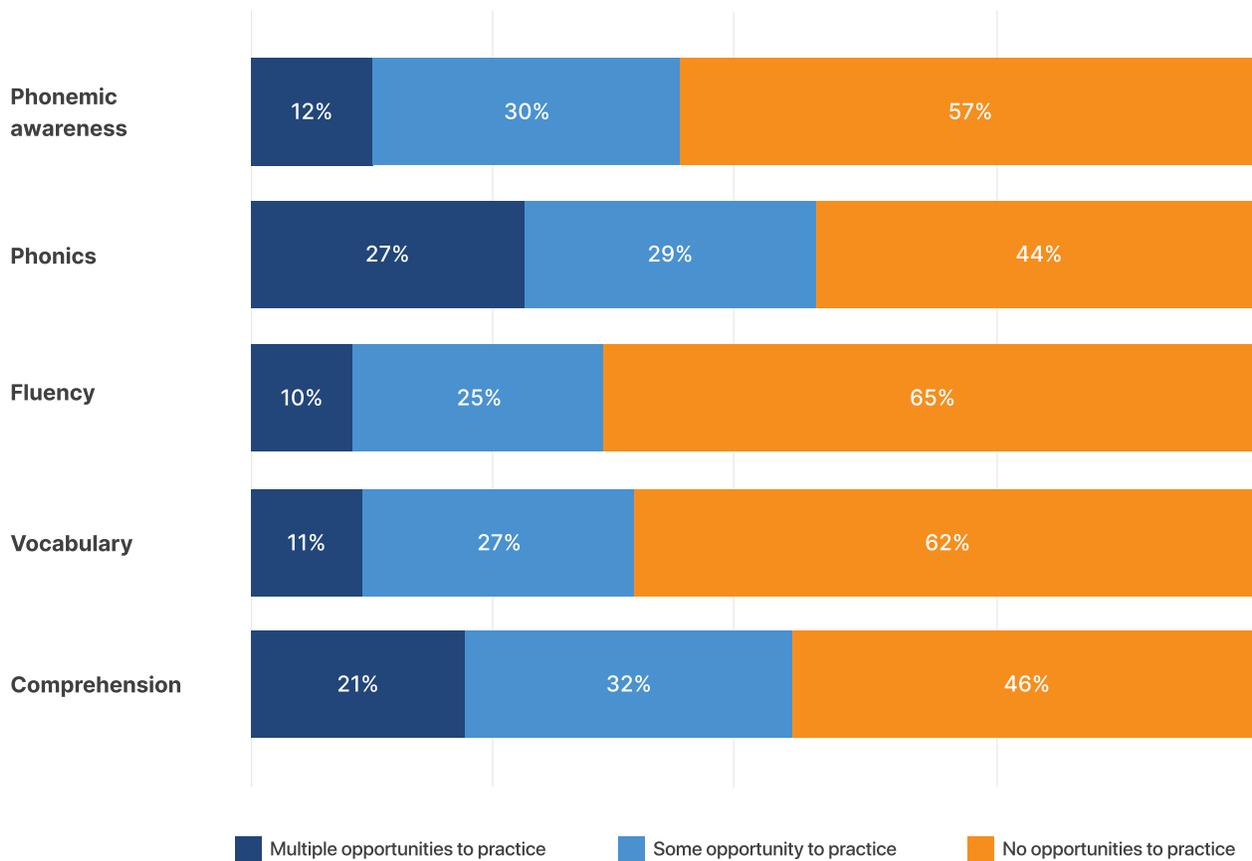
Note: n = 693. Percentages for each component are rounded and may not add to 100%.

See how your state compares.

View this data online to filter by state or explore individual program data.

Some programs, like **Lenoir-Rhyne University** (Undergraduate, NC), lead the way by dedicating a single course to practicing specific skills related to the components that candidates learned in reading content courses. Over the duration of the course, candidates have diverse opportunities for applied practice—from administering phonics and spelling inventories to *planning and demonstrating* lessons in vocabulary and comprehension. These varied opportunities are essential to providing teacher candidates with the practical experience they need to enter the classroom prepared.

In a course at **Lenoir-Rhyne University** (Undergraduate, NC), candidates are required to practice instructional activities and assessments learned within their reading courses during tutoring (e.g., administering assessments such as DIBELS or PAST).

Sample practice opportunity connected to components

Week 3	1/25	Tutoring begins: Middle-of-the-Year Assessment (MOY) (DIBELS: Letter Naming Fluency, Phoneme Segmentation Fluency, Word Reading Fluency, & Nonsense Word Fluency)	
	1/27	Tutoring: Assessment (PAST, Untimed Letter Recognition of Upper and Lowercase, High-Frequency Words)	
Week 4	2/01	Tutoring: Assessment (Oral Reading Fluency)	Weekly Tutoring Plans
	2/03	Tutoring: Letter Recognition, Phonemic Awareness, Letter-Sound Correspondences, **Phonics (Reading & Spelling Decodable Words/ Sentences)** & High-Frequency Words	
Week 5	2/08	Tutoring: Letter Recognition, Phonemic Awareness, Letter-Sound Correspondences, Phonics, & High-Frequency Words	Weekly Tutoring Plans

Field experiences (or practice teaching opportunities in a real school setting) are often designed to coincide with a course, but do not prescribe practice opportunities connected to specific components of reading. For example, students may spend hours in the field, but the practice often varies depending on what the cooperating teacher is covering, rather than being tied to specific course concepts and reading components. For example, a student teacher may never be required to administer a reading assessment of students' comprehension or demonstrate how they would support a multilingual student to gain phonemic awareness in English.

This example illustrates two common issues with the practice that does exist in teacher prep: first, it's not tied to specific components of reading, and second, it asks candidates to observe students rather than to practice conducting instruction themselves. Field experiences that are not clearly tied to a specific component do not receive any credit under the standard because they do not guarantee that teacher candidates practice any specific skills related to reading instruction; the skills candidates practice may vary based on the cooperating teacher or the day they happen to be in the classroom. Observations during field experiences, although not necessarily bad in their own right, do not receive credit as a practice opportunity because they do not indicate that the candidates are *practicing* any skills related to reading instruction, merely that they are watching another teacher in action.

Sample practice opportunity *not connected* to components

Across the semester, you will complete 2 **Child Observation Reports** in which you will *document* and *analyze* your observations of a child's language development. **Child Observations** are intended to provide you an opportunity to apply your understanding of language and literacy development for individual children. Please note as you describe your analysis of children's language and literacy development, you must do so through a **growth mindset**.

4

With strong state policies, effective implementation, and accountability, states can improve the quality of teacher preparation in reading

While individual preparation programs can improve the outcomes for their enrolled candidates, states hold the power to institute improvements to reading instruction and teacher preparation on a statewide scale. Several states have already taken this step, showing what is possible. **Mississippi** and **Colorado** stand out for high scores for their teacher prep programs and minimal existence of practices contrary to scientifically based reading instruction.

Arkansas and **Louisiana** also showed strong performances in reading within the *Teacher Prep Review*. In both states, nearly 70% of their programs cover all five core components, earning an A. Three-quarters of programs in both states dedicate more than two hours to struggling readers, surpassing the national average. Arkansas programs also stand out for their dedication to phonemic awareness, with programs dedicating on average 16 hours to this component, whereas in many other states, this component is covered the least.

Of the top 10 states based on the average number of reading components addressed, **Arizona, Colorado, Mississippi, New Mexico, Utah and Virginia** deserve praise for having one or less contrary practices on average across all reviewed programs in their state. In contrast, in four states **(Connecticut, Iowa, New York, and South Carolina)**, programs vary in their attention to the core components and also teach nearly three contrary practices on average.[30]

The strong results by **Mississippi and Colorado** should come as no surprise, given the investments and attention they have given in recent years to promoting scientifically based reading instruction, including developing robust and specific teacher preparation standards and accountability, requiring a strong reading licensure test addressing all five components, and offering supports for teacher preparation programs to make the transition to scientifically based reading preparation.

Mississippi's dedication to teacher preparation

The case of Mississippi's systematic reading transformation is well documented.[31] Often overlooked, however, is the state's inclusion of teacher preparation early on in its efforts. As part of landmark [legislation][32] in 2013, the state provided professional development training via Language Essentials for Teachers of Reading and Spelling (LETRS) to elementary teachers and leaders, as well as included faculty from institutes of higher education on a voluntary basis, to begin to create a common language across the entire education system.

While Mississippi had long required multiple reading courses in elementary teacher preparation programs, there was misalignment between the content taught in the course and the core components of scientifically based reading instruction. In 2015, Mississippi conducted an in-depth review of 15 prep programs, in partnership with Barksdale Reading Institute; these programs voluntarily participated to assess their alignment to scientifically based reading instruction and provide a better understanding of programs' strengths and areas in need of growth related to scientifically based reading instruction.[33]

Based on this study, the state set up strong accountability *and* support mechanisms to help bring programs into alignment. In 2016, the state began requiring the Foundations of Reading test for all elementary teachers to earn a license, which also provided a common indicator across all programs of whether teacher candidates were obtaining the knowledge and skills they need to teach scientifically based reading instruction. Later, the state factored this data into more frequent program reviews, including annual reports on the percentage of candidates who passed the reading test by number of attempts. Beginning in 2018, the state, with philanthropic support, provided intense professional learning and support to faculty in prep programs. This support included on-site training modules, texts, and other instructional videos; classroom instruction; one-on-one mentoring; and seminars. Most importantly, the state department of education studied the impact of the professional learning partnership in order to understand continued areas of needed support and to celebrate successes.

To support sustainability, Mississippi redesigned educator prep program guidelines and program approval requirements to prescribe the 15 credit hours dedicated to literacy, and required the two courses—Early Literacy 1 and Early Literacy 2—to align with syllabi from the [Mississippi Higher Education Literacy Council matrix], which also includes an emphasis on dyslexia and English language learners. Additionally, a third course, Fundamentals of Reading in the Upper Elementary Grades, is also required.

Mississippi's status as a top state in the NCTQ review is evidence that this dedication to teacher preparation is achieving results for students: Between 2013 and 2019, the state saw fourth grade NAEP scores rise dramatically, including for historically marginalized groups such as Black and Hispanic students. Even after the pandemic, Mississippi maintained its gains in reading in 2022, while many other states declined.[34] By partnering with teacher prep, setting accountability mechanisms in policy, and providing the necessary support for professional learning, Mississippi continues to be successful.

How Colorado helped teacher preparation make the shift

Colorado programs exhibit the strongest performance in program scores, with one-third of its programs earning an A+, and 13 out of 15 programs earning an A or a B. None earned lower than a C. We identified almost zero contrary practices in its programs. By contrast, in NCTQ's 2020 *Review*, only five Colorado programs earned an A or a B, with six programs earning a D or an F.

A key ingredient to Colorado's success? How the state changed its approach to approving educator preparation programs.

In 2012, Colorado passed the READ Act—legislation that focused on changing how current teachers taught reading in schools and moved classroom instruction across the state toward evidence-based practices.[35] The state was unequivocally coming down on the side of scientifically based reading practices, and the Colorado Department of Education (CDE) was committed to reflecting that intent in how it reviewed educator preparation.

In 2016, the state board issued [new literacy standards for elementary teachers](#), to which preparation programs were required to align their course content. The new standards were aligned to scientifically based reading instruction and represented an explicit directive to prep programs to update their coursework to align to evidence-based practices.

By 2018, four programs (including the largest preparer of teacher candidates in the state) were up for renewal of their program approval. The state's review authority was strengthened by both the READ Act and the new standards as it looked for specific evidence of alignment to scientifically based reading instruction. First, the CDE created a [detailed matrix for programs to complete](#) prior to its site visit to determine not only if the standards were being taught, but also whether candidates had opportunities to practice and receive feedback on these skills through aligned clinical experiences.

Starting with this cohort, CDE's educator workforce team began conducting more rigorous assessment of prep programs' instruction in "emergent reading," inviting literacy experts from the agency's Student Learning Division into the review and approval process. Literacy experts now attend program approval visits, where they evaluate syllabi, conduct class visits to literacy courses, and give feedback on their alignment to state standards.

Mary Bivens, CDE's executive director of Educator Workforce Development, says that while reviewing inputs like course descriptions are valuable, getting at candidates' learning outcomes through interviewing has helped deepen their review process. State reviewers interview faculty, current teacher candidates, and recent graduates to gauge their understanding of scientifically based reading instruction. These interviews get at the outcomes of a program's approach and provide direct evidence of how well faculty and students understand teaching reading—in some cases identifying that candidates did not know the five components of reading.

When the state began its new review process, CDE quickly realized that under its current approval structure, program review had only two possible end points: approval or probation. But putting programs on probation would be a sweeping action that meant a program could no longer enroll new candidates—a serious consequence for a state where a large share of programs (including those that graduated the most Colorado teachers) were not yet teaching scientifically based reading instruction. With only these two options for program approval, the state did not have an option that compelled programs to improve without imposing immediate consequences that did not allow programs the time to make needed changes. So CDE proposed a third category to the state board of education: conditional reauthorization. A program could be recommended for approval if it was able to demonstrate it had made required changes from the state within one year. The board accepted this third option, and later that year, the state legislature enshrined conditional reauthorization in state code.

When a program was granted conditional reauthorization, the state provided a list of specific changes to be made within the year, such as embedding state standards on scientifically based reading instruction into clinical experiences for teacher candidates. To help programs, CDE began offering monthly calls with each program granted conditional reauthorization to support its progress in making needed changes. Depending on the identified weaknesses, programs can be required to make a range of changes, from updating course materials to re-training all faculty in scientifically based reading instruction.

Between 2018 and 2023, CDE conducted 23 reauthorization site visits with programs that have scientifically based reading standards in one or more endorsement area (elementary, early childhood, special education). Seven programs were subsequently put on conditional reauthorization to address deeper content for and understanding of scientifically based reading instruction for their candidates.

This new approach to program approval resulted in a swift and dramatic difference in the state's performance on the *Teacher Prep Review*. Colorado programs, on average, satisfied 4.6 out of five components and demonstrated almost no evidence of contrary practices across all programs. Programs across the state demonstrated that change can happen quickly, too: Colorado programs rose from the middle of the pack in our 2020 *Review* to the top in 2023.

Figure 7.

Comparison between average core components and average contrary practices taught by state

State	Average number of core components	Average number of contrary practices
Colorado	4.6	0.4
Louisiana	4.5	1.1
Arkansas	4.3	1.2
Mississippi	3.9	0.8
Idaho	3.8	2
Connecticut	3.8	2.6
Florida	3.7	2.1
North Carolina	3.6	1.2
Arizona	3.6	0.4
Virginia	3.5	1
Utah	3.5	0.5
New Mexico	3.5	0.4
Alabama	3.3	0.7
Ohio	3.0	2.2
Wisconsin	2.9	2.3
West Virginia	2.8	1.5
Georgia	2.7	2
Texas	2.7	1.5
Minnesota	2.6	1.6
Tennessee	2.6	1.2
National Average	2.6	1.6
Kentucky	2.5	1
Pennsylvania	2.5	2
Nebraska	2.4	1.4
Kansas	2.3	1
Indiana	2.2	0.9
North Dakota	2.1	1.9
Montana	2.1	1.1
Oklahoma	2.0	1.3
South Dakota	2.0	1.5
Massachusetts	1.9	2.3
Missouri	1.9	2.3
South Carolina	1.8	2.5
Michigan	1.8	1.2
Maryland	1.8	2.1
Nevada	1.8	1.6
Oregon	1.6	0.3
Illinois	1.5	1.7
New York	1.4	2.5
Washington	1.3	0.7
California	1.3	1.8
Iowa	1.2	2.7
New Jersey	0.9	2.2

Note: Nine states—Alaska, Delaware, District of Columbia, Hawaii, Maine, New Hampshire, Rhode Island, Vermont, and Wyoming—have fewer than five programs in the analysis and are therefore not included in the table above.

Because the bulk of course materials analyzed for the Reading Foundations standard were submitted in fall 2022 or earlier (except when programs chose to submit new materials in response to the preliminary analysis), any state policies enacted in 2023 that affect teacher preparation programs may not yet be reflected in program grades.

5

Programs provide little preparation in teaching reading to English learners, struggling readers, and speakers of English language varieties

All educators need to be prepared to teach a range of students with diverse needs in learning to read. For the first time as part of the reading standard, NCTQ analyzed the extent to which programs prepare candidates to teach three groups of students: **English language learners** (students in the process of acquiring English and who have a first language other than English), **struggling readers** (students who experience academic difficulties in the area of reading, including students with dyslexia), and **students who speak language varieties other than mainstream English** (such as speakers of African American English (AAE)). We looked at the programs' use of instructional time, objective measures of knowledge, background materials such as textbooks, and opportunities for aspiring teachers to practice. To deliver on the promise of an excellent and equitable education, teachers must be equipped to meet the differentiated needs of their students.

English language learners

English language learners are one of the fastest-growing populations of students in our schools, with over 5 million English language learners enrolled in public schools,[36] an increase of 35% over the last two decades.[37] Teacher preparation programs are not keeping pace with student demographic changes—71% of programs dedicate less than **two** instructional hours to teaching reading to English language learners, meaning most new teachers enter classrooms without knowledge and skills to teach English language learners to read. Furthermore, 88% of programs in the sample do not require any practice opportunities with this group of students, so most aspiring teachers never practice teaching English language learners to read before entering the classroom.

English language learners

71% of programs dedicate **fewer than two instructional hours** to supporting English language learners

88% of programs offer **no practice opportunities** on teaching English language learners

English language learners benefit from explicit instruction in the five components of reading, as do native English speakers.[38] However, because these students are learning to read in English as they are learning to speak and understand it (assuming they are not in a bilingual education program and learning to read in their home language), they also need additional English language development instruction so they become familiar with the meanings and the sounds of the words being used to teach foundational skills.[39] Recent publications from *What Works Clearinghouse* and the *National Academies of Science, Engineering, and Medicine* identify specific practices to support English learners.[40] In addition to providing explicit literacy instruction, all prospective teachers should learn how to support English language learners by:

1. *Screening for reading problems and monitoring progress.* For kindergarten and first grade students, this may include determining students' familiarity with the alphabet, rhyming, sound blending, and ability to read single words. For students in later elementary grades, this would include oral reading fluency assessments. Teachers need training on which assessments are best to use for English language learners, how to conduct formative assessments, and how to use data from these assessments to guide instruction for English language learners. They also must be able to distinguish between reading problems and issues related to oral language development.

2. *Providing extensive and varied vocabulary instruction including in academic vocabulary.* Evidence finds that explicit vocabulary instruction supports English language learners' development of reading comprehension once they have mastered the foundational literacy skills. Aspiring teachers should learn to provide vocabulary instruction that includes "multiple exposures to target words over several days and across reading, writing, and speaking opportunities" with "student-friendly" definitions of words.[41] Vocabulary words should include both academic vocabulary (vocabulary that is common in writing and formal settings) and vocabulary specific to certain content areas, as well as words that native English speakers are likely to know that English learners may not be familiar with, along with common phrases and expressions. Teachers should be equipped to teach content concurrently with the associated academic language.[42] What Works Clearinghouse notes a paucity of curricular materials that provide a scope and sequence of how to teach academic English,[43] making it that much more important for teacher preparation programs to provide aspiring teachers with instruction in how to develop this aspect of the curriculum themselves.

   While not addressed in depth by What Works Clearinghouse or the National Academies of Science, the field is coalescing around the importance of oral language instruction and development for multilingual students. Development of language can occur throughout the school day, but multilingual students benefit from specific and varied opportunities for oral language development and practice.[44] Oral language instruction should focus on the development of **vocabulary** and **syntax**, or the rules of how a language puts together words to form sentences. This can also include using opportunities for extended discourse to support syntax development. Although no strong research currently exists examining the effects of syntax interventions,[45] there is support for the necessity for

English learners to engage in extended conversations with teachers to elicit, model, and affirm student speech.[46] Students may also benefit from using narrative language to recount a set of events through narrative language.

3. *Providing intensive small-group reading interventions that include English language development.* This instruction should focus on the core components of reading and rely on explicit, direct instruction. This small-group instruction should include opportunities for students to engage in discussions using the words in the texts they are reading, respond to and pose questions, learn the meanings of words and become familiar with the phonemes within the words being used, practice reading words and sentences, and receive clear feedback from teachers to correct errors. Teachers need ongoing support that includes an emphasis on how to pace instruction and how to correct errors, and how to incorporate English language development instruction targeted at the words and texts students are learning to read.[47]

4. *Scheduling regular peer-assisted learning opportunities.* English language learners of varying language proficiency should work together several times a week on structured academic tasks; teacher candidates should learn how to set up these peer-assisted learning opportunities.

5. *Capitalizing on students' home language, knowledge, and cultural assets.* Teacher candidates need to learn how to build upon students' home language to support their literacy development in English. This instruction could include providing a preview of content in a child's home language, reading stories in the child's home language, offering definitions of vocabulary in the home language, helping children learn cognates for English words (for example, asking Spanish-speaking students to identify cognates like "*mysterioso*" and "*mysterious*"), and connecting key concepts with children's prior knowledge.

6. *Providing visual and verbal supports to help students understand core content.* These could include instructional videos, visuals, and graphic organizers. English learners benefit more than their English-proficient peers from "'Telling,' defined as the teacher providing students with information rather than engaging them in the creation of information."[48]

Exemplary programs can integrate instruction on how to teach English language learners using varied program structures—for example, **Eastern New Mexico University** (Undergraduate, NM) requires that all candidates take a course dedicated to teaching practices proven to benefit English language learners, while **Florida State University** (Undergraduate, FL) integrates instruction about teaching English language learners across multiple courses.

Winthrop University (Undergraduate, SC) requires teacher candidates to plan and implement a lesson using a research-supported strategy targeting the needs of an English Learner within their host classroom.

Example assignment description

SOUTH CAROLINA
Winthrop University

Five Principles of Effective Instruction for ELs – Content Strategy Lesson: You will use your textbook to identify strategies rooted in one of the 5 Principles of Effective Instruction (defined on the course blackboard page). Then you will plan an activity relevant to the content in your major. This lesson planning will help you prepare to teach in the host teacher's classroom.

English Learner Case Study Part A: *(Key Assessment: See separate rubric on Rex website, Via, or Course Blackboard page)*

- **Describe** general background information on your assigned individual EL; and
- **Analyze** the student's academic, language, and social strengths and needs.
- **Support** conclusions with provided and observational data from the field.

English Learner Case Study Parts B-F: *(Key Assessment: See separate rubric on Rex website, Via, or Course Blackboard page)*

- **Select, describe, and justify** a research-supported strategy targeted for the individual EL;
- **Plan** a lesson to include a research-supported strategy targeted for the individual EL;
- **Implement** the strategy while connecting with the host teacher;
- **Evaluate** the success of the lesson;
- **Explain** if the student accomplished the lesson objective and give description or work samples to support;
- **Reflect** on your personal growth and the relevance of this course to your future classroom and needs for the EL student's future academic support and/or social integration.

Struggling readers

Over a third of fourth grade students perform below basic on national reading assessments, indicating that even after years of elementary instruction, they are struggling to learn to read.[49] While many struggling readers suffer from poor reading instruction, it is estimated that 15%–20% of the population as a whole exhibit "some of the symptoms of dyslexia, including slow or inaccurate reading, poor spelling, poor writing, or mixing up similar words."[50] Students with these types of learning differences "are likely to benefit from systematic, explicit instruction in reading, writing, and language."[51]

Despite the prevalence of struggling readers, nearly 60% of programs spend less than two hours of instructional time teaching candidates to support struggling readers; furthermore, just 19% of programs require any practice opportunity focused on this group of students.

Struggling readers

58% of programs dedicate **fewer than two instructional hours** to supporting struggling readers

81% of programs offer **no practice opportunities** on teaching struggling readers

Teachers of struggling readers need to be able to teach the five components of reading. All students, and especially struggling readers, need explicit, systematic teaching of literacy (including phonemes and letter-sound relationships), practice, student-teacher interaction, carefully chosen examples, decodable text, and feedback that corrects their errors.[52]

Aspiring teachers must be able to assess and identify which specific foundational reading skills a student is struggling with, what interventions to deploy to address this deficit (including knowing when to bring in a reading specialist or the help of a reading coach), and how to monitor progress based on research-based methods. Furthermore, teachers need to be empowered to recognize the profile of children who are at-risk, or struggling readers. This includes the ability to not only recognize the signs of dyslexia, but also appreciate the intensity and explicitness of the instruction a student may need to become a skilled reader.

Exemplary programs ensure teacher candidates are prepared to teach students with reading difficulties by emphasizing structured literacy programs– including direct, explicit instruction to students in the five components of reading, screening and progress monitoring assessments, and multi-tiered systems of support.[53]

A sample course session from **Mount St. Joseph University** (Undergraduate, OH) emphasizes research-based content on how to best serve struggling readers with instruction on reading difficulties, dyslexia, and multi-tiered systems of support.

Example description of instruction

Week 13
 	
11/16
 	
11/18
	• Communicating data to parents, teacher teams
	
	• Learning disabilities
	
	• Dyslexia
	  ◦ Identification practices
	  ◦ Discrepancy formula and why not used
	  ◦ MTSS and the identification process
		Watch
		
		• Strickler lecture
		
		Read
		
		• The following Fact Sheets on IDA's website: https://dyslexiaida.org/fact-sheets/
		• Dyslexia Basics
		• Dyslexia Assessment
		• Effective Reading Instuction for Students with Dyslexia
		• When Educational Promises are Too Good to Be True
		
		Quiz
		
		Discussion Board
		
		Diagnostic Case Study—Evidence Based Practices:
		Presentations due by November 23 at 4:00pm. Individual papers due by November 24 at 11:59pm

Speakers of language varieties other than mainstream English

Students who are speakers of language varieties other than mainstream English have always been present in American classrooms, but most new teachers never receive any training on how to best serve these students in learning to read. Varieties of English are rule-governed languages spoken by communities connected by race, culture, and identity[54]—and the U.S. is host to many dialects of English, including African American English (AAE), Cajun English, and Appalachian English, among others.[55] Despite this, few programs (9%) in the sample provide *any instruction at all on how to teach students who speak varieties of English how to read.*

This appears to be a nascent area in teacher preparation, one that merits more attention from programs themselves and from those developing resources such as textbooks to support teacher preparation. It is necessary to prepare teachers to support students who speak English language varieties through culturally and linguistically responsive instruction, including respecting and recognizing the diversity of language that students bring to the classroom. Though failing to attend to a mismatch between home and school language can hinder reading acquisition,[56] being bidialectal should be considered a strength as it demonstrates students' linguistic flexibility when teaching target skills.[57]

While more research is needed to identify the most effective instructional strategies, with proper training and coursework on dialects of English, teachers can understand and be able to teach students the idea of "code switching," or adapting their language depending on their context. Teachers can also help students through "contrastive analysis," in which they sort sentences into language that fits better in different settings; "transforming," in which they identify which word would be appropriate for school language; and "formulation," in which students are given a picture about which to write a sentence using a target language feature such as a plural –s.[58] Teachers should also learn how to employ a "test-teach-retest" approach, which can help determine if children's reading struggles are due to a language and dialect difference or to language deficits.[59]

As teacher preparation programs integrate support for these learners into their courses, they may consider the following free, research-based resources as a place to begin:

Resources for teaching students who speak varieties of English

Type	Title	Authors and/or Experts
Lecture	Cultural Considerations for Diverse Readers	Dr. Lakeisha Johnson
Lecture	Distinguishing Between Difference, Disorder, and Disadvantage	Dr. Lakeisha Johnson
Lecture	African American Dialect: What it Does to the English Language	Dr. Julie A. Washington
Podcast	An Integrated Approach to Supporting All Learners	Dr. Lakeisha Johnson
Article	Teaching Reading to African American Children	Dr. Julie A. Washington, Dr. Mark S. Seidenberg
Article	Evidence-Based Practices in the Assessment and Intervention of Language-Based Reading Difficulties among African American Learners	Dr. Brandy Gatlin-Nash, Dr. Lakeisha Johnson
Article	Linguistic Differences and Learning to Read for Nonmainstream Dialect Speakers	Dr. Brandy Gatlin-Nash, Dr. Lakeisha Johnson, and Dr. Ryan Lee James

6

Distribution of program grades in 2023

As part of the *Review*, programs earn a grade based on the number of components of scientifically based reading instruction they adequately cover, including dedicated instructional hours, objective measures of candidate knowledge, use of appropriate background materials, and opportunities to practice. Programs earning an A adequately cover all five components with limited instruction on contrary practices. Subsequently, NCTQ reduces programs by one letter grade for each component not adequately covered (so those adequately addressing four of five components earn a B) and also deducts one letter grade from programs that teach four or more contrary practices. To earn an A+, programs must adequately cover all five components, but meet a higher point threshold for each component, and teach no practices contrary to the science of reading.

These program scores should not be compared to prior editions of the NCTQ reading standard. The revised 2023 Reading Foundations standard has changed in several ways that affect scoring based on the results of 18 months of stakeholder engagement including an expert panel, an open comment period, and a technical advisory group. A detailed description of the scoring methodology, including the rubric used to evaluate each component, is available here.

Figure 8.

Distribution of grades

Grade on the 2023 Reading Foundations Standard

Note: n = 693. Percentages are rounded and may not add to 100%.

See how your state compares.

View this data online to filter by state or explore individual program data.

While 693 programs provided material for review by either cooperating directly with NCTQ or publicly posting syllabi, 443 programs chose not to make their materials available for review. These non-cooperative programs, located in 44 states and the District of Columbia, prepare an estimated 16,000 elementary teachers each year,[60] most of whom will go on to teach in public schools. It is the position of NCTQ that when colleges and universities choose to open a program to prepare the next generation of teachers, they are, in effect, entering into an agreement with not only the state, which approves the program to operate, but also the school districts that hire the teachers, the aspiring teachers who enroll in the program, and the students who will learn from teachers prepared by these programs and expect them to be experts in their field. For this reason, NCTQ believes preparation programs have a moral obligation, as well as a legal one, to disclose to their stakeholders how they are preparing aspiring teachers and whether that preparation aligns with the best available research-based practices.

For a list of institutions that were not willing to provide information about their reading preparation and/or for which NCTQ was unable to obtain materials, please see Appendix E.

Actions for teacher preparation programs

1 **Use the detailed feedback that NCTQ provided in your program score to determine whether courses adequately teach all components, and where there are opportunities for growth.**

- Although all five components are important, we recommend paying especially close attention to whether your program provides in-depth instruction on phonemic awareness, the most commonly overlooked component.

- Be sure to look at the quality across *all sections* of a course to determine if there is any inconsistency in quality or additional room for improvement. When multiple sections of a course are taught by different faculty members, NCTQ only reviews one section; therefore, it is important for programs to review for quality across all sections of a course.

2 **Consider how to modify existing courses to include more scientifically based reading instruction.**

- More coursework is not always the answer. High-performing programs range in the number of courses they require, but all use high-quality background materials, sufficient instructional time (at least 34 direct instructional hours), aligned measures of knowledge, and opportunities for practice.

- Even adjusting a few lecture topics and assignments to focus on core components of reading instruction could make a big difference for aspiring teachers' understanding of reading instruction. The strongest programs in our sample, like **Western Colorado University** (Undergraduate, CO) or **Olivet Nazarene University** (Undergraduate, IL), have anywhere from two to seven courses dedicated to reading, with some time devoted to other topics (e.g., children's literature or writing).

3   **Ensure that practice opportunities give candidates the chance to apply all components of effective reading instruction.**

- While many reading courses have field opportunities, candidates are not always required to practice specific elements of what they have learned, meaning they may never get the opportunity to give a fluency assessment or teach decoding strategies. Rather than requiring candidates to practice teaching a lesson without further parameters on the content of the lessons, be sure candidates have specific opportunities to frequently practice teaching or assessing each of the core components of reading.

4   **Use high-quality, research-based background materials.**

- Textbooks provide an important resource to candidates while they are in their preparation program and serve as a reference during their years in the classroom. Ensuring these materials are of high quality provides teachers with reliable resources. Textbooks and other background materials vary widely in quality. As part of the revised standard, NCTQ examined all required instructional resources. Courses should use high-quality, research-based background materials such as those in NCTQ's Reading Instructional Materials database, which includes a review of all background materials analyzed in the *Teacher Prep Review* 2023 sample. High-quality materials cover the components of reading in sufficient depth, do not contain content contrary to research-based practices, and use high-quality research support.

- Some candidates may start their careers teaching in districts that still employ balanced literacy curricula, therefore it is important to teach candidates about valid and reliable assessments, and to offer examples of scope and sequences for phonemic awareness and phonics.

5   **Eliminate instruction on content contrary to research-based practices.**

- Work with instructors across *all sections of a course* (when the same course is taught by multiple instructors) so they do not teach practices that science has proven are not the best way to teach children how to read.

- For a comprehensive explanation of some contrary practices, see our summary of the contrary practices in Appendix C or the full research basis in the *Technical Report*.

6 **Provide support to build capacity across the entire preparation program to promote scientifically based reading instruction.**

- Consider offering additional training for current faculty who may not be well versed in the science of reading.

- When hiring reading instructors, ask for evidence that they are both well versed in and committed to teaching candidates about scientifically based reading instruction and will not teach content contrary to research-based practices.

- Invite reading experts to review course syllabi and materials.

- Use networks (such as Stronger Together: The Alliance for Reading Science in Higher Education, The Reading League, National Center on Improving Literacy, Center for the Success of English Learners, or the International Dyslexia Association) to connect with experts in scientifically based reading instruction to improve program quality.

Actions for state leaders

1   **Set specific, explicit, and comprehensive preparation standards for scientifically based reading instruction.**

- Listing the five components is not enough; standards need to explicitly identify what candidates should learn (e.g., prep programs should teach phonemic awareness, why this area is important for children's reading development and attainment of the alphabetic principle, what common patterns are in the development of phonemic awareness, specific goals of instruction such as blending and segmentation, and how to assess students' phonemic awareness). The standards in Utah and Texas provide strong examples.

2   **Hold programs accountable for implementation of scientifically based reading instruction.**

- Incorporate a specific evaluation of reading instruction in program renewal or reauthorization processes and take action if programs are not aligned to the state's standards for scientifically based reading instruction.

- Standards alone will not improve reading instruction. They must be explicit and coupled with implementation support (training, feedback, high-quality curricula) and accountability (data and evidence used to inform decisions about program approval) to see widespread results. See Colorado's detailed requirements for programs through its program renewal process.

- Conduct site visits and include literacy experts. Often program approval or reauthorization processes focus on broad program operations. Focusing specifically on the teaching of reading will support the improvement of elementary teacher prep programs as well as early childhood and special education prep programs. States should set a regular and frequent schedule for evaluating whether prep programs are integrating scientifically based reading instruction into coursework. States should also require adequate practice opportunities in preparation—and measure these opportunities in program review. Visit classrooms, talk to teachers and staff, and collect qualitative data to help inform approval decisions.

- Make conditional approval—with clear timelines and identified areas for improvement—an option. States should consider in their regulations whether conditional approval is an option for the authorizing entity (either the department of education, state board, or higher education commission). While reading could be a weak area for a program, it may have other strengths. Allowing conditional approval, along with clear expectations and strict timelines, can bring about the desired change while permitting the program to operate.

3 **Require a reading licensure test aligned with scientifically based reading instruction for all elementary teachers to earn licensure, and publish the pass rates.**

- Verify the state-required test is strong and measures candidates' knowledge of the core components of reading instruction.

- Require all elementary teachers—as well as early childhood educators, special education teachers, and reading specialists who instruct PK–5 students—to demonstrate their knowledge of how to teach reading.

- At a minimum, provide data to programs on first-attempt and best-attempt pass rates on reading licensure tests. This will provide feedback to programs on how candidates are doing, and allow programs to track and support improvement efforts.

- To provide an understanding across the state, publish pass rate data on the licensure tests.

4 **Deploy a comprehensive strategy to implement scientifically based reading instruction and prioritize teacher prep.**

- Follow the lead of states like Colorado and Mississippi and take a comprehensive approach to policy and practice, with an emphasis on teacher preparation that impacts student learning in reading and includes approaches to support struggling readers, English learners, and speakers of language varieties other than mainstream English.

- In addition to holding prep programs accountable for reading instruction, states can build teacher prep capacity through various means, such as inviting teacher prep faculty to join statewide professional development, supporting programs with competitive funding to revise their programs, or creating communities of practice where programs can learn from other exemplary programs as to how they made the transition.

- Some states, such as North Carolina and Alabama, have invited external reviewers such as the Barksdale Reading Institute and TPI-US to inspect their teacher preparation programs (e.g., observe courses and interview faculty and teacher candidates) and report on their findings.

5 **Use the bully pulpit and take action.**

- To send an important signal that reading instruction matters, state leaders such as governors, state education chiefs, state board members, and university system leaders should adopt their own platform-specific goals for increasing reading outcomes, set standards for the institutions they lead, and ask their organizations and staff to report on progress toward those goals.

- NCTQ has observed that progress—both at the program and state levels—is often a result of courageous leaders who set clear expectations, measure progress, and promote accountability. In doing so, leaders help their states reach the goal that all students, and especially students who have been historically marginalized, have access to teachers with the knowledge and skills to be effective. When necessary, these leaders make difficult (and sometimes politically risky) choices to follow through on their commitments on behalf of the students and families they serve.

Actions for school districts

1   **Be strategic in recruiting new teachers. To the extent possible, focus hiring efforts on teachers from preparation programs adequately teaching scientifically based reading instruction, or from stronger programs in your region.**

- Training teachers is expensive. Focusing on hiring from programs already providing a foundation in reading instruction will save your district money and will better support your students' literacy outcomes.

- Hiring from stronger programs sends a signal to all programs that they need to provide instruction aligned with scientifically based reading research. Use data from the *Teacher Prep Review* to focus recruitment and hiring on programs with a strong track record.

- Because graduate programs tend to provide weaker preparation on reading, be particularly attentive to evidence that teachers from graduate preparation programs have learned scientifically based reading instruction (e.g., consider their score on a relevant licensure test, check the quality of the graduate program's early reading instruction in the *Teacher Prep Review*, and ask a few questions about literacy instruction during the interview process).

2   **Prioritize partnerships for field experiences with programs committed to teaching scientifically based reading instruction.**

- Student teaching is an excellent opportunity to hire strong candidates early. Bringing in student teachers from programs providing instruction in scientifically based reading provides an opportunity to hire from this pool early on, *and* it sends a message to other programs that they need to strengthen their reading instruction.

- Match student teacher candidates to mentor teachers with a proven track record of effectiveness in teaching reading based on the science. Don't assign student teachers to teachers who would be poor models of teaching reading or use contrary practices in their instruction.

3 **Provide professional development opportunities for teachers already in the classroom who were not prepared in scientifically based reading instruction practices.**

- While not exhaustive, some resources to consider include LETRS, Neuhaus Education Center, CORE Learning, and Essential Actions: A Handbook for Implementing WIDA's Framework for English Language Development Standards.

- See examples of high-quality professional development opportunities.

4 **Review, select, and carefully implement high-quality reading curricula approved by your state or other external reviewers along with aligned, job-embedded, high-quality professional development to skillfully implement the curricula, and share your curriculum resources with teacher preparation partners.**

- This is particularly important in the context of preparation for student teachers, who can begin learning about this curricula—and how to implement it—during their student teaching experience and have a "leg up" when it comes to starting to teach in your district.

- Examples of external curriculum reviewers include:
  - The Reading League's Curriculum Evaluation Guidelines
  - Student Achievement Partners
  - What Works Clearinghouse
  - Ed Reports

Actions for advocates, teachers, and parents

1 **Use your voice! Ask questions and advocate to ensure scientifically based reading instruction is used in local schools.**

- Learn more about scientifically based reading instruction—start with *Science of Reading: Defining Guide* and the podcast *Sold a Story*, or dive into resource-packed websites like Reading Rockets, Florida Center for Reading Research, and Colorín Colorado. Send letters to a university's board of trustees and your district's school board, or testify at public hearings advocating for professional learning and curricula aligned to scientifically based reading instruction.

- Advocate for adoption—both at the district and state levels—of curricula (including core curricula, intervention programs, and supplemental materials) that provide systematic and explicit reading instruction to teach the five components of scientifically based reading instruction. If they exist, call for the removal of low-quality curricula from classrooms, such as those based in balanced literacy, leveled readers, or the use of three-cueing. Share these resources on scientifically based reading instruction with state legislators so they understand the importance of curricula as a help or a hindrance in quality reading instruction.

- Partner with other advocates in your area to learn more about scientifically based reading instruction, find additional resources, and join community efforts to improve your local schools. Look for groups like Decoding Dyslexia or The Reading League.

- Advocate for local schools to focus their hiring practices on teachers who are well prepared and committed to scientifically based reading instruction, especially local preparation programs earning a high grade in the *Teacher Prep Review*.

Programs performing the strongest on the Reading Foundations standard provided their aspiring teachers ample opportunities to learn about, practice, and demonstrate knowledge of all five reading components. Additionally, these programs provide no instruction in content contrary to scientifically based reading instruction.

The leaders of programs at these institutions shared what their programs do and how they built a high-quality approach to prepare their candidates to teach reading.

1   **Fort Lewis College (Colorado)**

2   **Samford University (Alabama)**

3   **Southern University and A&M College (Louisiana)**

4   **Southern Utah University (Utah)**

5   **Texas A&M University - Texarkana (Texas)**

6   **University of Virginia (Virginia)**

Fort Lewis College (Colorado)

Undergraduate program
Dr. Jenni Trujillo, Dean, School of Education

At Fort Lewis College, we have had a long-standing commitment to preparing teachers who have a nuanced understanding of research-based reading instruction and are prepared to enter classrooms as strong literacy teachers. Our program creates teachers who understand their students and communities, and know how to design effective reading instruction in ways that draws upon students' cultural and linguistic assets, as well as their individual needs as learners.

Our literacy course sequence is designed to provide students with strong foundational knowledge of language and literacy. The focus on reading begins with a linguistic overview and a developmental perspective grounded in early language and literacy concepts.

A recent addition to the literacy scope and sequence is a new course titled *Teaching Reading K-3*, a course focused on methods for designing and delivering effective research-based reading instruction. In the course, teacher candidates learn how to design instruction, teach, and assess phonological and phonemic awareness, phonics, vocabulary development, and reading fluency including oral skills, and reading comprehension using pedagogically sound, research-based techniques. Candidates apply their understanding of course concepts through intensive field-based practicum experiences in elementary schools around the Four Corners, including rural and Tribal communities. These practicum experiences support teacher candidates to develop deeper understandings of effective reading instruction for diverse populations of students as they implement and apply knowledge through course assignments with the support and feedback from the course instructor and mentor teachers in the field.

Learn more from this program.

Samford University (Alabama)

Graduate program

Dr. Amy Hoaglund, Assistant Dean & Professor, Orlean Beeson School of Education

In 2019, the Alabama legislature passed the Alabama Literacy Act to improve the reading proficiency of kindergarten through 3rd grade students in the state. Samford University's Teacher Education programs were eager to enhance reading courses ensuring their future teachers were prepared to meet the goals of this legislation. In an effort to meet the Literacy Act requirements for institutions of higher education, Samford faculty developed a timeline to review and determine the necessary programmatic changes. Through steps such as the establishment of their own reading task force, course modification and collaboration with the [International Multisensory Structured Language Education Council](#) (IMSLEC), Samford's Teacher Education program earned educator pre-service program affiliation with IMSLEC.

It is important that teacher preparation programs review the implementation of the science of reading content and strategies within their program as well as in embedded clinical experiences to determine what pre-service teachers need to become successful reading teachers. Based on recommendations from Samford's Reading Task Force and the IMSLEC review process, faculty in the Elementary Alternative Master's Program carefully aligned nine hours of the science of reading instruction in the courses culminating in a comprehensive action research project requiring pre-service teachers to engage in Structured Literacy and assessment strategies. The redesign of the courses ensures that Samford's teacher candidates receive essential training based on current research on how children learn to read, while pairing the training with structured, authentic practical applications in field experience.

[Learn more from this program.](#)

Southern University and A&M College (Louisiana)

Undergraduate program

Dr. Erin Scott-Stewart, Assistant Professor, School of Education

In our program, we want our candidates to understand how important it is for each child in their care to learn to read. Through course work and teaching experiences, our goal is to shift our pre-service teachers' mindsets about reading instruction. In addition to understanding and being able to teach foundational reading skills and literacy strategies, we also want our candidates to understand the importance of creating what McEwan (2009) calls "a reading culture" in which children learn to read, read to learn, and read for fun.

We help candidates as they strive to provide whole group instruction, differentiated instruction, prevention, and intervention. Throughout the program, our pre-service teachers leverage high-quality instructional materials in their courses, during field-based teaching experiences, and during the one-year teacher residency. Literacy is at the center of our methods courses, and we work with our candidates and partner schools to ensure that what we do aligns with evidence-based and culturally relevant practices that contribute to equitable educational experiences for the children of our communities.

McEwan, E. K. (2009). Teach them all to read: Catching kids before they fall through the cracks. Corwin Press.

Learn more from this program.

Southern Utah University

Undergraduate program

Tony Pellegrini, Professor & Teacher Education Department Chair
Stacy Hurst, Lecturer, Teacher Education

Our SUU Teacher Education Department's teacher preparation program is committed to providing high-quality reading instruction that incorporates evidence-based practices for teaching reading, such as explicit instruction in phonemic awareness, phonics, fluency, vocabulary, and comprehension. Our program also provides our candidates with opportunities to practice and apply these instructional strategies in a variety of contexts, such as in clinical experiences or fieldwork. Additionally, our program ensures that our candidates have a deep understanding of the science of reading and the ability to assess and address the diverse needs of their learners, including those who may have reading difficulties.

Through ongoing professional development and collaboration with practicing K-12 mentor teachers and literacy experts, Southern Utah University strives to stay current with best practices and research in the field of reading instruction to support the success of all learners. Key faculty members attend annual conferences hosted by organizations such as The Center for Literacy and Learning, The Reading League, and the International Dyslexia Association.

Additionally, lecturer Dr. Hurst is part of a LETRS cohort of college professors in Utah who are dedicated to teaching the science of reading, is a founding member of Stronger Together: The Alliance for Reading Science in Higher Ed, and hosts a podcast, Literacy Talks, addressing topics related to the science of reading and collaborates with literacy experts through that venue as well.

SUU candidates attend practicums in local elementary schools where Southern Utah provides free inservice training for participating teachers on topics like effective phonemic awareness and phonics instruction.

Learn more from this program.

Texas A&M University - Texarkana

Undergraduate program

C. Kelly Cordray, Ed.D., Chair and Assistant Professor in the
Department of Teaching and Professional Programs in Education

I was hired four years ago to align all reading courses to the Science of Teaching Reading (STR). Since that time, I have worked tirelessly to make sure that every competency is fully covered and reinforced throughout the coursework at a pace and with enough practice that allows students to truly gain understanding in a way that will affect their teaching. I tell my candidates clearly that the journey to understanding the science of teaching reading will take them the full three semesters they spend in reading coursework.

STR is not the reading instruction most of my students grew up experiencing; so, we take time to investigate each component and any time I feel there is an area that needs more or different emphasis, I rework the course. Just as STR emphasizes direct, explicit teaching, I model by pointing out the how and why of each component, tying it all to foundational models such as Scarborough's Rope and the Simple View of Reading. It also means that I provide professional development support to other faculty and adjunct faculty that teach any of the three courses to ensure we all present the material in the same manner.

Although higher education is built around the tenet of academic freedom, my colleagues in our teacher preparation program have discussed on many occasions that due to the fact that our candidates have several certification exams they are responsible for at the end of the degree, we do not have the same freedom to pick and choose the concepts we include in our coursework especially when it comes to research-based reading instruction. Instead, we choose to be very intentional with the content and practicum, so our graduates leave our program Day 1 Ready!

Learn more from this program.

University of Virginia

Graduate program

Dr. Emily Solari, Edmund H. Henderson Professor of Education,
School of Education and Human Development

Dr. Latisha Hayes Associate Professor, School of Education and Human Development

The University of Virginia's Elementary Teacher Education program's literacy coursework is designed based on the most recent reading science and aligns the acquisition of new content, review opportunities, and spiraling of common content alongside cohesive practice opportunities. The MT in elementary education is a one-year program, running June through May. Preservice teacher candidates complete coursework on the foundations of reading development with applied practice with evidence-based classroom methods. This work is grounded in reading science, which allows candidates to understand the necessity of explicit and systematic instruction in the early grades in foundational reading skills (alphabetic principle, phonemic awareness, and phonics) with concurrent development of oral language skills and background knowledge to develop students into readers who gain meaning from written text (i.e., reading comprehension). The reading methods course also highlights reading and early language instruction for diverse learners including English Learners and speakers of non-mainstream English.

The teacher education program's reading methods courses develop teacher knowledge alongside practical application in classroom settings. In addition to the reading methods coursework, teacher candidates complete a clinical experience course where they work one-to-one with an elementary grade student using an evidence-based reading intervention program, providing them the opportunity to engage with scientifically aligned reading instruction and practices. During the practicum, students engage with 1) the overarching concepts of science-based reading development, 2) assessment practices, and 3) pedagogical skills based on evidence from multiple disciplines, including cognitive and developmental sciences, neuroscience, linguistics, education, and communication sciences.

Learn more from this program.

ACKNOWLEDGEMENTS

ENDNOTES

1. This figure represents 37% of the fourth grade students in 2021 (based on U.S. Department of Education, National Center for Education Statistics). (2022). Table 203.10. Enrollment in public elementary and secondary schools, by level and grade: Selected years, fall 1980 through fall 2030. *Digest of Education Statistics.* https://nces.ed.gov/programs/digest/d22/tables/dt22_203.10.asp?current=yes

2. National Center for Education Statistics (NCES). (2022). *National Achievement-Level Results.* https://www.nationsreportcard.gov/reading/nation/achievement/?grade=4

3. Hernandez, D. J. (2012). Double jeopardy: *How third-grade reading skills and poverty influence highschool graduation.* Annie E. Casey Foundation. Retrieved March 16, 2023 from https://assets.aecf.org/m/resourcedoc/AECF-DoubleJeopardy-2012-Full.pdf

4. Tamborini, C. R., Kim, C., & Sakamoto, A. (2015). Education and lifetime earnings in the United States. *Demography, 52*(4), 1383-1407.

5. Chapman, C., Laird, J., Ifill, N., & Kewal Ramani, A. (2011). *Trends in High School Dropout and Completion Rates in the United States: 1972-2009. Compendium Report.* NCES 2012-006. National Center for Education Statistics. https://nces.ed.gov/programs/dropout/intro.asp#r4

6. Chapman, C., Laird, J., Ifill, N., & Kewal Ramani, A. (2011); Harlow, C. W. (2003). *Education and Correctional Populations. Bureau of Justice Statistics Special Report.* https://bjs.ojp.gov/content/pub/pdf/ecp.pdf

7. Chapman, C., Laird, J., Ifill, N., & Kewal Ramani, A. (2011); Harlow, C. W. (2003).

8. National Center for Education Statistics (NCES). (2022).

9. Torgesen describes this finding in Torgesen, 2004. Specifically, the analyses he describes were based on the proportion of students reaching the "low average level" of word reading skills by second grade. While word reading is not the same as reading comprehension, it is a necessary precursor to comprehension, and measures of word reading fluency (and gains in that fluency) are predictive of broader student reading performance (Smith, J. L. M., Cummings, K. D., Nese, J. F., Alonzo, J., Fien, H., & Baker, S. K. (2014). The relation of word reading fluency initial level and gains with reading outcomes. *School Psychology Review, 43*(1), 30-40.). For more on studies finding that 90% or more of students can read with proper instruction, see: Torgesen, J. K. (2004). Preventing early reading failure. *American Educator, 28*(3), 6-9; Torgesen, J. K. (1998). Catch them before they fall: Identification and assessment to prevent reading failure in young children. *American Educator, 22*(1-2), 32-39. www.aft.org/sites/default/files/periodicals/torgesen.pdf; Lyon, G. R. (1998). *Overview of reading and literacy initiatives (Report to Committee on Labor and Human Resources, U.S. Senate).* Bethesda, MD: National Institute of Child Health and Human Development, National Institute of Health. https://files.eric.ed.gov/fulltext/ED444128.pdf; Vellutino, F. R., Fletcher, J. M., Snowling, M. J., & Scanlon, D. M. (2004). Specific reading disability (dyslexia): What have we learned in the past four decades? *Journal of Child Psychology and Psychiatry, 45*(1), 2-40. http://dr-hatfield.com/educ538/docs/Vellutino,+etal+2004.pdf; Al Otaiba, S., & Fuchs, D. (2006). Who are the young children for whom best practices in reading are ineffective? An experimental and longitudinal study. *Journal of Learning Disabilities, 39*(5), 414-431. A recent blog post summarized the findings of studies that looked at the outcomes of reading instruction, predominantly Tier I and Tier 2 instruction (one study looked at Tier 3, or more intensive, interventions). The conclusion of this review of research affirms that with proper instruction in reading, 95% (if not more) of students can learn to read. (2023). Can 95% of Children Learn to Read? *Pedagogy Non Grata.* https://www.pedagogynongrata.com/the-95-rule

ENDNOTES

10. EdWeek Research Center. (2020). *Early Reading Instruction: Results of a National Survey of K-2 and Elementary Special Education Teachers and Postsecondary Instructors.* Washington, DC: Education Week. https://epe.brightspotcdn.com/1b/80/706eba6246599174b0199ac1f3b5/ed-week-reading-instruction-survey-report-final-1.24.20.pdf

11. Siegelman, N., Rueckl, J. G., van den Bunt, M., Frijters, J. C., Zevin, J. D., Lovett, M. W., ... & Morris, R. D. (2022). How you read affects what you gain: Individual differences in the functional organization of the reading system predict intervention gains in children with reading disabilities. *Journal of Educational Psychology, 114*(4), 855.

12. See, for example, Nicholson, T. (1991). Do children read words better in context or in lists? A classic study revisited. *Journal of Educational Psychology, 83*(4), 444.

13. In addition to early reading, NCTQ examines six other aspects of programs' preparation of new elementary teachers: admissions standards including academic aptitude, preparation in mathematics, alignment of content coursework with elementary curricula, training in research-based classroom management strategies, the quality of the clinical (student teaching) experience, and whether teacher preparation programs are contributing to the racial diversification of the teacher workforce.

14. For example, the report states that in its review of research since 2000 (when the National Reading Panel report was released), the practice guide "finds new evidence supporting instruction in alphabetics, fluency, and vocabulary, as well as new evidence supporting instruction in additional skills." The practice guide notes multiple findings reinforcing the results of the National Reading Panel study. Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., Furgeson, J., Hayes, L., Henke, J., Justice, L., Keating, B., Lewis, W., Sattar, S., Streke, A., Wagner, R., & Wissel, S. (2016). *Foundational Skills to Support Reading for Understanding in Kindergarten through 3rd Grade. Educator's Practice Guide.* NCEE 2016-4008. What Works Clearinghouse. https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/wwc_foundationalreading_040717.pdf

15. For this analysis, alphabetics falls under the component of "phonics."

16. For this analysis, oral language falls under the component for "vocabulary."

17. All 10 of these analysts are current or former elementary teachers, six are certified in scientifically based reading techniques, and nine have completed at least a master's degree.

18. See the *Reading Foundations Technical Report* for more information.

19. See the *Reading Foundations Technical Report* for more information about the purposes and participants of the Expert Panel and Technical Advisory Group.

20. "Instructional hours" refers to the estimated hours of course time, not semester credit hours. For example, a three-credit-hour course may have three one-hour class meetings each week. Each class meeting would count as one instructional hour. Because courses that meet on multiple occasions each week may have a weekly schedule in the syllabus, adjustments are made in the coding process to ensure that the appropriate number of instructional hours are credited to each entry in the course schedule.

21. Rodgers, E., D'Agostino, J. V., Berenbon, R., Johnson, T., & Winkler, C. (2021). Scoring Running Records: Complexities and affordances. *Journal of Early Childhood Literacy*, doi:14687984211027198; D'Agostino, J. V., Rodgers, E., Winkler, C., Johnson, T., & Berenbon, R. (2021). The generalizability of running record accuracy and self-correction scores. *Reading Psychology, 42*(2), 111-130.

22. Rodgers, E., D'Agostino, J. V., Berenbon, R., Johnson, T., & Winkler, C. (2021).

23. Rodgers, E., D'Agostino, J. V., Berenbon, R., Johnson, T., & Winkler, C. (2021).

24. Stouffer, J. (2021). Seeking middle ground: Analyzing running records from the top and bottom. The Reading Teacher, 74(6), 769-784. https://ila.onlinelibrary.wiley.com/doi/pdfdirect/10.1002/trtr.2012; Government of South Australia Department of Education and Children's Services. (2011). Engaging in and exploring running records. https://www.scusd.edu/sites/main/files/file-attachments/decs_running_records_australia.pdf

25. Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., Furgeson, J., Hayes, L., Henke, J., Justice, L., Keating, B., Lewis, W., Sattar, S., Streke, A., Wagner, R., & Wissel, S. (2016).

26. In 2020, the Teacher Prep Review: Program Performance in Early Reading Instruction found phonemic awareness was the least addressed component from 2013 to 2020 (51% in 2020, 43% in 2018, and 35% in 2013).

27. At least 50% of programs in Rhode Island and Alaska also adequately address all five components, but due to the small sample sizes of programs in these states (fewer than five programs), they are excluded from this list.

28. There were 239 educators who responded to the Open Comment Survey (69% worked in teacher preparation programs, 8% worked in state education agencies, 7% worked as teachers or other positions in school districts, and 6% were educational researchers or faculty not working directly in teacher preparation; the remainder identified as elected officials, people working in advocacy groups, or "other").

29. 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; Hudson, A. K., Moore, K. A., Han, B., Wee Koh, P., Binks-Cantrell, E., & Joshi, R.M. (2021). Elementary teachers' knowledge of foundational literacy skills: A critical piece of the puzzle in the science of reading. Reading Research Quarterly, 56, S287–S315.

30. This list of states only includes states with at least five teacher preparation programs within this sample.

31. Kaufman, D. (2022). In Mississippi, a broad effort to improve literacy is yielding results. The New York Times. https://www.nytimes.com/2022/10/06/education/learning/mississippi-schools-literacy.html; Gewertz, C. (2020). States to schools: Teach reading the right way. Education Week. https://www.edweek.org/teaching-learning/states-to-schools-teach-reading-the-right-way/2020/02; Mahnken, K. (2022). After steering Mississippi's unlikely learning miracle, Carey Wright steps down. The 74. https://www.the74million.org/article/after-steering-mississippis-unlikely-learning-miracle-carey-wright-steps-down/

32. Mississippi Department of Education. (n.d.). Literacy-Based Promotion Act. Retrieved May 8, 2023 from https://www.mdek12.org/OEER/LBPA

33. The Barksdale Reading Institute and the Institutions of Higher Learning. (2015). 2014-15 study of Mississippi teacher preparation for early literacy instruction. https://msreads.org/files/2016/03/31-Mar-2016-Release-STATEWIDE-REPORT-of-TEACHER-PREP.pdf

34. National Center for Education Statistics (NCES). (2022). Mississippi overview. The Nation's Report Card. https://www.nationsreportcard.gov/profiles/stateprofile/overview/MS

35. The Read Act was reauthorized in 2019.

36. U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics. (2021). *Table 204.20. English learner (EL) students enrolled in public elementary and secondary schools, by state: Selected years, fall 2000 through fall 2019.* https://nces.ed.gov/programs/digest/d21/tables/dt21_204.20.asp?current=yes

37. U.S. Department of Education, Office of English Language Acquisition. (2022). *English Learners: Demographic Trends.* Retrieved March 16, 2023 from https://ncela.ed.gov/sites/default/files/2022-09/ELDemographics_20220805_508.pdf

38. National Reading Panel (U.S.), National Institute of Child Health, Human Development (U.S.). (2000). *Report of the National Reading Panel: Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups.* National Institute of Child Health and Human Development, National Institutes of Health. https://www.nichd.nih.gov/sites/default/files/publications/pubs/nrp/Documents/report.pdf

39. National Reading Panel (U.S.), National Institute of Child Health, Human Development (U.S.). (2000); August, D., & Shanahan, T. (2010). Response to a review and update on developing literacy in second-language learners: Report of the national literacy panel on language minority children and youth. *Journal of Literacy Research, 42*(3), 341-348. https://journals.sagepub.com/doi/pdf/10.1080/1086296X.2010.503745; Goldenberg, C. (2020). Reading wars, reading science, and English learners. *Reading Research Quarterly*, 55, S131-S144.

40. Gersten, R., Baker, S.K., Shanahan, T., Linan-Thompson, S., Collins, P., & Scarcella, R. (2007). *Effective Literacy and English Language Instruction for English Learners in the Elementary Grades: A Practice Guide* (NCEE 2007-4011). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. https://ies.ed.gov/ncee/wwc/practiceguide/6; National Academies of Sciences, Engineering, and Medicine. (2017). *Promoting the educational success of children and youth learning English: Promising futures.* National Academies Press. https://www.nationalacademies.org/our-work/fostering-school-success-for-english-learners-toward-new-directions-in-policy-practice-and-research

41. Gersten, R., Baker, S.K., Shanahan, T., Linan-Thompson, S., Collins, P., & Scarcella, R. (2007).

42. National Academies of Sciences, Engineering, and Medicine. (2017).

43. Gersten, R., Baker, S.K., Shanahan, T., Linan-Thompson, S., Collins, P., & Scarcella, R. (2007).

44. Hagan Cárdenas Elsa. (2020). *Literacy foundations for English learners: A comprehensive guide to evidence-based instruction.* Paul H. Brookes Publishing Co.

45. Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., Furgeson, J., Hayes, L., Henke, J., Justice, L., Keating, B., Lewis, W., Sattar, S., Streke, A., Wagner, R., & Wissel, S. (2016).

46. Massachusetts Department of Elementary and Secondary Education (DESE). (2022). Oral Language. *Mass Literacy.* https://www.doe.mass.edu/massliteracy/literacy-block/oral-language.html

47. Gersten, R., Baker, S.K., Shanahan, T., Linan-Thompson, S., Collins, P., & Scarcella, R. (2007). Goldenberg, C. (2020). Reading wars, reading science, and English learners. *Reading Research Quarterly, 55*, S131-S144.

48. National Academies of Sciences, Engineering, and Medicine. (2017).

ENDNOTES

49. National Center for Education Statistics (NCES). (2022). *National Achievement-Level Results*. https://www.nationsreportcard.gov/reading/nation/achievement/?grade=4

50. International Dyslexia Association. (2023). *Dyslexia basics*. https://dyslexiaida.org/dyslexia-basics-2/

51. International Dyslexia Association. (2023).

52. Spear-Swerling, L. (2019). Structured literacy and typical literacy practices: Understanding differences to create instructional opportunities. *Teaching Exceptional Children, 51*(3), 201-211.

53. Honig, B., Diamond, L., Gutlohn, L., & Cole, C. L. (2018). *Teaching reading sourcebook*. CORE.

54. Washington, J., & Seidenberg, M. (2021). *Teaching reading to African American children*. https://www.aft.org/ae/summer2021/washington_seidenberg

55. Wolfram, W., & Schilling-Estes, N. (2016). Dialects in the United States: Past, present, and future. In *American English: Dialects and Variation* (97-121), Wiley-Blackwell.

56. Brown, M., Sibley, D., Washington, J., Rogers, T., Edwards, J., MacDonald, M., & Seidenberg, M. (2015). Impact of dialect use on a basic component of learning to read. *Frontiers in Psychology*. https://www.frontiersin.org/articles/10.3389/fpsyg.2015.00196/full

57. Johnson, L., & Gatlin-Nash, B.(2020). Evidence-based practices in the assessment and intervention of language-based reading difficulties among African American learners. *Perspectives on Language and Literacy*.

58. Johnson, L., & Gatlin-Nash, B.(2020).

59. Johnson, L., & Gatlin-Nash, B.(2020).

60. Teacher production estimates are based on data from Title II, available at https://title2.ed.gov/Public/Home.aspx

Changes to the Reading Foundations standard

NCTQ updated the Reading Foundations standard to align with the most recent research and to address additional areas of importance based on expert input and the views of the education field. Specifically, these changes include:

- **Changes in instructional time required on a component**. NCTQ revisited and adjusted the instructional time target for each of the five core components based on input from the Expert Advisory Panel and the Open Comment Survey.

Recommended minimum instructional hours by component

	Phonemic awareness	Phonics	Fluency	Vocabulary	Comprehension
Expert panel	7 hours	8 hours	4 hours	6 hours	9 hours
Survey (average)	6.2 hours	7.1 hours	5.1 hours	6.3 hours	7.4 hours
Survey (modal response)	4 to 5; 6 to 7 hours	8 to 9 hours	4 to 5 hours	6 to 7 hours	10 or more hours
Reading Foundations instructional hour target	**7 hours**	**8 hours**	**4 hours**	**6 hours**	**9 hours**

The resulting minimums vary by component and exceed the minimums under the previous version of the standard, which required only two class sessions (roughly three hours) for each component.

- **Changes in Practice/Application expectations**. Previous iterations of the standard combined "tests," "assignments," and "practice" under Demonstration of Knowledge. In the revised standard, Practice/Application is separated from the newly titled Objective Measures of Knowledge section (tests/quizzes and graded assignments) to better focus on

the importance of programs providing candidates with opportunities to apply teaching the five core components in actual or simulated classrooms. This change received broad support in the open comment survey, in which 80% of respondents agreed that it was necessary to separate these two instructional approaches and that a focus on practice is a necessary component of learning how to teach reading.

- **Deduction of a letter grade for contradictory approaches**. Because the content of required reading courses does not always reflect the current research highlighted by the National Reading Panel and What Works Clearinghouse, the revised standard calls out instances of teaching practices that run counter to scientifically based reading instruction. When programs are found to provide instruction on four or more of the contrary practices, they lose a letter grade.

The revised standard also focuses on the importance of teacher candidates learning additional teaching techniques and assessment strategies to support struggling readers, English language learners, and students who speak language varieties other than mainstream English. While this part of the standard is not graded, the analysis provides programs with feedback on their coverage of these three components.

Overall, these revisions aim to provide a more detailed and comprehensive assessment of the quality of reading instruction programs provide. More information on these changes and the process through which they were made can be found in the *Reading Foundations Technical Report*.

Why and how these changes were made

The purpose of the revision process was to update the research basis of the standard, revisit the depth of instruction necessary for effective teacher preparation, and provide a more holistic view of preparation in reading instruction. Additionally, the standard was revised to highlight practices supporting struggling readers, English language learners, and speakers of language varieties other than mainstream English; to recognize the damage incurred to students by content contrary to research-based practices; and to provide more in-depth and explicit feedback to elementary teacher preparation programs.

The Reading Foundations standard was revised through a process including multiple points of external engagement, including soliciting evidence from panels of reading and technical experts (see acknowledgements for list of experts), inviting public comment from stakeholders via an Open Comment Survey (which garnered 239 responses, 80% coming from teacher preparation programs), and examining available information on several teacher licensure assessments to valdidate recommendations.

The Expert Advisory Panel provided NCTQ with feedback on the content of the Reading Foundations standard. The panel met three times prior to finalizing methodology decisions, including a launch meeting to review results from the previous Early Reading standard and examples of exemplary materials, a meeting on the core components of reading instruction, and a meeting focused on topics related to supporting a range of learners. The Technical Advisory Group, consisting of education policy, statistics, and psychometric experts, also met several times during the standard revision process to advise NCTQ on the analysis and scoring process, and to ensure strong inter-rater reliability and methodological practices.

NCTQ conducted an Open Comment Survey of subject-matter experts and stakeholders to gather feedback on the preparation of teacher candidates to teach reading. Nearly 240 educators responded, including those working in teacher preparation programs, state education agencies, school districts, and educational researchers or faculty not working directly in teacher preparation. Of the respondents, 89% agreed or strongly agreed it is important for teacher preparation programs to meet the NCTQ claim. Further, **when asked if the process NCTQ had designed (i.e., examining syllabi and background materials for evidence of the instructional approaches) would provide useful insights into the quality of teacher preparation programs, approximately 86% of respondents agreed or strongly agreed**.

For more information on the revisions process for the Reading Foundations standard, including the results of the Open Comment Survey, see the full [Reading Foundations Technical Report](#).

Methodology in brief

Analysis for the Reading Foundations standard began by determining the programs to be included. Both undergraduate and graduate (or post-baccalaureate) elementary teacher preparation programs that lead to initial licensure at all public institutions and private institutions that have an annual production of at least 10 elementary teachers were eligible for inclusion. This resulted in a universe of 1,146 programs housed within 959 institutions that qualified for analysis.[i] Alternate-route programs are not included in the sample for this iteration of the Reading Foundations standard. Because not all programs provided sufficient documentation to be rated, the final sample includes 693 programs housed in 578 institutions of higher education, and is inclusive of programs in all 50 states and the District of Columbia.

Once the sample was determined, a team of analysts used course catalogs to identify the required coursework for each elementary program. Course titles and descriptions were used to identify all courses that addressed reading instruction. Next, NCTQ sent a request for course material to each program in the universe of programs. Programs were asked to identify any missing courses to ensure that no reading courses were excluded. The majority of syllabi analyzed were from fall 2018 to fall 2022, although some programs submitted materials from spring 2023 in response to the preliminary analysis. In total, collecting evidence, analyzing materials, and conducting the preliminary review process with all programs took 12 months to complete.

When material was received, course-level analysis relied on two sources of data:

- Syllabi for required courses that address reading instruction, including ancillary materials such as lecture slides or assignment descriptions.

- Background materials, such as textbooks or articles for required courses that address reading instruction.

Expert analysts reviewed each course for its coverage of each of the five components of scientifically based reading instruction, and three components focused on supporting a range of learners. Course analysis for each component and for each student group relied on evidence that the program teaches the components based on four instructional approaches:

- Use of <u>instructional hours</u> to address each component, as specified by the lecture schedule, as well as course time spent on content contrary to research-based practices.

  - Phonemic Awareness = at least 7 hours

  - Phonics = at least 8 hours

  - Fluency = at least 4 hours

  - Vocabulary = at least 6 hours

  - Comprehension = at least 9 hours

- Requirements for candidates to demonstrate knowledge of individual components through <u>objective measures of knowledge</u> (tests, quizzes, or written, graded assignments).

- Requirements for <u>practice/application</u> of instruction or assessment on individual components.

- Requirements for <u>background materials</u> (e.g., textbooks, videos, articles), described further below.

After expert analysts reviewed course syllabi for the first three instructional approaches—instructional hours, objective measures of knowledge, and practice opportunities—13% of programs were then randomly selected for evaluation by a second analyst to assess the frequency of scoring variances. The process and the results are described in detail in the *Reading Foundations Technical Report*.

Another team of expert analysts separately analyzed the fourth instructional approach, required <u>background materials</u>. These materials were identified using the *required reading* section of course syllabi (or university bookstore information, in instances where course material is absent from syllabi). Reviewers analyzed each material for its coverage of the science of reading and attention to supporting a range of learners. The process of reviewing a book followed these steps:

- The reviewer determines if the text is "comprehensive" (covers all five of the components), "specialized" (designed to cover only a subset of components), or "synopsis" (brief or introductory documents describing the components without sufficient depth to be used alone).

- The reviewer determines if the content presents each component in light of the science, absent of unproven practice, and advances a depth of knowledge about not only how students learn to read, but also specifically how to teach students to read.

- References were also checked for primary sources, researchers, and trusted peer-reviewed journals that present the consensus around the science of reading.

Each of the five core components (phonemic awareness, phonics, fluency, vocabulary, comprehension) was assessed separately for all four instructional approaches within each course, earning up to three points per approach, or 12 points per component.

Component-level scoring (across courses)

Component-level points

Instructional Approach	0	1	2	3
Instructional Hours	Number of hours summed across courses divided by the threshold times three points (capped at three points)			
Objective Measures of Knowledge	No tests/quizzes **AND** no graded written assignments	Part of one graded written assignment	One graded written assignment	At least one test/quiz **OR** more than one graded written assignment
Practice/Application	No practice/application session	Part of one practice/application session	One practice/application session	More than one practice/application session
Background Materials (averaged within and then across courses)	Unacceptable materials earn a **zero**; acceptable materials earn a three. All materials on a component are averaged within a course and then across courses.			

The sum of the course-level scores was used to produce a program-level score for each component (with a maximum of 12 points per component). To earn credit for a component, the program must have earned eight of 12 available points (or 67%). The five program-level component scores were used to determine the overall grade.

Example of scoring: Phonemic awareness

Instructional approach	Component analysis (across all courses)	Points earned
Instructional Hours (based on a proportion of the total hours needed to meet the target)	4 hours out of the 7 hours needed to meet target *(4 hours ÷ 7 hours x 3 points)*	1.7
Objective Measures of Knowledge	One graded written assignment	2
Practice/Application	One practice session	2
Background Materials (averaged within and then across courses)	One textbook, two supplementary materials: all deemed acceptable	3
Total points earned for this component		**8.7**

Grading for a program was based on the number of reading components for which the program received credit. Each component (phonemic awareness, phonics, fluency, vocabulary, and comprehension) was equally weighted.

Grading rules

Program grade	Grading rule: Receive eight or more points for...
A+	Programs earn an A, meet a higher point threshold for each component (an average of 10 points across components), and teach no practices contrary to the science of reading.
A	All five of the five core components of scientifically based reading instruction, and do not teach more than three practices contrary to the science of reading.
B	Four of the five core components of scientifically based reading instruction **OR** all five core components but teach four or more practices contrary to the science of reading.
C	Three of the five core components of scientifically based reading instruction **OR** four core components but teach four or more practices contrary to the science of reading.
D	Two of the five core components of scientifically based reading instruction **OR** three core components but teach four or more practices contrary to the science of reading.
F	One or none of the five core components of scientifically based reading instruction **OR** two core components but teach four or more practices contrary to the science of reading.

Content contrary to research-based practices

During the analysis of course materials, NCTQ expert analysts also collected whether there was evidence that a program teaches any of nine identified practices contrary to the science of reading. If a program teaches four or more contrary practices, its letter grade was reduced by one grade.

Practices contrary to research-based practices include the following:

- Three-cueing systems

- Running records

- Miscue analysis

- Balanced literacy models

- Guided reading

- Reading Workshop

- Leveled texts

- Embedded/implicit phonics

- Developmental Reading Assessment (DRA), Informal Reading Inventory (IRI), or Qualitative Reading Inventory (QRI)

Before NCTQ published program scores, programs privately received their scores with detailed feedback on the findings from each course and had at least two weeks to respond to provide any additional evidence, clarifications, or corrections.

Supporting a range of learners

To evaluate whether prep programs provide instruction on how to support a range of learners (struggling readers, English language learners, and students who speak English language varieties), analysts looked for at least two instructional hours dedicated to each learner group, as well as evidence the program uses research-based background materials, uses objective measures of knowledge to assess candidates' knowledge of how to use specific approaches to help these student groups learn how to read, and provides practice/application opportunities related to each group of students. Programs can earn up to two points for each instructional approach for each group of students (for a total of eight points for each student group). These areas are not included in a program's grade, but programs received detailed feedback on the evidence of their attention to supporting a range of learners.

For more information on the methodology for the Reading Foundations standard, see the full Reading Foundations Technical Report.

ENDNOTES (APPENDIX B)

i.   Ten programs are not included in the sample because of changes in program structure, limitation in the data they provided, or late submissions of materials (for the latter group, scores will be posted at a later date).

Content contrary to research-based practices

One important change in the Reading Foundations standard is that if programs teach four or more practices contrary to research-based practices, they lose a letter grade from their overall score. The nine practices were identified based on research and input from the Expert Advisory Panel. Many contrary practices are grounded in a well-intentioned, but ultimately false, understanding of how children learn to read.

Three-cueing systems

Also known as the structure/meaning/visual system (SMV), three-cueing describes the support for early word recognition that "[relies] on a combination of of semantic, syntactic, and graphophonic cues simultaneously to formulate an intelligent hypothesis about a word's identity."[i] In other words, children who encounter a word they do not recognize are instructed to use one of three strategies: "guess what the word might be" based on context; "look at the picture to help guess what the word might be;" and "look at the first letter to help guess what the word might be," and if the guess makes sense, then check to see if it "looks right."[ii] Despite widespread use by K-2 and elementary special education teachers, reading experts discourage guessing techniques because they represent lost opportunities to help children practice decoding,[iii] and represent an ineffective strategy for reading advanced texts.[iv]

Miscue analysis

Grounded in the idea students use clues, or "cues," to determine what a word is, miscue analysis is a practice employed by teachers to "uncover the strategies children use in their reading" when reading differs from written text (e.g., substituting "pony" for "horse"),[v] primarily to help students focus on context rather than letter patterns and positions.[vi] Due to the focus on "cues," this practice distracts from helping students decode (or pronounce) the words on the page.

Running records

Running records is an assessment in which a teacher observes a student's oral reading of a passage and records the number of errors to calculate the accuracy level.[vii] Intended in part as a formative assessment, running records are used to identify student's "reading level," to determine appropriate student groupings, and to monitor student growth.[viii] Though widely popular, studies on running records show they produce inconsistent results based on both teachers' accuracy in scoring[ix] and students' accuracy in reading different texts. Further, Running Records assessments may include the use of miscue analysis to determine why students make errors, which is often rooted in three-cueing models of understanding reading.[x]

Balanced literacy models

Balanced literacy models represent an approach to reading characterized by the use of read-alouds, shared readings, small group guided reading, and independent reading, typically relying heavily on leveled books and focusing on meaning-based instruction.[xi] In contrast to structured literacy, balanced literacy models often eschew the explicit, systematic teaching of phonemic awareness and phonics skills, demonstrating a preference for approaches emphasizing context clues, like three-cueing.[xii] Widely used balanced literacy approaches such as *Units of Study*[xiii] have been found to devote too little time to phonics, use three-cueing or SMV strategies, fail to systematically build knowledge, and do not provide support for English language learners.[xiv] Similarly, Fountas and Pinnell Classroom, another balanced literacy-based program, received low marks for its inaccurate leveling system; lack of research base or evidenced-based explanation of the sequence for teaching phonics; and inadequate time devoted to phonological awareness, phonics, and fluency (among other areas).[xv]

Guided reading

Guided reading is an approach to reading instruction where students are grouped according to their "reading level" and asked to read appropriately "leveled texts."[xvi] Instruction focuses on reading for meaning, and the practice typically promotes using cues (including background knowledge and pictures), English syntax, and visual information (including sound-symbol relationships).[xvii] Research on guided reading shows it is not as effective as explicit instruction, particularly for phonological decoding and comprehension.[xviii] Additionally, English language learners have consistently shown greater gains with explicit instruction compared to balanced literacy approaches relying on guided reading.[xix]

Reading Workshop

Units of Study is commonly called, "Reading Workshop," and is a balanced literacy curriculum characterized by the use of read-alouds, small group guided reading, shared readings, and independent reading. Evaluations have found the program lacking systematic and explicit instruction in all foundational skills,[xx] with one expert noting, "many activities designed to practice deepening reading ability were designated as optional."[xxi] Like other balanced literacy models, Reading Workshop uses cueing systems for solving unknown words, encouraging students to focus on the initial sounds of words and meaning cues rather than explicitly teaching decoding strategies.

Leveled text

Leveled texts are "reading materials that represent a progression from more simple to more complex and challenging texts."[xxii] These texts are often used based on the premise that student learning should primarily occur using texts at their "instructional level," which they read with a high (but not perfect) level of accuracy with some support from a teacher.[xxiii] The use of leveled texts is critiqued because they "do not follow a scope and sequence of decoding skill instruction," do not provide enough repeat exposure to phonics patterns to allow novice readers to practice them, and encourage word memorization rather than teaching decoding techniques.[xxiv] Further, studies have found students may learn more by reading texts above their instructional level, while leveled readers limit students' exposure to rich content or complex language.[xxv]

Embedded/implicit phonics

In contrast to explicit (or synthetic) phonics instruction, embedded or implicit phonics instruction links the reading of children's literature or texts for the purpose of developing meaning,[xxvi] where "sound/spelling correspondence are inferred from reading whole words and introduced as students encounter them in text."[xxvii] In comparing the effectiveness of systematic phonics instruction to embedded phonics instruction, studies found students learn more through systematic phonics instruction.[xxviii]

Development Reading Assessment (DRA), Informal Reading Inventory (IRI), or Qualitative Reading Inventory (QRI)

Part of teaching reading is diagnosing students' progress and identifying reading difficulties through the use of various assessments. Unfortunately, some ineffective assessments are commonly used and taught, including informal reading inventory (IRA), qualitative reading inventory (QRI), and developmental reading assessments (DRA). These assessments are typified by a student reading orally from a passage (DRA), or a list (IRI, QRI), while an instructor tracks student errors.[xxix] Informal reading inventories have low reliability when tracking student performance,[xxx] and the DRA has little evidence supporting its validity or reliability.[xxxi] The reliability of a test matters—in the case of running records, two teachers can assess the same student and report different measures of performance[xxxii]—and students' performance on the IRI can vary wildly across texts considered to be the same "level."[xxxiii] Though QRIs have a higher level of reliability, student performance on the QRI is more related to listening comprehension than decoding ability.[xxxiv]

For more information on these contrary practices, see the full [Reading Foundations Technical Report](#).

ENDNOTES (APPENDIX C)

i.   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.

ii. Hempenstall, K. (2006). The three-cueing model: Down for the count? *Education News*.

iii. Petscher, Y., Cabell, S. Q., Catts, H. W., Compton, D. L., Foorman, B. R., Hart, S. A., … & Wagner, R. K. (2020).

iv. Foorman, B., Beyler, N., Borradaile, K., Coyne, M., Denton, C. A., Dimino, J., Furgeson, J., Hayes, L., Henke, J., Justice, L., Keating, B., Lewis, W., Sattar, S., Streke, A., Wagner, R., & Wissel, S. (2016). *Foundational skills to support reading for understanding in kindergarten through 3rd grade* (NCEE 2016-4008). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. https://ies.ed.gov/ncee/wwc/PracticeGuide/21

v.   Hempenstall, K. (2006).

vi. Hempenstall, K. (2006).

vii. Rodgers, E., D'Agostino, J. V., Berenbon, R., Johnson, T., & Winkler, C. (2021). Scoring Running Records: Complexities and affordances. *Journal of Early Childhood Literacy*, doi: 14687984211027198; D'Agostino, J. V., Rodgers, E., Winkler, C., Johnson, T., & Berenbon, R. (2021). The generalizability of Running Record accuracy and self-correction scores. *Reading Psychology*, *42*(2), 111-130.

viii. Rodgers, E., D'Agostino, J. V., Berenbon, R., Johnson, T., & Winkler, C. (2021).

ix. Rodgers, E., D'Agostino, J. V., Berenbon, R., Johnson, T., & Winkler, C. (2021).

x.   Stouffer, J. (2021). Seeking middle ground: Analyzing running records from the top and bottom. *The Reading Teacher*, *74*(6), 769-784. https://ila.onlinelibrary.wiley.com/doi/pdfdirect/10.1002/trtr.2012; Government of South Australia Department of Education and Children's Services. (2011). Engaging in and exploring running records. https://www.scusd.edu/sites/main/files/file-attachments/decs_running_records_australia.pdf

xi. Robinson, L., Lambert, M. C., Towner, J., & Caros, J. (2016). A comparison of direct instruction and balanced literacy: An evaluative comparison for a pacific northwest rural school district. *Reading Improvement*, *53*(4), 147-164; Bingham, G. E., & Hall-Kenyon, K. M. (2013). Examining teachers' beliefs about and implementation of a balanced literacy framework. *Journal of Research in Reading, 36*(1), 14-28.

xii. Robinson, L., Lambert, M. C., Towner, J., & Caros, J. (2016).

xiii. Schwartz, S. (2021). New curriculum review gives failing marks to two popular reading programs. *Education Week*. Retrieved November 3, 2022 from https://www.edweek.org/teaching-learning/newcurriculum-review-gives-failing-marks-to-popular-early-reading-programs/2021/11

xiv. Adams, M. J., Fillmore, L. W., Goldenberg, C., Oakhill, J., Paige, D. D., Rasinski, T., & Shanahan, T. (2020). *Comparing reading research to program design: An examination of Teachers College Units of Study*. Student Achievement Partners, 1-64; Schwartz, S. (2021).

xv. Schwartz, S. (2021).

ENDNOTES (APPENDIX C)

xvi. Denton, C. A., Fletcher, J. M., Taylor, W. P., Barth, A. E., & Vaughn, S. (2014). An experimental evaluation of guided reading and explicit interventions for primary-grade students at-risk for reading difficulties. *Journal of Research on Educational Effectiveness*, 7(3), 268-293.

xvii. Denton, C. A., Fletcher, J. M., Taylor, W. P., Barth, A. E., & Vaughn, S. (2014).

xviii. Denton, C. A., Fletcher, J. M., Taylor, W. P., Barth, A. E., & Vaughn, S. (2014).

xix. Kamps, D., Abbott, M., Greenwood, C., Arreaga-Mayer, C., Wills, H., Longstaff, J., … & Walton, C. (2007). Use of evidence-based, small-group reading instruction for English language learners in elementary grades: Secondary-tier intervention. *Learning Disability Quarterly, 30*(3), 153-168.

xx. EdReports. (2018). *Units of Study*. https://www.edreports.org/reports/detail/units-ofstudy-2018/kindergarten/gateway-one

xxi. Fillmore, L. W., Goldenberg, C., Oakhill, J., Paige, D. D., Rasinski, T., & Shanahan, T. (2020).

xxii. Brabham, E. G., & Villaume, S. K. (2002). Leveled text: The good news and the bad news. Questions and Answers. *The Reading Teacher, 55*(5), 438-442.

xxiii. Shanahan, T. (2020). Limiting children to books they can already read: Why it reduces their opportunity to learn. *American Educator, 44*(2), 13.

xxiv. Moats, L. C. (2017). Can prevailing approaches to reading instruction accomplish the goals of RTI? *Perspectives on Language and Literacy, 43*(3), 15-22.

xxv. Shanahan, T. (2020); Brown, L. T., Mohr, K. A., Wilcox, B. R., & Barrett, T. S. (2018). The effects of dyad reading and text difficulty on third-graders' reading achievement. *The Journal of Educational Research, 111*(5), 541-553; Morgan, A., Wilcox, B. R., & Eldredge, J. L. (2000). Effect of difficulty levels on second grade delayed readers using dyad reading. *The Journal of Educational Research, 94*(2), 113-119.

xxvi. Roberts, T. A., & Meiring, A. (2006). Teaching phonics in the context of children's literature or spelling: Influences on first-grade reading, spelling, and writing and fifth-grade comprehension. *Journal of Educational Psychology, 98*(4), 690.

xxvii. Read Naturally. (2022). *Phonics*. https://www.readnaturally.com/research/5-components-of-reading/phonics

xxviii. Roberts, T. A., & Meiring, A. (2006); Chall, J. S. (1983). *Learning to read: The great debate*. New York: McGraw-Hill; Torgeson, J., Wagner, R., Rashotte, C., Rose, E., Lindamood, P., Conway, T., & Garven, C. (1999). Preventing reading failure in young children with phonological processing disabilities: Group and individual responses to instruction. *Journal of Educational Psychology*, 91, 579-593; Center, Y., Freeman, L., & Robertson, G. (2001). The relative effect of a code-oriented and meaning-oriented early literacy program on regular and low progress Australian students in Year 1 classrooms which implement reading recovery. *International Journal of Disability, Development and Education*, 48, 207-232; Christensen, C. A., & Bowey, J. A. (2005). The efficacy of orthographic rime, grapheme-phoneme correspondence, and implicit phonics approaches to teaching decoding skills. *Scientific Studies of Reading*, 9, 327-349.

xxix. Rodgers, E., D'Agostino, J. V., Berenbon, R., Johnson, T., & Winkler, C. (2021). Scoring Running Records: Complexities and affordances. *Journal of Early Childhood Literacy*, doi:14687984211027198; D'Agostino, J. V., Rodgers, E., Winkler, C., Johnson, T., & Berenbon, R. (2021). The generalizability of Running Record accuracy and self-correction scores. *Reading Psychology, 42*(2), 111-130.

ENDNOTES (APPENDIX C)

xxx. Rodgers, E., D'Agostino, J. V., Berenbon, R., Johnson, T., & Winkler, C. (2021); Burns, M. K., Pulles, S. M., Maki, K. E., Kanive, R., Hodgson, J., Helman, L. A., … & Preast, J. L. (2015). Accuracy of student performance while reading leveled books rated at their instructional level by a reading inventory. *Journal of School Psychology, 53*(6), 437-445.

xxxi. Altman, R. (2019). *The Research Behind the DRA3 Benchmark Assessments Overview.* Pearson. https://www.pearsonassessments.com/content/dam/school/global/clinical/us/assets/dra3/the-researchbehind-the-dra3-benchmark-assessments-whitepaper.pdf

xxxii. Keenan, J. M., & Meenan, C. E. (2014). Test differences in diagnosing reading comprehension deficits. *Journal of Learning Disabilities, 47*(2), 125-135.

xxxiii. Burns, M. K., Pulles, S. M., Maki, K. E., Kanive, R., Hodgson, J., Helman, L. A., … & Preast, J. L. (2015).

xxxiv. Keenan, J. M., Betjemann, R. S., & Olson, R. K. (2008). Reading comprehension tests vary in the skills they assess: Differential dependence on decoding and oral comprehension. *Scientific Studies of Reading, 12*(3), 281-300.

Instructional hours by component

The graphs below detail the instructional hours programs dedicate to each component. Columns in orange include the number of programs that dedicate instructional hours that are below the target, while the blue columns indicate the number of programs that either meet or exceed the instructional hours target for that component.

Number of instructional hours programs dedicate to <u>phonemic awareness</u>

Number of programs (y-axis)

Number of instructional hours (x-axis)

■ **Does not meet** the minimum number of instructional hours for adequate coverage

■ **Meets** the minimum number of instructional hours for adequate coverage
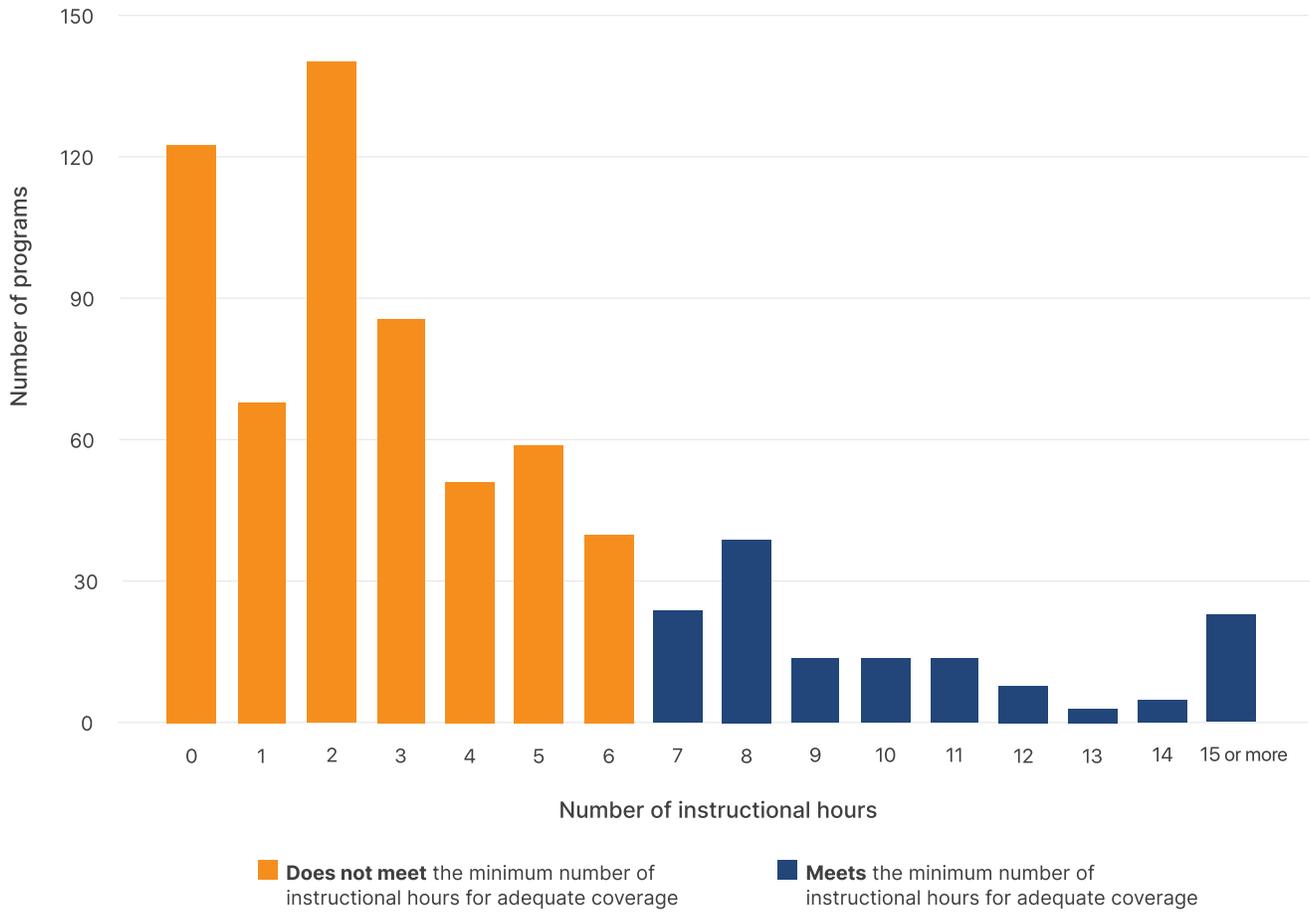
Number of instructional hours programs dedicate to <u>phonics</u>

Number of programs

Number of instructional hours

■ **Does not meet** the minimum number of instructional hours for adequate coverage

■ **Meets** the minimum number of instructional hours for adequate coverage
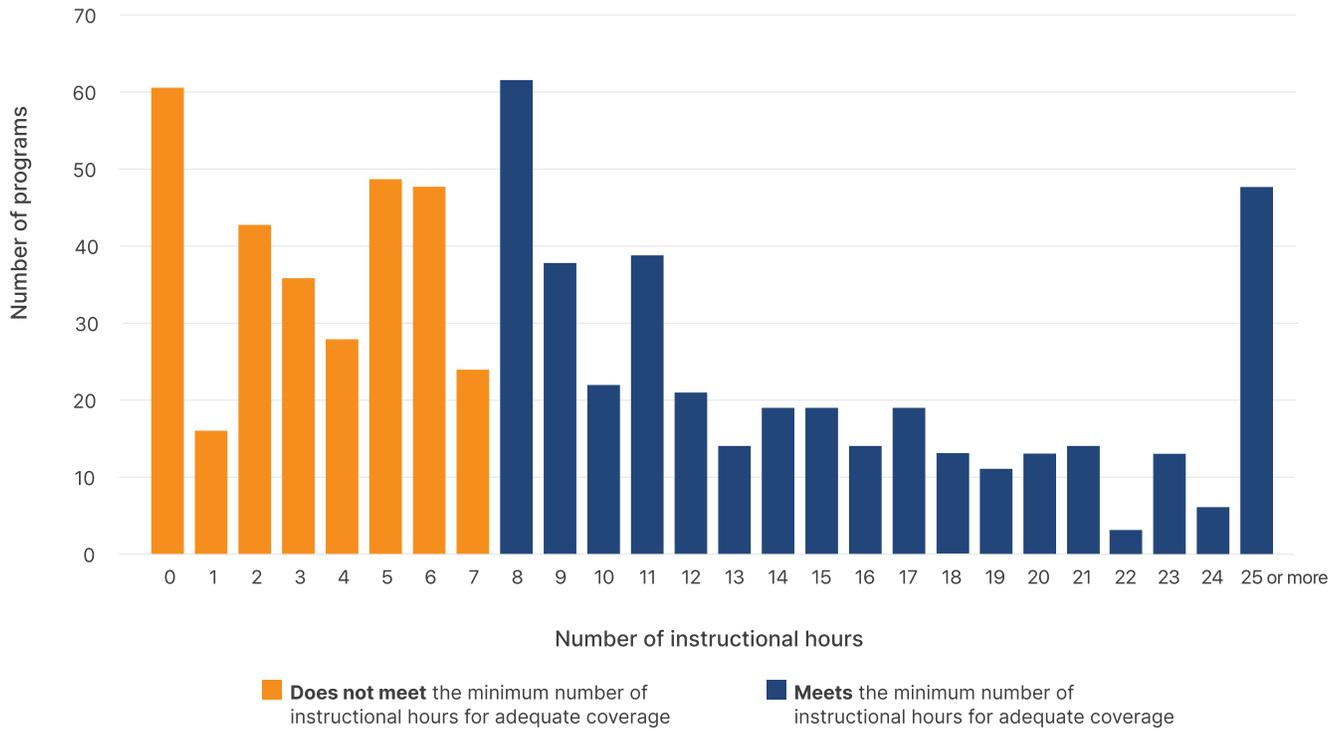
Number of instructional hours programs dedicate to <u>fluency</u>

Number of programs

Number of instructional hours

■ **Does not meet** the minimum number of instructional hours for adequate coverage

■ **Meets** the minimum number of instructional hours for adequate coverage
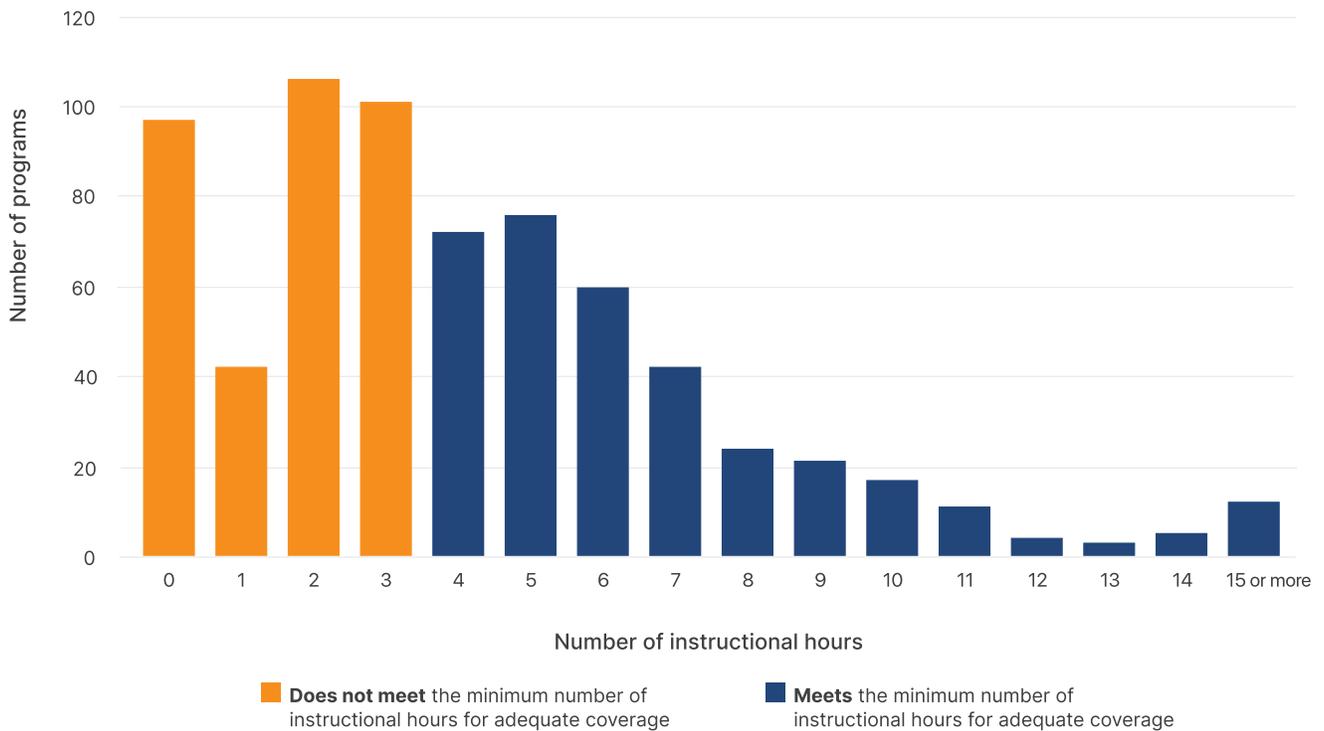
Number of instructional hours programs dedicate to <u>vocabulary</u>

Number of programs (y-axis)

Number of instructional hours (x-axis): 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 or more

■ **Does not meet** the minimum number of instructional hours for adequate coverage

■ **Meets** the minimum number of instructional hours for adequate coverage
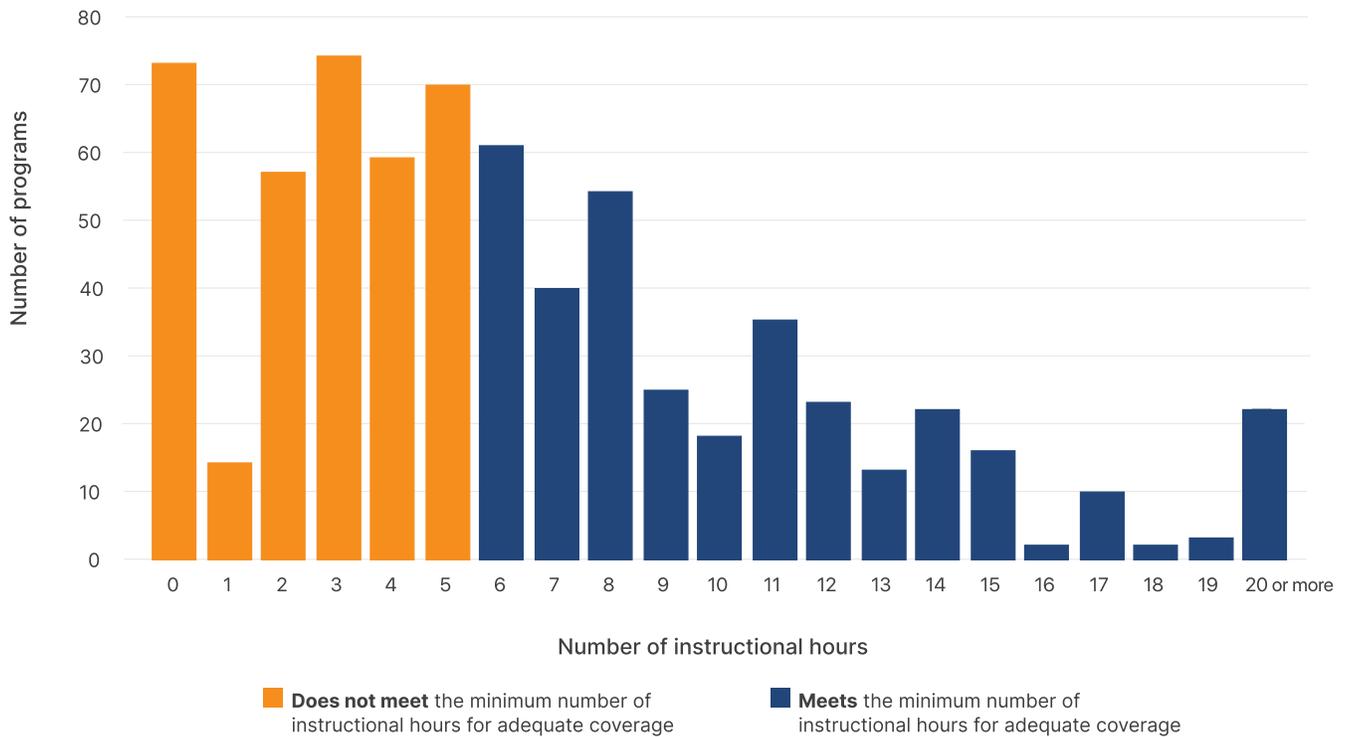
Number of instructional hours programs dedicate to <u>comprehension</u>

Number of programs (y-axis)

Number of instructional hours (x-axis): 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 or more

■ **Does not meet** the minimum number of instructional hours for adequate coverage

■ **Meets** the minimum number of instructional hours for adequate coverage
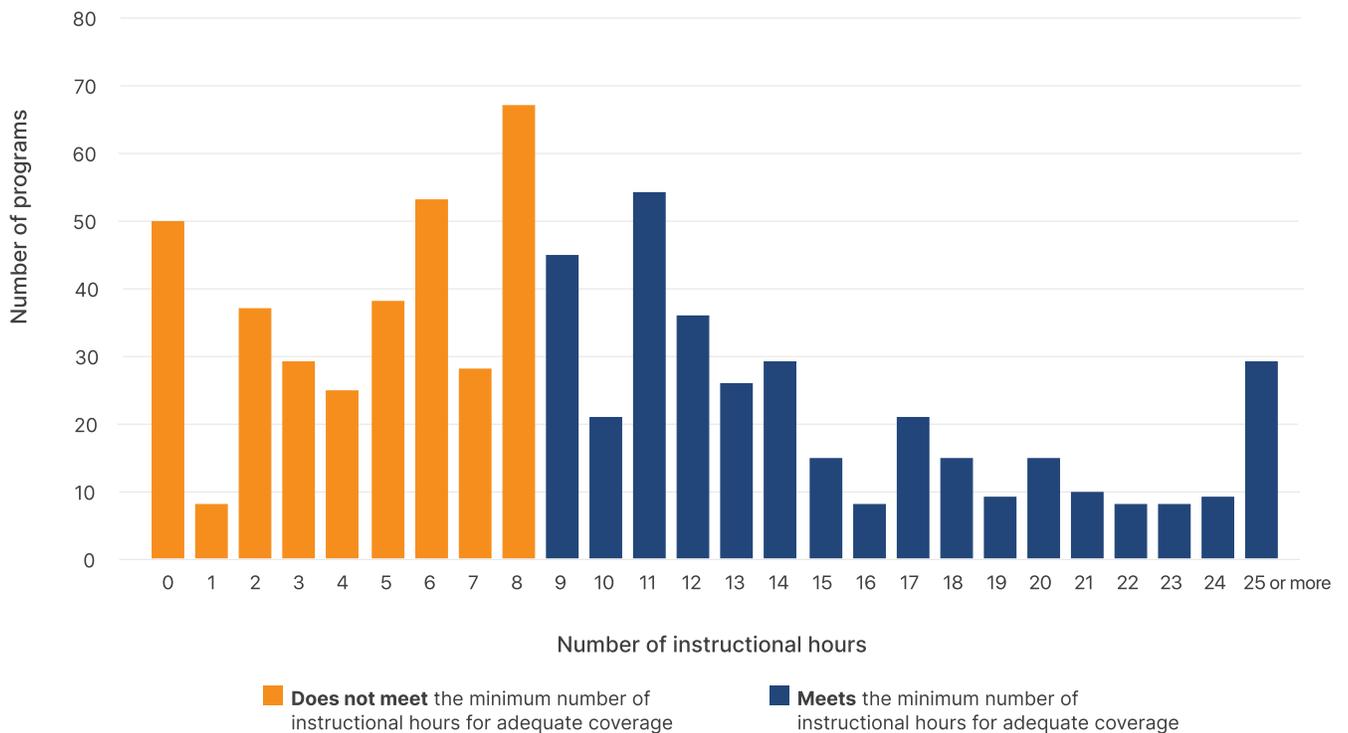
Institutions that refused to participate

While 578 institutions cooperated with NCTQ and made their preparation materials available for review or NCTQ was able to obtain public materials, 376 institutions chose not to make their materials available for review. These non-cooperating institutions, located in 44 states and the District of Columbia, prepare an estimated 16,000 elementary teachers each year, most of whom will go on to teach in public schools.

It is the position of NCTQ that when colleges and universities choose to open a program to prepare the next generation of teachers, they are, in effect, entering into an agreement with not only the state, which approves the program to operate, but also the school districts that hire teachers, the aspiring teachers who enroll in the program, and the students who will learn from teachers prepared by these programs and expect them to be experts in the field. For this reason, NCTQ believes preparation programs have a moral obligation, as well as a legal one, to disclose to their stakeholders how they are preparing aspiring teachers and whether preparation aligns with the best available research-based practices.

The following is a list of institutions that were invited to submit materials to the *Teacher Prep Review* but refused to do so explicitly, by providing heavily redacted materials, or through unresponsiveness.

State	Institution	Type
Alabama	Athens State University	Public
Alabama	Auburn University at Montgomery	Public
Alabama	Birmingham Southern College	Private
Alabama	University of Alabama at Birmingham	Public
Alabama	University of Mobile	Private
Alabama	University of North Alabama	Public
Arizona	Grand Canyon University	Private
Arizona	Ottawa University - Surprise	Private
Arizona	University of Phoenix	Private
Arkansas	Harding University	Private
California	Alliant International University	Private
California	Azusa Pacific University	Private
California	Biola University	Private
California	California Baptist University	Private
California	California Lutheran University	Private

State	Institution	Type
California	Concordia University Irvine	Private
California	Dominican University of California	Private
California	Fresno Pacific University	Private
California	Hope International University	Private
California	Loyola Marymount University	Private
California	Mount St. Mary's University	Private
California	National University	Private
California	Notre Dame de Namur University	Private
California	Saint Mary's College of California	Private
California	Simpson University	Private
California	University of California - Berkeley	Public
California	University of Massachusetts Global	Private
California	University of San Diego	Private
California	University of San Francisco	Private
California	University of the Pacific	Private
California	Vanguard University of Southern California	Private
Colorado	Regis University	Private
Colorado	University of Denver	Private
Connecticut	Fairfield University	Private
Connecticut	Quinnipiac University	Private
Connecticut	Sacred Heart University	Private
Connecticut	University of Hartford	Private
Connecticut	University of Saint Joseph	Private
Delaware	Wilmington University	Private
District of Columbia	Catholic University of America	Private
District of Columbia	George Washington University	Private
District of Columbia	Howard University	Private
Florida	Florida Southern College	Private
Florida	Saint Leo University	Private
Florida	Stetson University	Private
Florida	University of Miami	Private
Florida	University of Tampa	Private
Florida	Warner University	Private
Georgia	Berry College	Private
Georgia	Brenau University	Private
Georgia	Covenant College	Private
Georgia	Mercer University	Private
Georgia	Piedmont University	Private
Georgia	Reinhardt University	Private
Georgia	Shorter University	Private
Hawaii	Chaminade University of Honolulu	Private
Idaho	Brigham Young University - Idaho	Private

State	Institution	Type
Illinois	Augustana College	Private
Illinois	Aurora University	Private
Illinois	Benedictine University	Private
Illinois	Blackburn College	Private
Illinois	Bradley University	Private
Illinois	Concordia University Chicago	Private
Illinois	DePaul University	Private
Illinois	Dominican University	Private
Illinois	Eastern Illinois University	Public
Illinois	Elmhurst University	Private
Illinois	Illinois State University	Public
Illinois	Knox College	Private
Illinois	Lewis University	Private
Illinois	McKendree University	Private
Illinois	Millikin University	Private
Illinois	Monmouth College	Private
Illinois	National Louis University	Private
Illinois	North Central College	Private
Illinois	North Park University	Private
Illinois	Northern Illinois University	Public
Illinois	Quincy University	Private
Illinois	Rockford University	Private
Illinois	Roosevelt University	Private
Illinois	Saint Xavier University	Private
Illinois	Southern Illinois University	Public
Illinois	Edwardsville Trinity Christian College	Private
Illinois	University of Chicago	Private
Illinois	Western Illinois University	Public
Illinois	Wheaton College	Private
Indiana	Bethel University	Private
Indiana	Butler University	Private
Indiana	Franklin College	Private
Indiana	Goshen College	Private
Indiana	Grace College and Theological Seminary	Private
Indiana	Indiana Wesleyan University	Private
Indiana	Saint Mary's College	Private
Indiana	Taylor University	Private
Indiana	University of Indianapolis	Private
Indiana	University of Saint Francis	Private
Indiana	Valparaiso University	Private
Iowa	Briar Cliff University	Private

State	Institution	Type
Iowa	Buena Vista University	Private
Iowa	Central College	Private
Iowa	Clarke University	Private
Iowa	Coe College	Private
Iowa	Dordt University	Private
Iowa	Graceland University	Private
Iowa	Grand View University	Private
Iowa	Iowa Wesleyan University	Private
Iowa	Luther College	Private
Iowa	Morningside University	Private
Iowa	Mount Mercy University	Private
Iowa	Northwestern College	Private
Iowa	Simpson College	Private
Iowa	St. Ambrose University University	Private
Iowa	of Dubuque	Private
Iowa	Upper Iowa University	Private
Iowa	Wartburg College	Private
Iowa	William Penn University	Private
Kansas	Baker University	Private
Kansas	Benedictine College	Private
Kansas	Emporia State University	Public
Kansas	Friends University	Private
Kansas	Kansas State University	Public
Kansas	MidAmerica Nazarene University	Private
Kansas	Ottawa University	Private
Kansas	Southwestern College	Private
Kansas	Sterling College	Private
Kansas	University of Saint Mary	Private
Kentucky	Alice Lloyd College	Private
Kentucky	Asbury University	Private
Maine	Husson University	Private
Maine	University of Maine at Machias	Public
Maine	University of Maine at Presque Isle	Public
Maine	University of New England Loyola	Private
Maryland	University Maryland Mount St.	Private
Maryland	Mary's University Notre Dame of	Private
Maryland	Maryland University Stevenson	Private
Maryland	University	Private
Massachusetts	American International College	Private
Massachusetts	Assumption University	Private
Massachusetts	Brandeis University	Private

State	Institution	Type
Massachusetts	Cambridge College	Private
Massachusetts	Clark University	Private
Massachusetts	Curry College	Private
Massachusetts	Emmanuel College	Private
Massachusetts	Endicott College	Private
Massachusetts	Mount Holyoke College	Private
Massachusetts	Northeastern University	Private
Massachusetts	Simmons University	Private
Massachusetts	Smith College	Private
Massachusetts	Springfield College	Private
Massachusetts	Stonehill College	Private
Massachusetts	University of Massachusetts - Amherst	Public
Michigan	Alma College	Private
Michigan	Calvin University	Private
Michigan	Cornerstone University	Private
Michigan	Eastern Michigan University	Public
Michigan	Hope College	Private
Michigan	Madonna University	Private
Michigan	Saginaw Valley State University	Public
Michigan	Western Michigan University	Public
Minnesota	Augsburg University	Private
Minnesota	Bethel University	Private
Minnesota	College of Saint Scholastica	Private
Minnesota	Concordia College at Moorhead	Private
Minnesota	Crown College	Private
Minnesota	Gustavus Adolphus College	Private
Minnesota	Hamline University	Private
Minnesota	Martin Luther College	Private
Minnesota	Saint Mary's University of Minnesota	Private
Minnesota	St. Catherine University	Private
Minnesota	University of Northwestern - St. Paul	Private
Mississippi	Blue Mountain College	Private
Missouri	College of the Ozarks	Private
Missouri	Columbia College	Private
Missouri	Drury University	Private
Missouri	Evangel University	Private
Missouri	Fontbonne University	Private
Missouri	Harris-Stowe State University	Public
Missouri	Maryville University of St. Louis	Private
Missouri	Missouri Baptist University	Private
Missouri	Missouri State University	Public
Missouri	Missouri Valley College	Private

State	Institution	Type
Missouri	Park University	Private
Missouri	Rockhurst University	Private
Missouri	Southwest Baptist University	Private
Missouri	St. Louis University	Private
Missouri	Truman State University	Public
Missouri	University of Missouri - Columbia	Public
Missouri	Washington University in St. Louis	Private
Missouri	Webster University	Private
Montana	Carroll College	Private
Montana	Rocky Mountain College	Private
Nebraska	Chadron State College	Public
Nebraska	College of Saint Mary	Private
Nebraska	Hastings College	Private
Nebraska	Midland University	Private
Nebraska	Peru State College	Public
New Hampshire	Antioch University New England	Private
New Hampshire	Rivier University	Private
New Jersey	Bloomfield College	Private
New Jersey	Caldwell University	Private
New Jersey	Centenary University	Private
New Jersey	Fairleigh Dickinson University	Private
New Jersey	Felician University	Private
New Jersey	Kean University	Public
New Jersey	Monmouth University	Private
New Jersey	New Jersey City University	Public
New Jersey	Rutgers University - Camden	Public
New Jersey	Saint Elizabeth University	Private
New Jersey	Saint Peter's University	Private
New Jersey	Seton Hall University	Private
New Jersey	William Paterson University of New Jersey	Public
New York	Adelphi University	Private
New York	Bank Street College of Education	Private
New York	College of Saint Rose	Private
New York	Columbia University	Private
New York	CUNY - Hunter College	Public
New York	Daemen College	Private
New York	Dominican College	Private
New York	Fordham University	Private
New York	Hofstra University	Private
New York	Iona College	Private
New York	Keuka College	Private
New York	Le Moyne College	Private

State	Institution	Type
New York	Long Island University	Private
New York	Manhattanville College	Private
New York	Marist College	Private
New York	Medaille College	Private
New York	Mercy College	Private
New York	Molloy College	Private
New York	Mount Saint Mary College	Private
New York	Nazareth College	Private
New York	New York Institute of Technology	Private
New York	New York University	Private
New York	Niagara University	Private
New York	Pace University	Private
New York	Sage Colleges	Private
New York	St. Bonaventure University	Private
New York	St. Francis College	Private
New York	St. John Fisher College	Private
New York	St. Joseph's College	Private
New York	St. Thomas Aquinas College	Private
New York	Syracuse University	Private
New York	Touro College	Private
New York	Utica College	Private
New York	Wagner College	Private
North Carolina	Barton College	Private
North Carolina	Belmont Abbey College	Private
North Carolina	Gardner-Webb University	Private
North Carolina	Greensboro College	Private
North Carolina	Guilford College	Private
North Carolina	Mars Hill University	Private
North Carolina	Meredith College	Private
North Carolina	North Carolina Wesleyan College	Private
North Carolina	Pfeiffer University	Private
North Carolina	Salem College	Private
North Carolina	St. Andrews University	Private
North Carolina	Wingate University	Private
North Dakota	University of Jamestown	Private
Ohio	Baldwin Wallace University	Private
Ohio	Bluffton University	Private
Ohio	Capital University	Private
Ohio	Cedarville University	Private
Ohio	Franciscan University of Steubenville	Private
Ohio	John Carroll University	Private
Ohio	Lake Erie College	Private

State	Institution	Type
Ohio	Malone University	Private
Ohio	Mount Vernon Nazarene University	Private
Ohio	Muskingum University	Private
Ohio	Notre Dame College	Private
Ohio	Ohio Dominican University	Private
Ohio	Otterbein University	Private
Ohio	University of Cincinnati	Public
Ohio	University of Mount Union	Private
Ohio	Walsh University	Private
Ohio	Xavier University	Private
Oklahoma	Northeastern State University	Public
Oklahoma	Oklahoma Baptist University	Private
Oklahoma	Oral Roberts University	Private
Oregon	Corban University	Private
Oregon	George Fox University	Private
Oregon	Lewis and Clark College	Private
Oregon	Linfield University	Private
Oregon	Pacific University	Private
Oregon	University of Portland	Private
Oregon	Warner Pacific University	Private
Oregon	Western Oregon University	Public
Pennsylvania	Arcadia University	Private
Pennsylvania	Cairn University	Private
Pennsylvania	Carlow University	Private
Pennsylvania	Chestnut Hill College	Private
Pennsylvania	Clarks Summit University	Private
Pennsylvania	DeSales University	Private
Pennsylvania	Drexel University	Private
Pennsylvania	Gwynedd Mercy University	Private
Pennsylvania	Holy Family University	Private
Pennsylvania	Immaculata University	Private
Pennsylvania	King's College	Private
Pennsylvania	La Salle University	Private
Pennsylvania	Lebanon Valley College	Private
Pennsylvania	Marywood University	Private
Pennsylvania	Mercyhurst University	Private
Pennsylvania	Moravian University	Private
Pennsylvania	Pennsylvania State University	Public
Pennsylvania	Pennsylvania State University - Harrisburg	Public
Pennsylvania	Saint Joseph's University	Private
Pennsylvania	Saint Vincent College	Private
Pennsylvania	Seton Hill University	Private
Pennsylvania	Susquehanna University	Private

State	Institution	Type
Pennsylvania	Temple University	Public
Pennsylvania	University of Pittsburgh	Public
Pennsylvania	University of Pittsburgh at Bradford	Public
Pennsylvania	University of Pittsburgh at Johnstown	Public
Pennsylvania	Waynesburg University	Private
Pennsylvania	Westminster College	Private
Pennsylvania	Wilson College	Private
Pennsylvania	York College of Pennsylvania	Private
Rhode Island	Providence College	Private
Rhode Island	Roger Williams University	Private
Rhode Island	Salve Regina University	Private
South Carolina	Anderson University	Private
South Carolina	Coastal Carolina University	Public
South Carolina	Furman University	Private
South Carolina	North Greenville University	Private
South Carolina	University of South Carolina - Beaufort	Public
South Dakota	Augustana University	Private
Tennessee	Carson-Newman University	Private
Tennessee	Cumberland University	Private
Tennessee	King University	Private
Tennessee	Lee University	Private
Tennessee	Lincoln Memorial University	Private
Tennessee	Southern Adventist University	Private
Tennessee	Trevecca Nazarene University	Private
Tennessee	Vanderbilt University	Private
Texas	Abilene Christian University	Private
Texas	Baylor University	Private
Texas	Concordia University Texas	Private
Texas	Hardin-Simmons University	Private
Texas	Howard Payne University	Private
Texas	LeTourneau University	Private
Texas	Lubbock Christian University	Private
Texas	McMurry University	Private
Texas	Southern Methodist University	Private
Texas	Texas Christian University	Private
Texas	Texas Wesleyan University	Private
Texas	University of Mary Hardin - Baylor	Private
Texas	University of the Incarnate Word	Private
Texas	Wayland Baptist University	Private
Utah	Brigham Young University	Private
Utah	Westminster College	Private
Virginia	Bridgewater College	Private

State	Institution	Type
Virginia	Eastern Mennonite University	Private
Virginia	Hampton University	Private
Virginia	Mary Baldwin University	Private
Virginia	Roanoke College	Private
Virginia	Shenandoah University	Private
Virginia	University of Richmond	Private
Washington	Antioch University Seattle	Private
Washington	Gonzaga University	Private
Washington	Heritage University	Private
Washington	Northwest University	Private
Washington	Pacific Lutheran University	Private
Washington	Saint Martin's University	Private
Washington	Seattle Pacific University	Private
Washington	Seattle University	Private
Washington	University of Puget Sound	Private
Washington	Whitworth University	Private
West Virginia	Shepherd University	Public
West Virginia	West Virginia Wesleyan College	Private
Wisconsin	Alverno College	Private
Wisconsin	Cardinal Stritch University	Private
Wisconsin	Carroll University	Private
Wisconsin	Concordia University Wisconsin	Private
Wisconsin	Edgewood College	Private
Wisconsin	Marquette University	Private
Wisconsin	St. Norbert College	Private
Wisconsin	Wisconsin Lutheran College	Private

All program scores in Reading Foundations

Note that an asterisk by an institution name indicates that additional materials for consideration were provided after the review deadline, but prior to publication; scores for these programs may change pending review of those materials.

State	Institution	Program	2023 Grade
Alabama	Alabama A&M University	Undergraduate	B
Alabama	Alabama A&M University	Graduate	A+
Alabama	Alabama State University*	Undergraduate	B
Alabama	Auburn University	Undergraduate	F
Alabama	Jacksonville State University	Undergraduate	F
Alabama	Jacksonville State University	Graduate	F
Alabama	Miles College	Undergraduate	F
Alabama	Samford University	Undergraduate	A+
Alabama	Samford University	Graduate	A+
Alabama	Troy University	Undergraduate	A
Alabama	Troy University	Graduate	B
Alabama	University of Alabama	Undergraduate	B
Alabama	University of Alabama	Graduate	C
Alabama	University of Alabama in Huntsville	Undergraduate	C
Alabama	University of Montevallo	Undergraduate	F
Alabama	University of South Alabama	Undergraduate	A
Alabama	University of South Alabama	Graduate	A
Alabama	University of West Alabama	Undergraduate	A
Alaska	University of Alaska Fairbanks	Undergraduate	A
Alaska	University of Alaska Southeast	Undergraduate	B
Arizona	Arizona State University	Undergraduate	A
Arizona	Arizona State University	Graduate	A
Arizona	Northern Arizona University	Undergraduate	B
Arizona	Northern Arizona University	Graduate	B
Arizona	University of Arizona	Undergraduate	F
Arkansas	Arkansas State University	Undergraduate	A

View detailed analysis for each program, including findings on each instructional approach for each core component, evidence of practices contrary to the science of reading, and coverage of instruction for a range of learners by visiting www.nctq.org/review/standard/Reading-Foundations.

State	Institution	Program	2023 Grade
Arkansas	Arkansas Tech University	Undergraduate	A
Arkansas	Henderson State University	Undergraduate	D
Arkansas	John Brown University	Undergraduate	C
Arkansas	Ouachita Baptist University	Undergraduate	A
Arkansas	Southern Arkansas University	Undergraduate	A
Arkansas	University of Arkansas	Undergraduate	A
Arkansas	University of Arkansas - Fort Smith	Undergraduate	A
Arkansas	University of Arkansas at Little Rock	Undergraduate	A
Arkansas	University of Arkansas at Monticello	Undergraduate	A+
Arkansas	University of Arkansas at Pine Bluff	Undergraduate	A
Arkansas	University of Central Arkansas	Undergraduate	B
Arkansas	University of Central Arkansas	Graduate	D
California	California Polytechnic State University - San Luis Obispo	Graduate	F
California	California State Polytechnic University - Pomona	Graduate	D
California	California State University - Bakersfield	Undergraduate	D
California	California State University - Channel Islands	Graduate	C
California	California State University - Chico	Undergraduate	B
California	California State University - Chico	Graduate	B
California	California State University - Dominguez Hills	Graduate	F
California	California State University - East Bay	Graduate	B
California	California State University - Fresno	Graduate	F
California	California State University - Fullerton	Graduate	F
California	California State University - Long Beach	Graduate	D
California	California State University - Los Angeles	Graduate	D
California	California State University - Monterey Bay	Graduate	F
California	California State University - Northridge	Undergraduate	F
California	California State University - Northridge	Graduate	F
California	California State University - Sacramento	Graduate	C
California	California State University - San Bernardino	Graduate	F
California	California State University - San Marcos	Graduate	F
California	California State University - Stanislaus	Graduate	C
California	Chapman University	Graduate	F
California	Humboldt State University	Graduate	F
California	Pepperdine University	Undergraduate	F
California	Point Loma Nazarene University	Graduate	B

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State	Institution	Program	2023 Grade
California	San Diego State University	Graduate	F
California	San Francisco State University	Graduate	F
California	San Jose State University	Graduate	F
California	Santa Clara University*	Graduate	F
California	Sonoma State University	Graduate	F
California	Stanford University	Graduate	F
California	University of California - Davis*	Graduate	D
California	University of California - Irvine	Graduate	C
California	University of California - Los Angeles	Graduate	D
California	University of California - Riverside	Graduate	D
California	University of California - San Diego	Graduate	D
California	University of California - Santa Barbara	Graduate	F
California	University of California - Santa Cruz*	Graduate	F
California	University of La Verne	Graduate	F
California	University of Redlands*	Undergraduate	F
California	University of Redlands*	Graduate	F
California	University of Southern California	Graduate	F
Colorado	Adams State University	Undergraduate	A
Colorado	Colorado Christian University	Undergraduate	A
Colorado	Colorado Mesa University	Undergraduate	A
Colorado	Colorado Mountain College	Undergraduate	A
Colorado	Colorado State University - Pueblo	Undergraduate	A
Colorado	Fort Lewis College	Undergraduate	A+
Colorado	Metropolitan State University of Denver	Undergraduate	B
Colorado	Metropolitan State University of Denver	Graduate	B
Colorado	University of Colorado Boulder	Undergraduate	A+
Colorado	University of Colorado Colorado Springs	Undergraduate	C
Colorado	University of Colorado Denver	Undergraduate	A+
Colorado	University of Colorado Denver	Graduate	C
Colorado	University of Northern Colorado	Undergraduate	A
Colorado	University of Northern Colorado	Graduate	A+
Colorado	Western Colorado University	Undergraduate	A+
Connecticut	Central Connecticut State University	Undergraduate	B
Connecticut	Central Connecticut State University	Graduate	B
Connecticut	Eastern Connecticut State University	Undergraduate	A
Connecticut	Eastern Connecticut State University	Graduate	A
Connecticut	Southern Connecticut State University	Undergraduate	D
Connecticut	Southern Connecticut State University	Graduate	C
Connecticut	University of Bridgeport	Graduate	D

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State	Institution	Program	2023 Grade
Connecticut	University of Connecticut	Undergraduate	A
Connecticut	Western Connecticut State University	Undergraduate	F
Delaware	Delaware State University	Undergraduate	B
Delaware	University of Delaware	Undergraduate	B
District of Columbia	American University	Graduate	F
District of Columbia	University of the District of Columbia	Undergraduate	D
District of Columbia	University of the District of Columbia	Graduate	F
Florida	Chipola College	Undergraduate	F
Florida	Daytona State College	Undergraduate	A
Florida	Flagler College	Undergraduate	F
Florida	Florida Agricultural and Mechanical University	Undergraduate	B
Florida	Florida Atlantic University	Undergraduate	C
Florida	Florida Atlantic University	Graduate	F
Florida	Florida Gulf Coast University	Undergraduate	C
Florida	Florida International University	Undergraduate	A
Florida	Florida SouthWestern State College	Undergraduate	B
Florida	Florida State University	Undergraduate	A
Florida	Indian River State College*	Undergraduate	F
Florida	Northwest Florida State College	Undergraduate	D
Florida	Palm Beach Atlantic University	Undergraduate	D
Florida	Southeastern University	Undergraduate	A
Florida	St. Petersburg College	Undergraduate	B
Florida	University of Central Florida	Undergraduate	A
Florida	University of Central Florida	Graduate	A
Florida	University of Florida	Undergraduate	A
Florida	University of North Florida	Undergraduate	B
Florida	University of South Florida	Undergraduate	A
Florida	University of South Florida	Graduate	A
Florida	University of West Florida	Undergraduate	B
Georgia	Albany State University*	Undergraduate	C
Georgia	Augusta University	Undergraduate	D
Georgia	Augusta University	Graduate	F
Georgia	College of Coastal Georgia	Undergraduate	A
Georgia	Columbus State University	Undergraduate	F
Georgia	Dalton State College	Undergraduate	A
Georgia	Dalton State College	Graduate	A

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State	Institution	Program	2023 Grade
Georgia	Georgia College and State University	Undergraduate	A+
Georgia	Georgia Gwinnett College*	Undergraduate	D
Georgia	Georgia Southern University	Undergraduate	F
Georgia	Georgia Southern University	Graduate	C
Georgia	Georgia Southwestern State University	Undergraduate	B
Georgia	Georgia State University	Undergraduate	F
Georgia	Georgia State University	Graduate	C
Georgia	Gordon State College	Undergraduate	F
Georgia	Kennesaw State University	Undergraduate	A
Georgia	Middle Georgia State University	Undergraduate	A
Georgia	University of Georgia	Undergraduate	F
Georgia	University of Georgia	Graduate	F
Georgia	University of North Georgia	Undergraduate	F
Georgia	University of West Georgia	Undergraduate	F
Georgia	Valdosta State University	Undergraduate	B
Georgia	Wesleyan College	Undergraduate	C
Hawaii	Brigham Young University - Hawaii	Undergraduate	F
Hawaii	University of Hawaii - West O'ahu	Undergraduate	F
Hawaii	University of Hawaii at Hilo	Graduate	F
Hawaii	University of Hawaii at Manoa	Undergraduate	B
Idaho	Boise State University*	Undergraduate	C
Idaho	Idaho State University	Undergraduate	F
Idaho	Lewis-Clark State College	Undergraduate	A
Idaho	Northwest Nazarene University	Undergraduate	A
Idaho	Northwest Nazarene University	Graduate	A
Idaho	University of Idaho	Undergraduate	B
Illinois	Chicago State University*	Undergraduate	D
Illinois	Governors State University	Undergraduate	F
Illinois	Greenville University	Undergraduate	F
Illinois	Judson University	Undergraduate	F
Illinois	Loyola University Chicago*	Undergraduate	F
Illinois	Northeastern Illinois University	Undergraduate	F
Illinois	Northeastern Illinois University	Graduate	F
Illinois	Northwestern University	Graduate	F
Illinois	Olivet Nazarene University	Undergraduate	A+
Illinois	Southern Illinois University Carbondale	Undergraduate	B
Illinois	University of Illinois at Chicago*	Undergraduate	D
Illinois	University of Illinois at Urbana-Champaign	Undergraduate	F
Illinois	University of Illinois at Urbana-Champaign	Graduate	F

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State	Institution	Program	2023 Grade
Illinois	University of Illinois Springfield	Undergraduate	D
Illinois	University of St. Francis	Undergraduate	C
Indiana	Anderson University*	Undergraduate	A
Indiana	Ball State University*	Undergraduate	F
Indiana	Huntington University	Undergraduate	D
Indiana	Indiana State University	Undergraduate	D
Indiana	Indiana University - Bloomington	Undergraduate	F
Indiana	Indiana University - East	Undergraduate	F
Indiana	Indiana University - Kokomo	Undergraduate	D
Indiana	Indiana University - Northwest	Undergraduate	B
Indiana	Indiana University - South Bend	Undergraduate	F
Indiana	Indiana University - Southeast	Undergraduate	C
Indiana	Indiana University-Purdue University Indianapolis	Undergraduate	F
Indiana	Marian University Indianapolis	Undergraduate	A+
Indiana	Purdue University Fort Wayne	Undergraduate	F
Indiana	Purdue University Northwest	Undergraduate	A
Indiana	Saint Mary-of-the-Woods College	Undergraduate	F
Indiana	University of Evansville	Undergraduate	A
Indiana	University of Southern Indiana	Undergraduate	B
Indiana	Vincennes University	Undergraduate	F
Iowa	Drake University*	Undergraduate	F
Iowa	Drake University*	Graduate	F
Iowa	Iowa State University	Undergraduate	F
Iowa	Loras College	Undergraduate	B
Iowa	University of Iowa	Undergraduate	F
Iowa	University of Northern Iowa	Undergraduate	F
Kansas	Fort Hays State University	Undergraduate	A
Kansas	Newman University	Undergraduate	F
Kansas	Pittsburg State University	Undergraduate	F
Kansas	University of Kansas	Undergraduate	B
Kansas	Washburn University	Undergraduate	F
Kansas	Wichita State University	Undergraduate	A+
Kentucky	Bellarmine University	Undergraduate	D
Kentucky	Bellarmine University	Graduate	B
Kentucky	Campbellsville University	Undergraduate	A
Kentucky	Eastern Kentucky University	Undergraduate	F
Kentucky	Eastern Kentucky University	Graduate	C
Kentucky	Kentucky State University	Undergraduate	F

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State	Institution	Program	2023 Grade
Kentucky	Midway University	Undergraduate	F
Kentucky	Morehead State University	Undergraduate	A
Kentucky	Murray State University	Undergraduate	A
Kentucky	Northern Kentucky University	Undergraduate	D
Kentucky	University of Kentucky	Undergraduate	D
Kentucky	University of Louisville	Graduate	F
Kentucky	University of Pikeville	Undergraduate	A
Kentucky	University of the Cumberlands	Graduate	F
Kentucky	Western Kentucky University*	Undergraduate	C
Louisiana	Grambling State University	Undergraduate	D
Louisiana	Louisiana State University	Undergraduate	A
Louisiana	Louisiana State University - Alexandria	Undergraduate	A+
Louisiana	Louisiana State University - Shreveport	Undergraduate	B
Louisiana	Louisiana Tech University	Undergraduate	C
Louisiana	McNeese State University	Undergraduate	A
Louisiana	Nicholls State University	Undergraduate	A
Louisiana	Northwestern State University of Louisiana	Undergraduate	B
Louisiana	Southeastern Louisiana University	Undergraduate	A
Louisiana	Southeastern Louisiana University	Graduate	B
Louisiana	Southern University and A&M College	Undergraduate	A+
Louisiana	University of Louisiana at Lafayette	Undergraduate	A
Louisiana	University of Louisiana at Monroe	Undergraduate	A+
Louisiana	University of New Orleans	Undergraduate	A
Louisiana	University of New Orleans	Graduate	A+
Maine	University of Maine	Undergraduate	F
Maine	University of Maine at Farmington	Undergraduate	F
Maine	University of Southern Maine	Undergraduate	F
Maryland	Bowie State University	Undergraduate	F
Maryland	Bowie State University	Graduate	F
Maryland	Coppin State University	Graduate	F
Maryland	Frostburg State University	Undergraduate	F
Maryland	Frostburg State University	Graduate	F
Maryland	Hood College	Undergraduate	F
Maryland	McDaniel College	Undergraduate	A
Maryland	Morgan State University*	Undergraduate	D
Maryland	Salisbury University	Undergraduate	B
Maryland	St. Mary's College of Maryland	Undergraduate	F
Maryland	Towson University	Undergraduate	B

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State	Institution	Program	2023 Grade
Maryland	Towson University	Graduate	F
Maryland	University of Maryland - Baltimore County*	Undergraduate	F
Maryland	University of Maryland - College Park	Undergraduate	C
Maryland	University of Maryland - College Park	Graduate	F
Massachusetts	Bay Path University	Undergraduate	A
Massachusetts	Boston College	Undergraduate	F
Massachusetts	Boston University	Graduate	D
Massachusetts	Bridgewater State University	Undergraduate	F
Massachusetts	Bridgewater State University	Graduate	D
Massachusetts	Elms College (College of Our Lady of the Elms)*	Graduate	F
Massachusetts	Fitchburg State University	Undergraduate	D
Massachusetts	Fitchburg State University	Graduate	F
Massachusetts	Framingham State University*	Undergraduate	F
Massachusetts	Gordon College	Undergraduate	A+
Massachusetts	Lesley University	Graduate	D
Massachusetts	Massachusetts College of Liberal Arts	Undergraduate	D
Massachusetts	Merrimack College*	Undergraduate	D
Massachusetts	Merrimack College*	Graduate	F
Massachusetts	Salem State University	Graduate	F
Massachusetts	University of Massachusetts - Boston	Graduate	F
Massachusetts	Westfield State University*	Undergraduate	D
Massachusetts	Westfield State University*	Graduate	F
Massachusetts	Worcester State University	Undergraduate	A
Michigan	Aquinas College	Undergraduate	B
Michigan	Central Michigan University	Undergraduate	A
Michigan	Ferris State University	Undergraduate	A+
Michigan	Grand Valley State University	Undergraduate	F
Michigan	Grand Valley State University	Graduate	F
Michigan	Lake Superior State University	Undergraduate	B
Michigan	Michigan State University	Undergraduate	C
Michigan	Northern Michigan University	Undergraduate	F
Michigan	Oakland University	Undergraduate	F
Michigan	Oakland University	Graduate	F
Michigan	Spring Arbor University	Undergraduate	F
Michigan	University of Michigan - Ann Arbor	Undergraduate	D
Michigan	University of Michigan - Dearborn	Undergraduate	F
Michigan	University of Michigan - Flint	Undergraduate	B
Michigan	Wayne State University	Undergraduate	F

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State	Institution	Program	2023 Grade
Michigan	Wayne State University	Graduate	F
Minnesota	Bemidji State University	Undergraduate	A
Minnesota	College of Saint Benedict and Saint John's University	Undergraduate	F
Minnesota	Concordia University St. Paul	Undergraduate	B
Minnesota	Metropolitan State University	Undergraduate	D
Minnesota	Minnesota State University - Mankato	Undergraduate	F
Minnesota	Minnesota State University - Moorhead	Undergraduate	A
Minnesota	Southwest Minnesota State University*	Undergraduate	B
Minnesota	St. Cloud State University	Undergraduate	B
Minnesota	University of Minnesota - Crookston	Undergraduate	D
Minnesota	University of Minnesota - Duluth	Undergraduate	F
Minnesota	University of Minnesota - Morris	Undergraduate	C
Minnesota	University of Minnesota - Twin Cities*	Undergraduate	B
Minnesota	University of St. Thomas*	Undergraduate	D
Minnesota	Winona State University	Undergraduate	F
Mississippi	Alcorn State University	Undergraduate	C
Mississippi	Delta State University	Undergraduate	A
Mississippi	Jackson State University	Undergraduate	A+
Mississippi	Mississippi College	Undergraduate	C
Mississippi	Mississippi State University	Undergraduate	A+
Mississippi	Mississippi University for Women	Undergraduate	A
Mississippi	Mississippi Valley State University	Undergraduate	C
Mississippi	University of Mississippi	Undergraduate	F
Mississippi	University of Southern Mississippi	Undergraduate	A+
Mississippi	William Carey University	Undergraduate	A
Missouri	Central Methodist University - College of Liberal Arts & Sciences	Undergraduate	F
Missouri	Hannibal-LaGrange University	Undergraduate	F
Missouri	Lincoln University	Undergraduate	B
Missouri	Lindenwood University*	Undergraduate	B
Missouri	Lindenwood University*	Graduate	D
Missouri	Missouri Southern State University	Undergraduate	F
Missouri	Missouri Western State University	Undergraduate	D
Missouri	Northwest Missouri State University	Undergraduate	F
Missouri	Southeast Missouri State University*	Undergraduate	F
Missouri	University of Central Missouri	Undergraduate	F
Missouri	University of Missouri - Kansas City	Undergraduate	A
Missouri	University of Missouri - St. Louis	Undergraduate	C

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State	Institution	Program	2023 Grade
Missouri	University of Missouri - St. Louis	Graduate	C
Montana	Montana State University	Undergraduate	A
Montana	Montana State University - Northern	Undergraduate	F
Montana	Montana State University Billings	Undergraduate	C
Montana	Salish Kootenai College	Undergraduate	A
Montana	University of Montana	Undergraduate	F
Montana	University of Montana	Graduate	F
Montana	University of Montana - Western	Undergraduate	F
Nebraska	Concordia University Nebraska	Undergraduate	B
Nebraska	Creighton University	Undergraduate	F
Nebraska	Doane University*	Undergraduate	B
Nebraska	Union College	Undergraduate	C
Nebraska	University of Nebraska - Lincoln	Undergraduate	F
Nebraska	University of Nebraska - Lincoln	Graduate	F
Nebraska	University of Nebraska at Kearney	Undergraduate	F
Nebraska	University of Nebraska Omaha	Undergraduate	A
Nebraska	Wayne State College	Undergraduate	C
Nevada	Great Basin College	Undergraduate	C
Nevada	Nevada State College	Undergraduate	B
Nevada	University of Nevada - Las Vegas	Undergraduate	F
Nevada	University of Nevada - Reno*	Undergraduate	F
Nevada	University of Nevada - Reno*	Graduate	F
New Hampshire	Keene State College*	Undergraduate	B
New Hampshire	Plymouth State University	Undergraduate	D
New Hampshire	Southern New Hampshire University	Undergraduate	F
New Hampshire	University of New Hampshire	Graduate	D
New Jersey	College of New Jersey	Undergraduate	F
New Jersey	College of New Jersey	Graduate	F
New Jersey	Georgian Court University	Undergraduate	F
New Jersey	Georgian Court University	Graduate	F
New Jersey	Montclair State University	Undergraduate	C
New Jersey	Montclair State University	Graduate	F
New Jersey	Rider University	Undergraduate	F
New Jersey	Rowan University	Undergraduate	F
New Jersey	Rutgers University - New Brunswick	Graduate	F
New Jersey	Stockton University	Undergraduate	F
New Mexico	Eastern New Mexico University	Undergraduate	A
New Mexico	New Mexico Highlands University	Undergraduate	B
New Mexico	New Mexico State University	Undergraduate	B

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State	Institution	Program	2023 Grade
New Mexico	Northern New Mexico College	Undergraduate	D
New Mexico	University of New Mexico	Undergraduate	D
New Mexico	University of New Mexico	Graduate	F
New Mexico	Western New Mexico University	Undergraduate	A+
New Mexico	Western New Mexico University	Graduate	A+
New York	Alfred University*	Undergraduate	D
New York	Canisius College	Undergraduate	B
New York	Canisius College	Graduate	F
New York	CUNY - Brooklyn College	Undergraduate	F
New York	CUNY - Brooklyn College	Graduate	F
New York	CUNY - City College	Undergraduate	D
New York	CUNY - City College	Graduate	F
New York	CUNY - College of Staten Island	Undergraduate	F
New York	CUNY - College of Staten Island	Graduate	F
New York	CUNY - Lehman College	Undergraduate	F
New York	CUNY - Lehman College	Graduate	F
New York	CUNY - Medgar Evers College	Undergraduate	F
New York	CUNY - Queens College	Undergraduate	C
New York	CUNY - Queens College	Graduate	F
New York	CUNY - York College	Undergraduate	F
New York	Manhattan College	Undergraduate	B
New York	Roberts Wesleyan College*	Undergraduate	F
New York	St. John's University	Undergraduate	F
New York	St. John's University	Graduate	C
New York	SUNY - Binghamton University	Graduate	C
New York	SUNY - Buffalo State	Undergraduate	B
New York	SUNY - Buffalo State	Graduate	C
New York	SUNY - Fredonia*	Undergraduate	F
New York	SUNY - Geneseo	Undergraduate	D
New York	SUNY - New Paltz	Undergraduate	C
New York	SUNY - New Paltz	Graduate	C
New York	SUNY - Oswego*	Undergraduate	B
New York	SUNY - Oswego*	Graduate	B
New York	SUNY - Potsdam	Undergraduate	F
New York	SUNY - Potsdam	Graduate	F
New York	SUNY College at Brockport	Undergraduate	F
New York	SUNY College at Cortland	Undergraduate	F
New York	SUNY College at Cortland	Graduate	F
New York	SUNY College at Old Westbury	Undergraduate	F

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State	Institution	Program	2023 Grade
New York	SUNY College at Oneonta	Undergraduate	F
New York	SUNY College at Plattsburgh	Undergraduate	F
New York	SUNY College at Plattsburgh	Graduate	F
New York	SUNY University at Buffalo	Graduate	D
North Carolina	Appalachian State University	Undergraduate	A
North Carolina	Campbell University	Undergraduate	C
North Carolina	Catawba College	Undergraduate	D
North Carolina	East Carolina University	Undergraduate	A+
North Carolina	Elizabeth City State University	Undergraduate	F
North Carolina	Elon University	Undergraduate	A
North Carolina	Fayetteville State University	Undergraduate	C
North Carolina	High Point University	Undergraduate	A
North Carolina	Lees-McRae College	Undergraduate	A
North Carolina	Lenoir-Rhyne University	Undergraduate	A+
North Carolina	North Carolina A&T State University	Undergraduate	A
North Carolina	North Carolina Central University	Undergraduate	D
North Carolina	North Carolina State University at Raleigh	Graduate	F
North Carolina	University of North Carolina Asheville	Undergraduate	A+
North Carolina	University of North Carolina at Chapel Hill	Graduate	A+
North Carolina	University of North Carolina at Charlotte	Undergraduate	A
North Carolina	University of North Carolina at Charlotte	Graduate	D
North Carolina	University of North Carolina at Greensboro	Undergraduate	A
North Carolina	University of North Carolina at Greensboro	Graduate	C
North Carolina	University of North Carolina at Pembroke	Undergraduate	C
North Carolina	University of North Carolina at Wilmington	Undergraduate	D
North Carolina	University of North Carolina at Wilmington	Graduate	F
North Carolina	Western Carolina University	Undergraduate	A+
North Carolina	Winston-Salem State University	Undergraduate	B
North Dakota	Dickinson State University	Undergraduate	A
North Dakota	Mayville State University[*]	Undergraduate	F
North Dakota	Minot State University	Undergraduate	F
North Dakota	Sitting Bull College	Undergraduate	F
North Dakota	University of Mary	Undergraduate	C
North Dakota	University of North Dakota	Undergraduate	B
North Dakota	Valley City State University[*]	Undergraduate	F
Ohio	Ashland University	Undergraduate	F
Ohio	Ashland University	Graduate	F

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State	Institution	Program	2023 Grade
Ohio	Bowling Green State University	Undergraduate	B
Ohio	Central State University	Undergraduate	B
Ohio	Cleveland State University*	Undergraduate	D
Ohio	Cleveland State University*	Graduate	D
Ohio	Defiance College	Undergraduate	F
Ohio	Kent State University	Undergraduate	D
Ohio	Kent State University	Graduate	F
Ohio	Marietta College	Undergraduate	A
Ohio	Miami University of Ohio*	Undergraduate	F
Ohio	Mount St. Joseph University	Undergraduate	A+
Ohio	Ohio State University*	Undergraduate	B
Ohio	Ohio State University*	Graduate	D
Ohio	Ohio University	Undergraduate	A
Ohio	Shawnee State University	Undergraduate	D
Ohio	University of Akron*	Undergraduate	B
Ohio	University of Dayton	Undergraduate	A+
Ohio	University of Findlay	Undergraduate	A+
Ohio	University of Rio Grande	Undergraduate	A+
Ohio	University of Toledo	Undergraduate	D
Ohio	University of Toledo	Graduate	F
Ohio	Wilmington College	Undergraduate	C
Ohio	Wittenberg University	Undergraduate	D
Ohio	Wright State University	Undergraduate	B
Ohio	Youngstown State University	Undergraduate	A
Oklahoma	Cameron University	Undergraduate	B
Oklahoma	East Central University	Undergraduate	F
Oklahoma	Langston University	Undergraduate	B
Oklahoma	Northwestern Oklahoma State University	Undergraduate	C
Oklahoma	Oklahoma Panhandle State University	Undergraduate	F
Oklahoma	Oklahoma State University	Undergraduate	D
Oklahoma	Oklahoma State University	Graduate	F
Oklahoma	Southeastern Oklahoma State University	Undergraduate	C
Oklahoma	Southwestern Oklahoma State University	Undergraduate	D
Oklahoma	University of Central Oklahoma	Undergraduate	F
Oklahoma	University of Oklahoma	Undergraduate	B
Oklahoma	University of Science and Arts of Oklahoma	Undergraduate	F
Oregon	Eastern Oregon University	Undergraduate	A
Oregon	Eastern Oregon University	Graduate	B

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State	Institution	Program	2023 Grade
Oregon	Oregon State University	Undergraduate	C
Oregon	Oregon State University	Graduate	F
Oregon	Portland State University	Graduate	F
Oregon	Southern Oregon University	Undergraduate	F
Oregon	Southern Oregon University	Graduate	F
Oregon	University of Oregon	Graduate	F
Pennsylvania	Alvernia University	Undergraduate	A
Pennsylvania	Cabrini College	Undergraduate	F
Pennsylvania	Cedar Crest College	Graduate	D
Pennsylvania	Cheyney University of Pennsylvania	Undergraduate	D
Pennsylvania	Commonwealth University of Pennsylvania: Bloomsburg Campus	Undergraduate	A
Pennsylvania	Commonwealth University of Pennsylvania: Bloomsburg Campus	Graduate	C
Pennsylvania	Commonwealth University of Pennsylvania: Lock Haven Campus	Undergraduate	B
Pennsylvania	Commonwealth University of Pennsylvania: Mansfield Campus	Undergraduate	F
Pennsylvania	Duquesne University	Undergraduate	F
Pennsylvania	East Stroudsburg University of Pennsylvania	Undergraduate	D
Pennsylvania	Eastern University	Undergraduate	F
Pennsylvania	Eastern University	Graduate	C
Pennsylvania	Elizabethtown College*	Undergraduate	F
Pennsylvania	Gannon University	Undergraduate	A
Pennsylvania	Geneva College	Undergraduate	B
Pennsylvania	Grove City College	Undergraduate	B
Pennsylvania	Indiana University of Pennsylvania	Undergraduate	C
Pennsylvania	Juniata College*	Undergraduate	B
Pennsylvania	Kutztown University of Pennsylvania	Undergraduate	D
Pennsylvania	Lincoln University of Pennsylvania	Graduate	F
Pennsylvania	Messiah University	Undergraduate	F
Pennsylvania	Millersville University of Pennsylvania	Undergraduate	C
Pennsylvania	Misericordia University	Undergraduate	B
Pennsylvania	Neumann University	Undergraduate	B
Pennsylvania	Point Park University	Undergraduate	F
Pennsylvania	Robert Morris University	Undergraduate	C
Pennsylvania	Saint Francis University	Undergraduate	F
Pennsylvania	Shippensburg University of Pennsylvania	Undergraduate	F
Pennsylvania	Shippensburg University of Pennsylvania	Graduate	C

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State	Institution	Program	2023 Grade
Pennsylvania	Slippery Rock University of Pennsylvania	Undergraduate	F
Pennsylvania	University of Pennsylvania	Graduate	F
Pennsylvania	West Chester University of Pennsylvania	Undergraduate	B
Pennsylvania	Widener University*	Undergraduate	D
Rhode Island	Rhode Island College	Undergraduate	A+
Rhode Island	University of Rhode Island	Undergraduate	A
Rhode Island	University of Rhode Island	Graduate	A
South Carolina	Charleston Southern University	Undergraduate	B
South Carolina	Clemson University	Undergraduate	C
South Carolina	College of Charleston*	Undergraduate	F
South Carolina	College of Charleston*	Graduate	F
South Carolina	Columbia College	Undergraduate	F
South Carolina	Converse College	Undergraduate	F
South Carolina	Francis Marion University	Undergraduate	F
South Carolina	Lander University	Undergraduate	B
South Carolina	South Carolina State University	Undergraduate	C
South Carolina	University of South Carolina - Aiken	Undergraduate	F
South Carolina	University of South Carolina - Columbia	Undergraduate	F
South Carolina	University of South Carolina - Upstate	Undergraduate	D
South Carolina	Winthrop University	Undergraduate	A
South Dakota	Black Hills State University	Undergraduate	F
South Dakota	Dakota State University*	Undergraduate	B
South Dakota	Mount Marty University	Undergraduate	C
South Dakota	Northern State University	Undergraduate	F
South Dakota	Oglala Lakota College*	Undergraduate	A
South Dakota	South Dakota State University	Undergraduate	D
South Dakota	University of Sioux Falls	Undergraduate	F
South Dakota	University of South Dakota*	Undergraduate	F
Tennessee	Austin Peay State University	Undergraduate	D
Tennessee	Austin Peay State University	Graduate	C
Tennessee	Belmont University	Undergraduate	F
Tennessee	East Tennessee State University	Undergraduate	D
Tennessee	Freed-Hardeman University	Graduate	D
Tennessee	Lipscomb University*	Undergraduate	C
Tennessee	Lipscomb University*	Graduate	A
Tennessee	Middle Tennessee State University	Undergraduate	A+
Tennessee	Milligan University	Undergraduate	B
Tennessee	South College	Undergraduate	B
Tennessee	Tennessee State University	Undergraduate	A

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State	Institution	Program	2023 Grade
Tennessee	Tennessee State University	Graduate	F
Tennessee	Tennessee Technological University	Undergraduate	B
Tennessee	Tennessee Technological University	Graduate	B
Tennessee	Tennessee Wesleyan University	Undergraduate	A+
Tennessee	Tusculum University	Undergraduate	D
Tennessee	Tusculum University	Graduate	D
Tennessee	Union University	Undergraduate	F
Tennessee	Union University	Graduate	F
Tennessee	University of Memphis	Undergraduate	B
Tennessee	University of Memphis	Graduate	B
Tennessee	University of Tennessee*	Undergraduate	B
Tennessee	University of Tennessee at Chattanooga*	Undergraduate	F
Tennessee	University of Tennessee at Chattanooga*	Graduate	F
Tennessee	University of Tennessee at Martin	Undergraduate	F
Tennessee	University of Tennessee at Martin	Graduate	F
Texas	Angelo State University	Undergraduate	F
Texas	Dallas Baptist University	Undergraduate	A
Texas	East Texas Baptist University	Graduate	C
Texas	Houston Baptist University	Undergraduate	A+
Texas	Houston Baptist University	Graduate	D
Texas	Midwestern State University	Undergraduate	A
Texas	Our Lady of the Lake University	Undergraduate	F
Texas	Prairie View A&M University	Undergraduate	D
Texas	Sam Houston State University	Undergraduate	D
Texas	Stephen F. Austin State University	Undergraduate	F
Texas	Stephen F. Austin State University	Graduate	C
Texas	Sul Ross State University	Undergraduate	A+
Texas	Tarleton State University	Undergraduate	B
Texas	Texas A&M International University	Undergraduate	F
Texas	Texas A&M University	Undergraduate	A
Texas	Texas A&M University - Central Texas	Undergraduate	A
Texas	Texas A&M University - Commerce	Undergraduate	D
Texas	Texas A&M University - Corpus Christi	Undergraduate	F
Texas	Texas A&M University - Corpus Christi	Graduate	F
Texas	Texas A&M University - Kingsville	Undergraduate	A
Texas	Texas A&M University - San Antonio	Undergraduate	A
Texas	Texas A&M University - Texarkana	Undergraduate	A+
Texas	Texas Lutheran University	Undergraduate	A
Texas	Texas Southern University	Undergraduate	A

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State	Institution	Program	2023 Grade
Texas	Texas State University - San Marcos	Undergraduate	F
Texas	Texas State University - San Marcos	Graduate	C
Texas	Texas Tech University	Undergraduate	B
Texas	Texas Woman's University	Undergraduate	D
Texas	Texas Woman's University	Graduate	F
Texas	Trinity University	Undergraduate	F
Texas	University of Houston	Undergraduate	F
Texas	University of Houston - Clear Lake	Undergraduate	D
Texas	University of Houston - Clear Lake	Graduate	D
Texas	University of Houston - Downtown	Undergraduate	A
Texas	University of Houston - Victoria	Undergraduate	B
Texas	University of Houston - Victoria	Graduate	F
Texas	University of North Texas	Undergraduate	F
Texas	University of North Texas	Graduate	F
Texas	University of North Texas at Dallas	Undergraduate	C
Texas	University of St. Thomas	Undergraduate	F
Texas	University of Texas at Arlington	Undergraduate	A
Texas	University of Texas at Arlington	Graduate	F
Texas	University of Texas at Austin	Undergraduate	C
Texas	University of Texas at Dallas	Undergraduate	D
Texas	University of Texas at El Paso*	Undergraduate	B
Texas	University of Texas at San Antonio	Undergraduate	B
Texas	University of Texas at Tyler*	Undergraduate	F
Texas	University of Texas of the Permian Basin	Undergraduate	D
Texas	University of Texas Rio Grande Valley	Undergraduate	D
Texas	West Texas A&M University	Undergraduate	A
Utah	Southern Utah University	Undergraduate	A+
Utah	University of Utah	Undergraduate	A
Utah	Utah State University	Undergraduate	A+
Utah	Utah Tech University	Undergraduate	A
Utah	Utah Valley University	Undergraduate	A+
Utah	Weber State University	Undergraduate	C
Utah	Western Governors University	Undergraduate	F
Utah	Western Governors University	Graduate	F
Vermont	Castleton University	Undergraduate	D
Vermont	Northern Vermont University	Undergraduate	F
Vermont	Northern Vermont University	Graduate	F
Vermont	University of Vermont	Undergraduate	D
Virginia	Averett University*	Undergraduate	F

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State	Institution	Program	2023 Grade
Virginia	Christopher Newport University	Graduate	A+
Virginia	College of William and Mary	Undergraduate	C
Virginia	College of William and Mary	Graduate	B
Virginia	George Mason University	Undergraduate	A
Virginia	George Mason University	Graduate	F
Virginia	James Madison University	Undergraduate	A+
Virginia	Liberty University	Undergraduate	D
Virginia	Liberty University	Graduate	F
Virginia	Longwood University	Undergraduate	B
Virginia	Marymount University	Undergraduate	A
Virginia	Norfolk State University	Undergraduate	C
Virginia	Old Dominion University	Undergraduate	F
Virginia	Old Dominion University	Graduate	B
Virginia	Radford University	Undergraduate	B
Virginia	Regent University	Undergraduate	A+
Virginia	University of Lynchburg	Undergraduate	B
Virginia	University of Mary Washington	Graduate	C
Virginia	University of Virginia*	Graduate	A+
Virginia	University of Virginia's College at Wise	Undergraduate	A
Virginia	Virginia Commonwealth University	Undergraduate	B
Virginia	Virginia Commonwealth University	Graduate	C
Virginia	Virginia Polytechnic Institute and State University	Graduate	A+
Virginia	Virginia State University	Undergraduate	B
Washington	Central Washington University	Undergraduate	C
Washington	Centralia College	Undergraduate	F
Washington	City University of Seattle*	Undergraduate	F
Washington	City University of Seattle*	Graduate	F
Washington	Eastern Washington University	Undergraduate	C
Washington	Eastern Washington University	Graduate	F
Washington	University of Washington - Bothell	Graduate	F
Washington	University of Washington - Seattle	Graduate	F
Washington	University of Washington - Tacoma	Graduate	F
Washington	Washington State University	Undergraduate	A
Washington	Washington State University	Graduate	B
Washington	Western Washington University*	Undergraduate	F
West Virginia	Bluefield State College	Undergraduate	B
West Virginia	Concord University	Undergraduate	B
West Virginia	Fairmont State University	Undergraduate	F

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State	Institution	Program	2023 Grade
West Virginia	Glenville State University	Undergraduate	A
West Virginia	Marshall University	Undergraduate	A
West Virginia	West Liberty University	Undergraduate	A
West Virginia	West Virginia State University	Undergraduate	C
West Virginia	West Virginia University	Undergraduate	F
West Virginia	West Virginia University	Graduate	F
West Virginia	West Virginia University - Parkersburg	Undergraduate	F
Wisconsin	Carthage College	Undergraduate	F
Wisconsin	Maranatha Baptist University	Undergraduate	A
Wisconsin	Marian University	Undergraduate	D
Wisconsin	University of Wisconsin - Eau Claire	Undergraduate	F
Wisconsin	University of Wisconsin - Green Bay	Undergraduate	C
Wisconsin	University of Wisconsin - La Crosse	Undergraduate	C
Wisconsin	University of Wisconsin - Madison	Undergraduate	A
Wisconsin	University of Wisconsin - Milwaukee	Undergraduate	F
Wisconsin	University of Wisconsin - Oshkosh	Undergraduate	C
Wisconsin	University of Wisconsin - Parkside	Undergraduate	B
Wisconsin	University of Wisconsin - Platteville	Undergraduate	D
Wisconsin	University of Wisconsin - River Falls	Undergraduate	B
Wisconsin	University of Wisconsin - Stevens Point	Undergraduate	A+
Wisconsin	University of Wisconsin - Superior	Undergraduate	F
Wisconsin	University of Wisconsin - Whitewater	Undergraduate	C
Wyoming	University of Wyoming	Undergraduate	B
Wyoming	University of Wyoming	Graduate	C

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