

Pennsylvania

Are New Teachers Being
Prepared for College- and
Career-Readiness Standards?

2014 State Teacher Policy Yearbook



National Council on Teacher Quality

Acknowledgments

STATES

State education agencies remain our most important partners in this effort, and their gracious cooperation has helped to ensure the factual accuracy of the final product. Although this year's edition did not require the extensive review that comprehensive editions require, we still wanted to make sure that we captured all relevant policy changes and that states' perspectives were represented. Every state formally received a draft of the policy updates we identified in June 2014 as well as a draft of analyses and recommendations for the new indicators related to college- and career-readiness standards for comment and correction. States also received a final draft of their reports a month prior to release. All but two states responded to our inquiries. While states do not always agree with our recommendations, their willingness to engage in dialogue, explain their differing points of view and often acknowledge the imperfections of their teacher policies are important steps in moving forward.

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Teacher Preparation Policy Priorities for Pennsylvania

Prepare all teachers to meet the instructional shifts of college- and career-readiness standards for students.

- Strengthen preparation requirements to ensure teacher candidates have the ability to address the use of informational texts as well as incorporate complex informational texts into classroom instruction.
Priority for elementary, middle, secondary and special education teacher preparation.
- Through testing frameworks or teacher standards, include literacy skills and using text to build content knowledge in history/social studies, science, technical subjects and the arts.
Priority for elementary, secondary and special education teacher preparation.
- Ensure teachers are prepared to intervene and support students who are struggling with reading.
Priority for secondary teacher preparation.

Additional priorities for elementary teacher preparation:

- Require all elementary teacher candidates to pass a rigorous content test that assesses knowledge of all core subjects, including mathematics, and requires a meaningful passing score for each area.
- Require a rigorous assessment in the science of reading instruction.
- Require a content specialization in an academic subject area.

Additional priorities for secondary teacher preparation:

- Require secondary science and social studies teachers to pass a content test for each discipline they are licensed to teach.

Additional priorities for special education teacher preparation:

- Require elementary special education candidates to pass a rigorous content test as a condition of initial licensure, as well as a rigorous assessment in the science of reading instruction.
- Ensure secondary special education teachers possess adequate content knowledge for the grades and subjects they teach.

Raise admission requirements:

- Limit admission to teacher preparation programs to candidates in the top half of the college-going population, measured by a test normed to the general college-bound population or minimum GPA.

Hold preparation programs accountable:

- Collect performance data to monitor programs, including student achievement gains.
- Set minimum standards for program performance with consequences for failure to meet those standards.
- Publicly report performance data.

Teacher Preparation in Pennsylvania

The 2014 *State Teacher Policy Yearbook* keeps the spotlight on the critical issue of teacher preparation. In addition to updating the full set of teacher preparation policies reviewed in last year's comprehensive edition, the 2014 *Yearbook* casts a critical eye on whether states have established requirements for teacher preparation and licensure that help to ensure that teachers are ready for the increased demands of states' college- and career-readiness standards for K-12 students.

Current Status of Pennsylvania Teacher Prep Policy

C 2014 Teacher Prep Grade

Prior Grades: **C** 2013 | **C** 2012 | **C** 2011

Yearbook Goal	Topic	2014 Score	2013 Score
1-A	<i>Admission into Preparation Programs</i>		
1-B	<i>Elementary Teacher Preparation</i>		
1-C	<i>Elementary Teacher Preparation in Reading Instruction</i>		
1-D	<i>Elementary Teacher Preparation in Mathematics</i>		
1-E	<i>Middle School Teacher Preparation</i>		
1-F	<i>Secondary Teacher Preparation</i>		
1-G	<i>Secondary Teacher Preparation in Science</i>		
1-H	<i>Special Education Teacher Preparation</i>		
1-I	<i>Assessing Professional Knowledge</i>		
1-J	<i>Student Teaching</i>		
1-K	<i>Teacher Preparation Program Accountability</i>		

Does Not Meet
 Meets Only a Small Part
 Partially Meets
 Nearly Meets
 Fully Meets

2014 Teacher Prep Policy Update for Pennsylvania

Based on a review of state legislation, rules and regulations, NCTQ has identified the following recent teacher prep policy changes in Pennsylvania:

- No recent policy updates were identified for Pennsylvania in the area of teacher preparation.

Pennsylvania Response to Policy Update

States were asked to review NCTQ's identified updates and also to comment on policy changes related to teacher preparation that have occurred in the last year, pending changes, or teacher preparation in the state more generally.

Pennsylvania indicated that, in order to maintain high standards for content and pedagogy while providing school districts with more flexibility for assignment, the state is permitting teachers with valid instructional certificates to add the PreK-4 and the 4-8 certificates by passing the required certification assessment. This was made effective June 1, 2014.

Pennsylvania also noted that effective June 1, 2014, the state allows instructional certificate holders to add a Special Education certification to a K-12 certificate if they successfully complete a Special Ed PK-8 or Special Ed 7-12 certification program and meet all requirements.

Figure A

Delivering well-prepared teachers

	2014 GRADE	2013 GRADE	2012 GRADE	2011 GRADE
Alabama	B-	B	B-	C
Alaska	F	F	F	F
Arizona	D	D-	D-	D-
Arkansas	C+	C+	C	C
California	D+	D+	D	D
Colorado	D-	D-	D	D-
Connecticut	B-	B-	C+	C-
Delaware	B-	C+	D-	D-
District of Columbia	C-	D+	D	D
Florida	B+	B+	B-	B-
Georgia	C+	C+	C	C
Hawaii	D-	F	D	D
Idaho	D+	D+	D	D
Illinois	D+	D+	D	D
Indiana	B+	B+	B-	C+
Iowa	D+	D+	D	D
Kansas	D+	D+	D+	D+
Kentucky	B-	B-	C+	C-
Louisiana	C	C-	C	C
Maine	D+	D+	D+	D
Maryland	D+	D+	D+	D+
Massachusetts	B-	B-	C+	C+
Michigan	D+	D	D+	D+
Minnesota	C+	C+	C+	C
Mississippi	C	C-	C	C
Missouri	B-	C-	D+	D+
Montana	F	F	F	F
Nebraska	D-	F	D-	D-
Nevada	D-	D-	D-	D-
New Hampshire	C-	C-	C-	D
New Jersey	B-	B-	C-	D+
New Mexico	D+	D	D+	D+
New York	B	B-	C-	D+
North Carolina	C+	C+	D-	D-
North Dakota	D	D	D	D
Ohio	C	C	C-	D+
Oklahoma	C	C	C	C
Oregon	D+	D	D-	D-
PENNSYLVANIA	C	C	C	C
Rhode Island	B+	B+	C	D+
South Carolina	C+	C	C-	C-
South Dakota	D	D-	D	D
Tennessee	B-	B-	B-	B-
Texas	B	B	C+	C+
Utah	C-	D+	D	D
Vermont	C	C	C-	D+
Virginia	B-	C+	C-	C-
Washington	D+	D+	D+	D+
West Virginia	C+	C+	C-	C-
Wisconsin	C	C-	D+	D
Wyoming	D-	F	F	F
Average State Grade	C	C-	D+	D

Figure B

Delivering well-prepared teachers

	2014 GRADE
Florida	B+
Indiana	B+
Rhode Island	B+
New York	B
Texas	B
Alabama	B-
Connecticut	B-
Delaware	B-
Kentucky	B-
Massachusetts	B-
Missouri	B-
New Jersey	B-
Tennessee	B-
Virginia	B-
Arkansas	C+
Georgia	C+
Minnesota	C+
North Carolina	C+
South Carolina	C+
West Virginia	C+
Louisiana	C
Mississippi	C
Ohio	C
Oklahoma	C
PENNSYLVANIA	C
Vermont	C
Wisconsin	C
District of Columbia	C-
New Hampshire	C-
Utah	C-
California	D+
Idaho	D+
Illinois	D+
Iowa	D+
Kansas	D+
Maine	D+
Maryland	D+
Michigan	D+
New Mexico	D+
Oregon	D+
Washington	D+
Arizona	D
North Dakota	D
South Dakota	D
Colorado	D-
Hawaii	D-
Nebraska	D-
Nevada	D-
Wyoming	D-
Alaska	F
Montana	F
Average State Grade	C

Elementary Teacher Preparation

Key Components

(The factors considered in determining the states' ratings for this topic.)

1. The state should ensure that all elementary teachers are sufficiently prepared for the ways that college- and career-readiness standards affect instruction of all subject areas. Specifically,
 - A. The state should require that all new elementary teachers are prepared to incorporate complex texts and academic language into instruction.
 - B. The state should ensure that all new elementary teachers are prepared to incorporate literacy skills as an integral part of every subject.
 - C. The state should ensure that all new elementary teachers of English language arts are prepared to support struggling readers.
2. The state should require that new elementary teachers, including those who can teach elementary grades on an early childhood license, pass a rigorous test of reading instruction in order to attain licensure.
3. The state should ensure that all elementary teacher candidates, including those who can teach elementary grades on an early childhood license, possess sufficient content knowledge in all core subjects, including mathematics.
4. The state should require that its approved teacher preparation programs deliver a comprehensive program of study in broad liberal arts coursework. An adequate curriculum is likely to require approximately 45 credit hours to ensure appropriate depth in the core subject areas of English, mathematics, science, social studies and fine arts.
5. The state should require elementary teacher candidates to complete a content specialization in an academic subject area. In addition to enhancing content knowledge, this requirement ensures that prospective teachers have taken higher-level academic coursework.



How well are states ensuring that elementary teachers are prepared for college- and career-readiness standards?

11

Alaska, Arizona, Hawaii, Iowa, Kansas, Montana, Nebraska, Nevada, North Dakota, Ohio, South Dakota

9

Colorado, Georgia, Illinois, Louisiana, Maine, Maryland, Michigan, Oklahoma, Oregon

19

Alabama, Delaware, District of Columbia, Idaho, Kentucky, Minnesota, Mississippi, Missouri, New Jersey, New Mexico, **PENNSYLVANIA**, Rhode Island, South Carolina, Tennessee, Utah, Vermont, Washington, Wisconsin, Wyoming

12

Arkansas, California, Connecticut, Florida, Indiana, Massachusetts, New Hampshire, New York, North Carolina, Texas, Virginia, West Virginia


0

Elementary Teacher Prep Analysis: Pennsylvania





PREPARING ELEMENTARY TEACHERS FOR COLLEGE- AND CAREER-READINESS STANDARDS



The new demands of college- and career-readiness standards for students heighten the need for elementary teachers to have a strong content background in all of the subject matter taught in the elementary grades. Pennsylvania, like most states, has adopted such standards and must ensure that its preparation and licensure requirements for new teachers address this need.

Currently, Pennsylvania's early childhood education certification is the de facto elementary education license to teach grades PreK-4. Key licensing requirements for elementary school teachers in Pennsylvania include:



PENNSYLVANIA ELEMENTARY TEACHER PREP SNAPSHOT

-  **State requires passing a content test in each of the four core subjects.**
-  **State requires adequate test on the science of reading.**
-  **State requires academic content specialization.**
-  **State has adequate/appropriate requirements for teachers who teach elementary grades on an early childhood license.**

 Yes  No

In addition to the strong content background called for by college- and career-readiness standards, teacher candidates must also be prepared for the key instructional shifts that differentiate these standards from their predecessors. Elementary teachers are required to pass the Pennsylvania Educator Certification Test (PECT). Informational texts are addressed within the cited examples for the objective: "understand assessment, instruction, and intervention for PreK-4 students in reading fluency, vocabulary development, and reading comprehension." They include:

- Apply knowledge of instruction and interventions in comprehension strategies that students can use independently to promote their understanding of informational texts (e.g., analyzing story or text structure, making and verifying predictions, making connections to prior knowledge, creating a visual representation or graphic organizer, summarizing)
- Apply knowledge of instruction and interventions to promote students' comprehension and critical analysis of informational texts.

RECOMMENDATIONS

- **Ensure that elementary teachers are prepared to meet the instructional requirements of college- and career-readiness standards for students.**

Incorporate informational text of increasing complexity into classroom instruction.

Although Pennsylvania's elementary test addresses informational texts, it presents the knowledge as examples. Therefore, the extent to which this information is required is unclear. Pennsylvania is encouraged to make certain its framework captures the major instructional shifts of college- and career-readiness standards, thereby ensuring that all elementary candidates have the ability to adequately incorporate complex informational text into classroom instruction.

Incorporate literacy skills as an integral part of every subject.

To ensure that elementary students are capable of accessing varied information about the world around them, Pennsylvania should also—either through testing frameworks or teacher standards—include literacy skills and using text to build content knowledge in history/social studies, science, technical subjects and the arts.

- **Require all elementary teacher candidates to pass a subject-matter test designed to ensure sufficient content knowledge of all subjects, including mathematics.**

Pennsylvania should ensure that its elementary content test is appropriately aligned with college- and career-readiness standards and require separate, meaningful passing scores for each area on the test. A candidate may achieve a passing score and still be seriously deficient in a particular subject area. Mathematics content in particular should be assessed with a rigorous assessment tool, such as the test required in Massachusetts, that evaluates mathematics knowledge beyond an elementary school level and challenges candidates'

Neither teacher standards nor testing requirements address incorporating literacy into all academic subjects.

Pennsylvania's candidate competencies address the needs of struggling readers.

Supporting Research

Pennsylvania Educator Certification Test

www.pa.nesinc.com

PK-4 Program Guidelines

<http://www.portal.state.pa.us/portal/server.pt/gateway/>

PTARGS_0_123236_893942_0_0_18/Prek4Guidelines.pdf

PENNSYLVANIA RESPONSE TO ANALYSIS

Pennsylvania was helpful in providing NCTQ with the facts necessary for this analysis. The state added that the Framework for Grades PreK-4 Program Guidelines prepares elementary teachers to build and reinforce preliteracy skills. Candidates analyze the language demands of textbooks used in the classroom across age and grade levels, and the core curriculum for reading is designed to allow students to be successful in both coursework and standardized testing. Further, candidates must possess research-based knowledge and skill in language and literacy, as articulated in extensive Early Literacy Foundations competencies.

The state also noted that programs must align with Pennsylvania's Academic Standards and Assessment Anchor Content Standards in reading established for grades 3, 8 and 11. Elementary teacher preparation programs require candidates to foster reading and writing connections by infusing literacy in math, sciences and social sciences curriculums, so teachers are prepared to help students make literacy-based connections between and across curriculums. Elementary teacher candidates must demonstrate the ability to use assessment tools to monitor literacy skills across the curriculum, and candidates are required to establish and manage monitoring practices within content areas to provide rigor in literacy for all students.

RECOMMENDATIONS CONTINUED

understanding of underlying mathematics concepts. Although Pennsylvania is on the right track by administering a two-part licensing test, thus making it harder for teachers to pass if they fail some subject areas, the state is encouraged to further strengthen its policy and require separate passing scores for each core subject on its multiple-subject test.

■ **Require teacher candidates to pass a rigorous assessment in the science of reading instruction.**

Pennsylvania should require a rigorous reading assessment tool to ensure that its elementary teacher candidates are adequately prepared in the science of reading instruction before entering the classroom. The state is on the right track in assessing elementary teachers' knowledge of the science of reading. However, to clearly test knowledge and skills related to the science of reading, the test must not only adequately address the five instructional components of scientifically based reading instruction—phonemic awareness, phonics, fluency, vocabulary and comprehension—but also it should report a subscore for the science of reading specifically. Elementary teachers who do not possess the minimum knowledge in this area should not be eligible for licensure.

■ **Require elementary teacher candidates to complete a content specialization in an academic subject area.**

In addition to enhancing content knowledge, this requirement would ensure that prospective teachers in Pennsylvania take higher-level academic coursework. The requirement also provides an important safeguard in the event that candidates are unable to successfully complete clinical practice requirements. With an academic concentration (or better still a major or minor), candidates who are not ready for the classroom and do not pass student teaching can still be on track to complete a degree.

Figure 1

Are states ensuring that new elementary teachers are prepared for the instructional shifts associated with college- and career-readiness standards?

	USE OF INFORMATIONAL TEXT	INCORPORATING LITERACY SKILLS INTO ALL SUBJECTS	SUPPORTING STRUGGLING READERS
Alabama	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Alaska	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arizona	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Arkansas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
California	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Colorado	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Connecticut	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Delaware	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
District of Columbia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Florida	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Georgia	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hawaii	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Idaho	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Illinois	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Indiana	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Iowa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kansas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kentucky	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Louisiana	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Maine	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maryland	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Massachusetts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Michigan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Minnesota	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mississippi	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Missouri	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Montana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nebraska	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nevada	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Hampshire	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
New Jersey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Mexico	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
New York	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
North Carolina	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
North Dakota	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ohio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oklahoma	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oregon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PENNSYLVANIA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rhode Island	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
South Carolina	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
South Dakota	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tennessee	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Texas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Utah	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vermont	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Virginia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Washington	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
West Virginia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wisconsin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wyoming	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Fully addresses instructional component Partially addresses instructional component

SUMMARY OF ELEMENTARY TEACHER PREP FIGURES

- **Figure 1**
Requirements for instructional shifts associated with college- and career-readiness standards
- **Figure 2**
Content test requirements
- **Figure 3**
Specific subject-matter requirements
- **Figure 4**
Science of reading requirements
- **Figure 5**
Math requirements
- **Figure 6**
Requirements for academic concentrations
- **Figure 7**
Requirements for early childhood teachers
- **Figure 8**
Teacher Prep Review findings about elementary teacher prep

Figure 2

Do states ensure that elementary teachers know core content?

	ELEMENTARY CONTENT TEST WITH SEPARATE PASSING SCORE FOR EACH SUBJECT	Elementary content test with separate passing score for some subjects	Elementary content test with composite score	No test required
Alabama	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alaska	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ¹
Arizona	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arkansas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
California	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Colorado	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Connecticut	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delaware	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
District of Columbia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Florida	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Georgia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hawaii	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Idaho	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Illinois	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Indiana	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Iowa	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kansas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kentucky	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Louisiana	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Maine	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maryland	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Massachusetts	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ²	<input type="checkbox"/>
Michigan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Minnesota	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mississippi	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Missouri	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Montana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Nebraska	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nevada	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Hampshire	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Jersey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Mexico	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New York	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
North Carolina	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ²	<input type="checkbox"/>
North Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ohio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ³
Oklahoma	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oregon	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PENNSYLVANIA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rhode Island	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
South Carolina	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
South Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tennessee	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Texas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utah	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vermont	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Virginia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Washington	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
West Virginia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wisconsin	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wyoming	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	21	9	17	4

★ EXAMPLES OF BEST PRACTICE

Both **Arkansas** and **California** ensure that elementary teachers are prepared to meet the instructional requirements of college- and career-readiness standards for students. These states specify that elementary teacher candidates must have the ability to not only build content knowledge and vocabulary through careful reading of informational and literary texts, but also to challenge students with texts of increasing complexity.

Candidates are also required to incorporate literacy skills as an integral part of every subject and are prepared to intervene and support students who are struggling.

In addition, **Indiana** ensures that all candidates licensed to teach the elementary grades, including early childhood education candidates, possess the requisite knowledge of core content and of the key elements of scientifically based reading instruction before entering the classroom. Elementary and early childhood teacher candidates are required to pass a content test comprised of four independently scored subtests, including mathematics. In addition, these candidates are required to pass a comprehensive assessment that tests the five elements of scientifically based reading instruction: phonemic awareness, phonics, fluency, vocabulary and comprehension. Elementary teacher candidates in Indiana must also earn either a major or minor in an academic content area.

Massachusetts's MTEL mathematics subtest continues to set the standard in this area by evaluating mathematics knowledge beyond an elementary school level and challenging candidates' understanding of underlying mathematics concepts.

1. Alaska does not require testing for initial licensure.
 2. Massachusetts and North Carolina require a general curriculum test that does not report scores for each elementary subject. A separate score is reported for math.
 3. Only teachers of grades 4 and 5 are required to pass a content test in Ohio.

Figure 3

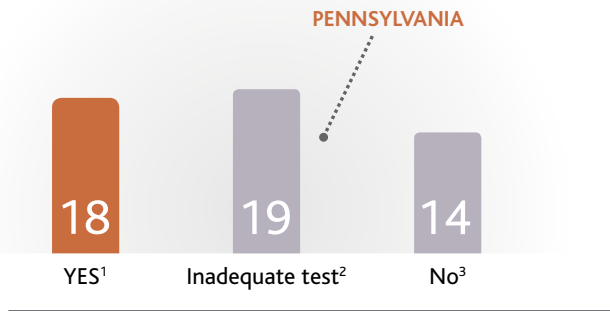
Do states expect elementary teachers to have in-depth knowledge of core content?

	ENGLISH				SCIENCE					SOCIAL STUDIES							FINE ARTS	
	American Literature	World/British Literature	Writing/Grammar/Composition	Children's Literature	Chemistry	Physics	General Physical Science	Earth Science	Biology/Life Science	American History I	American History II	American Government	World History (Ancient)	World History (Modern)	World History (Non-Western)	Geography	Art History	Music
Alabama	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Alaska	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Arizona	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	★	★	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★
Arkansas	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
California	<input type="checkbox"/>	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	★	★	★	★	★	★	★	★	★	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	★
Colorado	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Connecticut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★	★	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delaware	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	★	★	★	★	★	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
District of Columbia	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	★	★	★	★	★	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Florida	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	★	<input type="checkbox"/>	★	★	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Georgia	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	★	★	★	★	★	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Hawaii	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Idaho	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	★	★	★	★	★	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Illinois	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	<input checked="" type="checkbox"/>	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Indiana	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★	★	★	★	★	<input type="checkbox"/>	★
Iowa	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kansas	<input type="checkbox"/>	<input type="checkbox"/>	★	★	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Kentucky	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Louisiana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maryland	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Massachusetts	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Michigan	<input type="checkbox"/>	<input type="checkbox"/>	★	★	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Minnesota	<input type="checkbox"/>	<input type="checkbox"/>	★	★	<input type="checkbox"/>	★	★	★	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mississippi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Missouri	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	★	★	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>
Montana	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Nebraska	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nevada	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Hampshire	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
New Jersey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Mexico	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★
New York	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
North Carolina	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
North Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ohio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oklahoma	<input type="checkbox"/>	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★	<input type="checkbox"/>	<input checked="" type="checkbox"/>	★	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Oregon	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	★	★	★	★	★	★	★	★	<input type="checkbox"/>	★
PENNSYLVANIA	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	★	★	<input checked="" type="checkbox"/>	★	<input checked="" type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rhode Island	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	★	★	★	★	★	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
South Carolina	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
South Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tennessee	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Texas	<input type="checkbox"/>	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	<input type="checkbox"/>	★	★	★	★	★	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	★	★
Utah	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	★	★	★	★	★	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vermont	<input type="checkbox"/>	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	★	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Virginia	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	★	★	★	★	★	★	★	★	★	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Washington	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★	<input checked="" type="checkbox"/>	<input type="checkbox"/>	★	★	★	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	★
West Virginia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wisconsin	<input type="checkbox"/>	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	<input type="checkbox"/>	★	<input checked="" type="checkbox"/>	★	★	★	★	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wyoming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Subject mentioned ★ Subject covered in depth

Figure 4

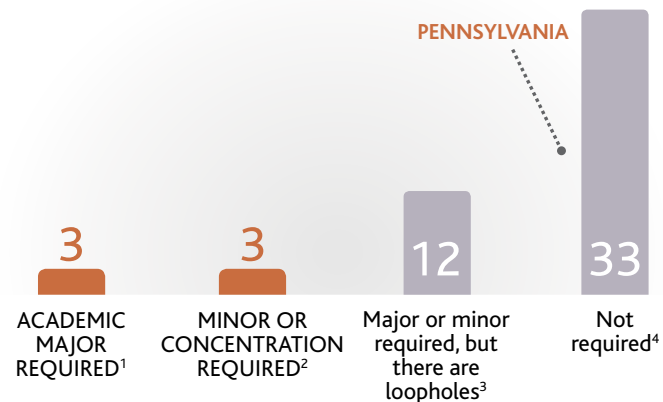
Do states measure new elementary teachers' knowledge of the science of reading?



- Strong Practice:** Alabama, California⁴, Connecticut, Florida, Indiana, Massachusetts, Minnesota, Mississippi, New Hampshire, New Mexico, New York, North Carolina⁵, Ohio, Oklahoma, Tennessee, Virginia, West Virginia, Wisconsin
- Arizona, Arkansas, Delaware, District of Columbia, Georgia, Idaho, Kentucky, Maine, Missouri, New Jersey, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, Vermont, Washington, Wyoming
- Alaska, Colorado, Hawaii, Illinois, Iowa, Kansas, Louisiana, Maryland, Michigan, Montana, Nebraska, Nevada, North Dakota, South Dakota
- California allows an exemption from the state's reading test for teachers who already have a single subject credential.
- Teachers have until their second year to pass the reading test.

Figure 6

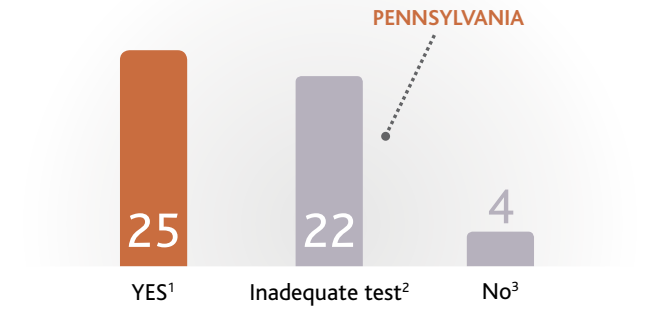
Do states expect elementary teachers to complete an academic concentration?



- Strong Practice:** Colorado, Massachusetts, New Mexico
- Strong Practice:** Indiana, Mississippi, Oklahoma
- California, Connecticut, Iowa, Maryland, Michigan, Missouri, New Jersey, New York, Tennessee, Texas, Vermont, Virginia
These states require a major, minor or concentration but there is no assurance it will be in an academic subject area.
- Alabama, Alaska, Arizona, Arkansas, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Kansas, Kentucky, Louisiana, Maine, Minnesota, Montana, Nebraska, Nevada, New Hampshire⁵, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Utah, Washington, West Virginia, Wisconsin, Wyoming
- Only K-8 teachers must complete an area of concentration in a field such as humanities, fine arts, social sciences and sciences.

Figure 5

Do states measure new elementary teachers' knowledge of math?



- Strong Practice:** Alabama, Arkansas, Connecticut, Delaware, District of Columbia, Florida, Idaho, Indiana, Kentucky, Maine, Massachusetts, Minnesota, Missouri, New Hampshire, New Jersey, New York, North Carolina, Rhode Island, South Carolina, Texas, Utah, Vermont, Virginia, West Virginia, Wyoming
- Arizona, California, Colorado, Georgia, Illinois, Iowa, Kansas, Louisiana, Maryland, Michigan, Mississippi, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Washington, Wisconsin
- Alaska⁴, Hawaii, Montana, Ohio⁵
- Testing is not required for initial licensure.
- Only teachers of grades 4 and 5 are required to pass an adequate content test.

Figure 7

What do states require of early childhood teachers who teach elementary grades?

	CONTENT TEST WITH SUBSCORES FOR EACH SUBJECT	ADEQUATE SCIENCE OF READING TEST
Alabama	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Alaska ¹	<input type="checkbox"/>	<input type="checkbox"/>
Arizona	<input type="checkbox"/>	<input type="checkbox"/>
Arkansas ¹	<input type="checkbox"/>	<input type="checkbox"/>
California ¹	<input type="checkbox"/>	<input type="checkbox"/>
Colorado	<input type="checkbox"/>	<input type="checkbox"/>
Connecticut	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Delaware	<input type="checkbox"/>	<input type="checkbox"/>
District of Columbia	<input type="checkbox"/>	<input type="checkbox"/>
Florida	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Georgia ¹	<input type="checkbox"/>	<input type="checkbox"/>
Hawaii	<input type="checkbox"/>	<input type="checkbox"/>
Idaho	<input type="checkbox"/>	<input type="checkbox"/>
Illinois	<input type="checkbox"/>	<input type="checkbox"/>
Indiana	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Iowa	<input type="checkbox"/>	<input type="checkbox"/>
Kansas	<input type="checkbox"/>	<input type="checkbox"/>
Kentucky ¹	<input type="checkbox"/>	<input type="checkbox"/>
Louisiana	<input type="checkbox"/>	<input type="checkbox"/>
Maine	<input type="checkbox"/>	<input type="checkbox"/>
Maryland	<input type="checkbox"/>	<input type="checkbox"/>
Massachusetts	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Michigan ¹	<input type="checkbox"/>	<input type="checkbox"/>
Minnesota	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mississippi ¹	<input type="checkbox"/>	<input type="checkbox"/>
Missouri	<input type="checkbox"/>	<input type="checkbox"/>
Montana ¹	<input type="checkbox"/>	<input type="checkbox"/>
Nebraska	<input type="checkbox"/>	<input type="checkbox"/>
Nevada	<input type="checkbox"/>	<input type="checkbox"/>
New Hampshire	<input type="checkbox"/>	<input checked="" type="checkbox"/>
New Jersey	<input type="checkbox"/>	<input type="checkbox"/>
New Mexico	<input type="checkbox"/>	<input type="checkbox"/>
New York	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
North Carolina ¹	<input type="checkbox"/>	<input type="checkbox"/>
North Dakota	<input type="checkbox"/>	<input type="checkbox"/>
Ohio ¹	<input type="checkbox"/>	<input type="checkbox"/>
Oklahoma	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Oregon ¹	<input type="checkbox"/>	<input type="checkbox"/>
PENNSYLVANIA ¹	<input type="checkbox"/>	<input type="checkbox"/>
Rhode Island	<input checked="" type="checkbox"/> ²	<input type="checkbox"/>
South Carolina	<input type="checkbox"/>	<input type="checkbox"/>
South Dakota	<input type="checkbox"/>	<input type="checkbox"/>
Tennessee	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Texas ¹	<input type="checkbox"/>	<input type="checkbox"/>
Utah	<input checked="" type="checkbox"/> ²	<input type="checkbox"/>
Vermont	<input type="checkbox"/>	<input type="checkbox"/>
Virginia	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Washington	<input type="checkbox"/>	<input type="checkbox"/>
West Virginia	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wisconsin	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wyoming	<input type="checkbox"/>	<input type="checkbox"/>

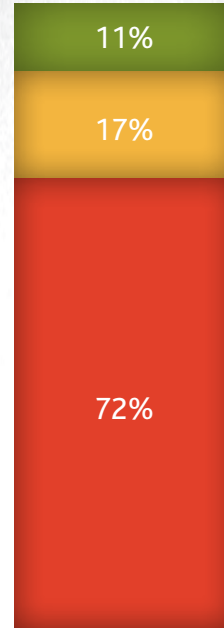
6

13

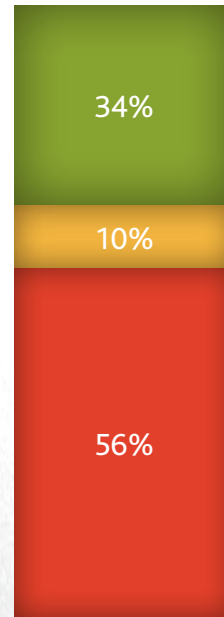
Figure 8

TEACHER PREP REVIEW FINDINGS

Only 11 percent of preparation programs ensure that elementary teachers are well prepared in the subjects they will teach.



Just 34 percent of preparation programs provide adequate training to elementary teachers in the science of reading instruction.



From NCTQ's 2014 *Teacher Prep Review* Standard 6: Elementary Content (n=1,166 elementary programs) and Standard 2: Early Reading (n=959 elementary and special education programs)

Figure 7

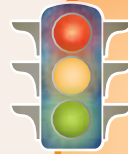
1. These states do not offer a standalone early childhood certification that includes elementary grades or the state's early childhood certification is the de facto license to teach elementary grades.
2. Early childhood candidates may pass either multiple subjects (subscores) or content knowledge (no subscores) test.

Middle School Teacher Preparation

Key Components

(The factors considered in determining the states' ratings for this topic.)

1. The state should ensure that all middle school teachers are sufficiently prepared for the ways that college- and career-readiness English language arts standards affect instruction of all subject areas. Specifically,
 - A. The state should require that all new middle school teachers are prepared to incorporate complex texts and academic language into instruction.
 - B. The state should ensure that all new middle school teachers are prepared to incorporate literacy skills as an integral part of every subject.
 - C. The state should ensure that all new middle school teachers of English language arts are prepared to support struggling readers.
2. The state should require that new middle school teachers pass a licensing test in every core academic area they are licensed to teach.
3. The state should not permit middle school teachers to teach on a generalist license that does not differentiate between the preparation of middle school teachers and that of elementary teachers.



How well are states ensuring that middle school teachers are prepared for college- and career-readiness standards?

16

Alaska, Arizona, California, Hawaii, Idaho, Maine, Michigan, Montana, Nebraska, New Mexico, Oklahoma, Oregon, South Dakota, Utah, Washington, Wyoming

5

Colorado, Massachusetts, Nevada, North Dakota, Wisconsin

22

Alabama, Connecticut, Delaware, District of Columbia, Iowa, Kansas, Kentucky, Louisiana, Maryland, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, Rhode Island, South Carolina, Vermont, Virginia, West Virginia

6

Florida, Georgia, Illinois, **PENNSYLVANIA**, Tennessee, Texas


2

Arkansas, Indiana

PREPARING MIDDLE SCHOOL TEACHERS FOR COLLEGE- AND CAREER-READINESS STANDARDS

The middle school years are critical to students' education, but, too often, states fail to distinguish the knowledge and skills needed by middle school teachers from those needed by an elementary teacher. Middle school teachers should not only be prepared to teach grade-level content, but should also be prepared to meet the increased instructional requirements of college- and career-readiness standards for students.

Currently, Pennsylvania offers a middle school license to teach grades 4-8. Key licensing requirements for middle school teachers in Pennsylvania include:



PENNSYLVANIA

MIDDLE SCHOOL TEACHER PREP SNAPSHOT

- State requires teachers to pass a content test for each subject they teach.
- State requires middle school teachers to hold a middle grade or secondary license.

Yes No

Preparation and licensure requirements for middle school teachers must address more than just content knowledge; the key instructional shifts articulated in college- and career-readiness standards must also be incorporated. Pennsylvania addresses some of the instructional shifts toward building content knowledge and vocabulary through careful reading of informational and literary texts associated with the state's college- and career-readiness standards for students through its required assessment for middle school English teachers, the Praxis II Pennsylvania Grades 4-8 Subject Concentration: English Language Arts test.

Regarding literacy in other content areas, the Pennsylvania's 4-8 Program Guidelines articulate that "courses and related candidate experiences must describe clearly how the content knowledge and skills development described [within] is embedded in the proposed program." Outlined within this required skill set is "literacy in the content areas," which requires that "to ensure that middle level teachers have the knowledge and skills to promote this development, the program must include courses with explicit links between literacy and each of the main content areas." The state also outlines "literacy in the middle level content areas: mathematics, science and social studies." Science content "must focus on the integration of learning science with reading and writing, use of texts, and graphical representations." Social studies content "must address the five Carnegie elements, the role of technology in teaching and learning for literacy in the social sciences, and

RECOMMENDATION

- **Ensure that middle school teachers are prepared to meet the instructional requirements of college- and career-readiness standards for students.**

Incorporate informational text of increasing complexity into classroom instruction.

Although Pennsylvania's English language arts content test for middle school teachers addresses informational texts, the state should strengthen its policy and ensure that teachers are able to challenge students with texts of increasing complexity.

what the International Reading Association calls 'an integrated system of reading, discussion, and writing about literary and informational text.'"

Pennsylvania's candidate competencies address the needs of struggling readers.

Supporting Research

Praxis Tests

www.ets.org/praxis

4-8 Program Guidelines

http://www.portal.state.pa.us/portal/server.pt/gateway/PTARGS_0_123236_588882_0_0_18/4_8ProgramGuidelines.pdf

Coursework Requirements

www.portal.state.pa.us/portal/server.pt/community/institutional_program_approval/8817

PENNSYLVANIA RESPONSE TO ANALYSIS

Pennsylvania was helpful in providing NCTQ with the facts necessary for this analysis. The state added that the Framework for Grades 4-8 Program Guidelines prepare teacher candidates to develop the literacy skills of their students. Middle level programs must align with Pennsylvania's Academic Standards and Assessment Anchor Content Standards in reading established for grades 3, 8 and 11.

Figure 9

Are states ensuring that new middle school teachers are prepared for the instructional shifts associated with college- and career-readiness standards?

	USE OF INFORMATIONAL TEXT	INCORPORATING LITERACY SKILLS INTO ALL SUBJECTS	SUPPORTING STRUGGLING READERS
Alabama	☑	☐	☑
Alaska	☐	☐	☐
Arizona	☑	☐	☐
Arkansas	☑	☑	☑
California	☐	☐	☐
Colorado	☑	☑	☑
Connecticut	☑	☐	☐
Delaware	☑	☐	☐
District of Columbia	☑	☐	☐
Florida	☑	☑	☑
Georgia	☑	☑	☑
Hawaii	☐	☐	☐
Idaho	☑	☐	☐
Illinois	☑	☑	☑
Indiana	☑	☑	☑
Iowa	☑	☐	☐
Kansas	☑	☐	☐
Kentucky	☑	☐	☐
Louisiana	☑	☐	☑
Maine	☑	☐	☐
Maryland	☑	☐	☐
Massachusetts	☐	☐	☐
Michigan	☐	☐	☐
Minnesota	☑	☑	☑
Mississippi	☑	☐	☐
Missouri	☑	☑	☐
Montana	☐	☐	☐
Nebraska	☐	☐	☐
Nevada	☑	☐	☐
New Hampshire	☑	☑	☑
New Jersey	☑	☐	☐
New Mexico	☐	☐	☐
New York	☑	☐	☑
North Carolina	☑	☑	☐
North Dakota	☑	☐	☐
Ohio	☑	☐	☐
Oklahoma	☐	☐	☐
Oregon	☑	☐	☐
PENNSYLVANIA	☑	☑	☑
Rhode Island	☑	☐	☑
South Carolina	☑	☐	☐
South Dakota	☑	☐	☐
Tennessee	☑	☐	☑
Texas	☑	☑	☑
Utah	☐	☐	☐
Vermont	☑	☐	☑
Virginia	☑	☐	☐
Washington	☐	☑	☐
West Virginia	☑	☐	☐
Wisconsin	☐	☐	☐
Wyoming	☐	☐	☐

☑ Fully addresses instructional component ☐ Partially addresses instructional component

SUMMARY OF MIDDLE SCHOOL TEACHER PREP FIGURES

- **Figure 9**
Requirements for instructional shifts associated with college- and career-readiness standards
- **Figure 10**
Distinctions in licenses between middle and elementary teachers
- **Figure 11**
Content test requirements
- **Figure 12**
Teacher Prep Review findings about middle school teacher prep

Figure 10

Do states distinguish middle grade preparation from elementary preparation?

	K-8 LICENSE NOT OFFERED	K-8 license offered for self-contained classrooms	K-8 license offered
Alabama	■	□	□
Alaska	□	□	■
Arizona	□	□	■ ¹
Arkansas	■	□	□
California	□	■ ²	□
Colorado	■	□	□
Connecticut	■	□	□
Delaware	■	□	□
District of Columbia	■	□	□
Florida	■	□	□
Georgia	■	□	□
Hawaii	■	□	□
Idaho	□	□	■
Illinois	■	□	□
Indiana	■	□	□
Iowa	■	□	□
Kansas	■	□	□
Kentucky	■	□	□
Louisiana	■	□	□
Maine	□	□	■
Maryland	■	□	□
Massachusetts	■	□	□
Michigan	□	■	□
Minnesota	□	■	□
Mississippi	■	□	□
Missouri	■	□	□
Montana	□	□	■
Nebraska	□	■	□
Nevada	□	□	■
New Hampshire	□	□	■
New Jersey	■	□	□
New Mexico	□	□	■
New York	■	□	□
North Carolina	■	□	□
North Dakota	□	□	■ ¹
Ohio	■	□	□
Oklahoma	□	□	■ ³
Oregon	□	□	■ ⁴
PENNSYLVANIA	■	□	□
Rhode Island	■	□	□
South Carolina	■	□	□
South Dakota	□	□	■
Tennessee	■	□	□
Texas	■	□	□
Utah	□	■	□
Vermont	■	□	□
Virginia	■	□	□
Washington	□	□	■
West Virginia	■	□	□
Wisconsin	□	□	■ ¹
Wyoming	■	□	□
32	5	14	

★ **EXAMPLES OF BEST PRACTICE**

Illinois ensures that middle school teachers are prepared to meet the instructional requirements of college- and career-readiness standards for students. The state’s new standards for the middle grades include the instructional shifts toward building content knowledge and vocabulary through increasingly complex texts and careful reading of informational and literary texts associated with these standards. The standards also address the needs of struggling readers.

Illinois’s requirements connecting literacy to all subject areas are particularly noteworthy. All middle school teachers must understand “the role, perspective and purpose of text in specific disciplines” and be able to perform tasks such as scaffolding reading to allow students to understand and learn from challenging text; guiding reading discussions that require students to identify key ideas and details of a text; analyze craft and structure and critically evaluate the text; and model reading strategies to improve comprehension.

In addition, **Georgia, Mississippi, New Jersey** and **South Carolina** ensure that all middle school teacher candidates are adequately prepared to teach middle school-level content. None of these states offers a K-8 generalist license and all require passing scores on subject-specific content tests. Georgia, Mississippi and South Carolina explicitly require at least two content-area minors, and New Jersey requires a content major along with a minor for each additional area of certification.

1. Offers 1-8 license.
 2. California offers a K-12 generalist license for all self-contained classrooms.
 3. With the exception of mathematics.
 4. Oregon offers 3-8 license.

Figure 11

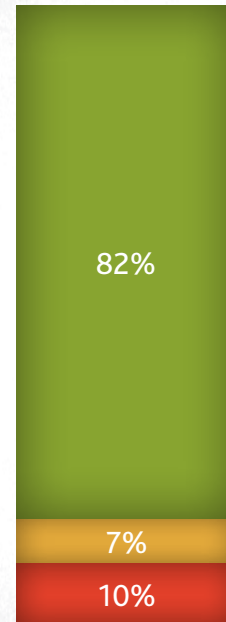
Do middle school teachers have to pass an appropriate content test in every core subject they are licensed to teach?

	YES	No, test does not report subscores for all core subjects	No, K-8 licensure requires only elementary test	No, testing of all subjects not required
Alabama	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alaska	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ¹
Arizona	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Arkansas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
California	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ²
Colorado	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Connecticut	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delaware	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
District of Columbia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Florida	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Georgia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hawaii	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Idaho	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ³	<input type="checkbox"/>
Illinois	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ⁴
Indiana	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Iowa	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kansas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kentucky	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Louisiana	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maine	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Maryland	<input checked="" type="checkbox"/> ⁵	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Massachusetts	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Michigan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Minnesota	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mississippi	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Missouri	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Montana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Nebraska	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nevada	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Hampshire	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ⁶	<input type="checkbox"/>
New Jersey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Mexico	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New York	<input checked="" type="checkbox"/> ⁷	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
North Carolina	<input checked="" type="checkbox"/> ⁸	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
North Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ohio	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oklahoma	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Oregon	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PENNSYLVANIA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rhode Island	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
South Carolina	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
South Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tennessee	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Texas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utah	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Vermont	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Virginia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Washington	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
West Virginia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wisconsin	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wyoming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	27	2	15	7

Figure 12

TEACHER PREP REVIEW FINDINGS

82 percent of programs ensure that middle school teachers are well prepared in the subjects they will teach.



From NCTQ's 2014 *Teacher Prep Review Standard 7: Middle School Content* (n=375 middle school programs). State licensing test requirements are also included in evaluating this standard.

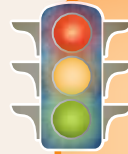
1. Alaska does not require content tests for initial licensure.
2. Candidates teaching multiple subjects only have to pass the elementary test. Single-subject credential does not require content test.
3. For K-8 license, Idaho also requires one single-subject test.
4. Illinois requires candidates to take a middle level core content test if a test is available. It is not clear that this will result in teachers passing a test in each subject and draft test frameworks are not yet available for review.
5. Maryland allows elementary teachers to teach in departmentalized middle schools if not less than 50 percent of the teaching assignment is within the elementary grades.
6. New Hampshire requires K-8 candidates to pass a middle school content test in one core area.
7. For nondepartmentalized classrooms, generalist in middle childhood education candidates must pass the new assessment with three subtests.
8. Teachers may have until second year to pass tests, if they attempt to pass them during their first year.

Secondary Teacher Preparation

Key Components

(The factors considered in determining the states' ratings for this topic.)

1. The state should ensure that all secondary teachers are sufficiently prepared for the ways that college- and career-readiness English language arts standards affect instruction of all subject areas. Specifically,
 - A. The state should require that all new secondary teachers are prepared to incorporate complex texts and academic language into instruction.
 - B. The state should ensure that all new secondary teachers are prepared to incorporate literacy skills as an integral part of every subject.
 - C. The state should ensure that all new secondary teachers of English language arts are prepared to support struggling readers.
2. The state should require that secondary teachers pass a licensing test in every subject they are licensed to teach.
3. The state should require secondary general science and general social studies teachers to pass a subject-matter test of each discipline they are licensed to teach.
4. The state should require that secondary teachers pass a content test when adding subject-area endorsements to an existing license.



How well are states ensuring that secondary teachers are prepared for college- and career-readiness standards?

6

Alaska, California, Hawaii, Montana, New Mexico, Wyoming

24

Alabama, Arizona, Colorado, Connecticut, Delaware, District of Columbia, Idaho, Illinois, Iowa, Louisiana, Massachusetts, Michigan, Mississippi, Nebraska, Nevada, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, **PENNSYLVANIA**, South Carolina, Washington, Wisconsin

16

Florida, Georgia, Kansas, Kentucky, Maine, Maryland, Missouri, New Hampshire, New Jersey, Rhode Island, South Dakota, Texas, Utah, Vermont, Virginia, West Virginia

5

Arkansas, Indiana, Minnesota, New York, Tennessee

0

Secondary Teacher Prep Analysis: Pennsylvania

PREPARING SECONDARY TEACHERS FOR COLLEGE- AND CAREER-READINESS STANDARDS

To be prepared to meet the instructional requirements of college- and career-readiness standards for their students, secondary teachers must be experts in the subject matter they teach. States should ensure that secondary teachers have sufficient content knowledge in all the subjects they are licensed to teach.

Currently, Pennsylvania offers single-subject secondary licenses to teach grades 7-12. Key licensing requirements for secondary school teachers in Pennsylvania include:



PENNSYLVANIA SECONDARY TEACHER PREP SNAPSHOT

- State requires a content test to teach any single core subject.
- State offers only single-subject science certifications or has appropriate requirements for teachers with general science license.
- State offers only single-subject social studies certifications or has appropriate requirements for teachers with general social studies license.
- State requires a content test in order to add an endorsement to a license.

Yes No

Not only must secondary teachers possess strong backgrounds in content knowledge as required by college- and career-readiness standards, they must also be able to address the key instructional shifts associated with the standards. Pennsylvania addresses some of the instructional shifts toward building content knowledge and vocabulary through careful reading of informational and literary texts associated with the state's college- and career-readiness standards for students through its required assessment for English language arts teachers, the Praxis II English Language Arts: Content Knowledge (5038) test.

The state's candidate competencies broadly address incorporating literacy into other content areas. Teachers are required to demonstrate an ability to:

- Create lessons that support literacy across the curriculum
- Create lessons that demonstrate an understanding of literacy both broadly and in discipline contexts.

RECOMMENDATIONS

- **Ensure that secondary teachers are prepared to meet the instructional requirements of college- and career-readiness standards for students.**

Incorporate informational text of increasing complexity into classroom instruction.

Although Pennsylvania's required secondary English language arts content test addresses informational texts, the state should strengthen its policy and ensure that teachers are able to challenge students with texts of increasing complexity.

Incorporate literacy skills as an integral part of every subject.

To ensure that secondary students are capable of accessing varied information about the world around them, Pennsylvania should also—either through testing frameworks or standards—more specifically include literacy skills and using text as a means to build content knowledge in history/social studies, science, technical subjects, and the arts.

Support struggling readers.

Pennsylvania should articulate more specific requirements ensuring that secondary teachers are prepared to intervene and support students who are struggling. The state's guidelines regarding diverse learners are noteworthy; however, Pennsylvania should strengthen its standards to explicitly target struggling readers. While college- and career-readiness standards will increase the need for all secondary teachers to be able to help struggling readers to comprehend grade-level material, training for English language arts teachers in particular must emphasize identification and remediation of reading deficiencies.

Regarding struggling readers, Pennsylvania's English program guidelines require teachers to foster student learning through "selecting, implementing and adapting effective instructional strategies, curriculum resources and technologies in collaboration with other educators to meet the needs of diverse learners including:

- identifying assessing and building on the students' prior knowledge, experiences, and skills in each content area,
- problem analysis, creativity, problem solving, and decision making skills,
- inquiry, direct instruction and cooperative learning."

General secondary guidelines require teachers to "design successful interventions responsive to the needs of individual students" and "continuously monitor the results of interventions and alter instruction accordingly."

Supporting Research

Praxis Tests

www.ets.org/praxis

Secondary Guidelines

http://www.portal.state.pa.us/portal/server.pt/gateway/PTARGS_0_123236_823088_0_0_18/SECONDARYGUIDELINES7-12_%204-19-10.pdf

English Program Guidelines

<http://www.portal.state.pa.us/portal/server.pt?open=18&objID=1246969&mode=2>

Pennsylvania Code Title 22, Section 49.18

PENNSYLVANIA RESPONSE TO ANALYSIS

Pennsylvania was helpful in providing NCTQ with facts that enhanced this analysis. The state added that the Framework for Secondary Grades 7-12 Guidelines prepare teacher candidates to develop the literacy skills of their students. Programs must align with Pennsylvania's Academic Standards and Assessment Anchor Content Standards in reading established for grades 3, 8 and 11.

RECOMMENDATIONS CONTINUED

- **Require secondary teachers with umbrella certifications to pass a content test for each discipline they are licensed to teach.**

By allowing general social studies and general science certifications—and only requiring general knowledge exams for each—Pennsylvania is not ensuring that these secondary teachers possess adequate subject-specific content knowledge. The state's required general social studies assessment combines all topical areas (e.g., history, geography, economics), and its required general science assessment combines subject areas that include biology, chemistry and physics. Neither assessment reports separate scores for each area. Therefore, candidates could answer many—perhaps all—chemistry questions, for example, incorrectly, yet still be licensed to teach chemistry to high school students.

Figure 13

Are states ensuring that new secondary teachers are prepared for the instructional shifts associated with college- and career-readiness standards?

	USE OF INFORMATIONAL TEXT	INCORPORATING LITERACY SKILLS INTO ALL SUBJECTS	SUPPORTING STRUGGLING READERS
Alabama	☑	☐	☐
Alaska	☐	☐	☐
Arizona	☑	☐	☐
Arkansas	■	■	☑
California	☐	☐	☐
Colorado	☑	☑	■
Connecticut	☑	☐	☐
Delaware	☑	☐	☐
District of Columbia	☑	☐	☐
Florida	☐	☑	☑
Georgia	☑	☐	☐
Hawaii	☐	☐	☐
Idaho	☑	☐	☐
Illinois	☐	☐	☐
Indiana	☑	☑	☑
Iowa	☑	☐	☐
Kansas	☑	☐	☐
Kentucky	☑	☐	☐
Louisiana	☑	☐	■
Maine	☑	☐	☐
Maryland	☑	☐	■
Massachusetts	☐	☐	☐
Michigan	☐	☐	☑
Minnesota	☑	■	■
Mississippi	☑	☐	☐
Missouri	☑	☑	☐
Montana	☐	☐	☐
Nebraska	☑	☐	☐
Nevada	☑	☐	☐
New Hampshire	☑	☑	■
New Jersey	☑	☐	☐
New Mexico	☐	☐	☐
New York	☑	☐	■
North Carolina	☑	■	☐
North Dakota	☑	☐	☐
Ohio	☑	☐	☐
Oklahoma	☐	☐	☐
Oregon	☑	☐	☐
PENNSYLVANIA	☑	☐	☑
Rhode Island	☑	☐	☑
South Carolina	☑	☐	☐
South Dakota	☑	☐	☐
Tennessee	☑	☐	☑
Texas	☑	■	■
Utah	☑	☐	☐
Vermont	☑	☐	■
Virginia	☑	☐	☐
Washington	☑	☐	■
West Virginia	☑	☐	☐
Wisconsin	☑	☐	☐
Wyoming	☐	☐	☐

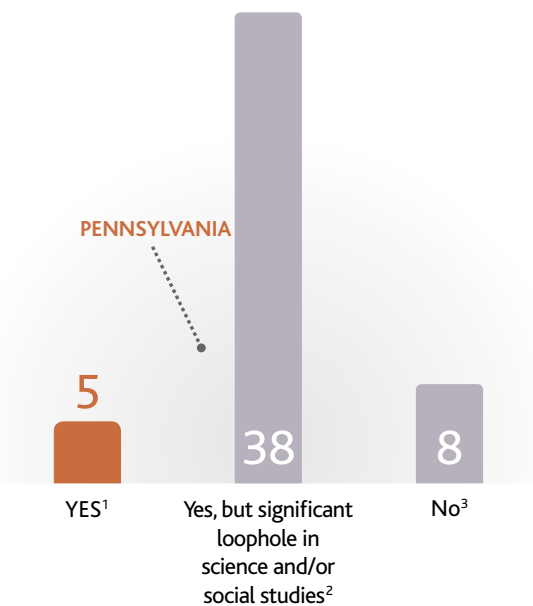
■ Fully addresses instructional component ☑ Partially addresses instructional component

SUMMARY OF SECONDARY TEACHER PREP FIGURES

- **Figure 13**
Requirements for instructional shifts associated with college- and career-readiness standards
- **Figure 14**
Content test requirements
- **Figure 15**
Requirements for general science teachers
- **Figure 16**
Requirements for general social studies teachers
- **Figure 17**
Teacher Prep Review findings about secondary teacher prep

Figure 14

Do secondary teachers have to pass a content test in every subject area for licensure?



1. **Strong Practice:** Indiana, Minnesota, Missouri, South Dakota, Tennessee

2. Alabama, Arkansas, Connecticut, Delaware, District of Columbia, Florida, Georgia, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina⁴, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, Vermont, Virginia, West Virginia, Wisconsin [For more on loopholes, see Figure 15 (science) and Figure 16 (social studies).]

3. Alaska⁵, Arizona⁶, California, Colorado, Hawaii, Montana, Washington, Wyoming

4. Teachers may have until second year to pass tests, if they attempt to pass them during their first year.

5. Alaska does not require content tests for initial licensure.

6. Candidates with a master's degree in the subject area do not have to pass a content test.

★ EXAMPLES OF BEST PRACTICE

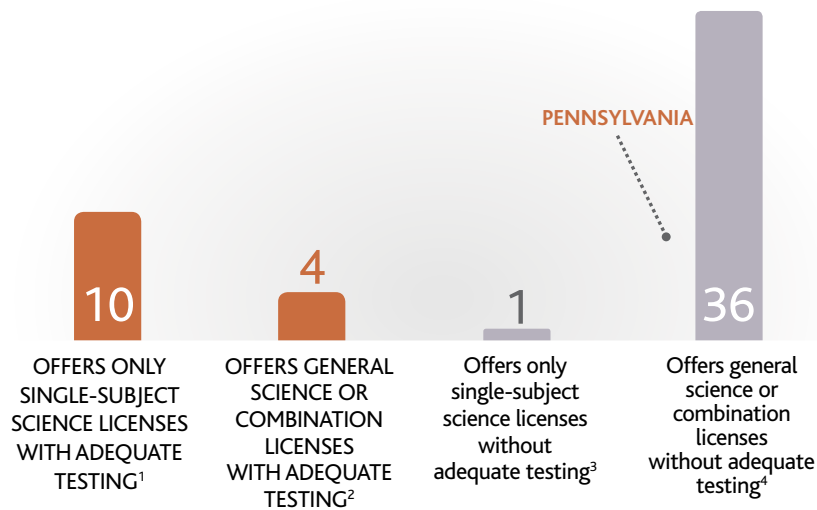
Arkansas has done more than other states to ensure that secondary teachers are prepared to meet the instructional requirements of college- and career-readiness standards for students. Not only does the state address the instructional shifts toward building content knowledge and vocabulary through increasingly complex informational texts and careful reading of informational and literary texts associated with these new standards in its educator competencies for secondary English language arts teachers, it also requires teachers to incorporate literacy skills into all content areas. For example, the secondary social studies competency to “incorporate disciplinary literacy” states that “reading competencies for literacy in history/social studies for grades 7-12 include the ability to read informational texts in history and social studies closely and critically to analyze the key ideas and details as well as craft and structure with the purpose of integrating knowledge and ideas both within and across texts.” A similar competency exists for both the life science and physical science secondary certifications.

Indiana, Minnesota and **Tennessee** require that all secondary teacher candidates pass a content test to teach any core subject—both as a condition of licensure and to add an additional field to a secondary license. Further, neither of these states offers secondary certification in general social studies or science; all teachers must be certified in a specific discipline.

Also worthy of mention is **Missouri**, which requires general social studies teachers to pass a multi-content test with six independently scored subtests. Missouri also offers a general science license that can only be used to teach general science courses. All other science teachers must be certified in a specific discipline.

Figure 15

Do states ensure that secondary general science teachers have adequate subject-matter knowledge?



1. **Strong Practice:** Florida, Indiana, Kansas, Kentucky, Massachusetts, Minnesota, New York, South Dakota, Tennessee, Virginia

2. **Strong Practice:** Missouri, New Jersey, Rhode Island⁵, West Virginia⁵

3. California

4. Alabama, Alaska, Arizona⁶, Arkansas, Colorado, Connecticut, Delaware, District of Columbia, Georgia⁷, Hawaii, Idaho, Illinois, Iowa, Louisiana, Maine, Maryland, Michigan, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Texas, Utah, Vermont, Washington, Wisconsin, Wyoming

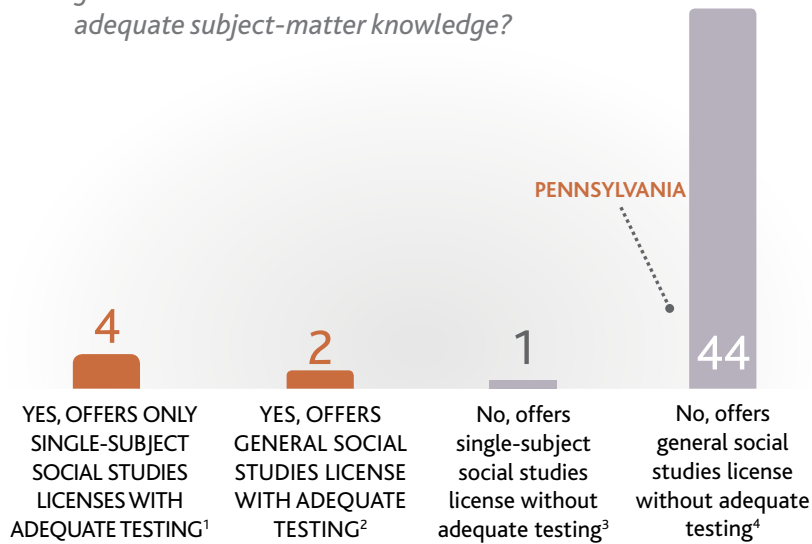
5. Teachers with the general science license may only teach general science courses.

6. Arizona limits teachers with the general science license to teaching only general science courses. However, candidates with a master's degree in the subject area do not have to pass a content test.

7. Georgia's science test consists of two subtests.

Figure 16

Do states ensure that secondary general social studies teachers have adequate subject-matter knowledge?



1. Strong Practice: Georgia, Indiana, South Dakota, Tennessee

2. Strong Practice: Minnesota⁵, Missouri

3. Arizona⁶

4. Alabama, Alaska, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Hawaii, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma⁷, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

5. Minnesota's test for general social studies is divided into two individually scored subtests.

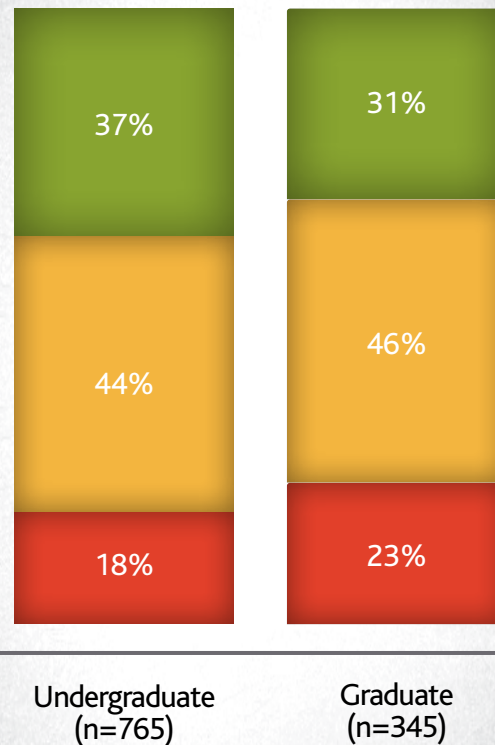
6. Candidates with a master's degree in the subject area do not have to pass a content test.

7. Oklahoma offers combination licenses without adequate testing.

Figure 17

TEACHER PREP REVIEW FINDINGS

Less than 40 percent of preparation programs ensure that secondary teachers are well prepared in the subjects they will teach.



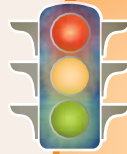
From NCTQ's 2014 *Teacher Prep Review* Standard 8: High School Content (n=1,110 high school programs). State licensing test requirements are also considered in evaluating this standard.

Special Education Teacher Preparation

Key Components

(The factors considered in determining the states' ratings for this topic.)

1. The state should ensure that all special education teachers are sufficiently prepared for the ways that college- and career-readiness English language arts standards affect instruction of all subject areas. Specifically,
 - A. The state should ensure that all new secondary special education teachers are prepared to support struggling readers.
 - B. The state should require that all new secondary special education teachers are prepared to incorporate complex texts and academic language into instruction.
 - C. The state should ensure that all new secondary special education teachers are prepared to incorporate literacy skills as an integral part of every subject.
2. The state should require that new elementary special education teachers pass a rigorous test of reading instruction in order to attain licensure.
3. The state should not permit special education teachers to teach on a K-12 license that does not differentiate between the preparation of elementary teachers and that of secondary teachers.
4. All elementary special education candidates should be required to pass a subject-matter test for licensure that is no less rigorous than what is required of general education candidates.
5. The state should ensure that secondary special education teachers possess adequate content knowledge.



How well are states ensuring that special education teachers are prepared for college- and career-readiness standards?

30

Alaska, Arizona, Arkansas, Delaware, District of Columbia, Florida, Georgia, Hawaii, Illinois, Kansas, Kentucky, Maine, Michigan, Minnesota, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Ohio, Oklahoma, Oregon, South Carolina, South Dakota, Utah, Vermont, Washington, Wyoming

9

California, Colorado, Connecticut, Idaho, Iowa, Maryland, New Jersey, Tennessee, Virginia

11

Alabama, Indiana, Louisiana, Massachusetts, Missouri, North Carolina, **PENNSYLVANIA**, Rhode Island, Texas, West Virginia, Wisconsin

1


New York

0

PREPARING SPECIAL EDUCATION TEACHERS FOR COLLEGE- AND CAREER-READINESS STANDARDS

Although most special education students are expected to meet the same high college- and career-readiness standards as typical students, too many states set an even lower bar for the preparation and licensure requirements of special education teachers. States must ensure that special education teachers are well grounded in all of the subject matter they will be licensed to teach.

Currently, Pennsylvania offers special education licenses to teach grades PreK-8 and 7-12. Pennsylvania requires that PK-8 special education teachers have dual certification in one of the following: early childhood (PK-4), elementary/middle (4-8) or reading specialist. The state requires that 7-12 special education teachers have dual certification in a secondary area or as a reading specialist. Key licensing requirements for special education teachers in Pennsylvania include:



PENNSYLVANIA SPECIAL ED TEACHER PREP SNAPSHOT

- State only offers discrete elementary and secondary special education licenses.
- Elementary subject-matter test required for special education license.
- Secondary test in at least one subject area required for secondary special education license.

Yes No

Special education teachers must also be prepared for the key instructional shifts that differentiate college- and career-readiness standards from previous student standards.

The Pennsylvania Educator Certification Test (PECT) PK-4 test addresses science of reading instruction but doesn't amount to a stand-alone assessment. The test also addresses informational texts within the cited examples for the objective, "understand assessment, instruction, and intervention for PreK-4 students in reading fluency, vocabulary development and reading comprehension."

Candidates with dual certification in 4-8 will have passed a Praxis II Pennsylvania Subject Concentration test. The 4-8 English language arts assessment addresses informational texts, incorporating some of the instructional shifts associated with Pennsylvania's college- and career-readiness standards for students.

Candidates with dual certification as a reading specialist (K-12) will have passed the Praxis II Reading Specialist assessment. It requires teachers to "understand reading comprehension strategies for nonfiction," which includes ability to "describe how to

RECOMMENDATIONS

- **Ensure that special education teachers are prepared to meet the instructional requirements of college- and career-readiness standards for students.**

Require all elementary special education teacher candidates to pass a rigorous assessment in the science of reading instruction.

Pennsylvania should require a rigorous reading assessment tool to ensure that its elementary special education teacher candidates are adequately prepared in the science of reading instruction before entering the classroom. The assessment should clearly test knowledge and skills related to the science of reading and address all five instructional components of scientifically based reading instruction: phonemic awareness, phonics, fluency, vocabulary and comprehension. If the test is combined with an assessment that also tests general pedagogy or elementary content, it should report a subscore for the science of reading specifically. Elementary special education teachers who do not possess the minimum knowledge in this area should not be eligible for licensure.

Incorporate informational text of increasing complexity into classroom instruction.

Although Pennsylvania's PK-4 test addresses knowledge of informational texts, the in-depth coverage of the topic is presented as examples. Therefore, the extent to which this information is required is unclear. Pennsylvania is encouraged to make certain that its framework captures the major instructional shifts of college- and career-readiness standards, thereby ensuring that all special education teacher candidates have the ability to adequately incorporate complex informational text into classroom instruction. Further, although Pennsylvania's required 4-8 and secondary English language arts content test address informational texts, the state should strengthen its policy and ensure that these teachers are able to challenge all special education students with texts of increasing complexity.

Incorporate literacy skills as an integral part of every subject.

To ensure that all special education students are capable of accessing varied information about the world around them, Pennsylvania should—either through testing frameworks or teacher standards—include literacy skills and using text to build content knowledge in history/social studies, science, technical subjects and the arts.

select and use a variety of informational, descriptive, and persuasive materials at appropriate reading levels to promote students' comprehension of nonfiction, including content-area texts."

Candidates with dual certification in a secondary area will have passed a Praxis II single-subject test. Pennsylvania's assessment for English language arts teachers, Praxis II English Language Arts: Content Knowledge test, also includes some of the instructional shifts toward building content knowledge and vocabulary through careful reading of informational and literary texts associated with the state's college- and career-readiness standards for students.

Pennsylvania's 4-8 Program Guidelines address incorporating literacy skills into other content areas, while the state's candidate competencies for secondary teachers broadly address this instructional shift.

Candidate competencies and program guidelines address the needs of struggling readers.

Supporting Research

Pennsylvania Educator Certification Test

www.pa.nesinc.com

Praxis II Tests

www.ets.org/praxis

PK-4 Program Guidelines

http://www.portal.state.pa.us/portal/server.pt/gateway/PTARGS_0_123236_893942_0_0_18/Prek4Guidelines.pdf

4-8 Program Guidelines

http://www.portal.state.pa.us/portal/server.pt/gateway/PTARGS_0_123236_588882_0_0_18/4_8ProgramGuidelines.pdf

Secondary Guidelines

http://www.portal.state.pa.us/portal/server.pt/gateway/PTARGS_0_123236_823088_0_0_18/SECONDARYGUIDELINES7-12_%204-19-10.pdf

English Program Guidelines

<http://www.portal.state.pa.us/portal/server.pt?open=18&objID=1246969&mode=2>

Chapter 49-2 Final Form Regulations

http://www.portal.state.pa.us/portal/server.pt/community/chapter_49/8627/chapter_49-2_final_form_regulations/506814

PENNSYLVANIA RESPONSE TO ANALYSIS

Pennsylvania was helpful in providing NCTQ with the facts necessary for this analysis. The state reiterated that special education candidates must complete a dual certification program in order to be certified. Both the PK-4 and 4-8 certificate framework guidelines include literacy, with the PK-4 and 4-8 tests also including literacy subsections.

RECOMMENDATIONS CONTINUED

- **Require that all elementary special education candidates pass a rigorous content test as a condition of initial licensure.**

To ensure that special education teacher candidates who will teach elementary grades possess sufficient knowledge of the subject matter at hand, Pennsylvania should require a rigorous content test that reports separate passing scores for each content area. Pennsylvania should also set these passing scores to reflect high levels of performance. Failure to ensure that teachers possess requisite content knowledge deprives special education students of the opportunity to reach their academic potential. The state should also address the fact that elementary special education teachers with dual certification as a reading specialist would not be required to pass any content tests.

- **Ensure that secondary special education teachers possess adequate content knowledge.**

Secondary special education teachers are frequently generalists who teach many core subject areas. While Pennsylvania is on the right track in requiring dual certification in a secondary content area, which would ensure content knowledge in at least one subject area, the state allows teachers who opt for dual certification in reading specialist to not pass any content tests. While it may be unreasonable to expect secondary special education teachers to meet the same requirements for each subject they teach as other teachers who teach only one subject, Pennsylvania's current policy will not help special education students to meet rigorous learning standards. To provide a middle ground, Pennsylvania should consider a customized HOUSSSE route for new secondary special education teachers and look to the flexibility offered by the Individuals with Disabilities Education Act (IDEA), which allows for a combination of testing and coursework to demonstrate requisite content knowledge in the classroom.

Figure 18

Are states ensuring that new special education teachers are prepared for the instructional shifts associated with college- and career-readiness standards?

	USE OF INFORMATIONAL TEXT	INCORPORATING LITERACY SKILLS INTO ALL SUBJECTS	SUPPORTING STRUGGLING READERS
Alabama	☑	☐	☑
Alaska	☐	☐	☐
Arizona	☐	☐	☐
Arkansas	☐	☐	☑
California	☑	☐	☑
Colorado	☑	☑	☑
Connecticut	☑	☐	☑
Delaware	☐	☐	☐
District of Columbia	☐	☐	☐
Florida	☑	☐	☑
Georgia	☐	☐	☐
Hawaii	☐	☐	☐
Idaho	☑	☐	☐
Illinois	☐	☐	☑
Indiana	☑	☐	☑
Iowa	☐	☐	☐
Kansas	☐	☐	☐
Kentucky	☐	☐	☐
Louisiana	☑	☐	☑
Maine	☐	☐	☐
Maryland	☐	☐	☑
Massachusetts	☑	☐	☑
Michigan	☐	☐	☑
Minnesota	☐	☐	☐
Mississippi	☐	☐	☐
Missouri	☑	☑	☐
Montana	☐	☐	☐
Nebraska	☐	☐	☐
Nevada	☐	☐	☐
New Hampshire	☐	☐	☑
New Jersey	☑	☐	☐
New Mexico	☐	☐	☐
New York	☑	☐	☑
North Carolina	☑	☑	☑
North Dakota	☐	☐	☐
Ohio	☐	☐	☐
Oklahoma	☐	☐	☐
Oregon	☐	☐	☑
PENNSYLVANIA	☑	☑	☐
Rhode Island	☑	☐	☑
South Carolina	☐	☐	☐
South Dakota	☐	☐	☐
Tennessee	☐	☐	☑
Texas	☐	☐	☑
Utah	☐	☐	☐
Vermont	☐	☐	☐
Virginia	☐	☐	☑
Washington	☐	☐	☐
West Virginia	☑	☐	☑
Wisconsin	☑	☐	☑
Wyoming	☐	☐	☐

☑ Fully addresses instructional component ☐ Partially addresses instructional component

SUMMARY OF SPECIAL EDUCATION TEACHER PREP FIGURES

- **Figure 18**
Requirements for instructional shifts associated with college- and career-readiness standards
- **Figure 19**
Distinctions in licenses between elementary and secondary teachers
- **Figure 20**
Content test requirements
- **Figure 21**
Science of reading requirements
- **Figure 22**
Teacher Prep Review findings about special education teacher prep

★ EXAMPLES OF BEST PRACTICE

Although all states have weaknesses when it comes to special education teachers' preparedness to meet the instructional requirements of college- and career-readiness standards for students, both **Indiana** and **New York** are notable for addressing the instructional shifts toward building content knowledge and vocabulary through increasingly complex informational texts and careful reading of informational and literary texts associated with these standards.

Unfortunately, states are also weak in other areas of special education teacher preparation. However, three states—**Missouri**, **New York** and **Rhode Island**—are worthy of mention for taking steps in the right direction in ensuring that all special education teachers know the subject matter they are required to teach. These three states require that elementary special education candidates pass the same elementary content tests, which are comprised of individual subtests, as general education elementary teachers.

Secondary special education teachers in New York must pass a multi-subject content test for special education teachers comprised of three separately scored sections. Rhode Island requires its secondary special education teachers to hold certification in another secondary area. Secondary special education teachers in Missouri can either take a multi-subject test comprised of four separately scored sections or a single-subject secondary assessment.

Figure 19

Do states distinguish between elementary and secondary special education teachers?

	DOES NOT OFFER A K-12 CERTIFICATION	Offers K-12 and grade-specific certification(s)	Offers only a K-12 certification
Alabama	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alaska	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Arizona	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Arkansas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
California	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Colorado	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Connecticut	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Delaware	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
District of Columbia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Florida	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Georgia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hawaii	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Idaho	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Illinois	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Indiana	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Iowa	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kansas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kentucky	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Louisiana	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maine	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maryland	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Massachusetts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Michigan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Minnesota	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mississippi	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Missouri	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>
Montana	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Nebraska	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nevada	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
New Hampshire	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Jersey	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>
New Mexico	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
New York	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
North Carolina	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
North Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ohio	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Oklahoma	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Oregon	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>
PENNSYLVANIA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rhode Island	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
South Carolina	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
South Dakota	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tennessee	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Texas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Utah	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vermont	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>
Virginia	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Washington	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
West Virginia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wisconsin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wyoming	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	16	12	23

Figure 20

Which states require subject-matter testing for special education teachers?

Elementary Subject-Matter Test	
Required for an elementary special education license	Alabama, Iowa, Louisiana, Massachusetts, Missouri ¹ , New Jersey, New York, PENNSYLVANIA ² , Rhode Island, West Virginia ³ , Wisconsin
Required for a K-12 special education license	Colorado, Idaho, North Carolina
Secondary Subject-Matter Test(s)	
Tests in all core subjects required for secondary special education license	Missouri ¹ , New York ⁴ , Wisconsin ⁵
Test in at least one subject required for secondary special education license	Louisiana, New Jersey, PENNSYLVANIA ² , Rhode Island, West Virginia ³
Required for a K-12 special education license	None

1. Missouri offers a K-12 certification but candidates must pass either the elementary multi-content assessment or the middle/secondary multi-content assessment.
2. In Pennsylvania, a candidate who opts for dual certification in elementary or secondary special education and as a reading specialist does not have to take a content test.
3. West Virginia also allows elementary special education candidates to earn dual certification in early childhood, which would not require a content test. Secondary special education candidates earning a dual certification as a reading specialist are similarly exempted.
4. New York requires a multi-subject content test specifically geared to secondary special education candidates. It is divided into three subtests.
5. Wisconsin requires a middle school level content area test which does not report subscores for each area.

Figure 19

1. Missouri, New Jersey, Oregon and Vermont issue a K-12 certificate, but candidates must meet discrete elementary and/or secondary requirements.

Figure 21

Do states require all teachers of early reading to pass an adequate science of reading test?

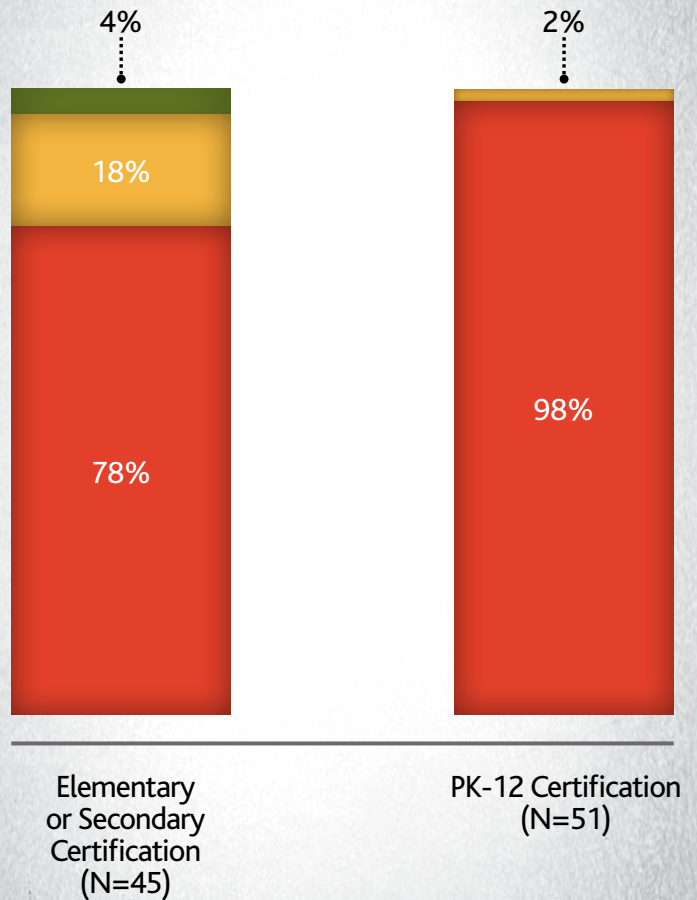
	Elementary teachers	Early childhood teachers	Elementary special education teachers
Alabama	■	■	□
Alaska	□	□ ¹	□
Arizona	□	□	□
Arkansas	□	□ ¹	□
California	■	□ ¹	■
Colorado	□	□	□
Connecticut	■	■	■
Delaware	□	□	□
District of Columbia	□	□	□
Florida	■	■	□
Georgia	□	□ ¹	□
Hawaii	□	□	□
Idaho	□	□	□
Illinois	□	□	□
Indiana	■	■	■
Iowa	□	□	□
Kansas	□	□	□
Kentucky	□	□ ¹	□
Louisiana	□	□	□
Maine	□	□	□
Maryland	□	□	□
Massachusetts	■	■	■
Michigan	□	□ ¹	□
Minnesota	■	■	□
Mississippi	■	□ ¹	□
Missouri	□	□	□
Montana	□	□ ¹	□
Nebraska	□	□	□
Nevada	□	□	□
New Hampshire	■	■	□
New Jersey	□	□	□
New Mexico	■	□	□
New York	■	■	■
North Carolina	■	□ ¹	■
North Dakota	□	□	□
Ohio	■	□ ¹	□
Oklahoma	■	■	■
Oregon	□	□ ¹	□
PENNSYLVANIA	□	□ ¹	□
Rhode Island	□	□	□
South Carolina	□	□	□
South Dakota	□	□	□
Tennessee	■	■	■
Texas	□	□ ¹	□
Utah	□	□	□
Vermont	□	□	□
Virginia	■	■	■
Washington	□	□	□
West Virginia	■	■	■
Wisconsin	■	■	■
Wyoming	□	□	□

18 13 11

Figure 22

TEACHER PREP REVIEW FINDINGS

Less than 5 percent of preparation programs ensure that special education teachers are well prepared in the subjects they will teach.



From NCTQ's 2014 *Teacher Prep Review* Standard 9: Content for Special Education (n=96 special education programs)

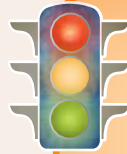
1. These states do not offer a standalone early childhood certification that includes elementary grades or the state's early childhood certification is the de facto license to teach elementary grades.

Admission into Teacher Preparation

Key Components

(The factors considered in determining the states' ratings for this topic.)

1. The state should limit admission to teacher preparation programs to candidates in the top half of the college-going population.
2. The state should require teacher candidates to pass a test of academic proficiency that assesses reading, writing and mathematics skills as a criterion for admission to teacher preparation programs. Alternatively, academic proficiency could be demonstrated by grade point average.



How well are states ensuring that teacher prep programs have rigorous admission standards?

18

Alaska, Arizona, California, Colorado, Idaho, Kansas, Maine, Maryland, Massachusetts, Minnesota, Montana, Nevada, New Mexico, North Dakota, Ohio, South Dakota, Vermont, Wyoming

8

Alabama, Arkansas, Florida, Illinois, Iowa, Missouri, Nebraska, Oregon

10

Connecticut, Indiana, Kentucky, New Hampshire, Oklahoma, **PENNSYLVANIA**, Tennessee, Washington, West Virginia, Wisconsin

2

Georgia, Mississippi


13

Delaware, District of Columbia, Hawaii, Louisiana, Michigan, New Jersey, New York, North Carolina, Rhode Island, South Carolina, Texas, Utah, Virginia

Admission into Teacher Prep Analysis: Pennsylvania



RAISING THE BAR FOR TEACHER PREP THROUGH HIGHER ADMISSION STANDARDS



NCTQ has repeatedly found that too many teacher preparation programs are in need of major improvement, graduating first-year teachers lacking skills and content knowledge adequate to thrive in the classroom. One important way states can raise the bar for teacher preparation programs is to set more ambitious admission requirements for new elementary, secondary and special education teachers. This is even more relevant and important as the increasing expectations of college- and career-readiness standards demand more from teachers academically. A key criterion for admissions is evidence of a strong academic background, and states should require programs to select candidates from the top half of the college-going population. Countries like Singapore and Finland are even more restrictive in admissions; the top half goal is realistic and achievable while representing a significantly higher standard for programs throughout the United States. Until recently, few states had rigorous academic standards for admission, but with states like Rhode Island and Delaware significantly raising the bar by taking the lead in establishing higher standards and new accreditation requirements from CAEP, this is beginning to change.



PENNSYLVANIA

ADMISSION INTO TEACHER PREP SNAPSHOT

-  State requires a minimum GPA of 3.0 for admission into teacher prep.
-  State requires a test normed to college-bound population prior to admission to prep program.

 Yes  No

Pennsylvania does not require prospective teachers to pass a test of academic proficiency as a criterion for admission to teacher preparation programs. Rather, the basic skills assessment requirement is delayed until teacher candidates are ready to apply for licensure. The state does require applicants to teacher preparation programs to have at least a 3.0 GPA in prior college coursework. Programs may admit applicants with a 2.8 GPA and qualifying scores on the basic skills test or SAT/ACT.

Supporting Research

Pennsylvania Code 354.31

PENNSYLVANIA RESPONSE TO ANALYSIS

While not asked to respond to the full analysis for this section, Pennsylvania did not indicate any policy updates related to admission to teacher preparation.

RECOMMENDATIONS

■ Consider a sliding scale that combines GPA and test scores.

While Pennsylvania sets a rigorous academic bar for program admission by requiring a 3.0 GPA, a sliding scale of GPA and test scores would allow flexibility for candidates in demonstrating academic ability. When using such multiple measures, a sliding scale that still ensures minimum standards would allow students to earn program admission through a higher GPA and a lower test score, or vice-versa.

■ Consider requiring candidates to pass subject-matter tests as a condition of admission into teacher programs.

In addition to ensuring that programs require a measure of academic performance for admission, Pennsylvania might also want to consider requiring content testing prior to program admission as opposed to at the point of program completion. Program candidates are likely to have completed coursework that covers related test content in the prerequisite classes required for program admission. Thus, it would be sensible to have candidates take content tests while this knowledge is fresh rather than wait two years to fulfill the requirement, and candidates lacking sufficient expertise would be able to remedy deficits prior to entering formal preparation.

Figure 23

Do states measure the academic proficiency of teacher candidates?

	TEST NORMED TO COLLEGE-BOUND POPULATION PRIOR TO ADMISSION TO PREP PROGRAM	Test normed to teacher candidates only before admission to prep program	Test normed to teacher candidates only during or after completion of prep program	No test required
Alabama	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alaska	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Arizona	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Arkansas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
California	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Colorado	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Connecticut	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delaware	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
District of Columbia	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Florida	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Georgia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hawaii	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Idaho	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Illinois	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Indiana	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Iowa	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kansas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kentucky	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Louisiana	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maine	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Maryland	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Massachusetts	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Michigan	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minnesota	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mississippi	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Missouri	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Montana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Nebraska	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nevada	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Hampshire	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Jersey	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Mexico	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New York	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
North Carolina	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
North Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ohio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Oklahoma	<input type="checkbox"/>	<input checked="" type="checkbox"/> ²	<input type="checkbox"/>	<input type="checkbox"/>
Oregon	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PENNSYLVANIA	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rhode Island	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
South Carolina	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
South Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tennessee	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Texas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utah	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vermont	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Virginia	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Washington	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
West Virginia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wisconsin	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wyoming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	13	18	13	7

SUMMARY OF ADMISSION INTO TEACHER PREP FIGURES

- **Figure 23**
Test of academic proficiency requirements
- **Figure 24**
GPA requirements
- **Figure 25**
Teacher Prep Review findings about admissions

★ EXAMPLES OF BEST PRACTICE

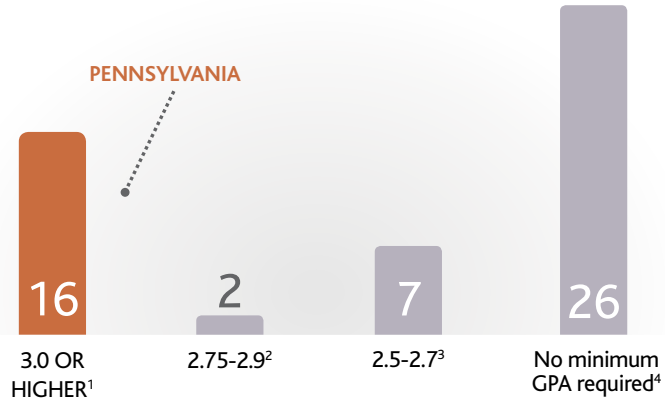
While many states now require CAEP accreditation which includes a standard requiring strong admission practices, **Rhode Island** and **Delaware** have set requirements independent of the accreditation process, ensuring that the states' expectations are clear. Both states require a test of academic proficiency normed to the general college-bound population rather than a test that is normed just to prospective teachers. Delaware also requires teacher candidates to have a 3.0 GPA or be in the top 50th percentile for general education coursework completed. Rhode Island also requires an average cohort GPA of 3.0, and, beginning in 2016, the cohort mean score on nationally-normed tests such as the ACT, SAT or GRE must be in the top 50th percentile. In 2020, the requirement for the mean test score will increase from the top half to the top third.

1. Requirements for admissions test normed to college-bound population is based on CAEP accreditation standards, not state's own admission policy.

2. Candidates in Oklahoma also have the option of gaining admission with a 3.0 GPA.

Figure 24

Do states require a minimum GPA for admission to teacher prep?

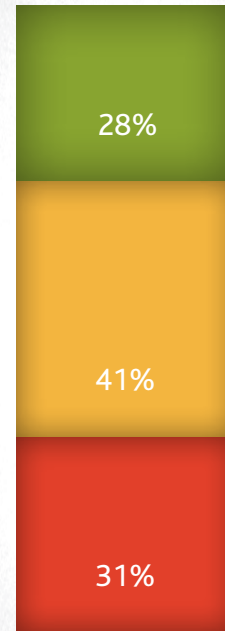


1. **Strong Practice:** Delaware, District of Columbia⁵, Georgia⁶, Hawaii⁵, Louisiana⁵, Michigan⁵, Mississippi⁶, New Jersey⁶, New York⁵, North Carolina⁵, Oklahoma⁷, Pennsylvania⁸, Rhode Island, South Carolina⁵, Utah, Virginia⁵
2. Kentucky, Texas
3. Alabama, Arkansas, Connecticut⁹, Florida, Nebraska, South Dakota, Wisconsin¹⁰
4. Alaska, Arizona, California, Colorado, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Minnesota, Missouri, Montana, Nevada, New Hampshire, New Mexico, North Dakota, Ohio, Oregon, Tennessee, Vermont, Washington, West Virginia, Wyoming
5. Required minimum GPA of 3.0 is based on CAEP accreditation standards, not state's own admission policy.
6. The 3.0 GPA requirement is a cohort average; individual candidates in Mississippi and New Jersey must have a 2.75 GPA. Individual candidates in Georgia must have a 2.5 GPA.
7. Candidates in Oklahoma also have the option of gaining admission by passing a basic skills test.
8. Students can also be admitted with a combination of a 2.8 GPA and qualifying scores on the basic skills test or SAT/ACT.
9. Connecticut requires a B- grade point average for all undergraduate courses.
10. The GPA admission requirement is 2.5 for undergraduate and 2.75 for graduate programs.

Figure 25

TEACHER PREP REVIEW FINDINGS

Only 28 percent of teacher preparation programs have a high bar for admissions.



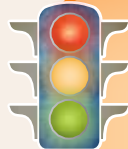
From NCTQ's 2014 *Teacher Prep Review* Standard 1: Selection Criteria (n=2,396 elementary, secondary and special education programs)

Teacher Preparation Program Accountability

Key Components

(The factors considered in determining the states' ratings for this topic.)

1. The state should incorporate preparation to teach to college- and career-readiness standards into its accountability requirements for teacher preparation programs.
2. The state should collect data that connects student achievement gains to teacher preparation programs. Such data can include value-added or growth analyses conducted specifically for this purpose or evaluation ratings that incorporate objective measures of student learning to a significant extent.
3. The state should establish the minimum standard of performance for each category of data. Programs should be held accountable for meeting these standards, with articulated consequences for failing to do so, including loss of program approval.
4. The state should produce and publish on its website an annual report card that shows all the data the state collects on individual teacher preparation programs.
5. The state should retain full authority over its process for approving teacher preparation programs.



How well are states ensuring that teacher preparation programs are accountable for their performance?

12

Alaska, Connecticut, District of Columbia, Hawaii, Idaho, Minnesota, Nebraska, New York, North Dakota, South Dakota, Utah, Wyoming

18

Arizona, Arkansas, California, Illinois, Iowa, Kansas, Maine, Maryland, Mississippi, Missouri, Montana, New Hampshire, Oklahoma, Oregon, **PENNSYLVANIA**, Vermont, Virginia, West Virginia

10

Alabama, Indiana, Kentucky, Massachusetts, Nevada, New Jersey, New Mexico, South Carolina, Washington, Wisconsin

10

Colorado, Delaware, Florida, Georgia, Michigan, North Carolina, Ohio, Rhode Island, Tennessee, Texas

1

Louisiana

HOLDING PREPARATION PROGRAMS ACCOUNTABLE FOR RESULTS

The ultimate goal of teacher preparation programs should be to produce teachers who are effective in educating their students and ensure that they are ready for college and career. As programs operate by virtue of state approval, it is the state's responsibility to connect approval to accountability measures that ensure high performance. While this goal may have been hard to assess a few years ago, that is no longer the case. Redesigned evaluations of teacher effectiveness in the majority of states offer an opportunity for states to collect meaningful objective data on the performance of program graduates. To date, few states connect their process of approving teacher preparation programs to measurable outcome data about programs' graduates.



PENNSYLVANIA TEACHER PREP ACCOUNTABILITY SNAPSHOT

- State collects data that connects student achievement gains to teacher preparation programs.
- State collects other meaningful data that reflect program performance.
- State has set minimum standards for program performance.
- State publishes an annual report card on its own website.
- State retains full authority over its approval process.

Yes No

Pennsylvania's approval process for its traditional and alternate route teacher preparation programs does not hold programs accountable for the quality of the teachers they produce.

Most importantly, Pennsylvania does not collect or report data that connect student achievement gains to teacher preparation programs. The state does rely on some other objective, meaningful data to measure the performance of its traditional teacher preparation programs. Pennsylvania requires that programs "demonstrate how information from systematic evaluations of their programs, including students and educator evaluators, and achievement levels of candidates for certification in the Department-designed assessment program are used for continual program improvement." However, these data are not collected for alternate route programs. The state also collects programs' annual summary licensure test pass rates (80 percent of pro-

RECOMMENDATIONS

■ Collect data that connect student achievement gains to teacher preparation programs.

As one way to measure whether programs are producing effective classroom teachers, Pennsylvania should consider the academic achievement gains of students taught by programs' graduates, averaged over the first three years of teaching. Data that are aggregated to the institution (e.g., combining elementary and secondary programs) rather than disaggregated to the specific preparation program are not useful for accountability purposes. Such aggregation can mask significant differences in performance among programs.

■ Report other meaningful data that reflect program performance.

Although measures of student growth are an important indicator of program effectiveness, they cannot be the sole measure of program quality for several reasons, including the fact that many programs may have graduates whose students do not take standardized tests. The accountability system must therefore include other objective measures that show how well all programs are preparing teachers for the classroom. Pennsylvania should expand its requirements to its alternate routes and also include such measures as:

1. Satisfaction ratings by school principals and teacher supervisors of programs' student teachers, using a standardized form to permit program comparison
2. Average raw scores of teacher candidates on licensing tests, including academic proficiency, subject-matter and professional-knowledge tests
3. Number of times, on average, it takes teacher candidates to pass licensing tests
4. Five-year retention rates of graduates in the teaching profession.

gram completers must pass their licensure exams). Regrettably, the 80 percent pass-rate standard, while common among many states, sets the bar quite low and is not a meaningful measure of program performance.

Further, in the past three years, no programs in the state have been identified as low performing—an additional indicator that programs lack accountability. The state’s website does not include a report card that allows the public to review and compare program performance.

In Pennsylvania, there is some overlap of accreditation and state approval. Although CAEP and the state conduct concurrent on-site reviews, Pennsylvania delegates its subject-matter program review process to CAEP.

Supporting Research

Pennsylvania Code Title 22 Chapter 49.14

Title II State Reports

<https://title2.ed.gov>

www.ncate.org

PENNSYLVANIA RESPONSE TO ANALYSIS

While not asked to respond to the full analysis for this section, Pennsylvania did not indicate any policy updates related to teacher prep program accountability.

RECOMMENDATIONS CONTINUED

■ Establish the minimum standard of performance for each category of data.

Merely collecting the types of data described above is insufficient for accountability purposes. The next and perhaps more critical step is for the state to establish precise minimum standards for teacher preparation program performance for each category of data. Pennsylvania should be mindful of setting rigorous standards for program performance, as its current requirement that 80 percent of program completers must pass their licensing exams is too low a bar. Programs should be held accountable for meeting rigorous standards, and there should be consequences for failing to do so, including loss of program approval.

■ Publish an annual report card on the state’s website.

Pennsylvania should produce an annual report card that shows all the data the state collects on individual teacher preparation programs, which should be published on the state’s website at the program level for the sake of public transparency. Data should be presented in a manner that clearly conveys whether programs have met performance standards.

■ Maintain full authority over the process for approving teacher preparation programs.

Pennsylvania should ensure that it is the state that considers the evidence of program performance and makes the decision about whether programs should continue to be authorized to prepare teachers.

Figure 26

Do states hold teacher preparation programs accountable?

	OBJECTIVE PROGRAM-SPECIFIC DATA COLLECTED	MINIMUM STANDARDS FOR PERFORMANCE SET	DATA PUBLICLY AVAILABLE ON WEBSITE
Alabama	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>
Alaska	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arizona	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Arkansas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
California	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Colorado	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Connecticut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delaware	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
District of Columbia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Florida	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ²
Georgia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hawaii	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Idaho	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Illinois	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Indiana	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Iowa	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kansas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kentucky	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ²
Louisiana	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> ²
Maine	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>
Maryland	<input checked="" type="checkbox"/> ³	<input type="checkbox"/>	<input type="checkbox"/>
Massachusetts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Michigan	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> ¹	<input checked="" type="checkbox"/>
Minnesota	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mississippi	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>
Missouri	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Montana	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>
Nebraska	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nevada ¹	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Hampshire	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Jersey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Mexico	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New York	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
North Carolina	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ²
North Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ohio ¹	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Oklahoma	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Oregon	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PENNSYLVANIA	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>
Rhode Island	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
South Carolina ¹	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
South Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tennessee	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Texas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Utah	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vermont	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Virginia	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>
Washington	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
West Virginia	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>	<input type="checkbox"/>
Wisconsin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wyoming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35	4	18	

SUMMARY OF TEACHER PREP PROGRAM ACCOUNTABILITY FIGURES

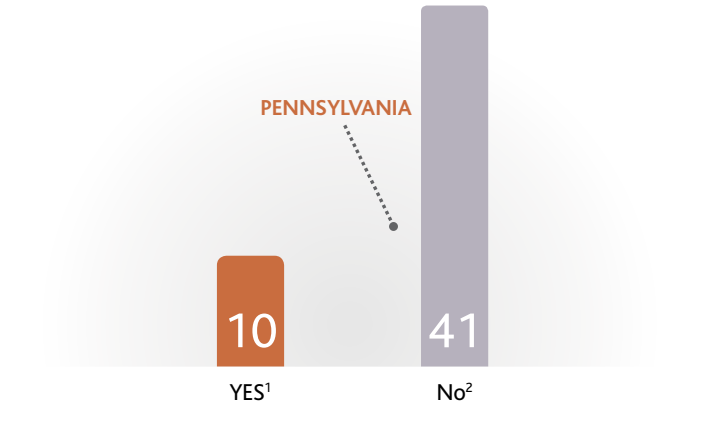
- **Figure 26**
Accountability requirements
- **Figure 27**
Use of student achievement data

★ EXAMPLES OF BEST PRACTICE

No state has yet implemented a full accountability system for teacher preparation that features data, including student achievement gains, connected to teacher preparation programs (not just the institution level); has clear minimum standards of performance for those data; and publishes the results for use by prospective teachers, hiring school districts and the general public. Some states are well on their way. **Georgia** and **Louisiana** collect student achievement gains and set minimum standards of performance, while **Ohio** and **Tennessee** have published report cards that include connections to student achievement gains.

Figure 27

Do states connect student achievement data to teacher preparation programs?



- Strong Practice:** Colorado, Delaware, Florida, Georgia, Louisiana, North Carolina, Ohio, Rhode Island, Tennessee, Texas
- Alabama, Alaska, Arizona, Arkansas, California, Connecticut, District of Columbia³, Hawaii³, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland³, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York³, North Dakota, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming
- Included in state's Race to the Top plan, but not in policy or yet implemented.

Figure 26

- For traditional preparation programs only.
- State does not distinguish between alternate route programs and traditional preparation programs in public reporting.
- For alternate routes only.

Teacher Preparation Policy Priorities for Pennsylvania

Prepare all teachers to meet the instructional shifts of college- and career-readiness standards for students.

- Strengthen preparation requirements to ensure teacher candidates have the ability to address the use of informational texts as well as incorporate complex informational texts into classroom instruction.
Priority for elementary, middle, secondary and special education teacher preparation.
- Through testing frameworks or teacher standards, include literacy skills and using text to build content knowledge in history/social studies, science, technical subjects and the arts.
Priority for elementary, secondary and special education teacher preparation.
- Ensure teachers are prepared to intervene and support students who are struggling with reading.
Priority for secondary teacher preparation.

Additional priorities for elementary teacher preparation:

- Require all elementary teacher candidates to pass a rigorous content test that assesses knowledge of all core subjects, including mathematics, and requires a meaningful passing score for each area.
- Require a rigorous assessment in the science of reading instruction.
- Require a content specialization in an academic subject area.

Additional priorities for secondary teacher preparation:

- Require secondary science and social studies teachers to pass a content test for each discipline they are licensed to teach.

Additional priorities for special education teacher preparation:

- Require elementary special education candidates to pass a rigorous content test as a condition of initial licensure, as well as a rigorous assessment in the science of reading instruction.
- Ensure secondary special education teachers possess adequate content knowledge for the grades and subjects they teach.

Raise admission requirements:

- Limit admission to teacher preparation programs to candidates in the top half of the college-going population, measured by a test normed to the general college-bound population or minimum GPA.

Hold preparation programs accountable:



- Collect performance data to monitor programs, including student achievement gains.
- Set minimum standards for program performance with consequences for failure to meet those standards.
- Publicly report performance data.



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NCTQ is available to work with individual states to improve teacher policies.

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