

2012 State Teacher Policy Yearbook

Improving Teacher Preparation in **Pennsylvania**

State Policies in Need of Attention

- Admission into Preparation Programs
- Elementary Teacher Preparation
- Secondary Teacher Preparation
- Special Education Teacher Preparation
- Student Teaching
- Teacher Preparation Program Accountability



Acknowledgments

STATES

State education agencies remain our most important partners in this effort, and their continued cooperation has helped to ensure the factual accuracy of the final product. Although this year's edition did not require the extensive review that the 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 July 2012 for comment and correction; states also received a final draft of their reports a month prior to release. All but one state responded to our inquiries. We thank the states for their ongoing willingness to engage in dialogue with us.

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National Council on Teacher Quality

Improving Teacher Preparation in Pennsylvania

The 2012 *State Teacher Policy Yearbook* puts a spotlight on the critical issue of teacher preparation. The 2011 edition of the *Yearbook* provided a comprehensive review of all aspects of states' teacher policies, and although considerable progress was noted in areas related to teacher effectiveness, the same could not be said for teacher preparation. While many states have made advancements in teacher evaluation and tenure requirements, teacher preparation has yet to capture states' attention.

Good preparation does not guarantee that teachers will ultimately be effective, but there is much more that can be done to help ensure that new teachers are "classroom ready." This edition of the *Yearbook* offers states a roadmap of their teacher preparation policies, identifying priorities that need critical attention and also identifying low-hanging fruit, policy changes that states can implement in relatively short order.



Current Status of Pennsylvania's Teacher Preparation Policy

Last year's *State Teacher Policy Yearbook* provided an in-depth analysis of each of the topics identified below. The 2012 score includes any policy changes identified in the last year. The  symbol indicates a score increase from 2011.

Yearbook Goal	Topic	2012 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>Secondary Teacher Preparation in Social Studies</i>	
1-I	<i>Special Education Teacher Preparation</i>	
1-J	<i>Assessing Professional Knowledge</i>	 
1-K	<i>Student Teaching</i>	
1-L	<i>Teacher Preparation Program Accountability</i>	

 DOES NOT MEET
  MEETS ONLY A SMALL PART
  PARTIALLY MEETS
  NEARLY MEETS
  FULLY MEETS

2012 Policy Update for Pennsylvania

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

■ Elementary Teacher Preparation

Effective September 1, 2013, teachers with the new PK-4 certification will be required to pass all three modules of the Pennsylvania Educator Certification Test (PECT). Module 1 includes child development, learning and assessment (60%) and collaboration and professionalism (40%). Module 2 includes language and literacy development (66%) and social studies, arts and humanities (34%). Module 3 includes mathematical concepts and learning (50%) and science and health (50%). www.pa.nesinc.com

■ Elementary Teacher Preparation in Reading Instruction

Pennsylvania released additional information regarding its reading test for elementary teacher candidates. "Module 2" of the PECT test combines language and literacy development (66%) with social studies, arts and humanities (34%). Therefore, the science of reading portion does not constitute a stand-alone assessment. http://www.pa.nesinc.com/CONTENT/HTML_FRAG/STUDYGUIDE/Study_Guide_006007008_obj.htm

■ Middle School Teacher Preparation

Middle school teachers (4-8) must now choose either a concentration in the subject area (30 credit hours), or a concentration in the subject area plus another content area (a minimum of 21 credit hours in each). In addition, all new middle school teachers are now required to pass all subtests that comprise the Praxis II Core Assessment test, as well as the Subject Concentration test for each area they plan to teach. The Core Assessment is comprised of three subtests: pedagogy, English language arts and social studies, and math and science. The Subject Concentration assessments include social studies, English language arts, math and science. http://www.portal.state.pa.us/portal/server.pt/community/institutional_program_approval/8817
www.ets.org/praxis

■ Assessing Professional Knowledge

Elementary teachers are still required to pass a pedagogy test, but now the state includes it as a subtest in its new PECT assessment. Middle-level teachers are now also required to pass a pedagogy subtest as part of the Grades 4-8 Core Assessment. <http://www.ets.org/praxis/pa/requirements>

■ Alternate Routes to Certification

Pennsylvania revised the guidelines for the Teacher Intern Certification Program and added a new route, the Residency Certificate Program.

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. States were also asked to review NCTQ's analysis of teacher preparation authority (See Figure 20).

Pennsylvania was helpful in providing NCTQ with additional information about policy changes related to teacher preparation. The state added that its K-12 preparation program guidelines require a professional core of courses, early and varied field experiences, and student teaching. However, the subject-specific content requirements for K-12 programs are unchanged from the Chapter 354 General Standards and Specific Program Guidelines for State Approval of Professional Educator Programs. Further, the framework describes the professional knowledge, skills and competencies that K-12 teachers will learn by completing a prescribed sequence of courses (including field placements). Guide-

lines discuss the K-12 program design, professional core rationale, candidate competencies, Pennsylvania Academic Standards and Assessments in a standards-aligned system, faculty, field experiences and student teaching, new teacher support, and an appendix containing the specific requirements for accommodations and adaptations for diverse learners in inclusive settings and meeting the needs of English language learners. A similar framework has been designed for secondary preparation programs. The state also described guidelines for its 4-8, special education and alternate route programs.

Pennsylvania also noted that as of the 2010-2011 academic year, the following criteria are used to determine whether a preparation program is low performing: the program receives a conditional approval status during major review; the three-year average for summary pass rates is below 80 percent; the three-year average for each single assessment pass rate (both completers and enrolled students) is below 80 percent; and the number of candidates reported as program completers is low compared to the number of candidates enrolled in each initial preparation program. The state added that as part of the state's new major review process implemented in late 2012, districts will be asked to complete and submit standardized surveys related to how well particular institutions of higher education are preparing new teachers hired by the district.

Pennsylvania was also helpful in providing NCTQ with additional information about state authority for teacher preparation and licensing.

COMING SOON

NCTQ Teacher Prep Review

Preparing teachers to be effective and successful in the classroom requires both the strong state policy framework described in the *Yearbook* and quality implementation by states' teacher preparation programs.

How are **Pennsylvania's** programs doing? NCTQ will soon answer that question with our forthcoming review of the nation's higher education-based teacher preparation programs that produce 99 percent of traditionally-prepared teachers. The *Review* will find the programs that are doing the best job preparing tomorrow's educators, those that need to improve and those that need to be radically restructured.

The *Review* will be released in Spring 2013. Find out more at www.nctq.org/p/edschools.

For a sneak peek, see page 6.

Figure 1

Delivering well-prepared teachers

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

Teacher Preparation Policy Checklist for States

1.	Raise admission standards.	<ul style="list-style-type: none"> ✓ Require teacher candidates to pass a test of academic proficiency that assesses reading, writing and mathematics skills as a criterion for admission into teacher preparation programs. ✓ Require preparation programs to use a common test normed to the general college-bound population.
2.	Align teacher preparation with Common Core State Standards.	<ul style="list-style-type: none"> ✓ Ensure that coursework and subject-matter testing for elementary teacher candidates are well aligned with standards. ✓ Ensure that teacher preparation programs prepare elementary teaching candidates in the science of reading instruction and require a rigorous assessment of reading instruction. ✓ Require teacher preparation programs to provide mathematics content specifically geared to the needs of elementary teachers.
3.	Improve clinical preparation.	<ul style="list-style-type: none"> ✓ Ensure that cooperating teachers have demonstrated evidence of effectiveness as measured by student learning. ✓ Require summative clinical experience for all prospective teachers that includes at least 10 weeks of full-time student teaching.
4.	Raise licensing standards.	<ul style="list-style-type: none"> ✓ Eliminate K-8 generalist licenses. ✓ Require subject-matter testing for middle school teacher candidates. ✓ Require subject-matter testing for secondary teacher candidates. ✓ Require middle school and secondary science and social studies teachers to pass a test of content knowledge that ensures sufficient knowledge of the subjects taught.
5.	Don't lower the bar for special education teachers.	<ul style="list-style-type: none"> ✓ Do away with K-12 special education teacher licenses. ✓ Require special education teachers to pass a subject-matter test for licensure that is no less rigorous than what is required of general education candidates.
6.	Hold teacher preparation programs accountable.	<ul style="list-style-type: none"> ✓ Collect data that connect student achievement gains to teacher preparation programs. ✓ Gather other meaningful data that reflect program performance. ✓ Establish the minimum standard of performance for each category of data. ✓ Produce and publish an annual report card for each teacher preparation program.

Critical Issues for State Teacher Preparation Policy

Critical Attention: Admission into Teacher Preparation Programs



Pennsylvania does not ensure that teacher preparation programs admit candidates with strong academic records.

The demands of K-12 classrooms today require teachers with strong academic backgrounds who can positively affect student learning. To ensure that such strong candidates enter classrooms, it is important to set rigorous standards for entry into the teacher pipeline. This begins with teacher preparation program admissions.

Looking to international examples, such top-performing countries as Finland and South Korea admit prospective teacher candidates from the top 10 percent of the college-going population. While a bar that high is a long way from average standards in the United States, it seems reasonable and appropriate that states should limit access to teacher preparation programs to those who are in the top half of the college-going population in terms of academic achievement.

Most states limit their academic screening to basic skills tests, which generally assess only middle school-level skills and which are generally only normed to the prospective teacher population.

At present, 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.

NEXT STEPS FOR PENNSYLVANIA:

- **Require that teacher preparation programs screen candidates for academic proficiency prior to admission.**

While Pennsylvania's GPA requirement sets a rigorous bar, the state should also require candidates to pass a test of academic proficiency that assesses reading, mathematics and writing prior to program admission. Importantly, candidates should be permitted to submit scores on such rigorous tests as the SAT/ACT/GRE, not just to supplement a lower GPA but to demonstrate academic performance.

- **Require that programs use a common admissions test normed to the general college-bound population.**

Pennsylvania should require programs to use an assessment that demonstrates that candidates are academically competitive with all peers, regardless of their intended profession. Requiring a common test normed to the general college population would allow for the selection of applicants in the top half of their class while also facilitating program comparison.

49

Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, 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, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

1

Illinois

1

Texas

■ Consider requiring that candidates 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.

SNEAK PEEK: *Teacher Prep Review*

Are Pennsylvania's undergraduate teacher preparation programs in the *Review* sufficiently selective?

22% are not sufficiently selective.

The *Review* will be released in Spring 2013. Find out more at www.nctq.org/p/edschools.

1. New Hampshire is in the process of adopting a requirement that will make the test a condition of admission.

Figure 2

Do states appropriately test teacher candidates' academic proficiency?

	TEST NORMED TO COLLEGE-BOUND POPULATION PRIOR TO ADMISSION TO PREP PROGRAM	Test normed only to teacher candidates before admission to prep program	Test normed only to teacher candidates 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
District of Columbia	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>
Kentucky	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Louisiana	<input type="checkbox"/>	<input checked="" 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 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 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 type="checkbox"/>	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>
New Jersey	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
North Carolina	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
South Carolina	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vermont	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Virginia	<input type="checkbox"/>	<input checked="" 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"/>
	1	23	18	9

Critical Attention: Elementary Teacher Preparation



Pennsylvania does not ensure that new elementary teachers are ready to teach to the Common Core Standards.

To be effective, elementary teacher candidates need liberal arts coursework relevant to the K-6 classroom, and they should also be required to pass a rigorous content test that ensures appropriate subject-matter knowledge.

The Common Core State Standards, adopted by nearly all states including Pennsylvania, represent an effort to significantly raise expectations for the knowledge and skills American students will need for college readiness and global competitiveness. And Pennsylvania, like all states, must ensure that its teachers are prepared to teach to these high standards.

Although a “standards-based” approach grants greater flexibility to teacher preparation programs regarding program design, it is difficult to monitor or enforce absent a rigorous test. Further, alignment of preparation program instruction with student learning standards should be augmented with a broader and deeper content perspective than what will actually be taught in the elementary classroom.

Unfortunately, Pennsylvania’s policies fail to ensure that elementary teacher candidates will have the subject-area knowledge necessary to teach to these standards. The state does not require a subject-matter test that reports subscores in all areas, and its coursework requirements lack the specificity to guarantee relevancy to the elementary classroom. In addition, Pennsylvania does not ensure that teachers will be adequately prepared in the science of reading instruction, another key element of the Common Core State Standards.

NEXT STEPS FOR PENNSYLVANIA:

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

Pennsylvania should ensure that its elementary content test is appropriately aligned with the Common Core State Standards and require separate, meaningful passing scores for each area on the test. 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. (The state’s new content test includes three modules, but only two are content-based.)

- **Require teacher preparation programs to provide mathematics content specifically geared to the needs of elementary teachers and require candidates to pass a rigorous math assessment.**

Although Pennsylvania requires knowledge in some key areas of mathematics, the state should require teacher preparation programs to provide mathematics content specifically geared to the needs of elementary teachers. This includes specific coursework in foundations, algebra and geometry, with some statistics. Pennsylvania should also require a rigorous assessment that reports a separate subscore for and evaluates mathematics knowledge beyond an elementary school level and challenges candidates’ understanding of underlying mathematics concepts.

44

Alaska, Arizona, Arkansas, Colorado, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Mississippi, Missouri, Montana, Nebraska, Nevada, 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

6

Alabama, California, Connecticut, Indiana, Minnesota, New Hampshire

1

Massachusetts

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

Pennsylvania should require a rigorous reading assessment to ensure that its elementary 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. Pennsylvania's new test is combined with other subject areas and does not specifically report a subscore for the science of reading.

■ **Ensure that teacher preparation programs deliver a comprehensive program of study in broad liberal arts coursework.**

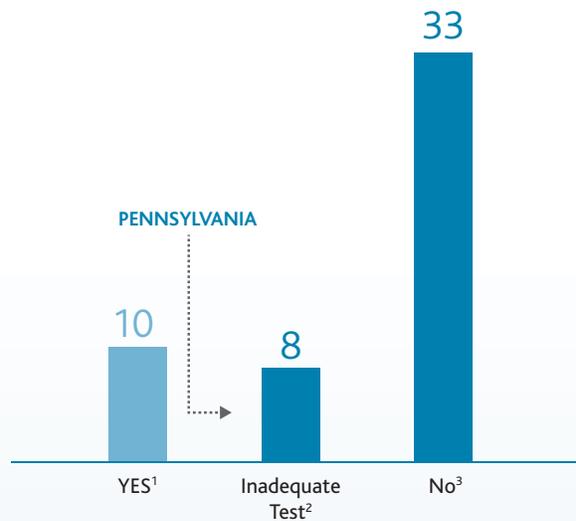
Pennsylvania should either articulate a more specific set of standards or establish more comprehensive coursework requirements for elementary teacher candidates that align with the Common Core Standards to ensure that candidates will complete coursework relevant to the common topics in elementary grades. An adequate curriculum is likely to require approximately 36 credit hours in the core subject areas of English, science, social studies and fine arts. Presently, Pennsylvania requires that all teachers must complete at least six semester credit hours in college-level English composition and literature. The state has also articulated a broad set of standards for programs to apply in preparing elementary candidates, but these standards are far too ambiguous to set a meaningful standard for holding either programs or teachers accountable.

■ **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. This 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 3

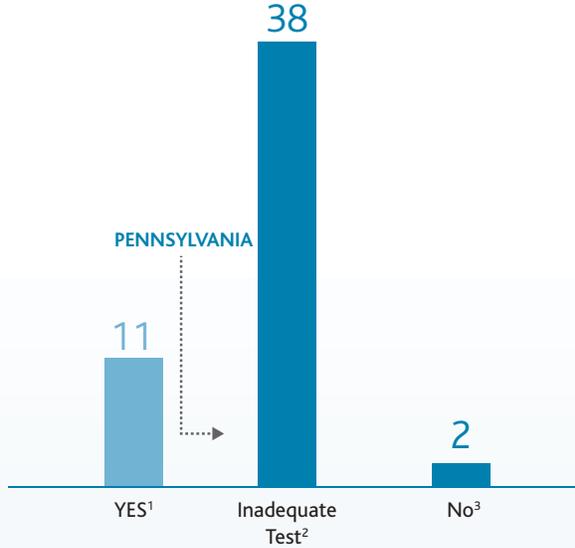
Do states measure new teachers' knowledge of the science of reading?



1. **Strong Practice:** Alabama⁴, Connecticut, Massachusetts, Minnesota⁵, New Hampshire, New Mexico⁶, Oklahoma, Tennessee, Virginia, Wisconsin
2. California, Florida, Georgia, Idaho, New York, Oregon, Pennsylvania, Texas
3. Alaska, Arizona, Arkansas, Colorado, Delaware, District of Columbia, Hawaii, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Michigan, Mississippi, Missouri, Montana, Nebraska, Nevada, New Jersey, North Carolina⁷, North Dakota, Ohio, Rhode Island, South Carolina, South Dakota, Utah, Vermont, Washington, West Virginia, Wyoming
4. Alabama's reading test spans the K-12 spectrum.
5. Based on the limited information available about the test on Minnesota's website.
6. Test is under development and not yet available for review.
7. North Carolina has adopted a task force recommendation to require the Foundations of Reading test. Rules have yet to be promulgated, including whether the test will be required for initial licensure. Current rules require such tests for professional licensure only.

Figure 4

Do states measure new elementary teachers' knowledge of math?



1. Strong Practice: Alabama, Connecticut, Indiana, Kentucky, Massachusetts, Minnesota, New Hampshire, New Jersey, Rhode Island, Utah, Vermont

2. Alaska, Arizona, Arkansas, California, Colorado, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Iowa, Kansas, Louisiana, Maine, Maryland, Michigan, Mississippi, Missouri, Nevada, New Mexico, New York⁴, North Carolina⁵, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Texas, Virginia, Washington, West Virginia, Wisconsin, Wyoming

3. Montana, Nebraska

4. New York is in the process of developing a stand-alone math test.

5. North Carolina has adopted a task force recommendation to require the Massachusetts Test of General Curriculum, including the math subtest. Rules have yet to be promulgated, including whether the test will be required for initial licensure. Current rules require such tests for professional licensure only.

- Testing is not required for initial licensure.
- The required test is a questionable assessment of content knowledge, instead emphasizing methods and instructional strategies.
- Massachusetts requires a general curriculum test that does not report scores for each elementary subject. A separate score is reported for math (see Figure 4).
- North Carolina has adopted a task force recommendation to require the Massachusetts Test of General Curriculum. Rules have yet to be promulgated, including whether the test will be required for initial licensure. Current rules require such tests for professional licensure only.
- Oregon allows "alternative assessment" for candidates who fail twice.

Figure 5

Do states ensure that elementary teachers know core content?

	ELEMENTARY CONTENT TEST WITH SEPARATE 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Arkansas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
District of Columbia	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Florida	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
Idaho	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Maryland	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ²	<input type="checkbox"/>
Massachusetts	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ³	<input type="checkbox"/>
Michigan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
Nevada	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ²	<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 type="checkbox"/>	<input checked="" type="checkbox"/> ⁴
North Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ohio	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Oklahoma	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oregon	<input type="checkbox"/>	<input checked="" type="checkbox"/> ⁵	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ²	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wisconsin	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wyoming	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	9	9	29	4

Figure 6

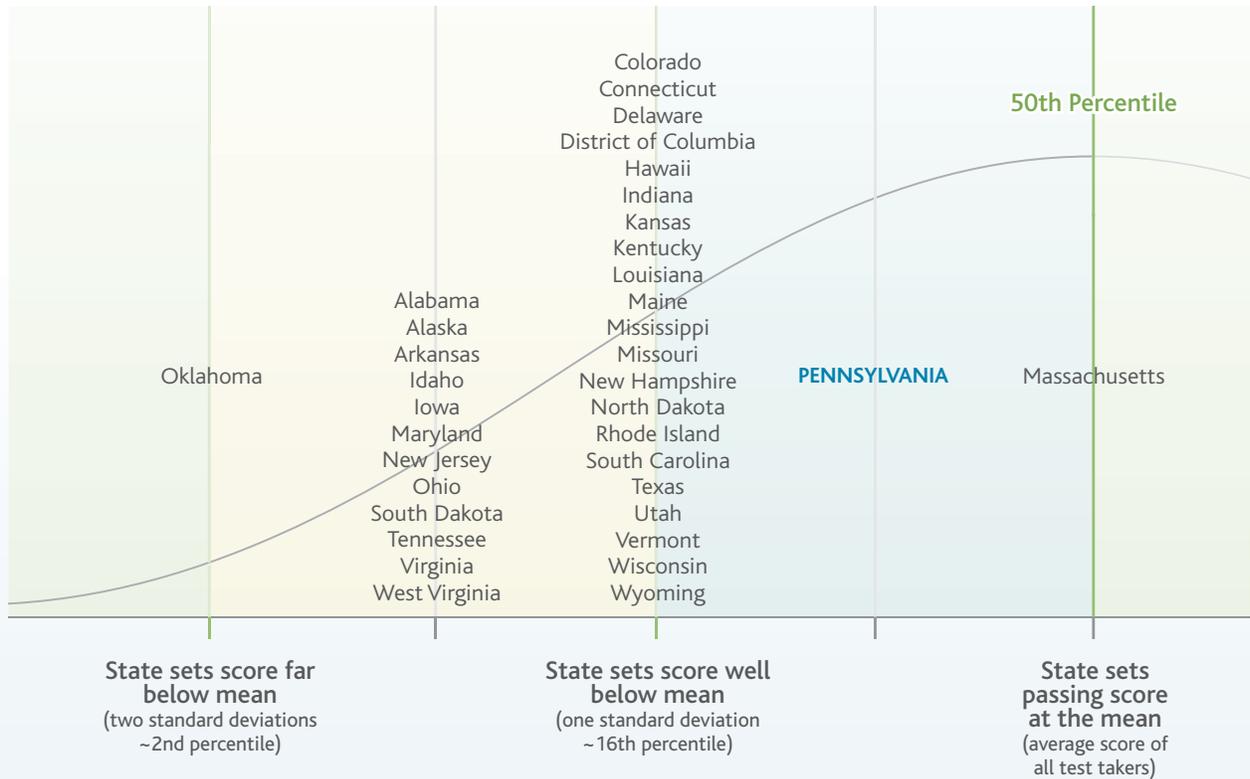
Do states expect elementary teachers to have in-depth knowledge of core content?

	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 type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>	<input type="checkbox"/>
Alaska	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■	■	■	<input type="checkbox"/>	■	<input type="checkbox"/>	■					
Arizona	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■					
California	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	★	★	★	★	<input type="checkbox"/>	★	<input type="checkbox"/>	★	
Colorado	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>	■	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Delaware	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 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 type="checkbox"/>	■	■	★	<input type="checkbox"/>	■
Georgia	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	★	★	<input type="checkbox"/>	■	<input type="checkbox"/>	★	■	■	
Hawaii	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■	■	■	<input type="checkbox"/>	■	<input type="checkbox"/>	■					
Idaho	<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"/>	■	
Illinois	■	■	★	■	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	■	<input type="checkbox"/>	★	<input type="checkbox"/>	■	★	<input type="checkbox"/>	■	
Indiana	■	■	★	■	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	■	■	★	★	★	■	★	■	
Iowa	<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"/>	
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"/>	■	
Kentucky	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■	■	■	<input type="checkbox"/>	■	<input 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"/>	
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"/>	
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"/>	
Massachusetts	<input type="checkbox"/>	<input type="checkbox"/>	■	■	<input type="checkbox"/>	<input type="checkbox"/>	■	<input type="checkbox"/>	■	■	■	■	<input type="checkbox"/>	■	■	<input type="checkbox"/>	■	
Michigan	<input type="checkbox"/>	<input type="checkbox"/>	★	★	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	■	■	★	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	■	
Minnesota	<input type="checkbox"/>	<input type="checkbox"/>	★	★	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	■	■	★	<input type="checkbox"/>	■	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Mississippi	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■	■	■	<input type="checkbox"/>	■	<input 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"/>	■					
Montana	<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"/>	■	
Nebraska	<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"/>	
New Hampshire	<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 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"/>	
New Mexico	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	■	■	■	■	■	■	■	<input 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"/>	
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"/>	
North Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■	■	■	<input type="checkbox"/>	■	<input 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"/>	
Oklahoma	<input type="checkbox"/>	<input type="checkbox"/>	★	■	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	■	■	★	<input type="checkbox"/>	■	★	<input type="checkbox"/>	■	
Oregon	<input type="checkbox"/>	<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 type="checkbox"/>	■	■	■	■	■	■	■	■	■	<input type="checkbox"/>	■	
Rhode Island	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>	■	■	■	<input type="checkbox"/>	■	<input type="checkbox"/>	■					
South Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■	■	■	<input type="checkbox"/>	■	<input type="checkbox"/>	■					
Tennessee	<input type="checkbox"/>	<input type="checkbox"/>	★	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	■	■	★	■	■	★	<input type="checkbox"/>	■	
Texas	<input type="checkbox"/>	<input type="checkbox"/>	★	■	<input type="checkbox"/>	<input type="checkbox"/>	★	★	★	★	★	■	■	<input type="checkbox"/>	★	★	★	
Utah	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■	■	■	<input type="checkbox"/>	■	<input type="checkbox"/>	■					
Vermont	<input type="checkbox"/>	<input 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 type="checkbox"/>	★	★	★	★	★	★	★	★	★	<input type="checkbox"/>	<input type="checkbox"/>	
Washington	<input type="checkbox"/>	<input type="checkbox"/>	★	■	<input 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"/>	
Wisconsin	<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"/>	
Wyoming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	■	■	■	<input type="checkbox"/>	■	<input type="checkbox"/>	■					

■ Subject mentioned ★ Subject covered in depth

Figure 7

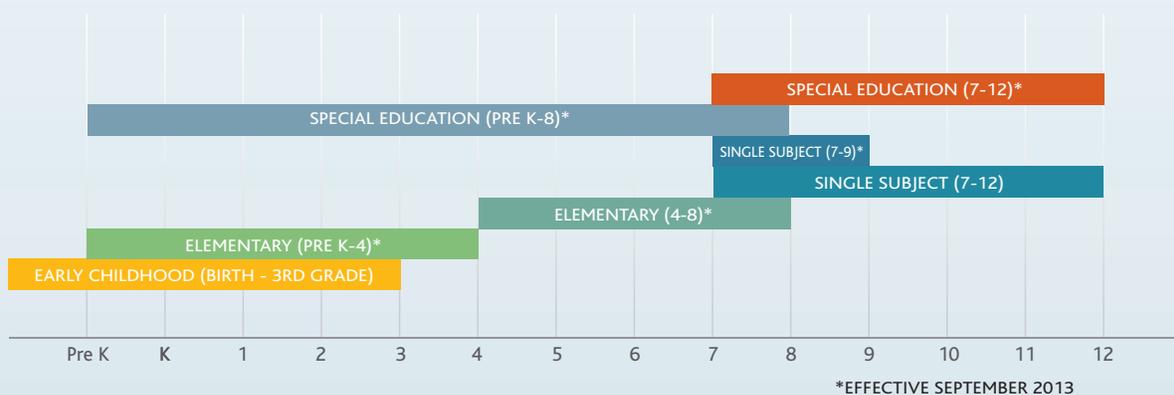
Where do states set the passing score on elementary content licensure tests¹?



¹ Based on the most recent technical data that could be obtained; data not available for Arizona, California, Florida, Georgia, Illinois, Michigan, Minnesota, Nevada, New Mexico, New York, North Carolina, Oregon and Washington. Montana and Nebraska do not require a content test. Colorado score is for Praxis II, not PLACE. Alabama, Connecticut, Indiana, Kentucky, New Hampshire, New Jersey, Rhode Island, Utah and Vermont now require the Multiple Subjects test and Maryland, Nevada and South Carolina now require the Instructional Practice and Applications test. Both are new Praxis tests for which technical data are not yet available; analysis is based on previously required test.

Figure 8

Teacher licensure structure in Pennsylvania



Critical Attention: Middle School Teacher Preparation



Pennsylvania is on track to ensure that new middle school teachers will be prepared to teach appropriate grade-level content.

The middle school years are critical to students' education, yet the preparation and licensure requirements for middle school teachers often do not ensure that they are sufficiently prepared to teach grade-level content.

Too many states fail to distinguish the knowledge and skills needed by middle school teachers from those needed by an elementary teacher. Whether teaching a single subject in a departmentalized setting or teaching multiple subjects in a self-contained classroom, middle school teachers must be able to teach significantly more advanced content than what elementary teachers are expected to teach.

Commendably, Pennsylvania does not offer a K-8 generalist license. Candidates may choose between two design options. The first option is the completion of one concentration (30 credit hours) in either English/language arts and reading, math, science or social studies. Candidates must then also complete 12 credit hours in each of the remaining three areas. The second option is the completion of a concentration in two content areas. The state recommends a minimum of 21 credits in each content-area concentration, with 12 credits in each of the two remaining content areas. Further, all new middle school teachers are required to pass a Praxis II single-subject content test to attain licensure.

25

Alaska, Arizona, California, Idaho, Illinois, Iowa, Maine, Michigan, Minnesota, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, South Dakota, Tennessee, Texas, Utah, Washington, Wisconsin, Wyoming

3

Maryland, Massachusetts, New York

23

Alabama, Arkansas, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Indiana, Kansas, Kentucky, Louisiana, Mississippi, Missouri, New Jersey, Ohio, **PENNSYLVANIA**, Rhode Island, South Carolina, Vermont, Virginia, West Virginia

Figure 9

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	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
California	<input type="checkbox"/>	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>
Colorado	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Connecticut	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>
Georgia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hawaii	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Idaho	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Illinois	<input checked="" type="checkbox"/> ²	<input type="checkbox"/>	<input type="checkbox"/>
Indiana	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>
Louisiana	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maine	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
Minnesota	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mississippi	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Missouri	<input checked="" type="checkbox"/>	<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 type="checkbox"/>	<input checked="" type="checkbox"/>
New Jersey	<input checked="" type="checkbox"/>	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
North Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ohio	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oklahoma	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ³
Oregon	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ⁴
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
South Dakota	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tennessee	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Texas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utah	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Vermont	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Virginia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ⁵
Wyoming	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	32	5	14

1. California offers a K-12 generalist license for self-contained classrooms.
2. Illinois has repealed its K-9 license and is in the process of revising middle school certification requirements.
3. With the exception of mathematics.
4. Oregon offers 3-8 license.
5. Wisconsin offers 1-8 license.

Figure 10

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 license 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"/>
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"/> ¹
Colorado	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hawaii	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Idaho	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ²	<input type="checkbox"/>
Illinois	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> ³	<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 type="checkbox"/>	<input checked="" type="checkbox"/> ⁴
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 type="checkbox"/>	<input checked="" 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"/>	<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"/> ⁶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
North Carolina	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/> ⁷	<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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Texas	<input type="checkbox"/>	<input checked="" 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"/>
	25	4	15	7

1. Candidates teaching multiple subjects only have to pass the elementary test.
2. For K-8 license, Idaho also requires a single-subject test.
3. Illinois has repealed its K-9 license. The state is in the process of revising its middle school certification requirements.
4. It is unclear how new legislation will affect testing requirements for middle school candidates.
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 education grades.
6. For nondepartmentalized classrooms, generalist in middle childhood education candidates must pass new assessment with three subtests.
7. Candidates opting for middle-level endorsement may either complete a major or pass a content test. Oregon allows "alternative assessment" for candidates who fail twice.

Critical Attention: Secondary Teacher Preparation



Pennsylvania could do more to ensure that new secondary teachers will be prepared to teach appropriate grade-level content.

Secondary teachers must be experts in the subject matter they teach, and only a rigorous test ensures that teacher candidates are sufficiently and appropriately knowledgeable in their content area. Coursework is generally only indicative of background in a subject area; even a major offers no certainty of what content has been covered.

Yet not all states ensure that secondary teachers have sufficient content knowledge in the subjects they are licensed to teach. And nearly all states—even those that do generally require content testing for secondary teachers—allow some science and/or social studies teachers to teach with broad licenses that have significant loopholes.

Most high school science courses are specialized, and the teachers of these subjects are not interchangeable. Nonetheless, most states allow teachers to obtain general science or combination licenses across multiple science disciplines, and, in most cases, these teachers need only pass a general knowledge science exam that does not ensure subject-specific content knowledge. This means that a teacher with a background in biology could be fully certified to teach advanced chemistry or physics having passed only a general science test—and perhaps answering most of the chemistry or physics questions incorrectly.

Just as with broad field science, most states offer a general social studies license at the secondary level. For this certification, teachers can have a background in a wide variety of fields, ranging from history and political science to anthropology and psychology. Under such a license a teacher who majored in psychology could teach history to high school students having passed only a general knowledge test and answering most—and perhaps all—history questions incorrectly.

Commendably, Pennsylvania requires that its secondary teacher candidates pass a Praxis II content test to teach any core secondary subjects. However, the state offers secondary certifications in both general science and general social studies. Further, Pennsylvania also offers two additional combination certifications: general social sciences and citizenship education (a compilation of U.S. history, world history, government/civics/political science, geography and economics). Teachers with these licenses are not required to pass individual content tests for each discipline they are permitted to teach.

NEXT STEPS FOR PENNSYLVANIA:

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

By allowing a general science certification—and only requiring a general knowledge science exam—Pennsylvania is not ensuring that these secondary teachers possess adequate subject-specific content

12

Alaska, Arizona, California, Colorado, Iowa, Montana, Nebraska, New Hampshire, North Carolina, Oregon, Washington, Wyoming

36

Alabama, Arkansas, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Mississippi, Missouri, Nevada, New Jersey, New Mexico, New York, North Dakota, Ohio, Oklahoma, **PENNSYLVANIA**, Rhode Island, South Carolina, South Dakota, Texas, Utah, Vermont, Virginia, West Virginia, Wisconsin

3

Indiana, Minnesota, Tennessee

knowledge. The state's required assessment combines all subject areas (e.g., biology, chemistry, physics) and does not report separate scores for each subject area.

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

By allowing a general social studies certification—and only requiring a general knowledge social studies exam—Pennsylvania is not ensuring that its secondary teachers possess adequate subject-specific content knowledge. The state's required assessment combines all subject areas (e.g., history, geography, economics) and does not report separate scores for each subject area.

1. It is unclear at this point how new legislation will affect content test requirements for secondary teachers.

Figure 11
Do all secondary teachers have to pass a content test in every subject area they are licensed to teach?

	YES	Loophole in science	Loophole in social studies	No
Alabama	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Alaska	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
California	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
Delaware	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
District of Columbia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Florida	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Georgia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hawaii	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Idaho	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Illinois	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Indiana	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Iowa ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Kansas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kentucky	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Louisiana	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Maine	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Maryland	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Minnesota	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mississippi	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Missouri	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
Nevada	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Hampshire	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
New Jersey	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Mexico	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New York	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
North Carolina	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
North Dakota	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ohio	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Oklahoma	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Oregon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PENNSYLVANIA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rhode Island	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
South Carolina	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
South Dakota	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tennessee	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Texas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Utah	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Vermont	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Virginia	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Washington	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
West Virginia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wisconsin	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wyoming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	3	28	34	12

Critical Attention: Special Education Teacher Preparation



Pennsylvania could do more to ensure that new special education teachers will know the subject matter that they will be required to teach.

Across the country, states are raising performance expectations to ensure that students who graduate from high school are college and career ready. These more rigorous standards apply to special education students just as they do to other students. The challenge of ensuring that teachers are prepared to teach to the new Common Core State Standards is even more pronounced for special education teachers, who typically have had to meet an even lower bar for content preparation than general educators. And certification rules for special education teachers that do not differentiate between teaching at the elementary and secondary levels only exacerbate the problem.

Allowing a generic K-12 special education certification makes it virtually impossible and certainly impractical for states to ensure that these teachers know all the subject matter they are expected to teach; this issue is just as valid in terms of pedagogical knowledge.

While a K-12 special education license may be appropriate for low-incidence special education students, such as those with severe cognitive disabilities, it is deeply problematic for the overwhelming majority of high-incidence special education students who are expected to learn grade-level content.

Commendably, Pennsylvania does not offer a K-12 special education certification. The state requires dual certification for elementary special education candidates in one of the following: early childhood, elementary/middle or reading specialist. Regrettably, not all options offered by the state ensure that all candidates will be required to pass a content test, namely those who opt for a dual certification as a reading specialist. Further, although it is commendable that Pennsylvania holds some of its elementary special education teachers to the same preparation and testing requirements as general elementary teachers, as noted in the elementary section, these standards are insufficient to ensure that teachers will be prepared to teach to the Common Core State Standards. Secondary special education teachers must have dual certification in either a secondary area or reading specialist; the latter would not require a content test.

NEXT STEPS FOR PENNSYLVANIA:

- **Provide a broad liberal arts program of study to elementary special education candidates and require that they pass the same content test as general education teachers.**

Pennsylvania should ensure that special education teacher candidates who will teach elementary grades possess knowledge of the subject matter at hand. Not only should the state require core-subject coursework relevant to the elementary classroom, but it should also require that these candidates pass the same subject-matter test required of all elementary teachers. Failure to ensure that teachers possess requisite content knowledge deprives special education students of the opportunity to reach their academic potential.

35

Alaska, Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Kansas, Kentucky, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Mexico, Nevada, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Utah, Virginia, Washington, Wyoming

16

Alabama, Arkansas, Iowa, Louisiana, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, **PENNSYLVANIA**, Rhode Island, Texas, Vermont, West Virginia, Wisconsin

0

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

Secondary special education teachers are frequently generalists who teach many core subject areas. 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 of requiring limited subject-matter testing is unacceptable and will not help special education students to meet rigorous learning standards. To provide a middle ground, Pennsylvania should consider a customized HOUSS 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.

1. Although the state does issue a K-12 certificate, candidates must meet discrete elementary and/or secondary requirements.

Figure 12

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	■	□	□
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	■ ¹	□	□
New Mexico	□	□	■
New York	■	□	□
North Carolina	□	□	■
North Dakota	□	■	□
Ohio	□	□	■
Oklahoma	□	□	■
Oregon	■	□	□
PENNSYLVANIA	■	□	□
Rhode Island	■	□	□
South Carolina	□	□	■
South Dakota	□	■	□
Tennessee	□	□	■
Texas	■ ¹	□	□
Utah	□	□	■
Vermont	■	□	□
Virginia	□	□	■
Washington	□	□	■
West Virginia	■	□	□
Wisconsin	■	□	□
Wyoming	□	■	□
	16	10	25

Figure 13

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

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

1. Although Oregon requires testing, the state allows an "alternative assessment" option for candidates who fail twice.
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 dual certification as a reading specialist are similarly exempted from the content test.
4. New York requires a multi-subject content test specifically geared to secondary special education candidates. It is divided into three subtests.

Critical Attention: Student Teaching



Pennsylvania does not ensure that teacher preparation programs will provide teacher candidates with a high-quality summative clinical experience.

The importance of clinical practice in teacher preparation has become a major area of focus. Student teaching is the final clinical experience of teacher preparation, and teacher candidates have only one chance to experience the best possible placement. Student teaching will shape candidates' own performance as teachers and help determine the type of school in which they will choose to teach. A mediocre student teaching experience, let alone a disastrous one, can never be undone.

Central to the quality of the student teaching experience is the classroom teacher who serves as the teacher candidate's mentor, or cooperating teacher. Only strong teachers with evidence of their effectiveness, as assessed by objective measures of student learning and the teachers' principals, should be able to serve as cooperating teachers. Yet placement is much more likely to be the luck of the draw. NCTQ's study *Student Teaching in the United States* found that three out of four teacher preparation programs fail to require that cooperating teachers must be effective instructors.

Pennsylvania commendably requires candidates to complete at least 12 weeks of full-time student teaching. However, although the state articulates some important requirements for cooperating teachers, it does not address the most essential: cooperating teachers' classroom effectiveness.

NEXT STEPS FOR PENNSYLVANIA:

- **Ensure that cooperating teachers have demonstrated evidence of effectiveness as measured by student learning.**

In addition to the ability to mentor an adult, cooperating teachers in Pennsylvania should also be carefully screened for their capacity to further student achievement. Research indicates that the only aspect of a student teaching arrangement that has been shown to have an impact on student achievement is the positive effect of selection of the cooperating teacher by the preparation program, rather than by the student teacher or school district staff.

- **Make the state's teacher evaluation system the basis for selecting cooperating teachers.**

Pennsylvania requires objective measures of student growth to be a significant criterion of its teacher evaluations. The state should therefore utilize its evaluation results, which provide evidence of effectiveness in the classroom, in the selection of effective cooperating teachers.

48

Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Idaho, Illinois, 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, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

0

3

Florida, Indiana, Tennessee

Figure 14

Do states require the elements of a high-quality student teaching experience?

	COOPERATING TEACHER SELECTED BASED ON EFFECTIVENESS	FULL TIME STUDENT TEACHING LASTS AT LEAST 10 WEEKS
Alabama	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Alaska	<input type="checkbox"/>	<input type="checkbox"/>
Arizona	<input type="checkbox"/>	<input type="checkbox"/>
Arkansas	<input type="checkbox"/>	<input checked="" type="checkbox"/>
California	<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	<input type="checkbox"/>	<input type="checkbox"/>
Hawaii	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Idaho	<input type="checkbox"/>	<input type="checkbox"/>
Illinois	<input type="checkbox"/>	<input type="checkbox"/>
Indiana ¹	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Iowa	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Kansas	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Kentucky	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Louisiana	<input type="checkbox"/>	<input type="checkbox"/>
Maine	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Maryland	<input type="checkbox"/>	<input type="checkbox"/>
Massachusetts	<input type="checkbox"/>	<input type="checkbox"/>
Michigan	<input type="checkbox"/>	<input type="checkbox"/>
Minnesota	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Mississippi	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Missouri	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Montana	<input type="checkbox"/>	<input type="checkbox"/>
Nebraska	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Nevada	<input type="checkbox"/>	<input type="checkbox"/>
New Hampshire	<input type="checkbox"/>	<input checked="" type="checkbox"/>
New Jersey	<input type="checkbox"/>	<input checked="" type="checkbox"/>
New Mexico	<input type="checkbox"/>	<input type="checkbox"/>
New York	<input type="checkbox"/>	<input type="checkbox"/>
North Carolina	<input type="checkbox"/>	<input checked="" type="checkbox"/>
North Dakota	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ohio	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Oklahoma	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Oregon	<input type="checkbox"/>	<input type="checkbox"/>
PENNSYLVANIA	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rhode Island	<input type="checkbox"/>	<input type="checkbox"/>
South Carolina	<input type="checkbox"/>	<input checked="" type="checkbox"/>
South Dakota	<input type="checkbox"/>	<input type="checkbox"/>
Tennessee	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Texas	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Utah	<input type="checkbox"/>	<input type="checkbox"/>
Vermont	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Virginia	<input type="checkbox"/>	<input type="checkbox"/>
Washington	<input type="checkbox"/>	<input checked="" type="checkbox"/>
West Virginia	<input type="checkbox"/>	<input checked="" type="checkbox"/> ²
Wisconsin	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wyoming	<input type="checkbox"/>	<input type="checkbox"/>

3 28

1. Based on new REPA II regulations.

2. Candidates can student teach for less than 12 weeks if determined to be proficient.

Critical Attention: Teacher Preparation Program Accountability



Pennsylvania does not hold its teacher preparation programs accountable for the effectiveness of the teachers they produce.

Teacher preparation programs operate by virtue of state approval. As such, it is up to states to connect that approval to accountability measures that ensure that all approved programs meet minimum performance standards. Such an accountability system informs the public—including prospective teachers seeking a program as well as districts hiring graduates—by shining a light on high performers as well as identifying those programs performing poorly.

Further, as more states begin to raise expectations for teachers by way of evaluations focused on effectiveness, there is an even greater need to hold teacher preparation programs accountable for the effectiveness of the teachers they produce. Although the quality of both the subject-matter preparation and professional sequence is crucial, there are also additional measures that can provide the state and the public with meaningful, readily understandable indicators of how well programs are doing when it comes to preparing teachers to be successful in the classroom.

Although it does not connect student achievement gains to teacher preparation programs, Pennsylvania does collect some program-specific, objective data that reflect traditional program performance, including evaluation results from program graduates. But the state has not established minimum performance standards for each category of data it collects that can be used for accountability purposes. Further, the state does not provide the public with meaningful, readily understandable indicators of how well programs are doing.

NEXT STEPS FOR PENNSYLVANIA:

■ 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.

■ Collect other meaningful, program-level 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:

37

Alaska, Arizona, Arkansas, California, Connecticut, Delaware, District of Columbia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Dakota, Oklahoma, Oregon, **PENNSYLVANIA**, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

12

Alabama, Colorado, Georgia, Kentucky, Michigan, Nevada, North Carolina, Ohio, Rhode Island, South Carolina, Tennessee, Texas

2

Florida, Louisiana

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

■ **Establish minimum standards of performance.**

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.

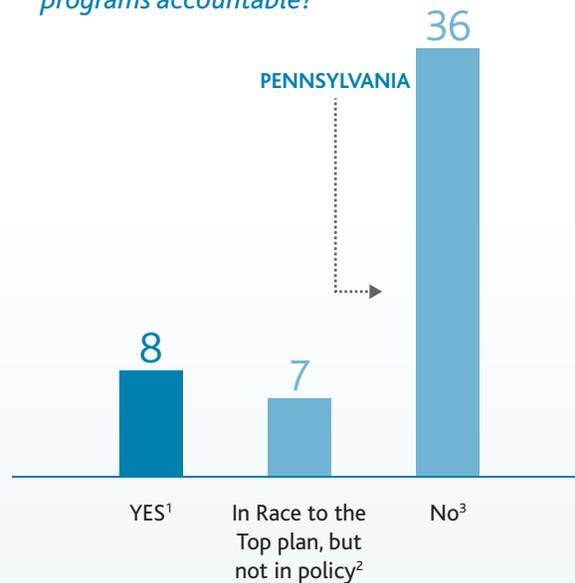
■ **Publish an annual report card on the state's website.**

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 teacher preparation program approval.**

There appears to be considerable overlap between the public process of state program approval and the private process of national accreditation in Pennsylvania. While it is not unreasonable that the state may wish to coordinate these processes for institutions also seeking national accreditation, 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 15
Do states use student achievement data to hold teacher preparation programs accountable?



1. **Strong Practice:** Colorado, Florida, Georgia, Louisiana, North Carolina, Ohio, Tennessee, Texas

2. Delaware, District of Columbia, Hawaii, Maryland, Massachusetts, New York, Rhode Island

3. Alabama, Alaska, Arizona, Arkansas, California, Connecticut, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, North Dakota, Oklahoma, Oregon, Pennsylvania, South Carolina, South Dakota, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming

Figure 16

Do states hold teacher preparation programs accountable?

	OBJECTIVE PROGRAM, SPECIFIC DATA COLLECTED	MINIMUM STANDARDS FOR PERFORMANCE SET	DATA PUBLICLY AVAILABLE ON WEBSITE
Alabama	■	■ ¹	■ ²
Alaska	□	□	□
Arizona	■	□	□
Arkansas	□	□	□
California	□	□	□
Colorado ³	■	□	■
Connecticut	□	□	□
Delaware	■ ⁴	□	□
District of Columbia	□	□	□
Florida	■	■	■ ²
Georgia	■	□	■ ²
Hawaii	□	□	□
Idaho	□	□	□
Illinois	■	□	□
Indiana ⁵	■	□	□
Iowa	■	□	□
Kansas	□	□	□
Kentucky	■	□	■ ²
Louisiana	■	■	■
Maine ¹	■	□	□
Maryland	■ ⁴	□	□
Massachusetts	■	□	■
Michigan	■	■ ¹	■
Minnesota	■	□	□
Mississippi	■ ¹	□	□
Missouri	■	□	□
Montana	■ ¹	□	□
Nebraska	□	□	□
Nevada ¹	■	■	□
New Hampshire ⁶	□	□	□
New Jersey ¹	■	□	□
New Mexico	□	□	□
New York	□	□	□
North Carolina	■	□	■ ¹
North Dakota	□	□	□
Ohio ¹	■	□	■
Oklahoma	□	□	□
Oregon	□	□	□
PENNSYLVANIA ¹	■	□	□
Rhode Island ¹	■	□	■
South Carolina ¹	■	□	■
South Dakota	□	□	□
Tennessee	■	□	■
Texas	■	□	■
Utah	□	□	□
Vermont	■	□	□
Virginia ¹	■	□	□
Washington	■ ⁴	□	□
West Virginia ¹	■	□	□
Wisconsin	■	□	■
Wyoming	□	□	□
33	5	15	

TEACHER PRODUCTION IN PENNSYLVANIA

States have long established requirements for teacher preparation and licensure and have lately turned their attention toward accountability systems for preparation programs. But one topic that has received little attention from states is the issue of teacher production. From the number of teachers who graduate from preparation programs each year, only a subset are certified and only some of those certified are actually hired in the state; the relationship between these numbers has important implications for related policymaking.

States are rightly focused on areas of chronic teacher shortages, such as secondary mathematics and science, but little consideration is given to areas of consistent oversupply, particularly the overproduction in most states of elementary teachers. While it is certainly desirable to produce a big enough pool to give districts choice in hiring, the substantial oversupply in some teaching areas is not good for the profession. Limited resources are squandered on individuals who will not go on to teach, most critically the scarce supply of student teaching placements with effective cooperating teachers. Admissions criteria, licensure requirements and program accountability standards may be unnecessarily depressed if the dots are not connected from graduation to certification to actual employment in a district.

Maryland's "Teacher Staffing Report" provides a model for other states. Published biennially, the report has been tracking staffing trends in the state for almost three decades. While its primary purpose is to determine teacher shortage areas, it also identifies areas of surplus. By collecting hiring data from districts, Maryland has a rich set of data that can inform policy decisions.

The latest edition of the "Teacher Staffing Report" can be found at: <http://www.marylandpublicschools.org/MSDE/divisions/certification/progapproval/mtsr>.

Pennsylvania teacher production data: NCTQ was unable to find any published data on teacher production in Pennsylvania that connects program completion, certification and hiring statistics.

1. Traditional preparation only.
2. Reported institutional data do not distinguish between candidates in the traditional and alternate route programs.
3. Required, but not yet available.
4. Alternate routes only.
5. Based on new REPA II regulations.
6. New Hampshire is in the process of adopting new reporting requirements.

Figure 17

What is the relationship between state program approval and national accreditation?

	STATE HAS ITS OWN APPROVAL PROCESS	Overlap of accreditation and state approval	National accreditation is required for program approval
Alabama	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Alaska	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Arizona	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Arkansas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
California	<input type="checkbox"/>	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>
Colorado	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Connecticut	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Delaware	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
District of Columbia	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Florida	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Georgia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hawaii	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Idaho	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Illinois	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Indiana	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Iowa	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kansas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Kentucky	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Louisiana	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Maine	<input type="checkbox"/>	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>
Maryland	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Massachusetts	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Michigan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Minnesota	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mississippi	<input type="checkbox"/>	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>
Missouri	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Montana	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nebraska	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Nevada	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Hampshire	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Jersey	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
New Mexico	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New York	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
North Carolina	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
North Dakota	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Ohio	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Oklahoma	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Oregon	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PENNSYLVANIA	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Texas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Utah	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vermont	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Virginia	<input type="checkbox"/>	<input checked="" type="checkbox"/> ¹	<input type="checkbox"/>
Washington	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
West Virginia	<input type="checkbox"/>	<input checked="" 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"/>
	8	31	12



There are some areas where a small adjustment would result in significantly stronger policy. Here are some issues that represent low-hanging fruit, policies that can be addressed in relatively short order.

- To ensure adequate subject-area knowledge, Pennsylvania should **require secondary teachers who obtain certification in general science or general social studies to pass individual content tests** (or a composite test that reports individual subscores), for each discipline they will be licensed to teach, as noted in the secondary critical attention section.
- As a first step toward using an assessment for admission to a teacher preparation program that compares candidates to the general college-going population, Pennsylvania should **allow teacher candidates to submit ACT/ SAT/GRE scores that demonstrate academic proficiency.**



1. National accreditation can be substituted for state approval.

Alternate Routes to Certification

The policies discussed in the “Critical Attention” section of this report primarily focus on traditional teacher preparation programs because such programs presently train the vast majority of new teachers. Of course, there are some teachers that attain licensure outside of these traditional programs. Alternate routes to certification were developed based on the idea that there should be pathways into the teaching profession for nontraditional candidates who are able to demonstrate strong subject-area knowledge and an above-average academic background.

Unfortunately, most states have considerable work to do to make their alternate routes viable pathways into the teaching profession. Considerable variation remains in both the quality of states’ routes and how much of an alternative to traditional preparation such routes actually provide.

A high-quality, genuinely alternative licensure pathway should be rigorous yet flexible in admissions, focused and deliberate in preparation, and open to broad usage across subjects and grades.

State policy for alternate routes to teacher licensure should ensure that:

- Strong academic performance and subject-matter-knowledge testing are prerequisites for program admission.
- Subject-area majors are not required or candidates have the option to test out of any subject-area coursework requirements.
- Coursework is streamlined and not overly burdensome, and it meets the immediate needs of new teachers.
- Program length is reasonable (no more than two years). Practice teaching and/or intensive mentoring is required.
- Limits are not placed on the subjects and/or grades an alternate route teacher can teach, and alternate route providers are not restricted to colleges and universities; districts and nonprofits should be permitted to offer programs as well.

Pennsylvania has three alternate routes: Teacher Intern Certificate, the Teacher Residency Certificate and American Board Certification for Teacher Excellence. The state requires candidates to demonstrate content knowledge as a condition of admission and provides for broad usage, a diversity of providers and support for new teachers in the classroom. However, these programs would be significantly improved if Pennsylvania set higher admissions standards, provided more flexibility and ensured that alternate route coursework is streamlined, relevant and reasonable.

NEXT STEPS FOR PENNSYLVANIA:

- **Raise admissions requirements for all alternate route programs.**

Candidates for Pennsylvania’s Teacher Intern Certification were formerly required to have a minimum GPA, but the state has discontinued this requirement. Pennsylvania should reinstitute a minimum GPA requirement and extend it to all alternate route candidates, as it is a first step toward ensuring that candidates are of good academic standing. The standard should be higher than what is required of traditional teacher candidates, such as a GPA of at least 2.75. Alternatively, the state could require one of the standardized tests of academic proficiency commonly used in higher education for graduate admissions, such as the GRE.

Although Pennsylvania requires all candidates to pass a subject-matter test to demonstrate their content knowledge, the subject-matter test cannot be used to test out of content-area coursework and major requirements. For example, Residency Certificate candidates must hold either a master's degree or a doctorate and their bachelor's degrees must be in a subject-shortage area. Pennsylvania should allow any candidate who already has the requisite knowledge and skills to demonstrate such by passing a rigorous test. Rigid coursework requirements could dissuade talented individuals who lack precisely the right courses from pursuing a career in teaching.

■ **Ensure that preparation coursework and support target the immediate needs of new teachers.**

Pennsylvania does not ensure that its alternate route candidates will receive streamlined preparation that meets the immediate needs of new teachers. There are no coursework requirements for the new Teacher Residency Certificate or the Teacher Intern Certification program, although candidates in the latter program must enroll in a university/college preparation program. Simply mandating coursework without specifying the purpose can inadvertently send the wrong message to program providers—that “anything goes” as long as credits are granted or seat time fulfilled. Appropriate coursework should include grade-level or subject-level seminars, methodology in the content area, classroom management, assessment and scientifically based early reading instruction.

In addition, Pennsylvania should consider shortening the length of time it takes a Teacher Intern to earn standard certification. The route should allow candidates to earn full certification no later than the end of the second year of teaching.

Figure 18

Do states provide real alternate pathways to certification?

	GENUINE OR NEARLY GENUINE ALTERNATE ROUTE	Alternate route that needs significant improvements	Offered route is disingenuous
Alabama	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Alaska	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Arizona	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Arkansas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
California	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Colorado	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Connecticut	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Georgia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hawaii	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Idaho	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Illinois	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Indiana	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Iowa	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Kansas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Kentucky	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Louisiana	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Maine	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Maryland	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Massachusetts	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Michigan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Minnesota	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mississippi	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Missouri	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Montana	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Nebraska	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Nevada	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
New Hampshire	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
New Jersey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Mexico	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
New York	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
Oklahoma	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Oregon	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
PENNSYLVANIA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rhode Island	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
South Carolina	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
South Dakota	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tennessee	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Texas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Utah	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vermont	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Virginia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Washington	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
West Virginia	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wisconsin	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Wyoming	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	6	26	19

Figure 19

What are the characteristics of states' alternate routes?

	PREREQUISITE OF STRONG ACADEMIC PERFORMANCE	VERIFICATION OF SUBJECT-MATTER KNOWLEDGE	AVAILABILITY OF TEST OUT OPTIONS	STREAMLINED COURSEWORK	RELEVANT COURSEWORK	REASONABLE PROGRAM LENGTH	PRACTICE TEACHING AND/OR INTENSIVE MENTORING	BROAD USAGE	DIVERSITY OF PROVIDERS
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	▣	▣	▣	▣	▣	▣	▣	▣	▣

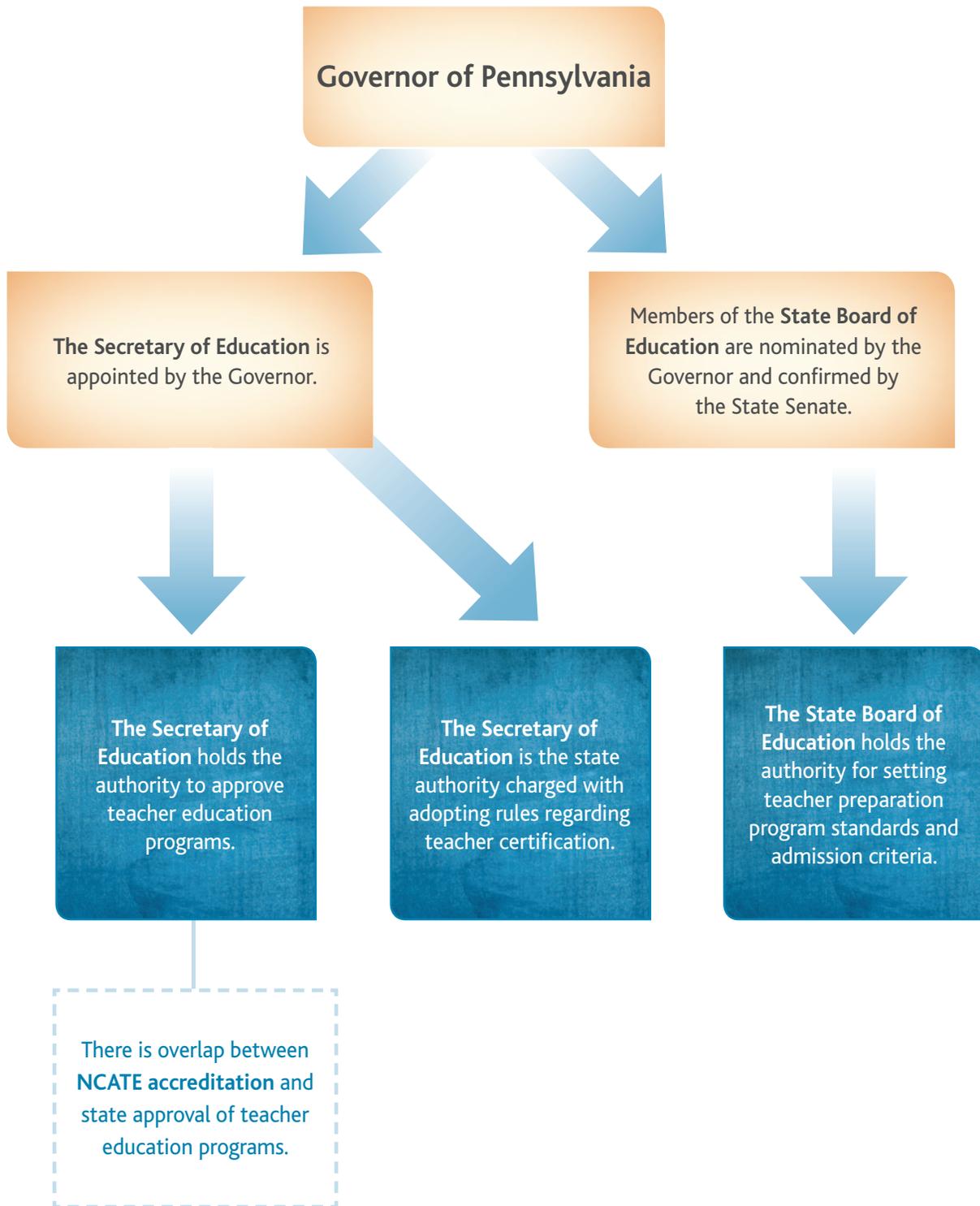
▣ For some alternate routes ▣ For most or most widely used alternate routes ★ For all alternate routes

Alternate Route Policy Checklist for States

1.	Set high standards and provide flexibility for meeting them.	<ul style="list-style-type: none">✓ Screen candidates based on academic ability.✓ Set a higher standard for entry than is set for traditional teacher preparation.✓ Require candidates to pass the state's subject-matter licensing test.✓ Don't require a major in the intended subject area; instead, allow candidates to demonstrate subject-matter knowledge on a rigorous test.
2.	Provide streamlined preparation.	<ul style="list-style-type: none">✓ Limit coursework (ideally to no more than 12 credits a year).✓ Require that the alternate route is an accelerated course of study.✓ Ensure that all coursework requirements target the immediate needs of the new teacher✓ Offer candidates an opportunity to practice teach in a summer training program.✓ Provide intensive mentoring.
3.	Remove regulatory obstacles.	<ul style="list-style-type: none">✓ Allow for a diversity of alternate route providers.✓ Don't limit the use of alternate routes to shortage areas or to certain grades or subjects.

Figure 20

Authority for Teacher Preparation in Pennsylvania



Critical Attention Summary for Pennsylvania



Red		AUTHORITY
ADMISSION INTO PREPARATION PROGRAMS	<ul style="list-style-type: none"> Require that preparation programs screen candidates prior to admission by using a common test normed to the general college-bound population and limit acceptance to those candidates demonstrating academic ability in the top 50th percentile. 	State Board of Education
ELEMENTARY TEACHER PREPARATION	<ul style="list-style-type: none"> Require all elementary teacher candidates to pass a rigorous content test that assesses knowledge of all subjects, and ensure that preparation programs deliver a comprehensive program of study Require preparation programs to provide mathematics content specifically geared to the needs of elementary teachers, and require candidates to pass a rigorous math assessment. Require a rigorous assessment in the science of reading instruction. Require a content specialization in an academic subject area. 	Secretary of Education
STUDENT TEACHING	<ul style="list-style-type: none"> Ensure that cooperating teachers have demonstrated evidence of effectiveness as measured by student learning. 	Secretary of Education
TEACHER PREPARATION PROGRAM ACCOUNTABILITY	<ul style="list-style-type: none"> Collect performance data to monitor programs. Set minimum standards for program performance with consequences for failure to meet those standards. Publicly report performance data. 	Secretary of Education



Yellow		AUTHORITY
SECONDARY TEACHER PREPARATION	<ul style="list-style-type: none"> Require secondary science and social studies teachers to pass a content test for each discipline they are licensed to teach. 	Secretary of Education
SPECIAL EDUCATION TEACHER PREPARATION	<ul style="list-style-type: none"> Ensure that secondary special education teachers possess adequate content knowledge. 	Secretary of Education



Green		AUTHORITY
MIDDLE SCHOOL TEACHER PREPARATION		Secretary of Education



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