Karen B. Salmon, Ph.D.
State Superintendent of Schools

TO: Members of the Maryland State Board of Education

FROM: Karen B. Salmon, Ph.D.

DATE: April 23, 3019

SUBJECT: Educator Licensure: Assessment Options and Recommendations

PURPOSE:

The purpose of this item is to provide information to the State Board of Education (SBOE) members for discussion and approval of the implementation date and qualifying scores for a variety of certification assessments that are aimed at increasing the rigor of Maryland's certification requirements.

HISTORICAL BACKGROUND:

Since 1987, the Maryland State Department of Education (MSDE) has required state certification tests to assess basic skills, content knowledge, and pedagogy. These tests provide validation that teacher candidates have entry level skills to begin their professional careers. Current Code of Maryland Regulations (COMAR) requires evidence of qualifying scores as established by the State Superintendent of Schools on the teacher certification tests approved by the SBOE.

EXECUTIVE SUMMARY:

Over the past year, both the SBOE and the Commission on Innovation and Education Excellence have questioned the rigor of the certification assessments and requested that the MSDE conduct a comprehensive review of all certification assessments. Based on that review, the MSDE is recommending changes to the basic skills assessment, three content assessments, and the pedagogy assessments used in Maryland.

The presentation provides information regarding the types of licensure assessments available, pass rates for Maryland's assessments as compared to the nation, and information concerning the assessments presented for review.

ACTION:

For discussion and approval of implementation dates and qualifying scores on the following assessments:

- Praxis Core
- English as a Second Language
- Special Education
- School Leaders Licensure Assessment
- EdTPA
- PPAT

Attachment: Educator Licensure: Assessment Options and Recommendations PowerPoint Presentation

Assessment Costs – Current
Attachment A

Subject Area	Basic Skills	Subject Matter/ Content	Pedagogy*	Teaching Reading: Elementary	Total Cost
Early Childhood	$150-$270	$120	$146	$139	$555 - $675
Elementary Education: CKT	$150-$270	$199-$296	$146	$139	$634-$851
Middle School	$150-$270	$240-$292	$146	Not Required	$416-$536
Secondary Grades 7-12	$150-$270	$120	$146	Not Required	$416-$536
Foreign Languages	$150-$270	$120	$146	Not Required	$416-$536
PreK-12 Subjects	$150-$270	$120	Included in Content Assessment	Not Required	$270-$390
Special Education	$150-$270	$120	Included in Content Assessment	$139	$409-$529
ESOL	$150-$270	$120	Included in Content Assessment	$139	$409-$529

* The costs of EdTPA and PPAT are $300.

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Teacher Licensing Assessments:
Assessments of Content Knowledge and Teaching Ability

Assessments of Candidate Content Knowledge

The most common exam of teacher content knowledge used in U.S. states (40) is ETS' Praxis, which actually consists of three separate exams: the Praxis Core, a test of literacy and general academic knowledge; the Praxis II Subject Tests, a set of 90 different tests corresponding to different subjects for specialist teachers; and the Praxis Content Knowledge for Teaching Assessment, which measures subject-specific content knowledge, with a focus on specialized content knowledge used in elementary school teaching. States that use Praxis for teacher licensing do not necessarily purchase all of these assessments and the Praxis Content Knowledge for Teaching Assessment is relatively new.

Praxis cut scores are set at the state level, and pass rates are generally very high, leading to widespread consensus that the exam is insufficiently rigorous. In Maryland, the 2016 pass rate was 98%.

It is our understanding that at its last State Board of Education meeting, Maryland will require, as of July 2018, individuals pursuing elementary school teaching (K-6) to take the Praxis Content Knowledge for Teaching Assessment. That assessment is described below, followed by options other states have adopted high school teacher licensing.

Praxis Elementary Exam: Applied Content Knowledge for Teaching

The Praxis Elementary Exam: Applied Content Knowledge for Teaching is a computer-based exam that covers four subjects: Reading/Language Arts, Math, Social Studies, and Science. It consists of selected-response and constructed response questions.

The exam is designed to assess teachers' understanding of content they will need to teach elementary school students, as well as pedagogical content knowledge they will need to teach that information to elementary school students. The Reading/Language Arts and Mathematics tests are aligned to the Common Core State Standards, while the Science test is aligned to the Next Generation Science Standards. The broad topics and question types covered in each of the four subjects are outlined below.

The Reading/Language Arts subtest lasts 90 minutes and consists of 55 numeric entry and selected-response questions and two constructed response questions. Topics include:
- Phonological awareness and phonics
- Fluency in literacy development

- Vocabulary development, such as root words and context clues
- The role of comprehension and metacognition in literacy development
- Basic elements of fiction vs. nonfiction
- Basic elements of poetry and drama
- Uses of figurative language
- Use of pedagogical tools and resources in language arts
- Components of written language
- Types and traits of pieces of writing
- Stages of the writing process
- Sentence types and structures
- Organization of writing
- Aspects of speaking: purpose, audience, tone
- Aspects of viewing: evaluating images, interpreting message
- Aspects of listening: following directions, responding to speaker
- Role of speaking, viewing, listening in language acquisition for English language learners

The Mathematics subtest lasts 85 minutes and consists of 48 selected response and numeric entry questions and 2 constructed response questions. Topics covered include:

- Mathematics processes and problem solving
- Basic number systems
- Four basic operations
- Basic number theory
- Word problems
- Numerical patterns
- Basic algebraic methods
- Associative, commutative, distributive properties
- Additive & multiplicative inverses
- Special properties of zero and one
- Equalities and inequalities
- Properties and attributes and geometric figures
- Transformations
- Units of measurement
- Visual display of quantitative data
- Simple probability
- Basic descriptive statistics

The Social Studies subtest lasts 50 minutes and consists of 55 selected response questions. Topics covered are based on "typical social studies coursework in a bachelor's degree in education" and include:

- World and regional geography
- Interaction of physical and human systems
- Classical civilizations
- 20th-century world history
- Cross cultural comparisons
- U.S. History, from European exploration to the space age
- Forms of government
- Key documents and speeches in U.S. history
- Citizenship and democracy
- Key terms and basic concepts of economics
- Understanding of social studies as inquiry and research processes

The Science subtest lasts 60 minutes and consists of 47 selected response questions. Topics covered include:

- Earth science
- Structure and function of living systems
- Reproduction and heredity
- Change over time in living things
- Physical and chemical properties and structure of matter
- Forces and motions
- Forms of energy
- Simple machines
- Personal health and nutrition
- Science as inquiry and scientific processes

Taking all four subtests costs $210. Individual subtests costs $79 for Reading/Language Arts and Math, and $60 for Science and Social Studies.

Massachusetts Test of Educator Licensure (MTEL) and Adaptations of MTEL in Other States
In Massachusetts, all candidates are required to take the MTEL for Literacy Skills, developed by the state in collaboration with Pearson, a state advisory of teachers, policymakers and assessment experts to ensure that the test was aligned to Massachusetts' state standards and curriculum frameworks. MTEL is seen as a more rigorous alternative to the Praxis. Candidates are also required to take additional MTEL subject tests (from over 30 offered) depending on the subjects they will teach. Elementary school generalists may be required to take up to six tests, including special

education, English as a Second Language, math, general curriculum, literacy and writing, and foundations of reading, depending on the populations they serve. In the most recent administration for which data is available (winter 2016,) 86 percent of first-time test takers passed the required Literacy Skills test on the first try (only 62 percent of those attempting the test again after failing did so.) But the first-time pass rates for the special subject tests averaged to only 62 percent, and when candidates who fail the subject tests go back and retake them, only 41 percent pass. Therefore, while the literacy test is a relatively low bar (although still more rigorous than the Praxis,) the subject tests are demanding.

MTEL's test structure varies depending on the subject, but in general, each MTEL subject test is a 4-hour computer-based exam. Typically, there will be a mix of between 80-100 selected-response questions and 2-4 longer constructed response questions. Each MTEL test costs the test-taker $139, with the state providing some waivers to candidates who apply and demonstrate financial need.

Because MTEL is well-regarded as a challenging and rigorous measure of candidates' content knowledge for teaching, other states have contracted with Pearson to conduct a similar test development process. Both the Florida Teacher Certification Examinations (FTCE) and the Minnesota Teacher Licensure Examinations (MTLE) reviewed the MTEL content outline against their state standards and then adopted or adapted individual questions when they found direct alignment. Items were then reviewed by state-based teachers and education preparation program faculty as part of a content validation study organized by Pearson. Pearson staff and state stakeholders drafted final questions based on the results of that study. Florida's FTCE tests look very similar to MTEL in format: they are each four-hour exams in multiple parts, with roughly 100 multiple choice questions and 2-4 longer constructed response questions. Minnesota's tests are shorter, at only about 2.5 hours, and typically omit the constructed response questions.

Massachusetts, Florida and Minnesota are under a five-year renewable contract with Pearson, and Pearson is responsible for the ongoing design refinement, data collection, administration and evaluation of the exams. Costs vary depending on the size of the state and the terms of the contract. Minnesota had a one-time $85 million appropriation for test development, review and validation over two years (2010-2011). Florida has a recurring appropriation of $13.78m annually over the five-year contract ($69 million). FTCE costs $200 per subject test for the test taker, while Minnesota's MTLE, which, as noted above, is shorter and omits constructed response question types, costs $95 per subject test.

Assessments of Candidate Teaching Ability

In general, while requiring candidates to take an assessment of content knowledge is common across the United States, requiring teachers to take an assessment of how well they actually teach – usually a portfolio-based assessment – is less common. That said, such exams are expanding rapidly. Only one assessment of this type, the edTPA developed at Stanford, is used widely. ETS recently introduced a new assessment of this type called PPAT which has been adopted in one state along with edTPA in that same state (Delaware). Recent studies have shown a strong association between completion of performance-based assessments, particularly portfolio-based assessments, and teachers' learning outcomes and on-the-job performance.[1] Such promising results, along with the prevalence of assessments of teaching ability in top-performing countries, suggest that these tools can be an important part of a strong teacher licensing system.

Maryland does not require a test of teaching ability statewide. The state does require all candidates to complete a portfolio of teaching as part of their preparation program but does not specify what the portfolio should look like or how it should be scored. The University of Maryland system is using the edTPA to fulfill the portfolio requirement. But because the state does not require edTPA for certification, the edTPA submissions are not being officially scored according to edTPA guidelines, making comparisons with other states or use for out-of-state certification impossible.

edTPA

edTPA is a performance-based assessment used by teacher preparation programs throughout 41 states to measure whether candidates have developed the skills they need to be effective teachers. edTPA was developed by the Stanford University Center for Assessment, Learning and Equity (SCALE) in partnership with the American Association of Colleges of Teacher Education. Pearson has developed the platform on which most edTPA portfolios are uploaded and scored. The test is aligned with inTASC standards.

Although it is a test of ability, not content knowledge, edTPA is a subject-specific assessment that includes versions for 27 teaching fields:

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[1] Cantrell, S., & Kane, T. J. (2013). Ensuring fair and reliable measures of effective teaching: Culminating findings from the MET project's three-year study. Seattle, WA: Bill & Melinda Gates Foundation. Available from http://www.metproject.org/downloads/MET_Ensuring_Fair_and_Reliable_Measures_Practitioner_Brief.pdf
Cavalluzzo, L., Barrow, L., Mokher, C., Geraghty, T., & Sartain, L. (2014). From Large Urban to Small Rural Schools: An empirical study of National Board certification and teaching effectiveness. Alexandria, VA: The CAN Corporation. Retrieved from http://www.cna.org/sites/default/files/research/IRM-2015-U 010313.pdf

Chung, R. R. (2008). Beyond assessment: Performance assessments in teacher education. Teacher Education Quarterly, 35(1), 8-28

- Agricultural Education
- Business Education
- Classical Languages
- Early Childhood
- Educational Technology Specialist
- Elementary Education (contains both Elementary Literacy and Elementary Mathematics components)
- Elementary Literacy
- Elementary Mathematics
- English as an Additional Language
- Family and Consumer Sciences
- Health Education
- K–12 Performing Arts
- Library Specialist
- Literacy Specialist
- Middle Childhood English-Language Arts
- Middle Childhood History/Social Studies
- Middle Childhood Mathematics
- Middle Childhood Science
- Physical Education
- Secondary English-Language Arts
- Secondary History/Social Studies
- Secondary Mathematics
- Secondary Science
- Special Education
- Technology and Engineering Education
- Visual Arts
- World Language

In order to complete edTPA, aspiring teachers must prepare a portfolio of materials during their student teaching clinical experience. These include a substantial written component: lesson plans designed to support their students' strengths and needs; analysis of whether their students are learning and how their teaching could improve; and reflections on how they could become more effective. The portfolio also includes unedited video recordings of teachers at work in real classrooms as part of their practicum. For a review of the relevant literature that informed the design principles of the edTPA, see here.

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Teachers submit the portfolio at the end their practicum and are judged by a certified edTPA scorer. In some cases, portfolios are double or triple scored to ensure consistency and validity. Stanford provides recommended cut scores for the exam, but states or participating institutions are free to set their own cut scores.

edTPA costs $300 per test administered. These costs are typically shouldered by the candidate, but states or programs offer financial assistance in some cases by purchasing vouchers from SCALE. The $300 fee covers all development costs and operational services associated with implementation, delivery, scoring and reporting, as well as customer support service for candidates and faculty. Assessment services also include the recruiting and management of qualified educators who serve as scorers, scoring supervisors, and trainers. Therefore, there is no upfront development or membership costs to states or preparation programs. States or preparation programs can elect to pay a membership fee to SCALE, which grants them access to a database of toolkits, sample videos, and professional development tools that they can use to help candidates prepare for the edTPA. The membership fee is determined based on the member's size, number of candidates, and ability to pay, and varies on a case-by-case basis. There is no need to pay for membership in order to administer edTPA.

Currently, 19 states required a performance assessment for licensure and/or for state program accreditation, and have explicitly approved edTPA for these purposes:
- Alabama
- Arkansas
- California
- Connecticut
- Delaware
- Georgia
- Hawaii
- Illinois
- Iowa
- Minnesota
- New Jersey
- New York
- North Carolina
- Oregon
- South Carolina
- Tennessee
- Washington
- West Virginia

- Wisconsin

PPAT

ETS' PPAT assessment is a new test of candidate teaching ability as an alternative to edTPA. Unlike edTPA, which is conceived as a summative portfolio assessment at the end of teachers' practicum, PPAT is both formative and summative and takes places over the course of the clinical experience. PPAT is not subject-based, unlike edTPA. There are four parts to the PPAT assessment, and for each part, candidates must submit artifacts such as lesson plans and videos as well as a written reflection. The parts are:

- "Knowledge of Students and the Learning Environment", in which candidates submit:
  - A 7-page reflection showing their understanding of their classroom, school, and community, and how factors related to those environments affect student learning.
  - A chart laying out community, district and school factors that impact student learning with accompanying instructional strategies for addressing those factors,
  - A description of their classroom demographics
  - A tool they use for communicating with parents and the community
- "Assessment and Data Collection to Measure and Inform Student Learning", in which candidates submit:
  - An assessment they have designed for a lesson that includes a rubric or scoring guide
  - A description and rationale for the design of the assessment and the student learning data the candidate plans to collect
  - A description of two focus students who require different learning needs, and for whom the candidate will need to modify the learning assessment in some way
  - A description and analysis of data collected during the assessment
  - A seven-page reflection of how the assessment and data analysis will inform and guide future whole-class instruction, and how the candidate would modify the assessment when administering it in the future
- "Designing Instruction for Student Learning", in which candidates submit:
  - A description of two focus students that have different learning needs
  - A representative lesson plan for whole-class instruction
  - A representative differentiated lesson plan for each of the focus students
  - A work sample from both of the focus students, as well as from one class member other than the focus students
  - An analysis and reflection of eight pages on how to differentiate instruction to meet the needs of all students

- "Implementing and Analyzing Instruction to Promote Student Learning", in which candidates submit:
  - A description of two focus students that have different learning needs
  - A representative lesson plan for whole-class instruction
  - Baseline student learning data for the whole class and the focus students
  - Student work samples from both of the focus students
  - A fifteen-minute video of instruction
  - A nine-page reflection on the extent to which the lesson met the learning goals for the entire class, and for the focus students in particular, as well as how the candidate would modify specific instructional strategies used in the video in the future to better meet the needs of all students

PPAT scorers are trained and certified by ETS and consist of K-12 educators and university faculty. Submissions are scored twice for reliability and returned to candidates within three weeks to enable reflection and completion of the next assignment.

PPAT has been piloted in teacher preparation programs in 16 states. To date, only Delaware mentions PPAT in state policy. Delaware requires "an assessment of performance, and either PPAT or edTPA are the only two exams that satisfy this regulatory requirement." There are no states that require *only* PPAT for licensure.

PPAT costs $300 for candidates. Candidates can retake individual tasks that they fail the first time for $75 each. There is no additional cost to the state requiring PPAT for certification, although the state may wish to subsidize the cost for candidates.

lorida Teachers Take State Ed And Pearson To Court

06/21/2017 06:04 am ET Updated Jun 21, 2017
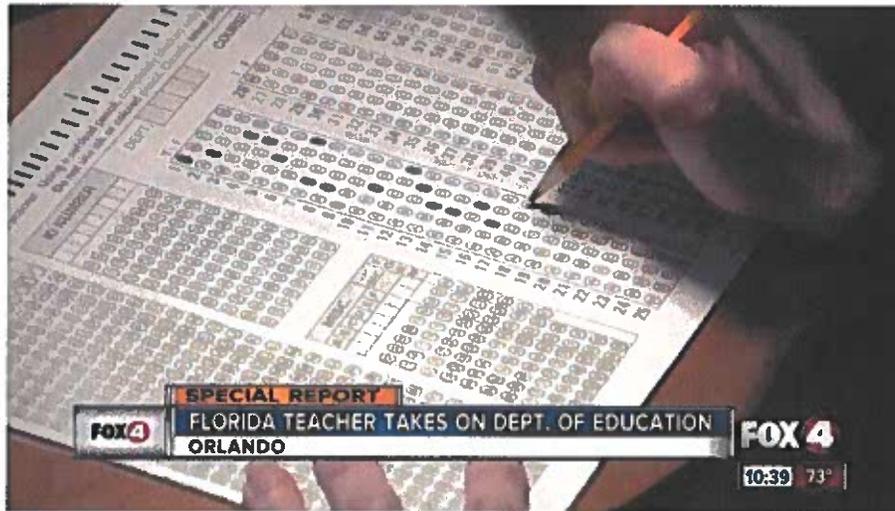
FOX 4 FLORIDA

Two Florida teachers take the State Education Department to court in a challenge to the validity of the grading of certification exams by Pearson Education.

Twenty-year veteran Broward County, Florida teacher Julie McCue and physical teacher Daryl Bryant, who has taught at a charter school near Cape Canaveral for three years, are suing the Florida Department of Education (FDOE). In 2010, as part of its application for a federal Race to the Top grant, Florida proposed making teacher certification exams more difficult, supposedly to raise standards. The current exams were introduced in 2015. On the revised tests failure rates have soared by up to 30% on some sections. The passing rate on the essay portion of the Florida Teacher Certification Exam (FTCE) fell to 63% in 2015. Teachers working under temporary certification who fail the FTCE risk losing their jobs.

At a recent state board of education meeting Florida Education Commissioner Pamela Stewart defended the high failure rate on Florida teacher certification exams claiming the tests are "aligned to the standards that are being taught in the classroom which are appropriate." But the FDOE has not produced evidence that the tests reliably predict teacher performance, which may be a basis for overturning them. In New York State multiple teacher certification exams were dismissed by the courts precisely because the State Education Department could not demonstrate that they actually measured teacher qualifications.

Julie McCue charges that the state is really using a flawed examine to deny teachers credentials and salary increases. Broward County claims to use a "pay-for-performance salary schedule," but the reality is that no matter your education, experience, or classroom performance, teachers are denied raises if they do not pass the new state test.

McCue has failed the essay portion of the Florida Educational Leadership Examination (FELE) test four times since 2015. Each time, suspiciously, she received the exact same score, just one point below passing. The FELE test was created by the FDOE, but is administered and graded by testing mega-giant Pearson Education.

According to a report by WPTV in West Palm Beach, Pearson profits each time someone fails one of their exams. Prior to 2009, the Florida Department of Education subsidized test takers. Candidates paid $25 to take each part of the multi-part tests and did not pay to retake a section that they failed. Pearson now charges test-takers up to $200 per section, an increase of 800%, and an additional $20 to retake a section. Test-takers can appeal failing scores, but they have to pay $75 for a reevaluation.

At the day-long administrative hearing FDOE produced five "expert witnesses" to defend the testing process and Pearson sent its lawyers to observe. A representative of FDOE maintained that Pearson's grading system is extremely detailed and thorough. FDOE's attorney said "the idea of human error is beyond belief." While one of the FDOE "expert witnesses" was a Florida school administrator, he is also, coincidently, a paid Pearson employee. During the past two years he reviewed 20-25 failing FELE essays

and acknowledged he has never reversed a score. One hundred and sixty failing FELE test takers challenged their scores last year, and none were reversed by Pearson.

This must be the only time in test assessment history that grading is 100% reliable. I found an article on a Pearson website where they bragged that their Versant Technology when reading essays had an inter-rater reliability of 0.89, which was HIGHER than human inter-rater reliability, and is considered very high. But it still means that about 10% of the test grades were not consistent.

But there is another reason the FDOE expert witness' scoring is invalid and the administrative judge should through the whole FDOE and Pearson gang out of court, reverse the failing grades, and recommend they be prosecuted. The test scorer testified that he had reviewed 20-25 failing FELE essays and never reversed a score. But if was only assigned to review failing exams that were being appealed, he already knew these test-takers had failed. Essentially he was being asked to confirm what FDOE and Pearson wanted confirmed. In a fair review, without bias, these tests would have been mixed in with ungraded exams and the reviewer would not know that any of them had already received a failing grade.

Testimony at the Florida administrative judicial hearing calls into question the grading of many Pearson "essay" exams. The Pearson/SCALE edTPA is used to evaluate student teachers by over 700 teacher education programs in forty states and is required for certification in sixteen states. It is a roughly sixty-page portfolio plus video that is subject to arbitrary grading practices, arbitrary practices that Pearson also denies.

The Florida administrative judge is expected to issue a preliminary ruling within a month. The judge's decision is sent to the Florida Education Practices Commission that makes the final decision. I'm rooting for Julie and Daryl.
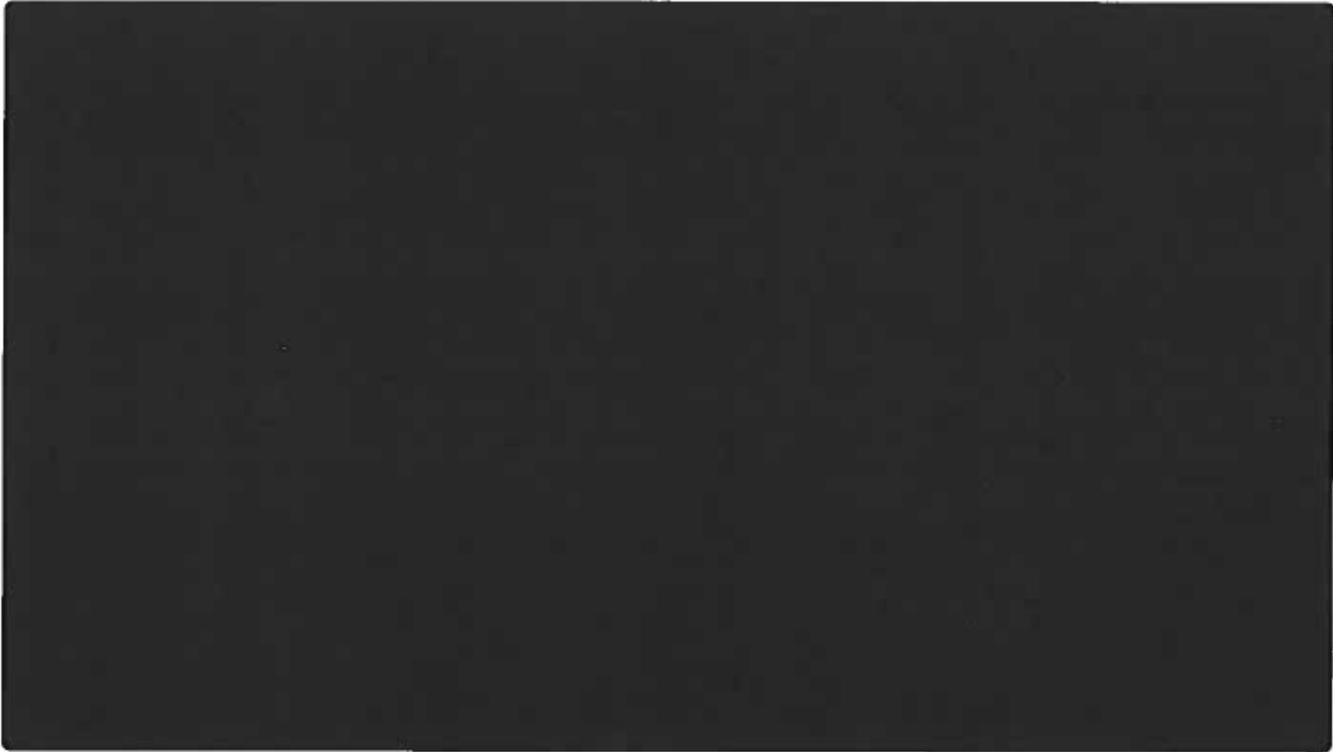
Florida leaders to discuss changes to Florida teacher licensing exam

State Rep. considering study to look at exam

Posted: 9:27 AM, Jan 17, 2019   **Updated:** 12:42 PM, Feb 25, 2019

By: Katie LaGrone , Matthew Apthorp

TAMPA, Fla. — Florida teachers struggling to pass the Florida's teacher certification exam (FTCE) may have more fuel to question its fairness.

A recent study on North Carolina's teacher licensing exam found no correlation between teachers who passed the math section of the test and those who performed well in the classroom.

"It was a little surprising," said Kevin Bastian Ph.D from the University of North Carolina in Chapel Hill. He, along with Kristina Patterson of Georgia Southern University, were commissioned to study North Carolina's teacher exam after a surge in failures prompted education leaders there to question why?

"If a state is going to making high stakes decisions [like] if a teacher gets a licensure or not, based on those scores you want that test to predict outcomes for those teachers," Bastian recently told investigative reporter Katie LaGrone.

North Carolina's teacher licensing exam is administered by for-profit testing giant, Pearson, the same company Florida is paying $58 million dollars to administer its controversial teacher licensing exam, **a state test our investigative team has been investigating for two years.**

Since the test was made tougher in 2015, we found a **surprising surge in failures** . Over the past two years, we've reported on how those failures have caused statewide fallout ranging from the use of more long-term substitutes to a wave of

teacher terminations. This past summer, **we reported the terminations of more than 1000 Florida teachers** who did not pass a portion of the FTCE. Many teachers are taking and repeatedly failing the General Knowlege portion of the exam.

"When you have a number of over 1000 teachers who cannot return to the classroom to teach because of a test that's a problem," Florida Representative Shevrin Jones (D-West Park) told us this past summer.

It's become a statewide crisis Florida lawmakers on both sides of the aisle said they are committed to changing.

"I think it's critical we get this done," Florida Representative Byron Donalds (R-Naples) told us recently. Representative Donalds is Chair of the PreK-12 Quality Subcommittee and told us he believes Florida's teacher certification exam is outdated. After hearing from school districts and watching our series of Emmy-award winning reports on the issue, he says updating the FTCE is a top priority, from lowering fees to take the exam to re-evaluating what's on it.

"I think one of the things we have to do is review if you're going to be teaching Mathematics, in all honesty, does your passage on the English Language Arts portion make sense if you're never going to teach English/Language arts," Donalds told us from his district office in Naples, Florida.

As a result of the study in North Carolina, education leaders there are now recommending the state no longer use Pearson to administer the math section of its teacher licensing exam.

Representative Donalds said he's considering a similar study on Florida's teacher licensing exam. "We've actually had discussions about that already." Donalds added the topic of Florida's teacher certification process will be discussed during a committee week on Wednesday, January 23 in Tallahassee.

"We have to make sure we're doing everything we can as a state to make sure we have the most amount of teachers who are qualified to be in the classroom so if we need to make tweaks in our state to our system in order to make sure that happens, than that's exactly what we should do," Donalds said.

A spokesperson with Florida's Department of Education confirms it has never conducted such a study on its teacher licensing exam. The department had no response to the action in North Carolina nor did the testing company, Pearson, who directed us to the state for comment.

ETS® PRAXIS.

——Update on the *Praxis®* Core Academic Skills for Educators Test——

Praxis Core is Changing

The *Praxis®* Core Academic Skills for Educators (Core) Test measures academic skills that are important to success in preparation to be an educator. As of September 2019, the content of the test—specifically the Mathematics subtest—will change. This update tells why the test is changing, gives a picture of how the new test will be different, and provides a *preview copy* of the Mathematics Study Companion showing, in detail, what the new test measures.

Why is Core Changing?

The changes resulted from a systematic re-examination of the skills that Core measures. Each skill in each subarea was examined by an expert panel of educator preparation faculty. The panel considered each skill based on how critical it is to success in preparation.

The process of re-examination was designed to ensure that all the skills Core is measuring are confirmed as critical—skills that are important for success regardless of which path a candidate takes through the program and regardless of which grades or subjects the candidate will teach.

- Over 200 educator preparation faculty contributed their judgment to the redesign, either through detailed surveys calling for evaluation of every skill measured, or through their participation on a national expert panel.

- All faculty involved in redesign taught courses that are common across all certification areas.

- All skills kept on the test were clearly confirmed as important by the teacher educators engaged in redesign.

How is the New Core Mathematics Test Different?

The new Mathematics test has a change in overall focus, with

- increased emphasis on *Data Interpretation and Representation, Statistics, and Probability* as critical for teacher preparation, and

- reduced weight on *Algebra and Geometry*

About Core Reading and Writing

The *Praxis* Core Reading and Writing tests are not changing. The skills assessed in these tests were reconfirmed as important in the re-examination.

For Geometry, the test also now includes a reference sheet for geometric formulas, so the test is not assessing candidates on their recall of those formulas.

A number of mathematical topics identified as less important for educator preparation were *removed*, such as

- identifying rational vs. irrational numbers

- solving problems with radicals

- working with functions

- solving problems involving three-dimensional figures (such as volume and surface area of a cone)

CURRENT

Category	Approx. %
I. Number and Quantity	30%
II. Algebra and Functions	30%
III. Geometry	20%
IV. Statistics and Probability	20%

NEW

Category	Approx. %
I. Number and Quantity	36%
II. Data Interpretation and Representation, Statistics, and Probability	32%
III-A. Algebra	20%
III-B. Geometry	12%
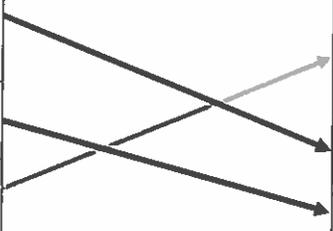
Core Academic Skills for Educators: Mathematics (5733)

Test at a Glance	
Test Name	Core Academic Skills for Educators: Mathematics
Test Code	5733
Time	90 minutes
Number of Questions	56
Format	Selected-response questions—select one answer choice Selected-response questions—select one or more answer choices Numeric-entry questions On-screen calculator available
Test Delivery	Computer delivered

Content Categories	Approximate Number of Questions*	Approximate Percentage of Examination
I. Number and Quantity	20	36%
II. Data Interpretation and Representation, Statistics, and Probability	18	32%
III. Algebra and Geometry	18	32%
Algebra	11	20%
Geometry	7	12%

*   Includes both scored and unscored (pretest) questions. Depending on the number of pretest questions included in each scoring category, the total number of questions in that category may vary from one form of the test to another.

About This Test

The *Praxis®* Core Academic Skills for Educators (or *Praxis®* Core) Mathematics test measures mathematical skills needed to prepare successfully for a career in education. Questions focus on key concepts of mathematics and the ability to solve problems and to reason in a quantitative context. Many questions require the integration of multiple skills to achieve a solution.

The test assesses mathematics across a range of mathematical content areas:

Number and Quantity includes understanding of place value and the properties of whole numbers. Questions call for solving problems involving integers, decimals, and fractions; and solving problems involving ratios, proportions, and percent. Some questions call for solving real-life problems—e.g., identifying relevant numbers, information, or operations, and solving problems involving measurement units.

Data Interpretation and Representation, Statistics, and Probability includes understanding of how data and graphs correspond. Questions call for reading and interpreting visual displays of quantitative information; making inferences from data displays; determining mean, median, and/or mode for a data sample; and assigning a probability to an outcome.

Algebra includes the ability to write an equation or expression that models a real-life or mathematical problem. Questions call for solving word problems; solving simple linear equations and simple quadratic equations (e.g., $x^2 = 49$); following an arithmetic or algebraic procedure; and identifying or generating equivalent algebraic expressions. Some questions will assess understanding of the properties (commutative, associative, and distributive) of the basic arithmetic operations, but will not test the names of those properties.

Geometry includes the understanding and application of the properties of two-dimensional shapes. Questions call for solving geometric problems, using facts about angles and about the similarity or congruence of geometric figures; and solving problems using formulas for area and circumference of a circle, formulas for the perimeter and area of a triangle or rectangle, and the formula for the volume of a rectangular prism (a box). A reference sheet with geometric formulas needed for the test is available as a Help screen.

The test is 90 minutes long and contains 56 questions. This test may contain some questions that will not count toward your score.

The test will contain several types of questions:

- **Selected-response—select one answer choice**: Questions for which you select only one answer choice from a list of choices, by clicking on an oval.

- **Selected-response—select one or more answer choices**: Questions for which you select one or more answers from a list by clicking on checkboxes. Note: A question may or may not specify the number of choices to select.

- **Numeric-entry questions**: Questions for which you enter your answer—an integer or a decimal—in an answer box. Some questions may call for you to enter a fraction by putting values in two boxes—one for the numerator and one for the denominator.

An on-screen calculator is available for this test. The "Transfer Display" button can be used on numeric entry questions with a single answer box to transfer what's on the calculator display to the answer box.

Test Specifications

I. **Number and Quantity**
1. Solve problems involving integers, decimals, and fractions
2. Solve problems involving ratios and proportions
3. Solve problems involving percent
4. Solve problems involving constant rates (e.g., miles per hour, gallons per mile, cubic feet per minute)
5. Demonstrate an understanding of place value, naming of decimal numbers, and ordering of numbers
6. Demonstrate an understanding of the properties of whole numbers (e.g., factors, multiples, even and odd numbers, prime numbers, divisibility)
7. Identify counterexamples to statements using basic arithmetic
8. Solve real-life problems by identifying relevant numbers, information, or operations (including rounding)
9. Solve problems involving units, including unit conversion and measurements

II. **Data Interpretation and Representation, Statistics, and Probability**
1. Work with data and data representations to solve problems
2. Solve problems involving measures of central tendency (e.g., mean, median) and spread (e.g., range, standard deviation)
3. Use data from a random sample to draw inferences about characteristics of a population
4. Identify positive and negative linear relationships in scatterplots
5. Use a linear model for a data set to make predictions
6. Differentiate between correlation and causation
7. Compute simple probabilities, and use probabilities to solve problems

III. **Algebra and Geometry**

Algebra
1. Demonstrate an understanding of the properties (commutative, associative, and distributive) of the basic operations (addition, subtraction, multiplication, and division) without needing to know the names of the properties
2. Demonstrate the ability to follow an arithmetic or algebraic procedure (e.g., using a step-by-step procedure, using a simple flowchart, applying a simple recurrence sequence) by carrying it out or analyzing it
3. Use properties of operations to identify or generate equivalent algebraic expressions (e.g., multiplication of whole numbers gives the same result as repeated addition, multiplication by 0.1 gives the same result as division by 10)
4. Write an equation or expression that models a real-life or mathematical problem

5. Solve word problems, including problems involving linear relationships and problems that can be represented by Venn diagrams
6. Solve linear equations in one variable algebraically
7. Solve simple quadratic equations (e.g., $x^2 = 49$)

Geometry
1. Utilize basic properties of common two-dimensional shapes to solve problems
2. Utilize facts about angles to solve problems
3. Utilize facts about congruency and similarity of geometric figures to solve problems
4. Use the formulas for the area and circumference of a circle to solve problems
5. Use the formulas for the perimeter and area of a triangle and a rectangle and the formula for the volume of a rectangular prism (box) to solve problems

Pass Rate at the MD Adopted Score

2016-2017

Test	Highest Score					
	MD DOE AI			National		
	N	# Passing	Percent Passing	N	# Passing	Percent Passing
Agriculture	2	*	*	513	488	95.13%
Art: Content and Analysis	116	90	77.59%	1009	671	66.50%
Biology: Content Knowledge	92	84	91.30%	3547	2912	82.10%
Business Education: Content Knowledge	27	27	100.00%	1887	1664	88.18%
Chemistry: Content Knowledge	46	33	71.74%	1585	1054	66.50%
Chinese (Mandarin): World Language	12	12	100.00%	165	146	88.48%
Early Childhood Education	534	510	95.51%	4063	3255	80.11%
Earth and Space Sciences: Content Knowledge	22	19	86.36%	767	593	77.31%
Economics	4	*	*	152	90	59.21%
Elem Ed: Instructional Practice & Application **	956	889	92.99%	2525	2188	86.65%
Elementary Education CKT ***						
English Language Arts: Content and Analysis	221	180	81.45%	2965	2247	75.78%
English to Speakers of Other Languages	7	7	100.00%	3451	3357	97.28%
Family and Consumer Sciences	14	12	85.71%	1012	878	86.76%
French: World Language	11	5	45.45%	381	267	70.08%
Geography	3	*	*	126	80	63.49%
German: World Language	1	*	*	122	78	63.93%
Government/Political Science	6	5	83.33%	333	281	84.38%
Health Education	86	78	90.70%	1288	1031	80.05%
Latin	0	*	*	66	58	87.88%
Mathematics: Content Knowledge	179	102	56.98%	7772	3579	46.05%
Middle School English Language Arts	60	40	66.67%	2982	1592	53.39%
Middle School Mathematics	200	158	79.00%	5642	3566	63.20%
Middle School Science	92	77	83.70%	2816	1986	70.53%
Middle School Social Studies	40	36	90.00%	2160	1578	73.06%
Music: Content and Instruction	77	62	80.52%	1227	818	66.67%
Physical Education: Content and Design	122	101	82.79%	1374	722	52.55%
Physics: Content Knowledge	17	13	76.47%	840	564	67.14%
School Leaders Licensure Assessment	253	231	91.30%	7028	6037	85.90%
School Psychologist	24	24	100.00%	2680	2614	97.54%
Social Studies: Content & Interpretation	141	114	80.85%	1716	1197	69.76%
Spanish: World Language	38	19	50.00%	2204	1365	61.93%
Special Ed: Core Knowledge and Applications	757	743	98.15%	5998	5750	95.87%
Teaching Reading: Elementary Education ****	22	19	86.36%	4356	4026	92.42%
Technology Education	23	21	91.30%	682	612	89.74%
Theatre	10	9	90.00%	314	282	89.81%
World and US History: Content Knowledge	62	43	69.35%	1202	648	53.91%

* No data are displayed because the examinees count is fewer than 5.

** MD no longer uses this test

*** MD adopted the test July 1, 2018

**** This test will be replaced with the new version 9/19

ETS PPAT

Measuring the Power of Learning.

Fact Sheet on the *PPAT* Assessment and edTPA

	edTPA Assessment from Pearson	PPAT Assessment from ETS
Developed by the Profession for the Profession	• Developed with more than 1,000 educators and teacher educators from 29 states and 400 institutions, and led by education researchers at SCALE in collaboration with the American Association of Colleges for Teacher Education (AACTE) • Extensive, multiyear development process of pilots and field tests, with over 30,000 candidates participating since 2009 • Developed as a Licensure and National and State Accreditation System for the assessment of teaching	• The *PPAT* assessment was developed by 26 education professionals and teacher educators from 16 states and facilitated by ETS specialists. More than 500 additional educators and teacher educators, who participated in piloting and pilot evaluation sessions, contributed to the final form of the PPAT assessment. PPAT pilots included nearly 1,000 participants over a two-year period. • The PPAT assessment was developed as a requirement for educator preparation program (EPP) approval. Passing the PPAT assessment signals successful completion of a candidate's clinical experience, typically a requirement for program completion and licensure. PPAT data can also be used to demonstrate fulfillment of CAEP or other accrediting requirements.

A Support and Assessment System	• edTPA National Academy consultants who provided direct professional development services to educators to build the capacity around teaching and learning
	
	 • SCALE and AACTE implementation experts who provide ongoing, customized policy and program support to states and EPPs using edTPA
	
	 • Established multistate infrastructure to support states, including monthly phone calls/webinars with advisory groups, faculty and/or edTPA coordinators
		• ETS provides several support options to best suit varied customer needs, including:
		
		   - Access to ETS implementation experts who hold implementation workshops via webinar or on-site, as needed
		
		   - Access to ETS experts who provide ongoing policy and program support to states and EPPs using the PPAT assessment
		
		   - Dedicated call center and technical support for teacher candidates throughout the entire experience
		
		   - Phone conferences and webinars with advisory group members and faculty, as needed, to support EPP implementation and use

Resources Available	• Free access to the edTPA online community, where more than 6,000 members have access to an extensive edTPA Resource Library • Resource Library includes research documents, videos, faculty and candidate resources, and other materials to fully support implementation of edTPA • edTPA National Academy consultants who are trained to provide professional development and implementation support • National, Regional and State Implementation Support Conferences	• The PPAT website provides free and public access to resources for all stakeholders and decision makers involved in the assessment experience, including teacher candidates, cooperating teachers, superintendents, state department officials, faculty and policymakers. • Resources include, but are not limited to, the full text of all the task prompts and rubrics, the library of exemplars (which includes videos), the *Reflective Practice Guide* and the *Cooperating Teacher Handbook*. • Other resources include state and regional implementation support workshops at the request of EPPs or states.

For additional information about either assessment, send an email to **ppat@ets.org** or visit **edtpa.aacte.org**.

Fact Sheet on the PPAT Assessment and edTPA

	edTPA Assessment from Pearson	PPAT Assessment from ETS
Assessing Content-Specific Pedagogy	• Subject-specific assessments of content pedagogy require candidates to demonstrate pedagogical strategies. • It provides evidence of effective subject-specific teaching with diverse learners. • It's developed in more than 27 individual subject areas, customized to state certification requirements and aligned with adopting state licensure areas.	• PPAT tasks require candidates to demonstrate application of national and state standards appropriate to the content being taught in their lesson planning, implementation and reflective practice. • It provides evidence of effective subject-specific instruction with diverse learners. • Content-specific scorers ensure that content-specific pedagogy is consequential. • The PPAT assessment requires use and modeling of subject-specific academic language to describe appropriate subject-specific theory that undergirds the lesson planning and instructional delivery. • By design, the PPAT assessment's flexibility ensures use of the assessment is not limited to any given number of content areas.
Architecture	As a capstone, summative assessment, edTPA consists of three interconnected Tasks embedded in clinical practice: • **Task 1:** Planning for Instruction and Assessment • **Task 2:** Instructing and Engaging Students in Learning • **Task 3:** Assessing Student Learning The Elementary Education handbook includes a Task 4, titled Assessing Students' Mathematics Learning. Washington version handbooks require candidates to address Student Voice, a state-specific cross-cutting construct embedded in all three tasks.	The PPAT assessment consists of four sequentially administered tasks, the first formative and the final three summative, embedded in clinical practice followed by a Professional Growth Plan (PGP): • **Task 1:** Knowledge of Students and the Learning Environment • **Task 2:** Assessment and Data Collection to Measure and Inform Student Learning • **Task 3:** Designing Instruction for Student Learning • **Task 4:** Implementing and Analyzing Instruction to Promote Student Learning • **PGP:** Designing first phase of in-service professional development on the basis of feedback on the PPAT assessment tasks
Integrated Learning Segment of Teaching	• Candidates plan, instruct and assess students through an integrated and contextualized continuous learning segment of three–five days. • Candidates prepare authentic artifacts of practice in a clinical teaching experience assessing planning, instruction and assessment. • Commentaries provide evidence of candidates' analyses of student learning to provide feedback and inform next steps for teaching.	• PPAT tasks are, by design, embedded in the clinical experience (i.e., completed throughout the experience). • For each task, the PPAT assessment asks for context around the lesson, prior knowledge and background information, and how it influenced the planning. Each task builds on former instruction and learning, as well as background information on knowledge of students. • For each task, candidates prepare authentic artifacts of practice in a clinical teaching experience assessing planning, instruction and assessment. • Commentaries offer evidence of candidates' analyses of student learning to provide feedback and inform next steps for teaching. • PPAT Tasks 1–3 are designed to intentionally pull out specific parts of the teaching cycle for focus and self-reflection, while Task 4 requires candidates to put all of the parts together.
Educative Purpose	• edTPA is a system of assessment that allows candidates to learn and for programs to improve by providing a growing number of resources as educative tools for program improvement and renewal (more than 50 resources available as of December 2014).	• The PPAT assessment promotes the learning and refinement of practical teaching skills as candidates engage the tasks throughout their clinical experience. • The PPAT assessment initiates the practice of reflective professional development through the completion of its PGP. • The PPAT assessment provides rich performance results to help programs analyze and improve their curricula. • The PPAT website is replete with resources, including the full tasks and rubrics, a library of exemplar responses including videos, and a full array of handbooks and guides.

For additional information about either assessment, send an email to **ppat@ets.org** or visit **edtpa.aacte.org**.

Fact Sheet on the PPAT Assessment and edTPA

	edTPA Assessment from Pearson	PPAT Assessment from ETS
Formative Aspects	• Campus and/or SCALE developed a system of formative assessment to address national and state teaching standards. Embedded Signature Assignments (ESA) and edTPA's analytic rubrics aligned to InTASC standards can be used to provide formative learning experiences that emphasize program-specific goals, mission and values. • Subject-specific, analytic rubrics use clear and specific criteria to evaluate 15 key aspects of candidate performance and can be used formatively to support candidate improvement.	• PPAT Task 1 is designed as a formative exercise that addresses the understanding of a new class of students in terms of its social context. The PPAT assessment provides an extensive guide to the use of Task 1. In addition, the PPAT tasks and analytic rubrics — all aligned to InTASC standards — are available on the PPAT website and can be used to provide formative learning experiences before and during the clinical experience. • Analytic rubrics (supported by a library of exemplars) evaluate 11 key aspects of candidate performance and can be used formatively to support candidate improvement.
Scoring	• All tasks are scored initially by one certified scorer to achieve an integrated, aggregate score across all components of the edTPA portfolio. • Portfolios at or near the passing standard are double scored and, in some cases, are triple scored. • Additional random samples are double scored. • **All** scorers are back-read to evaluate scorer consistency.	• Task 1 is evaluated locally to introduce the candidate to the class, school and community, as well as to provide the candidate, the mentor professor and cooperating teacher orientation on the clinical experience. • Tasks 2, 3 and 4 are each individually scored and seen by three different content experts for each portfolio to ensure that no one person determines an overwhelming percentage of a candidate's score. • Raters are recalibrated frequently during the scoring process, but scoring leaders can impose a calibration at any time. • Content specificity is taken into account by using a rater who is an expert in the content area being taught.

Scorers	• Scorer pool is comprised of approximately 50% P–12 educators and 50% university faculty, which include:
	
	  – University faculty and administrators
	  – Field supervisors
	  – Cooperating teachers
	  – Induction mentors/coaches
	  – National Board Certified Teachers
	  – Subject-matter professional organization members
	  – Retired P–12 teachers and principals (current in their content area)
	
	• Each scorer completes over 20+ hours of scoring training comprised of independent, online training modules; practice scoring; and online/live training.
	
	• Scorers must demonstrate high levels of reliability to be certified as approved scorers.
		• Scorer pool is comprised of 50% P–12 educators and 50% university faculty, which include:
		
		  – University faculty and administrators
		  – Field supervisors
		  – Cooperating teachers
		  – Induction mentors/coaches
		  – National Board Certified Teachers
		  – Subject-matter professional organization members
		  – Retired P–12 teachers and principals (current in their content area)
		
		• As is true for all ETS tests, scorers must demonstrate high levels of reliability. They must complete 30+ hours of scoring training, which includes online training modules, practice scoring and online/live training.
		
		• Scorers are certified upon completion of training and must complete regular calibration prior to their scoring assignment to ensure high levels of reliability.

Reliability and Validity	• Developed within a technical framework of psychometric practice and principles guided by *The Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999) • Field tested over two years and operational since the fall of 2013 (12,000 teacher candidates from 250 EPPs participated in the field test). View the *2013 edTPA Field Test: Summary Report* at **https://secure.aacte.org/apps/rl/res_get. php?fid=827&ref=edtpa** • Rigorously reviewed by a national Technical Advisory Committee (TAC) and individual state TACs • Ongoing research consortium of users to inform practice	• Developed within a technical framework of psychometric practice and principles guided by *The Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999), as well as ETS's *Standards for Quality and Fairness* (June 2015) • Piloted in 16 states over two years • InTASC Alignment study completed • Ongoing research consortium of users to inform practice

For additional information about either assessment, send an email to **ppat@ets.org** or visit **edtpa.aacte.org**.

Fact Sheet on the PPAT Assessment and edTPA

	edTPA Assessment from Pearson	PPAT Assessment from ETS
Standards Alignment	• Points of alignment with InTASC, Marzano and Danielson Frameworks, CCSS, NGSS and CAEP/SPA standards	• The PPAT assessment was developed to align to the InTASC standards. After development, an independent alignment study was completed to confirm the alignment. • Candidates are required to demonstrate application of the national- and state-level standards relevant to their lesson and tasks. Depending on the lesson being taught, these standards include CCSS, NGSS and CAEP/SPA standards. • The PGP is designed as a bridge between the pre-service clinical experience and the framework in terms of which a candidate will be evaluated when in-service (e.g., Danielson, Marzano, etc.).
Operational Information	• edTPA is recognized as the first standards-based assessment to become nationally available. • Thirty-thousand portfolios have been submitted and scored since early 2009. • edTPA is approved as a performance assessment as part of program completion, or for state licensing and/or state program accreditation/review, in 10 states. • Over 30 states have campuses that are participating in edTPA and exploring state adoptions.	• The PPAT assessment launched in August 2015. • Sixteen states have participated in the PPAT pilot and are exploring adoption. • ETS extends pilot opportunities to stakeholders who are interested in incorporating the PPAT assessment into their EPPs. • ETS's history with performance assessment development spans nearly two decades, including work on the *Praxis III®* assessments, the National Board Certification exam, TPA, Washington ProTeach Portfolio, Georgia Teacher Leader, the Missouri Pre-Service Teacher Assessment and the PPAT assessment.
Professional Growth	• An induction system is being developed that builds on candidate performance assessed by the edTPA rubrics and aligns with state and district evaluation systems (Danielson, Marzano, etc.) that are locally developed.	Includes a PGP developed to build upon induction systems and teacher evaluation protocols that states and districts already have in place (e.g., Danielson, Marzano, etc.). The PGP: • Promotes holistic professional reflection • Prepares candidates for real-world performance • Helps candidates identify multiple strengths and areas where they may need more focus • Provides candidates with a tangible and tailored development plan for the first years of practice
Cost of Assessment	• $300 and $100/task for retakes • Includes support and implementation resources customized for states	• $300 and $75/task for resubmission • Includes support and implementation resources customized for states and EPPs
Reporting	• Most fields have 26 scoring/reporting windows throughout the year. • Candidates' scores are reported within three weeks from the submission deadline in most fields and four weeks for low-incidence areas.	• The PPAT assessment is scored on a continuous basis as tasks are submitted throughout the semester. • Candidates receive scores (Tasks 2, 3 and 4) approximately three weeks after the task submission deadline, enabling students to gauge their level of performance prior to submitting the next task. • All submissions are scored in the same time frame, regardless of whether the subject is a high- or low-volume discipline. This is especially important for teacher shortage areas. • The PPAT scoring model is flexible to accommodate varied student teaching models (e.g., year-long internships).

For additional information about either assessment, send an email to **ppat@ets.org** or visit **edtpa.aacte.org**.

	edTPA Assessment from Pearson	PPAT Assessment from ETS
Tools for Analyzing Results	ResultsAnalyzer™ • Web-based, interactive reporting tool that allows teacher preparation institutions and state agencies advanced searching, data comparison, and chart and table creation.	*ETS®* Data Manager • Web-based tool for score reporting and analysis that allows for advanced searching, data comparison, and chart and table creation. • PPAT data can also be used for curriculum realignment and program reform.
Electronic Platforms	• EPPs may choose an integrated edTPA Platform Provider to help candidates build their edTPA portfolio assessment or use the Pearson ePortfolio system. • As of November 2014, there are 10 integrated platform providers available and new providers are added annually.	• There are no current agreements with third-party vendors. All candidate work must be submitted directly to the ETS platform for scoring. • One user-friendly platform ensures consistency across test takers (everyone working on it in the same way; no advantages/disadvantages).

For additional information about either assessment, send an email to **ppat@ets.org** or visit **edtpa.aacte.org**.

ETS

Measuring the Power of Learning.®

Provider Survey Responses*

Attachment H

Provider	Assessment	Cut Score	How it is Scored	Comments
Bowie State University	Another provider (LessonCast)		Local scoring	Use local scoring but it can nationally scored
Coppin State University	Another provider		Local scoring	EdTPA or PPAT will be piloted next year
Frostburg State University	EdTPA		Local and National scoring	EdTPA is being used by some candidates in Program
Hood College	EdTPA	13 rubrics (World Languages): 32 15 rubrics: 37 18 rubrics (elementary): 44	National scoring	First year using EdTPA. Used for all candidates in Program. Exit requirement is to take it.
Johns Hopkins University	EdTPA		National scoring	Will expand piloted next year
Loyola University Maryland	Locally-developed		Local scoring	EdTPA is piloted for interested candidates next year who need it for other states
Mount St. Mary's University	Locally-developed		Local scoring	
Notre Dame of Maryland University	EdTPA		National scoring	Used for some candidates in Program. Next year, exit requirement is to take it.
Peabody Institute of Johns Hopkins University	Locally-developed		Local scoring	

*17 out of 23 Educator Preparation Programs Responded to the Survey

Provider Survey Responses*
Attachment J

Provider	Assessment	Cut Score	How it is Scored	Comments
Salisbury University	EdTPA		Local and National scoring	EdTPA is being used by some candidates in Program; full implementation by Fall 2020.
St. Mary's College of Maryland	EdTPA	The EdTPA recommended performance standards	National scoring	Used for all candidates in Program. Exit requirement is to take it
Stevenson University	Locally-developed		Local scoring	
Towson University	EdTPA	38	National scoring	EdTPA is being used by some candidates in Program; pilot for all by Fall 2019
University of Maryland Baltimore County	EdTPA Locally-developed		Local and National scoring	EdTPA is being used by some candidates in Program; pilot next year for more candidates
University of Maryland College Park	EdTPA	13 rubrics: 35 15 rubrics: 39 18 rubrics: 47	National scoring	Used for all candidates in Program. Exit requirement is to pass it.
University of Maryland Eastern Shore	Locally-developed		Local scoring	
University of Maryland University College	Another provider (CPAST) and Locally-developed		Local scoring	CPAST is a national student teaching assessment created by Ohio State University

*17 out of 23 Educator Preparation Programs Responded to the Survey

Passing Scores for North Carolina

The North Carolina Department of Public Instruction has established a passing threshold for edTPA. The following table lists the NC DPI approved edTPA cutscores:

| Performance Assessment Required for Licensure		edTPA Passing Score			edTPA Highly Qualified Score		
		13 Rubric Handbooks	15 Rubric Handbooks	18 Rubric Handbooks	13 Rubric Handbooks	15 Rubric Handbooks	18 Rubric Handbooks
2017–2018	No	32	38	45	42	48	57
2018–2019	No	32	38	45	42	48	57
2019–2020	Yes	34*	40*	48*	42*	48*	57*
2020–2021	Yes	34*	40*	48*	42*	48*	57*
2021–2022	Yes	34*	40*	48*	42*	48*	57*

These scores are estimates until North Carolina data collected over 2017-2018 and 2018-2019 can be analyzed to determine North Carolina-specific cut scores beginning in 2019-2020.

Note - Handbooks with only 13 rubrics include World Language and Classical Languages. Handbooks with 18 rubrics include the two Elementary Education handbook options. All other edTPA handbooks consist of 15 rubrics.

Your handbook selection should be aligned with your clinical experience. Please call or contact your state office of educator licensing for specific details.

For additional information regarding edTPA state policies, please review AACTE's state participation information. ⏎

Educator Licensure:
Assessment Options and Recommendations

MARYLAND STATE DEPARTMENT OF
EDUCATION
EQUITY AND EXCELLENCE
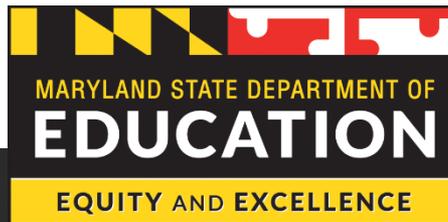
STATE BOARD MEETING

April 23, 2019

Teacher Assessment: Background

The Maryland State Department of Education (MSDE) requires certification tests to assess basic skills (4), content knowledge (35), and pedagogy (4)

There are two primary test providers for certification tests: Education Testing Services (ETS) and Pearson

Maryland currently uses the ETS Praxis series for certification and supplements with the American Council on the Teaching of Foreign Languages (ACTFL) for certification of foreign language teachers

(Attachment A: Assessment Costs)

Background:
Pearson/State Developed Tests

Massachusetts, Florida, and Minnesota are under five-year renewable contracts with Pearson*

- Pearson is responsible for the ongoing design refinement, data collection, administration, and evaluation of the tests.
- Costs vary depending on size of state and terms of the contract

Minnesota had a one-time $85 million appropriation for test development, review, and validation over two years (2010-2011)

- Cost for test-takers: $95 per subject test

Florida has a reoccurring appropriation of $13.78 million annually over the 5-year contract ($69 million)

- Costs for test-takers: $200 per subject test

Based on this review, the MSDE is not proceeding with a state-developed test due to the immense cost of this option.

The MSDE will continue to work with ETS and use the Praxis series.

*Information from National Center on Education and the Economy (NCEE) Center on International Education Benchmarking 2018. Teacher Licensing Assessments: Assessments of Content and Teaching Ability (p. 4). (Attachments B, C, and D)

Background: ETS
Multistate Standard Setting Studies

ETS revises most tests on a five year schedule and creates new tests based on need

ETS conducts two Multistate Standard Setting Studies for each test

- The cut scores from the two panels are averaged and converted to a scaled score which becomes the recommended qualifying score published by ETS

- The two non-overlapping panels strengthen the technical quality of the recommended cut scores and provides validity to assist states with making certification test decisions

- ETS advises states to adopt a score that does not exceed a plus or minus two standard errors of measurement (SEM) from the recommended qualifying score

State Comparison
Required Licensure Tests - Current

Test Area	Maryland	Massachusetts	Delaware	New Jersey	Pennsylvania	Virginia
Basic Skills	**Praxis Core** (reading, math, & writing) -or- **SAT, GRE, ACT**	**MTEL: Communication and Literacy Skills** (reading & writing)	**Praxis Core** (reading, math, & writing) -or- **SAT, GRE, ACT**	**Praxis Core** (reading, math, & writing) -or- **SAT, GRE, ACT**	**Praxis Core** (reading, writing, & math) -or- **SAT, ACT, Pre-service Academic Performance Assessment**	**Pearson VCLA** (reading & writing + **Praxis Core*** (math)
Subject Matter/ Content	**Praxis ACTFL**	**MTEL**	**Praxis**	**Praxis**	**Praxis ACTFL Pearson**	**Praxis**
Pedagogy	**Praxis: Principles of Teaching and Learning (PLT)**	**No**	**EdTPA** -or- **PPAT**	**EdTPA** No Cut Score established yet	**No**	**Praxis: PLT**
Reading	**Praxis:** Teaching Reading; Elementary (Early Childhood Elementary English as a Second Language (ESOL) Special Education)	**MTEL**	**No**	**No**	**No**	**Praxis:** Reading for Virginia Educators (Early Childhood Elementary Special Education)

Scholastic Aptitude Test (SAT)   Graduate Record Exam (GRE)   American College Testing Program (ACT)

Due to legislative changes, effective July 1, 2019, Virginia will allow programs to determine their program entry assessment and work with CAEP.

Assessments Under Review

MSDE is making recommendations regarding the following certification assessments:

Basic Skills Test:
- Praxis Core

Content Tests:
- English as a Second Language
- Special Education: Core Knowledge and Applications
- School Leaders Licensure Assessment

Pedagogy Tests:
- Praxis Performance Assessment for Teachers (PPAT)
- Educative Teacher Performance Assessment (EdTPA)

Basic Skills Assessment: Praxis Core

Purpose of Assessment: Basic Skills tests have been designed to determine a candidates readiness for entry into a post-secondary school program.

Topics Covered: The Praxis Core consists of three (3) subtests reading, writing, and math. Reading includes key ideas and details, craft, structure and language skills, and integration of knowledge and ideas. Writing includes test types, purposes, production, language, and research skills for writing. Math includes number and quality, algebra and functions, geometry, and statistics and probability.

Background: The SBOE and the Professional Standards Teacher Education Board (PSTEB) recently granted permission for the MSDE to develop entrance requirements for an Educator Preparation Program (EPP) to include a 3.0 GPA **or** passing scores on the Praxis Core or testing equivalent on the SAT, GRE, or ACT.

Maryland Basic Skills Pass Rates: Praxis Core

2016-2017
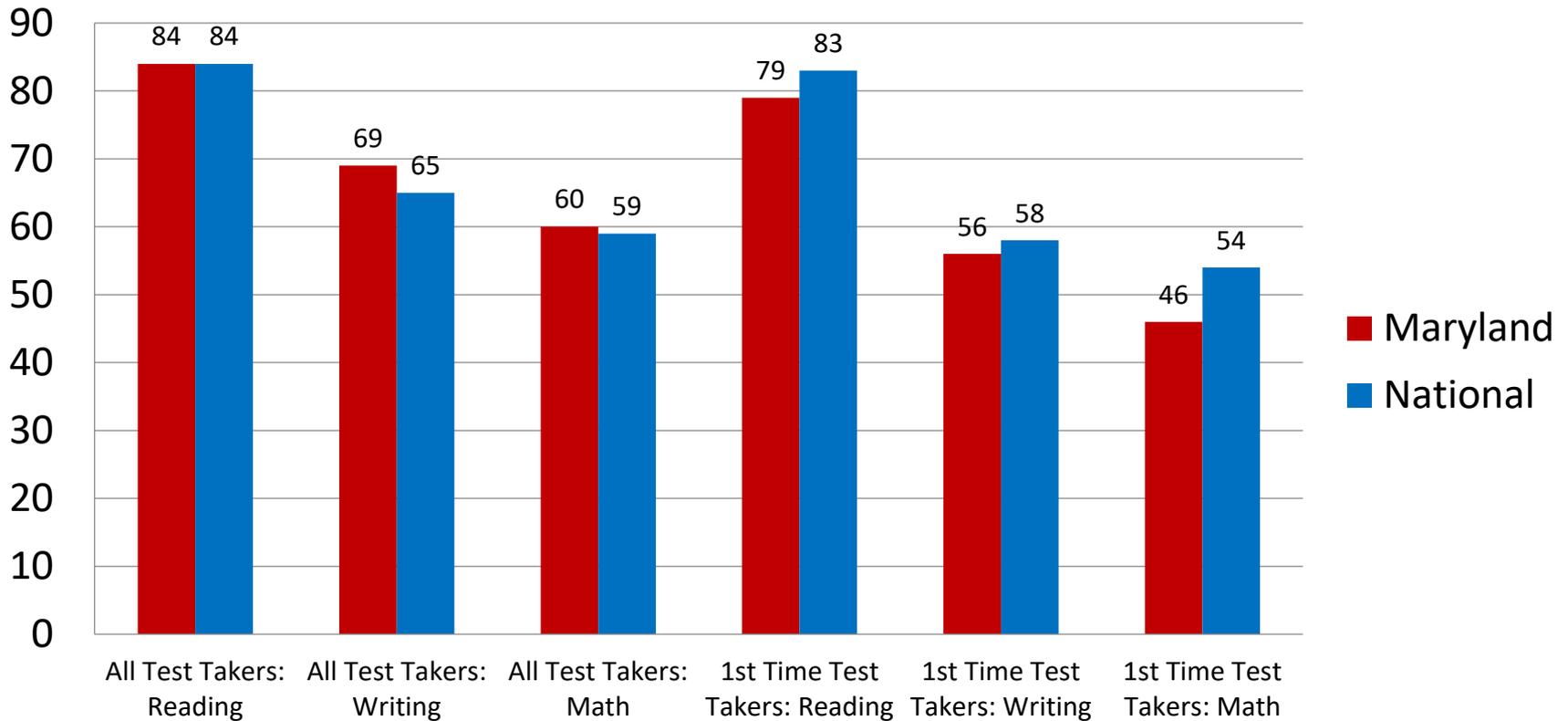
Praxis data obtained from ETS

Basic Skills: Praxis Core
Math Subtest
(Attachment E)

Effective September 2019, the revised Praxis Core: Math subtest will be released

Mathematics subtest changes include:

- Increased emphasis on data interpretation and representation, statistics, and probability
- Reduced weight on algebra and geometry
  - Includes a reference sheet for geometric formulas, so the test is not assessing candidates on their recall of those formulas
- A number of mathematical topics identified as less important for educator preparation were removed, such as:
  - Identifying rational vs. irrational numbers
  - Solving problems with radicals
  - Working with functions
  - Solving problems involving three-dimensional figures

Action

Option 1: Continue current practice of requiring the Praxis Core, GRE, ACT, or SAT **-and-** adopt the new cut score for the Praxis Core Math subtest

Option 2: Align the certification requirements with the entrance requirements for educator preparation programs as follows:

- Continue the current practice of requiring the Praxis Core or GRE, ACT, or SAT **and** adopt a Grade Point Average (GPA) of at least 3.0 on a 4.0 scale during most recent two years of the candidate's general education in lieu of submitting a basic skills assessment
- Adopt the new cut score for the math subtest

MSDE Recommends Option 2 as follows:

- **Adopt:** A GPA of 3.0 on a 4.0 Scale as an alternative for meeting the basic skills requirement
- **Adopt:** The new Praxis Core mathematics assessment with the recommended qualifying score of 150
- **Effective:** July 1, 2020
- **Qualifying Scores**
  - Core Academic Skills for Educators: Reading (5712): **156 no change**
  - Core Academic Skills for Educators: Writing (5722): **162 no change**
  - Core Academic Skills for Educators: Mathematics(5733): **150**

Content Assessments
(Attachment F)

Purpose of Assessment: Content assessments measure subject-specific content knowledge, as well as, general and subject-specific teaching skills that one needs for beginning teaching.

Background: The SBOE Subcommittee and the Commission on Innovation and Excellence in Education (Commission) requested that the MSDE complete a comprehensive review of all certification assessments. Recommendations are based on that review.

Maryland currently uses thirty-eight (35) Praxis content tests for educator certification. Today we will be reviewing three (3):
- English to Speakers of Other Languages (ESOL)
- Special Education: Core Knowledge and Applications
- School Leaders Licensure Assessment (SLLA)

Content Assessment:
English to Speakers of Other Languages

Purpose of the Assessment: The ESOL assessment is designed to measure basic linguistic and pedagogical knowledge for those working in the context of teaching ESOL in elementary or secondary schools.

Topics Covered: This assessment covers foundations of linguistics, foundations of language learning, planning and implementing instruction, assessment and evaluation, culture, professionalism and advocacy.

Background: The SBOE Subcommittee and the Commission requested that the MSDE complete a comprehensive review of all certification assessments. Recommendations regarding this assessment are based on that review.

Maryland Content Assessment Pass Rates: Praxis ESOL Test
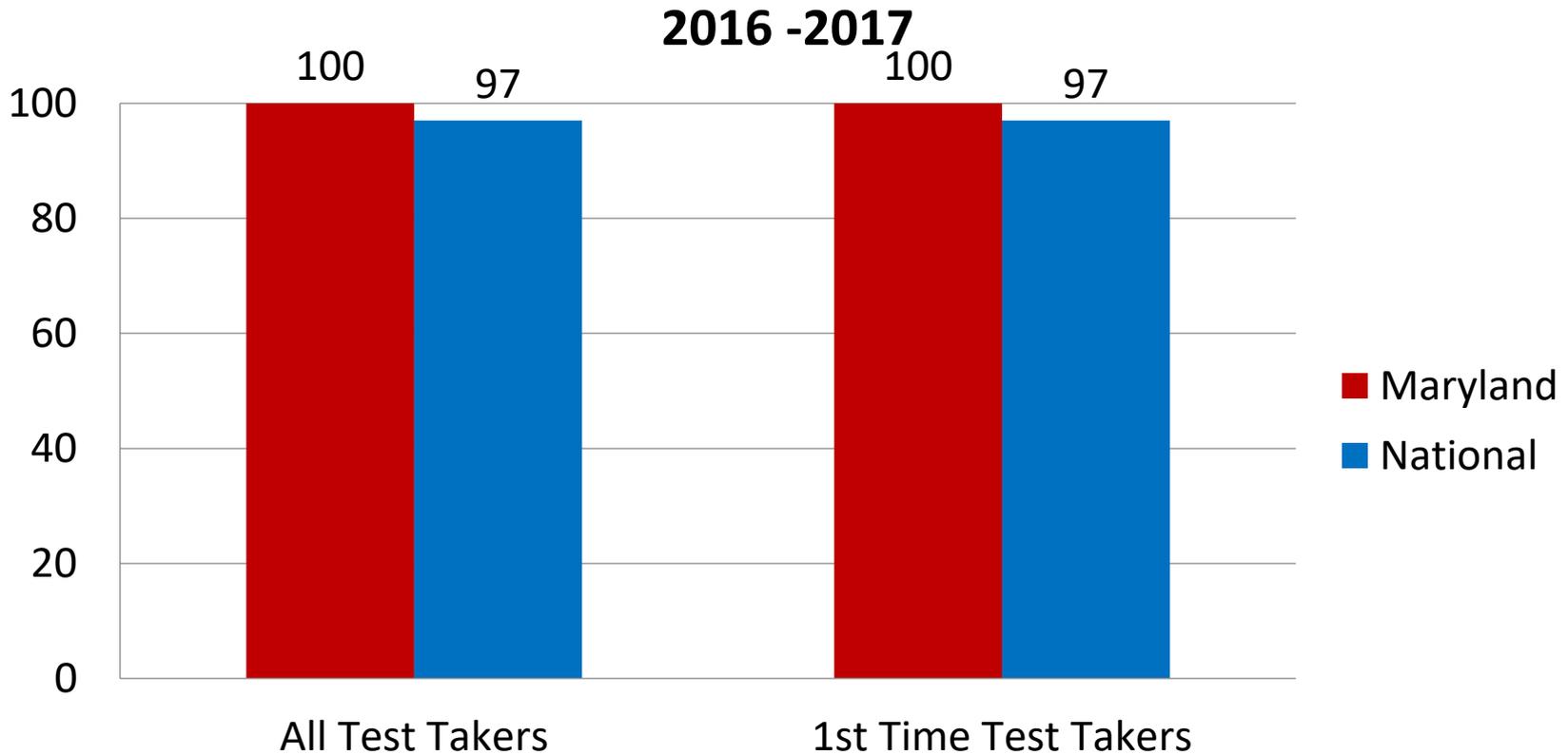
Praxis data obtained from ETS

Action

Option 1: Continue using the English to Speakers of Other Languages test

Option 2: Continue using the English to Speakers of Other Languages test **and** increase the qualifying score by +1 or +2 SEM

Standard Error of Measurement Information:
- Projected Maryland Pass Rate:
    - +1 SEM: Qualifying Score: 163   Projected Pass Rate: 84%
    - +2 SEM: Qualifying Score: 169   Projected Pass Rate: 74%
- 29 states using the assessment
    - 21 adopted the recommended cut score = 155
    - 7 used a lower cut score (DE, HI, KS, MP, MS, VA, WI)
    - 1 used a higher cut score (IA: 168)

MSDE Recommends Option 2:
Continue using the English to Speakers of Other Languages test + 1 SEM and adjust the qualifying score as follows:
- **Effective:** July 1, 2020
- **Qualifying Score:** 163

Content Assessment:
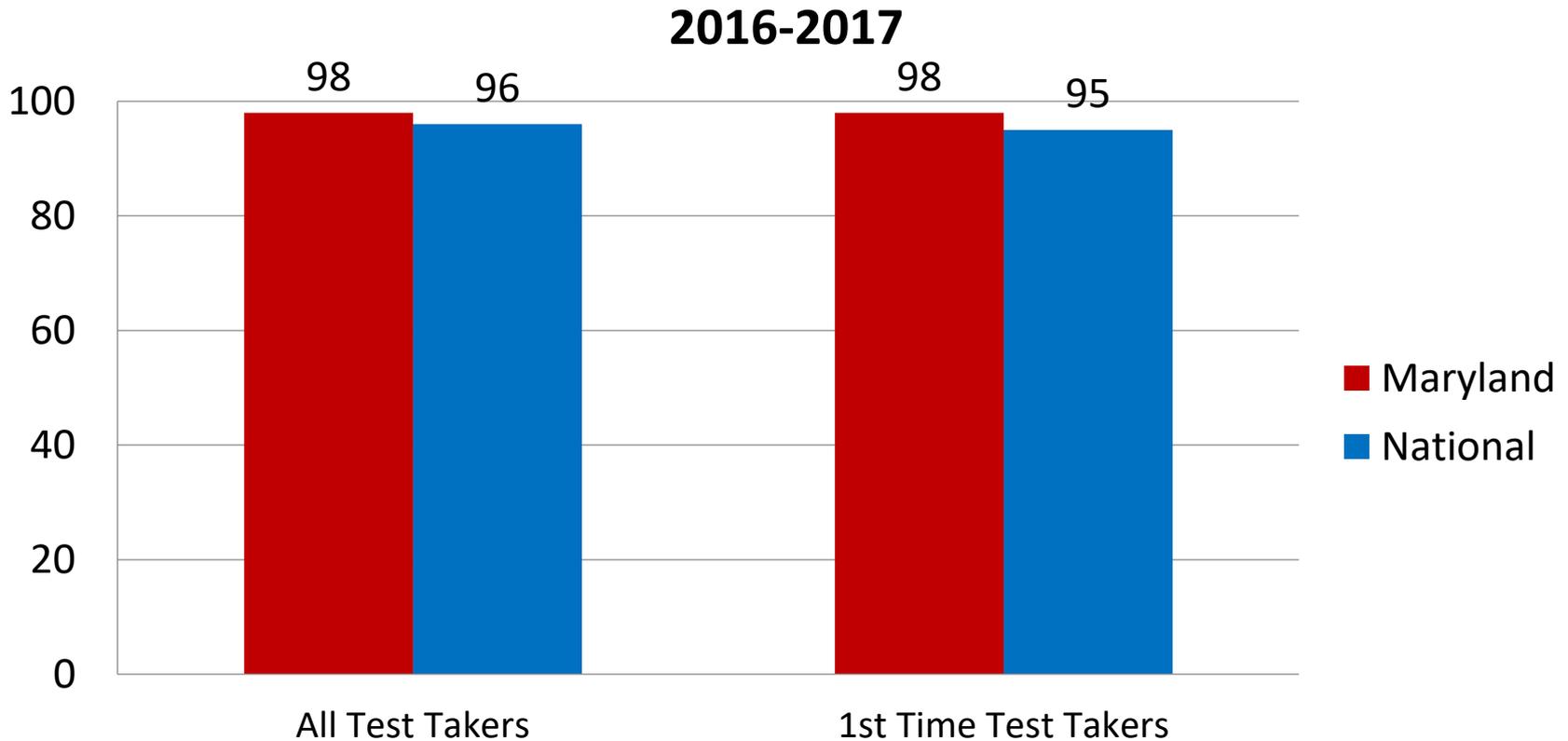## Special Education: Core Knowledge and Applications

Purpose of Assessment : The Special Education: Core Knowledge and Applications for individuals who plan to teach in a special education program preschool through grade 12. The test assesses a candidate's knowledge of the basic principals of special education and the application of these principles to realistic situations.

Topics Covered: This assessment covers the development and characteristics of learners, planning and the learning environment, instruction, assessment, foundations and professional responsibilities.

Background: The SBOE Subcommittee and the Commission requested that the MSDE complete a comprehensive review of all certification assessments. Recommendations regarding this assessment are based on that review.

Test Revision: This test will be revised as soon as the Council for Exceptional Children (CEC) finalizes their new standards. If finalized this year as expected, the first test administration would be 2021.

Maryland Content Assessment: Pass Rates: Special Education

2016-2017

Praxis data obtained from ETS

Action

Option 1: Continue using Special Education: Core Knowledge and Applications

Option 2: Continue using Special Education: Core Knowledge and Applications and increase the qualifying score by +1 or +2 SEM

Standard Error of Measurement Information:
- Projected Maryland Pass Rate:
  - +1 SEM: Qualifying Score: 163   Projected Pass Rate: 82%
  - +2 SEM: Qualifying Score: 169   Projected Pass Rate: 69%
- 30 states using the assessment
  - 19 adopted the recommended cut score 151
  - 5 used a lower cut score (ID, LA, MP, SD, and VI)
  - 6 used a higher cut score (AL: 153, IA: 164, MS: 152, MT: 159, UT: 160, and WY: 158)

MSDE Recommends Option 2:

Continue using the Special Education: Core Knowledge and Applications + 1 SEM and adjust the qualifying score as follows:
- **Effective:** July 1, 2020
- **Qualifying Score:** 163

Content Assessment:
School Leaders Licensure Assessment

Purpose of Assessment: The School Leaders Licensure Assessment measures the extent to which entry-level school leaders demonstrate the standards-relevant knowledge and skills necessary for competent professional practice.

Topics Covered: Include strategic instructional, climate and cultural, ethical, organizational, and community engagement leadership.

Background: The School Leaders Licensure Assessment was revised in the fall of 2018 and is scheduled to be discontinued in September 2019. Fifteen (15) states are using the old assessment and are moving to the new assessment by the end of 2019. Eight (8) have already moved to the new assessment.
- 6 adopted the recommended cut score (DC, GU, MS, PA, TN, and UT)
- 2 used a lower cut score (SD and VA)

Action

MSDE Recommends: Adopt the revised School Leaders Licensure Assessment with the recommended qualifying score of 151.

Adopt: School Leaders Licensure Assessment
- **Effective:** July 1, 2019
- **Qualifying Score:** 151

Pedagogy Assessment: EdTPA and PPAT

Purpose of Assessment: Performance based assessments such as the EdTPA and PPAT measure a candidate's pedagogical knowledge and readiness to enter the classroom.

Topics Covered: We have provided a handout that provides a comprehensive comparison of the two assessments. (Attachment G)

Background: The SBOE Subcommittee and the Commission recommend the use of a performance based assessment.

Qualifying Scores

PPAT Recommended Passing Score

- 40 out of 60 points

EdTPA Recommended Professional Performance Standard (PPS)

- **PPS Recommendation:** 42 and an adjustment of minus a full standard error of measurement

- **Assessments with 13 scoring rubrics:** 32–36 score points may be used as the professional performance standard range

- **Assessments with 15 scoring rubrics:** 37–42 score points may be used as the professional performance standard range

- **Assessments with 18 scoring rubrics:** 44–50 score points may be used as the professional performance standard range

Maryland Providers Using EdTPA

Although not required, eight (8) Maryland Educator Preparation Program providers are currently using the EdTPA in some capacity, according to a MSDE survey.*

Of those providers using EdTPA in their educator preparation program:
- Five (5) have them scored nationally
- Three (3) use a combination of national and local scoring

- **Of those programs using EdTPA in their program, four (4) have established cut scores which vary from program to program.**

- **One (1) program requires candidates to pass the assessment for program completion.**

- **Four (4) programs require candidates to take the assessment for program completion.**

* 17 out of 23 Educator Preparation Providers responded to the survey (Attachment H)

PPAT and EdTPA State Cut Scores

States using PPAT and EdTPA have generally phased in the requirement.

State	Assessment	Cut Score	How it is Scored
Delaware	PPAT EdTPA	38 13 Point Rubric: 33 15 Point Rubric: 38 18 Point Rubric: 46	Praxis Scores EdTPA Scores
New Jersey	EdTPA	**9.1.17 – 8.31.19** All candidates must complete, but do not need to meet a cut score **9.1.19:** Must meet cut score set at -1SEM 13 Point Rubric: 32 15 Point Rubric: 37 18 Point Rubric: 44 **2021:** Final Cut score Determined by NJ	EdTPA scores
Georgia	EdTPA	**9.1.15 – 8.31.17** 13 Point Rubric: 29 15 Point Rubric: 35 18 Point Rubric: 42 **9.1.17 and beyond** 13 Point Rubric: 32 15 Point Rubric: 38 18 Point Rubric: 45	Not clearly identifed
North Carolina	PPAT EdTPA	38 **2017-2019 Not required** 13 Point Rubric: 32 15 Point Rubric: 38 18 Point Rubric: 45 **9.1.19-2022** Must meet cut scores which are estimates. (Attachment I) 13 Point Rubric: 34 15 Point Rubric: 40 18 Point Rubric: 48	Praxis Scores EdTPA Scores

Action

MSDE Recommends:

- Require either the EdTPA or PPAT as a Maryland Educator Preparation Program exit and certification requirement for teachers with less than three (3) years of experience, effective July 1, 2025.
- Phase in the test requirement as follows

Year	Test	Cut Score	Notes
July 2019 - June2022	PPAT EdTPA PLT	Not Applicable Not Applicable As currently adopted with qualifying cut score	Must be scored nationally. Candidates may complete the EdTPA or PPAT, but not meet a required cut score. Candidates are required to present one of these assessments.
July 2022- June 2025	PPAT EdTPA	Not Applicable Not Applicable	Must be scored nationally. Candidates are required to complete the assessment but not meet a required cut score. Candidates are required to present one of these assessments.
July 1, 2025	PPAT EdTPA	40* 13 Point Rubric: 32* 15 Point Rubric: 37* 18 Point Rubric: 44*	* These scores are estimates until data collected over 2019-2025 can be analyzed to determine Maryland-specific cut scores beginning in July 2025. Candidates are required to present qualifying scores on one of these assessments.