

Date of Hearing: May 6, 2020

ASSEMBLY COMMITTEE ON EDUCATION
Patrick O'Donnell, Chair
AB 2485 (Kara) – As Introduced February 19, 2020

SUBJECT: Teacher credentialing: subject matter competence

SUMMARY: Authorizes a candidate for a preliminary multiple or single subject teaching credential to demonstrate subject matter competence by completing higher education coursework in the subjects related to the content area of the credential, or through a combination of higher education coursework, a subject matter program, and/or a subject matter examination, and requires basic competency in the use of computers in the classroom to be demonstrated only by completion of a program or course approved by the Commission on Teacher Credentialing (CTC). Specifically, **this bill:**

- 1) Authorizes a candidate for a preliminary multiple or single subject teaching credential to demonstrate subject matter competence through:
 - a) Successful completion of coursework at one or more regionally accredited institutions of higher education that addresses each of the domains of the subject matter requirements adopted by the CTC in the content area of the credential.
 - b) A combination of successfully completed coursework, completion of a subject matter program approved by the CTC, and/or passage of the California Subject Examinations for Teachers (CSET) that addresses each of the domains in the subject matter requirement adopted by the CTC in the content area of the credential.
- 2) Waives the subject matter examination (CSET) requirement for candidates who address each of the domains of the subject matter requirements by successfully completing higher education coursework, successfully completing a CTC-approved program, and/or passing CSET subtests.
- 3) Allows a program of professional preparation to review transcripts supplied by a candidate to confirm that each domain has been addressed in the completed coursework.
- 4) Requires the CTC to adopt regulations regarding the acceptance of higher education coursework as demonstration of subject matter competence. Prohibits the CTC from verifying a candidate's subject matter competence or waive the subject matter examination requirement based on the completion of higher education coursework until the CTC next adopts or revises regulations for this purpose.
- 5) Requires that competency in the use of computers in the classroom be demonstrated by successful completion of a CTC-approved program or course.
- 6) Makes technical and clarifying changes.

EXISTING LAW:

- 1) Requires the CTC to adopt examinations and assessments to verify the subject matter knowledge and competence of candidates for single subject teaching credentials. (Education Code (EC) 44282)
- 2) Requires the CTC to issue single subject teaching credentials only in fifteen specified subjects. (EC 44257)
- 3) Requires a subject matter examination authorizing a multiple subject teaching credential to include an examination of the candidate's knowledge in language studies, literature, mathematics, science, social studies, history, the arts, physical education, and human development. (EC 44282)
- 4) Requires, as part of the minimum requirements for the preliminary multiple or single subject teaching credential, demonstration of subject matter competence by completion of a CTC-approved subject matter program or the CSET. (EC 44259)
- 5) Requires, as part of the minimum requirements for the preliminary multiple or single subject teaching credential, a candidate to demonstrate basic competency in the use of computers in the classroom by successful completion of a CTC-approved course or successful passage of an assessment which is developed, approved, and administered by the CTC. (EC 44259)
- 6) Requires the CTC to waive the subject examination requirement for graduates of accredited public and private institutions of higher education who successfully complete subject matter programs specified by the CTC. (EC 44310)
- 7) Permits the CTC to require a candidate who is otherwise eligible for an examination waiver to take a subject matter examination for informational purposes only. (EC 44310)

FISCAL EFFECT: Unknown

COMMENTS:

Need for the bill. According to the author, "California is facing a significant teacher shortage and COVID19 will only exacerbate the shortage across the state. This pandemic will drastically affect all teaching positions, especially in the rural and urban areas where schools will be faced with many challenges. Credentialing programs are seeing a decline in enrollment, which only continues to increase the teacher shortage in our schools. As our state grapples with the impacts of this virus, we must come together to help Californians. Teachers and students will need all the assistance to overcome the impacts of COVID19, so by expanding the pathways for teacher credentialing opportunities, we can move in a direction to address the teacher shortage in our California schools."

What is the California Subject Examinations for Teachers (CSET)? California Subject Examinations for Teachers, referred to as CSET, are exams administered by the CTC to assess the subject matter competence of teacher candidates. Teacher candidates seeking a single or multiple subject teaching credential must demonstrate subject matter competency through completing a CTC-approved subject matter program, or by passing the CSET.

Elementary school teachers earn a multiple subject credential by passing a trio of subtests – in science and math; reading, language, literature, history, and social science; and physical education, human development, and visual and performing arts.

Middle and high school teachers earn single subject credentials by passing the CSET subject exam in the content area of the credential. The single subject CSET examinations consist of two to four subtests, depending on the candidate's subject area. Most of the CSET examinations consist of both multiple-choice and constructed-response items. Examinees can choose to take one or more subtests of a given content area within a single testing session; however, candidates must earn a passing score on each of the examination's subtests to pass the entire CSET.

The fee for registering to take the CSET ranges, but for most of the exams, the registration fee is \$99 per subtest. The schedule of testing dates varies depending on the CSET subject area. The exams taken by the highest volume of candidates (multiple subject and single subject math, English, science, and social science) are offered year-round by appointment, Monday-Saturday, on a first come first served basis. For other single subject tests, the exam is offered by appointment during scheduled testing windows. Depending on the subject area, up to four 4-week testing windows are offered each year. For most foreign language exams, only one subtest may be scheduled at a time, and the required subtests may be offered with different frequency and during different testing windows. The exams are computer based and are offered at approximately 180 testing sites in California.

The requirement to pass the CSET is waived for candidates who demonstrate subject matter competence by passing CTC-approved subject matter programs. The CTC accredits institutions and approves programs that meet its adopted standards of quality and effectiveness. These programs span across all credential areas and are offered at nearly 50 accredited institutions across California.

What does the research say about CSET? Potential teachers in California are required to take four tests in order to earn their credential: a basic skills test (CBEST), subject test (CSET), reading instruction competence assessment (RICA), and teacher performance assessment (TPA). Research indicates that at least 40% of those who initially intend to teach are unable to move forward at some testing juncture, and in some fields, including mathematics and science, this includes well over half of those who initially intended to teach. Of these assessments, only the Teacher Performance Assessment (TPA) has been shown to be related to teachers' effectiveness in the classroom. Given that candidates also reported that the tests are a financial hurdle and a logistical challenge, there is no doubt that they have a noticeable impact on the pipeline for becoming a teacher in the state." (Darling-Hammond, Sutchter, Carver-Thomas, 2018).

To determine whether academic coursework is an effective alternative to the CSET for assessing subject matter competency, it is important to understand how subject matter expertise correlates to student achievement in the classroom, and how CSET scores and completion of academic coursework correlate to student achievement, and to each other.

According to research, subject matter expertise and subject-specific preparation may have positive impact on student achievement (Monk, King 1994; Goldhaber, Brewer 2000), particularly in mathematics, where researchers found that student performance increased with the amount of higher education math coursework the teacher had completed. However, given the small effects reported in these and other studies, the relationship between content knowledge and

teaching effectiveness is neither consistent nor clear. The research suggests that grade level and the specific content in question are important variables in understanding this relationship, with the most significant effects observed in science and math.

Another study looked at the correlation between performance on teacher licensure test scores and student achievement data in Los Angeles Unified School District (LAUSD) found “no indication that any of the teacher licensure scores affect student achievement. The measured basic skills, subject-matter knowledge, and reading pedagogy scores of elementary teachers are unrelated to student achievement.” The study also found that student achievement was unaffected by whether classroom teachers have advanced degrees (Buddin, Zamarro 2008). However, the authors acknowledge there is a possibility that this lack of effect may be because the threshold for passing the subject matter exam is sufficiently high that variability in teacher expertise above the threshold is negligible.

Taken together, the existing data suggests that while subject matter expertise positively impacts student achievement, teacher credentialing subject matter exam scores do not correlate with student performance. The positive impact of teacher subject matter expertise on student performance, while small, was most pronounced for math and science classes—two of the subject areas with the lowest CSET passing rates.

In 2014, the CSET mathematics exam was updated to reflect the common core standards. Data from the CTC (shown in Figure 1) shows that examinees who have taken more undergraduate

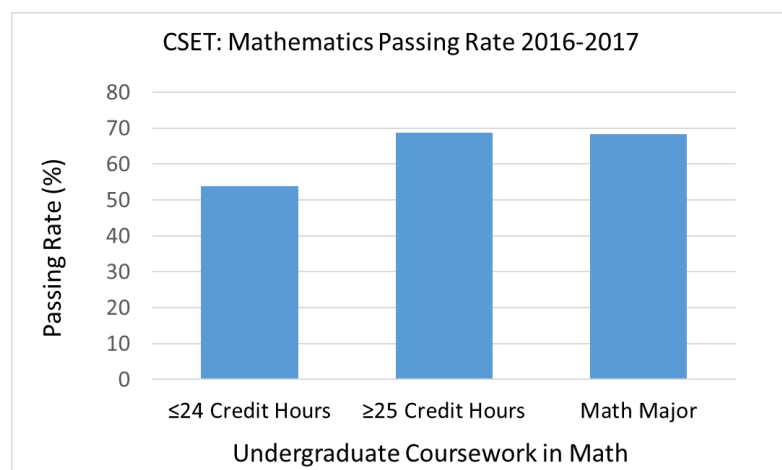


Figure 1: Examinees with more coursework hours in math passed the updated CSET math exam at significantly higher rates.

mathematics coursework have a higher chance of passing the updated CSET mathematics exam. This data indicates that in mathematics, completion of subject-area coursework is correlated to subject matter competency, as assessed by the CSET. Possessing an undergraduate degree in mathematics did not result in improved passing rates over students who had taken more than twenty-five credit hours of mathematics coursework but who did not major in mathematics.

CSET, teacher shortages, and COVID-19. California is experiencing a shortage of qualified teachers. According to a report from the Learning Policy Institute, this shortage is due largely to a relatively stagnant supply of newly credentialed teachers in the face of rising demands from schools. In a 2017 survey of districts representing 25% of the State’s enrollment, 80% of school districts reported a shortage in qualified teachers for the 2017-18 school year (Sutcher, Carver-Thomas, & Darling-Hammond).

The CTC waives the CSET requirement for candidates who have successfully completed a CTC-approved subject matter program, which are offered at nearly 50 institutes of higher education across California. These programs of higher education may be associated with degrees or majors

in the subjects, and are aligned with program standards specified by the CTC. Waiving the CSET requirement for candidates who successfully complete these programs indicates that, when the content is approved and aligned with CTC standards, the CTC accepts coursework as a valid way to demonstrate subject matter competence.

COVID-19, also known as “coronavirus”, is a respiratory illness caused by a novel virus that has spread worldwide. Tens of thousands of community-acquired cases have been confirmed in California, and 2,000 individuals have died in the state. In March 2020, many states, including California implemented social distancing measures and state-wide stay-at-home-orders to mitigate the spread of the COVID-19 virus. This resulted in widespread closure of schools, retail stores, and restaurants, and the suspension of events and activities that would violate social distancing measures. To prioritize safety, the CTC has suspended testing at its Pearson VUE-owned test centers, which comprise the vast majority of testing sites, until at least April 30. According to the CTC website, other third-party testing sites, some of which may be located at colleges or universities, are making the determination to close or remain open based on state and local guidance.

Some standardized testing, including advanced placement exams for high school students, have transitioned to an online at-home format in response to the COVID-19 crisis. However, according to the CTC website, “Credentialing examinations may not be taken online from home for several reasons, including the need to maintain strict test security, the need to maintain a secure testing environment, the need to accommodate those candidates with approved alternative testing arrangements, the need to use the testing contractor’s proprietary software delivery system matched to each candidate’s profile and examination being taken, and complex uploading procedures for scoring purposes.”

A model developed by researchers at Harvard predicts recurrent outbreaks of COVID-19 that may necessitate prolonged or intermittent social distancing measures into 2022 (Missler, Tedijanto et al, 2020). Because of this, the current CSET suspension may be extended or repeated in the upcoming year. Cumulative data from the CTC for the years 2003-2017 indicate that on average of 21,500 teacher candidates passed the CSET exam every year. The current and possibly ongoing/repeated suspension of CSET exams due to the COVID-related closure of testing centers will have a significant impact on the number of teacher candidates who take and pass the exam. By establishing additional options for how candidates can demonstrate subject matter competence, this bill provides the flexibility needed to ensure that CSET suspension does not unduly disrupt credentialing of qualified teachers in California in the uncertain era of COVID-19.

CSET passing rates. A 2018 report from the CTC showed that the cumulative CSET passing rate, for years 2003-2017 for all exams was 80.8%. The cumulative passing rate is the percentage of people who pass the test over a specific period of time, including those who have retaken the test more than once; therefore, the cumulative passing rate is higher than the annual passing rate for any given year. For 2016-2017, the total annual passing rate for all exams was 68.4%. The multiple subject exam was updated in 2014; the cumulative passing rate for 2014-2017 was 80.9%, while the annual passing rate for 2016-2017 was 72.2%.

CSET passing rates vary greatly with self-reported ethnicity of the examinee. While 78.5% of white students passed the multiple subjects CSET in 2016-2017, only 58.1% of African American, 58.8% of Hispanic American, 66.7% of Native American, and 72.9% of Asian

American examinees passed the exam. This 20% gap in passing rate between African American and white candidates calls into question whether the CSET exam poses a barrier to increasing teacher diversity in California.

The passing rate for single subject exams varies greatly between subject areas. While the cumulative passing rates from years 2003-2017 fall between 65-85% for most exams, the passing rate for English Language Development was only 7.9% while over 96% of examinees passed the subject tests for Italian and Preliminary Educational Technology.

The graph below (Figure 2) shows cumulative (2003-2017, except for tests that have been updated more recently than 2003) and annual (2016-2017) passing rates for some of the highest volume CSET exams. The difference between annual and cumulative passage rates indicates that many examinees retake the exam more than once before passing (data from CTC).

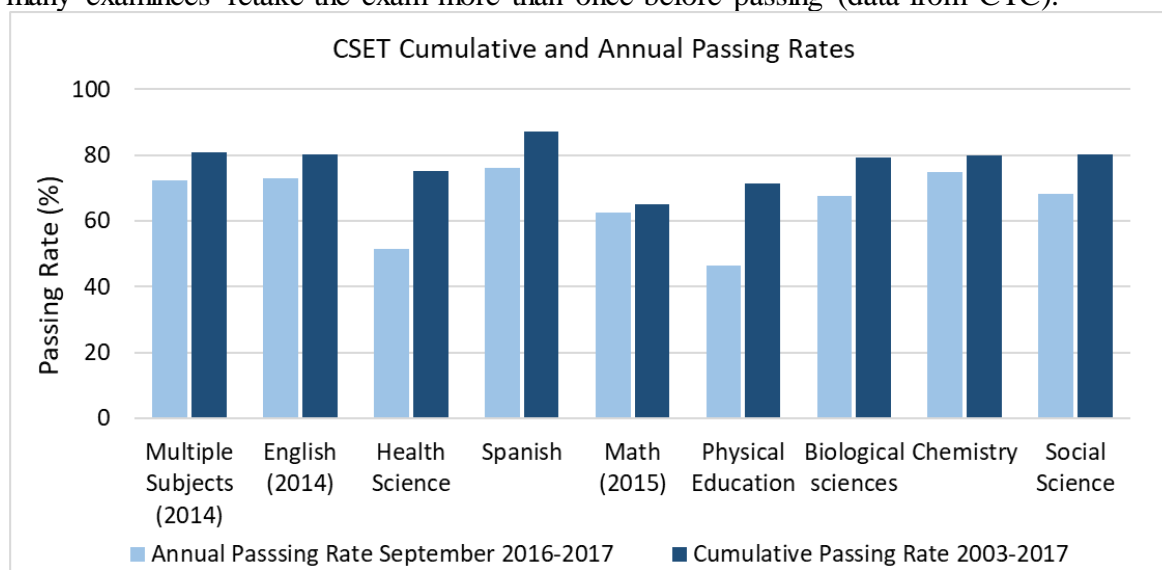


Figure 2. Cumulative and Annual CSET Passage Rates for High-Volume Exams Show significant Variation

Related legislation. AB 1982 (Cunningham) of this Session exempts teacher candidates from the basic skills proficiency test requirement if they earn at least a letter grade of B in qualifying coursework. The bill would also exempt an applicant who a credential preparation program determines has demonstrated proficiency in the basic skills through a combination of qualifying coursework and other existing exemptions from the basic skills proficiency test requirement.

SB 614 (Rubio) of this Session would repeal the the reading instruction competence assessment requirement for issuance of a teaching credential, and would require all approved teacher preparation programs to instruct and reliably assess candidates to ensure individual competence to deliver comprehensive and research-based reading instruction and to adopt, modify, and administer a reading instruction assessment aligned with the state's current adopted curriculum framework.

Arguments in support. The California Association for Health, Physical Education, Recreation and Dance argues, "We feel a student's subject matter competence should be gained through the academic rigor set forth by the content area within a student's degree. Further, we believe this method would produce authentic future teachers that are subject matter competent in the undergraduate major in which they obtained a degree."

Recommended Committee Amendments: Staff recommends the bill be amended to:

- 1) Allow teacher candidates to demonstrate computer competency by a CTC-approved assessment.
- 2) Add a December 31, 2023, sunset date to the provisions of this measure.
- 3) Clarify that the preparation program is the entity that verifies the coursework, not the commission.

REGISTERED SUPPORT / OPPOSITION:

Support

The California Association for Health, Physical Education, Recreation and Dance

Opposition

None

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