Appendix

Typical and Suggested Measures for Accreditation Evidence

President Cibulka asked the Commission to integrate its deliberation on standards with deliberations on evidence. Commissioners were to consider the question, "How would CAEP know that a standard was met by an EPP?" This was not intended as a request for highly technical judgments or to define statistical terms. Instead, it was to draw on the breadth of Commissioners' expertise to formulate examples of evidence that would be *credible*—credible to providers, to state officials, to those in higher education, to policymakers, to local district leaders, to alternative providers, and to education entrepreneurs.

Incorporating a template prepared for the Data Task Force and advice from Peter Ewell, the chart below contains the Commission's suggestions for measures from which providers might choose, along with others they identify, to make their case that CAEP standards are met. In the table:

- Column (1), "Reference to Commission Standard," provides a link to the recommended standards and the heading titles for groupings of components. For example, "Standard 1: Provider Responsibilities" and "Standard 3: Selectivity During Preparation."
- Column (2) describes "Evidence Measures" and concludes with suggested comparison points or benchmarks for each measure.
 Many of these specify "peer judgment," which signals that evidence

- needs review by trained evaluators and that CAEP would construct clear rubrics to guide a consistent interpretation.
- Columns (3) through (7) bear the labels of Commission standards.
 The entry in each cell is a brief descriptor of the aspect of a standard that is informed by each measure (e.g. "admission indicator"). Each concludes with a numerical reference to the standard and component with which the measure is most closely associated (e.g., "5.3" or "3.6").
- Note that several measures can be applied to Commission recommendations for more than one standard. Examples are "preservice P-12 student surveys," "case study of the effectiveness of diverse field experiences on candidates' practices," and "standardized capstone assessments."
- The typical and suggested measures are grouped under six headings that begin with the provider's (1) "quality assurance system and its use for continuous improvement" and then follow candidates' path from (2) "recruitment and admissions" (3) through "preparation experience,", (4) "clinical capstone assessments," (5) "licensure and exit assessments" and, finally, to (6) "inservice measures."

Reference to Comm.	Evidence Measures	Standard 1 Content and Pedagogical Knowledge	Standard 2 Clinical Partnerships and Practice	Standard 3 Candidate Quality, Recruitment, and Selectivity	Standard 4 Program Impact	Standard 5 EPP Quality Assurance and Continuous Improvement	Recommen- dations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	1. QUALITY ASSURANCE SYSTEM AND ITS USE FOR CONTINUOUS IMPROVEMENT						
Std 5: Quality and strategic evaluation	Quality assurance system data capabilities to compile, store, access, manage, and analyze data from diverse sources: multiple indicators from standards 1, 2, and 3; feedback from standard 4; and documentation of program outcomes from annual reporting. Peer judgment.	Source of data and analytic capacity for candidate content and pedagogical knowledge	Source of data and analytic capacity for clinical experiences	Source of data and analytic capacity for candidate quality indicators	Source of data and analytic capacity for program impact measures	Indicators of the depth and breadth of EPP quality assurance capability, 5.1	Source of data and analytic capacity for annual reporting measures
fStd. 5: use of QA and descriptive measures	Illustrations of EPP efforts to investigate the quality of data sources and to strengthen the overall quality assurance system. Peer judgment.					Indicator of the quality of data in the quality assurance (QA) system, 5.2	
Std. 5: use of QA and descriptive measures	Processes for testing the reliability and validity of measures and instruments. Peer judgment against Data Task Force principles.					Indicator of the quality of data in the QA system, 5.2	
Std. 5: Use of QA and descriptive measures	Documentation that data are shared with both internal and external audiences and used for program improvement. Peer judgment.					Indicator of the functioning of the QA system, 5.5	
Std. 5: Continuous improvement process	Descriptions of tested innovations and improvements that have been made. Peer judgment					Indicator of the use of the QA system to make continuous improvement analyses and decisions 5.3	

Refer- ence to Comm. Standard	Evidence Measures	Standard 1 Content and Pedagogical Knowledge	Standard 2 Clinical Partnerships and Practice	Standard 3 Candidate Quality, Recruitment, and Selectivity	Standard 4 Program Impact	Standard 5 EPP Quality Assurance and Continuous Improvement	Recommen- dations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Std. 5: Continuous improvement process	Documentation of leadership commitment to continuous improvement and of stakeholder involvement in the EPP's assessment of the effectiveness of programs and completers, for peer review evaluation. Peer judgment.					Indicators of capacity and commitment to sustain continuous improvement 5.3	
5Std. 5: Continuous improvement process	Documentation of stakeholder involvement. Peer judgment.					Indicator of use of quality assurance system for improvement 5.5	
Std. 5: QA system; also annual rpt.	Graduation rates. Comparisons over time and with EPP self-selected peers					Capability of quality assurance system, 5.3	Annual report measure
Std. 5: QA system; also annual rpt.	Licensing (certification) and other state accreditation requirements. Comparisons over time and with EPP self-selected peers.					Capability of quality assurance system, 5.3	Annual report measure
Std. 5: QA system; also annual rpt.	Hiring of completers in fields for which prepared. Comparisons over time and with EPP selected peers.					Capability of quality assurance system, 5.3	Annual report measure
Std. 5: QA system; also annual rpt.	Student loan default rates. 3-year floating average. Reported for consumer information, not judged in accreditation.					Capability of quality assurance system, 5.3	Annual report measure
Std. 5: QA system; also annual rpt.	Cost of attendance for the EPP compared with similar providers					Capability of quality assurance system, 5.3	Example of additional consumer information, 4.8

Refer- ence to	Evidence Measures	Standard 1 Content and	Standard 2 Clinical	Standard 3 Candidate	Standard 4 Program	Standard 5 EPP Quality	Recommen- dations
Comm. Standard		Pedagogical Knowledge	Partnerships and Practice	Quality, Recruitment, and Selectivity	Impact	Assurance and Continuous Improvement	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Std. 5: QA system; also annual rpt.	Beginning salary of completers compared with national data for similar locations					Capability of quality assurance system, 5.3	Example of additional consumer information, 4.8
Std. 5: QA system; also annual rpt.	Pattern of placement locations of completers, trends over time.					Capability of quality assurance system, 5.3	Example of additional consumer information, 4.8
	2. RECRUITMENT AND ADMISSIONS						
Std. 3: Recruitment	Strategic recruitment plans, based on EPP mission and employment opportunities (including STEM and ELL) for completers and needs to serve increasingly diverse populations. Includes plans for outreach, numerical goals and base data, monitoring of progress, analyses and judgment of adequacy of progress toward goals, and making indicated changes. Also (1) evidence of resources moving toward identified targets and away from low need areas; (2) evidence of marketing and recruitment at high schools and colleges that are racially and culturally diverse; and (3) evidence of collaboration with other providers, states, school districts as an indicator of outreach and awareness of employment needs. Peer judgment.			Indicator of planned recruitment trajectory, even if goals are some years away, 3.1			
Std. 3: Admissions	High school GPA for initial preparation at the undergraduate level. Comparison with host institution cohort and over time.			Indicator of candidate ability, 3.2			

Reference to Comm.	Evidence Measures	Standard 1 Content and Pedagogical Knowledge	Standard 2 Clinical Partnerships and Practice	Standard 3 Candidate Quality, Recruitment, and Selectivity	Standard 4 Program Impact	Standard 5 EPP Quality Assurance and Continuous Improvement	Recommen- dations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Std. 1: Candidate knowledge, skills, and dispositions; Std. 3: Admissions	College GPA in specialty field and in professional preparation courses. Compared with host institution cohort and over time.	Candidate knowledge, skills and dispositions, 1.1		Indicator of candidate performance ability for initial preparation admittance during the undergraduate years, during preparation; or for admission at the graduate			
Std .3: Admissions St dis	ACT or SAT scores: admitted cohort average compared with national norms for initial preparation at the undergraduate level			level, 3.2, 3.4 Admissions indicator of academic ability for undergraduate prep, 3.2			
Std .3: Admissions	IB or AP exam scores: admitted cohort average compared with national norms			Admissions indicator of academic ability for undergraduate prep, 3.2			
Std .3: Admissions and during preparation	GRE: admitted cohort average compared with national norms for graduate level program			admission criterion for graduate prep, 3.2, 3.4			
Std .3: SAdmis- Asions	Academic awards. Compare over time.			Admissions indicator, 3.2			

Reference to Comm.	Evidence Measures	Standard 1 Content and Pedagogical Knowledge	Standard 2 Clinical Partnerships and Practice	Standard 3 Candidate Quality, Recruitment, and Selectivity	Standard 4 Program Impact	Standard 5 EPP Quality Assurance and Continuous Improvement	Recommen- dations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Std .3: Admis-	High school course taking (e.g. Advanced placement, higher level math and languages). Compare with national norms.	• •		Admissions indicator, 3.2, 3.5			
Std. 3:: Admissions Std. 5: Continuous improvement	A reliable, valid model that uses admissions criteria other than those in standard 3.2. The admitted cohort group mean on these criteria must meet or exceed the standard that has been shown empirically to positively correlate with measures of P-12 student learning and development			Successful teacher prediction study, admissions indicator, 3.2		Example of a test of an innovation, 5.3	
	3. PREPARATION EXPERIENCE MEASURES						
Std. 2: Partnerships	Memoranda of understanding or data-sharing agreements with diverse P-12 and/or community partners. Peer judgment.		Indicator of partnership arrangements, 2.1				
Std. 2: Partnerships	Evidence of tracking and sharing data such as hiring patterns of the school district/school or job placement rates contextualized by partners' needs. Peer judgment.		Indicator of partnership arrangements, 2.1				
Std. 2: Partnerships	Evidence of actions that indicate combined resource allocation and joint decision-making such as (1) program and course adjustments to meet partners' human capital and instructional needs, (2) stated characteristics and roles for on-site delivery of programmatic courses and (3) recruitment of candidates to meet district teacher needs (e.g. in pipeline programs). Peer judgment.		Indicators of partnership arrangements and functioning, 2.1				
Std. 2: Partnerships	Shared understandings amongst partners that guide educator preparation—common work, roles and responsibilities, authority, and accountability.		Indicator of partnerships arrangements and functioning, 2.1				

Reference to Comm.	Evidence Measures	Standard 1 Content and Pedagogical Knowledge	Standard 2 Clinical Partnerships and Practice	Standard 3 Candidate Quality, Recruitment, and Selectivity	Standard 4 Program Impact	Standard 5 EPP Quality Assurance and Continuous Improvement	Recommen- dations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Std. 2: Clinical faculty	Plans, activities, and results related to selection of diverse clinical educators and their support and retention (such as training and support protocols, including implementation data with and for clinical educators in EPP programs. Trends over time, peer judgment.		Indicators of EPP actions to assure selection, support, and retention of clinical educators, 2.2				
Std. 2: Clinical experiences	Evidence of continuous opportunities for formative feedback and coaching from high quality and diverse clinical educators. Peer judgment.		Indicator of EPP actions to assure opportunities and candidates to receive feedback and coaching, 2.3				
Std. 2: Clinical experiences	Performance data on candidate development of "high-leverage" instructional practices/strategies—from early field work to culminating experience—in diverse clinical settings (urban, rural, high poverty, high achieving as well as non-traditional settings, such as after school programs and community recreation programs); including but not limited to evidence of how proficiencies are demonstrated with/in a diversity of partners, settings, and in partnership with school-based faculty, families and communities. Peer judgment.		Candidate performance indicators during clinical experiences; could be recurring over time, 2.3				
Std. 2: Clinical experiences Std. 3 : during preparation	Evidence of candidates' graduated responsibilities within the classroom and impact on student learning		Indicator of candidates' development, 2.3	Indicator of candidates' development during preparation, 3.4			

Reference to Comm.	Evidence Measures	Standard 1 Content and Pedagogical Knowledge	Standard 2 Clinical Partnerships and Practice	Standard 3 Candidate Quality, Recruitment, and Selectivity	Standard 4 Program Impact	Standard 5 EPP Quality Assurance and Continuous Improvement	Recommen- dations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Std. 2: Clinical experiences	Evidence that candidates integrate technology into their planning and teaching and use it to differentiate instruction. Peer judgment, or an assessment including technology as one among many dimensions, and trends over time.		Candidate performance indicator during clinical experiences; could be recurring, 2.3				
Std. 2: Clinical experiences	Evidence of candidates' reflection on instructional practices, observations, and their own practice with increasing breadth, depth, and intention with an eye toward improving teaching and student learning (e.g., video analysis, reflection logs). Evaluation based on rubrics, peer judgment.		Evidence of developing candidate professional capabilities; 2.3				
Std. 1: Cont. and ped. know., EPP respons. Std. 2: Clinical & 3, during prep.	Assessments and rubrics used to assess teaching practice at key points along a developmental continuum, including but not limited to documentation of expected instructional practices and candidate performance	Indicator of candidate ability to apply content and pedagogical knowledge, 1.1, 1.3, and 1.4	Indicator of candidate developing proficiencies, 2.3	Indicator of candidate development during preparation, 3.4			
Std. 3: Non-academic admissions and during preparation	Demonstration of assessments of non- academic quality of candidates and how these relate to teacher performance (student self- assessments, letters of recommendation, interviews, essays, leadership, surveys, Gallup measures, strength finder 2/0, Myers-Briggs, personality tests). Peer judgment.			Nonacademic factors at admissions or during preparation, 3.3, 3.4			
Std.1: Content and pedag. knowledge Std. 3: During preparation	Analysis of video recorded lessons with review and evaluation based on rubrics and disinterested raters	Indicator of capacity to use instructional practice and InTASC knowledge, 1.1		Indicator of developing candidate abilities; could be conducted multiple times, 3.4			

Reference to Comm.	Evidence Measures	Standard 1 Content and Pedagogical Knowledge	Standard 2 Clinical Partnerships and Practice	Standard 3 Candidate Quality, Recruitment, and Selectivity	Standard 4 Program Impact	Standard 5 EPP Quality Assurance and Continuous Improvement	Recommen- dations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Std. 1: Content and pedag. Knowledge Std. 3: During preparation	Observation measures with trained review procedures, faculty peer observation with rubrics. Progress during candidate preparation, trends across cohorts. Peer judgment.	Indicator of candidate capacity to use instructional practice and InTASC knowledge, 1.1		Indicator of developing candidate abilities; could be conducted multiple times, 3.4			
Std. 3: Non-academic factors, during preparation	Case study of how developing non-academic factors relate to subsequent teacher performance; also, illustrate candidate commitment and dispositions such as (1) teaching, volunteerism, coaching, civic organizations, commitment to urban issues; (2) content related, goal oriented, data-driven contributions/ value-add to current employer or organization; (3) mindsets/ dispositions/ characteristics such as coachability, empathy, teacher presence of "with-it-ness," cultural competency, collaboration, beliefs, that all children can learn; or (4) professionalism, perseverance, ethical practice, strategic thinking, abilities to build trusting, supportive relationships with students and families during preparation. Peer judgment.			Successful teacher prediction study using non- academic factors during preparation, 3.3 and 3.4		Study of innovations, 5.3	
Std. 1: Content and pedag. Std. ow, provider responsibilities	Student performance on valid, reliable assessments aligned with instruction during clinical practice experiences. Trends over time. Peer judgment.	Performance measures of candidate application of knowledge and pedagogical skills, 1.1, 1.3 and 1.4		Pre-service measure of P-12 student performance	Backup measure of P-12 student performance		

Refer- ence to Comm.	Evidence Measures	Standard 1 Content and Pedagogical	Standard 2 Clinical Partnerships	Standard 3 Candidate Quality,	Standard 4 Program Impact	Standard 5 EPP Quality Assurance and	Recommen- dations
Standard		Knowledge	and Practice	Recruitment,	Шрасс	Continuous	
(1)	(2)	(3)	(4)	and Selectivity (5)	(6)	Improvement (7)	(8)
Std. 1: Content and pedag. know Std. 3: During preparation	P-12 student surveys of their preservice candidate teachers during clinical practice and analysis of data on candidate instructional practices	Performance measure of candidate application of knowledge and pedagogical skills, 1.1, 1.3 and 1.4	()	Indicator of candidate progress during preparation, 3.4	1-7	(-)	(5)
Std. 1: Cont. & pedag. Know, Std. 3: During prep	College GPA compared with content subject majors	Indicator of content and pedagogical knowledge		Candidate quality during preparation, 3.5 or exit measure, 3.5			
Std. 1: content and pedag. know; providers on use of research; Std. 3: During preparation	Assessment curriculum inputs to promote candidates' assessment proficiencies: (1) course work focused on assessment, (2) embedded assessment topics in content and methods courses, (3) providing candidates real-world opportunities to apply what they have learned about assessment, and (4) the assessments the EPP employs in all aspects of preparation.	Indicators of candidate opportunity to learn and practice uses of assessment to enhance learning, 1.1 and 1.2		Candidate progress curing preparation, 3.4			
Std. 1: Content and pedag. Sknow; ktd. 2: Clinical experiences r Std. 3: During preparation S	Descriptive evidence of candidates' graduated responsibility for all aspects of classroom teaching and increasing ability to impact all students' learning. Peer judgment.	Indicator of candidate's ability to apply content and pedagogical knowledge, 1.1	Descriptive indicator of candidate's experience of progressively greater responsibilities during clinical preparation, 2.3	Progression measure, 3.4			
Std. 2: Clinical experiences	Case study of the effectiveness of diverse field experiences on candidates' instructional practices. Peer judgment.		Continuous improvement study on clinical experiences, 2.3			Example of innovation testing, 5.3	

Refer-	Evidence Measures	Standard 1	Standard 2	Standard 3	Standard 4	Standard 5	Recommen-
ence to		Content and	Clinical	Candidate	Program	EPP Quality	dations
Comm.		Pedagogical	Partnerships	Quality,	Impact	Assurance and	
Standard		Knowledge	and Practice	Recruitment,		Continuous	
				and Selectivity		Improvement	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Std. 2: Clinical experiences	Reliable and valid measures or innovative models of high-quality practices, partnerships, clinical educators, or clinical experiences. Peer judgment.		Measure of EPP performance, example of measures for continuous improvement, 2.3			Measure of EPP performance, example of measures for continuous improvement, 5.3	
Std. 1: Cont. & ped. know re asst; Std. 3: During prep	Ability of candidates to design and use a	Indicator of		Indicator of			
Std. 1: Cont. ped. know r asst; Std. 3: During prep	variety of formative assessments with P-12	candidate		completer			
1: (. kn .; St	students. Peer judgment.	assessment proficiencies, 1.3		capability in assessment, 3.6			
Std. 1: Cont. & ped. know re asst; Std. 3: During prep		proficiencies, 1.5		assessment, 5.0			
	Cohort completers disaggregated by racial,					Completer	Annual report
ത	ethnic and other target groups identified in					program	measure of
Annual reporting	EPP recruitment plans. Indicate trends over time and comparisons with similar EPPs.					outcome measure 5.1	completers
Annual	Cohort hires in any education position and in field for which trained with trend over time and comparisons with similar EPPs					Hires program outcome measure 5.1	Annual report measure of hires
	4. CLINICAL CAPSTONE ASSESSMENTS						
Std. 1: Content & pedag. know.; Std. 3: Exit	Videos of teaching: scores compared with rubric values and monitored across cohorts		Application of pedagogical knowledge, 2.3	Application of pedagogical knowledge, 3.5			
	Clinical capstone assessments; also, evidence	Indicator of	Teaching	Exit measure of			
Std. 1: Cont. & pedag. know; Std. 2: Clin. Exp; Std. 3: Exit	from a culminating experience with a	ability to apply	proficiency, 2.3	teaching			
Cont. & po Clin. Exp; Exit	significant level of candidate responsibility for	content and		proficiency,			
ont. lin. xit	all aspects of classroom teaching and increased ability to impact all students'	pedagogical knowledge, 1.1		including student learning and			
3.5 × E	learning and development. Subscale scores	and 1.3		development, 3.5			
Std. 1: 0 know; Std. 2: 0 Std. 3: E	compared with rubric values.	unu 1.5		acvelopilient, 3.3			
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Refer-	Evidence Measures	Standard 1	Standard 2 Clinical	Standard 3 Candidate	Standard 4	Standard 5	Recommen-
ence to Comm.		Content and Pedagogical	Partnerships	Quality,	Program Impact	EPP Quality Assurance and	dations
Standard		Knowledge	and Practice	Recruitment,	mpace	Continuous	
				and Selectivity		Improvement	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1: cont. & pedag. kow; 2: clin. exp; 3: exit	Standardized capstone assessments: edTPA or ETS pre-service portfolio; sample measures that often appear in these forms of assessment include: (1) differentiated instruction based on group and subgroup results on teacher created or standardized assessments (ELL, special education, gifted, high-needs students); (2) evidence of differentiated instruction in response to student test data; and (3) evidence of teacher reflection on practice. Some measures of student learning and development included. Average cohort scores compared with national	Indicator of ability to apply content and pedagogical knowledge, 1.1 and 1.3, 1.4	Multi-measure capstone assessments of teaching proficiency, 2.3	Capstone measure with multiple dimensions of teaching proficiency, including student learning and development, 3.5			
Std. 1: Content and Std. pedagogical knowledge Std. Std. 2: Clinical exps Std. 3: During preparation	norms or national cut scores Provider criteria for completion on opportunities for candidates to reflect on personal biases, access appropriate resources to deepen their understanding, use this information and related experiences to build stronger relationships with P-12 learners, and adapt their practices to meet the needs of each learner. Peer judgment.	Indicator on candidate proficiencies to address equity concerns, 1.1	Indicator of developing candidate proficiencies, 2.3	Indicator of candidate quality during preparation, 3.5			
Std. 3: During preparation and exit	State required performance measures, or other appropriate performance measures	Indicator of ability to apply content and pedagogical knowledge, 1.1 and 1.3, 1.4	Multi-measure capstone assessments of teaching proficiency, 2.3	Indicator of completer capabilities, 3.4 and 3.5			
Std. 3: Exit	EPP criteria for completion, with performance documentation that all completers have reached a high standard for content knowledge			Completion indicators specified by EPP, 3.5			

Refer- ence to Comm. Standard	Evidence Measures	Standard 1 Content and Pedagogical Knowledge	Standard 2 Clinical Partnerships and Practice	Standard 3 Candidate Quality, Recruitment, and Selectivity	Standard 4 Program Impact	Standard 5 EPP Quality Assurance and Continuous Improvement	Recommen- dations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Std. 3: Exit	EPP criteria for completion, with performance documenting that all completers can teach effectively with positive impact on P-12 student learning and development			Completion indicators specified by EPP, 3.5			
	EPP criteria for completion, with performance information indicating that all completers understand expectations set out in codes of ethics, professional standards of practice, and relevant laws and policy			Completion indicators specified by EPP, 3.6			
Std. 1:apply cont & Std. 3: Exit ped; Std. 3: exit; Std. 4:impact; annual reporting	Teacher-of-record measures for candidates in some alternative preparation: State supported measures that address P-12 student learning and development that can be linked with teacher data. CAEP guidelines and peer judgment.	Feedback on progress of candidates		Feedback on progress of candidates	Candidate impact on P-12 student learning and development, 4.1, also		
	5. LICENSURE AND EXIT ASSESSMENTS						
Std. 1: Content on pedagogical knowledge Std. 3: Exit Annual reporting	State licensure exams: there should be a recommended specific and common cut-score across states, and a pass-rate of 80% within two administrations. CAEP should work with states to develop and employ new or revised licensure tests that account for college and career readiness standards, and establish a common passing score for all states. (Note: Recent reports from CCSSO, Our Responsibility, Out Promise: Transforming Educator Preparation and Entry into the Profession, and from AFT, Raising the Bar: Aligning and Elevating Teacher Preparation and the Education Profession, address preparation and entry requirements, indicating growing support for vastly improved licensure assessments.)	Measure of content and pedagogical knowledge, 1.1		Exit measure, 3.4			Annual reporting measure for licensure pass rates

Reference to Comm.	Evidence Measures	Standard 1 Content and Pedagogical Knowledge	Standard 2 Clinical Partnerships and Practice	Standard 3 Candidate Quality, Recruitment, and Selectivity	Standard 4 Program Impact	Standard 5 EPP Quality Assurance and Continuous Improvement	Recommen- dations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Std. 1: All areas Std. 3: Exit	Licensure test: Praxis specialty field, cohort average score compared with state and national norms	Content and pedagogical knowledge, provider responsibilities, all components		Exit measure of content knowledge and pedagogical candidate knowledge, 3.5			Annual reporting measure for licensure pass rates
Std. 1: All areas Std. 3: Exit	Licensure test: Principles of Learning and Teaching, cohort average score compared with state and national norms	General pedagogical knowledge, 1.1		Exit measure of general pedagogical knowledge, 3.5			Annual reporting measure for licensure pass rates
std. 1: All areas J. 3: Exit	Licensure test: Pearson/State content, cohort average score compared with state norms	Content and pedagogical knowledge, provider responsibilities, all components		Exit measure of content knowledge and pedagogical candidate knowledge, 3.5			Annual reporting measure for licensure pass rates
Std. 1: All areas1 Std. 3: Exit Std.	Licensure test: Pearson/State pedagogy, cohort average compared with state norms	General pedagogical knowledge, 1.1		Exit measure of general pedagogical knowledge, 3.5			Annual rpting measure for licensure pass rates
Std. 1: All areas Std. 3: Exit	Licensure test: Pearson online, cohort average compared with state and national norms	Content and pedagogical knowledge, provider responsibilities, all components		Exit measure of content knowledge and pedagogical candidate knowledge, 3.5			Annual reporting measure for licensure pass rates
Std. 1: All areas Std. 3: Exit.	Massachusetts Tests for Educator Licensure, e.g., Elementary General Curriculum + Pearson Foundations of Reading, cohort average compared with state norms	Content and pedagogical knowledge, provider responsibilities, all components		Exit measure of content knowledge and pedagogical candidate knowledge, 3.5			Annual reporting measure for licensure pass rates

Refer- ence to Comm. standard	Evidence Measures	Standard 1 Content and Pedagogical Knowledge	Standard 2 Clinical Partnerships and Practice	Standard 3 Candidate Quality, Recruitment, and Selectivity	Standard 4 Program Impact	Standard 5 EPP Quality Assurance and Continuous Improvement	Recommen- dations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Std. 1: Apply cont. & ped. n Know/ rdng; Std. 3: Exit	Connecticut/ Pearson Foundations of Reading licensure test, cohort average compared with state norms	Part of content pedagogy for elementary teachers in 1.1		Exit measure of reading pedagogical knowledge, 3.5			Annual rpting measure of licensure pass rates
Std. 1: All areas for Selem. Prep. Std. 3: Exit for elem k	ETS Praxis test, Elementary Education: Multiple Subjects, cohort average compared with state and national norms	Content and pedagogical knowledge for elementary teachers, 1.1		Exit measure of content knowledge and pedagogical candidate knowledge, 3.5			Annual reporting measure of licensure pass rates
Std. 3: Exit	GRE: exit cohort average compared with national norms			Exit measure of academic ability, 3.5			
Std. 1: Content knowledge Std. 3: exit	GRE field tests when applicable, cohort average score compared with national norms in: Biochemistry, cell and molecular biology; biology; chemistry; computer science; Literature in English; Mathematics; Physics and Psychology.	Content knowledge, 1.1		Content knowledge assessment, 3.5			
Std. 1: Content : knowledge Std. 3: exit	ETS Major fields tests: average cohort score compared with national norms	Content knowledge, 1.1 and 1.3		Exit measure of content knowledge, 3.5			

Reference to Comm.	Evidence Measures	Standard 1 Content and Pedagogical Knowledge	Standard 2 Clinical Partnerships and Practice	Standard 3 Candidate Quality, Recruitment, and Selectivity	Standard 4 Program Impact	Standard 5 EPP Quality Assurance and Continuous Improvement	Recommen- dations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	6. IN-SERVICE MEASURES						
Std. 1 :apply cont & ped; Std. 3 : exit; Std. 4:impact; annual reporting	Value added student growth measures where available from the state. CAEP guidelines and peer judgment.	Feedback on progress of completers		Feedback on progress of completers	Completer impact on P-12 student learning and development, 4.1		Annual report measure of student growth
Std. 1 :apply cont & Sped; Std. 3: exit; pstd. 4:impact; annual reporting	State supported measures that address P-12 student learning and development that can be linked with teacher data. CAEP guidelines and peer judgment.	Feedback on progress of completers		Feedback on progress of completers	Completer impact on P-12 student learning and development, 4.1		Annual report measure of student growth
Std. 4: Program impact, student growth; annual reporting	Case studies of completers that demonstrate the impacts of preparation on P-12 student learning and development and can be linked with teacher data. CAEP guidelines and peer judgment.				Completer impact on P-12 student learning and development, 4.1		Annual report measure of student growth
Std. 4: Program impact, student growth; Annual reporting	Employer satisfaction survey. Move toward comprehensive state gathering of descriptive data, and reporting and comparisons with state and national norms for similar types of EPPs. Compare trends over time, similar placements.				Program impact measure, 4.3		Annual report measure of employer satisfaction
Std. 4: Program impact; annual	Completer retention. Move toward common reporting. Compare trends over time, similar placements.				Indicator of employer satisfaction, 4.3		Annual report measure of employer satisfaction
Std. 4: Program impact; annual reporting	edTPA for in-service teachers (when an inservice version becomes available, or if/when other assessments that provide valid and reliable information about in-service teaching are available). Compare with common cut score and trends over time.				Teacher performance indicator with multiple dimensions, 4.1, 4.2		Annual report measure of teacher performance

Refer- ence to Comm. standard	Evidence Measures	Standard 1 Content and Pedagogical Knowledge	Standard 2 Clinical Partnerships and Practice	Standard 3 Candidate Quality, Recruitment, and Selectivity	Standard 4 Program Impact	Standard 5 EPP Quality Assurance and Continuous Improvement	Recommen- dations
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Std. 4: Program impact; annual reporting	Completer promotion and employment trajectory. Move toward common reporting. Compare trends over time, similar placements.				Indicators of employer satisfaction, 4.3		Annual report measure of employer satisfaction
Std. 4: Program impact; annual reporting	Candidate satisfaction survey. Move toward comprehensive state gathering and reporting of descriptive data, and comparisons with state and national norms for similar types of EPPs.				Program impact measure, 4.4		Annual report measure of completer satisfaction
4: programStd. 4: program act, annual impact, annual rting reporting	Inservice P-12 student surveys with EPP analysis of data on teacher instructional practices in the classroom. Compare trends over time and compare with national data, if available.				Part of program impact measure 4.2		Part of annual report measure of completer teaching effectiveness
Std. 4: program impact; annual i reporting	Inservice observations of teaching with trained evaluators such as CLASS or Danielson; compare with preservice capstone assessments				Teaching effectiveness measure, 4.2		Annual report measure of teaching effectiveness
Std. 5; quality assurance system; ii Annual reporting	Completer retention in (1) education position for which initially hired or (2) other education role by the same or a different employer; compare with similar EPPs but move to state collection and analysis of these data by common definitions over time.				One indicator of employer satisfaction, 4.3		Annual report measure of retention

INTRODUCTORY SECTIONS

ACCREDITATION STANDARDS AND RECOMMENDATIONS

³ U. S. Department of Education. (2013), For each and every child—a strategy for education equity and excellence, p. 12.

³ NRC. (2010), p. 180.

STANDARD 1: CONTENT AND PEDAGOGICAL KNOWLEDGE

- ⁴ Progression levels are described in *InTASC model core teaching standards and learning progressions for teachers 1.0* (2011), pp. 16-47.
- ⁵ Council of Chief State School Officers [CCSSO]. (2011). *InTASC model core teaching standards*. Retrieved from http://www.ccsso.org/Resources/Resources-Listing.html?search=model+core+teaching+Standards
 National Board for Professional Teaching Standards [NBPTS]. (2002). *What teachers should know and be able to do. Retrieved from* http://www.nbpts.org/resources/publications
- ⁶ Ball, D. L., Thames, M. H., & Phelps, G. (2008). Content knowledge for teaching: What makes it special? *Journal of Teacher Education*, *59*(5), 389-407.
- Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. Educational Researcher, 15(2), 4-14.
- ⁷ Schacter, J., & Thum, Y. M. (2004). Paying for high- and low-quality teaching. *Economics of Education Review, 23*(4), 411–430. American Council on Education [ACE]. (1999). *To touch the future: Transforming the way teachers are taught. An action agenda for college and university presidents*. Washington, DC.: Author. Retrieved from http://www.physics.ohio-state.edu/~jossem/REF/115.pdf Hill, H. C., Rowan, B., & Ball, D. L. (2005). Effects of teachers' mathematical knowledge for teaching on student achievement. *American Educational Research Journal*, 42 (2), 371-406.
- ⁸ Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1–22.
- ⁹ Darling-Hammond, L. Power Point presentation, "Supporting Deeper Learning." E. Elliot, personal communication, January 29, 2013.
- ¹⁰ Ball, D. L. (2000). Bridging practices: Intertwining content and pedagogy in teaching and learning to teach. *Journal of Teacher Education*, *51*(3), 241-247.
- ¹¹ Cochran, K. F., DeRuiter, J. A., & King, A. R. (1993). Pedagogical content knowing: An integrative model for teacher preparation. *Journal of Teacher Education*, 44(4), 263-272).
- ¹² Shulman, Knowledge and teaching, p. 13.
- ¹³ InTASC model core teaching standards, p. 8.
- ¹⁴ Goe, L., Bell, C., & Little, O. (2008). *Approaches to evaluating teacher effectiveness: A research synthesis*. Washington DC: National Comprehensive Center for Teacher Quality.
- ¹⁵ For a discussion of the benefits of family engagement at different developmental stages, please see Harvard Family Research Project's *Family Involvement Makes a Difference* publication series, available online at http://www.hfrp.org/FamilyInvolvementMakesADifference.
- ¹⁶ Common Core State Standards Initiative. (2010). *Frequently asked questions*. Retrieved from http://www.corestandards.org/assets/CoreFAQ.pdf
- ¹⁷ NBPTS, What teachers should know and be able to do.
- ¹⁸ International Society in Technology Education (ISTE). (2008) *Advancing digital age teaching*. Retrieved from http://www.iste.org/docs/pdfs/nets-t-standards.pdf?sfvrsn=2
- ¹⁹ Harvard Family Research Project. (2006/2007). *Family Involvement Makes a Difference* publication series. Retrieved from http://www.hfrp.org/FamilyInvolvementMakesADifference

STANDARD 2: CLINICAL PRACTICE AND PARTNERSHIPS

¹ National Research Council [NRC]. (2010). *Preparing teachers: Building evidence for sound policy*, p. 180. Retrieved from http://www.nap.edu/catalog.php?record_id=12882

²⁰ National Council for Accreditation of Teacher Education [NCATE]. (2010). *Transforming teacher education through clinical practice:* A national strategy to prepare effective teachers. Washington, D. C.: Author.

Ronfeldt, M. (2012). Where should student teachers learn to teach? Effects of field placement school characteristics on teacher retention and effectiveness. Educational Evaluation and Policy Analysis, 34:1, 3-26.

STANDARD 3: CANDIDATE QUALITY, RECRUITMENT, AND SELECTIVITY

³⁰ National Center for Education Statistics [NCES]. (2011). American's high school graduates: Results of the 2009 NAEP high school transcript study. NCES 20111462. Washington, D.C.: U. S. Department of Education. Retrieved from http://nces.ed.gov/pubsearch/pubsinfo. asp?pubid=20111462 The study shows high school grade point averages as 3.0 for "overall," 2.79 for "core academic" subjects, and 3.14 for "other academic" subjects. SAT "top third" performance is about 1120, and ACT is about 22.8 for English and 23.0 for math. GRE top third on the new scale is about 154.6 for verbal and 154 for quantitative. The minimum criteria may change as standards for admission to teacher education programs become more competitive; the criteria should reflect high standards used by states and recommended by research.

Teachers, Race and Student Achievement in a Randomized Experiment. NBER Working Paper Series. National Bureau of Economic Research, Cambridge, MA.41 Working Papers, August 2001.

Goldhaber, D., & Hansen, M. (2010). Race, gender, and teacher testing: How informative a tool is teacher licensure testing?. American Educational Research Journal, 47(1), 218-251. Retrieved from http://aer.sagepub.com/content/47/1/218.full.pdf Hanushek, E., Kain, J., O'Brian, D., and S. Rivikin. 2005. The Market for Teacher Quality. Working Paper 11154. Retrieved from http://www.nber.org/papers/w11154

Bireda, S. & Chait, R. (2011). Increasing teacher diversity: Strategies to improve the teacher workforce. Center For American Progress. Retrieved from: http://www.americaprogress.org

²¹ Houck, J. W., Cohn, K. C., & Cohn, C. A. (2004). *Partnering to lead educational renewal: High-quality teachers, high-quality* schools. New York, NY: Teachers College Press.

²² Darling-Hammond, L., & Baratz-Snowden, J. (Eds.). (2005). A good teacher in every classroom: Preparing the highly qualified teachers our children deserve, pp. 38-39. San Francisco, CA: Jossey-Bass.

²³ Grossman, P. (2010). *Learning to practice: The design of clinical experience in teacher preparation.* Washington, D.C.: American Association of Colleges for Teacher Education

²⁴ NCATE (2010).

²⁵ National Council for Accreditation of Teacher Education [NCATE]. (2008) *Professional standards for the accreditation of teacher* preparation institutions. Washington, D. C.: Author.

²⁶ NCATE (2010). pp. 5, 6.

²⁷ Howey, K. R. (2007). A review of urban teacher residencies (UTRs) in the context of urban teacher preparation, alternative routes to certification, and a changing teacher workforce. Washington, D.C.: NCATE.

²⁸ Educational Testing Service [ETS]. (2004) Where we stand on teacher quality: An issue paper from ETS, p. 3. Princeton, NJ: Author. Retrieved on August 4, 2012, at http://www.ets.org/Media/Education Topics/pdf/teacherquality.pdf ²⁹ NRC (2010).

³¹ Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge? *Contemporary Issues in Technology and* Teacher Education, 9(1), 60-70.

³² NRC (2010), 181.

³³ Morrell, J. (2010). Teacher preparation and diversity: When American preservice teachers aren't white and middle class. *Online* Submission. Retrieved from http://www.academia.edu/257521/ Teacher preparation and diversity when American preservice teachers aren't white and middle class.

³⁴ Boser, U. (2011). Teacher diversity matters: A state-by-state analysis of teachers of color. *Center For American Progress*. Retrieved from http://www.americanprogress.org/issues/education/report/2011/11/09/10657/teacher-diversity-matters/

³⁵ Dee, T. 2004. The Race Connection: Are Teachers More Effective with Students who Share their Ethnicity? Education Next.4.2:52-59.

³⁷ National Collaboration on Diversity in the Teaching Force. (2004). Assessment of diversity in America's teaching force: A call to action, p. 9. Retrieved from http://www.ate1.org/pubs/uploads/diversityreport.pdf

³⁸ National Collaboration on Diversity in the Teaching Force (2004) and Bireda and Chait (2011).

³⁹ Bireda and Chait (2011), 30.

⁴⁰ Feistritzer, C.E. (2011). *Profile of teachers in the U.S. 2011*. National Center for Education Information. Retrieved from http://www.ncei.com/Profile Teachers US 2011.pdf

⁴¹ NCATE (2010).

⁴² Teacher Shortage Areas Nationwide Listina: 1990-1991 through 2012-2013. (April 2012). U.S. Department of Education, Office of Postsecondary Education. Retrieved from http://www2.ed.gov/about/offices/list/ope/pol/tsa.html

⁴⁴ American Federation of Teachers [AFT]. (2012), Raising the bar: Aligning and elevating teacher preparation and the education profession. Washington, D. C.: Author.

Floden, R. & M. Maniketti. 2005. Research on the Effects of Coursework in the Arts and Sciences and in the Foundations of Education. In Studying Teacher Education: The report of the AERA Panel on Research and Teacher Education. Eds. Cochran-Smith, M. & K. Zeichner. (Meta-analysis of previous research.)

Wayne, A., and P. Young. (2003). Teacher Characteristics and Student Achievement Gains: A Review. Review of Educational Research 73(1). 89-122. (Meta-analysis of previous research.)

 46 Auguste, B., Kihn, P., & Miller, M. (2010). Closing the talent gap: Attracting and retaining top-third graduates to careers in teaching: An international and market research-based perspective. McKinsey & Company. Retrieved from http:// mckinseyonsociety.com/closing-the-talent-gap/

⁴⁷ Whitehurst, G. (2002). *Strengthen teacher quality: Research on teacher preparationand professional development.* White House Conference on Preparing Tomorrow's Teachers. U. S. Department of Education. Retrieved from http://www2.ed.gov/admins/tchrqual/learn/ preparing teachers conference/whitehurst.html NRC (2010).

⁴⁸ Levin, H. M. (1970). A cost-effectiveness analysis of teacher selection. *Journal of Human Resources*, 5(1), 24-33.

⁴⁹ Rockoff, J. E., Jacob, B. A., Kane, T. J., & Staiger, D. O. (2011). Can you recognize an effective teacher when you recruit one? Education Finance and Policy, 6(1), 43-74.

⁵⁰ Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. Journal of Personality and Social Psychology, 92(6),1087-1101. Also see Haberman, M. (2000). What makes a teacher education program relevant preparation for teaching diverse students in urban poverty schools? (The Milwaukee Teacher Education Center Model). and Harding, H. (2012). Teach for America: Leading for change. Educational Leadership, 69(8), 58-61.

⁵¹ Dobbie, W. (2011). Teacher characteristics and student achievement: Evidence from Teach for America. Harvard University. Retrieved from http://www.people.fas.harvard.edu/~dobbie/ research/TeacherCharacteristics July 2011.pdf

⁵² Danielson, C. (2009). A framework for learning to teach. *Educational Leadership*, 66. Retrieved from

http://www.ascd.org/publications/educational-leadership/summer09/vol66/num09/A-Framework- for-Learning-to-Teach.aspx ⁵³ Ball, D. (2008). Mathematical Knowledge for Teacher and the Mathematical Quality of Instruction: An Exploratory Study. *Cognition* and Instruction. 26(4), 430-511.

⁵⁴ Measures of Effective Teaching Project. (2010). Working with teachers to develop fair and reliable measures of effective teaching. Retrieved from http://www.metproject.org/downloads/met-framing-paper.pdf

55 Lemov, D. (2010). Teach like a champion: 49 Techniques that Put Students on the Path to College (K-12). San Francisco: Jossey-Bass.

⁵⁶ Henry, T., et al. (2012). The effects of experience and attrition for novice high-school science and mathematics teachers. *Science*, 335, 1118-1121. Retrieved from http://www.sciencemag.org/content/335/6072/1118.full.pdf

⁵⁷ Noell, G., & Burns, J. (2006). *Value-added assessment of teacher preparation: An illustration of emerging technology.* Journal of Teacher Education Vol. 57, 37-50. Retrieved from http://jte.sagepub.com/content/57/1/ 37.full.pdf+html

⁵⁸Whitehurst (2002). ⁵⁹ NRC (2010)

CCSSO (2011).

⁶⁰ CCSSO (2011).

⁶¹ Danielson (2009).

⁶² See, for example, Rodgers, C. & Raider-Roth, M. (2006), *Presence in teaching. Teachers and teaching: Theory and practice*, 12(3) 265-287. See also Barker, L. & Borko, H. (2011). Conclusion: Presence and the art of improvisational teaching. In Sawyer, R. K. (ed), Structure and improvisation in creative teaching (279-293). New York: Cambridge University Press. See also, Joint project of Stanford University and AACTE to develop a preservice education "teacher performance assessment." See description at this URL: http://edtpa.aacte.org/wp-content/uploads/2013/01/using-edTPA.pdf

STANDARD 4: PROGRAM IMPACT

⁴³ Bushaw, W., Lopez, L. (2011). Betting on teachers: The 43rd annual Phi Delta Kappa/Gallup Poll of public's attitudes toward the public schools. Phi Delta Kappan 93(1), 8-26.

⁴⁵ Ball, D., Hill, H., Rowan, B. (2005). Effects of Teachers' Mathematical Knowledge for Teaching on Student Achievement. *American* Educational Research Journal. 42(2), 371-406.

⁶³ NRC (2010).

⁶⁴ University of Wisconsin, Value Added Research Center (2013), Student Growth and Value-Added Information as Evidence of Educator Preparation Program Effectiveness: A Review, Draft prepared for CAEP.

⁶⁶ Ferguson, Ronald F. (2012). Can student surveys measure teaching quality? *Phi Delta Kappan*, 94:3, 24-28.

STANDARD 5: PROVIDER QUALITY AND CONTINUOUS IMPROVEMENT

- ⁶⁷ Ruben, B. R. (2010). Excellence in higher education guide. An integrated approach to assessment, planning, and improvement in colleges and universities. Washington, D.C.: National Association of College and University Business Officers.

 Baldrige Performance Excellence Program. (2011). 2011-2012 Education criteria for performance excellence. Gaithersburg, MD: Author.
- ⁶⁸ The use of "development" is based on InTASC's Standard #1: Learner Development. The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.
- ⁶⁹ NRC. (2010).

Bransford, J., Darling-Hammond, L., & Lepage, P. (2005). In L. Darling-Hammond, & J. Bransford (Eds.), *Preparing teachers for a changing world. What teachers should learn and be able to do* (pp. 1-39). San Francisco, CA: Jossey-Bass.

Zeichner, K. M., & Conklin, H. G. (2005). Teacher education programs. In M. Cochran-Smith, & K. M. Zeichner (Eds.), *Studying teacher education* (pp. 645-735). Mahwah, NJ: Lawrence Erlbaum Associates. NCATE. (2010).

- ⁷⁰ Ewell, P. (2012). *Recent trends and practices in accreditation: Implications for the development of standards for CAEP.* Washington, DC: CAEP.
- ⁷¹ Langley G.L., Nolan K.M., Nolan T.W., Norman C.L. & Provost L.P. (2009). *The improvement guide: A practical approach to enhancing organizational performance* (2nd ed). San Francisco: Jossey-Bass Publishers.
- ⁷² Bryk, A.S., Gomez, L.M. & Grunow, A. (2010). *Getting ideas into action: Building networked improvement communities in education*, Stanford, CA: Carnegie Foundation for the Advancement of Teaching. Essay retrieved from http://www.carnegiefoundation.org/spotlight/webinar-bryk-gomez-building-networked-improvement-communities-in-education

ADDITIONAL RECOMMENDATIONS OF THE CAEP COMMISSION

CROSS-CUTTING THEMES

- ⁷⁵ National Center for Education Statistics, Digest of Education Statistics, Table 44, 2012 U. S. Department of Education.
- ⁷⁶ Bureau of the Census (2001). Population 5 Years and Over Who Spoke a Language Other Than English at Home by Language Group and English-Speaking Ability, Appendix Table 1. Retrieved at: http://www.census.gov/hhes/socdemo/language/data/acs/ACS-12.pdf
 ⁷⁷ U. S. Department of Education, op. cit., p. 22.
- ⁷⁸ Adapted from InTASC (2011).
- ⁷⁹ The use of "development" is based on InTASC's Standard #1: Learner Development. The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.

RECOMMENDATIONS ON EVIDENCE IN ACCREDITATION

⁶⁵ Ewell, P. (2013). Report of the data task force to the CAEP Commission on Standards and Performance Reporting, CAEP. American Psychological Association (2013). Applying Psychological Science to Using Data for continuous Teacher Preparation Program Improvement, Draft, Report of a Board of Educational Affairs Task Force. University of Wisconsin, Value Added Research Center (2013).

⁷³ Ewell, P. (2012).

⁷⁴ NRC (2010). pp. 182, 183.

⁸⁰ Ewell, P. (2013). Report of the data task force.

⁸¹ Ewell, P. (2013). *Principles for measures used in the CAEP accreditation process*, CAEP.

⁸² Ewell, P. (2012). Recent trends.

⁸³ Kahl, Stuart, Hofman, Peter, & Bryant, Sara, (2013), Assessment literacy standards and performance measures for candidates and practicing teachers, Prepared for the Council for the Accreditation of Educator Preparation.

Bryk, A.S., Gomez, L.M. & Grunow, A. (2010).

⁸⁷ CCSSO (2012). p. 22.

⁸⁴ Ruben, B. R. (2010). *Excellence in higher education guide. An integrated approach to assessment, planning, and improvement in colleges and universities*. Washington, D.C.: National Association of College and University Business Officers. Baldrige (2011).

⁸⁶ Council of Chief State School Officers [CCSSO].(2012). *Our responsibility, our promise: Transforming educator preparation and entry Into the profession.* Washington, D. C., Author, p. 22.

⁸⁸ Ewell, P. (2013). *Report of the data task force*.

⁸⁹ 34 CFR 602.16, Accreditation and Preaccreditation standards.