

# CAEP ACCREDITATION STANDARDS

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# Accreditation Standards and Recommendations

The Commission adopted a structure for the standards that begins with three areas of teacher preparation identified by the National Academy of Sciences 2010 report, *Preparing Teachers: Building Evidence for Sound Policy*. The Academy panel found that existing research provides some guidance regarding factors “likely to have the strongest effects” on outcomes for students: content knowledge; field experience; and the quality of teacher candidates.<sup>1</sup>

Adapting that guidance to its task, the first three standards recommended by the Commission are:

- Standard 1: Content and Pedagogical Knowledge
- Standard 2: Clinical Partnerships and Practice
- Standard 3: Candidate Quality, Recruitment, and Selectivity

The ultimate goal of educator preparation is the impact of program completers on P-12 student learning and development, as framed by the Commission in the fourth standard. That impact would be demonstrated both directly through multiple measures and indirectly by the satisfaction of the completers and their employers.

- Standard 4: Program Impact

Finally, the Commission explored important functions of an accrediting body that are fashioned around attributes of high-performing education organizations. These are supported by research on effective management and, especially, by the Baldrige education award criteria, as well as recent trends and new approaches among accreditors. The fifth standard and the recommendations on annual reporting and levels of accreditation are built on these sources:

- Standard 5: Provider Quality Assurance and Continuous Improvement
- Recommendation: Annual Reporting and CAEP Monitoring
- Recommendation: Levels of Accreditation Decisions

## Commission Recommendations for Standards

### Standard 1: CONTENT AND PEDAGOGICAL KNOWLEDGE

*The provider ensures that candidates develop a deep understanding of the critical concepts and principles of their discipline and, by completion, are able to use discipline-specific practices flexibly to advance the learning of all students toward attainment of college- and career-readiness standards.*

#### Candidate Knowledge, Skills, and Professional Dispositions

- 1.1 Candidates demonstrate an understanding of the 10 InTASC standards at the appropriate progression level(s)<sup>2</sup> in the following categories: the learner and learning; content; instructional practice; and professional responsibility.

### **Provider Responsibilities**

- 1.2 Providers ensure that completers use research and evidence to develop an understanding of the teaching profession and use both to measure their P-12 students' progress and their own professional practice.
- 1.3 Providers ensure that completers apply content and pedagogical knowledge as reflected in outcome assessments in response to standards of Specialized Professional Associations (SPA), the National Board for Professional Teaching Standards (NBPTS), states, or other accrediting bodies (e.g., National Association of Schools of Music – NASM).
- 1.4 Providers ensure that completers demonstrate skills and commitment that afford all P-12 students access to rigorous college- and career-ready standards (e.g., Next Generation Science Standards, National Career Readiness Certificate, Common Core State Standards).
- 1.5 Providers ensure that completers model and apply technology standards as they design, implement and assess learning experiences to engage students and improve learning; and enrich professional practice.

### **Glossary**

**All P-12 students:** Defined as children or youth attending P-12 schools including, but not limited to, students with disabilities or exceptionalities, students who are gifted, and students who represent diversity based on ethnicity, race, socioeconomic status, gender, language, religion, sexual identification, and/or geographic origin.

**Candidate:** In this report, the term “candidate” refers to individuals preparing for professional education positions.

**Completer:** A term to embrace candidates exiting from degree programs and also candidates exiting from other higher education programs or preparation programs conducted by alternative providers that may or may not offer a certificate or degree.

Note: In Standard 1, the subjects of components are “candidates.” The specific knowledge and skills described will develop over the course of the preparation program and may be assessed at any point, some near admission, others at key transitions such as entry to clinical experiences and still others near candidate exit as preparation is completed.

**Provider:** Educator preparation provider (EPP) – An inclusive term referring to the sponsoring organization for preparation, whether it is an institution of higher education, a district- or state-sponsored program, or an alternative pathway organization.

### **Commission Rationale**

This standard asserts the importance of a strong content background and foundation of pedagogical knowledge for all candidates. Teaching is complex and preparation must provide opportunities for candidates to acquire knowledge and skills that can move all P-12 students significantly forward—in their academic achievements, in articulating the purpose of education in their lives and in building independent competence for life-long learning. Such a background includes experiences that develop deep understanding of major concepts and principles within the candidate’s field, including college and career-ready expectations.<sup>3</sup> Moving forward, college- and career-ready standards can be expected to

include additional disciplines, underscoring the need to help students master a range of learner goals conveyed within and across disciplines. Content and pedagogical knowledge expected of candidates is articulated through the InTASC standards. These standards are:

- **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.
- **Standard #2: Learning Differences.** The teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.
- **Standard #3: Learning Environments.** The teacher works with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self motivation.
- **Standard #4: Content Knowledge.** The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make the discipline accessible and meaningful for learners to assure mastery of the content.
- **Standard #5: Application of Content.** The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.
- **Standard #6: Assessment.** The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making.
- **Standard #7: Planning for Instruction.** The teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.
- **Standard #8: Instructional Strategies.** The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.
- **Standard #9: Professional Learning and Ethical Practice.** The teacher engages in ongoing professional learning and uses evidence to continually evaluate his/her practice, particularly the effects of his/her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner.
- **Standard #10: Leadership and Collaboration.** The teacher seeks appropriate leadership roles and opportunities to take responsibility for student learning and development, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

Content knowledge describes the depth of understanding of critical concepts, theories, skills, processes, principles, and structures that connect and organize ideas within a field.<sup>4</sup> Research indicates that students learn more when their teachers have a strong foundation of content knowledge.<sup>5</sup>

[T]eachers need to understand subject matter deeply and flexibly so they can help students create useful cognitive maps, relate one idea to another, and address misconceptions. Teachers need to see how ideas connect across fields and to everyday life. This kind of understanding provides a foundation for pedagogical content knowledge that enables teachers to make ideas accessible to others.<sup>6</sup>

These essential links between instruction and content are especially clear in Darling-Hammond’s description of what the Common Core State Standards mean by “deeper learning”:

- An understanding of the *meaning* and *relevance* of ideas to concrete problems
- An ability to *apply* core concepts and modes of inquiry to complex real-world tasks
- A capacity to *transfer* knowledge and skills to new situations, to build on and use them
- Abilities to *communicate* ideas and to *collaborate* in problem solving
- An ongoing ability to *learn to learn*<sup>7</sup>

Pedagogical content knowledge in teaching includes:

core activities of teaching, such as figuring out what students know; choosing and managing representations of ideas; appraising, selecting and modifying textbooks; . . . deciding among alternative courses of action and analyze(ing) the subject matter knowledge and insight entailed in these activities.”<sup>8</sup> It is crucial to “good teaching and student understanding.”<sup>9</sup>

The development of pedagogical content knowledge involves a shift in teachers’ understanding from comprehension of subject matter *for themselves*, to advancing *their students’* learning through presentation of subject matter in a variety of ways that are appropriate to different situations—reorganizing and partitioning it and developing activities, metaphors, exercises, examples and demonstrations—so that it can be grasped by students.<sup>10</sup>

Understanding of pedagogical content knowledge is complemented by knowledge of learners—where teaching begins. Teachers must understand that learning and developmental patterns vary among individuals, that learners bring unique individual differences to the learning process, and that learners need supportive and safe learning environments to thrive. Teachers’ professional knowledge includes the ways in which cognitive, linguistic, social, emotional, and physical development occurs.<sup>11</sup> Neuroscience is influencing education, and future educators should be well-versed in findings from brain research, including how to facilitate learning for students with varying capacities, experiences, strengths and approaches to learning.

To be effective, teachers also must be prepared to collaborate with families to support student success.<sup>12</sup> When teachers understand families and communicate and build relationships with them, students benefit. Many studies confirm that strong parent–teacher relationships relate to positive student outcomes for students, such as healthy social development, high student achievement and high rates of college enrollment.<sup>13</sup> Thus, by giving teachers the support they need to work with families, educator preparation providers can have an even greater impact on student learning and development.

The Commission’s development of this standard and its components was influenced especially by the InTASC Model Core Teaching Standards, the Common Core State Standards Initiative,<sup>14</sup> and the National Board for Professional Teaching Standards’ Five Core Propositions.<sup>15</sup> Additionally the Commission used the work of the International Society for Technology in Education (ISTE)<sup>16</sup> and the Harvard Family Research Project (HFRP).<sup>17</sup>

**Standard 2:  
CLINICAL PARTNERSHIPS AND PRACTICE**

*The provider ensures that effective partnerships and high-quality clinical practice are central to preparation so that candidates develop the knowledge, skills, and professional dispositions necessary to demonstrate positive impact on all P-12 students' learning and development.*

**Partnerships for Clinical Preparation**

2.1 Partners co-construct mutually beneficial P-12 school and community arrangements, including technology-based collaborations, for clinical preparation and share responsibility for continuous improvement of candidate preparation. Partnerships for clinical preparation can follow a range of forms, participants, and functions. They establish mutually agreeable expectations for candidate entry, preparation, and exit; ensure that theory and practice are linked; maintain coherence across clinical and academic components of preparation; and share accountability for candidate outcomes.

**Clinical Educators**

2.2 Partners co-select, prepare, evaluate, support, and retain high-quality clinical educators, both provider- and school-based, who demonstrate a positive impact on candidates' development and P-12 student learning and development. In collaboration with their partners, providers use multiple indicators and appropriate technology-based applications to establish, maintain, and refine criteria for selection, professional development, performance evaluation, continuous improvement, and retention of clinical educators in all clinical placement settings.

**Clinical Experiences**

2.3 The provider works with partners to design clinical experiences of sufficient depth, breadth, diversity, coherence, and duration to ensure that candidates demonstrate their developing effectiveness and positive impact on all students' learning and development. Clinical experiences, including technology-enhanced learning opportunities, are structured to have multiple performance-based assessments at key points within the program to demonstrate candidates' development of the knowledge, skills, and professional dispositions, as delineated in Standard 1, that are associated with a positive impact on the learning and development of all P-12 students.

**Glossary**

**Clinical Educators:** All EPP- and P-12-school-based individuals, including classroom teachers, who assess, support, and develop a candidate's knowledge, skills, or professional dispositions at some stage in the clinical experiences.

**Partner:** Organizations, businesses, community groups, agencies, schools, districts, and/or EPPs specifically involved in designing, implementing, and assessing the clinical experience.

**Partnership:** Mutually beneficial agreement among various partners in which all participating members engage in and contribute to goals for the preparation of education professionals. This may include examples such as pipeline initiatives, Professional Development Schools, and partner networks.

**Stakeholder:** Partners, organizations, businesses, community groups, agencies, schools, districts, and/or EPPs interested in candidate preparation or education.

## Commission Rationale

Education is a practice profession and preparation for careers in education must create nurturing opportunities for aspiring candidates to develop, practice, and demonstrate the content and pedagogical knowledge and skills that promote learning for all students. These developmental opportunities/ experiences take place particularly in school-based situations, but may be augmented by community-based and virtual situations. The 2010 NCATE panel report, *Transforming Teacher Education Through Clinical Practice*,<sup>18</sup> identified important dimensions of clinical practice and the Commission drew from the Panel's recommendations to structure the three components of this standard.

Educator preparation providers (EPPs) seeking accreditation should have strong collaborative partnerships with school districts and individual school partners, as well as other community stakeholders, in order to pursue mutually beneficial and agreed upon goals for the preparation of education professionals. These collaborative partnerships are a shared endeavor meant to focus dually on the improvement of student learning and development and on the preparation of teachers for this goal. The partners shall work together to determine not only the values and expectations of program development, implementation, assessment, and continuous improvement, but also the division of responsibilities among the various partnership stakeholders. At a minimum, the district and/or school leadership and the EPP should be a part of the partnership; other partners might include business and community members.

Characteristics of effective partnerships include: mutual trust and respect; sufficient time to develop and strengthen relationships at all levels; shared responsibility and accountability among partners, and periodic formative evaluation of activities among partners.<sup>19</sup> Darling-Hammond and Baratz-Snowden<sup>20</sup> call for strong relationships between universities and schools to share standards of good teaching that are consistent across courses and clinical work. This relationship could apply, as well, to all providers. The 2010 NCATE panel proposed partnerships that are strategic in meeting partners' needs by defining common work, shared responsibility, authority, and accountability.

Clinical educators are all EPP and P-12 school-based individuals, including classroom teachers, who assess, support and develop a candidate's knowledge, skills, and professional dispositions at some state in the clinical experiences. Literature indicates the importance of the quality of clinical educators, both school- and provider-based, to ensure the learning of candidates and P-12 students.<sup>21</sup> *Transforming Teacher Education Through Clinical Practice* described high-quality clinical experiences as ones in which both providers and their partners require candidate supervision and mentoring by certified clinical educators—drawn from discipline-specific, pedagogical, and P-12 professionals—who are trained to work with and provide feedback to candidates. Clinical educators should be accountable for the performance of the candidates they supervise, as well as that of the students they teach.<sup>22</sup>

High-quality clinical experiences are early, ongoing and take place in a variety of school- and community-based settings, as well as through simulations and other virtual opportunities (for example, online chats with students). Candidates observe, assist, tutor, instruct and may conduct research. They may be student-teachers or interns.<sup>23</sup> These experiences integrate applications of theory from pedagogical courses or modules in P-12 or community settings and are aligned with the school-based curriculum (e.g., Next Generation Science Standards, college- and career-ready standards, Common Core State Standards). They offer multiple opportunities for candidates to develop, practice, demonstrate, and reflect upon clinical and academic components of preparation, as well as opportunities to develop, practice, and demonstrate evidence-based, pedagogical practices that improve student learning and development, as described in Standard 1.



The members of the 2010 Panel on clinical preparation and partnerships consulted both research resources and professional consensus reports in shaping their conclusions and recommendations, including proposed design principles for clinical experiences.<sup>24</sup> Among these are: (1) a student learning and development focus, (2) clinical practice that is integrated throughout every facet of preparation in a dynamic way, (3) continuous monitoring and judging of candidate progress on the basis of data, (4) a curriculum and experiences that permit candidates to integrate content and a broad range of effective teaching practices and to become innovators and problem solvers, and (5) an “interactive professional community” with opportunities for collaboration and peer feedback. Howey<sup>25</sup> also suggests several principles, including tightly woven education theory and classroom practice, as well as placement of candidates in cohorts. An ETS report proposed clinical preparation experiences that offer opportunities for “Actual hands-on ability and skill to use . . . types of knowledge to engage students successfully in learning and mastery.”<sup>26</sup> The report of the National Research Council (2010) concluded that clinical experiences were critically important to teacher preparation but that the research, to date, does not tell us what specific experiences or sequence of experiences are most likely to result in more effective beginning teachers.<sup>27</sup>

Until the research base for clinical practices and partnerships is more definitive, “wisdom of practice” dictates that the profession move more forcefully into deepening partnerships; into clarifying and, where necessary, improving the quality of clinical educators who prepare the field’s new practitioners and into delivering field and clinical experiences that contribute to the development of effective educators.

<p><b>Standard 3:</b> <b>CANDIDATE QUALITY, RECRUITMENT, AND SELECTIVITY</b></p> <p><i>The provider demonstrates that the quality of candidates is a continuing and purposeful part of its responsibility from recruitment, at admission, through the progression of courses and clinical experiences, and to decisions that completers are prepared to teach effectively and are recommended for certification. The provider demonstrates that development of candidate quality is the goal of educator preparation in all phases of the program. This process is ultimately determined by a program’s meeting of Standard 4.</i></p> <p><b>Plan for Recruitment of Diverse Candidates who Meet Employment Needs</b></p> <p>3.1 The provider presents plans and goals to recruit and support completion of high-quality candidates from a broad range of backgrounds and diverse populations to accomplish their mission. The admitted pool of candidates reflects the diversity of America’s P-12 students. The provider demonstrates efforts to know and address community, state, national, regional, or local needs for hard-to-staff schools and shortage fields, currently, STEM, English-language learning, and students with disabilities.</p> <p><b>Admission Standards Indicate That Candidates Have High Academic Achievement And Ability</b></p> <p>3.2 The provider sets admissions requirements, including CAEP minimum criteria or the state’s minimum criteria, whichever are higher, and gathers data to monitor applicants and the selected pool of candidates. The provider ensures that the average grade point average of its accepted cohort of candidates meets or exceeds the CAEP minimum of 3.0, and the group average performance on nationally normed ability/achievement assessments such as ACT, SAT, or GRE:</p> <ul style="list-style-type: none"> <li>• is in the top 50 percent from 2016-2017;</li> </ul>
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- is in the top 40 percent of the distribution from 2018-2019; and
- is in the top 33 percent of the distribution by 2020.<sup>28</sup>

If any state can meet the CAEP standards, as specified above, by demonstrating a correspondence in scores between the state-normed assessments and nationally normed ability/achievement assessments, then educator preparation providers from that state will be able to utilize their state assessments until 2020. CAEP will work with states through this transition.

Over time, a program may develop a reliable, valid model that uses admissions criteria other than those stated in this standard. In this case, the admitted cohort group mean on these criteria must meet or exceed the standard that has been shown to positively correlate with measures of P-12 student learning and development.

The provider demonstrates that the standard for high academic achievement and ability is met through multiple evaluations and sources of evidence. The provider reports the mean and standard deviation for the group.

#### **Additional Selectivity Factors**

3.3 Educator preparation providers establish and monitor attributes and dispositions beyond academic ability that candidates must demonstrate at admissions and during the program. The provider selects criteria, describes the measures used and evidence of the reliability and validity of those measures, and reports data that show how the academic and non-academic factors predict candidate performance in the program and effective teaching.

#### **Selectivity During Preparation**

3.4 The provider creates criteria for program progression and monitors candidates' advancement from admissions through completion. All candidates demonstrate the ability to teach to college- and career-ready standards. Providers present multiple forms of evidence to indicate candidates' developing content knowledge, pedagogical content knowledge, pedagogical skills, and the integration of technology in all of these domains.<sup>29</sup>

#### **Selection At Completion**

3.5 Before the provider recommends any completing candidate for licensure or certification, it documents that the candidate has reached a high standard for content knowledge in the fields where certification is sought and can teach effectively with positive impacts on P-12 student learning and development.

3.6 Before the provider recommends any completing candidate for licensure or certification, it documents that the candidate understands the expectations of the profession, including codes of ethics, professional standards of practice, and relevant laws and policies. CAEP monitors the development of measures that assess candidates' success and revises standards in light of new results.

## Glossary

**Cohort:** A group of candidates admitted at the same time, e.g., a class entering in a fall semester.

**Group average:** The GPA and standardized test scores are averaged for all members of a cohort or class of admitted candidates. Averaging does not require that every candidate meet the specified score. Thus, there may be a range of candidates' grades and scores on standardized tests.

**STEM:** Science, technology, engineering and mathematics

## Commission Rationale

Educator preparation providers (EPP) have a critical responsibility to ensure the quality of their candidates. This responsibility continues from purposeful recruitment that helps fulfill the provider's mission to admissions selectivity that builds an able and diverse pool of candidates, through monitoring of candidate progress and providing necessary support, to demonstrating that candidates are proficient at completion and that they are selected for employment opportunities that are available in areas served by the provider. The integration of recruitment and selectivity as EPP responsibilities to ensure quality is emphasized in a 2010 National Research Council report:

The quality of new teachers entering the field depends not only on the quality of the preparation they receive, but also on the capacity of preparation programs to attract and select academically able people who have the potential to be effective teachers. Attracting able, high-quality candidates to teaching is a critical goal.<sup>30</sup>

The majority of American educators are white, middle class, and female.<sup>31</sup> The makeup of the nation's teacher workforce has not kept up with changing student demographics. At the national level, students of color make up more than 40 percent of the public school population, while teachers of color are only 17 percent of the teaching force.<sup>32</sup> The mismatch has consequences. Dee; Goldhaber, and Hansen; and Hanushek and colleagues<sup>33</sup> found that student achievement is positively impacted by a racial/ethnicity match between teachers and students.

While recruitment of talented minority candidates is a time- and labor-intensive process,<sup>34</sup> "teachers of color and culturally competent teachers must be actively recruited and supported."<sup>35</sup> Recruitment can both increase the quality of selected candidates and offset potentially deleterious effects on diversity from more selective criteria—either at admissions or throughout a program.<sup>36</sup> "Successful programs recruit minority teachers with a high likelihood of being effective in the classroom" and "concentrate on finding candidates with a core set of competencies that will translate to success in the classroom."<sup>37</sup> There is evidence that providers of alternative pathways to teaching have been more successful in attracting non-white candidates. Feistritzer reports alternative provider cohorts that are 30 percent non-white, compared with 13 percent in traditional programs.<sup>38</sup>

The 2010 NCATE panel on clinical partnerships advocated attention to employment needs as a way to secure greater alignment between the teacher market and areas of teacher preparation.<sup>39</sup> The U.S. Department of Education regularly releases lists of teacher shortages by both content-area specialization and state.<sup>40</sup> Some states also publish supply-and-demand trends and forecasts and other information on market needs. These lists could assist EPPs in shaping their program offerings and in setting recruitment goals.

There is a broad public consensus that providers should attract and select able candidates who will become effective teachers. The 2011 Gallup Phi Delta Kappan education poll<sup>41</sup> reported that 76 percent

of the U.S. adult public agreed that “high-achieving” high school students should be recruited to become teachers. Another example is found in a 2012 AFT report on teacher preparation, recommending setting GPA requirements at 3.0, SATs at 1100 and ACT scores at 24.0 in order to “attract academically capable students with authentic commitment to work with children.”<sup>42</sup>

Researchers such as Ball, Rowan, and Hill; Floden, Wayne, and Young<sup>43</sup> conclude that academic quality, especially in verbal ability and math knowledge, impacts teacher effectiveness. A study for McKinsey and Company<sup>44</sup> found that high-performing countries had a rigorous selection process similar to that of medical schools. Whitehurst<sup>45</sup> suggests that educator preparation providers should be much more selective in terms of their candidates’ cognitive abilities. When looking at the cost of teacher selection, Levin<sup>46</sup> found “that recruiting and retaining teachers with higher verbal scores is five-to-ten times as effective per dollar of teacher expenditure in raising achievement scores of students as the strategy of obtaining teachers with more experience.” Rockoff, Jacob, Kane, and Staiger concluded that “teachers’ cognitive and non-cognitive skills...have a moderately large and statistically significant relationship with student and teacher outcomes, particularly with student test scores.”<sup>47</sup>

Programs do not all start at the same place in their history of recruiting an academically strong and/or diverse candidate pool. Some programs will need to set goals and move successively toward achieving them. As better performance assessments are developed and as various licensure tests are shown to be predictors of teacher performance and/or student learning and development, CAEP may be able to put more emphasis on exit criteria rather than on entrance criteria. Irrespective of changes CAEP may make, this does not reduce the program’s responsibility to recruit a diverse candidate pool that mirrors the demography of the student population served.

There is strong support from the professional community that qualities outside of academic ability are associated with teacher effectiveness. These include “grit,” the ability to work with parents, the ability to motivate, communication skills, focus, purpose, and leadership, among others. Duckworth, et al, found “that the achievement of difficult goals entails not only talent but also the sustained and focused application of talent over time.”<sup>48</sup> A Teach for America (TFA) study concluded that a teacher’s academic achievement, leadership experience, and perseverance are associated with student gains in math, while leadership experience and commitment to the TFA mission were associated with gains in English.<sup>49</sup> Danielson asserts that “teacher learning becomes more active through experimentation and inquiry, as well as through writing, dialogue, and questioning.”<sup>50</sup> In addition, teacher evaluations involve “observations of classroom teaching, which can engage teachers in those activities known to promote learning, namely, self-assessment, reflection on practice, and professional conversation.” These “other” attributes, dispositions and abilities lend themselves to provider innovation. Some providers might emphasize certain attributes because of the employment field or market for which they are preparing teachers.

Research has not empirically established a particular set of non-academic qualities that teachers should possess. There are numerous studies that list different characteristics, sometimes referring to similar characteristics by different labels. Furthermore, there does not seem to be a clear measure for these non-academic qualities, although a few of them have scales and other measures that have been developed. The CAEP Commission recognizes the ongoing development of this knowledge base and recommends that CAEP revise criteria as evidence emerges. The Commission recognizes the InTASC standards’ set of dispositions as a promising area of research.

Several pieces of research, including Ball’s work in mathematics education,<sup>51</sup> the MET study on components of teaching,<sup>52</sup> and skills approaches such as Lemov’s *Teach Like a Champion*,<sup>53</sup> assert there are important critical pedagogical strategies that develop over time. Henry,<sup>54</sup> Noell and Burns,<sup>55</sup> and Whitehurst<sup>56</sup> all found that, in general, teachers became more effective as they gained experience. Both research, as synthesized by the National Research Council,<sup>57</sup> and professional consensus, as represented by the Council of Chief State School Officers’ InTASC standards,<sup>58</sup> indicate that the development of effective teaching is a process.

There are various sets of criteria and standards for effective teaching and teacher education, many including performance tasks<sup>59</sup> and artifacts created by the candidate.<sup>60</sup> These standards, like those of the Commission, have a central focus on P-12 outcomes. Student learning and development should be a criterion for selecting candidates for advancement throughout preparation. The evidence indicators that appear in the Appendix can be used to monitor and guide candidates’ growth during a program. Standard 4 is built around the ultimate impact that program completers have when they are actually employed in the classroom or other educator positions.

Many professional efforts to define standards for teaching (e.g., InTASC; NCTQ, and observational measures covered in the Measures of Effective Teaching project) recommend that candidates know and practice ethics and standards of professional practice, as described in these national standards (such as those in InTASC standard 9 and 9(o)). The Commission recommends that CAEP strongly encourage additional research to define professional practices of P-12 educators and how these practices, beliefs, and attitudes relate to student learning and development. (See also CAEP component 1.4 on equity responsibilities.)

However, many measures of both academic and non-academic factors associated with high-quality teaching and learning need to be studied for reliability, validity, and fairness. CAEP should encourage development and research related to these measures. It would be shortsighted to specify particular metrics narrowly because of the now fast-evolving interest in, insistence on, and development of new and much stronger preparation assessments, observational measures, student surveys, and descriptive metrics. Instead, CAEP should ask that providers make a case that the data used in decision-making are valid, reliable, and fair. States and localities are developing their own systems of monitoring, and both providers and CAEP should obtain data from these systems, where available, to use as valuable external indicators for continuous improvement.

CAEP should monitor the impact of these new admission standards. The Commission recommends that CAEP develop an expert advisory committee to monitor developments in assessment, outcomes research, and other evidence that will influence the CAEP standards. Such a committee would make recommendations on the evolution of the standards and assessments used in program improvement and accreditation.

**Standard 4:  
PROGRAM IMPACT**

***The provider demonstrates the impact of its completers on P-12 student learning and development, classroom instruction, and schools, and the satisfaction of its completers with the relevance and effectiveness of their preparation.***

**Impact on P-12 Student Learning and Development**

4.1 The provider documents, using multiple measures, that program completers contribute to an expected level of student-learning growth. Multiple measures shall include all available growth measures (including value-added measures, student-growth percentiles, and student learning and development objectives) required by the state for its teachers and available to educator preparation providers, other state-supported P-12 impact measures, and any other measures employed by the provider.

**Indicators of Teaching Effectiveness**

4.2 The provider demonstrates, through structured and validated observation instruments and student surveys, that completers effectively apply the professional knowledge, skills, and dispositions that the preparation experiences were designed to achieve.

**Satisfaction of Employers**

4.3. The provider demonstrates, using measures that result in valid and reliable data and including employment milestones such as promotion and retention, that employers are satisfied with the completers' preparation for their assigned responsibilities in working with P-12 students.

**Satisfaction of Completers**

4.4 The provider demonstrates, using measures that result in valid and reliable data, that program completers perceive their preparation as relevant to the responsibilities they confront on the job, and that the preparation was effective.

**Commission Rationale**

Standards 1 through 3 address the preparation experiences of candidates, their developing knowledge and skills, and their abilities at the point of program completion. Candidate progress and provider conclusions about the readiness of completers at exit are direct outcomes of the provider's efforts. By contrast, Standard 4 addresses the results of preparation at the point where they most matter—in classrooms and schools. Educator preparation providers must attend to candidate mastery of the knowledge and skills necessary for effective teaching, but that judgment is finally dependent on the impact the completers have on-the-job with P-12 student learning and development.

The paramount goal of providers is to prepare candidates who will have a positive impact on P-12 students. Impact can be measured in many ways. Component 4.1 enumerates some of these approaches. The Commission underscores here what also is said in the Recommendations on Evidence section, below, that multiple measures are needed for these and other accreditation evidence. One approach being adopted by several states and districts is known as "value-added modeling" (VAM). A large research effort supported by the Bill & Melinda Gates Foundation, the Measures of Effective Teaching (MET) project, provides useful guidance about the circumstances under which this model can most validly be used. These findings are consistent with those noted in *Preparing Teachers: Building*

*Evidence for Sound Policy* (NRC, 2010): “Value-added models may provide valuable information about effective teacher preparation, but not definitive conclusions and are best considered together with other evidence from a variety of perspectives.”<sup>61</sup>

The Commission recommends that CAEP encourage research on the validity and reliability of VAM for program evaluation purposes.<sup>62</sup> Because members expect that methodologies for measuring teacher impact on P-12 student learning and development will continue to evolve and hopefully improve, the Commission recommends that CAEP also make certain that its standards and processes reflect the profession’s best current thinking on appropriate use of evidence for program improvement and accreditation decisions. In this regard, providers should refer to the Data Task Force, the American Psychological Association guidance on preparation measures, and the University of Wisconsin Madison Value-Added Research Center reports regarding use of multiple sources of data, including value-added data, for program evaluation.<sup>63</sup>

Multiple types of surveys can serve as indicators of teaching effectiveness (Component 4.2), satisfaction of employers (Component 4.3), and satisfaction of completers (Component 4.4). Research by Ferguson, for example, shows that K-12 student surveys are a valid means for understanding aspects of teaching effectiveness.<sup>64</sup> The Commission recommends that CAEP consider the development of common survey items and instruments for employers and completers. CAEP also should participate in the validation of student survey instruments for use in teacher pre-service programs.

#### **Standard 5:**

#### **PROVIDER QUALITY ASSURANCE AND CONTINUOUS IMPROVEMENT**

***The provider maintains a quality assurance system comprised of valid data from multiple measures, including evidence of candidates’ and completers’ positive impact on P-12 student learning and development. The provider supports continuous improvement that is sustained and evidence-based, and that evaluates the effectiveness of its completers. The provider uses the results of inquiry and data collection to establish priorities, enhance program elements and capacity, and test innovations to improve completers’ impact on P-12 student learning and development.***

#### **Quality and Strategic Evaluation**

- 5.1 The provider’s quality assurance system is comprised of multiple measures that can monitor candidate progress, completer achievements, and provider operational effectiveness. Evidence demonstrates that the provider satisfies all CAEP standards.
- 5.2 The provider’s quality assurance system relies on relevant, verifiable, representative, cumulative and actionable measures, and produces empirical evidence that interpretations of data are valid and consistent.

#### **Continuous Improvement**

- 5.3. The provider regularly and systematically assesses performance against its goals and relevant standards, tracks results over time, tests innovations and the effects of selection criteria on subsequent progress and completion, and uses results to improve program elements and processes.

- 5.4. Measures of completer impact, including available outcome data on P-12 student growth, are summarized, externally benchmarked, analyzed, shared widely, and acted upon in decision-making related to programs, resource allocation, and future direction.
- 5.5. The provider assures that appropriate stakeholders, including alumni, employers, practitioners, school and community partners, and others defined by the provider, are involved in program evaluation, improvement, and identification of models of excellence.

### **Glossary**

**Continuous improvement:** An organizational process through which data are collected on all aspects of a provider’s activities; analyzed to determine patterns, trends, and progress; and used to define changes for the purpose of improving the quality of programs, faculty, candidates, policies, procedures, and practices of educator preparation.

### **Commission Rationale**

Effective organizations use evidence-based quality assurance systems and data in a process of continuous improvement. These systems and data-based continuous improvement are essential foundational requirements for effective implementation of any of the three CAEP accreditation pathways an educator preparation provider (EPP) chooses—whether it is the Inquiry Brief, Continuous Improvement, or Transformational Initiative pathway.

A robust quality assurance system ensures continuous improvement by relying on a variety of measures, establishing performance benchmarks for those measures (with reference to external standards where possible), seeking the views of all relevant stakeholders, sharing evidence widely with both internal and external audiences, and using results to improve policies and practices in consultation with partners and stakeholders.<sup>65</sup>

The quality of an EPP is measured by the abilities of its completers to have a positive impact on P-12 student learning and development.<sup>66</sup> Program quality and improvement are determined, in part, by characteristics of candidates that the provider recruits to the field; the knowledge, skills, and professional dispositions that candidates bring to and acquire during the program; the relationships between the provider and the P-12 schools in which candidates receive clinical training; and subsequent evidence of completers’ impact on P-12 student learning and development in schools where they ultimately teach.<sup>67</sup> To be accredited, a preparation program must meet standards on each of these dimensions and demonstrate success in its own continuous improvement efforts.

Effective quality assurance systems function through a clearly articulated and effective process for defining and assuring quality outcomes. Reasons for the selection of each measure and the establishment of performance benchmarks for individual and program performance, including external points of comparison, are made clear. Providers show evidence of the credibility and dependability of the data that inform their quality assurance systems, as well as evidence of ongoing investigation into the quality of evidence and the validity of their interpretations of that evidence. Providers must present empirical evidence of each measure’s psychometric and statistical soundness (reliability, validity, and fairness).<sup>68</sup>

Continuous improvement systems enable programs quickly to develop and test prospective improvements, deploy what is learned throughout the organization, and add to the profession’s



knowledge base and repertoire of practice.<sup>69</sup> CAEP should encourage providers to develop new models for evaluating and scaling up effective solutions. Research and development in the accreditation framework can deepen the knowledge of existing best practices and provide models of emerging innovations to transform educator preparation.<sup>70</sup>

## **Additional Recommendations of the CAEP Commission**

The CAEP Commission also was charged with determining information reported to the public, how often programs are reviewed and monitored, and the levels of accreditation decisions.

Commission members were guided in their work by analyses of recent trends and promising practices in accreditation.<sup>71</sup> In particular, Commissioners put the most weight on student learning and development outcomes, referring to both candidate outcomes and P-12 student outcomes. Additionally, Commissioners included consideration of program characteristics that would be expected to ensure and enhance quality and support fair treatment of candidates.

### **ANNUAL REPORTING AND CAEP MONITORING**

***The Commission recommends that CAEP gather the following data and monitor them annually from all providers:***

Measures of Program Impact:

- **Impact on P-12 learning and development** (data provided for component 4.1)
- **Indicators of teaching effectiveness** (data provided for component 4.2)
- **Results of employer surveys, including retention and employment milestones** (data provided for component 4.3)
- **Results of completer surveys** (data provided for component 4.4)

Measures of Program Outcome and Consumer Information:

- **Graduation rates**
- **Ability of completers to meet licensing (certification) and any additional state requirements** (e.g., through acceptable scores and pass rates on state licensure exams)
- **Ability of completers to be hired in education positions for which they were prepared**
- **Student loan default rates and other consumer information**

***The Commission recommends that CAEP identify levels and significant amounts of change in any of these indicators that would prompt further examination by the CAEP Accreditation Council's Annual Monitoring Committee. Outcomes could include: (1) requirement for follow-up in future years, (2) adverse action that could include revocation of accreditation status or (3) recognition of eligibility for a higher level of accreditation.***

***In addition, the Commission recommends that CAEP include these data as a recurring feature in the CAEP annual report.***

## Glossary

**Consumer Information:** Information about the status and trends of outcomes for completers that should be available for prospective candidates, parents of applicants, employers of completers, parents of P-12 students and generally for the public.

The first four indicators are in-service measures of quality that are broadly consistent with recommendations from the National Research Council<sup>72</sup> regarding the incorporation of value-added modeling, satisfaction and employment milestone measures from employers, and preparation satisfaction from program completers. The second set of indicators are intended to ensure the fair treatment of candidates and completers so that candidates have specific information available to them about chances for completion, licensure, and finding a job in the field for which they prepare, and student loan default rates for a given educator preparation provider.

Student loan default rates are designed as consumer information that allows prospective candidates to assess the cost and potential benefit relationships of a provider's programs. These rates would not be considered for accreditation decisions. Instead, the information would be furnished to prospective applicants as part of a suite of information, such as is required by the Council for Higher Education Accreditation standard 12B.1 on public accountability. The Commission suggests that providers publish these data along with other consumer information. Examples could include the cost of attendance, beginning salary of completers, or placement location patterns of completers.

As seen by the Commission, these data and their annual review serve a variety of purposes. They are incentives for providers to routinely gather, analyze, and report critical data about their programs as one means for public accountability and transparency. Such data encourage more in-depth evaluation, self-interrogation, and reporting on the full breadth of standards and components. Employers and prospective applicants for admission need this kind of information in user-friendly, transparent forms.

For CAEP, itself, there are many uses:

- The data will become the foundation of a national information base that increases in value over time.
- The data can trigger an alert to CAEP that further examination may be warranted, as specified within the recommendation.
- The data will be a source of information for CAEP's annual report, complement descriptive measures for all accredited providers, facilitate monitoring of trends over time, allow analysis of preparation patterns for different subgroups of providers (e.g., state, regional, urban, rural), and be a resource for identifying benchmark performances.

The database will enable CAEP to report on the progress of continuous improvement not just for an individual provider but for educator preparation across all accredited providers.

The details of data collecting and reporting need to be determined. Such matters as the population to be counted or sampled, the means for determining the appropriate calculation of numerators and denominators, the period over which data are collected, and the time of reporting all must be worked out. U. S. Department of Education regulations for reporting under Title II (on teacher preparation data) of the Higher Education Opportunity Act will have an influence on the regular statistical definitions and procedures for some of these measures.

CAEP should be committed to annual reporting of data on the aforementioned measures, while allowing for a degree of flexibility that recognizes some states and providers may need to develop needed data-gathering and reporting capacities. CAEP has a responsibility to work with states and the Council of Chief State School Officers to assist providers with these efforts, but providers also have a responsibility for maintaining a system of ongoing data collection and reporting. CAEP also must develop plans that complement and make use of changes in preparation data as a result of federal regulations, once they are in place.

#### LEVELS OF ACCREDITATION DECISIONS

*The Commission proposes four levels of accreditation decisions:*

1. **denial of accreditation**—for providers that fall below CAEP guidelines in two or more standards;
2. **probationary accreditation**—awarded to providers that meet or surpass CAEP guidelines in four standards, but fall below in one of the standards;
3. **full accreditation**—awarded to providers that meet CAEP guidelines for all five standards; and
4. **exemplary or “gold” accreditation**—awarded to a small number of providers that meet CAEP guidelines set for all five standards and surpass those guidelines for a combination of standards.

The Commission proposes four levels of accreditation decisions. The first three would be “denial,” “probationary,” and “full accreditation.” The fourth or highest level would be the Commission’s vision for an “exemplary” or “gold” accreditation. After a design and piloting period, the implementation of such a CAEP decision level would break a new path in accreditation, giving visibility to attainment of superior performance.

A CAEP decision to award full accreditation would signal that the provider’s efforts and results *substantially* comply with the rigorous levels recommended by the Commission. Accreditation could be achieved if there are some areas where component evidence fails to reach decision guidelines, with two exceptions:

1. the provider must meet CAEP’s guidelines for evidence for the annual report measures, including:
  - all components of standard 4 on program impact:
    - Impact on P-12 student learning and development,
    - Indicators of teaching effectiveness,
    - Results of employer surveys and including retention and employment milestones and
    - Results of completer surveys.
  - the following measures of program outcome and consumer information:
    - Completer or graduation rates,
    - Ability of completers to meet licensing (certification) and any additional state accreditation requirements and
    - Ability of completers to be hired in education positions for which they are prepared.
2. Educator preparation provider performance under components 5.3 and 5.4 on continuous improvement must meet CAEP’s guidelines for evidence.

Achieving an exemplary CAEP accreditation decision would signal that the provider’s evidence indicates attainment of even more rigorous performance, as described above. It would demonstrate that a provider had fulfilled standards at a very high level or with distinction. This designation might indicate that the quality of evidence and its performance values are higher.

The Commission proposes that CAEP undertake decisive steps to design and test this approach for exemplary accreditation over a specific timeline. The Commission's vision for exemplary accreditation status may be implemented in a variety of ways, but it must be merited by performance beyond the rigorous expectations for full accreditation that the Commission is recommending. A two level review process in which the second level would employ a special panel of peers to evaluate the higher performance expectations might be considered as a means of awarding exemplary status.

The CAEP design and test initiative for awarding exemplary status should engage appropriate technical and educator preparation experts. It should refine and calibrate rubrics to guide designation of exemplary or gold-level accreditation and conduct validity and reliability studies of the judgments inherent in those decisions.

While the system for reaching exemplary-level accreditation decisions is under development, the Commission recommends that the CAEP Accreditation Council consider an interim process for recognizing truly outstanding preparation providers.

## APPENDIX A: Cross-cutting Themes in the Commission's Recommendations

Throughout its deliberations, the Commission faced the twin challenges of developing cohorts of new educators who can lift the performance of all of our diverse P-12 students, while taking advantage of the digital age's new opportunities. This is a challenge for P-12 educators, but it is also a great opportunity to strengthen our nation with a vigor that will ensure that our heterogeneous society maintains its unique place in the history of civilizations.

In fact, these two cross-cutting themes converge. Technology and digital learning in our schools can efficiently bring quality education to all P-12 students. It can address the inequitable access to essential learning technology resources in the home and the community that has too frequently been evident in schools serving diverse and economically disadvantaged students. When that inequity persists, there are profound implications for the educational and economic opportunities available for our youth. Candidates need to know how to assess specific technological inequities experienced by their students and identify and undertake strategies that improve P-12 students' access to, and skills in, using these resources.

Diversity and technology are, thus, two critical areas that will require new learning and substantial innovation by preparation providers; the significant demographic and technological changes that impact their programs also influence the skills their completers must master to be effective. Because these two challenges are imbedded in every aspect of educator preparation, the Commission chose to recognize them throughout the recommended standards and also to elaborate on them here.

### **Diversity**

America's classrooms are increasingly diverse. Students come to school with differing religious and cultural backgrounds. Increasing numbers of students are classified as having disabilities. The National Center for Education Statistics (NCES) reports that 48 percent of P-12 public school students are students of color,<sup>73</sup> and the U.S. Bureau of the Census reports that 20 percent of the school-age population comes from homes where native languages other than English are spoken.<sup>74</sup> Given current trends in immigration and birth rates, these numbers will grow. NCES projects that, by 2021, the proportion of students of color will exceed 52 percent of enrollments. From race and ethnicity to poverty, language, disabilities, giftedness, religion, sexual orientation, and gender, America *is* diversity.

The education workforce is far less diverse, with fewer than 20 percent of teachers being teachers of color. Candidates should more closely mirror the diversity of the student body. Candidates must experience education in diverse situations, encounter P-12 students with differing needs, and engage students' families to support learning.

Even geographically bound providers must make use of the diversity available in clinical experiences so that candidates develop generalizable knowledge, skills, and dispositions. Moreover, no single candidate preparing for an education position can reflect, from his or her own location and personal experience, all facets of diversity. Regardless of their residence, personal circumstances, and preparation experiences, candidates need opportunities to develop professional capabilities that will enable them to adjust and adapt instruction in appropriate ways for the diversity they are likely to encounter in their professional lives.

The standards recommended by the Commission have embedded aspects of diversity within them, extending across learning disabilities, language learners, gifted students and students from diverse racial, ethnic and cultural backgrounds. For example:

- Standard 1 emphasizes that “all students” should be the focus of educator preparation and that completers should demonstrate skills and commitment that provide all P-12 students access to rigorous college and career ready standards. Standard 1 endorses the Interstate Teacher and Support Consortium (InTASC) teacher standards in their entirety, and the performances, knowledge and dispositions that are extensions of those standards contain literally scores of references to cultural competence, individual differences, creativity and innovation and working with families and communities.
- Standard 2 on clinical experiences again is cast in terms of preparing candidates to work with “all students” and calls for diversity in clinical experiences.
- Standard 3 on candidate quality insists that providers must undertake positive outreach efforts to recruit a more able and more diverse candidate pool.

The pairing of recruitment with raising candidate quality level in Standard 3 is of particular importance. This point has been powerfully underscored by the February 2013 report from the Equity and Excellence Commission to the Secretary of Education, in response to a Congressional mandate:<sup>75</sup>

We won’t have a serious equity policy until we steer our best talent to the classrooms where it’s most needed; and we won’t raise the bar for all children until far more of our entering teachers in all schools are well prepared themselves.

Diversity must be a pervasive characteristic of any quality preparation program. The Commission expects responsible providers to ensure that candidates develop proficiencies in specific aspects of diversity that appear in the Commission’s recommended standards and to embed diversity issues throughout all aspects of preparation courses and experiences. Examples of proficiencies that candidates who complete an educator preparation program should develop include:<sup>76</sup>

- Incorporation of multiple perspectives to the discussion of content, including attention to learners’ personal, family, and community experiences and cultural norms.
- A commitment to deepening awareness and understanding the strengths and needs of diverse learners when planning and adjusting instruction that incorporates the histories, experiences and representations of students and families from diverse populations.
- Verbal and nonverbal communication skills that demonstrate respect for and responsiveness to the cultural backgrounds and differing perspectives learners and their families bring to the learning environment.
- Ability to interpret and share student assessment data with families to support student learning in all learning environments.
- An understanding of their own frames of reference (e.g., culture, gender, language, abilities, ways of knowing), the potential biases in these frames, the relationship of privilege and power in schools, and the impact of these frames on educators’ expectations for and relationships with learners and their families.

Because diversity is an overarching feature of educator preparation, the Commission recommends that CAEP ask educator preparation providers to demonstrate in their self studies how they have integrated diversity throughout their program.

## Technology and Digital Learning

Children arrive at school with widely differing digital experiences, just as they enter formal education with differing cultural and family backgrounds, different exposures to language and vocabulary, and different community contexts. Digital age or connected learning integrates highly networked, technology-enabled learning environments with pedagogy and content knowledge. It creates new ways to engage students and learning environments that use tools of the digital age to connect content knowledge with students' interests and connect students with inspiring experts, mentors and peers to deepen learning. These approaches blend online networks and tools and in-classroom and out-of-school learning; effective options to fit instruction with differing student needs and powerful new forms of assessments with simulations, gaming, computer adaptation, and rapid scoring capabilities.

The Commission's standards include several references to applications of new technologies to educational situations:

- Standard 1 endorses the InTASC teacher standards in their entirety, and the performances, knowledge, and dispositions that are extensions of those standards include a score of references to applications of technology. Educators must know how to use technologies and how to guide learners to apply them. They must know how to use digital and interactive technologies for efficiently and effectively achieving specific learning goals.
- Standard 1 also states that providers are to "ensure that completers model and apply technology standards as they design, implement, and assess learning experiences to engage students and improve learning and enrich professional practice."
- Standard 2 on clinical experiences refers to technology-enhanced learning opportunities as part of clinical experiences, as well as appropriate technology-based applications for selection, development, evaluation, and continuous improvement and retention of clinical educators. Clinical partnerships are to include technology-based collaborations, as well.
- Standard 3 on candidate quality states that providers present multiple forms of evidence of candidates developing knowledge and skills during preparation, including "the integration of technology in all of these domains."

Candidates need experiences during their preparation to become proficient in applications of digital media and technological capabilities. They should have opportunities to develop the skills and dispositions for accessing online research databases, digital media, and tools and to identify research-based practices that can improve their students' learning, engagement, and outcomes. They should know why and how to help their students access and assess critically the quality and relevance of digital academic content. Preparation experiences should allow candidates to demonstrate their abilities to design and facilitate digital, or connected, learning, mentoring, and collaboration. They should encourage use of social networks as resources for these purposes and to help identify digital content and technology tools for P-12 students' learning. Candidates should help their students gain access to what technology has to offer.

The essence of technology is rapid change. Members of the Commission realize that for accreditation standards that may be in place for the better part of a decade, it is not possible to anticipate every opportunity through which technology might have potential to advance instructional effectiveness and student learning and development. The Commission has concluded that the current possibilities are insufficiently exploited, and those for the future are beyond current forecasting ability. Educator preparation providers should keep up with research, and those preparing educators should model best practices in digital learning and technology applications that the EPP expects candidates to acquire.

## APPENDIX B: Scope of the Commission's Recommendations

The Commission has made choices in two areas that have an effect on the scope of its recommendations. The first of these relates to the framing of its standards, reporting and accreditation recommendations, and evidence expectations in terms of *teachers* and not including explicit references to education leaders or other school personnel. The second is a question of the relationship of the Commission's focus on performance and outcomes rather than in terms of resources or capacity factors for accreditation that are described in U. S. Department of Education regulations for accreditation organizations. These two topics are addressed in the sections below.

### Teachers, Other School Personnel, and Leaders

The Commission's recommendations apply explicitly to teachers. Among the public comments were many that questioned that limitation, noting that the scope should be more inclusive of educator preparation programs as they exist.

There are cogent reasons that CAEP's standards should extend to "other school professionals" and advanced certificate preparation, as well as to school leadership. CAEP's predecessor organizations both included these other specializations in their reviews and accreditation decisions. While Commissioners examined many research reports relevant to teaching, a considerable portion of those reports reach conclusions that could apply equally well to other school personnel. Many of the extant reports from associations and education reform groups address the functioning of schools as organizations and give particular prominence to leadership, collaboration, and sharing of information that is the basis for continuing improvement.

The Commission-recommended standards and their components could be adapted for other school professionals and advanced certificate preparation (e.g., some states now offer certificates for "teacher leaders"). While some of these education specializations include instructional roles (e.g., reading specialists, school library media specialists or technology coaches, teachers for students with disabilities, or teachers for gifted students), for others that link seems less direct (e.g., school psychologists, school counselors, technology directors, or education leaders).

While the Commission did not address leadership standards explicitly, parallel efforts are underway in that specialty field. At the inception of the Commission's work, consideration was given to development of leadership standards that might complement the proposed teacher preparation program standards recommended by the Commission. Of course, there is compelling logic to seek a close alignment between standards for preparation programs that address both teaching and leadership. Indeed, the Council of Chief State School Officers (CCSSO) took this approach in their 2012 report *Our Responsibility, Our Promise: Transforming Educator Preparation and Entry into the Profession*. As a result of CCSSO's initiative, the current Interstate School Leaders Licensure Consortium (ISLLC) licensure standards for leadership are under revision. This work is being coordinated with the National Policy Board on Educational Administration (NPBEA). The intent is to make parallel revisions to the standards for leadership preparation programs under the auspices of the Education Leadership Constituent Council (ELCC), which currently provides national program recognition for leadership preparation programs on behalf of the eleven-member NPBEA. These initiatives are directly linked with CAEP: some of the



members of NPBEA and ELLC are members of the Commission, and CAEP President James G. Cibulka chairs the NPBEA.

Commissioners concurred with the suggested enlargement in scope of CAEP's standards, believing that their recommendations provide a sound framework that can accommodate teachers, advanced certificate preparation, other school professionals, and education leaders. The changes need to be thoughtfully developed and sensitive to both those aspects of educator preparation standards that are similar and those that are unique for these differing areas of specialization. The Commission recommends that CAEP address this enlarged scope for accreditation standards in an appropriate manner over the coming months as guidelines are constructed and standards are readied for implementation.

### **Capacity Standards**

As they developed concepts for performance-based and evidence-informed accreditation for educator preparation, Commissioners had opportunities to learn about regulatory requirements of the U. S. Department of Education for recognition of accreditation agencies, including CAEP. The regulations make clear that an accreditor seeking recognition of its processes by the Department "must have standards . . . that are sufficiently rigorous to ensure that the agency is a reliable authority regarding the quality of the education or training programs it accredits."<sup>77</sup>

The regulations state that the accreditor meets this requirement if its standards "effectively address the quality of the institution or program" in ten specific listed areas.

Several of these areas, which might be labeled "capacity standards," encompass aspects of the Commission's recommendations. They include:

1. A focus on "success with respect to student achievement," which the Commission addresses far more broadly as both candidate learning and the impact on learning and development of the P-12 students of completers.
2. The "curriculum," which the standards address especially in Standards 1 (Content and Pedagogical Knowledge) and 2 (Clinical Partnerships and Practice).
3. "Faculty" are addressed as a part of clinical educators in Standard 2 on clinical experiences, although that is only a portion of all preparation faculty.
4. "Recruiting and admission practices" are a large factor in Standard 3, although the Department's additional specification of "academic calendars, catalogs, publications. . . and advertising" are not.
5. Review of "student loan default data" is included in the regulations "for accreditors that provide eligibility for federal student financial aid under Title IV of the Higher Education Opportunity Act." CAEP is not involved in any Title IV eligibility responsibilities, however, the Commission adapted the idea of accreditor review of the educator preparation provider in its recommendations around consumer protection information.

There are several other capacity standards topics listed by the Department that fall outside of the Commission's focus. These address the following provider responsibilities:

6. Facilities, equipment, and supplies;
7. Fiscal and administrative capacity;
8. Student support services;

9. Measures of program length and the objectives of the degrees or credentials offered (which the regulations apply only to accreditors with Title IV eligibility responsibilities); and
10. The record of student complaints received by, or available to, the accreditor.

Some of these latter areas do bear on providers' abilities to prepare P-12 educators to meet public expectations. However, the perspective of the Commission is that they would not contribute to the motives that have guided the Commission—that is, to foster innovation and rigor, to draw from research, and to create a performance-based, evidence-informed accreditation system. On balance, the Commissioners determined that omitting standards in these areas will serve to make the direction of the Commission's recommendations most clear: the Commission's primary focus is on outcomes and performance.

Working within the existing regulatory framework remains the responsibility of CAEP. The Commission leaves to it the making of adjustments and additions that will be needed in its final standards submission to the U. S. Department of Education. Commissioners urge the Department to be flexible in reviewing that submission and, in the appropriate venue, to re-examine whether the current regulations still meet today's needs for P-12 education.

## APPENDIX C: Recommendations on Evidence in Accreditation

### Introduction

The Commission's charge gave equal weight to "essential standards" and "accompanying evidence" indicating that standards are met. The additional rigor that CAEP has committed itself to apply is often found in the data and rubrics by which evidence are judged rather than in the language of standards.

Commissioners concur with the consensus that measures widely available for accreditation evidence are too often only indirect indicators or weak proxies for what providers and CAEP need to know. The current generation of P-12 students cannot wait for this problem to be solved, so in the near-term CAEP must take the best information that can be marshaled and use it as effectively as possible. However, the Commission insists that CAEP initiate significant efforts, beginning now, to change this situation with a clear timeline and action steps. The Commission highlights six aspects of evidence that frame consideration of evidence in accreditation:

1. Decisions are informed by multiple measures.
2. Preparation is judged by the impact that completers have on P-12 student learning and development.
3. Educator preparation providers are responsible for the validity, reliability and fairness of evidence they offer to demonstrate that CAEP standards are met.
4. Educator preparation providers maintain quality assurance systems that support continuous monitoring of a wide range of conditions and outcomes of preparation, and they use data to reach toward and surpass challenging goals.
5. CAEP must take responsible implementation steps that acknowledge providers begin in different places. To be fully accredited, however, providers must be on a certain path to reach CAEP's more rigorous standards and evidence expectations.
6. CAEP can, and must, play a prominent role to advance evidence-informed accreditation as one of its professional responsibilities.

### Where We Are and Where We Need to Go

In an ideal world, education accreditation would draw its evidentiary data from a wide array of sources that have different qualitative characteristics from many of those currently available. There would be elements of preparation that are quantified with common definitions or characteristics (e.g., different forms or patterns of clinical experiences) that everyone would understand and that providers would use in their own data systems. There would be comparable experiences in preparation that providers as well as employers, state agencies, and policymakers, agree are essential. There would be similar requirements across states for courses, experiences, and licensure. There would be a few universally administered examinations that serve as strong anchors for judgments about effective preparation and that are accepted as gateways to preparation programs, employment, or promotion.

The qualities of educator preparation data fall far short of such an ideal system. However, Commission members are optimistic that advances in the quality of evidence are at hand. From many arguments that might be made in defense of that optimism, three stand out:

1. The current policy interest in well prepared teachers and leaders is probably higher than it has ever been, especially in states.

2. Several research projects promise to increase knowledge about critical relationships between preparation and effective teaching that can inform education preparation providers and also next generation accreditation standards. For example, the U. S. Department of Education’s Institute for Education Sciences is supporting randomized controlled trials to examine elements of preparation, including selection and clinical experiences.
3. The Measures of Effective Teaching project concluded a large research study of instruments used to evaluate teacher performances, some or all of which might be adapted to serve as pre-service measures.

CAEP President James G. Cibulka took steps to ensure Commission access to resources that would increase its effectiveness in addressing the evidence aspects of its charge. These included a Data Task Force with diverse data experts, chaired by Peter Ewell whose paper on trends in accreditation had influenced the Commission’s initial discussions. Ewell brought his report from the Data Task Force discussion to the Commission, along with a paper on principles for good evidence, a paper on action research, and a template for displaying the evidence suggested by the Commission (see end note 65, Ewell (2013), and the Appendix to the Commission’s report).

In addition, CAEP made an investment in guidelines from the American Psychological Association (APA) for use of student growth, survey, and observation instruments in educator preparation. The draft of that report was available to the Commission and is being prepared for release by the APA later this year (see end note 65, APA (2013)). And, finally, CAEP commissioned a study on student growth measures from the University of Wisconsin Madison Value Added Research Center. This included several value-added models, along with guidelines for use of these measures for program evaluation purposes (see end note 65). The Commission drew on all of these materials to shape its conclusions about evidence in accreditation that follow. All of these resources will become valuable guidance for providers, and perhaps states as well, as new efforts are undertaken to create better data for preparation and accreditation.

### **Judge Preparation by Impact on P-12 Student Learning and Development**

Ultimately, the quality of an educator preparation provider must be measured by the abilities of its completers to have a positive impact on P-12 student learning and development.<sup>78</sup>

Standard 4 addresses the *results* of preparation programs in classrooms and schools. Providers must provide data to demonstrate that “program completers contribute to an expected level of student-learning growth.” Providers need this information as an integral part of their quality assurance system. They need to know how effective they have been and to assess whether their preparation experiences should be revised.

The impact of preparation completers on P-12 learning and development has long been a goal in accreditation. But the assessment instruments and modeling protocols that are becoming available, some already employed in states or with educator preparation providers, provide potential for far more effective evidence of that impact. Here, as elsewhere in accreditation, the Commission applies the general rule from the Measures of Effective Teaching (MET) project: multiple measures, multiple times, over multiple years.

Ewell and the Data Task Force<sup>79</sup> identified several sources of P-12 student impact information that illustrate multiple measures of student learning and development:

- State teacher evaluations—Completer impact on P-12 student learning and development are now an integral part of some state teacher evaluation practices. For the subjects and grades where those data are available, providers should make use of them in their quality assurance monitoring and accreditation reviews. These data frequently integrate student learning and development measures with other indicators of completer classroom success, such as observations with structured protocols and trained, disinterested reviewers and student surveys on the classroom experience.
- “Teachers of record” in some preparation models—Many alternative preparation providers have collaborated with districts to designate candidates in their programs as “teachers of record” in the district. In those cases, the state’s teacher evaluation system could be a source of P-12 student learning and development impact information prior to completion.
- Provider studies—EPPs could make use of alternative sources of completer impact on P-12 student learning and development that are developed by school districts, particularly where these data are not available from states.
- Pre-service progress—All providers should, at a minimum, administer assessments that monitor candidate proficiencies, including impact on P-12 student learning, at various points during their developmental preparation experiences.
- Pre-service exit—All providers should, at a minimum, administer capstone assessments that sample multiple aspects of teaching. These should routinely include measures of impact on P-12 student learning and development as well as lesson plans, teaching artifacts, examples of student work and observations or videos judged through rubric-based reviews by trained external reviewers.

### **Making a Case that Standards are Met**

EPPs have the burden to demonstrate that they meet CAEP standards. CAEP should expect providers to take responsibility for examining the quality of evidence on which they rely—in part to make their case that standards for accreditation are met but, routinely, for continuous improvement of their own programs. Providers should demonstrate that the data used in decision-making are valid, reliable, and fair (free of bias). In keeping with the Commission’s perspective that results matter, providers should give equal weight to the *message* from the data—the interpretation of the values or results. Through benchmarks, comparisons, and other means, the provider should describe its status and trends in relation to CAEP standards.

Many measures of both academic and non-academic factors associated with high-quality teaching and learning need to be studied for reliability, validity, and fairness. Ewell summarized ten principles for evidence<sup>80</sup> that CAEP should make available for anyone involved in preparation or accreditation. Providers must present empirical evidence of each measure’s psychometric and statistical soundness (reliability and validity).<sup>81</sup> They should describe their processes for testing the validity, reliability, and fairness of measures and instruments used to determine candidates’ progress through the preparation program, at completion of the program, and during the first years of practice. The evidence should meet accepted research standards for validity and reliability of comparable measures and should, among other things, rule out alternative explanations or rival interpretations of reported results.

- Validity can be supported through evidence of
  - Expert validation of the items in an assessment or rating form (content validation)
  - Agreement among findings of logically-related measures (convergent validity)
  - A measure’s ability to predict performance on another measure (predictive validity)
  - Expert validation of performance or of artifacts (expert judgment)

- Agreement among coders or reviewers of narrative evidence.
- Reliability in its various forms can be supported through evidence of:
  - Agreement among multiple raters of the same event or artifact (or the same candidate at different points in time)
  - Stability or consistency of ratings over time
  - Evidence of internal consistency of measures

The Commission’s recommendations, collectively, place a strong emphasis on performance measures as evidence. But sometimes input and process measures are important. One instance is when CAEP needs assurance that an EPP’s level of performance can be sustained over time. Another instance is when there are no extant performance measures. An example of the latter is assessment.

The National Research Council and other concurring sources have underscored the critical role that assessment plays not just for accountability purposes but as a tool to enhance learning. It sharpens teachers’ specificity of learning goals, provides descriptive feedback to P-12 students about their achievements, yields diagnostic information for teachers about their own performance, and can motivate students. Standard 1 calls on candidates to understand appropriate uses of a variety of assessments and to be able to construct and employ formative and summative assessments that evaluate P-12 student learning of explicit instructional goals. Completers also should be able to construct and use assessments specifically designed to diagnose learner progress and determine, as appropriate, intervention needs. Completers need to know how to analyze and make use of results from summative measures such as standardized state or district tests that are administered to their students.

Evaluating candidates’ performance against these expectations in standards is challenging, in large part because there are not extant assessments that are designed to measure those capabilities. The Commission received advice that this is an area in which program inputs are necessary measures until the state-of-the-art in assessments catches up. CAEP should insist that providers gather and report evidence of their stewardship in promoting candidates’ assessment proficiencies (1) in course work focused on assessment, (2) by embedding assessment topics, including diagnostic and intervention techniques, in content and methods courses, and (3) by creating preparation experiences that offer candidates real-world opportunities to apply what they have learned.<sup>82</sup>

### **Continuous Improvement**

Requiring continuous improvement by all preparation providers is perhaps the most important purpose of Standard 5. Even the best programs can improve further. Continuous improvement by all accredited programs is essential to achieve the level of educator preparation that will help ensure 21<sup>st</sup>-century skills for all students. The Commission’s recommendations in Standard 5 outline the responsibilities of providers to maintain evidence-based quality assurance systems that support organizational effectiveness. These systems are characterized by clearly articulated and effective processes for defining and assuring quality outcomes and for using data in a process of continuous improvement.

A robust quality assurance system enables continuous improvement in the following ways:

- It relies on a variety of measures that are relevant to the EPP mission.
- It defines performance benchmarks for its measures (compared with external references, where possible).
- It maintains the credibility and dependability of data, (that is, data are relevant, verifiable, representative, cumulative, and actionable measures, and the quality assurance system produces empirical evidence that interpretations of data are valid and consistent).

- It investigates the quality of evidence and the validity of EPP interpretations of that evidence.
- It seeks the views of all relevant stakeholders.
- It shares evidence widely with both internal and external audiences.

The purpose of such a robust quality assurance system is to *inform* policies and practices in consultation with partners and stakeholders.<sup>83</sup> *Data are to be used.* CAEP should encourage providers to develop new models and to evaluate and scale up effective solutions. Research and development in the accreditation framework can deepen the knowledge of existing best practices and provide models of emerging innovations to transform educator preparation.<sup>84</sup>

### **Implementation of New Standards and New Expectations for Evidence**

The Commission’s standards and expectations for evidence are challenging. Commissioners are aware that program impact data are not universally available and that asking providers to develop data collection systems individually raises issues of costs, efficiency, and data comparability.

The many “typical and suggested” evidence examples in the appendix to the Commission’s recommendations illustrate varying expectations:

- some describe a higher level of rigor than has been the past accreditation experience;
- some are new to accreditation;
- some anticipate emerging assessments from ones now in developmental stages; and
- some will evolve through CAEP efforts to make data more comparable and useful than they are currently.

The Commission’s new evidence-informed accreditation recommendations combine the raising of performance to meet standards with the gathering and use of evidence demonstrating that achievement. Educator preparation providers cannot all reach the new standards and evidence performance levels at once. Providers begin in different places. They have different missions and established long-term practices. They are located in different geographic areas and experience different contexts. They are located in states with different capacities to generate and share data relevant to provider performance. They may decide that significant changes must be undertaken to reach the preparation performance levels described by the Commission. They may even choose to develop new types of arrangements for clinical experiences, or to combine their strengths with other providers to accomplish something together that they could not achieve alone. New arrangements across EPPs with different sponsors—institutions of higher education and alternative providers, for example—may need to be created in response to these challenges. The Commission recommends that CAEP take steps to encourage practical adaptations to current practice of these kinds.

States and philanthropic foundations also must shoulder their responsibilities for preparation. In 2012, the Council of Chief State School Officers published a report on educator preparation and entry into the profession. One of its recommendations is that states “support program improvement”:

States should have a plan for supporting programs that have identified weaknesses and areas for improvement, especially in cases where a preparation program has been identified as at-risk or low performing.<sup>85</sup>

The Commission concurs. Some providers simply lack appropriate personnel, sufficient resources, or capacity to monitor their own progress for continuous improvement. Effective preparation requires both sufficient, and effectively used, funds. These facts cannot be ignored.

CAEP will need to craft practical implementation guidelines. Realistically, the Commission’s vision for higher quality and more consistent and rigorous evidence must be phased in over a brief period of years in collaboration with states. CAEP’s implementation guidelines should be parsimonious in their expectations for evidence, placing greater emphasis on the most critical data than on the volume of data. CAEP should give priority to measures of impact on student learning and development and to measures of readiness to teach effectively at the completion of preparation, along with the annual program outcome and program impact measures.

### **Better Data, Better Used**

CAEP must undertake substantial continuing responsibilities to upgrade the currently available data on which educator preparation providers and accreditation rely. These involve several related activities to *develop better data* and to *use data better*.

#### *CAEP Actions to Develop Better Data*

Providers, the public, and policymakers all need to perceive CAEP decisions as credible. The evidentiary base available to CAEP must improve, and it will. Stronger evidence, which CAEP has a professional responsibility to help generate, will provide a more solid foundation for the professional judgments reached in CAEP’s accreditation decisions. Over time, that more solid foundation will permit a gradual shift in CAEP’s evidentiary expectations.

Better knowledge is needed on which input (e.g., candidate and program characteristics) and outcome measures predict high performance on the job. This cannot be accomplished until relatively standardized descriptions of program characteristics and data on program performance can be combined and correlated. As new assessments become available, measures of teacher impact on P-12 student learning and development can be refined and observation protocols will be applied at the pre-service level.

CAEP must initiate some data improvement steps, but it also needs strong collaborators, especially among the states. The Council of Chief State School Officers’ report on educator preparation makes a recommendation that states provide “. . . feedback, data, supports, and resources to preparation programs to assist them with continuous improvement and to act on any program approval or national accreditation recommendations.”<sup>86</sup>

As states extend these data capabilities and share the results with preparation providers, there will be strong benefits all around—for providers to access important information about the progress of their completers, for states to be more assured that their concerns for a better prepared teacher workforce are addressed, and for CAEP accreditation actions to be influenced by more consistent evidence that standards are met.

Some directions that CAEP should pursue in its efforts to improve preparation and accreditation data were outlined for the Commission by Ewell on behalf of the Data Task Force:<sup>87</sup>

- Preparation and accreditation data should move toward comparative or standard measures wherever possible. CAEP should take steps to instantiate such aspirational evidence as an 80 percent pass rate on a common state licensure test with a common passing score, an evidence example included by the Commission in the Appendix.
- All measures need triangulation by the use of multiple sources and methods.



- The annual reporting measures should be prominently displayed on EPP websites and also reported by CAEP.
- Much efficiency might be gained through CAEP collaboration with states on preparation measures of common interest, such as employment and retention rates, and perhaps completer and employer surveys.
- CAEP should consider publishing information on the capacity and infrastructure of state data systems to provide necessary information for accreditation. It could even suggest its own accreditation perspective on an “ideal” state data system and make it possible for information on actual state capacity and infrastructure to be compared against that ideal.

Finally, as CAEP develops plans that carry out Commission recommendations on exemplary-level accreditation, these data will offer a rich resource from which EPPs that exhibit exemplary practices can be identified.

#### *CAEP Actions to Use Data Better*

As new and better evidence become available, CAEP must be committed to use that evidence appropriately in making accreditation decisions. The Commission highlights three areas, especially:

1. Annual report data should be used to identify “trigger points” that would shape accreditation questions and site visits (see section B recommendation on annual reporting).
2. CAEP should be transparent in its public accountability reporting with multiple measures, including ones directly linked to student achievement. The annual report data and the national data base on preparation that accumulates over time from accreditation functions, have many uses, as detailed in the recommendations in section B on annual reporting. The database will enable CAEP to report on the progress of continuous improvement not just for an individual provider but for educator preparation across all accredited providers.
3. CAEP should hold itself to the same standard of evidence-based practice that it calls on providers to meet. It should develop its resources to conduct evidence-based accreditation processes. It should monitor new evidence of implementation of existing assessments, the development of new assessments and improper uses of assessment tools. It should provide reports on developments in the field to educator preparation providers. And it should monitor unintended consequences of implementation of the standards including the data burden and human resource challenges that implementation imposes.

These anticipated data capabilities over time will enable CAEP to rely more on program outcomes and performance results and less on inputs and processes to make its judgments. As new assessments and more common measures become available, the evidence expectations can be raised, with a stronger footing for the next generation of CAEP standards.

## APPENDIX D: 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. Standard  (1)	Evidence Measures  (2)	Standard 1 Content and Pedagogical Knowledge  (3)	Standard 2 Clinical Partnerships and Practice  (4)	Standard 3 Candidate Quality, Recruitment, and Selectivity  (5)	Standard 4 Program Impact  (6)	Standard 5 EPP Quality Assurance and Continuous Improvement  (7)	Recommendations  (8)
	<b>1. QUALITY ASSURANCE SYSTEM AND ITS USE FOR CONTINUOUS IMPROVEMENT</b>						
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
Std. 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	

Reference to Comm. Standard <b>(1)</b>	Evidence Measures <b>(2)</b>	Standard 1 Content and Pedagogical Knowledge <b>(3)</b>	Standard 2 Clinical Partnerships and Practice <b>(4)</b>	Standard 3 Candidate Quality, Recruitment, and Selectivity <b>(5)</b>	Standard 4 Program Impact <b>(6)</b>	Standard 5 EPP Quality Assurance and Continuous Improvement <b>(7)</b>	Recommendations <b>(8)</b>
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	
Std. 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

Reference to Comm. Standard <b>(1)</b>	Evidence Measures <b>(2)</b>	Standard 1 Content and Pedagogical Knowledge <b>(3)</b>	Standard 2 Clinical Partnerships and Practice <b>(4)</b>	Standard 3 Candidate Quality, Recruitment, and Selectivity <b>(5)</b>	Standard 4 Program Impact <b>(6)</b>	Standard 5 EPP Quality Assurance and Continuous Improvement <b>(7)</b>	Recommendations <b>(8)</b>
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
	<b>2. RECRUITMENT AND ADMISSIONS</b>						
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. Standard <b>(1)</b>	Evidence Measures <b>(2)</b>	Standard 1 Content and Pedagogical Knowledge <b>(3)</b>	Standard 2 Clinical Partnerships and Practice <b>(4)</b>	Standard 3 Candidate Quality, Recruitment, and Selectivity <b>(5)</b>	Standard 4 Program Impact <b>(6)</b>	Standard 5 EPP Quality Assurance and Continuous Improvement <b>(7)</b>	Recommendations <b>(8)</b>
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 level, 3.2, 3.4			
Std. 3: Admissions	ACT or SAT scores: admitted cohort average compared with national norms for initial preparation at the undergraduate level			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: Admissions	Academic awards. Compare over time.			Admissions indicator, 3.2			

Reference to Comm. Standard <b>(1)</b>	Evidence Measures <b>(2)</b>	Standard 1 Content and Pedagogical Knowledge <b>(3)</b>	Standard 2 Clinical Partnerships and Practice <b>(4)</b>	Standard 3 Candidate Quality, Recruitment, and Selectivity <b>(5)</b>	Standard 4 Program Impact <b>(6)</b>	Standard 5 EPP Quality Assurance and Continuous Improvement <b>(7)</b>	Recommendations <b>(8)</b>
Std. 3: Admissions	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	
	<b>3. PREPARATION EXPERIENCE MEASURES</b>						
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. Standard <b>(1)</b>	Evidence Measures <b>(2)</b>	Standard 1 Content and Pedagogical Knowledge <b>(3)</b>	Standard 2 Clinical Partnerships and Practice <b>(4)</b>	Standard 3 Candidate Quality, Recruitment, and Selectivity <b>(5)</b>	Standard 4 Program Impact <b>(6)</b>	Standard 5 EPP Quality Assurance and Continuous Improvement <b>(7)</b>	Recommendations <b>(8)</b>
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. Standard <b>(1)</b>	Evidence Measures <b>(2)</b>	Standard 1 Content and Pedagogical Knowledge <b>(3)</b>	Standard 2 Clinical Partnerships and Practice <b>(4)</b>	Standard 3 Candidate Quality, Recruitment, and Selectivity <b>(5)</b>	Standard 4 Program Impact <b>(6)</b>	Standard 5 EPP Quality Assurance and Continuous Improvement <b>(7)</b>	Recommendations <b>(8)</b>
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. Standard <b>(1)</b>	Evidence Measures <b>(2)</b>	Standard 1 Content and Pedagogical Knowledge <b>(3)</b>	Standard 2 Clinical Partnerships and Practice <b>(4)</b>	Standard 3 Candidate Quality, Recruitment, and Selectivity <b>(5)</b>	Standard 4 Program Impact <b>(6)</b>	Standard 5 EPP Quality Assurance and Continuous Improvement <b>(7)</b>	Recommendations <b>(8)</b>
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. know, 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		

Reference to Comm. Standard <b>(1)</b>	Evidence Measures <b>(2)</b>	Standard 1 Content and Pedagogical Knowledge <b>(3)</b>	Standard 2 Clinical Partnerships and Practice <b>(4)</b>	Standard 3 Candidate Quality, Recruitment, and Selectivity <b>(5)</b>	Standard 4 Program Impact <b>(6)</b>	Standard 5 EPP Quality Assurance and Continuous Improvement <b>(7)</b>	Recommendations <b>(8)</b>
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			
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. know; Std. 2: Clinical experiences Std. 3: During preparation	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	

Reference to Comm. Standard <b>(1)</b>	Evidence Measures <b>(2)</b>	Standard 1 Content and Pedagogical Knowledge <b>(3)</b>	Standard 2 Clinical Partnerships and Practice <b>(4)</b>	Standard 3 Candidate Quality, Recruitment, and Selectivity <b>(5)</b>	Standard 4 Program Impact <b>(6)</b>	Standard 5 EPP Quality Assurance and Continuous Improvement <b>(7)</b>	Recommendations <b>(8)</b>
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 variety of formative assessments with P-12 students. Peer judgment.	Indicator of candidate assessment proficiencies, 1.3		Indicator of completer capability in assessment, 3.6			
Annual reporting	Cohort completers disaggregated by racial, ethnic and other target groups identified in EPP recruitment plans. Indicate trends over time and comparisons with similar EPPs.					Completer program outcome measure 5.1	Annual report measure of completers
Annual reporting	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
	<b>4. CLINICAL CAPSTONE ASSESSMENTS</b>						
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			
Std. 1: Cont. & pedag. know.; Std. 2: Clin. Exp; Std. 3: Exit	Clinical capstone assessments; also, evidence from a culminating experience with a significant level of candidate responsibility for all aspects of classroom teaching and increased ability to impact all students' learning and development. Subscale scores compared with rubric values.	Indicator of ability to apply content and pedagogical knowledge, 1.1 and 1.3	Teaching proficiency, 2.3	Exit measure of teaching proficiency, including student learning and development, 3.5			

Reference to Comm. Standard <b>(1)</b>	Evidence Measures <b>(2)</b>	Standard 1 Content and Pedagogical Knowledge <b>(3)</b>	Standard 2 Clinical Partnerships and Practice <b>(4)</b>	Standard 3 Candidate Quality, Recruitment, and Selectivity <b>(5)</b>	Standard 4 Program Impact <b>(6)</b>	Standard 5 EPP Quality Assurance and Continuous Improvement <b>(7)</b>	Recommendations <b>(8)</b>
Std. 1: cont. & pedag. kow; Std. 2: clin. exp; Std. 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 norms or national cut scores	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 pedagogical knowledge Std. 2: Clinical exps Std. 3: During preparation	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			

Reference to Comm. Standard <b>(1)</b>	Evidence Measures <b>(2)</b>	Standard 1 Content and Pedagogical Knowledge <b>(3)</b>	Standard 2 Clinical Partnerships and Practice <b>(4)</b>	Standard 3 Candidate Quality, Recruitment, and Selectivity <b>(5)</b>	Standard 4 Program Impact <b>(6)</b>	Standard 5 EPP Quality Assurance and Continuous Improvement <b>(7)</b>	Recommendations <b>(8)</b>
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			
Std. 3: Exit	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 & 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		
	<b>5. LICENSURE AND EXIT ASSESSMENTS</b>						
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, <i>Our Responsibility, Our Promise: Transforming Educator Preparation and Entry into the Profession</i> , and from AFT, <i>Raising the Bar: Aligning and Elevating Teacher Preparation and the Education Profession</i> , 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

<b>Refer- ence to Comm. standard</b>	<b>Evidence Measures</b>	<b>Standard 1 Content and Pedagogical Knowledge</b>	<b>Standard 2 Clinical Partnerships and Practice</b>	<b>Standard 3 Candidate Quality, Recruitment, and Selectivity</b>	<b>Standard 4 Program Impact</b>	<b>Standard 5 EPP Quality Assurance and Continuous Improvement</b>	<b>Recommen- dations</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>	<b>(7)</b>	<b>(8)</b>
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 Std. 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 areas Std. 3: Exit	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

Reference to Comm. standard <b>(1)</b>	Evidence Measures <b>(2)</b>	Standard 1 Content and Pedagogical Knowledge <b>(3)</b>	Standard 2 Clinical Partnerships and Practice <b>(4)</b>	Standard 3 Candidate Quality, Recruitment, and Selectivity <b>(5)</b>	Standard 4 Program Impact <b>(6)</b>	Standard 5 EPP Quality Assurance and Continuous Improvement <b>(7)</b>	Recommendations <b>(8)</b>
Std. 1: Apply cont. & ped. Know/ rding; 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 rptng measure of licensure pass rates
Std. 1: All areas for elem. Prep. Std. 3: Exit for elem prep.	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. standard  (1)	Evidence Measures  (2)	Standard 1 Content and Pedagogical Knowledge  (3)	Standard 2 Clinical Partnerships and Practice  (4)	Standard 3 Candidate Quality, Recruitment, and Selectivity  (5)	Standard 4 Program Impact  (6)	Standard 5 EPP Quality Assurance and Continuous Improvement  (7)	Recommendations  (8)
	<b>6. IN-SERVICE MEASURES</b>						
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 & ped; Std. 3: exit; Std. 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 reporting	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 in-service 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

<b>Reference to Comm. standard</b> <b>(1)</b>	<b>Evidence Measures</b> <b>(2)</b>	<b>Standard 1 Content and Pedagogical Knowledge</b> <b>(3)</b>	<b>Standard 2 Clinical Partnerships and Practice</b> <b>(4)</b>	<b>Standard 3 Candidate Quality, Recruitment, and Selectivity</b> <b>(5)</b>	<b>Standard 4 Program Impact</b> <b>(6)</b>	<b>Standard 5 EPP Quality Assurance and Continuous Improvement</b> <b>(7)</b>	<b>Recommendations</b> <b>(8)</b>
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
Std. 4: program impact; annual 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 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; 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

<sup>1</sup> U. S. Department of Education. (2013), *For each and every child—a strategy for education equity and excellence*, p. 12.

<sup>1</sup> NRC. (2010), p. 180.

## STANDARD 1: CONTENT AND PEDAGOGICAL KNOWLEDGE

<sup>2</sup> Progression levels are described in *InTASC model core teaching standards and learning progressions for teachers 1.0* (2011), pp. 16-47.

<sup>3</sup> 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](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>

<sup>4</sup> 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.

<sup>5</sup> 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.

<sup>6</sup> Shulman, L. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1-22.

<sup>7</sup> Darling-Hammond, L. Power Point presentation, "Supporting Deeper Learning." E. Elliot, personal communication, January 29, 2013.

<sup>8</sup> Ball, D. L. (2000). Bridging practices: Intertwining content and pedagogy in teaching and learning to teach. *Journal of Teacher Education*, 51(3), 241-247.

<sup>9</sup> 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.

<sup>10</sup> Shulman, Knowledge and teaching, p. 13.

<sup>11</sup> InTASC model core teaching standards, p. 8.

<sup>12</sup> Goe, L., Bell, C., & Little, O. (2008). *Approaches to evaluating teacher effectiveness: A research synthesis*. Washington DC: National Comprehensive Center for Teacher Quality.

<sup>13</sup> 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>.

<sup>14</sup> Common Core State Standards Initiative. (2010). *Frequently asked questions*. Retrieved from <http://www.corestandards.org/assets/CoreFAQ.pdf>

<sup>15</sup> NBPTS, *What teachers should know and be able to do*.

<sup>16</sup> 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>

<sup>17</sup> Harvard Family Research Project. (2006/2007). *Family Involvement Makes a Difference* publication series. Retrieved from <http://www.hfrp.org/FamilyInvolvementMakesADifference>

## STANDARD 2: CLINICAL PARTNERSHIPS AND PRACTICE

<sup>18</sup> 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.

<sup>19</sup> 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.

<sup>20</sup> 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.

<sup>21</sup> Grossman, P. (2010). *Learning to practice: The design of clinical experience in teacher preparation*. Washington, D.C.: American Association of Colleges for Teacher Education

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.

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<sup>22</sup> NCATE (2010).

<sup>23</sup> National Council for Accreditation of Teacher Education [NCATE]. (2008) *Professional standards for the accreditation of teacher preparation institutions*. Washington, D. C.: Author.

<sup>24</sup> NCATE (2010). pp. 5, 6.

<sup>25</sup> 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.

<sup>26</sup> 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](http://www.ets.org/Media/Education_Topics/pdf/teacherquality.pdf)

<sup>27</sup> NRC (2010).

### STANDARD 3: CANDIDATE QUALITY, RECRUITMENT, AND SELECTIVITY

<sup>28</sup> 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.

<sup>29</sup> Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge? *Contemporary Issues in Technology and Teacher Education*, 9(1), 60-70.

<sup>30</sup> NRC (2010), 181.

<sup>31</sup> 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](http://www.academia.edu/257521/Teacher_preparation_and_diversity_when_American_preservice_teachers_aren't_white_and_middle_class).

<sup>32</sup> 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/>

<sup>33</sup> Dee, T. 2004. The Race Connection: Are Teachers More Effective with Students who Share their Ethnicity? *Education Next*.4.2:52-59.

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>

<sup>34</sup> Bireda, S. & Chait, R. (2011). Increasing teacher diversity: Strategies to improve the teacher workforce. *Center For American Progress*. Retrieved from: <http://www.americaprogress.org>

<sup>35</sup> 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>

<sup>36</sup> National Collaboration on Diversity in the Teaching Force (2004) and Bireda and Chait (2011).

<sup>37</sup> Bireda and Chait (2011), 30.

<sup>38</sup> Feistritz, 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](http://www.ncei.com/Profile_Teachers_US_2011.pdf)

<sup>39</sup> NCATE (2010).

<sup>40</sup> *Teacher Shortage Areas Nationwide Listing: 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>

<sup>41</sup> Bushaw, W., Lopez, L. (2011). *Betting on teachers: The 43<sup>rd</sup> annual Phi Delta Kappa/Gallup Poll of public's attitudes toward the public schools*. Phi Delta Kappan 93(1), 8-26.

<sup>42</sup> American Federation of Teachers [AFT]. (2012), *Raising the bar: Aligning and elevating teacher preparation and the education profession*. Washington, D. C.: Author.

<sup>43</sup> 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.

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.

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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.)

<sup>44</sup> 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://mckinseysociety.com/closing-the-talent-gap/>

<sup>45</sup> Whitehurst, G. (2002). *Strengthen teacher quality: Research on teacher preparation and 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](http://www2.ed.gov/admins/tchrqual/learn/preparing_teachers_conference/whitehurst.html)  
NRC (2010).

<sup>46</sup> Levin, H. M. (1970). A cost-effectiveness analysis of teacher selection. *Journal of Human Resources*, 5(1), 24-33.

<sup>47</sup> 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.

<sup>48</sup> 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.

<sup>49</sup> 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\\_July2011.pdf](http://www.people.fas.harvard.edu/~dobbie/research/TeacherCharacteristics_July2011.pdf)

<sup>50</sup> 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>

<sup>51</sup> Ball, D. (2008). Mathematical Knowledge for Teacher and the Mathematical Quality of Instruction: An Exploratory Study. *Cognition and Instruction*. 26(4), 430-511.

<sup>52</sup> 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>

<sup>53</sup> Lemov, D. (2010). *Teach like a champion: 62 Techniques that Put Students on the Path to College (K-12)*. San Francisco: Jossey-Bass.

<sup>54</sup> 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>

<sup>55</sup> 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>

<sup>56</sup> Whitehurst (2002).

<sup>57</sup> NRC (2010)

CCSSO (2011).

<sup>58</sup> CCSSO (2011).

<sup>59</sup> Danielson (2009).

<sup>60</sup> 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**

<sup>61</sup> NRC (2010).

<sup>62</sup> 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.

<sup>63</sup> 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).

<sup>64</sup> Ferguson, Ronald F. (2012). Can student surveys measure teaching quality? *Phi Delta Kappan*, 94:3, 24-28.

#### **STANDARD 5: PROVIDER QUALITY AND CONTINUOUS IMPROVEMENT**

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<sup>65</sup> 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.

<sup>66</sup> 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.*

<sup>67</sup> 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).

<sup>68</sup> Ewell, P. (2012). *Recent trends and practices in accreditation: Implications for the development of standards for CAEP*. Washington, DC: CAEP.

<sup>69</sup> 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.

<sup>70</sup> 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**

<sup>71</sup> Ewell, P. (2012).

<sup>72</sup> NRC (2010). pp. 182, 183.

## **CROSS-CUTTING THEMES**

<sup>73</sup> National Center for Education Statistics, Digest of Education Statistics, Table 44, 2012 U. S. Department of Education.

<sup>74</sup> 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>

<sup>75</sup> U. S. Department of Education, op. cit., p. 22.

<sup>76</sup> Adapted from InTASC (2011).

<sup>77</sup> 34 CFR 602.16, Accreditation and Preaccreditation standards.

<sup>78</sup> 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**

<sup>79</sup> Ewell, P. (2013). *Report of the data task force*.

<sup>80</sup> Ewell, P. (2013). *Principles for measures used in the CAEP accreditation process*, CAEP.

<sup>81</sup> Ewell, P. (2012). *Recent trends*.

<sup>82</sup> 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.

<sup>83</sup> 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).

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

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<sup>85</sup> 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.

<sup>86</sup> CCSSO (2012). p. 22.

<sup>87</sup> Ewell, P. (2013). *Report of the data task force*.