CAEP Commission on Standards and Performance Reporting

DRAFT RECOMMENDATIONS FOR THE CAEP BOARD

As part of its commitment to transparency and public accountability, the Council for the Accreditation of Educator Preparation (CAEP), the nation's newest specialized accrediting body, is seeking public comment on the recommendations developed by the CAEP Commission on Standards and Performance Reporting. Following a public comment period, the Commission will consider the feedback received in developing its final recommendations to the CAEP Board of Directors. These draft recommendations also may be viewed online at http://caepnet.org/commission/standards/, and public comments may be submitted at http://standards.caepnet.org February 22–March 29, 2013.

CAEP Council for the Accreditation of Educator Preparation

CAEP Commission on Standards and Performance Reporting

Table of Contents

The Council for the Accreditation of Education Preparation (CAEP) is poised to raise the bar. As the new accrediting body for educator preparation, CAEP will serve as a model accreditor with rigorous standards, demanding sound evidence and establishing a platform to drive continuous improvement and innovation. As its first initiative to achieve those goals, the CAEP Board of Directors created the CAEP Commission on Standards and Performance Reporting and charged it to develop accreditation standards for preparation programs. The Commission is comprised of representatives from diverse professional positions who often reflect a range of divergent perspectives that challenge the status quo and push for urgent changes in educator preparation.

The Commission's Draft Report For Public Comment

The Commission has developed a draft of its recommendations for the CAEP Board of Directors and is circulating this report for public feedback. The Commission has given emphasis to a firm grounding of its standards and evidence on empirical research or, where there is little guiding research, has based its recommendations on best practices and professional consensus. The Commission calls for accountability of providers and CAEP, itself; public reporting must be forthright and transparent. And, the Commission recommends new standards and decision procedures that balance strong evidence with professional judgment.

CAEP's leaders have set challenging goals to enhance the value of accreditation. Commission members have responded to their charge by identifying four especially critical points of leverage to transform educator preparation in our nation:

- **Build partnerships and strong clinical experiences**—Educator preparation providers and collaborating schools and school districts bring complementary experiences that, joined together, promise far stronger preparation programs. (See standard 2.)
- **Raise and assure candidate quality**—From recruitment and admission, through preparation, and at exit, educator preparation providers must take responsibility to build an educator workforce that is more able, and also more representative of America's diverse population. (See standard 3, including minimum admissions criteria and a group average performance on nationally normed admissions assessments in the top third of national pools.)
- **Include all providers**—Accreditation must encourage innovations in preparation by welcoming all of the varied providers that seek accreditation and meet challenging levels of performance.
- And surmounting all others, **insist that preparation be judged by outcomes and impact on P-12 student learning**—Results matter; "effort" is not enough. (See standard 4, especially.)

These points of leverage are not accreditation "business as usual," nor do they represent marginal changes from current and former education accreditation practice. Exercising them can add value to what states are trying to accomplish with their reforms in preparation policy.

The Draft Standards And Recommendations

The Commission's work is organized in part around three areas of teacher preparation identified by the National Academy of Sciences 2010 report, *Preparing Teachers: Building Evidence for Sound Policy.* The Academy panel sifted through hundreds of research studies from recent decades and, not surprisingly, concluded that more research is needed in order to have sound evidence about the effects of particular aspects of preparation. But it found that existing research provides some guidance: content knowledge, field experience, and the quality of teacher candidates "are likely to have the strongest effects" on outcomes for students.[1]

The Commission has drafted the following three 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.

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 dispositions necessary to demonstrate positive impact on all P-12 students' learning.

Standard 3: CANDIDATE QUALITY, RECRUITMENT AND SELECTIVITY
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 field and clinical experiences, and to decisions that completers are prepared to teach effectively and are recommended for certification.

The Commission also 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, the Baldrige education award criteria for performance excellence, and also by recent trends and new approaches among accreditors. Key concepts advanced in these resources are a relentless focus on results, and a systematic and purposeful use of evidence for continuous improvement. The fourth and fifth standards and two additional recommendations for the CAEP Board of Directors are built upon these sources.

Standard 4: PROGRAM IMPACT
The provider demonstrates the impact of its completers on P-12 student learning, classroom instruction and schools, and the satisfaction of its completers with the relevance and effectiveness of their preparation.

Standard 5: PROVIDER QUALITY, CONTINUOUS IMPROVEMENT, AND CAPACITY
The provider maintains a quality assurance system comprised of 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, 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.

Recommendations on ANNUAL REPORTING AND CAEP MONITORING
The Commission recommends that CAEP gather the following data and monitor them annually from all providers:

On program impact:

1. Impact on P-12 learning
2. Indicators of teaching effectiveness
3. Employer surveys, candidate retention and employment milestones
4. Results of completer surveys

On program outcomes:

5. Graduation rates
6. Ability of completers to meet licensing (certification) and any additional state requirements
7. Ability of completers to be hired in education positions for which they have prepared
8. Student loan default rates

The Commission recommends that CAEP identify significant amounts of change in any of these indicators that would prompt investigation to initiate (1) adverse action that could include revocation of accreditation status or (2) 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.

Recommendations on LEVELS OF ACCREDITATION
The Commission proposes four levels of accreditation decisions:

1. **denial of accreditation**—for providers that fall below threshold in two or more standards
2. **probationary accreditation**—awarded to providers that meet or surpass the threshold in four standards, but fall below in one of the standards
3. **full accreditation**—awarded to providers that meet all five standards at the CAEP-established thresholds
4. **exemplary or "gold" accreditation**—awarded to a small number of providers that meet the threshold level set for all five standards and surpass the threshold in a combination of standards

The Commission also recommends that CAEP accreditation be based on a judgment that the provider's accreditation evidence meets a designated "threshold" for each of the five standards recommended by the Commission. To achieve full accreditation, all components for standard 4 on Program Impact and components 5.4 and 5.5 on continuous improvement must reach an "operating" threshold for evidence.

The CAEP Board of Directors will need to craft implementation plans so that new standards and recommendations for action can be put into place. The evidence expectations must be phased in over a brief period of years, and as new assessments and more common measures come into place, the expectations can be raised. These new CAEP standards set the bar high so that attaining accreditation status will be a meaningful achievement. Setting high standards will change incentives and change the behavior of providers. High expectations for admissions and gaining proficiency during preparation will, themselves, attract more able candidates into teaching.

The charge to the Commission gave equal weight to "essential standards" and to "accompanying evidence" indicating that standards are met. Commissioners are optimistic that advances in the quality of evidence are at hand, and some of the pending opportunities are illustrated in the listed examples that follow each standard. The Commission has included examples of evidence that would be familiar to any accredited provider (e.g., observation measures of candidate performance), and ones that are familiar but with more rigorous performance levels expected (e.g., common cut scores on licensure tests). Some examples explicitly anticipate the emergence of additional measures or new assessments (e.g., a new generation of licensure tests), and the Commission recommends some evaluation data strategies that would be new to accreditation (e.g., recruitment plans, goals and monitoring of results). During the public comment period, the Commission is soliciting feedback on the appropriateness, rigor, comprehensiveness, and adequacy of these examples of evidence for accreditation decisions.

The Council for the Accreditation of Education Preparation (CAEP) is poised to raise the bar for accreditation. We need educators for our schools and classrooms who can raise the levels of learning for American students, and CAEP can play a powerful role to make that happen. As the new accrediting body for educator preparation, CAEP will serve as a model accreditor with rigorous standards, demanding sound evidence and establishing a platform to drive continuous improvement and innovation.

In line with this new vision and as its first public action, CAEP invited representatives of diverse and often divergent views and perspectives that would challenge the status quo and push for the urgent change needed in the field of educator preparation. We invited critics of accreditation, innovative educator preparation providers, teachers, parents, district and state leaders, and reformers to craft recommendations for a foundation to support the vision of CAEP as a new kind of accrediting body that drives innovation and change. The Commission's makeup reflects a partnership between higher education and P-12 education, signaling the new demands for collaboration that CAEP expects.

Charge to the Commission

The CAEP Board of Directors charged the CAEP Commission on Standards and Performance Reporting with transforming the preparation of teachers by creating a rigorous system of accreditation that demands excellence and produces educators who raise student achievement.

The Commission has taken its responsibility seriously and interpreted its mandate to encompass the full scope of the educational challenge facing our nation's teachers. America's teachers must not only raise student achievement for some learners, but they are challenged to do so for all learners in a nation with an increasingly diverse P-12 student population. Creating effective learning environments that challenge and engage all learners has been the frame of reference that guided the Commission's work and that readers of these draft standards and recommendations will find reflected at various points. I believe we all share a common goal that our teachers can help young people become successful, happy, productive contributors to American society.

Specifically, the Commission was established to develop accreditation standards for all preparation programs that are based on evidence, continuous improvement, innovation, and sound clinical practice. Wherever possible, the Commission has grounded its standards and evidence on empirical research or, where there is little guiding research, it has based its recommendations on best practices and professional consensus. CAEP is committed to building a stronger research base for preparation programs through its accreditation work. Better knowledge is needed on which input (e.g., candidate and program characteristics) and outcome measures predict high performance on the job. We can expect that new assessments will become available, measures of teacher impact on P-12 student learning will be refined, observation protocols will be applied to preservice, and so on.

As the knowledge base improves, CAEP standards and the evidence we can use to measure performance validly against those standards can be revised to reflect what truly matters in producing effective teachers who improve P-12 student learning. While this is a longer term goal, in the short run CAEP will employ a number of strategies to strengthen the use of evidence in accreditation decisions, informing both the Commission's deliberations and those of the CAEP Board. Along with rigorous standards and evidence, the Commission will recommend transparent CAEP public accountability reporting with multiple measures, including ones directly linked to student achievement.

Invitation for Public Comment

Now it is the public's turn to weigh in with feedback on the draft recommendations for the next generation of accreditation standards and performance measures for educator preparation. We invite all stakeholders and the general public to comment on this draft. The public feedback will be used to further strengthen the final Commission recommendations to the CAEP Board, to be completed in spring 2013. Information on how to respond to the draft is contained on the cover page.

James G. Cibulka

James G. Cibulka
President

Message from Camilla Benbow and Terry Holliday, Co-chairs

The members of the CAEP Commission on Standards and Performance Reporting have enthusiastically accepted President Cibulka's invitation and charge. CAEP is taking up its new responsibilities at a critical time. Its accreditation functions can provide powerful leverage for a new vitality in educator preparation that leads to more effective learning by America's P-12 students.

The Opportunity

The current policy context for education makes this moment as a pivotal one, offering an unprecedented opportunity. CAEP falls at the intersection of education policy with practice of the education profession. Its leaders have set challenging goals to make accreditation more effective by raising its rigor, and simultaneously, by fostering innovation.

What makes CAEP's beginnings even stronger is the sea change in the education policy landscape. This moment is characterized by the fortuitous juncture of governmental policies and practices: a now widely held perspective that well-prepared teachers and other education professionals are critical for increased learning in the classroom, and the advent of CAEP as the new and sole national educator preparation accreditor. If CAEP fails to take bold action now, states will move on, leaving accreditation on the sidelines.

The potential for CAEP to make a decisive impact on educator preparation has motivated the Commissioners. We eagerly are searching for appropriate ways to maximize the considerable leverage that the accreditation process can create. Commissioners have identified four especially critical points of leverage for CAEP accreditation:

- **Build partnerships and strong clinical experiences**—Educator preparation providers and collaborating schools and districts bring complementary experiences that, joined together, promise far stronger preparation programs.

- **Raise and assure candidate quality**—From recruitment and admission, through preparation, and at exit, educator preparation providers must take responsibility to prepare an education workforce that is more able and more representative of America's diverse population.

- **Include all providers**—CAEP must encourage innovations in preparation by welcoming all of the varied providers that seek accreditation and meet challenging levels of performance.

- And, surmounting all others, **insist that preparation be judged by outcomes and impact on P-12 student learning**—Results matter; "effort" is not enough.

These points of leverage are not accreditation "business as usual," nor do they represent marginal changes from education accreditation in the past. Exercising them can add value to what states are trying to accomplish with their reforms in preparation policy, reinforcing the efforts of leading states.

Consequences

After the Commission completes its final recommendations later this year, the CAEP Board will need to craft practical implementation plans. Realistically, the Commission's vision for higher quality, more consistent, and more rigorous evidence will need to be phased in over a brief period of years in collaboration with states. As new assessments and more common measures become available, the evidence expectations can be raised.

States and philanthropic foundations also must step up to their responsibilities for preparation. The Council of Chief State School Officers has recently published a report[2] on educator preparation and entry into the profession. One of its recommendations is that state purposes to "support program improvement." The report continues, "[s]tates 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."

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

These changes may not be for every provider. The bar is high so that attaining accreditation status would be a meaningful achievement. Setting high standards will change incentives and change the behavior of providers. High expectations for admissions and a wide array of opportunities to develop proficiencies during preparation will, themselves, attract more able candidates into teaching.

Status

Our work is not complete. At this mid-point, review and comments from the public and the education profession are the essential next step. At the close of the public comment period, the Commission will review the compiled feedback and make appropriate revisions before completing our final recommendations for the CAEP Board of Directors. Thank you for your time and attention to this important matter!

Camilla Benbow
Co-Chair

Terry Holliday
Co-Chair

The Commission's draft includes five standards and two additional recommendations that address CAEP Board responsibilities for accreditation and accountability. Each of the five standards is followed by a rationale, and then by examples of evidence. Public comments are solicited on the standards, the examples of evidence, and the additional recommendations. The public comment website, http://standards.caepnet.org (available February 22), is arranged to guide reviewers through the recommendations serially.

Structure of the Standards

The Commission has adopted a structure for the standards that was proposed by President Cibulka during its first meeting. The first part of that structure is organized around the three areas of teacher preparation identified by the National Academy of Sciences 2010 report, *Preparing Teachers: Building Evidence for Sound Policy.* The Academy panel sifted through hundreds of research studies from recent decades and, not surprisingly, concluded that more research is needed in order to have sound evidence about the impact of particular aspects of preparation. But it found that existing research provides some guidance: content knowledge, field experience, and the quality of teacher candidates "are likely to have the strongest effects" on outcomes for students (p. 180).

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

- Content and pedagogical knowledge
- Clinical partnerships and practice
- Candidate quality, recruitment and selectivity

The Commission also 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, the Baldrige education award criteria, and also by recent trends and new approaches among accreditors. The fourth and fifth standards and additional recommendations for the CAEP Board are built on these sources:

- Standard 4: Program impact
- Standard 5: Provider quality, continuous improvement, and capacity
- Recommendation on Annual reporting and CAEP monitoring
- Recommendation on Levels of accreditation

These groupings serve to structure the draft recommendations that immediately follow the comments on evidence, below.

Evidence That Standards Are Met

President Cibulka's charge to the Commission gave equal weight to "essential standards" and to "accompanying evidence" indicating that standards are met. The additional rigor that CAEP has committed itself to apply is often found in the evidence rather than in the language of standards. In each of the Commission's draft standards there is a concluding section providing "examples of evidence." The Commissioners have identified these examples during their work over the past eight months and seek public comments on them as the next step toward final recommendations later this year.

In an ideal world, educator preparation 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, or employment, or promotion.

Educator preparation has few close approximations 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. The current policy interest in well prepared teachers and leaders is probably higher than it has ever been, especially in states. In addition, the U. S. Department of Education's Institute for Education Sciences is supporting randomized controlled trials that are examining elements of preparation, including selection and clinical experiences. And the Gates foundation's "Measures of Effective Teaching" project has recently concluded a large research study of instruments used to evaluate teacher performances, some or all of which might be adapted to serve as preservice measures.

As the Commission's recommendations are put into place by CAEP, the years immediately ahead should be ones of substantial, even order of magnitude, advances in access to sound evidence. Indeed, the examples that the Commission has selected for this report on its draft recommendations amply illustrate this position.

- **Among the examples are ones that would seem familiar to any accredited provider.**
  See Standard 1, example a (noted as 1.a), state licensure exams; 1.b, grade point average (GPA) in coursework related to the area of teaching; 2.h video analysis of a candidates' teaching; 3.e, teacher work samples and Renaissance project portfolios; 4.d, employer surveys; 5.a, a quality assurance system with broad capacity to compile, store, access, manage and analyze data, and also 5.a, feedback from completers.

- **There are examples of familiar forms of evidence applied more rigorously.**
  Here illustrations found in the examples are 1.a, a licensure pass rate of 80 percent on a "common cut-score across states," within two administrations; and 3.i, general education and content course grades with at least a 3.0 average and 3.5 in practica courses. For admissions, minimum criteria are built into component 4 of standard 3, a GPA minimum of 3.0 and average cohort performance on standardized admissions tests in the top third of national test pools.

- **Some examples explicitly anticipate the emergence of additional measures or new assessments.**
  1.a provides a note that CAEP should work with states to develop and employ new or revised licensure tests; 1.e lists P-12 student surveys of preservice candidates, and 1.f and 3.e list the Stanford/AACTE "edTPA" assessment, now being piloted; and 4.g includes edTPA "for in-service teachers (when an in-service version becomes available)." Also, component 3.4 contains, as an option for provider-established admissions criteria, "a model that predicts effective teaching" and measures the results in reliable and valid ways; and, similarly, an illustration of evidence for P-12 student learning in 4.c is "case studies of completers that demonstrate the impacts of preparation on P-12 student learning."

- **And the Commission recommends some evaluation data strategies that would be new to accreditation.**
  2.a, 2.b, and 2.c on clinical partnerships call for evidence of understanding, data sharing, tracking and hiring patterns, and action indicating combined resource allocation and joint decision-making. Standard 3 on Candidate quality includes a strategic recruitment plan (3.a)

with goals, evidence that progress is monitored, and use of the results for action. Standard 5 requires program outcome measures of graduation rates, candidate ability to meet licensing requirements, candidate hiring in the positions for which they prepared, and student loan default rates.

Another characteristic of the evidence examples is that they differ in level of specificity. Some are explicit performance measures (e.g., a state licensure test, a particular cut score on a test), while others describe inputs (e.g., coursework on assessment, embedding assessment topics in content and methods courses). Some recommendations are outlined in conceptual terms (e.g., evidence of tracking and sharing data with school district partners). Some measures give the appearance of precision (e.g., completion rates, placement rates), but anyone familiar with longstanding debates over the "Title II" preparation data reporting to the U. S. Department of Education is aware that every term must be defined and respondents trained if the results are to be consistent.

As new and better evidence becomes available, CAEP must be committed to use that evidence appropriately in making accreditation decisions. In addition, it should expect providers to take responsibility for examining the quality of evidence on which they rely—in part to make their case for accreditation but, routinely, for continuous improvement of their own programs. As the Commission moves into the final stages of its work, public comments on the examples of evidence contained in this report will be a critical source of counsel. Also, President Cibulka has made arrangements for additional technical advice to the Commission on appropriate conditions for use of various kinds of evidence, on accreditation decision rules and on threshold requirements that are developed for each standard and its components. The decision rules may require adaptation for providers operating in different states with differing approaches to constructing important performance indicators. The rules will need to be developmental and flexible enough to accommodate changes as the evidence measures change.

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 will help generate, will provide a more solid foundation for the professional judgments reached in CAEP's accreditation decisions.

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.

Content Knowledge and Pedagogical Knowledge

1.1 Candidates demonstrate an understanding of the critical concepts and principles in their discipline, including college and career-readiness expectations, and of the pedagogical content knowledge necessary to engage students' learning of concepts and principles in the discipline.

Instructional Practice

1.2 Candidates create and implement learning experiences that motivate P-12 students, establish a positive learning environment, and support P-12 students' understanding of the central concepts and principles in the content discipline. Candidates support learners' development of deep understanding within and across content areas, building skills to access and apply what students have learned.

1.3 Candidates design, adapt, and select a variety of valid and reliable assessments (e.g., formative and summative measures or indicators of growth and proficiency) and employ analytical skills necessary to inform ongoing planning and instruction, as well as to understand, and help students understand their own, progress and growth.

1.4 Candidates engage students in reasoning and collaborative problem solving related to authentic local, state, national, and global issues, incorporating new technologies and instructional tools appropriate to such tasks.

1.5 Candidates use research and evidence to continually evaluate and improve their practice, particularly the effects of their choices and actions on others, and they adapt their teaching to meet the needs of each learner.

The Learner and Learning

1.6 Candidates design and implement appropriate and challenging learning experiences, based on an understanding of how children learn and develop. They ensure inclusive learning environments that encourage and help <u>all</u> P-12 students reach their full potential across a range of learner goals.

1.7 Candidates work with P-12 students and families to create classroom cultures that support individual and collaborative learning and encourage positive social interaction, engagement in learning, and independence.

1.8 Candidates build strong relationships with students, families, colleagues, other professionals, and community members, so that all are communicating effectively and collaborating for student growth, development, and well-being.

Equity

1.9 Candidates reflect on their personal biases and access resources that deepen their own understanding of cultural, ethnic, gender, sexual orientation, language, and learning differences to build stronger relationships and to adapt practice to meet the needs of each learner.

NOTE 1: In this report, the term "candidate" refers to individuals preparing for professional education positions. "Completer" is used as 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 2: 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.

Rationale

This standard asserts the importance of a strong content background and a 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.[3] 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. Component 1.6 refers "a range of learner goals," and these would explicitly include interdisciplinary emphases as a complement to the disciplinary focus in component 1.1. Examples, among others, would be civic literacy, health literacy and global awareness.

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

> Teachers need to understand subject matter deeply and flexibly, so that they can help students create useful cognitive maps, relate ideas to one another, and address misconceptions. They need to see how ideas connect across fields and to everyday life, and how ideas develop a foundation for pedagogical content knowledge[6] that enables them to make ideas accessible to others.[7]

These essential links between instruction and content are especially clear in Linda Darling-Hammond's description of what the Common Core State Standards mean by "deeper learning:"[8]

• 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*

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 analyz(ing) the subject matter knowledge and insight entailed in these activities."[9] It is crucial to "good teaching and student understanding."[10]

The development of pedagogical content knowledge involves a shift in a teacher's 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.[11]

Understanding 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 how cognitive, linguistic, social, emotional, and physical development occurs.[12] 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, strengths, and approaches to learning.

The Commission's development of this draft standard and its components has been influenced especially by the InTASC Model Core Teaching Standards, the Common Core State Standards Initiative[13], and the National Board for Professional Teaching Standards' Five Core Propositions.

Examples of Evidence
On content and pedagogical knowledge
  a. State licensure exams
     o There should be a recommended specific and common cut-score across states, and a pass-rate of 80 percent within two administrations.
     o CAEP should work with states to develop and employ new or revised licensure tests that account for college and career readiness standards, and establish a common passing score for all states. (Note: Recent reports from CCSSO, *Our Responsibility, Our Promise: Transforming Educator Preparation and Entry into the Profession*, and from AFT*, Raising the Bar: Aligning and Elevating Teacher preparation and the Education Profession*, address preparation and entry requirements, indicating growing support for vastly improved licensure assessments).
  b. Grade point average (GPA) and/or grades in relevant coursework
     o This could be an overall GPA, GPA in the major, or GPA in supporting/integral content coursework related to the area of teaching (e.g., science coursework for early childhood educators).
  c. Candidate performance on provider-based capstone measures related to content and pedagogical knowledge

On Instructional practice and the learner and learning
  d. Student performance on valid, reliable assessments aligned with instruction during clinical practice experiences
  e. P-12 student surveys of their preservice candidate teachers during clinical practice experiences
  f. Observational data of candidate performance during clinical practice experience, judged against rubrics and/or other performance metrics (e.g., edTPA, Danielson's Framework for Teaching, etc.)
  g. Evidence that the provider promotes candidates' assessment proficiencies (1) in course work focused on assessment, (2) by embedding assessment topics in content and methods courses, (3) by providing candidates with real-world opportunities to apply what they have learned, and (4) in the assessments it employs in all aspects of preparation

On equity
    h. Provider criteria that qualify candidates for completion, with program performance indicating that all completers have opportunities to reflect on their personal biases, access appropriate resources to deepen their understanding, can use this information and related experiences to build stronger relationships with P-12 learners, and can adapt their practices to meet the needs of each learner

(NOTE: The provider would also monitor data on:

    (1) Quality of candidates available in response to Standard 3 on Candidate quality, recruitment and selectivity, and
    (2) P-12 student learning, observations and surveys that are available in response to Standard 4, Program Impact).

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 dispositions necessary to demonstrate positive impact on all P-12 students' learning.

Partnerships for Clinical Preparation
2.1 Partners co-construct mutually beneficial P-12 school and community arrangements for clinical preparation, including technology-based collaborations, 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 who demonstrate a positive impact on candidates' development and P-12 student learning. 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. Clinical experiences, including technology-based applications, are structured to demonstrate candidates' development of the knowledge, skills, and dispositions that are associated with a positive impact on P-12 student learning.

NOTE: In this report, the term "all students" is defined as children or youth attending P-12 schools including students with disabilities or exceptionalities, who are gifted, and students who represent diversity based on ethnicity, race, socioeconomic status, gender, language, religion, sexual identification, and geographic origin.

Rationale

Education is a practice profession and preparation for careers in education must create nurturing opportunities for aspiring candidates to practice the application of their developing knowledge and skills. These opportunities take place particularly in real-life situations, but may be augmented by settings and situations enhanced by technology, such as simulations, video and online activities. The 2010 NCATE Panel report, *Transforming Teacher Education Through Clinical Practice,*[14] identified important dimensions of clinical practice and the Commission has drawn 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 district and individual school partners as well as other community stakeholders. The term "partnerships" for clinical practice signifies a collaboration among various entities in which all participating members pursue mutually agreed upon goals for preparation of education professionals. 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.[15] Linda Darling-Hammond and J. Baratz-Snowden[16] call for strong relationships between universities and schools to share standards of good teaching that are consistent across courses and clinical work. 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 individuals from diverse settings who assess, support, and develop a candidate's knowledge, skills and dispositions during clinical experience. The literature indicates that the quality of the clinical educators, both school-based and provider-based, can ensure the learning of educator candidates and P-12 students.[17] *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.[18]

High-quality clinical experiences take place in a variety of settings including schools; community-based centers; and homeless shelters; as well as through simulations, video analyses, and other virtual opportunities (for example, online chats with students). Teacher candidates observe, critique, assist, tutor, instruct, and conduct research. They may be student teachers or interns.[19] The experiences integrate applications of theory from pedagogical courses or modules in P-12 or community settings. They offer multiple opportunities for candidates to relate and reflect upon clinical and academic components of preparation.

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.[20] Among these are: (1) a student learning 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[21] also suggests several principles, including tightly woven education theory and classroom practice as well as placement of teacher candidates in cohorts. An ETS report[22] 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." Linda Darling-Hammond and J. Baratz-Snowden[23] proposed an extended clinical experience of at least 30 weeks that is carefully mentored and interwoven with coursework.

Examples of Evidence

On partnerships

a. Memoranda of understanding or data-sharing agreements with diverse P-12 and/or community partners
b. Evidence of tracking and sharing data such as hiring patterns of the school district/school or job placement rates contextualized by partners' needs
c. Evidence of actions that indicate combined resource allocation and joint decision-making, such as:
    o program and course adjustments to meet partners' human capital and instructional needs
    o stated characteristics and roles for on-site delivery of programmatic courses

On clinical faculty

d. 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

On clinical experiences

e. Performance data such as evidence of how candidates develop high-leverage instructional practices/strategies, throughout their programs in diverse clinical settings, with continuous opportunities for formative feedback and coaching from high-quality and diverse clinical educators
f. Evidence that candidates integrate technology into their planning and teaching and use it to differentiate instruction
g. Evidence of candidates' graduated responsibility for all aspects of classroom teaching and increasing ability to impact all students' learning
h. Evidence of candidates' reflection upon 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 of teaching, reflection logs)
i. Studies of the effectiveness of diverse field experiences on candidates' instructional practices
j. Other evidence, including reliable and valid measures or innovative models of high-quality partnerships, clinical educators, or clinical experiences

Standard 3:
CANDIDATE QUALITY, RECRUITMENT, AND SELECTIVITY

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.

Plan for Recruitment
3.1 The provider presents plans and goals for strategic and recruitment outreach to recruit high-quality candidates from a broad range of backgrounds and diverse populations to accomplish their mission.

Recruitment of Diverse Teacher Candidates
3.2 The provider documents goals, efforts and results for the admitted pool of candidates that demonstrate the diversity of America's P-12 students (including students with disabilities, exceptionalities, and diversity based on ethnicity, race, socioeconomic status, gender, language, religion, sexual identification, and geographic origin).

Recruitment to Meet Employment Needs
3.3 The provider demonstrates efforts to know and address community, state, national, or regional or local needs for hard to staff schools and shortage fields, including STEM, English language learning, and students with disabilities.

Admission Standards Indicate That Candidates Have High Academic Achievement And Ability
3.4 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 GPA of its accepted cohort of candidates meets or exceeds the CAEP minimum GPA of 3.0 and a group average performance in the top third of those who pass a nationally normed admissions assessment such as ACT, SAT or GRE.[24] The provider demonstrates that the standard for high academic achievement and ability is met through multiple evaluations and sources of evidence. If a program has a model that predicts effective teaching empirically as measured in reliable and valid ways, the cohort group floor must be above the mean of the predicted measure.

Additional Selectivity Factors
3.5 Provider preparation programs establish and monitor attributes 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 deemed important in the selection process and for development during preparation, predict candidate performance in the program and effective teaching.

Selectivity During Preparation
3.6 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, and pedagogical skills, including the effective use of technology.

Selection At Completion
3.7 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 P-12

Rationale

Educator preparation providers 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, and 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 recent National Research Council report:[25]

> 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.

The majority of American educators are White, middle class, and female.[26] A 2006 study reported 75 percent of teachers are female, 84 percent are White.[27] The makeup of the nation's teacher workforce has not kept up with the changing 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.[28] The mismatch has consequences. Goldhaber and Hansen[29] 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,[30] "teachers of color and culturally competent teachers must be actively recruited and supported."[31] 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.[32] "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." [33] 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.[34]

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.[35] The federal Department of Education regularly releases lists of teacher shortages by both content area specialization and state.[36] Some states also publish supply and demand trends and forecasts and other information on market needs. These lists could assist EPP programs in shaping their preparation 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[37] 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 recent AFT report on teacher preparation.[38] AFT seeks to "attract academically capable students with authentic commitment to work with children" and would set GPA requirements at 3.0, SATs at 1100 and ACT scores at 24.0.

Researchers conclude that academic quality, especially in verbal ability and math knowledge, impacts teacher effectiveness.[39] A study for McKinsey and Company[40] found that high-performing countries had a rigorous selection process similar to that of medical schools. Whitehurst[41] 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[42] 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, & Staiger[43] 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."

In measuring teachers' cognitive and non-cognitive skills, researchers have found that both cognitive and non-cognitive factors "have a moderately large and statistically significant relationship with student and teacher outcomes, particularly with student test scores."[44] 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[45] found "that the achievement of difficult goals entails not only talent but also the sustained and focused application of talent over time." A Teach for America study[46] 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. Danielson asserts that "teacher learning becomes more active through experimentation and inquiry, as well as through writing, dialogue, and questioning."[47] 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 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.

Several researchers, including Deborah Ball in mathematics education, the MET study[48] on components of teaching, and skills approaches such as Lamov's *Teach Like a Champion,* assert there are important critical pedagogical strategies that develop over time. Henry,[49] Noell and Burns,[50] and Whitehurst[51] all found that, in general, teachers became more effective as they gained experience. Both research, as synthesized by the National Research Council,[52] and professional consensus, as represented by the Council of Chief State School Officers InTASC standards,[53] 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 include performance tasks[54] and artifacts created by the teacher candidate.[55] These standards, like the ones the CAEP Commission has drafted, have a central focus on P-12 learning. Student learning should be a criterion for selecting candidates for advancement throughout preparation. The evidence indicators that appear below can be used to monitor and guide candidates' growth during a program. The Commission's draft standard 4 in this report 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; CCSSO, NCTQ, and also rubrics for teaching in observational measures covered in the Gates foundation Measures of Effective Teaching study) 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. (See also CAEP component 1.9 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 the data from these systems, where available, to use as valuable external indicators for continuous improvement.

Examples of Evidence

On recruitment:
a. Strategic recruitment plans to achieve the EPP mission, taking account of employment opportunities for its completers, needs to serve increasingly diverse populations, and meeting needs for STEM, ELL, special education and other shortage areas
    o   Plans define outreach efforts to locate and target high-quality applicants from a broad range of backgrounds and diverse populations
    o   Plans contain specific numerical goals and base data
    o   Progress is monitored and analyzed annually
    o   Judgments are made about the adequacy of progress toward recruitment goals
    o   Data are used to make changes in recruitment efforts
    o   Movement of resources toward the identified areas and away from low need areas is monitored
    o   Evidence of marketing and recruitment to high schools and colleges that are racially and culturally diverse and reflecting opportunities and needs in areas of shortages
    o   Evidence of collaboration with other providers, states, and school districts could be an indicator of outreach and provide an awareness of employment needs and opportunities

On Admissions In Addition To The CAEP Floor Described In Component 3.4:
b. Providers set other admissions requirements such as:
    o   High school course taking indicating rigorous courses (e.g., Advanced Placement, higher level math and languages)
    o   Academic awards achieved

On Nonacademic Factors At Admissions Or During The Preparation Experiences:[56]
c. Programs demonstrate how they assess non-academic qualities of candidates and how these qualities relate to teacher performance. Examples might include student self-assessments, letters of recommendation, Interviews, essays, leadership, surveys, Gallup measures, Strength finder 2/0, Meyers-Briggs, and personality tests
d. Other examples 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 or "withitness," [57] 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:
e. The edTPA test,[58] Renaissance, Teacher Work Samples. Sample measures that often appear in these forms of assessment are:
    o   Differentiated instruction based on group and subgroup results on teacher created or standardized assessments (ELL, special education, gifted, high-needs students, etc.)
    o   Evidence of differentiated instruction in response to student test data
    o   Evidence of teacher reflection on practice.
f. Analysis of video recorded lessons with review and evaluation using rubrics, rater rules and agreement levels
g. Observation measures with trained review procedures, faculty peer observations with rubrics

h. Appropriate performance measures, including those required by a state
i. Content knowledge assessments, standardized test data and general education and content course grades throughout the program with at least a 3.0 average and 3.5 in practica courses
j. Assessments of specialized abilities when appropriate, such as math content tests or ability to teach reading (as applicable to reading and other content teachers)
k. Data provided by states on student achievement, teacher observations, student and employer surveys (NOTE: see also the Commission's recommendations for Standard 4)
l. Evidence of candidate ability to design and use a variety of formative assessments with PK-12 students

At Completion
m. Provider criteria that qualify candidates for completion, with program performance documenting that all completers have reached a high standard for content knowledge
n. Provider criteria that qualify candidates for completion, with program performance documenting that all completers can teach effectively with positive impact on P-12 student learning
o. Provider criteria that qualify candidates for completion, with program performance information indicating that all completers understand expectations set out in codes of ethics, professional standards of practice, and relevant laws and policy

Standard 4:
PROGRAM IMPACT

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

Impact on P-12 student learning
4.1 The provider documents, using value-added measures where available, other state-supported P-12 impact measures, and any other measures constructed by the provider, that program completers contribute to an expected level of P-12 student growth.

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 was relevant to the responsibilities they confront on the job and that the preparation was effective.

Rationale

CAEP Commission 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 faculty 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 programs at the point where they matter—the classroom teaching and other educator responsibilities in schools. Knowing results, learning from that knowledge, and turning the information back to assess the preparation experiences are the expected responsibilities of every provider. The Baldrige education award criteria place 45 percent (450 of 1000) of their rating points on results. Student results and operational effectiveness are a significant component of those points. For a preparation provider, the student results have a dual meaning: first, candidate mastery of the knowledge and skills necessary for effective teaching, and second teaching that has positive effects on P-12 student learning.

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, and one being adopted by several states and districts is known as "value-added modeling." A large Gates' supported research effort, the Measures of Effective Teaching (MET) project, provides useful guidance about the circumstances under which this model can most validly be used. These new findings are consistent with those noted in *Preparing Teachers: Building Evidence for Sound Policy* (NRC, 2010):[59] "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."

The MET study also provides empirical evidence not previously available about structured teacher observations that employ videotapes and specific evaluation protocols, and it found that "student perception surveys provide a reliable indicator of the learning environment and give voice to the intended beneficiaries of instruction."[60] Beyond these sources of evidence, some providers will develop close collaborative relationships with districts in which their completers are employed and construct case studies that examine completers' impacts on student learning. (NOTE: In addition, the Commission is still considering advice about appropriate conditions for use of evidence, as explained earlier in this report.)

Satisfaction measures such as employer surveys can provide useful feedback about completer performance. The Commission recommends that CAEP encourage more consistent use of employer surveys, and collaborate with states and other stakeholders to create more descriptive and more reliable instruments. In addition, the actual employment trajectories of completers—their retention, their promotion, their changing responsibilities—are useful indicators of employer satisfaction. Completer surveys are another source of program impact information. These can describe completer perceptions of the relevance and utility of aspects of their preparation as they view them in their day to day responsibilities.

An exemplary provider will be able to demonstrate superior impact on P-12 students and also the links between program characteristics and P-12 impact. The rationale for this exemplary distinction is that exemplary providers contribute to current P-12 achievement through the work of their own completers and to future P-12 achievement by serving as a model for other providers. (See CAEP Levels of Accreditation in the recommendations, below.)

Examples of Evidence

P-12 student learning
    a. Value-added measures of P-12 student learning that can be linked with teacher data
    b. State supported measures that address P-12 student learning that can be linked with teacher data
    c. Case studies of completers that demonstrate the impacts of preparation on P-12 student learning and can be linked with teacher data

Employer satisfaction
    d. Employer surveys and/or focus groups
    e. Completer retention
    f. Completer promotion and employment trajectory

Observations and surveys
    g. 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)
    h. Observations by credentialed evaluators of in-service teachers (e.g., Classroom Assessment Scoring System (CLASS) developed by Bob Pianta and Bridget Hamre; Framework for Teaching, developed by Charlotte Danielson)
    i. P-12 student surveys

Completer satisfaction
    j. Completer surveys and/or focus groups

Standard 5:
PROVIDER QUALITY, CONTINUOUS IMPROVEMENT, AND CAPACITY

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, 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.

Quality and Strategic Evaluation

5.1 The provider's quality assurance system demonstrates capacity to address all CAEP standards and investigates the relationship between program elements and candidate outcomes to improve graduates' impact on P-12 student learning.

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. The system generates outcomes data that are summarized, externally benchmarked, analyzed, shared widely, and acted upon in decision-making related to programs, resource allocation, and future direction.

5.3 The provider's quality assurance system is comprised of multiple measures that can monitor candidate progress, completer achievements and the provider's operational effectiveness. These include measures of program outcomes for:
   o Completer or graduation rates;
   o Ability of completers to meet licensing (certification) and any additional state accreditation requirements;
   o Ability of completers to be hired in education positions for which they are prepared; and
   o Student loan default rates.

Continuous Improvement

5.4 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. Available evidence on academic achievement of completers' P-12 students is reported, analyzed, and used to improve programs and candidate performance. Leadership at all levels is committed to evidence-based continuous improvement.

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.

Capacity

5.6 The provider assures continuing quality of curricula; educators (faculty); facilities, equipment, and supplies; fiscal and administrative capacity; student support services; recruiting and admissions practices; academic calendars, catalogs, publications, grading policies, and advertising; measures of program length and objectives; and student complaints.[61]

Rationale

Effective organizations rely on evidence-based quality assurance systems 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 ensures continuous improvement by relying on a variety of measures, establishing performance benchmarks for its

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.[62]

Ultimately the quality of an educator preparation program is measured by the abilities of its completers to have a positive impact on P-12 student learning and development.[63] 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 the program and acquire during the program; the relationships between the provider and the schools where its candidates receive clinical training; and subsequent evidence of completers' impact on P-12 student learning[64] in schools where they ultimately teach. 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 rely on multiple measures and include 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 control 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 and validity).[65]

Continuous improvement systems enable programs to quickly develop and test prospective improvements, deploy what is learned throughout the organization, and add to the profession's knowledge base and repertoire of practice.[66] CAEP should encourage providers to develop new models for evaluating and scaling up effective solutions to problems in educator preparation. 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.[67]

A provider must have the capacity to support the desired program and candidate outcomes.[68] Core program elements include curriculum, faculty/educators, administrative and financial support, and candidate services that support candidates' ability to positively impact P-12 student learning. The adequacy and effectiveness of these elements in relation to candidate outcomes must be investigated as part of the quality assurance system.

Examples of Evidence
Quality Assurance System
    a. The quality assurance system demonstrates capabilities to compile, store, access, manage, and analyze data from diverse sources, including:
- o multiple indicators from standards 1, 2, and 3 of candidate developing knowledge and skills from recruitment and admissions, during the preparation experience, and measures that inform provider decisions at candidate completion, including assessments of candidate performance such as licensure tests and evaluations of student teaching/ internship;
- o feedback from standard 4 on completers, employer satisfaction surveys, completer retention and employment milestones, state data on the academic achievement of completers' P-12 students, program completers own evaluation of their level of preparedness, and other sources that provide useful information on professional performance; and
- o documentation of program outcomes from standard 5 such as the proportions of a candidate cohort who complete, who are licensed or certified, who are placed in

education positions for which they have prepared, and the student loan default rate.

Use of Quality Assessment and Descriptive Measures
b. Practices for investigating the quality of data sources and efforts to strengthen and improve the overall quality assurance system
c. Processes for testing the reliability and validity 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.
  o 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
  o 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
d. Documentation that data are shared with both internal and external audiences and the use of data for program improvement.

Continuous Improvement Process
e. Documentation of innovations that have been tested and improvements that have been made
f. Examples of leadership commitment to continuous improvement such as planning and implementing change
g. Documentation of stakeholder involvement in the provider's assessment of the effectiveness of programs and completers

Capacity
h. Curriculum that reflects current needs in P-12 schools as well as national and P-12 state and/or college and career ready standards
i. Quality of faculty members and/or other staff, including the range of relevant experiences such as academic qualifications; P-12 teaching experience and involvement in P-12 schools and districts; and course evaluations by candidates, teaching awards, or P-12 educator feedback to indicate their effectiveness as teachers
j. Facilities that support teaching and learning.
k. Fiscal and administrative resources that support programs and P-12 school partnerships; that develop expertise in new assessments (e.g., edTPA, teacher work samples); that support professional development for content area scholarship and expertise in new technologies, pedagogies, and curriculum (e.g., Common Core State Standards); and that support collaborative inquiry to make decisions regarding priorities and their implementation
l. Candidate support services such as academic advising services, and counseling center services
m. Provider's recruiting and admissions policies and practices, academic calendars, catalogs, publications, grading, and advertising
n. Information that describes the length and objectives of programs
o. Policies for handling candidate complaints and examples of complaints and their disposal
p. Review of any state actions on the institution or program, or any concerns that have come to the state's attention

Additional Recommendations of the CAEP Commission

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

Commission members were guided in their work by analyses of recent trends and promising practices in accreditation.[69] In particular, the members put the most weight on student learning outcomes, referring to both candidate outcomes and P-12 student outcomes. In addition, however, Commissioners included consideration of program characteristics that would be expected to ensure and enhance quality, and that would support fair treatment of candidates.

CAEP Commission Recommendations On
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:

1. **Impact on P-12 learning** (data provided for component 4.1 that include value-added measures in states where they are available, as well as other state-supported P-12 impact measures and/or provider measures)
2. **Indicators of teaching effectiveness**, including structured observations for evaluation and student surveys on teacher interactions (data provided for component 4.3)
3. **Results of employer surveys, and including retention** (annually and across five and ten year periods) **and employment milestones** (data provided for component 4.2, on a 2-year floating average)
4. **Results of completer surveys** (data provided for component 4.4, on a 2-year floating average)

Measures Of Program Outcomes:

5. **Graduation rates** (data provided for component 5.3 on program outcomes)
6. **Ability of completers to meet licensing (certification) and any additional state requirements** (e.g., through acceptable pass rates on state licensure exams; data provided for component 5.3 on program outcomes)
7. **Ability of completers to be hired in education positions for which they have prepared** (by certification area; data provided for component 5.3 on program outcomes)
8. **Student loan default rates** (on a 3-year floating average; data provided for component 5.3 on program outcomes)

The Commission recommends that CAEP identify significant amounts of change in any of these indicators that would prompt investigation to initiate (1) adverse action that could include revocation of accreditation status or (2) 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.

Indicators (1) through (4) are in-service measures of quality that are broadly consistent with recommendations from the National Research Council[70] regarding the incorporation of value-added measures, satisfaction and employment milestone measures from employers, and preparation satisfaction from program completers. Indicators (5) through (8) are intended to ensure the fair treatment of candidates and completers, so that candidates accepted to an educator preparation program would have specific information about chances for completion, licensure, finding a job in field for which they prepare, and student loan default rates.

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 send an alert to CAEP that trigger points have been exceeded so that closer inspection of a provider's preparation program should be scheduled. (See the explicit provision in the recommendation, above, for indicators of change that would prompt investigation to initiate (1) adverse action that could include revocation of accreditation status or (2) recognition of eligibility for a higher level of accreditation.)
- They will be a source of information for CAEP's annual report, will complement descriptive measures for all accredited providers, facilitate monitoring of trends over time, allow analysis of preparation patterns for different subgroups of institutions (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.

**CAEP Commission Recommendations On
LEVELS OF ACCREDITATION**

The Commission proposes four levels of accreditation decisions:
1. **denial of accreditation**—for providers that fall below threshold in two or more standards
2. **probationary accreditation**—awarded to providers that meet or surpass the threshold in four standards, but fall below in one of the standards
3. **full accreditation**—awarded to providers that meet all five standards at the CAEP established thresholds
4. **exemplary or "gold" accreditation**—awarded to a small number of providers that meet the threshold classification set for all five standards and surpass the threshold for a combination of standards

The Commission also recommends that CAEP accreditation be based on a judgment that the provider's accreditation evidence meets a designated "threshold" for each of the five standards recommended by the Commission. To achieve full accreditation, all components for standard 4 on Program Impact and components 5.4 and 5.5 on continuous improvement must reach an "operating" threshold for evidence.

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. Such a designation would break a new path in accreditation, giving visibility to attainment of a superior level of performance.

The Commission recommends that CAEP establish "threshold" classifications that define evidence from "beginning" to "leading" for each component. The threshold would be set on the basis of CAEP's experience in identifying and updating evidentiary measures that represent best current practice in provider performance. Threshold classifications would be defined by rubrics that describe both characteristics of the evidence and markers of performance. Each component of each standard would contribute to the composite evaluation for the standard.

The generic classification definitions are illustrated in the following example:
- **beginning**: a plan is in place for gathering data or identification of metrics and initial data collection has begun
- **developing:** actual data collection has been completed for at least a year and studies to examine and verify the data are underway
- **operating:** studies to examine and verify the data are completed, there is some reliability evidence, and data are available for more than one year. Data demonstrate performance markers meeting a threshold requirement, and data have been used for at least one cycle of evaluation, analysis, and subsequent improvement decisions
- **leading**: data are available for several years, with completed validity and reliability information about the use and interpretation of the data. The actual values of the data are higher than for the "operating" threshold, and data are routinely used to evaluate and improve preparation

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 the set threshold, with two exceptions. Meeting the "operating" threshold criteria would be required for:
- all components of standard 4 on program impact, and
- components 5.4 and 5.5 on continuous improvement.

Achieving an exemplary CAEP accreditation decision would signal that the provider's evidence meets the "leading" classification for a specified number of standards, including standard 4 on program impact and standard 5 continuous improvement components.

Commissioners are aware that program impact data are not universally available. Asking providers to develop data collection systems individually raises challenges of costs, efficiency, and comparability of data. In the short term, CAEP must work with states and providers to develop the necessary information metrics and systems to gather data. CAEP collaboration with States and providers, and federal support through initiatives in statistics, research, and resources are necessary.

The qualities of evidence might be improved through actions of the provider, with the maturing of its quality assurance system and use of data for continuous improvement. However, Commissioners anticipate that, over time, the information available for accreditation decisions will grow much stronger, permitting a gradual shift in CAEP's evidentiary expectations. The Commissioners especially draw attention to the statement in President Cibulka's covering letter for this report:

> As the knowledge base improves, CAEP standards and the evidence we use to measure performance against those standards can be revised to reflect what truly matters in producing effective teachers who improve P-12 student learning.

The anticipated revisions over time will enable CAEP to rely more on program outcomes and performance results, and less on inputs and processes to make its judgments.

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, with the aspiring institutions displaying evidence that they have achieved a good number of "leading" evidence threshold ratings. 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 teacher education 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 programs.

Endnotes

INTRODUCTORY SECTIONS

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

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

STANDARD 1, CONTENT AND PEDAGOGICAL KNOWLEDGE

3   Council of Chief State School Officers. (CCSSO) (2011). *InTASC model core teaching standards.* Retrieved from http://www.ccsso.org/Resources/Resources_Listing.html?search=model+core+teaching+Standards National Board for Professional Teaching Standards (NBPTS). (2002). *What teachers should know and be able to do. Retrieved from http://www.nbpts.org/resources/publications.*

4   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.

5   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.

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

7   Darling-Hammond, L. (2008). Teacher learning that supports student learning. In B. A. Presseisen, (Ed).*Teaching for intelligence* (92-93). Thousand Oaks, CA: Corwin Press.

8   Darling-Hammond, L. Power Point presentation, "Supporting Deeper Learning." Personal communication to Emerson Elliott, January 29, 2013.

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

10 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).

11 Shulman. (1987), 13.

12 CCSSO. (2011) , 8.

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

STANDARD 2: CLINICAL PARTNERSHIPS AND PRACTICE

14 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.

15 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.

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

17 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.

18 NCATE (2010).

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

20 NCATE (2010). 5, 6.

21 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, DC: National Council for Accreditation of Teacher Education.

22 Educational Testing Service [ETS]. (2004) *Where we stand on teacher quality*: An issue paper from ETS. Princeton , NJ: Educational Testing Service. Retrieved on August 4, 2012 at http://www.ets.org/Media/Education_Topics/pdf/teacherquality.pdf, 3.

23 Darling-Hammond, L., & Baratz-Snowden, J. (2005), 38-39.

STANDARD 3: CANDIDATE QUALITY, RECRUITMENT AND SELECTIVITY

24 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.

25 NRC. (2010), 181.

26 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.

27 Zumwalt, K. & Craig, E. (2006). Teacher's characteristics: Research on the indicators of quality. In M. Cochran-Smith & K. M. Zeichner (Eds.), *Studying teacher education: The report of the AERA panel on research and teacher education* (157-260). Mahwah, NJ: Lawrence Erlbaum Associates.

28 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/.

29 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.

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

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

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

33 Bireda and Chait (2011), 30.

34 Feistritzer, C.E. (2011). *Profile of teachers in the U.S. 2011*. National Center for Education Information. Retrieved from http://www.ncei.com/Profile_Teachers_US_2011.pdf.

35 NCATE. (2010).

36 *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.

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

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

39 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/preparingteachersconference/whitehurst.html. NRC (2010)

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

41 Whitehurst, G. (2002).

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

43 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.

44 Rockoff, J. E., Jacob, B. A., Kane, T. J., & Staiger, D. O. (2011), 43-74.

45 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.

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

47 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.

48 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.

49 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.

50 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.

51 Whitehurst, G. (2002).

52 Johnson, S. (1980). Performance-based staff layoffs in the public schools: Implementation and outcomes. *Harvard Educational Review*, 50(2), 214-233.
    Henry, T., et al. (2012).
    Noell, G., & Burns, J. (2006).
    Whitehurst, G. (2002).

53 NRC. (2010), and CCSSO. (2011).

54 CCSSO. (2011).

55 Danielson, C. (2009).

56 Note: Research has not definitively recognized 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 on-going development of this knowledge base and recommends that CAEP revise criteria as evidence emerges.

57 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.

58 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

59 NRC. (2010).

STANDARD 5: PROVIDER QUALITY, CONTINUOUS IMPROVEMENT, AND CAPACITY

60 Measures of Effective Teaching Project. (2013). *Ensuring fair and reliable measures of effective teaching: Culminating findings from the MET Project's three-year study*. Retrieved from http:www.metproject.org/downloads/MET_Ensuring_Fair_and_Reliable_Measures_Practitioner_Brief.pdf, 20.

61 The U.S. Department of Education, Code of Federal Regulations, 34 CFR 602 requires accreditors to include these resources, services, practices and communications in their standards.

62 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.

63 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.*

64 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* (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.* (645-735). Mahwah, NJ: LEA.
NCATE. (2010).

65 Ewell, P. (2012). *Recent trends and practices in accreditation: Implications for the development of standards for CAEP.* Washington, D.C.: CAEP.

66 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.

67 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.

68 Baldrige Performance Excellence Program. (2011). Middle States Commission on Higher Education. (2010). *Handbook for periodic review reports.* Philadelphia, PA: Author.
Western Association of Schools and Colleges. (2002)*Evidence guide. A guide to using evidence in the accreditation process: A resource to support institutions and evaluation teams.* Alamedia, CA: Author.

RECOMMENDATION ON ANNUAL REPORTING AND CAEP MONITORING

69 Ewell, Peter (2012).

70 NRC. (2010).