California State University Summit

TRANSFORMATIVE CHANGE
in the Preparation of Teachers

Hosted by the CSU Office of the Chancellor in collaboration with the CSU Board of Trustees

February 14, 2011

A leadership Summit sponsored in partnership with the National Academy of Sciences, the S.D. Bechtel, Jr. Foundation, the David and Lucile Packard Foundation, and a range of corporate partners.

Proceedings

www.calstate.edu/teacherEd/Summit
Executive Summary: California State University

Summit on Transformative Change in the Preparation of Teachers

The California State University (CSU) plays a leading role nationally in the transformative redesign of teacher preparation. Reflecting this leadership, the CSU Summit on Transformative Change in the Preparation of Teachers was co-hosted with the National Academy of Sciences on February 14, 2011. The Summit is being recognized as an important event in the history of teacher preparation in the U.S. It involved 270 top education leaders from across California and the nation. Speakers included U.S. Under Secretary of Education Martha Kanter, the Presidents of the National Council for Accreditation of Teacher Education (NCATE) and the American Association of Colleges of Teacher Education (AACTE), California’s newly elected Superintendent of Public Instruction, Tom Torlakson, and two of the nation’s most prominent figures in teacher education, Linda Darling-Hammond of Stanford University and Lee Shulman, President Emeritus of the Carnegie Foundation for the Advancement of Teaching.

The CSU Summit examined best practices in the central aspects of teacher education and provided important new knowledge in four key areas:

- Models for effective clinical, field-based teacher preparation that involve close collaboration between universities and P-12 partners in candidate recruitment, preparation, assessment, and induction;
- Designs preparing world-class teachers in science, mathematics, engineering, and technology (STEM) and advancing integration of 21st century digital skills across subject areas;
- Approaches connecting teacher education with promising strategies for closing achievement gaps, including proven methods for assisting at-risk students and extending learning to after-school hours; and
- Assessments of teacher candidate performance and of preparation programs, including rigorous, innovative, value-added measures of graduates’ impacts on the P-12 students they teach.

In addition to advancing evidence of exemplary practices, the Summit laid the foundation for major next steps in two highly significant areas of reform that CSU will actively pursue:

- Expansion in California of exemplary university/P-12 clinical partnerships for teacher preparation: The Summit launched the California Alliance for Clinical Teacher Preparation and Improving Student Achievement, the first state Alliance resultant from the widely respected NCATE Blue Ribbon Panel report that recently recommended large-scale changes nationally to advance clinical preparation. The California Alliance will select model demonstration sites, promote rigorous measures of candidate and program performance, and foster scale-up through state policies eliminating barriers to reform.

- Regional adoption of highly innovative yet proven blueprints for recruiting, selecting, preparing, and supporting world class new teachers across subject areas: CSU campuses already have a track-record of preparing outstanding groups of beginning teachers, but will now expand their leadership by experimenting with and implementing additional promising reforms, with special attention to challenges of urban and rural schools and to serving at-risk students from low-income, high minority communities. The efforts will be implemented in close collaboration with P-12 schools and districts.

The Summit was sponsored by distinguished Foundations and corporations across California, including the S.D. Bechtel, Jr. and David and Lucile Packard Foundations and eight major firms: BD Biosciences, Chevron, Cisco, Hewlett Packard, Honeywell, Life Technologies, Pacific Gas & Electric, and Qualcomm.
California State University Summit
Transformative Change in the Preparation of Teachers
February 14, 2011
Summit Agenda

Welcome and Introductory Remarks

Charles B. Reed, Chancellor, California State University
Tom Torlakson, State Superintendent of Public Instruction

Keynote Opening Speaker

Martha Kanter, Under Secretary, U.S. Department of Education
The Nature and Significance of Transformative Change in Preparing Teachers

Panel: Models of Transformative Change in the Preparation of Teachers

Moderator: Beverly Young, Assistant Vice Chancellor, California State University System
Phyllis Fernald, Dean, College of Communication and Education, CSU Chico
Marsha Levine, Senior Consultant, National Council for Accreditation of Teacher Education
Sharon Robinson, President & CEO, American Association of Colleges of Teacher Education
Michael Spagna, Dean, Michael D. Eisner College of Education, CSU Northridge

Luncheon and Speaker

Linda Darling-Hammond, Charles E. Ducommon Professor of Education, Stanford University
Transformative Teacher Education: Exemplary Designs and Significant Initiatives

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James Cibulka, President, National Council for Accreditation of Teacher Education

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Session #2: Clinical Teacher Preparation: Teacher Quality Partnerships
Session #3: Preparation of STEM Teachers Across Grade Levels
Session #4: Transforming Teacher Education: The California Alliance
Session #5: Promoting Literacy from Early Development Through College Proficiency
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Session #8: Use of Data to Evaluate and Improve Teacher Education Programs
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Session #10: Transforming Teacher Preparation Through Academic and Career Technical Education Partnerships

Comments: National Academy of Sciences

Jay Labov, Senior Advisor for Education and Communication, National Academy of Sciences

Afternoon Speaker

Lee Shulman, President Emeritus, Carnegie Foundation for the Advancement of Teaching
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Conclusions

Charles B. Reed, Chancellor, California State University
Welcome and Introductory Remarks
Charles B. Reed
Chancellor, California State University

Chancellor Reed welcomed the participants to the California State University (CSU) Summit on Teacher Preparation and indicated how pleased CSU was to host the event in collaboration with the National Academy of Sciences and some of the state’s and nation’s leading educational organizations, philanthropic foundations, and corporations. He gave special recognition to the CSU Board of Trustees Chair, Dr. Herbert Carter, for calling for the Summit, stating that he and Dr. Carter, along with the rest of the Board of Trustees, were deeply committed to creating the highest quality teacher education programs at the CSU to prepare new generations of first-rate teachers.

Chancellor Reed noted that the CSU is the largest preparer of new teachers in the nation, and prepares the majority of new teachers in California, approximately 13,000 each year, and that this gives CSU a uniquely significant leadership role in California. He explained that the Summit will identify exemplary strategies for teacher preparation that can be replicated in California and nationally, including effective clinical, field-based teacher preparation characterized by robust university/P-12 partnerships. He further explained that the Summit builds upon the report of the National Council for Teacher Accreditation’s Blue Ribbon Panel on Clinical-Preparation and Partnerships for Improved Student Learning, on which he served, along with Chris Steinhauser, Superintendent of Long Beach Unified, a speaker at the Summit.

The Chancellor explained that the Summit will also explore effective strategies for preparing expert P-12 teachers in science and mathematics to develop the nation’s future workforce in STEM fields. The CSU has had great success over the past five years in nearly doubling the math and science teachers it prepares annually from 750 to 1,500, while introducing innovations to strengthen quality. Today will look to build on that success.

Also examined at the Summit will be approaches that equip new teachers to work with English learners economically disadvantaged youth, and special needs students in order to close persistent achievement gaps—one of the CSU’s highest priorities in working with its public school partners. Additionally, the Summit will be unique in its attention to linking the preparation of teachers with after-school learning programs. California has more than 4,000 after-school programs, delivered at the state’s highest need elementary and middle schools. They offer a unique opportunity for early clinical experiences for future teachers who can contribute significantly to closing achievement gaps while in these roles.

Throughout the Summit, attention will also be given to evaluating the performance of new teachers and the programs and strategies through which they are prepared. The CSU began over a decade ago to use data to evaluate and improve teacher education. Its systemwide annual evaluation is recognized as a national model that includes graduate and employer data and K-12 student outcomes.

Dr. Reed also expressed appreciation to the sponsors of the Summit for their generous support, for making this landmark event possible. He gave special appreciation to the primary partners, the S.D. Bechtel, Jr. Foundation and the David and Lucile Packard Foundation, for their generosity. He also recognized corporate partners—BD Biosciences, Chevron, Cisco, Hewlett Packard, Honeywell, Life Technologies, Pacific Gas & Electric, and Qualcomm.

Chancellor Reed wished all of the participants a highly constructive meeting and indicated that he looked forward to hearing their thoughts and conclusions.
Superintendent Torlakson began his welcome remarks by underscoring that teaching is the most important job there is and stating that every young person has doubts about themselves. “Who was the person who believed in you, who supported you?” he asked. Chances are that person was a teacher. “I know it was for me,” he said.

He asked whether this isn’t that what led Summit participants into teaching in the first place, making clear that it certainly was not the hours, the pay, or the working conditions. Rather, it was a chance to make a difference for students—just as our teachers made a difference in our own lives.

The Superintendent remarked that it takes a leap of faith to choose teaching as a career. Education students hear about budget cuts and pink slips. The alarming consequence is that the number of students enrolled in teacher preparation has dropped by half in the last seven years.

“We can’t,” he said, “afford to let financial uncertainty turn our next generation of teachers away from the profession before they get started. That’s one more reason why it’s critical that California get through its budget crisis—stop cutting school budgets—and get our schools back on solid financial ground.”

Even as the financial crisis facing our state is addressed, he stated, there has to be a plan for the future. He indicated that he was excited to see the Summit focus on:

• Using after school programs as a tool to close the achievement gap;
• Improving professional development for science, technology, engineering, and mathematics; and
• Collaborating with school districts to provide student teachers with clinical experience (similar to medical school students).

He shared his firm belief that some of the best future teachers are already working at schools. Some are teacher’s aides. Some are working in after-school programs. They know the reality of today’s schools, and they still want the job. He encouraged Summit participants to nurture them, noting that he sponsored legislation to expand paraprofessional teacher training. He applauded the nine CSU campuses that are already preparing after school workers in pathways leading to teaching careers.

He emphasized that everyone needs to work together in recruiting and preparing new teachers. “We are all in this together,” he said. CSU campuses need a pipeline of students who arrive ready for college, motivated to become teachers—that’s the job of K-12 educators.

CSU campuses need to help their best and brightest undergraduates see teaching as an option and give them the training they need to succeed in the classroom. This becomes more difficult when a large percent of freshmen need remedial courses before starting college-level work, and everyone needs to collaborate in solving these problems.

The Superintendent commended all of the attendees for participating in the Summit. He urged them to work throughout the day as though the future of California depends on their success because, he said, it does. He concluded his comments stating that, with the help of the leaders at the Summit, a new California can emerge—stronger, smarter, and more creative than ever.
Teacher Preparation: Reform and Improvement
Keynote Morning Presentation
Dr. Martha J. Kanter, Under Secretary U.S. Department of Education

Introduction

Under Secretary Kanter focused her presentation on teacher education, noting that it is critically important to America’s future. For too long, it has been neglected, and there are promising changes underway. The best teacher preparation programs are based on strong and substantial field experience in local schools across our nation, field experience that informs coursework in student learning and classroom management and prepares candidates to teach diverse students in high-need settings.

Quality programs are research-based. New research on learning, especially coming from our nation’s cognitive and neuroscience experts must be applied in teaching and learning throughout our institutions and in our K-12 schools. Quality teacher education programs must ensure that students master subject matter, and candidates are taught how to apply the best research available and make far better use of data to drive what is taught and, most importantly, what is learned. Most of all, quality programs have a single-minded focus on improving K-12 student learning outcomes.

California is a leader in improving the quality of its teacher education programs. CSU and others in California pioneered performance-based assessments of teacher candidate readiness. The Department of Education thinks these are very promising.

The National Council for the Accreditation of Teacher Education (NCATE) is launching an ambitious effort to transform teacher preparation by focusing on clinical practice. California and seven other states are working together to put NCATE’s Blue Ribbon Panel ideas into practice.

The work in California and of NCATE and AACTE has the attention of the Obama Administration. It is continually studying what California has accomplished and has already learned a great deal from its leadership, which has helped the Administration significantly in crafting its proposals.

Obama Administration’s 2012 Budget Proposal

Education highlights were shared from the budget President Obama released on the day of the Summit—a budget that includes a major investment in teacher preparation. The President proposed investing more than $1 billion dollars over the next five years in a strategy that would reward good teacher preparation programs, improve struggling ones, and either turn around or shut down those that are doing a poor job.

The Department of Education has plans to reach out across the nation and begin a regulatory review process and provide financial support to states that take action to identify high and low performing teacher preparation programs based on outcomes. The Department wants to give states funds to develop and adopt performance-based assessments of teacher candidates like those that have been pioneered in California, the first state to require such assessments for licensing.

Passing a paper-and-pencil test does not determine whether a candidate is ready to teach. The Department wants states to look at candidate learning outcomes, such as performance assessments or teacher candidate effectiveness in improving K-12 student achievement, employment outcomes such as hiring, placement, and retention rates; and customer satisfaction outcomes such as candidate and principal satisfaction with teacher preparation programs. The Department wants to make sure that outcomes information is given back to schools of education to improve programs as well as to accreditors, states, researchers and practitioners to aide in making timely educational decisions.
The Department is carrying out a strategy to support and encourage the development of model teacher preparation programs. For the best programs in our nation, the President’s budget will create the Presidential Teaching Fellowship program with $185 million dollars proposed for the 2012 budget year, and $200 million a year for each of the next four years through 2016.

Highly talented students attending the strongest teacher preparation programs in each state would be awarded scholarships of up to $10,000 dollars each, with a priority for those with financial need. Presidential Teaching Fellows will have to be prepared to teach a high-need subject, such as math, science, ESL, or special education, and commit to teach at least three years in a high-need school.

The President’s 2012 budget will invest in promising reforms. The Gus Hawkins Centers of Excellence program created in 2008 under the Higher Education Reauthorization has never been funded. President Obama is proposing $40 million to establish these Centers of Excellence for Minority Serving Institutions.

This new investment seeks to increase the talent pool of effective minority educators by expanding and reforming teacher education programs at Historically Black Colleges and Universities, Hispanic Serving Institutions, Tribal Universities and other higher education institutions serving a substantial number of racial minorities. Right now, 38 percent of all school children are African-American or Latino. Only 14 percent of teachers are African-American or Latino. Only 2 percent are African American males. The Secretary is firmly committed to increasing the number of effective minority teachers.

Minority Serving Institutions prepare half of all minority teachers. The Department wants them to grow and become national models of excellence. It wants them to have heightened selectivity and exit standards; clinically based programs; close partnerships with school districts and/or non-profits that place teacher candidates; and programs that provide extensive training to all candidates in evidence-based methods of instruction for diverse learners.

The newly proposed Presidential Teaching Fellowship program includes a state set-aside of up to 25 percent of the funds to modernize their teacher preparation accountability systems, cover the cost of performance-based licensure tests, and help low-performing programs turn around. If states take the money, they have to be willing to eventually close down persistently poor performing programs.

Reinvestment and Recovery Act

With Recovery Act funds, the Department this past December awarded new Teacher Quality Partnership grants. As a result, almost $100 million is being directed at reforming traditional university teacher preparation programs and creating teacher residency programs for professionals from other fields entering the teaching profession.

These residency programs will follow the medical model in which residents are placed in schools with comprehensive induction and extensive support. Teaching residents will be paid a living wage and expected to teach for three years in a partnering high-need school.

To recruit more teachers, the Department created a new TEACH.gov website dedicated to providing information and resources for students and prospective teachers. In the coming years, a million teachers are expected to retire. The Department has asked for help in directing professors, prospective students, and current students to the website and for advice on working with the nation’s 15,000 school districts to identify job openings and effective recruitment processes.
Promising Programs

Dr. Kanter indicated that while she had outlined what the Department of Education is doing to support the development of high-quality teacher education, Secretary Duncan and she also recognize the important work that states are doing to reform and improve teacher education. Secretary Duncan recently said, “It's a simple but obvious idea—colleges of education and district officials ought to know which teacher preparation programs are effective and which need fixing. Transparency, longitudinal data, and competition can be powerful tonics for programs stuck in the past.”

She gave one example of how data and transparency can change teacher education. Through research conducted in Tennessee, policymakers know that Vanderbilt produces some of the best teachers in the state overall. The research shows that that a Vanderbilt graduate who teaches mathematics is highly likely to be among the most effective teachers in the state in raising math achievement. Yet only 9 percent of English language arts teachers who graduate from Vanderbilt are among the most effective teachers in raising English language arts achievement.

This data clarified for Vanderbilt that it needed to strengthen its English language arts program. This type of evidence also can inform hiring decisions. The Department wants all states, all teacher preparation programs, and all hiring school districts to have that kind of powerful data. As an example, several states are now using their longitudinal data systems to track and compare the impact of new teachers from teacher preparation programs on student achievement over a period of years.

National Academies Study and IES Response

Last year, the National Research Council (NRC) published the report of the Committee on the Study of Teacher Preparation Programs called Preparing Teachers: Building Evidence for Sound Policy. The NRC asked the Department’s Institute of Education Sciences (IES) to respond and take the lead in conducting research to support the improvement of schools of education.

As a result, IES is conducting multiple research approaches to help identify and determine approaches to teacher preparation and accreditation that could lead to improved student outcomes. These overall approaches include:

1. Identifying teacher practices that improve student outcomes and should be taught during teacher preparation and considered during accreditation;
2. Evaluating teacher training and accreditation practices; and
3. Developing and testing research-based teacher training methods.

To develop and test teacher research-based training methods, IES is looking at developing and testing better teacher preparation methods and how best to transfer better practices to teachers. Within IES, the National Center for Education Evaluation (NCEE) plans to conduct “A Study of Promising Teacher Preparation Programs.” This study will look at teacher preparation programs with features thought to be promising such as significant clinical experiences with substantive feedback.
NCATE Panel

The work to improve the quality of teacher education is happening because of a coordinated national effort of leaders in the field. The Blue Ribbon Panel on Clinical Preparation and Partnerships for Improved Student Learning, convened by NCATE to improve student learning, is a promising example.

NCATE also called for linking student outcomes back to the teacher preparation programs where their teachers trained. And like Secretary Duncan, the NCATE panel recommended that school districts need to be much more aggressively involved in teacher preparation.

Partnerships between schools of education and districts are often neglected. But they are central to ensuring that programs are matched with the districts’ needs. NCATE called for higher education institutions to develop and implement alternative reward structures for faculty. Unfortunately, the compensation and tenure system at education schools does too little to value work in schools.

Chancellor Reed was recognized for his significant contributions to CSU and for his service to NCATE’s Blue Ribbon Panel. Under his leadership, California has become one of the first eight states to sign letters of intent to implement this new agenda and be a part of the eight-state alliance that will examine and implement comprehensive strategies to transform teacher education.

California State University

The California State University system is leading the way in the reform of teacher preparation programs. Its work is ensuring that students who go through its schools of education become teachers who understand both the theory and the practice of teaching. Its students will be the ones who will be able to effectively apply what they have learned when they come face-to-face with students from diverse backgrounds and various developmental levels who will fill their own classrooms once they graduate.

A key to CSU success is its tracking of students after they graduate. Students who complete CSU preparation programs participate in comprehensive online exit evaluations that pose questions about the quality of their teacher preparation, including subject-matter and pedagogy coursework and their field experiences, and campuses can add their own program-specific questions. Employers are asked to evaluate the candidates and provide feedback CSU uses to improve its programs.

CSU’s P-12 clinical partnerships aimed at preparing new teachers are closing achievement gaps that will yield valuable information about the relationships between teacher preparation and student achievement gains in schools. CSU’s partnerships with California’s community colleges will help students, especially from culturally diverse communities, gain new pathways to teaching.

Urban Teaching Fellows program, one of the excellent CSU programs, enables community college students to work in after-school programs while completing 2-year and then 4-year college degrees. The future teachers in the program contribute to closing achievement gaps among low-income children served in California’s large state-funded after-school programs and have significant early clinical experiences.

Closing Remarks

CSU was praised for holding the Summit, a major opportunity to explore and build on efforts that are underway to reform teacher preparation programs. Together, we can raise the bar to create better teacher preparation programs, spend our time sharing ideas, understanding innovative approaches, and preparing to use this information to challenge the status quo. Our students, schools, states, and country depend on it.
Panel: Models of Transformative Change in the Preparation of Teachers
Moderator: Beverly Young
Assistant Vice Chancellor, California State University

Dr. Young introduced the Panel and the four expert panelists, representing CSU campuses and two major national organizations—the National Council for Accreditation of Teacher Education (NCATE) and the American Association of Colleges of Teacher Education (AACTE).

Phyllis Fernlund
Dean, College of Communication and Education
California State University, Chico

The California State University, Chico federal Teacher Quality Partnership Grant includes two programs designed to prepare high quality teachers. One, the undergraduate program, is the Integrated Teacher Education Core (ITEC). It includes a liberal studies major, a minor in special education, and either a Multiple Subject or Education Specialist teaching credential. The second, the graduate and credential program is the Rural Teacher Residency (RTR). It leads to an M.A. in Education along with a Multiple Subject or Education Specialist teaching credential. ITEC is a cohort model for entering freshmen in which they participate in an inter-disciplinary Liberal Studies major having linked courses. In it, field work starts early and expands as student’s progress through their undergraduate education. In the students’ senior year, they engage in credential preparation and student teaching Mentoring, monitoring, and advising are provided all along the way. RTR is a one-year residency in which the candidate and the classroom teacher mentor are involved together in co-teaching in the classroom, collaborating for P-12 student success. Residents participate in field-based action research. There is substantial collaboration between the University and partner school districts in recruitment, preparation, and induction of new teachers. Achieving this type of excellence through teacher quality partnerships requires several ingredients. It entails building relationships, devoting time and resources to partnerships, involving faculty in multiple cultures, modeling teamwork, focusing on P-12 student learning, and inspiring students, teachers and faculty; and relying on teamwork. It is enhanced by a system of support that fosters student engagement, involvement of teachers in implementation and assessment, collaboration with colleagues, and specialist services for candidates. It is based on a fundamental view of renewal occurring simultaneously in universities and P-12 schools.

Marsha Levine
Senior Consultant
National Council for Accreditation of Teacher Education

Dr. Levine described the NCATE Blue Ribbon Panel on Clinical Preparation, Partnerships, and Improving Student Achievement. The Panel was commissioned as a response to some critical concerns: the persistent gap in student achievement; the gap between how teachers are prepared and what schools need; and the gap between what we know makes a difference in teacher effectiveness and what we actually do in preparing teachers. Three main design principles aimed at achieving transformation of teacher preparation underlie the Report. They emphasize: clinical training at the core – preparing teachers who have a deep knowledge base and who know how to use that knowledge in practice; focusing preparation on improving P-12 student learning – developing the knowledge and skills to know your students and their needs and to know how to move them from where they are to where they need to be; and grounding preparation in partnerships that bring together preparation programs and schools in ways that are mutually beneficial. The Panel made recommendations in five basic areas. These focused on: more rigorous accountability; strengthening candidate selection and placement; revamping curriculum, incentives, and staffing; supporting partnerships; and expanding the knowledge base. The Panel members represented the entities that need to be involved to bring about this transformation of teacher preparation:
(a) State higher education and P-12 leaders; (b) institutions of higher education, district leaders, and faculty; (c) teachers’ unions; (d) federal, state and local policymakers; (e) accrediting associations; (f) researchers; and (g) community leaders. They emphasized the need for commitment and engagement of all of these stakeholders in implementing these changes.

Models of Transformative Change in the Preparation of Teachers
Sharon P. Robinson, President and CEO
American Association of Colleges for Teacher Education

Dr. Robinson described five high impact practices in preparing new teachers: (1) first-year seminars; (2) learning communities; (3) service learning; (4) undergraduate research; and (5) capstone courses and projects. She also discussed five rules for advancing teacher quality in preparation programs.

- Rule 1 is that only the experts get the challenging assignments. Candidates in training are neither “Teachers of Record” nor “Highly Qualified.”
- Rule 2 is that all programs of educator preparation must provide rich and rigorous clinical development.
- Rule 3 is that all providers must document candidates’ essential skills through valid performance assessments.
- Rule 4 is that all providers must contribute to data systems that permit evaluation of program impact on student learning and productivity based on labor market demands.
- Rule 5 is that all programs must be accredited based on these rules and other standards deemed appropriate for the interests of students, beginning at Day One.

Dr. Michael Spagna, Dean
Michael D. Eisner College of Education
California State University, Northridge

Dean Spagna described the current state of teacher preparation in California. It is essential to stop the erosion of California’s teacher development system so every student benefits from quality teaching. Six dimensions of models of transformative change in teacher preparation were described: critical elements; structure and program components; implementation and results; notable strengths; solutions to challenges; and implications for teachers, students, and the greater community. Critical elements of teacher preparation programs include: (a) strong partnerships among colleges of education, school districts and communities; (b) progression through the program as part of a cohort; (c) apprenticeship alongside experienced and trained mentors; (d) high quality professional development with emphasis on tightly aligning educational theory and clinical practice; (e) student achievement data collected and monitored for continuous program improvement; and (f) effective supported induction. The CSU Northridge (CSUN) Teaching Residency Program in Special Education is its Accelerated Collaborative Teacher (ACT) Residency program. Its structure is a partnership with the CSUN College of Humanities, Local District 2 in Los Angeles Unified School District (LAUSD), and Parent Pioneers. Program Components include core courses, specialization courses, classes each semester that target appropriate specialization areas, and clinical experience. The MA has advanced coursework culminating in a graduate project that focuses on language and literacy. Implementation occurred in the first year in 12 LAUSD schools. The implementation features use of data to inform practice: also featured is development of a professional learning community. Strengths of the model include the residency experience, financial support, and integration of coursework and clinical practices. Other strengths of the approach include explicit emphasis on improving student achievement, a focus on language and literacy, a seamless transition into teaching through induction support, and development of exemplary practices that support the effectiveness of mentor teachers through the commitment of administrators to collaboration.
Transforming Teacher Education
Linda Darling-Hammond, Charles E. Ducommun Professor of Education
Stanford University

The debate on teacher education and teacher quality is characterized by beliefs such as these:
“There is little evidence that education school course work leads to improved student achievement…”
“Knowledge of pedagogy, degrees in education or amount of time spent practice teaching,” which are the requirements “that make up the bulk of current teacher certification regimes,” is surrounded by a “great deal of contention.”
“Virtually all” of the studies linking certification and improved student outcomes are “not scientifically rigorous.”
*The Secretary’s Report on Teacher Quality, 2002*

The need for more powerful teaching for student learning is clear, as are the documented effects of underprepared teachers on student achievement. Also well-documented are effects of preparation on reducing teacher attrition and the fact that teacher knowledge and skills matter to student achievement. Large-scale studies in North Carolina and New York found that student achievement gains were related to teachers’ preparation prior to entry, their licensing test scores, certification in the field taught, experience (more than 3 years), and National Board Certification (in North Carolina study). In combination, these predicted more of the difference in student learning gains than race and parent education combined. However, poor and minority children get the least qualified teachers.

How can we turn the current Race to the Bottom into a Race to the Top for teacher education?
What are high-achieving and steeply-improving nations doing? They are making substantial investments in initial teacher education focused on (a) teaching a wide range of learners, (b) learning to practice in practice, (c) learning to assess learning, (d) learning from and for research-based practices, and (e) supporting equitable salaries and placements for teachers.

What kind of preparation matters? The features of exemplary teacher education programs include:

- A tightly knit set of experiences based on a common, clear vision of good teaching;
- Well-defined standards of practice and performance;
- A rigorous core curriculum with emphasis on student learning, assessment, and content pedagogy;
- Use of problem-based teaching methods including cases, action research, and portfolios; and
- Extended clinical experience (30+ weeks) with expert veterans in partnership schools and linked to coursework.

Value-added gains of students whose teachers graduated from different teacher education programs in New York City identified program features influencing teacher effectiveness. These included: quality of student teaching experience; courses in content pedagogy; a focus on learning specific practices and applying them in clinical experience; study of local district curriculum; and a portfolio/capstone project tying theory to practice.

How might we ensure expert teachers for all students? The following are the necessary approaches: (a) recognize and emulate successful programs; (b) invest in teacher education based on features that matter for success; (c) build residencies and school partnerships; (d) underwrite high-quality teacher education for capable candidates in high-need contexts; (e) create meaningful licensing and accreditation standards that drive improvement; and (f) use performance-based assessments.
It is critical to develop content pedagogy and learner pedagogy among teacher candidates. This occurs through strengthening content-based pedagogical preparation; connecting curriculum and assessment to teacher education; and strengthening knowledge of learning and learning differences, language development, and culture and context.

Support for clinical training is also essential. As in medicine and other professions, teachers need to see and enact good practice while learning research and theory. High quality professional development schools and residency models provide support for future teacher learning from expert veterans alongside course work. They model state-of-the art education for students and teachers as well as providing opportunities for developing new curriculum, instructional practices, and knowledge.

It is important to leverage performance assessments of teaching. Teachers and programs learn from performance assessments featuring portfolios of practice – videos, lesson plans, student work, and commentary—showing how a prospective teacher:

- Plans a unit of instruction around standards for students and standards for teaching;
- Instructs, reflects, and revises in response to students’ learning;
- Assesses and analyzes student learning;
- Reflects on the success of practice and on how it can be improved; and
- Develops academic language among all students.

Teacher learning is enhanced through performance assessment of teaching. Candidates say such things as:

“I think for me the most valuable thing was the sequencing of the lessons, teaching the lesson, and evaluating what the kids were getting, what the kids weren’t getting, and having that be reflected in my next lesson...the ‘teach-assess-teach-assess-teach-assess’ process. And so you’re constantly changing – you may have a plan or a framework that you have together, but knowing that that’s flexible and that it has to be flexible, based on what the children learn that day.”

Teacher educators learn from performance assessment of teaching among candidates. Cooperating teachers reflect on practice through the process of performance assessment for candidates. Teacher education can be linked to induction through performance assessment of teaching.

Faculty learning and program improvement is also enhanced by performance assessment. Changes that are needed are facilitated, such as a more shared vision of teaching. Elements of this include increased articulation across courses, structures and roles; changes in course content; and structural changes to support coherence and connections.

How do we ensure expert teachers for all students? We need to do the following:

- Integrate theoretical and clinical learning for teaching challenging content in ways that address diverse pupil needs;
- Share knowledge about successful strategies;
- Fund high-quality teacher preparation models;
- Expand performance-based assessment that shows how students and teachers are learning; and
- Increase incentives to attract and retain talented, well-prepared teachers.

A goal for high-achieving 21st century nations, and hence our goal, is:

“Those who can, do. Those who understand, teach.”
Dr. Cibulka indicated how pleased he was to be at the Summit to discuss the redesign of educator preparation to meet the needs of 21st century learners, the nation and an educated citizenry. NCATE embarked on an audacious initiative to transformation educator preparation accreditation in 2009. It commissioned the Blue Ribbon Panel on Clinical Preparation and Partnerships for Improved Student Learning, which included three outstanding California leaders – CSU Chancellor Charles Reed, Long Beach Unified School Superintendent, Chris Steinhauser, and Monica Martinez, President of New Tech High Schools.

Dr. Cibulka observed that the Panel’s report likely will, in the future, be recognized as a watershed moment in the history of educator preparation in the United States. U.S. Secretary of Education Duncan said the report “marks the most sweeping recommendations for reforming the accreditation of teacher preparation programs in the more than century-long history of our nation's education schools.” Dr. Cibulka recognized the roles of California panel members in the report and congratulated the state for the immediate action to organize to meet the recommendations for clinically-based educator preparation.

He summarized what the Blue Ribbon Panel report has accomplished:

- The report provides a roadmap for redesign and transformation of educator preparation.
- It establishes 10 design principles for clinical preparation, creating a foundation for program redesign.
- The report presents a historic opportunity for the education community to co-construct a 21st century educator preparation system that is relevant to contemporary needs.
- It commits NCATE to immediate implementation of the Panel recommendations. To that end, NCATE has formed a three dimensional strategy, composed of local clinically-based teacher preparation sites, individual State Alliances under the aegis of a national NCATE Alliance for Clinical Teacher Preparation.
- California and seven other states have agreed to work with NCATE to develop robust clinically-based educator preparation programs and more are signaling intent to join.
- Leadership of individuals at the Summit at the state level who will be key to successful implementation of change in educator preparation nationwide.
- NCATE wants programs to ‘begin with the end in mind’ and therefore continually refers to the collective goals, originally set forth within the Blue Ribbon Panel report.

Goal 1 of the initiative is to foster collaborative partnerships among schools, districts, and teacher preparation programs.

Neither schools of education nor school districts can accomplish redesign of preparation programs alone. It will take people inside the education community and those who have a stake in a highly educated citizenry. NCATE has asked states to begin this work by:

- Conducting an environmental scan to assess the current state of clinical preparation;
- Identifying possible demonstration sites that have or will develop a strong partnership between preparation programs and school districts, with a particular focus on high-needs schools; and then
- Testing different delivery models for clinically based teacher preparation.
Goal 2 is to ask states to assess all aspects of performance on a continuing basis by:

- Collecting and analyzing multiple measures of formative and summative assessments;
- Linking performance assessments to state licensing requirements; and
- Expecting demonstration sites to establish and implement an accountability system based on performance.

Goal 3 is to identify and eliminate or address state and local institutional policies and practices that might impede innovation and offer incentives or establish policies to ensure teachers are prepared to meet school and district needs.

Goal 4 is the creation of a “scale-up” plan to expand from a limited number of clinical teacher preparation partnerships to state-wide systems of partnerships as a means for improving student learning – especially in high-needs schools.

California and the California State University System in particular are clearly leaders advancing clinically-based teacher preparation programs. NCATE looks forward to continuing on this redesign journey with the state and its leaders within the CSU and other institutions, and congratulates them on their leadership in “turning teacher education upside down.”
University/P-12 Collaboration for Effective Teacher Preparation

Christopher Steinhauser, Superintendent
Long Beach Unified School District

Marquita Grenot-Scheyer, Dean, College of Education
California State University, Long Beach

The Long Beach Education Partnership was launched in 1994 as a collaboration of education, political, business and community leaders to address economic, social and educational difficulties in Long Beach. It was characterized by alignment of academic content standards, instruction, and assessment across all education segments. It featured coherent exit and entry expectations among all institutions and are-thinking of preparation and professional development by each of the segments.

The factors that have been responsible for the success of the collaboration include a shared commitment to students in grades PK-18, mutual respect, on-going opportunities for collaboration, positive community expectations, the culture of the “Long Beach Way,” and a commitment to continuous improvement.

Examples of Long Beach Education Partnership on-going initiatives include the Integrated Teacher Education Program (ITEP), Urban Teaching Academy (UTA), Ed.D in Educational Leadership, Long Beach College Promise, Linked Learning, and the Early Assessment Program (EAP).

Another initiative, the Long Beach Scholars program is designed to assist students in understanding that they are living for their future. It promotes a school-wide culture of higher expectations with support for academic and social development. As part of the initiative all 4th graders visit Long Beach City College and all 5th graders visit California State University, Long Beach (CSULB).

The Long Beach College Promise provides a tuition free semester at Long Beach City College. It includes guaranteed college admission to CSULB for students who complete minimum college preparatory or transfer requirements. It also provides early and continued outreach to students and parents beginning in the sixth grade and continuing through college. It is designed to be supportive of the various pathways to higher education that students may choose to take.

Linked Learning is the engine of high school reform in the Long Beach Educational Partnership. Students have choices among several different multi-year programs of study, which combine academic and technical skills organized around broad industry themes (i.e., biomedical sciences; engineering; arts, media, and entertainment) that prepare students for a full range of post-secondary options. These include 2- and 4-year college/university admission, apprenticeships, military preparation, formal employment training, and multiple career paths.

The percentage of Long Beach Unified graduates enrolled in college illustrates the success of the approach. The percentage of graduates has increased over the past four years and is above the state average. Half of the graduates pursuing higher education attend Long Beach City College or CSULB.

The CSU Early Assessment Program (EAP) English and mathematics college readiness scores also show the effectiveness of the Long Beach Partnership, with the numbers of students scoring at levels that exempt them from English and math placement tests increasing dramatically over the past seven years.
Clinical Teacher Preparation: Teacher Quality Partnerships

Mary Falvey, Dean, Charter College of Education
CSU Los Angeles

Peggi Zelinko, Program Director, Office of Innovation and Improvement
U.S. Department of Education

Dr. Zelinko began with a discussion of the federal Teacher Quality Partnership grants, noting that of the 40 total, seven or 17.5% of these are in California with five of the seven awarded to the CSU. TQP grants support 19 Residency programs, 12 Pre-Baccalaureate programs, and nine programs offering both.

The statute guiding the Teacher Quality Partnership program was one of the most specific enacted. Based on a medical model of clinical preparation and similar to the themes of the Summit, the statute included the following:

1. Partnerships with high need schools and with the arts and sciences;
2. Enriched clinical experiences that are year-long;
3. Preparation in sites where placement is likely to occur; and
4. Follow-up through induction with mentoring, cohorts, and collaborative experiences.

Dr. Zelinko reported that the first round of awardees are 1½ years into their programs and that more specific information about these will be forthcoming in Annual Performance Reports. Of particular interest to the Office of Innovation and Improvement are issues related to the selection of sites and the measures used to determine site effectiveness, the placement of cohorts in schools, the selection and training of mentors and the impact of programs on other new teachers at selected school sites. The Office is working to determine how to collect data on what is working. Residency programs are participating in a national evaluation conducted by Mathematica.

Dr. Falvey reported on the Residency Program at CSU, Los Angeles and acknowledged the other TQP grantees in the CSU system, CSU Dominguez Hills, CSU Northridge, CSU Chico, and the consortium that includes CSU Bakersfield, CSU Monterey Bay, and Cal Poly San Luis Obispo.

The CSULA program is a Residency in Science and Math. In order to achieve the purposes of the Residency the existing CSULA teacher preparation curriculum was completely reorganized with Residents placed in sites Monday through Thursday from the first, to the last day of school. The 20 Residents, who are placed in LAUSD and the charter school at CSULA, have completed 2/3 of their first year. They will engage in action research and earn their MA degree at the end of next summer.

Dr. Zelinko noted that the expectations for the residencies are clearer than for the pre-baccalaureate programs, where the requirement is to reform all teacher preparation programs. This is a challenging undertaking, and the Office is interested in learning about how this is occurring, and what it “looks like.”

Discussion

One attendee asked what other differences there were between a traditional student teaching experience and the experience of the Resident in the CSULA model.

Dr. Falvey responded that the Residency is more of a co-teaching approach with the Resident working with small groups (7-8 students) at first and then assuming more responsibility for co-planning and co-teaching with the mentor teacher. And while it differs across mentors, there is not the “rush” as there is in student teaching for the candidate to acquire and demonstrate skills. Building on the partnership with
LAUSD, Residents’ unit and lesson plans are reviewed by the mentor teacher and an IHE representative. Dr. Falvey also described the rigorous selection process that CSULA Residents participated in, which included delivering a lesson rated by students at the CSULA Charter School. Of the 65 who applied, the 20 selected had especially high potential for success in the classroom. In addition to potential, the importance of the Residents reflecting the diversity of the campus and of the local region in which they will work was considered.

The CSULA cohort is spread out across LAUSD schools, with five Residents being the highest number at any one site. Efforts are made to select the very best mentor teachers at the “professional development” schools or sites where the candidates are clustered. The model reflects the expectation for all TQP programs of providing ongoing professional development for mentor teachers.

* A question about CSULA community partners led into a more expanded discussion of TQP partnerships. *

The District partner for the TQP grants in the Los Angeles area is LAUSD. The fiscal agent for each of these is the respective IHE (UCLA, CSULA, CSUDH, and CSUN). Representatives from the TQP grants and the campuses housing these and other regional IHEs meet six times a year with LAUSD. Portions of these meetings are dedicated to discussion of the TQP grants. In addition, both CSULA and CSUN have hired liaisons from the District to work full-time with them.

CSULA has three community-based partners in the project who offer services to low-income families and provide the perspective of families and the roles parents play in the education of their children. The community-based partners serve as guest lecturers in classes, participate in parent panels, and provide the community and cultural context for the work at CSULA.

* A concern expressed about sustainability of programs led to a discussion of this issue. *

In looking to scale-up TQP efforts, ways to institutionalize expensive preparation programs, continue training mentor teachers, and engage in collaborative activities were expressed as a collective challenge.

The CSULA President spoke to the importance of involving leadership at every level of the university to ensure success of TQP programs. He emphasized clarity of commitment by administrators, the need for TQP grants to be a high priority at IHEs, and the willingness of IHEs to use their resources flexibly.

Dr. Zelinko noted the need for partners to work together and with the Office on the 100% supplement not supplant match requirement.

She suggested that projects focus on systemic change and not engage in conducting a number of activities that do not necessarily “move the agenda forward” of focusing on outcomes and preparing highly competent graduates who are effective in the classroom. In looking to new reauthorizations, new types of programs that do move this agenda will be identified, supported and encouraged.

Dr. Falvey offered that contributing to sustainability is the ability of programs to address teacher turnover. Preparing candidates who are committed over the long term and retained in positions is critical.
Preparation of STEM Teachers Across Grade Levels

Vikki Costa, Director of Science Education
California State University, Fullerton

Dr. Costa presented the CSU Fullerton Roadmap of STEM Teacher Recruitment and Preparation. It can be understood as a Road to Recruiting and Preparing STEM Teachers with five key features: it (1) emphasizes information, (2) provides inspiration, (3) is oriented toward inquiry, (4) gets candidates involved, and (5) partners for innovation.

In providing information, the focus is on informing future STEM teachers of opportunities and options. This is done through multiple means, times, and forms. Key elements include promoting STEM teaching as a profession and publicizing STEM teaching credential pathways. Comprehensive information and advisement on undergraduate and credential program pathways are included, as well as strong transfer student support and advisement.

In providing inspiration, the focus is placed on being a “pied piper” for STEM teaching. Objectives include developing future STEM teacher confidence, commitment, and capacity. This feature strengthens STEM training within the credential program. It positively represents STEM teaching careers. Ways in which future STEM teacher inspiration is fostered include scholarships and fellowships, internships, support for conference attendance, modeling of effective instruction, mentoring, and a range of instructional resources, including, for example, inquiry oriented science teaching kits.

In promoting inquiry, emphasis is placed on engaging future STEM teachers in scientific research, engineering design processes, and problem solving. Attention is given to developing future STEM teacher disciplinary knowledge and skills. There is a focus on inquiry activities within credential program courses. Opportunities for candidates include the Science Teacher and Researcher (STAR) program, the NASA Pre-service Science Teacher Institute, academic minors in natural sciences and mathematics with special courses for future teachers, and opportunities to learn science content within multiple and single subject program methods courses (e.g., through digital interactive tools and notebooks).

In order to achieve future STEM teacher involvement, early field experiences include formal and informal STEM education. Candidates become “hooked” on teaching as they are involved in the exciting discovery moments when a child learns STEM content. Early field experiences include introduction to teaching courses with 40 hours of classroom observations, internships with 90-hours of participation in informal science education programs, and student clubs, such as the Student California Science Teacher Association, as well as tutoring and teaching assistantships. These are linked to multiple pathways to STEM credentials, including Foundational Level Mathematics and Foundational Level General Science credentials.

A key feature of the CSU Fullerton program is partnering for innovation. The goal is to prepare 22nd century STEM teachers who are innovators and change agents in their schools. Future teachers develop state-of-the-art skills in digital tools and resources. The program promotes 21st Century Knowledge and Skills. Business, industry, and community partners include Intel Education, NASA, the Discovery Science Center, the Ocean Institute, Santa Ana Zoo, Project Tomorrow, and the Irvine Great Park. Innovative curricula include the Lawrence Hall of Science/Delta Education Seeds of Science/Roots of Reading and the JASON Project. A broad range of campus partners within the College of Natural Science and Mathematics support STEM majors as does as the Center for Careers in Teaching, the Secondary Teacher Education Program District Partnerships, and the Catalyst Research Center.
Preparation of STEM Teachers Across Grade Levels

Dr. Michael Leung, Dean, College of Science
California State University East Bay

The CSU East Bay strategy for preparation of STEM teachers across grade levels focuses on new approaches building upon new realizations and understandings. New dimensions add breadth, depth, partners, and technology. New breadth is seen in the comprehensive approaches taken. They include elementary, middle and high schools, community colleges, undergraduate education, and post-baccalaureate preparation. Specialized programs, such as Foundational Level Math and General Science Credentials for teachers in grades K-8, transfer patterns for community college students, and NSF Noyce Scholarships for undergraduates and Master’s Degree teacher credential candidates, are in place at each point of the preparation continuum.

New depth in preparing STEM teachers is found in the attention given to the trinity of learning: content knowledge, student engagement. It emphasizes equipping teachers with improved content knowledge, ready to engage students in learning. It recognizes that students must assume responsibility for learning, making use of learning opportunities to gain skills and succeeding in learning despite challenges. It reflects the role of parents in building stable family education connections and providing role models and guidance.

New partners result from connecting STEM practitioners with educators. Mutual understanding of issues develops on both sides. Involvement of industry partners goes beyond just fiscal support and includes partnerships in curriculum development and at the classroom levels.

New technologies are used to eliminate distance as a barrier to learning. Online technologies provide easy access to knowledge and learning and reflect a shifting of emphasis from accumulation of knowledge to utilization of knowledge in project-based problem solving as well as self-guided learning.

The strategic approach at CSU East Bay has emphasized strengthening and extending of the STEM education pipeline and stoppage of leakages from the STEM careers and teaching pipeline. This occurs through bonding of essential components and strategic planning based on an understanding of the whole.

Foundational Science Certificates have been one area of focus. The campus has, for example, developed a model for the preparation and professional development of elementary and middle school teachers in California to strengthen science instruction and application of STEM principles. To prepare teachers for the Foundational Level General Science (FLGS) Credential, courses have been developed in content knowledge and methods – building skills of teachers to increase science teaching effectiveness, confidence, and instructional time. Involvement of STEM practitioners has led to the development of project-based problem solving with an emphasis on learning and relating of mathematics and science to real-life applications in engineering and technology. The approach includes preparation of candidates for CSET I and II exams so that they can earn the FLGS Credential. The program partners with Foundational Level Mathematics credential opportunities to facilitate coordinated mathematics and science enhancement.

The community college transfer project for future STEM teachers is another major initiative of the campus. Its goal is to increase the number of students seeking science and math single subject teaching credentials by strengthening the pipeline with community colleges and building better coordination with community colleges in recruitment and advisement, including joint efforts to reach out to high school students. The project includes articulation, advising, faculty dialogues, and student affiliate programs in which CSU East Bay and community college students are paid as tutors in local high schools.
In an October 2009 press release, United States Secretary of Education, Arne Duncan said: “Today, people can't wait. They are fed up with schools that don't work. They see pockets of success and ask why it doesn't exist everywhere. And there is no reason that it can't.” He also restated President Obama’s belief that “we can't rebuild our economy on the same pile of sand. Similarly, we can't rebuild public education on the same old system of rules and regulations. We have to change the rules, eliminate the excuses and hold ourselves accountable.” NCATE couldn’t agree more.

Secretary Duncan challenged America’s university-based teacher preparation programs to make a “revolutionary change – not evolutionary tinkering.” NCATE heard the Secretary loud and clear and took action. As discussed earlier, NCATE organized a Blue Ribbon Panel of distinguished educators to create recommendations that would turn teacher education upside down through a robust clinically-based approach to teacher preparation.

The ten Guiding Principles for clinically-based teacher preparation are fairly straightforward and to many in this room, obvious. The challenge will be to get others to embrace and implement their true meaning:

1. Student learning is the focus.

2. Clinical preparation is integrated throughout every facet of teacher education in a dynamic way.

3. A candidate’s progress and the elements of a preparation program are continuously judged on the basis of data.

4. Programs prepare teachers who are expert in content and how to teach it and are also innovators, collaborators and problem solvers.

5. Candidates learn in an interactive professional community.

6. Clinical educators and coaches are rigorously selected and prepared. They are drawn from both higher education and P-12.

7. Specific sites are designated and funded to support embedded clinical preparation.

8. Technology applications foster high-impact preparation.


10. Strategic partnerships are imperative for powerful clinical preparation.
The National NCATE Alliance: Shari Francis

To meet the needs of America’s students, especially those in low performing schools, public policy makers and the education community must take collective ownership for recruiting, preparing, and supporting a critical mass of new professional practitioners.

Eight states have agreed to be the founding NCATE Alliance States. Originally the NCATE State Alliance was billed as two dimensional, composed of individual “State Alliances for Clinical Teacher Preparation” that are connected to each other through the NCATE National Alliance for Clinical Teacher Preparation. However, as NCATE thinking reflected on the Alliances, something very important was missing—a Site-based Alliance at the local school or district level, and this has been added.

Organizing a State Alliance

NCATE understands that states have different approaches to creating clinically based teacher preparation programs and improving student learning in high needs schools. Partnerships for clinical preparation of teachers do not need to be “one size fits all.” The first task of the State Alliance is to establish an initial “Development Team.” Key questions must be addressed early on. Who will be among the organizational leaders to “sit at the table?” How will the “table” be expanded to include all stakeholders and leaders -- within or outside the education community?

Each State Alliance should organize its work around several strands. One is a state environmental scan of the current state of the art of clinically-based teacher education and partnerships with school districts to identify opportunities, challenges, and support for the work of the State Alliance. A second is an action plan supported and maintained by all members of the State Alliance. A third is a timeline for achieving various State Alliance tasks, led by a core of Alliance leaders. A fourth is an on-going evaluation and revision of the plan’s tasks and goals. A fifth is an internal communications system for keeping members of the State Alliance informed of the progress, set-backs, and revisions to the work of the Alliance.

Also needed is an external communications plan that is aligned with the work of the State Alliance tasks and strategically “rolled-out” to keep the message on-going and salient among the education community, state policy makers, the media, and community and business opinion leaders. This includes simple, but direct “messages” used in all forms of communications—speeches by Alliance leaders, social networking posts, written documents, “third party” testimony, etc. It is important to identify “Hard and soft” funding sources (i.e., real money as well as in-kind support by affiliated organizations with a stake in clinically-based teacher education). Additionally, an evaluation and data gathering process needs to be initiated at the very beginning of the State Alliance work and coordinated with other states included in the NCATE National Alliance.

The California Alliance: Beverly Young

NCATE’s designating California to be among the first eight states that will implement the recommendations of the Blue Ribbon Panel on Clinical Preparation and Partnerships for Improved Student Learning is exceptionally important, appropriate, and timely.

The California Alliance is to be led by CSU Chancellor Reed and Long Beach Unified School District Superintendent Chris Steinhauser—two leaders who are recognized for their remarkable track-records of achievement. The foundations for significant outcomes are fundamentally established through their leadership of the Alliance.
As a demonstration state, we will build on the long history of teacher education excellence as we advance the three areas of the Alliance’s goals:

1) **Collaborative partnerships among schools, districts, and teacher preparation providers:** The signature feature of CSU teacher education is the underpinning in deep P-12/university clinical partnerships. These are aimed at preparing new teachers to advance success among all students and to close achievement gaps, and this will be a primary focus of our partnerships. As a result of these strong features, one-third (seven) CSU campuses have recently received funding through the pioneering federal Teacher Quality Partnership program. They will be among our Alliance models; several include highly innovative residency designs.

2) **Continuing assessment of performance:** Significant attention in our teacher education programs is given to preparing new teachers to use data to analyze student needs and modify their teaching practice. This will be another signature of our clinical preparation partnerships, as will be formative and summative assessment of our own programs. In formative assessment, we will build on the important work of our campuses and others in the state in Teacher Performance Assessment. In summative assessment, we will build on the *CSU Annual System wide Evaluation of Teacher Preparation*, which leads the nation in its designs for surveying graduates and their principals and value-added measurement.

3) **Strong state policies to prepare teachers who meet school needs:** Preparing the numbers and types of teachers who are trained so that school and district needs are met will continue to be a fundamental systemwide focus. It is currently illustrated in our Math and Science Teacher Initiative, which has been instrumental in enabling California’s schools to address unmet needs for fully qualified STEM teachers, and in our attention to addressing the needs of at-risk students. As a policy initiative designed to meet needs across the state, our leadership will be aimed at eliminating structural obstacles to innovations responsive to schools’ needs and scaling to a statewide level the lessons from effective demonstration sites.

In summary, the California Alliance will be centered on achieving major advances in the three central areas of NCATE’s national effort: (1) clinical partnerships, (2) formative and summative assessment, and (3) systemic reforms that meet school and district needs.

**Discussion Questions:**

1) What are key attributes that have made the P-12/university collaborations in which you have participated especially successful, and how might these best be expanded?

2) In formative and summative assessments associated with teacher preparation, what are some of the most promising strategies with which you have been involved, and how might they be shared with and replicated by others?

3) In designing and targeting teacher preparation to meet school and district needs, what have been your especially successful approaches, and what are some of the critical ingredients for large-scale statewide utilization of them?
Promoting Literacy from Early Development Through College Proficiency

Hallie Yopp Slowik and Nancy Brynelson
CSU Center for the Advancement of Reading, California State University

The CSU Center for the Advancement of Reading, dedicated to excellence in literacy instruction, promotes the preparation of effective teachers and reading specialists in the California State University. It facilitates faculty communication and research; disseminates research and policy information; fosters connections among the CSU literacy faculty, P-12 partners, and public education stakeholders; and serves as a forum for the interchange of public and academic interests. The Center is committed to ensuring that California's children and adolescents will be capable readers and writers in order to ensure they have the greatest chance of becoming successful and productive citizens in today's changing world.

The Center has hosted the CSU Reading Conferences annually, providing current knowledge to faculty and P-12 partners. It has focused on such critical topics as literacy for all learners, literacy leadership, the science of reading, differentiating instruction to meet diverse student needs, perspectives on policy, research, and practice, closing the literacy achievement gap in grades P-12, preparing teachers to teach reading comprehension, preparing teachers to teach older readers and writers, and preparing teachers to teach reading effectively.

It has hosted Inter-segmental Faculty Forums on such key topics as:

- Reading and Writing in California Schools: Public Policy and Practice;
- Teaching Teachers to Teach Reading and Writing;
- Teacher Preparation and Development in Literacy: Research and Best Practice for ALL Students, Including a Focus on English Learners;
- Adolescent Literacy: Implications for Teacher Education, with a Focus on English Learners; and
- Language Minority Children and Youth: Preliminary Findings from the National Literacy Panel.

The Center has played a key role in the CSU system’s response to results from the systemwide Annual Evaluation of Teacher Preparation. When these evaluations demonstrated the need to enhance secondary candidate preparedness in reading, CSU faculty experts from 12 campuses were convened. They identified six core principles to increase coherence in preparing teachers to teach reading across the system. These focused on reading processes, comprehension and content learning, adolescent literacy, assessment, differentiation, planning, and integration. Faculty resources were created to enhance teaching of Single Subject reading courses, and content relevant literacy resources were created for Single Subject methods courses in English, mathematics, history-social science, and science.

Another CSU priority in which the Center has played a major role is the Early Assessment Program. This has occurred through its significant work with CSU English faculty and high school teachers in developing the Expository Reading and Writing Course (ERWC). This nationally recognized course engages high school students in the study of rhetoric and composition. It enables them to read and write academic prose effectively. It strategically increases students’ mastery of academic language, emphasizes in-depth study of expository, analytical, and argumentative writing, and deepens students’ critical reading, writing, and thinking skills. The key principles and approaches of the ERWC, which have been evaluated and demonstrated to be effective in advancing high school students’ English achievement, have now been integrated into teacher preparation across the CSU system. New teachers learn how to integrate interactive reading and writing processes, take a rhetorical approach to text that fosters critical thinking, and engage student interest and foster successful practices of fluent readers and writers.
Connecting Teacher and Administrator Preparation with After-School Learning

Carolyn Nelson, Dean, College of Education and Allied Studies
California State University, East Bay

After-school learning is a promising strategy for expanding clinical models in teacher and administrator preparation. Benefits to credential programs include substantial early and frequent field experiences in informal and out-of-classroom settings, and creating an enriched clinical model for teacher preparation programs. Additional benefits include greater opportunity for increasing diversity in teaching because the pipeline for recruitment can begin at community colleges and continues through five years of preparation.

Benefits of after-school learning for K-12 students are substantial. Studies show that students involved in high-quality after school programs have: fewer absences and less tardiness; better grades; higher rates of homework completion; greater sense of the relevance of curriculum; enhanced problem-solving and conflict management skills; increased opportunities for project-based, “hands-on” learning in informal settings; and a range of adults with whom they can develop mentor relationships.

Notable benefits of after-school programs also include inquiry-based learning opportunities. A growing body of evidence shows the after school approaches to learning—e.g., engaging, project-based activities linked to the school day, but not mirroring it—not only enhance school success, but contribute to development of career relevant skills such as team work, problem-solving skills, and critical thinking. Regular participation in high-quality after school programs has been linked to gains on standardized tests.

Expanded learning time offers alternative opportunities for “at-risk” students to develop attachments to school through activities such as sports, arts, drama, and use of technology. It provides opportunities to offer enrichment activities including visual and performing arts. It also provides alternative ways to engage parents and community-based organizations to work with students. In addition, it offers teachers and administrators additional settings and contexts to address the needs of the “whole” child.

Key program features that promote positive outcomes for students include:

- Strong commitment from site administrators to make high-quality after school programming part of the overall instructional program at their schools;
- Collaborative partnerships between regular-day and after-school staff so that extended-day learning used for remediation and enrichment are aligned with the regular-day school;
- Partnerships with programs in other places where learning occurs (e.g., community institutions, civic groups, museums etc.);
- Clearly defined and well-communicated operational policies and procedures; and
- Clearly defined outcomes that build on and complement the regular school day curricula.

CSU East Bay has developed an after-school teacher pathway focusing on preparation of K-8 STEM teachers. Research findings regarding after-school programs that enhance STEM learning demonstrate the effectiveness of intentional lessons and activities that extend over a period of days or weeks and are well aligned with the school day and taught by staff or volunteers given particular preparation in STEM learning. Also effective are engaging, hands-on experiences that enable students to apply, reinforce, and extend skills and concepts taught in the school-day curriculum. Problem-based activities engage students in the design, construction, investigation, sense-making, and communication of science, technology, and engineering projects: They foster communication, problem-solving, and teamwork—critical skills for success in the STEM fields. Incorporation of community resources such as museums, gardens, science centers, parks, and libraries further enhance the after-school STEM curriculum.
Preparing Teachers to Help Close Achievement Gaps Across All Student Populations

Ric Hovda, Dean College of Education
San Diego State University

Joe Johnson, Executive Director, National Center for Urban School Transformation
San Diego State University

The National Center for Urban School Transformation (NCUST) identifies, celebrates, and studies the best practices of America’s highest achieving urban schools in a manner that supports urban districts in transforming teaching and learning. At the same time, the findings are helping SDSU’s College of Education improve educator preparation programs. The Center focuses on non-selective, urban schools serving primarily students from low-income families. These schools consistently show high proficiency rates for all groups, high graduation rates for all groups, high rates of access to challenging programs for all groups, no disproportionate enrollments of racial/ethnic groups in special education, low rates of suspension and expulsion for all groups, and other indicators of student success and achievement.

The Center engages SDSU doctoral students, College of Education faculty, and local school district partners in visiting these schools, collecting, and analyzing quantitative data from surveys, observations, student achievement, and demographic sources; and qualitative data from interviews (individual and focus groups), observations, field notes, and classroom, school, and district artifacts. Findings have already influenced changes in the SDSU administrator certification program field work. (See Perez et al., Educational Administration Quarterly, 2011.)

Best Practices identified in high performing schools include creating a system characterized by high expectations for all students, teacher dispositions associated with effective instruction, teaching that recognizes the collaborative nature of education, effective differentiation of instruction, efficient use of data to monitor and adjust instruction, culturally and linguistically contextualized pedagogy, and deep knowledge and understanding of content and standards.

The instructional practices in high-performing urban schools reflect a central understanding that excellent teaching is focused on generating mastery. In excellent lessons, educators create clarity about what students are expected to learn. They minimize transitions, wait time, and time off task. They focus persistently on the objective to be mastered and on generating substantial depth of understanding—i.e., higher order thinking.

Excellent teaching in these schools is focused on acquiring evidence that all students understand. In excellent lessons, educators: engage all students in demonstrating their levels of understanding throughout lessons; attend carefully to evidence of student understanding continuously; adapt instruction when student mastery is not evidenced; and conclude by checking student understanding. Excellent teaching introduces content clearly, concisely, and logically. It introduces content in ways that connect with students. It integrates academic vocabulary into spoken vocabulary. Additionally, it helps students practice new skills with high levels of success. It leads students to believe their academic success is valued. Excellent teaching leads students to love learning and want to learn more.

Implications for colleges of education relate to ensuring that the practices that effective teachers use to close achievement gaps are emphasized in teacher preparation programs, are mastered by teacher candidates prior to exiting programs, and continue to be demonstrated in their teaching positions; are emphasized in administrator preparation programs so that administrative credential candidates know how to support teachers in developing these practices in their leadership positions.
Use of Data to Evaluate Teacher Education and Improve Programs

Dr. Paul Beare, Dean, Kremen School of Education and Human Development
California State University, Fresno

Dr. David Wright, Director, CSU Center for Teacher Quality
California State University Chancellor’s Office

Sometimes the correct path to take in teacher preparation is a little hazy. Useful data is something that can help clear the fog. Why do people use “invalid” bases to judge quality? The answer is simple—few Universities have provided clear evidence of quality teacher preparation.

In teacher preparation, we must use data to improve teacher preparation and produce better prepared teachers. We must also share data across campuses and with external partners. We must, in addition, use data to inform practice.

CSU Fresno uses a Partner School/Cohort Model in its multiple subject credential program. Analyses were performed analyzing data for candidates in the cohort-based partner school model with those in a non-cohort campus-based design and in Intern programs. Data were analyzed for the three groups of teacher credential graduates, comparing employment supervisor and graduate ratings for all 26 composite areas rated in the CSU Annual Systemwide Evaluation of Teacher Preparation. On 25 out of 26 composite scores, the Partner School graduates rated their preparation significantly higher than the non-cohort graduates, and on 15 out of 26 variables, better than the Intern program graduates.

An area that the annual evaluation has identified as warranting particular attention across the CSU system is working with English Learners. Accordingly, a number of special faculty development activities were implemented at CSU Fresno. Similarly, preparation to teach learners with special needs has been shown to warrant attention across the CSU system and has been addressed.

In a model focused on using data to inform practice, Deans of Education decided to share data across institutions. Thereafter, a systemwide video conference was held. Four successful campuses were invited to share the strategies they have used to improve teacher candidates’ preparation in working with learners who have special needs. CSU Deans of Education are now planning video conferences on preparing candidates to work with English Learners and teaching reading in the content areas.

Challenges in using data to inform practice include convincing faculty that the data are valid, determining factors that may affect employers’ or graduates’ ratings, and searching for ways to improve teacher preparation. Variables that might affect employment supervisors’ evaluations include the number of courses/units in the preparation program, the size and number of candidates in the preparation program, and challenges associated with students being taught (e.g., poverty, English Language status,) low achievement level of students in the school, and the presence of high level of less prepared teachers in schools. However, systemwide analyses show that ratings are not related to these schoolwide or preparation factors, and factors that do affect them are under study.

In conclusion, valid and reliable data are available to help us judge the efficacy of the strategies we use to prepare teachers. These data are helping to create a professional learning community among the campuses in the CSU system. Next steps will include (a) examining the relationship between teacher candidate performance assessment results and employment supervisor evaluation of graduates and (b) examining relationship between supervisor evaluations and value added achievement measures.
Teacher Performance Assessment: Improving Candidate and Program Quality

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California’s significant legislation establishing new multiple and single credential program standards mandated a Teacher Performance Assessment for all graduates of teacher education programs. Three models emerged:

- **CalTPA** developed by the Educational Testing Service for the California Commission on Teacher Credentialing;
- **Performance Assessment for California Teachers (PACT)** developed by a consortium of university lead by Stanford; and
- **The Fresno Assessment of Student Teachers (FAST)** developed by CSU Fresno University.

Common characteristics of the three approaches for teacher performance assessment include: (a) a series of formative and summative pedagogical tasks that measure the Teacher Performance Expectancies (TPEs) – teaching standards established by the Commission; (b) video sample of teaching with K-12 students; (c) inclusion of candidate work samples; (d) candidate reflection on teaching and learning; (e) task scoring rubrics; (f) assessor training and calibration standards; and (g) established passing score standards.

The **CalTPA** centers around four interrelated tasks that increase in complexity: Task 1—Subject-Specific Pedagogy; Task 2—Designing Learning; Task 3—Assessing Learning; and Task 4—culminating Teaching Experience with a 20 minute unedited video of classroom teaching. The CalTPA is characterized by a holistic scoring rubric, and assessors’ scores calibrated on each task.

The **PACT** assessment includes a Capstone Teaching Event that demonstrates a candidate’s planning, instructing, assessing, reflecting, and use of academic language within teaching. It includes additional assessments that are embedded in local preparation programs. These include curriculum and teaching analyses, child case studies, and analyses of student learning. Observation, supervisory evaluation and feedback occur throughout the process.

The Fresno Assessment of Student Teachers (FAST) is approved for use at this time just by CSU Fresno. The FAST system evaluates candidates based on four tasks. The Comprehensive Lesson Plan Project and Site Visitation Project are completed during candidates’ initial student teaching placements. The Teaching Sample Project and Holistic Proficiency Project are completed during final student teaching or internship.

Case studies of Teacher Performance Assessment at San Jose State and in CalStateTEACH are examples of the data being used for formative and summative evaluation of program effectiveness. Programs have modified curriculum to embed TPA tasks, substituted TPA tasks for other assessments, and used results for deep and continuing faculty professional development.

Transformative practices can result from teacher performance assessment. This occurs when inquiry rather than compliance drives implementation, when data are used to identify gaps in curriculum, when increased expectations develop related to K-8 student learning as a result of candidates’ focused reflection, analytic writing, and data use, and when changes occur as a result of the existence and utilization of a robust data warehouse.

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Transforming Teacher Preparation through Academic and Career Technical Education Partnerships: A Linked Learning Lens

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Most high schools today look very much like high schools that were created in the 19th Century. Most are still using a familiar old model. There is little connection between students’ courses and their future plans. Seat time measures what students have done in high school. Some schools are transforming the teaching and learning experience. A new model speaks to today’s students and their changing world and is known as Linked Learning. Three out of four of today’s students say they could be doing better in school if they were motivated to work harder. Nine out of 10 believe connecting classes to their future and real-world careers would inspire them to work hard and do well in school. And nine out of 10 say they would like to take courses for college and have the opportunity to acquire skills and knowledge relevant to future careers. By connecting academics and career technical education, Linked Learning pathways do just that. They expose students to a broad industry sector of the economy; provide comprehensive programs of both academic and technical study; and offer a thematic, practical focus that inspires students to achieve.

The Linked Learning pathways prepare students for both college and career; lead to the full range of postsecondary options; connect academics to real-world applications; and improve student achievement. The academic core components consist of an academic core fulfilling postsecondary admissions requirements of UC, CSU, and community colleges. The technical core reflects a shift from narrow occupationally specific preparation to career clusters. These clusters meet Career Technical Education (CTE) standards and industry standards and provide certification. They consist of a sequence of four or more courses and infuse and reinforce academic content and standards. Examples include engineering and robotics; health science, sports medicine; animation and graphic design; advanced manufacturing; and agriculture and renewable resources. Other features include work-based learning, student support services, college and career guidance and counseling, and transportation to and from work-based learning. Additionally, all programs include supplemental instruction for students below grade level. Many models already exist, including more than 550 California Partnership Academies; 300 career pathway programs; themed magnet schools, charter schools, and small schools; and other programs, such as early college programs, High Tech Highs, Big Picture Schools, and New Tech High Schools.

Currently, nine California districts have been funded by the James Irvine Foundation to receive support to transform their high schools into Linked Learning pathway programs. Compared with their peers, students in Linked Learning pathways are more likely to display lower absenteeism; complete high school; pass the California High School Exit Exam at higher rates; score proficient or higher on California Standardized Tests in English, science, and social studies; and earn more annually in the five years after high school graduation. Linked learning pathways require teachers who have the skills and willingness to integrate Career Technical Education and work-based learning with academic content and the willingness and ability to collaborate on teams for curriculum design and delivery. These teachers understand problem- and project-based learning and use this knowledge in developing and delivering standards-based curricula. Linked Learning brings new focus, referred to as a Linked Learning lens to a Single Subject credential program. With technical support from ConnectEd: The California Center for College and Career--and Irvine Foundation funding--eight teacher preparation institutions in California are currently implementing this lens. These programs are at San Diego State University, CSU San Bernardino, CSU Fresno, CSU Sacramento, CSU Long Beach, CSU East Bay, UCLA, and Claremont Graduate University.
On behalf of the National Academy of Sciences and the National Academy of Engineering, Dr. Labov welcomed participants to the western conference site at the Arnold and Mabel Beckman Center. He indicated how pleased the Academies were to be co-hosting this event with the California State University and with a group of outstanding public and private sector partners.

The Summit was designed with a set of attributes that position it to be a major milestone in the improvement of education and teacher preparation in the United States. It has elucidated some of the most important concepts of our times pertaining to teacher education. Central among these are re-envisioning and re-designing teacher education as a clinical endeavor, similar to the preparation of physicians. It is a vision that has significant implications not only for teacher preparation, but for the entire P-12 educational enterprise. As has been discussed, the ground-breaking report of the NCATE Blue Ribbon Panel on Clinical Preparation, Partnerships, and Student Achievement provides the essential foundation for moving this concept forward.

This clinical preparation design has special importance for developing new teachers in science and mathematics. These teachers will then prepare future generations of students who are ready to enter both higher education and the STEM workforce. Schools, ranging from pre-schools to high schools, must be equipped with the resources that are critical for students to have access to real and authentic STEM challenges. This is going to require wholly new investments and partnerships to develop school laboratories in which students interact, actually and virtually, with the most current of scientific and technological advances.

It is also critical to re-emphasize that these new approaches to the education of future teachers must be applied with the same commitment for those who are preparing to teach in Grades K-8 as it does to the secondary grades, and probably even more so. In April 2009 the National Academy of Sciences and National Academy of Engineering, in association with the California Council on Science and Technology and the Beckman and Bechtel Foundations, organized a two-day convocation at this facility to examine the importance of nurturing and sustaining effective science education for grades K-8. The insights that emerged from that convocation and the ensuing report have set the stage for events like this one. The research evidence that was reviewed and the consensus of the expert participants at that event made clear that a child’s educational pathway is formed and often set during those early years. By sixth grade, too many students have decided that science, math, and technology are too boring, too difficult, or irrelevant to their lives. Research increasingly demonstrates that the teacher in front of the classroom is one, if not the, most important factor in shaping student achievement. Students who are taught by teachers who have little pedagogical content knowledge in STEM and who themselves have gone through their preparation disliking or fearing the STEM disciplines are not likely to impart to their students either the importance and the joys of learning in these subject areas. We must commit ourselves here and in the future to doing better.

One way that we can look to doing better is through the new emphasis on using after-school learning opportunities to help students become more engaged with STEM. This movement is one of the most important and exciting innovations that I’ve observed in California. The available infrastructure of afterschool programs that are associated with elementary schools in this state, along with the clear commitments of CSU, the private foundations and businesses represented in this room today, and many parts of state government to couple these two sectors of the education system more closely and deliberately could be the beginning of what is needed to show teachers, parents, and students themselves
that “STEM learning can be everywhere.” It is an experiment that needs to be closely monitored, evaluated, and widely disseminated if it proves to be successful.

Effective educational reforms build and thrive based on solid evidence about the factors associated with their success; they use robust assessment measures and approaches to examine the impacts they have on students, teachers, and systems. The design of the Summit with its focus and emphasis on evidence-based approaches has set both the tone and the bar for initiating successful transformative changes in teacher education.

Transformative change of the kind and scope that were discussed at the Summit requires vision and careful planning, but it also requires highly effective leadership. CSU has at its helm, as is recognized in California and nationally, one of the most effective higher education leaders in the nation. And the Summit participants represent an exceptional group of leaders from across P-12, after school, and post-secondary education and the philanthropic and corporate communities. These are the partners who together can bring about transformative change. They need to seize the opportunity afforded by this Summit and continue to move forward in identifying the most promising of paths and in collectively exploring how best to join together in successfully pursuing and evaluating them and then making a concerted effort to implement what is shown to be effective.

While vision, leadership, and the infrastructures to utilize partnerships and evidence are all essential for transformative change, they are not sufficient. Commitment to action—sustained, long-term action—is equally critical. Transformative change requires making strategic choices, committing sufficient amounts of resources and energy into supporting them on a sustained basis, and the willingness to regularly review progress and make mid-course corrections based on solid research evidence.

Dr. Labov noted that since the April 2009 convocation he personally has worked closely with leaders at CSU and with a number of the other entities who have been partners in the Summit. All of the evidence to date builds confidence that everyone assembled at the Summit can be counted upon for their commitment to sustained and long-term action. The work that has begun must be expanded to include both colleagues who wanted to attend this summit but were precluded from doing so by space limitations and colleagues who knew nothing about the event or thought that this work need not concern them.

In summarizing, Dr. Labov noted that he had valued greatly the Summit discussions. On behalf of the leadership and his staff colleagues at the National Academies, he indicated that he looked forward to finding ways to continue to work with the Summit leaders and their partners in the future so that the ideas generated at the Summit can become realities in the near future.
Major Opportunities to Advance Transformative Change in Preparing Teachers  
Keynote Afternoon Presentation  
Dr. Lee Shulman, President Emeritus, Carnegie Foundation for Advancement of Teaching

In providing a context for his presentation, Dr. Shulman explained that he is a teacher educator and that he has learned about the complexities and the challenges of educating teachers through the lenses of parallel problems and challenges of preparing people for other professions. These others professionals have included physicians, lawyers, engineers, and clergy.

Dr. Shulman noted commonalities between the preparation of teachers and the preparation of the other professionals. Each entails preparation to act, to perform, and to practice. By comparing the preparation of teachers with that of sibling professions, one not only learns a great deal but also recognizes that the preparation of teachers maybe even more complex.

He drew parallels between the pedagogical imagination—finding connections between those things in text and the things that are going on in students’ lives that shape their values and ideals—with the theological imagination nurtured in the preparation of clergy. The latter makes connections in deeply meaningful ways between the biblical and what is going on in the lives of the people within the congregation.

When framing the topic, *Opportunities to Advance Transformative Change in Preparing Teachers*, Dr. Shulman began by discussing the term “opportunity,” and its especially significant meaning. Opportunity implies a chance to do something new. It represents an opening, an occasion to engage in something significant, and it is associated with risk. Whether what one does works depends on whether it builds upon and exploits the opportunity successfully. The first time one will not necessarily be right—rather, one is engaging in a process in which one asks “What have we learned and what do we do next?”

The term, “transformation” is also significant. It does not connote instant change or revolution. Transformation goes slowly and requires persistence, doggedness, and patience. If it is worth doing, it will entail a slow process of bringing about change, improvement, and other opportunities.

A highly relevant example for understanding this process is the work that Dr. Shulman and a team began 25 years ago in the development of the National Board for Professional Teaching Standards. His team proposed a portfolio-based assessment of teacher quality that met with much skepticism. The team was told the approach could never be scored with any reliability or validity and was too expensive. Concerns were raised about how to prevent teachers from sharing information—talking to one another and improving their portfolios. Rather than a problem to be avoided, the team saw this as an asset and built it in as a required part of a National Board portfolio. Despite the initial skepticism, the National Board is now approaching 100,000 National Board Certified Teachers. Its successful growth relied on a process of sustained patience and persistence.

Dr. Shulman addressed four areas in his presentation. First was a thorough analysis of the notion of clinical education in teacher preparation. This approach is at the central core of the National Council for Accreditation of Teacher Education’s significant Blue Ribbon Panel report. The report looks in-depth at clinical education of professionals, drawing on the Flexner report prepared at the beginning of the 20th century. However, clinical education is, in many ways, more difficult than the Panel report implies.

Second was the importance of content knowledge in the preparation of new teachers, noting that, “We cannot lose sight of content preparation as we grasp the important role of clinical education.” Third was the role of community colleges in content education. It is important to address community college preparation in content education, since approximately two-thirds of the new teachers prepared by CSU begin their post-secondary work at community colleges. CSU campuses cannot proceed alone but rather
must be collaborative, even prescriptive about the work done within community colleges. The articulation in content preparation between the two systems needs to be made clear and conscious.

The fourth area was the organic relationship between the clinical preparation of teachers and the new doctoral program within the CSU. Intentional connections should be developed between the ways CSU prepares doctoral students for P-12 and community college leadership and how it prepares teachers. The two enterprises need to be linked or key opportunities will be missed.

In clinical education, the central underlying issues pertain to how individuals learn professional practice. The first of the several studies of the Carnegie Corporation on the preparation of practitioners undertaken under Dr. Shulman’s leadership focused on the study of law. In this work, what emerged as an important understanding was the consistency across institutions both in the curriculum taught and in the pedagogy—i.e., the signature pedagogy in universities’ programs preparing lawyers. The pedagogy does not differ from school to school. The field has agreed on a pedagogy of law that is used across institutions. Students are taught in the same way, with a common approach for preparing them to think like lawyers.

Across campuses, law programs used the same or similar cases. The signature approaches are those of the profession and do not vary from campus to campus. Each institution does not have a unique approach, as we often seek in teacher education. Rather there is a common, consistent focus on what it takes to become a member of this profession. The Carnegie Foundation study team noted that programs did not shy away from teaching the routines of practices. The pedagogy repeated itself, while the content changed; the shell was the same, the kernels changed. This was true when looking at courses in criminal, constitutional, or contract law, for example. Habits of mind are learned slowly by practice, repetition, and routine.

Future professionals need to learn not only how to think like professionals within a field, but also how to act within the profession. There is consistency across programs in addressing this as well. Innovativeness comes from the content kernels, not the defining shell. And, lastly, in preparing future professionals, attention needs to be given to the moral, ethical, and human dimensions of practicing the profession.

For example, fundamental consistencies are found in medical education in the preparation of both physicians and nurses. In the case of physicians, the signature pedagogies focus on rounds and rotations. Rounds are the same every morning of the week. The routine protocols are the same every day, and they are the central essence of rounds across the different rotations. As one moves from pediatrics, to psychiatry, to internal medicine, the same processes are used while the topics change.

We see again that clinical teaching and clinical learning involve consistent routines. If planning is important, candidates do it again and again in classes or field settings. They engage in clinical settings where their performance is assessed. It is active, visible, accountable, collaborative, and routine. This is the nature of clinical learning. It includes enactment—individuals don’t simply watch others, they enact practice. This includes daily use and repetition. It is characterized by embodiment—not just reflecting knowledge and skills and how to think and act like a professional. Through enactment and identification, future practitioners come to embody the values, commitments, and ideals of those they are emulating.

These clinical approaches involve the opportunity to learn, to reflect, and to evaluate constantly—to learn in action with significant feedback. If one is seriously committed to clinical preparation, it is a challenging endeavor. If one is going to undertake clinical preparation for teaching and learning to teach, it is important to recognize the commitment being made.

In view of the complexity, it is wise in the development of clinical teacher preparation, to start small, with one or two programs, and to refine the strategy. It is also important to recognize and not lose sight of the
fact that sometimes, one cannot learn professional knowledge, practice, and dispositions through clinical education conducted in the field. In some cases, the trial and error of field-based practice is unacceptable due to the consequences. As in the case of medical education, there is significant value to including alternative approaches, such as the simulations and robotics that are increasingly used in that profession.

It is important, in undertaking this demanding clinical endeavor, to view the CSU as one university “with 23 front doors.” The CSU campuses can begin learning about clinical preparation of future teachers together. The effort that is warranted would involve the CSU campuses across the state in a collective, collaborative effort to build the materials and resources for clinical preparation of teachers. If each of its schools preparing teachers were to devote three FTE’s together they could accomplish a great deal in a collaborative effort. What is needed is for all of them to “row together” in a joint endeavor.

What would it take to create a new CSU Center focused on clinical teacher preparation? This needs to be examined. Such an initiative might begin with one priority area, such as preparation of teachers in the science, technology, engineering and mathematics (STEM) fields.

It is critical to recognize that effective clinical preparation is based on deep content knowledge. It is unacceptable to hear that elementary teachers cannot understand mathematics content. Multiple subject candidates must develop deep understanding of mathematics and quantitative reasoning. Teachers must understand the content knowledge of the disciplines they teach.

We also need to recognize that the majority—approaching two-thirds—of the future teachers prepared by CSU campuses are taking many of their content courses elsewhere—in California’s community colleges. It is essential to determine how, as students traverse the path from community colleges, they will receive the rigorous content knowledge they need.

A final point pertains to the CSU new doctoral program in educational leadership. In one set of studies of doctoral education, the Carnegie Foundation addressed the Ph.D.—doctoral preparation in mathematics, chemistry, history, English, neuroscience, and education. The study of the Ph.D. in education found that 90% of the candidates enrolled in the programs had goals focused on professional leadership. What they wanted was a professional practice doctorate.

The Carnegie Foundation study team questioned such fundamental practices as the centrality of a dissertation in the preparation of future school leaders. A conventional dissertation is something that has little relevance to the future roles of the candidates. The study team instead proposed consideration of several smaller studies and analyses pertinent to the practice of educational leadership.

The Carnegie Foundation then created a project focused on the professional practice doctorate in education—the Carnegie Project on the Education Doctorate (CPED). It has examined the kind of experience needed to prepare educational leaders at the doctoral level, and the CSU system was invited to participate. The work has examined the features that should be central within the Ed.D.

An important question for the CSU to ask pertains to the connection between clinical preparation of teachers and of school leaders. The Principals’ job involves nurturing and supporting talent at the school site. They cannot do this unless they know what high quality teaching looks like.

It would be an exceptional resource if the preparation of administrative leaders and the preparation of teachers are linked conceptually and operationally. The links can occur, for example, in working with local school districts that become laboratories of practice preparing leaders and teachers in designs that integrate the two efforts. This is all possible under Chancellor Reed, under whose leadership teacher education has emerged at the moral core and the central raison d’etre of the CSU.
Concluding Remarks
Charles Reed
Chancellor, California State University

Chancellor Reed thanked all of the attendees for their valuable participation at the Summit. He noted that when CSU Trustee Herb Carter first envisioned this event, he had hoped it would make important contributions in California and nationally, building on significant initiatives of CSU. He expressed his confidence that Trustee Carter will be pleased to learn that it became such a seminal event, bringing together state and national leaders to lay out promising solutions to some of the most challenging educational issues of our times.

From this important Summit, at least five primary conclusions can be drawn that pertain to long-term educational transformation: (1) advancing a range of productive partnerships, (2) achieving systemic reform, (3) continuously expanding upon excellence, (4) connecting promising initiatives, and (5) fostering research into new approaches and innovations.

The first conclusion is the importance of advancing teacher education partnerships across sectors of education and with key public and private partners. Through collaborations between higher education and P-12 schools and districts, we can attain new levels of quality in preparing teachers. Through alignment between universities and community colleges, making pathways into teaching careers accessible to students of diverse backgrounds becomes attainable. Through partnerships with foundations and business and industry leaders, teachers can be better equipped to prepare students for the 21st century workforce.

The second conclusion calls for creating major impacts through systemic and comprehensive reforms. In a number of major CSU successes, including its federal Teacher Quality Partnership Grants and its Mathematics and Science Teacher Initiative, a key ingredient has been initiating bold strategies to achieve large impacts. As best practices are expanded, continued reforms need to be encouraged that involve teacher recruitment, preparation, induction, and evaluation that engage multiple campuses in efforts that include their primary P-12 and community college partners.

The third conclusion relates to continuously expanding upon what works. There are many exemplary programs that hold promise for transformative impacts across California and the nation. But replicating effective approaches can be difficult. The larger promise of these innovative programs can be fulfilled through analytically-based, strategic approaches for expansion. By using this approach, these innovative approaches can be successfully spread to additional locations across the state.

The fourth conclusion pertains to the connections between advancing world-class preparation of teachers and accomplishing other top education goals. The integral connection between the development of outstanding new teachers and closing the achievement gap needs to be exploited. These two goals contribute to one another in major ways. Similarly, strategies for improving students’ college and career readiness strengthen and are themselves strengthened by close connections with teacher education. New pathways into teaching for students from diverse backgrounds enhance and are enhanced by the university’s access mission. It is in aligning these priorities that the greatest promise exists for accomplishing our goals.

The fifth conclusion relates to developing innovations in teacher preparation. Studying innovations has had a great impact in informing the new directions that the CSU campuses and their partners have led. We need to sustain our commitment to generating new knowledge through these important initiatives. This is as paramount for our partners as it is for us.
The CSU in many ways represents a laboratory for the nation in teacher education. It intends to take advantage of this unique position to study teacher preparation techniques and to learn what is most effective, developing a research agenda that builds on CSU’s distinctive potential and on the pioneering and robust systemwide evaluation system that it established a decade ago and has continued to build.

The Chancellor was extremely pleased with the scope and significance of what was accomplished at the Summit. He noted that, although CSU Board of Trustees Chair Herb Carter could not attend, he also would appreciate the significant discussions and results that have come from the Summit.

Chancellor Reed assured participants that the CSU leadership will work with colleagues inside and outside of CSU to advance the Summit’s conclusions. He concluded by thanking each of the participants for their important roles at the Summit and inviting them to be CSU’s collaborators as it moves forward.