**WEDNESDAY, December 1, 1999**  
*Commission Office*

1. **Executive Committee (Chair Norton) 11:00 a.m.**  
   - EXEC-1 Approval of the October 6-7, 1999 Executive Committee Minutes  
   - EXEC-2 Expiration of Terms and Declaration of Vacancies on the Committee of Credentials

2. **Closed Session (Chair Norton) 1:00 p.m.**  
   (The Commission will meet in Closed Session Pursuant to California Government Code Section 11126 as well as California Education Code Sections 44245 and 44248)

3. **Appeals and Waivers Committee (Committee Chair Harvey)**
   - A&W-1 Approval of the Minutes  
   - A&W-2 Consideration of Credential Appeals  
   - A&W-3 Reconsideration of Waiver Denials  
   - A&W-4 Waivers: Consent Calendar  
   - A&W-5 Waivers: Conditions Calendar  
   - A&W-6 Waivers: Denial Calendar

**THURSDAY, December 2, 1999**  
*Commission Office*

1. **General Session (Chair Norton) 8:00 a.m.**
   - GS-1 Roll Call  
   - GS-2 Pledge of Allegiance  
   - GS-3 Approval of November 1999 Minutes  
   - GS-4 Approval of the December Agenda  
   - GS-5 Approval of the December Consent Calendar  
   - GS-6 Annual Calendar of Events  
   - GS-7 Chair's Report  
   - GS-8 Executive Director's Report

Some of the agenda items are available for viewing on the web.  
Click on the ✨ to view the items that are available.
## Legislative Committee of the Whole (Interim Committee Chair Veneman)

- **LEG-1**: Legislative Concepts for Commission’s Consideration
- **LEG-2**: Analysis of Assembly Bill 707

## Fiscal Planning & Policy Committee of the Whole (Committee Chair Veneman)

- **FPPC-1**: Update on the Management Study Mandated by the 1999 Budget Act

## Certificated Assignments Committee of the Whole (Committee Chair Dauterive)

- **C&CA-1**: Progress Report on the Commission's Automated Phone System (CAPS)
- **C&CA-2**: Workload Statistical Update

## Preparation Standards Committee of the Whole (Committee Chair Sutro)

- **PREP-1**: Approval of Subject Matter Preparation Programs Submitted by Colleges and Universities
- **PREP-2**: Update on Beginning Teacher Support and Assessment (BTSA) Program Evaluation Activities
- **PREP-3**: Proposed Standards of Quality and Effectiveness for Supplementary Authorization Programs in Mathematics
- **PREP-4**: Gender Equity in Teacher Preparation: Findings of the Survey of California Teacher Preparation Programs
- **PREP-5**: Approval of the Contract for the Evaluation of the Accreditation Process

## Performance Standards Committee of the Whole (Committee Chair Katzman)

- **PERF-1**: Update on the Development of the Commission's

### Study Session

- **1:00 p.m.**
  - Study Session
  - Teaching and California’s Future

### Public Hearing

- **1:30 p.m.**
  - **PUB-1**: Proposed Amendment to Section 80004 and Addition of Section 80005 of Title 5 Regulations Concerning Single Subject Teaching Credentials and an Authorization for Subject Areas for Service in Departmentalized Classes

## Reconvene General Session (Chair Norton)

- **GS-10**: Report of the Appeals and Waivers Committee
- **GS-11**: Report of Closed Session Items
- **GS-12**: Report of the Executive Committee
- **GS-13**: Commissioners Reports
- **GS-14**: Audience Presentations
- **GS-15**: Old Business
  - Quarterly Agenda for December 1999 & January & February 2000
- **GS-16**: New Business
- **GS-17**: Elections for Chairperson and Vice Chairperson of the California Commission on Teacher Credentialing
- **GS-18**: Adjournment

*All Times Are Approximate and Are Provided for Convenience Only*
Except Time Specific Items Identified Herein (i.e. Public Hearing)
The Order of Business May be Changed Without Notice

Persons wishing to address the California Commission on Teacher Credentialing on a subject to be considered at this meeting are asked to complete a Request Card and give it to the Recording Secretary prior to the discussion of the item.

Reasonable Accommodation for Any Individual with a Disability
Any individual with a disability who requires reasonable accommodation to attend or participate in a meeting or function of the California Commission on Teacher Credentialing may request assistance by contacting the California Commission on Teacher Credentialing at 1900 Capitol Avenue, Sacramento, CA 95814; telephone, (916) 445-0184.

NEXT MEETING
January 5-6, 2000
California Commission on Teacher Credentialing
1900 Capitol Avenue
Sacramento, CA 95814
Legislative Concepts for Commission Consideration

December 1999

Summary: This agenda item offers legislative concepts for consideration by the Commission.

Policy Questions: Are the proposed legislative concepts consistent with Commission goals and objectives? Should staff be directed to provide support and assistance to the Governor and other policy makers as they continue to develop state policy initiatives in the area of teacher recruitment, selection, preparation and induction?

Background: The Commission has already approved one legislative concept — a proposal submitted by the Division of Professional Practices to provide alternatives to credential revocation and suspension. The Commission continues to sponsor AB 309 (Mazzoni), which would increase state support for the Alternative Certification Program. AB 309 has passed the Assembly and the Senate Education Committee and is pending consideration in the Senate Appropriations Committee.

As staff reported at recent Commission meetings, the Assembly Select Committee on Low Performing Schools has been conducting hearings around the state to collect data and recommendations from the field regarding teacher quality. The Commission has been represented at each of these hearings, providing testimony and answering questions from policy makers.

The Commission has also been asked by the Governor's office to offer information and suggestions for the Governor's consideration in addressing the issue of teacher quality. The information provided has been the same information offered to the Legislature, specifically, the testimony discussed with the Commission at the October Commission meeting, supplemented by Commissioner comments and suggestions. This information has been designed to answer the following questions:

1. Which teacher preparation and retention strategies are particularly effective in attracting and retaining qualified teachers for hard to staff schools?
2. Why are these strategies working?
3. How can we strengthen and refine these strategies? Can we apply them to conventional teacher preparation programs?
4. What are the challenges that policymakers face in effectively preparing and retaining qualified teachers to serve in low performing schools?
5. What should be done to address these challenges?

In offering recommendations to policy makers, the focus has been six-fold, specifically, to:

1. maintain and strengthen teacher preparation strategies that are working;
2. apply effective strategies to other settings, particularly conventional university preparation programs;
3. retain more beginning teachers by strengthening the capacity of districts and universities to support teachers in their first years of teaching;
4. eliminate the incentives that encourage districts to hire less than fully prepared teachers and that encourage individuals to teach before they receive any preparation;
5. change the distribution pattern of uncertified teachers; and
6. strengthen low performing schools to attract and retain qualified teachers.

Specific recommendations have included proposals such as the following:

1. Create an "APLE plus" program to provide a stipend to teachers who are willing to be prepared PRIOR to seeking employment in the public schools, requiring aid recipients to serve in hard-to-staff schools;
2. Redesign the Cal Grant T Program to tie at least a portion of the scholarships to service in a hard-to-staff school or a high need subject matter area;
3. Expand the funding under SB 1X to provide resources to include more schools in the accountability effort, while supplementing SB 1X funding to offer incentives to fully prepared staff to serve in hard-to-staff schools;
4. Expand the Governor's Reading Initiative to provide incentives to teachers to obtain a Reading Certificate, allowing early assessment and intervention with struggling readers consistent with research-based pedagogy;
5. Build on recent efforts by the State to encourage retired teachers to return to teaching by lifting the "cap" on allowable earnings for teachers willing to teach in high need subject matter areas or in hard-to-staff schools, or to serve as support providers;
6. After there are sufficient numbers of support providers available, insure that all beginning teachers, including emergency permit holders, are provided with support, training, advising and assistance;
7. Provide equity in funding for the Intern and Pre-Intern programs, allowing them to provide a stipend to support providers at the same rate as BTSA support providers;
8. Building on credential reciprocity, provide additional incentives for fully prepared teachers from other states to relocate in California;
9. Provide additional incentives for teachers within California to relocate in areas of high need;
10. Fund existing statutes, which call for regular data collection on teacher supply and demand and use this data to assist districts in recruiting the most qualified personnel.

It is staffs' understanding that all of the recommendations made by the Commission to date are being considered for inclusion in legislative initiatives to be sponsored by key state policy makers. Meanwhile, more than one legislator has contacted the Commission to request authorship of any Commission initiatives that are not being otherwise addressed by mid-January. Therefore, staff is recommending that the Commission continue to monitor the development of the statewide policy initiatives by the Governor and key legislators, while pursuing sponsorship of the legislative concept developed by the Division of Professional Practices previously approved by the Commission and AB 309 (Mazzoni).
Bill Analysis
California Commission on Teacher Credentialing

Bill Number: Assembly Bill 707
Authors: Assemblymember George House
Sponsor: Assemblymember George House
Subject of Bill: School Psychologist Credential Qualifications
Date Introduced: February 24, 1999
Last Amended: June 24, 1999
Status in Leg. Process: Assembly Education Committee
Current CTC Position: Seek Amendments
Recommended Position: Seek Amendments
Date of Analysis: November 17, 1999
Analyst: Rod Santiago

Summary of Current Law

Current law sets the minimum qualifications for a services credential with a specialization in health and for a services credential with a specialization in pupil personnel services.

Current law also sets the qualifications for a psychiatric social worker.

Summary of Current Activity by the Commission

The Commission has appointed a 25-member panel of Pupil Personnel Services practitioners and trainers, teachers, administrators, parents, and students. The panel has been charged with reviewing existing standards and competencies. They have also been asked to make any necessary recommendations to improve pupil personnel services in California schools to insure that competent professionals are providing effective and efficient services.

At the November 1999 meeting, the Commission voted to support the provision of this measure requiring a "master's or higher degree and a minimum of 1200 hours of supervised
Analysis of Bill Provisions

Beyond the provisions that the Commission has already moved to support, there are other provisions of this bill that the Commission must consider to establish its official position on the measure.

Assembly Bill 707 would make changes to the part of the Education Code that established the qualifications for a psychiatric social worker.

The bill would also require that all persons employed by a school district as a school psychologist on and after January 1, 2005 must meet the requirements set forth in the bill. The bill would allow districts employing a school psychologist to continue to employ that person if: 1) he or she was a credentialed school psychologist prior to January 1, 2000, and 2) if he or she was hired prior to January 1, 2000.

Analysis of Relevant Legislative Policies by the Commission

The following Legislative policy applies to this measure:

5. The Commission supports legislation which strengthens or reaffirms initiatives and reforms which it previously has adopted, and opposes legislation which would undermine initiatives or reforms which it previously has adopted.

Suggested Amendments

Staff suggests the following amendments:

1. Delete the language related to the psychiatric social worker.
2. Amend the language so that those who have received a school psychology credential prior to the implementation of the provisions of this bill may be employable.

Reason for Suggested Position

1. The language in the Education Code related to the psychiatric social worker is unrelated to the school psychology credential. Those individuals serving on a psychiatric social worker credential are serving in mental hospitals. In conversations with the sponsors of the bill, they did not initiate this provision of the bill.
2. The Association of California School Administrators (ACSA) has expressed concern that this provision of the bill would exacerbate a growing shortage of school psychologists. It seems imprudent to disenfranchise those persons who 1) are changing jobs from one district to another 2) returning to the work force after a leave of absence 3) hold a school psychology credential but are unemployed or employed in another field but wish to return to a school psychology position, or 4) have entered a preparation program under current law but will be subject to new requirements before they graduate.
California Commission on Teacher Credentialing

Meeting of: December 1-2, 1999

Agenda Item Number: FPPC-1

Committee: Fiscal Planning and Policy

Title: Update on the Management Study Mandated by the 1999 Budget Act

☑ Information

Prepared by: Karen Romo, Analyst

Fiscal and Business Services

BACKGROUND

The Commission's budget as contained in the 1999 Budget Act includes a provision that requires the transfer of up to $250,000 to the Legislative Analyst's Office for the purpose of contracting for a comprehensive management study of the Commission's organizational structure and credential processing protocols. This item provides an update on the progress of this management study.

SUMMARY

In mid-October 1999, MGT of America (MGT), the selected contractor for the management study, met with key Commission staff to present an overview of the management review process and the tasks involved in this study. MGT identified the following nine tasks and provided the attached chart to reflect the proposed timeframes associated with each of these tasks:

1. Initiate the project;
2. Develop a preliminary profile;
3. Solicit input from external and internal stakeholders;
4. Perform a management review;
5. Perform a review of the Commission's technology;
6. Evaluate the staffing levels;
7. Evaluate customer service;
8. Recommend a fee structure; and
9. Write the draft and final reports.

In early November 1999, MGT distributed a survey to all staff to solicit thoughts, ideas, and opinions on how the Commission could improve its teacher credentialing process.

MGT has also conducted several meetings with Senior Managers and key Commission staff members, as well as one focus group meeting with the Information Management Systems Section staff to obtain input regarding the Commission's operations. Commission staff has also provided MGT with information and documents related to the Commission's budget, personnel, technology, and credential application process.

Staff will continue to provide Commissioners with periodic updates regarding the status of the management study.
Meeting of: December 1-2, 1999

Agenda Item Number: C&CA-1

Committee: Credentials and Certificated Assignments

Title: Annual Status Report on the Workload of the Certification, Assignment and Waivers Division

Information

Prepared by: Don Currier, Director
Certification, Assignment and Waivers Division

Progress Report on the Commission's Automated Phone System (CAPS)

Statistical information about usage of the Commission's Automated Phone System for the month of November will be presented to the Commission. Because the data will include statistics for the entire month of November, it was not available at the time the agenda was prepared. The reports will be compiled on November 30, 1999.
Annual Status Report on the Workload of the Certification, Assignment and Waivers Division
For Fiscal Year 1998-99

November 17, 1999

Summary
Applications for credential, certificates, permits and waivers received in 1997-98 increased a modest 2% over the previous year. However, during the same period the Certification, Assignment and Waivers (CAW) Division experienced a significant increase in workload related to e-mails and telephone calls. In order to meet the increasing workload of e-mails and telephone calls, staff was assigned to respond to this workload as well as evaluate and grant credentials.

Fiscal Impact
The preparation of this report has no fiscal impact on the agency.

Policy Issues to be Resolved
This agenda item is a status report on the workload of the Certification, Assignment and Waivers Division and does not contain policy issue recommendations.

Background
Since the implementation of the Class Size Reduction program in 1996, the CAW Division has experienced double digit increases in its workload until last year. Prior to CSR the CAW division experienced modest increases in applications from year to year. The magnitude of the application increase is best compared against the total applications received in the previous four years.

- 1994-95 134,841
- 1995-96 131,959
- 1996-97 168,030
- 1997-98 197,521
- 1998-99 200,825

Graph one displays the monthly application workload from 1996 through the first three months of FY1999-2000. The graph illustrates the sizable increase in applications from FY1996-97 to this fiscal year. Graph two also displays the comparison in the number of applications received between FY1996-97 and 1998-99. For the first three months of FY1999-2000, there has been an 11% increase in the number of applications.

The application workload is only part of the total workload for the CAW Division. The Division also answers e-mails that have increased 177% over the past two years with the staff responding to 13,680 e-mails. This is a workload that did not exist two years ago because the Commission did not have an e-mail service. At the same time there has not been a
The number of credentials granted dropped during FY1998-99, even though there was an increase in the number of applications received. The reason for this drop in production can be attributed to the increase in the number of staff devoted to the call center and e-mail. Each of the following duties has attributed to the workload of the certification unit during the past year.

**Call Center** - Since October 1998 statistics have been kept on the call volume in the call center. The center has experienced a 96% increase in its call volume since October 1998. During June 1999 the call center answered 7,349 calls. In January the center's hours were expanded from 12:30 pm - 4:30 pm to 8:00 am - 5:00 pm, weekdays. This additional time for the call center was needed to improve service and response rates.

**E-Mail** - Over the past year e-mail volume has increased 72%, from 11,149 in FY1997-98 to 19,136 in FY1998-99. On an average it takes a Certification Officer five minutes to respond to each e-mail. During the first three months FY1999-2000 there has been a 45% increase in the number of e-mails over the comparable period last year.

**Public Counter** - The public counter is staffed from 8:00 am to 5:00 pm., weekdays to respond to credentialing questions from the public. In January the hours were extended a half-hour from 4:30 pm to 5:00 pm. During FY1998-99 the public counter assisted 7,075 individuals.

Title 5 regulations allow the Commission 75 working days to process an application. Currently it is taking the full amount of time allowed by law. Staff is working overtime and utilizing retired annuitants to reach its goal of 60 working days.
Projections for 1999-2000
The Cal Teach Center estimates that California will need between 250,000 to 300,000 new teachers over the next decade. This need will continue to have a tremendous impact on the workload of the CAW Division. The current fiscal year with an 11% increase over the previous year already demonstrates that this need for new teachers has an impact on the Division. Staff expects to see a continued increase in the number of applications received, as well as an increased volume of phone calls and e-mails, thought not at the same rate as experienced over the past three years.
Approval of Subject Matter Preparation Programs Submitted by Colleges and Universities

Professional Services Division

November 15, 1999

Executive Summary

This item contains a listing of subject matter programs recommended for approval by the appropriate review panels, according to procedures adopted by the Commission.

Fiscal Impact Summary

The Professional Services Division is responsible for reviewing proposed preparation programs, consulting with external reviewers, as needed, and communicating with institutions and local education agencies about their program proposals. The Commission budget supports the costs of these activities. No augmentation of the budget will be needed for continuation of the program review and approval activities.

Recommendation

That the Commission approve the credential preparation programs recommended in this item.

Subject Matter Preparation Program Review Panel Recommendations

Background

Subject Matter Program Review Panels are responsible for the review of proposed subject matter preparation programs. This item contains a listing of subject matter programs recommended for approval since the last Commission meeting by the appropriate review panels, according to procedures adopted by the Commission.

Summary Information on Single Subject Matter Preparation Programs Awaiting Commission Approval

For the following proposed preparation programs, each institution has responded fully to the Commission's standards and preconditions for subject matter preparation for Single Subject Teaching Credentials. Each of the programs has been reviewed thoroughly by the
Commission's Subject Matter Program Review Panels, and has met all applicable standards and preconditions established by the Commission and are recommended for approval by the appropriate subject matter review panel.

Recommendation

That the Commission approve the following programs of subject matter preparation for Single Subject Teaching Credentials.

Languages Other Than English

- California State University, Fresno - French

Physical Education

- California State University, Northridge

Science

- University of Southern California
  (Biology, Chemistry, Geosciences, Physics)
Executive Summary

In the Spring of 1998 the Commission and State Superintendent of Public Instruction approved a plan and schedule of BTSA Program evaluation activities for the 1998-99 school year. The plan included the continuance of three major evaluation activities, (1) Local Program Evaluation Activities including New Teacher Retention Studies, (2) Statewide External Surveys and Evaluation Activities (CERC); and (3) Informal and Formal BTSA Program Reviews known formerly as Informal and Formal Peer Reviews. The plan also provided funds for a grant to pilot four Formal BTSA Reviews, to develop materials for the Formal Reviews and to pilot various sets of procedures for the Formal Reviews. This report provides the Commissioners with information on the 1998-99 BTSA evaluation activities and plans for BTSA evaluation activities for 1999-2000.

During the 1997-98 and 1998-99 BTSA years, the number of BTSA Programs serving new teachers has more than doubled. BTSA expanded from thirty four programs in 1997 to sixty four programs in the Spring of 1998. July 1, 1998 there were eighty four programs in operation and by July 1, 1999 there were one hundred and thirty three BTSA Programs serving new teachers in California. The number of new teachers being served also expanded from 5,200 new teachers in 1997 to over 23,500 first and second year teachers being served starting July 1, 1999. One major concern of a number of individuals has been that with the rather rapid growth of BTSA the capacity of induction programs to deliver quality programs would be diminished. Preliminary data from the various evaluation activities in 1998-99 indicates the program quality was maintained and in some cases enhanced in 1998-99. This report also provides the Commissioners with information regarding the evaluative data.

During the years of the California New Teacher Project (CNTP, 1988-92) and the Beginning Teacher Support and Assessment Program (BTSA, 1992-present), varied evaluation and research activities have identified strengths and areas needing improvement in the statewide initiative to extend the preparation of first- and second-year teachers. Each year, statewide evaluation efforts have included grants to conduct
research, gather and analyze data, and formulate findings and conclusions. Many of
these important activities have been external to the local CNTP/BTSA Programs, and
external to the Commission and Department of Education that are charged by law to
administer the statewide BTSA initiative. In past years, the Commission and Department
have utilized the expertise of the Far West Laboratory for Educational Research and
Development (now West Ed), the Southwest Regional Laboratory (SWRL), and more
recently, the California Educational Research Cooperative (CERC) at the University of
California, Riverside in the evaluation process. These research and evaluation centers
have provided external, credible research as well as evaluative data on the success of
CNTP and BTSA.

Over the past ten years, several researchers and scholars from California's colleges,
universities, county offices and school districts have contributed to the external research
and evaluation activities of CNTP and BTSA. The reports, analyses and conclusions of
the external evaluators and researchers have been extremely important over the past ten
years in assisting the Commission and Department in shaping statewide policy decisions
regarding the expansion of CNTP and BTSA.

Equally important to the need for high-intensity induction services for new teachers have
been the design and sponsorship of "internal" or local research and evaluation activities
that have been conducted within the existing local BTSA Programs. BTSA Program
Directors and their staffs have collected an impressive array of information that have
reinforced best practices and identified areas for local program improvement.

**Policy Issues to be Considered**

What kind of research and evaluation efforts have provided credible data for the
promotion and expansion of statewide BTSA and what types of activities have led to the
affirmation and improvement of local BTSA programs?

**Fiscal Impact Statement**

The cost of preparing this report has been funded from the base budget of the
Professional Services Division. No budget augmentations are requested or needed for the
preparation or presentation of this report.

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**Part 1: Background**

**Building BTSA on the Research Findings of the California New Teacher Project**

The California New Teacher Project was a large-scale pilot project to test alternative
models for (1) supporting and assisting the professional induction of first-year and second-
year teachers, and (2) assessing their competence and performance in the classroom.
During its "peak" year (1990-01), the CNTP included 37 local pilot programs; over the
entire four years, more than 3,000 beginning teachers and more than 1,500 experienced
teachers participated in the CNTP.

Because the California New Teacher Project was a pilot effort to inform future policy
directions, significant time and resources were devoted to evaluation and research activities
over the course of the four years. Lawmakers required that each alternative program of
support and assessment be evaluated in terms of the following criteria:

- Effectiveness at retaining in teaching those individuals who show promise of
  becoming expert professionals;
- Effectiveness at improving the pedagogical content knowledge and skills of the
  beginning teachers who are retained;
- Effectiveness at improving the ability of beginning teachers to teach students who
  are ethnically, culturally, economically, academically, and linguistically diverse;
- Effectiveness at identifying beginning teachers who need additional assistance and,
  if that additional assistance fails, who should be removed from the education
  profession;
- The relative costs of each method of support and assessment in relation to its
beneficial effects; and

- The extent to which each alternative method of supporting or assessing new teachers would, if it were added to the other state requirements for teaching credentials, make careers in education more or less appealing to prospective teachers.

The California Commission on Teacher Credentialing and the California Department of Education were given joint responsibility to administer the California New Teacher Project (1988-92) and to monitor the ongoing research activities. On the basis of competitive bids, the agencies selected two external contractors to complete the research and evaluation work. The Southwest Regional Educational Laboratory (SWRL) evaluated the 37 support programs for new teachers. The Far West Laboratory (FWL) for Educational Research and Development evaluated existing and alternative forms of new teacher assessment.

At the conclusion of each year of the CNTP, the two research laboratories (SWRL and FWL) submitted detailed research findings in extensive technical reports to the Commission and the Department. During the fourth year (1991-92), the findings of three years of work were carefully summarized, synthesized and presented to the Commission and the Superintendent of Public Instruction. The most significant findings of the three year pilot study were summarized in *Success for Beginning Teachers*, which was adopted by the Superintendent and the Commission and submitted to the Legislature. The policy recommendations in *Success for Beginning Teachers* were accurately reflected in Senate Bill 1422, the 1992 legislation by Senator Bergeson that the Commission sponsored to create the BTSA Program.

In the final report of the CNTP, the Commission and the Department reported several significant findings. Fewer than half of California's school districts provide the support and training that beginning teachers need to become better teachers, remain in the teaching profession, and help their students become better learners. In addition, the current assessments of prospective and novice teachers do not effectively assure the public that teaching credentials are granted only to competent individuals. The CNTP demonstrated that intensive support, continued preparation and informative assessments of teachers in their first professional years result in significantly better instruction for students.

In response to these recommendations, Governor Wilson established the Beginning Teacher Support and Assessment Program in the State Budget for 1992-93. After considerable discussion of *Success for Beginning Teachers* in 1992, the Legislature concurred with the Governor's proposal and included $4.9 million for grants to initiate this new state program in local schools. In 1992-93, fifteen excellent local programs were funded in a competitive selection process designed to identify the most promising programs of support and assessment for new teachers. One year later (1993-94), a second invitation led to the selection of fifteen additional programs in districts and counties that were not included in the initial grants. From 1993-94 until 1995-96, the Department and the Commission maintained funding for the thirty BTSA Programs. During these years, there were no opportunities to create new programs or to expand existing programs because of limitations in state budget resources.

**Statutory Purposes of the BTSA Program**

In 1997, the Legislature and Governor Wilson launched a major expansion of the BTSA Program through Assembly Bill 1266 (Mazzoni), which established the following purposes of the BTSA System.

- To provide an effective transition into teaching careers for first-year and second-year teachers in California.

- To improve the educational performance of students through improved training, information, and assistance for new teachers.

- To enable beginning teachers to be effective in teaching students who are culturally, linguistically, and academically diverse.

- To ensure the professional success and retention of new teachers.

- To ensure that a support provider provides intensive individualized support and
assistance to each participating beginning teacher.

- To improve the rigor and consistency of individual teacher performance assessments and the usefulness of assessment results to teachers and decision makers.

- To establish an effective, coherent system of performance assessments that are based on the California Standards for the Teaching Profession adopted by the Commission in January, 1997.

- To examine alternative ways in which the general public and the educational profession may be assured that new teachers who remain in teaching have attained acceptable levels of professional competence.

- To ensure that an individual induction plan is in place for each participating beginning teacher and is based on an ongoing assessment of the development of the beginning teacher.

- To ensure continuous program improvement through ongoing research, development, and evaluation.

These ten purposes require the use of support and assessment standards to improve the performance of beginning teachers in order to maximize their students' learning opportunities. In 1997, AB 1266 charged the Commission and Superintendent to use standards of program quality and new teacher performance as the primary bases for approving local BTSA Programs. BTSA Program standards were developed jointly by the California Department of Education and the Commission, and adopted by the Superintendent and the Commission in 1997 in response to AB 1266.

**BTSA Funding for Local Assistance Grants**

AB 1266 resulted in a significant expansion of the BTSA program, which made it possible for the majority of first and second year teachers to participate in the program in 1998-99. Funding levels in 1999-2000 make it possible for every first- and second-year teacher in California to participate in BTSA. The following chart shows the history of state funding for local assistance grants in the BTSA Program since its inception.

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<thead>
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<th>Fiscal Year</th>
<th>Funds for Local BTSA Grants</th>
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<tr>
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**Part 2: BTSA Research and Evaluation Activities**

As the number and type of local BTSA Programs have expanded over the past several years, so have the statewide and local evaluation activities for BTSA. The three major areas of evaluation and research for BTSA over the past three years include:

1. External research and evaluation activities conducted by a reputable research agency in the state that has provided research and evaluative data for each local BTSA Program and for the statewide BTSA initiative.

2. Local internal evaluation and research activities that are conducted by each local BTSA Program. Local BTSA Programs report on evaluation research activities each year as part of their annual planning for program improvement. Examples of local evaluation activities include BTSA alumni questionnaire summaries, summaries of effective teaching practices, new teacher case studies, new teacher self-assessment rubrics, portfolio reviews, reflective journals, support provider satisfaction data and a number of other types of research activities. In 1998-99 the joint CCTC/CDE Task
Force requested that, in addition to reporting on research and evaluation activities, all 84 BTSA Programs compile data on new teacher retention.

(3) Informal and formal program (peer) review processes. Informal peer review processes have been used by BTSA Directors since 1993. BTSA Directors have found the program review process to be both supportive and formative in nature. BTSA Directors use the results of program evaluation as the basis for annual goal setting, and have also been able to affirm best practices and identify areas for local program improvement. The CCTC and CDE sponsored the development of a formal program review process in 1998 in anticipation of (a) the extraordinary growth that the program would undergo, and (b) the future role of BTSA in the credentialing system.

The next sections of this report provide more detailed information about each of these three aspects of research and evaluation activities in the BTSA Program.

**Statewide External Research and Evaluation Activities**

In past years, the Commission and the Department of Education have contracted with Far West Laboratories (Now WestEd), Southwest Regional Laboratory, and the California Education Research Cooperative (CERC) located at the University of California, Riverside to provide evaluation data about the BTSA program. Also, each year a number of researchers and scholars from California's universities, colleges, county offices, and school districts have contributed to the external research and evaluation activities of statewide BTSA. The various research reports and data analyses from external sources have, during past years, contributed to the shaping of statewide policy decisions and decisions regarding BTSA improvement and expansion.

In 1999-2000, CERC is conducting statewide and local program research activities for the Commission and the Department of Education. In the past three years and again this year, CERC has and will conduct statewide surveys which include all beginning teachers in each BTSA Program, their support providers, school site administrators and program staff. The statewide research activity and surveys are offered to all local BTSA Program participants to ensure that the statewide data will be useful to local Directors and for statewide improvement and expansion purposes. An analysis of the survey responses compares responses from beginning teachers with those of their support providers and site administrators, and examines overall trends in the data. The CERC survey and research activity also explores overall program design and operational characteristics and identifies the most promising and effective outcomes of the varied induction programs. A major purpose of the survey is to identify factors that are responsible for the effectiveness, confidence, and career satisfaction of the first- and second-year teachers in the BTSA Programs. Another major purpose of the CERC survey and evaluation effort is to focus on the extent to which BTSA Programs have been successful in:

- improving beginning teacher skills and abilities;
- enhancing beginning teacher confidence; and
- strengthening beginning teacher career satisfaction.

**Local BTSA Program Evaluation Activities**

Local BTSA Program Directors and their staff have been able to collect an impressive array of reports, data collections, and data analyses that have been used to reinforce best practices and to identify areas for local program improvement. BTSA Directors, their staffs, and advisory committees typically sponsor many local evaluation activities that are varied, often extensive, and of significant analytical quality. Along with activities mentioned above, local evaluation activities also include surveys of perceived needs of new teachers and job satisfaction studies, surveys of mentors, coaches, and support providers, longitudinal studies, review of individual induction plans, varied and extensive class observations, analysis of teacher practices, and studies of culture and climate changes in participating school sites and studies of new teacher retention.

One of the major reasons why BTSA enjoys strong statewide support is the variety of credible and substantial local program evaluation activities that local BTSA Directors have developed and pursued. For the past four years BTSA Directors have shared their most promising and productive local evaluation activities with other Directors and with the State agencies in their year end Program Improvement Plans. There were 84 BTSA Programs that submitted Program Improvement Plans on July 30, 1999. Following is a chart that
indicates the local evaluation activities that were implemented by BTSA Directors for 1998-99 as reported in their Program Improvement Plans.

### Examples of Local Program Activities - 10 Most Frequently Identified

<table>
<thead>
<tr>
<th>Types of Local BTSA Program Evaluation Activities</th>
<th>84 Programs Reporting Number of Programs Identifying Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New Teacher Retention Studies</td>
<td>72</td>
</tr>
<tr>
<td>2. Informal-Formal Program Reviews (PEER) By other BTSA Personnel</td>
<td>68</td>
</tr>
<tr>
<td>3. Local Surveys of New Teacher Perception and Attitudes</td>
<td>54</td>
</tr>
<tr>
<td>4. Surveys/ Studies of Site Administrator Involvement</td>
<td>37</td>
</tr>
<tr>
<td>5. Data/Longitudinal Studies of Graduates/ Alumni</td>
<td>29</td>
</tr>
<tr>
<td>6. Local Surveys of Support Providers/ Assessors</td>
<td>27</td>
</tr>
<tr>
<td>7. Selection and Use of External Evaluation and Research Activities</td>
<td>21</td>
</tr>
<tr>
<td>8. Use of Local Focus Groups- Reporting Groups</td>
<td>21</td>
</tr>
<tr>
<td>9. Local Action Research Studies</td>
<td>19</td>
</tr>
<tr>
<td>10. Studies of School Climate and Culture</td>
<td>18</td>
</tr>
</tbody>
</table>

### New Teacher Retention Data

As part of the Program Improvement Plan, which responded to the reports of local evaluation activities in 1998-99, all funded BTSA Programs were requested to submit new teacher retention data for the year 1998-99. BTSA Programs also reported on retention data from previous years if they had served new teachers for two, three, four, or five years or more. Following is a chart that provides information on new teacher retention data for the 1998-99 academic year. The following chart provides information on 72 of the 84 BTSA Programs that served new teachers in 1998-99. Some of the Programs did not have retention data available when the BTSA Programs completed their 1999-2000 Program Improvement Plans. However, data is being collected on these Programs and will be available later this academic year.

### New Teacher Retention Data for the Year 1998-99

**Seventy Two of Eighty Four Programs Reporting**
New Teachers Being Served September 1, 1998

<table>
<thead>
<tr>
<th>Number of New Teachers Being Served</th>
<th>Number of New Teachers Still Teaching June 30, 1999</th>
<th>Percent of New Teachers Still Teaching</th>
<th>Percent of New Teachers Teaching in the Same District</th>
<th>Percent of New Teachers Non-Re-elected</th>
</tr>
</thead>
<tbody>
<tr>
<td>12,648</td>
<td>11,889</td>
<td>94%</td>
<td>91%</td>
<td>4%</td>
</tr>
</tbody>
</table>

New Teacher Retention Data for BTSA Programs Reporting Data for Two Years, 1997-98 and 1998-99

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4,716</td>
<td>4,197</td>
<td>89%</td>
<td>86%</td>
</tr>
</tbody>
</table>

Formal and Informal (Peer) BTSA Program Review

In Spring of 1998, the Commission and the State Superintendent of Public Instruction approved a three year cycle for Informal and Formal BTSA Program Reviews. The approved plan calls for two years of Informal Program Reviews using six of the BTSA Program Standards and one year of Formal Program Review in which all thirteen (13) BTSA Program Standards will be utilized. BTSA Programs are and will be scheduled for review based on the number of years of program implementation.

In the Fall of 1998, the Ventura County Office of Education and California Lutheran University were selected by the CCTC/CDE joint task force, through a competitive bidding process, to develop and implement the Formal Program Review process. The Program Review Process is based on the concept that BTSA Directors should have the opportunity to advise and consult with other BTSA Directors. In the past, however, some BTSA Directors, especially new Directors, often have not had the opportunity of discussing problems, asking advice or consulting with other experienced Directors. The Program Review Process provides opportunity for Directors to meet periodically, set group goals, look at the local programs involved in a developmental, formative sense and do so in a collegial, trust-enhancing setting. In addition, the Formal Program Review Process will provide the CCTC and the CDE with information about the quality of each BTSA program in relation to standards.

During 1998-99 the following four BTSA Programs participated in a pilot for the new Formal BTSA Program Review process:

- Riverside County Office of Education, Linda Childress, Director
- New Haven Unified School District, Donna Uyemoto, Director
- Lodi Unified School District, Sharon Wieland, Director
- Bellflower/Downey Unified School District, Yvonne Gold, Director

The other 80 BTSA Programs participated in the Informal Program Review process in 1998-99. BTSA Program Directors analyzed the data from both formal and informal processes and used the data to develop their Program Improvement Plans for 1999-2000. The following individuals participated in the pilot as members of the three member teams that served as program reviewers for the four pilot programs:

1. Inland Empire
   - Theresa Ford
   - Madelyn Micon
   - Ann Wood

2. New Haven
   - Joan Ellis
   - Ron Chan
   - Lois Rolland

3. Lodi
   - Susan Rich
   - Liz Rusk
   - Barbara Shinn

4. Bellflower-Downey
   - Alice Bullard
   - Lois Rolland
   - Tim Edge

The following information is provided to assist Commissioners in understanding the process for preparation for Formal BTSA Program Reviews in 1999-2000 and for future years.
Following is a list of activities and a calendar for the activities for Formal BTSA Program Reviews for 1999-2000. Members of the Task Force, Cluster Consultants and Professional Development Leaders will provide assistance to all BTSA Programs hosting Formal Reviews and Informal Program Reviews during 1999-2000.

The following programs are scheduled for Formal Program Review in 1999-2000:

- Sacramento County Consortia
- Glendale USD
- Stanislaus County Office
- Long Beach USD
- Contra Costa County
- San Diego USD
- CSU Northridge/ LAUSD
- San Jose USD
- Santa Cruz County
- CSULA/ LAUSD
- North Coast- Sonoma
- San Lorenzo USD
- LAUSD- Project Begin
- Ontario- Montclair USD
- Tehama County-North State
- San Mateo- Foster City
- San Francisco USD
- Oakland USD
- Ventura County
- Monterey County
- Bakersfield City School District
- Fresno County
- Baldwin Park USD
- CSU Dominguez Hills- Lennox USD
- LA County
- UCI- Saddleback USD
- CSU Fullerton- La Habra USD
- Fullerton JUHSD/ CSU Fullerton

Host BTSA Programs

The twenty-eight (28) BTSA Programs scheduled for Formal BTSA Program Reviews in 1999-2000 are known as Host Programs. They are not responsible for the travel, lodging and meal costs for the team members, but are responsible to assist in the location of a hotel, provide transportation for the team once on site, arrange a schedule for the visit, complete a Self Study Report and serve as a "host" for the team during the two and one-half day visit. The "host" program will use the Team Report as a major part of their Program Improvement Plan for 1999-2000.

Sponsoring BTSA Programs

Sponsoring BTSA Programs are those that have operated for at least one year as of July 1, 1999 and are scheduled for Formal BTSA Program Review sometime after the 1999-2000 BTSA year. Sponsoring programs are to identify and nominate at least one of their local participants to be trained in the procedures for Formal BTSA Reviews and to serve on one of the Formal Review Teams in 1999-2000. Larger Sponsoring Programs may wish to nominate more than one person to serve on a Formal Review Team. Sponsoring Programs are to cover the travel, meals and lodging costs for their nominees for two days of training and three days of the site visit. It is recommended that BTSA Programs scheduled for Formal Program Reviews in 2000-2001 have at least one individual involved in Formal BTSA Reviews in 1999-2000.

Dates for Training for Formal BTSA Program Reviews

- **Task Force Members, Cluster Consultants, Professional Development Leader Training.** The leadership teams for each BTSA Cluster will participate in a two day Formal Program Review Training on Tuesday and Wednesday January 25-26, 2000. The cluster leadership teams will become familiar with the procedures and content of the two and one-half day Formal Program Reviews and materials for the reviews. At least one member of the cluster leadership team will serve as a consultant for each of the Formal Program Reviews in their Cluster.

- **Cluster Training.** The Cluster Leadership Teams will provide two-day training for their respective Clusters. All BTSA Programs that are eligible are encouraged to nominate and sponsor one or more individuals from their BTSA Program for the two day Cluster training. Dates for the Cluster Trainings are listed below:
  - Cluster 1- February 24-25, 2000
  - Cluster 2- February 28-29, 2000
  - Cluster 3- February 24-25, 2000
  - Cluster 4- February 16-17, 2000
Cluster 5- February 15-16, 2000

- The logistics and location for each Cluster Training will be sent to all participants just as soon as arrangements have been made. The cost for materials and meeting rooms will be covered by the Professional Development Leaders for each Cluster.

Calendar for Formal BTSA Program Reviews

The two and one-half day program reviews will take place from March 20- May 30, 2000. BTSA Program Directors are to indicate a first and second choice of dates to their Cluster Consultants. The Cluster Consultant will confer with the Cluster Leadership Team and will contact the BTSA Director.

Team Selection and Team Membership

It is anticipated that all, or almost all, individuals who are sponsored by a BTSA Program and have participated in a Cluster Team Member Training will be selected to serve as a team member in 1999-2000. Most teams will have three team members with one member designated as a team chair. There may be as many as five team members selected for larger programs or for Programs that serve a large geographical area.

The Cluster Leadership Team will identify possible team members for teams within their respective Clusters. The Task Force Liaisons will discuss possible team members with each "Host" BTSA Program in their Cluster and the Task Force will then assign team membership. At least one team member will be selected from outside the cluster.

Team Expertise

The persons involved in the operations of BTSA programs in the state have developed considerable expertise in new teacher induction. It is critical that this statewide expertise be recognized and used professionally. The total program review process is intended to be consultative, formative and helpful to each local BTSA Program.

Standards to be Used

As stated earlier, in the Spring of 1998 the Commission approved the use of six (6) of the BTSA Program Standards for Informal Program Reviews and all thirteen (13) Program Standards for Formal Reviews. In 1998-99 the Task Force selected three standards for Informal Review and the Projects selected three standards. The three standards selected for 1998-99 were:

- Standard 5: Roles and Responsibilities of Site Administrators;
- Standard 8: Formative Assessment of Beginning Teacher Performance; and

The three standards that have been selected for Informal BTSA Program Review in 1999-2000 are:

- Standard 3: Collaboration;
- Standard 4: School Context and Working Conditions; and
- Standard 8: Formative Assessment of Beginning Teacher Performance.

Program Improvement Plans

Prior to 1998-99, BTSA Program directors submitted year-end expansion requests and plans in which the they cited their analysis of the CERC Data, a summary of their local evaluation activities and information from the Formal or Informal Peer Review process. In previous years, the expansion requests and plans were of a competitive nature in that state funds were not available to serve all first and second year teachers in the existing BTSA Program districts or in other districts. State funds became available in the Summer and Fall of 1998 to meet the expansion requests and to bring in large numbers of new programs in other districts. The joint CCTC/CDE Task Force developed a Program Improvement Plan (PIP) during 1998-99 to be developed by all BTSA Programs and to be completed and submitted to the Task Force by July 30, 1999. The PIP provided a description and analysis of BTSA activities for the 1998-99 year and a statement of plans to improve the program in 1999-2000. BTSA programs are required to respond to the
following elements in their program improvement plans each year:

1. Cover Page, Number of Teachers Served
2. Program Description
3. Summary of 2 or 3 challenges in your 1998-99 BTSA Program
4. Description of Local Evaluation Activities
5. Standard 5: Roles and Responsibilities of Site Administrators, Data/Evidence, Implications or Interpretations
6. Standard 8: Formative Assessment of Beginning Teacher Performance, Data/Evidence, Implications or Interpretations
7. Standard 13: Program Development, Evaluation and Accountability, Data/Evidence, Implications or Interpretations
9. Standard 2: Program Rationale, Goals and design, Data/Evidence, Implications or Interpretations
10. Standard 3: Collaboration, Data/Evidence, Implications or Interpretations
11. Retention Data
12. Summary of 2 or 3 achievements in your 1998-99 BTSA Program
13. Formal or Informal Peer Review

Procedures to Delay Review

BTSA Programs that wish to delay the Formal Program Review for one year must provide a written statement of reasons for the request to the CCTC/CDE Task Force Liaison for their Cluster. The Task Force Liaison will confer with the Cluster Consultant and Professional Development Leader for the Cluster. The Cluster Leadership Team will jointly decide whether to recommend the request to the Task Force. If the request is referred to the Task Force, the Task Force may or may not grant the request and will inform the BTSA Program of their decision.

Conclusion

The purpose of this report is to update Commissioners on the implementation of BTSA Research and Program Evaluation activities. Members of the joint CCTC/CDE Task Force will respond to questions from Commissioners, and participants in the Formal Program Review pilot will be on hand to provide clarification and share their insights about the new process.
Executive Summary

In March 1999, the Commission’s Executive Director appointed a seventeen-member panel of individuals with expertise in mathematics, from the K-12 and university systems, county offices, professional organizations, and other state agencies to develop standards for the award of supplementary authorizations in mathematics. The initial work of the Commission’s AB 496 Mathematics Panel is now complete. If the Commission approves the draft standards included in this report, the standards will be sent to the field for review. Following the field review, the panel will respond to questions and concerns raised by field reviewers, and will present a final recommendation for Commission action.

Policy Issues to be Resolved

Should the Commission approve the Draft Standards for Supplementary Authorization in Mathematics recommended by the AB 496 Panel for "Field Review Status?"

Fiscal Impact Summary

The field review is funded through an allocation from the State of California’s General Fund as specified in AB 496. Alpert.

Recommendations

That the Commission approve the Draft Standards of Quality and Effectiveness for Supplementary Authorization in Mathematics for field review.

Overview of This Effort

The need for standards for supplementary authorization in mathematics began with the passage of Assembly Bill 496 in the fall of 1998. This bill was sponsored by the Commission and was an outgrowth of a report issued by the Commission in October 1997 that examined the shortage of fully qualified mathematics teachers in California. This shortage and the adoption of K-12 academic content standards in mathematics underscored the urgency of taking positive action to ensure that every mathematics student
in California is taught by a teacher who is fully qualified to teach the content. Currently, teachers earn a supplementary authorization in mathematics by taking a specified number of units and course work at an institution of higher education. This option remains in effect under AB496. In addition to the course work option, AB 496 requires the Commission to establish standards for the award of supplementary authorizations and to establish a standards-based route to meet requirements for the supplementary authorization through highly intensive professional development programs that are not necessarily offered at post-secondary institutions. This standards-based approach is intended to more clearly the specific content for the supplementary authorization and to provide a non-university option for teachers to learn the content required to earn a supplementary authorization in Mathematics. Panel members have developed the Standards for a supplementary authorization in mathematics that are based on the new Mathematics Framework for California Public Schools K-12 and the new Mathematics Content Standards for California Public Schools Kindergarten Through Grade Twelve, 1997 and Mathematics Teacher Preparation in California: Standards of Quality and Effectiveness for Subject Matter Programs, 1992.

Part I: Recommendations of the AB 496 Advisory Panel

Background

For at least a decade the Commission has been aware of the need to increase the number of qualified mathematics teachers in California classrooms. To this end, in 1997 the Commission conducted a study, entitled Recruitment and Preparation of Teachers for Mathematics Instruction: Issues of Quantity and Quality in California. Findings in the report resulted in the Commission's sponsorship of Assembly Bill 496 passed by the Legislature in 1998 and signed by the Governor.

Assembly Bill 496, addresses the need of preparing more qualified mathematics teachers by introducing three provisions related to the preparation of mathematics teachers. AB 496 requires that the Commission:

(1) establish a program of grants to local education agencies which apply to administer a loan forgiveness program through which certificated teachers would receive a forgivable loans for the cost of mathematics preparation work in return for future service as a fully certified mathematics teacher;

(2) establish standards for the award of supplementary authorizations, including those in mathematics, as another option in addition to the "unit and course work" option provided in regulation; and

(3) open an alternative, standards-based route to meeting requirements for the supplementary authorization through highly intensive professional development or local subject matter programs.

In June 1999 the Commission approved plans for provision (1). This report deals with provisions (2) and (3). In March, 1999 following the Commission's procedures for selecting a panel, the Commission's Executive Director appointed a seventeen member panel of individuals with expertise in mathematics, from the K-12 and university systems, professional organizations, and other state agencies to address the other two provisions of AB 496: (2) the development of standards for the award of supplementary authorizations in mathematics. Standards will more clearly specify the mathematical content required for a supplementary authorization in mathematics. When these standards are approved, institutions can submit proposals based on the new standards. This process will also address provision (3) the standards-based route to meeting requirements for the supplementary authorization through highly intensive professional development or local subject matter programs. In effect, non-university sponsors will be able to submit proposals for supplementary authorization programs in mathematics based on standards.

AB 496 Advisory Panel

The members of the AB 496 Advisory Panel are listed below.
Richie Berman Faculty Teacher Education Program, University of California, Santa Barbara
The AB 496 Advisory Panel met for two days in May, June, and October 1999. A small working group of the Advisory Panel also met for two days in July 1999.

The AB 496 Advisory Panel discussed and examined the daily realities of teaching mathematics, the K12 Student Content Standards, the Mathematics Framework, Program Standards Handbooks from various subject areas, the BTSA Program Standards, and the regulations pertaining to the supplementary authorization in mathematics.

**AB 496 Advisory Panel's Procedures**

The following are the operational procedures that were developed by the panel:

- The panel’s goal was to serve students, first and foremost, by helping their teachers provide high quality mathematics instruction. Individual teachers will also be served by two new options for earning their supplementary authorization in mathematics in addition to the "unit and course work" option provided in regulation.

- The panel agreed that their work in developing Standards must be aligned or consistent with the K-12 pupil Standards and the K-12 mathematics framework. These documents describe what K-12 pupils should know and be able to do in mathematics and set out the following five goals for California students:
  - develop fluency with basic computational skills;
  - develop understanding of mathematical concepts;
  - become mathematical problem solvers who can recognize and solve routine problems readily and can find ways to reach a solution or goal where no
routine path is apparent;

communicate precisely about quantities, logical relationships, unknowns via the use of signs, symbols, models, graphs, and mathematical terms and;

gather data, analyze evidence and build arguments using mathematical reasoning to support or refute hypotheses: and make connections among mathematical ideas and between mathematics and other disciplines.

To be equivalent to the current course work option, a standards-based program must be designed to require no more that approximately 20 semester units. This makes the standards-based programs equivalent to the more traditional approach.

New Options for the Award of Supplementary Authorization in Mathematics

First, AB 496 provides an alternative to (but does not eliminate) the existing "units and course work" route that is spelled out in regulation for earning a supplementary authorization in mathematics. Under the new route, the Commission would approve, to the extent they meet standards, subject matter programs that prepare teachers for a supplementary authorization. Candidates completing approved programs would be recommended by the preparing institution or program to the Commission to receive a supplementary authorization to their credential. This process would be virtually identical to the one used in recommending candidates for a full credential.

The standards-based, program-approval alternative will give the Commission greater assurance that the content and quality of the course work or program is appropriate to the authorization, and it will provide candidates who complete an approved programs greater assurance that the course work they take will count toward the authorization they seek. In contrast, under the current "units and course work" option provided in regulation, candidates apply directly to the Commission to expand the authorization of their credential and, in doing so, must provide evidence that they have taken 10 upper division semester units or 20 total semester units which include courses in specific topics (e.g. college algebra, geometry). Commission staff makes the decision to award the supplementary authorization based on the documentation provided, but only after the candidate has completed the course work.

Second, AB 496 requires that the Commission recognize, for the purpose of awarding supplementary authorizations, completion of a highly intensive standards-based course of study provided by a professional development program. Essentially, this provision encourages professional development programs, such as the California Mathematics Project, to develop highly intensive subject matter programs that meet Commission standards and are approved by the Commission, for the preparation of teachers to earn a supplementary authorization in mathematics. This new route will provide additional access (location, schedule, intensity) for candidates who do not wish to pursue course work at a college or university. AB 496 grant funds will be available to LEAs, that elect to send teachers through these alternative preparatory programs.

Panel Deliberations Regarding Content Knowledge Requirements For Supplementary Authorization in Mathematics

The panel first determined the grade level span that recipients of Supplementary Authorization may teach under current regulations.

According to regulations a supplementary authorization is an authorization to a teaching credential that allows the teacher to teach a specific subject in grades 9 and below. For the panel's purposes, the specific subject is mathematics. The underlying teaching credential is a single subject or multiple subject credential or the precursor standard elementary and secondary credential. The candidate seeking a supplementary authorization could be an individual who has never taught before or an experienced teacher seeking an additional authorization. Generally, a teacher with a supplementary authorization in mathematics would be assigned to teach mathematics in a departmentalized setting in middle school, or grade 9 in a high school.

Next, the panel next examined the Mathematics Content Standards for California Public Schools adopted by the California State Board of Education in 1997. Given that teachers with supplementary authorizations in mathematics will be teaching through grade 9, the panel decided to align its standards with what teachers needed to know in order to teach
the content described in the Mathematics Content Standards for grades K-9. The intent of the panel was to identify what students need to know from kindergarten through grade 9 and to align teacher preparation standards with student knowledge. This task was complex because the student standards for kindergarten through grade 7 consist of five strands that are written for each grade level. For example, in kindergarten there are student standards for (1) number sense, (2) algebra and functions, (3) measurement and geometry, (4) statistics, data analysis, and probability; and (5) mathematical reasoning. In each successive grade through grade 7 student standards are written for the same five strands by increasing the complexity of what students will be able to do in each stand.

In Grade 8, however, the organization of the student standards changes. From Grade 8 through Grade 12, the student standards are written for disciplines not strands. The following disciplines are included: algebra I, geometry, algebra II, trigonometry, mathematical analysis, linear algebra, probability and statistics, Advanced Placement probability and statistics, and calculus. The content of these nine disciplines is not broken down by grade level.

To allow local educational agencies and teachers flexibility in teaching the material, the standards for grades eight through twelve do not mandate that a particular discipline be initiated and completed in a single grade. 

(Mathematics Content Standards for California Public Schools: Kindergarten Through Grade Twelve, 1997)

After lengthy discussion about how much content should be included from the K-12 standards the panel agreed upon the following parameters:

Standards for supplementary authorizations should require teachers to know a measure more than the content they are teaching to students.

Standards for a supplementary authorization in mathematics should not be so rigorous that they discourage interested teachers from pursuing this option and teachers should be able to complete the standards-based program in with the time and effort that is equivalent to the time and effort in the current units and course work.

Standards should reflect what a teacher should know in order to teach through Algebra I or Integrated Course I because these are the two courses typically taught in ninth grade, the highest level that can be taught with a supplementary authorization.

In the process of drafting standards, the panel compared current regulations governing the award of supplementary authorizations to the new mathematics framework and pupil content standards adopted by the State Board of Education. It appeared to the panel that the current requirements for a supplementary authorization in mathematics require teachers to know no more than pupils should be learning. For its purposes, the panel agreed upon a course of study that would require teachers to know mathematics at a level beyond that of the students they are authorized to teach. Standards 3 through 8 ensure that the recipients of the authorization are competent regarding the concepts, skills, and understandings of mathematics and mathematical pedagogy through Algebra 1 or Integrated Course 1 because these two courses are the courses most typically taught in grade nine in California schools. These standards consist of the same five strands that are used in grades K-7: Number Sense, Algebra and Functions, Measurement and Geometry, Statistics, Data Analysis, and Probability, and Mathematical Reasoning. The standards for candidates in each of the strands match and extend slightly the teacher's thinking beyond what students are expected to know and do in the ninth grade.

Panel Deliberations Regarding Content Knowledge Requirements For Supplementary Authorization in Mathematics

The Panel discussed what knowledge other than content knowledge is essential for teachers who are awarded a supplementary authorization in mathematics. The panel recognized that candidates for a supplementary authorization have already completed professional preparation, but they may not have completed courses in the teaching of mathematics. Candidates may not have completed course work on the development of adolescents: the primary group of students served by teachers with supplementary authorizations. Therefore, the panel agreed that the following three broad domains should
Teachers should understand developmental issues of middle school students in order to choose the appropriate mathematics materials and to make appropriate diagnosis and assessments. This consideration arises because most teachers with supplementary authorizations teach in grades 7, 8, and 9.

Teachers should know the common misconceptions and difficulties in learning mathematics.

Teachers should have expertise in managing and monitoring student learning and be able to engage all students in the study of mathematics.

Standard 7 was written to include teacher pedagogical knowledge in the three domains that the panel had identified as essential.

Standards To Guide Professional Development Programs in Establishing and Implementing High Quality Programs for Supplementary Authorization in Mathematics

Pursuant to AB496 the Commission recognizes, for the purpose of awarding supplementary authorizations, including supplementary authorizations in mathematics, completion of a highly intensive program of teacher preparation which may include, but need not be limited to, a local subject matter program such as the California Mathematics Project created pursuant to Chapter 196 of the Statutes of 1982, provided that the program satisfies the applicable standards of the Commission.

Panel members used a variety of Commission Approved Program Standards as a reference for what standards should be used to ensure high quality programs for supplementary authorization in mathematics. These standards were considered essential because professional development programs are authorized under AB 496 to offer programs by writing to the standards. There are two categories of standards. Standards in Category I address Program Philosophy, Design, and Subject Matter Content (Standards 1 through 8). Standards in Category II address Program Development and Implementation (Standards 8 through 15).

Timeline for Adoption and Implementation of Supplementary Authorization Standards in Mathematics

If the Commission approves these Draft Standards for field review at the December 2 meeting, the following timeline will be followed to open a standards-based route to meeting the requirements for the supplementary authorization in mathematics:

December 10, 2000 Draft Standards mailed to the field for public comment.

January 15, 2000 Deadline for response from the field.

January 15-20, 2000 Commission staff collects and organizes field review comments and forwards them to the AB 496 Advisory Panel

February 2-3, 2000 The AB 496 Advisory Panel meets to review responses from the field.

March 2, 2000 Final Standards are presented to the Commission for adoption.

March 10, 2000 Standards are mailed to the field with AB496 Proposals.

May 15, 2000 AB 496 Proposals using the Standards of Quality and EffectivenessFor Supplementary Authorization in Mathematics are due from the field. Other programs that elect to use the new standards may submit proposals for approval to the Commission.

Representatives of the AB 496 Advisory Panel will be present at the Commission meeting
DRAFT

Standards of Quality and Effectiveness for Programs of Supplementary Authorization in Mathematics

Introduction to the Standards

This document sets forth program standards for the design, implementation, and operation of programs that recommend the Supplementary Authorization in Mathematics. Each standard is presented in three parts: (a) a succinct statement of the standard itself; (b) a brief rationale explaining why the standard is important; and (c) factors to consider to be used by program designers in developing programs have succeeded in reaching the operational goals embodied within the standards.

The standards are clustered in two broad categories. Category I addresses the Program Philosophy, Design, and Subject Matter Content to be covered in the program (Standards 1 through 8). Category II addresses program development and implementation (Standards 9 through 15).

Standards 3 through 8 ensure that the recipients of the authorization are competent regarding the concepts, skills, and understandings of both mathematics and mathematical pedagogy through Algebra 1 or Integrated Course 1.

The mathematics for grades K-7 described in the Mathematics Content Standards for California Public Schools Kindergarten Through Grade Twelve form the foundation on which standards 2 — 8 are based. The mathematical content of these standards will enable participants to develop an advanced viewpoint of school mathematics through Algebra 1 or Integrated Course 1. Building an advanced viewpoint requires engagement with the reasoning, structures, and interconnections in mathematics that unifies the Academic content standards. This, in turn, enables the participants to examine the overarching concepts of mathematics across the sub-disciplines of mathematics.

Though the mathematics of Standards 3 through 7 are listed by separate subdisciplines, both the specific mathematics detailed and good mathematical pedagogy encourage an integrated view of the connections across mathematics and its applications. In particular, the mathematical reasoning standard requires participants to demonstrate reasoning processes across all subdisciplines.

In designing a program to meet these standards, it is expected that the content will be presented in ways that model good mathematics teaching. Such teaching takes many forms. It engages the participants in examining, representing, transforming, solving, proving, and communicating mathematics. This can occur when participants learn mathematics in a variety of settings; for example, whole class, collaborative teams, and individually. Participants use the tools of mathematics to develop and enhance their understandings of the content of mathematics and how that content can be taught most effectively. Technology, including calculators and computers, should enhance instruction and active learning of mathematics.

Pedagogy is an essential component of a professional development program in mathematics. Standard 8 details the program requirements in mathematical content pedagogy. In addition to learning mathematics as their students should learn it, participants need to reflect on the instructional decisions that are made during the course of a lesson. They need to analyze why particular methodologies, models, examples, and questions were selected and how these inhibited or fostered the learning of mathematics. In addition, they need to adapt the methods modeled throughout the program to appropriate methodologies that take into account the developmental and learning needs of young adolescents. Participants also need to know how the content of Standards 3 through 7 relate to the
mathematics they will teach.

The standards are intended as a guideline for program design and implementation. The sponsoring organization is expected to create a professional development program and evaluation plan based on these standards.

Participants meeting these high standards and receiving supplemental authorizations through programs based on these standards will be better able to provide high quality mathematics instruction to their students.

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Category I
Program Philosophy, Design, and Subject Matter Content

Standard 1: Program Philosophy and Purpose

The program is based on an explicit statement of philosophy that expresses the program purpose and desired outcomes. The desired outcomes include a definition of a teacher who is well prepared to teach the mathematics content through Algebra 1 or Integrated Course 1.

Rationale

An explicit statement of philosophy assists in identifying program needs and provides direction for program design, course development, and program reviews. The philosophy statement also informs participants of the goals of the program and the basis for program design.

Factors to Consider

- Do the sponsoring organizations, program leadership, and subject matter and education experts collaboratively develop the program philosophy, purpose, and desired outcomes?
- Is the program philosophy consistent with the major themes of the California State Curriculum Framework for Mathematics and is responsive to the current conditions in California schools?
- Does the program philosophy show a clear awareness of the preparation that teachers need in order to teach mathematics effectively to all students in California Schools?
- Are the expected program outcomes for participants defined clearly so participant assessments and program reviews can be aligned appropriately with program goals?
- Does the organization periodically review and reconsider the program philosophy in light of local program evaluations, ongoing research on the mathematical preparation of teachers, and the changing needs of public schools in California?
- Does the program meet other criteria specified by local conditions as appropriate to this standard?

Standard 2: Program Design

The program has a cohesive design that is consistent with the program philosophy and is grounded in research and effective practices on the mathematical education of teachers. The program balances opportunities for participants to gain knowledge in mathematics, reflect on the teaching of mathematics in light of this knowledge, and grow professionally through connections to the mathematics education community. The design is responsive to the variety of mathematical preparations and needs of the participants. The program curriculum reflects and builds on the Mathematics Content Standards and the major themes of the California Mathematics Framework.

Rationale

A well-designed program is critical to the goal of preparing effective teachers in mathematics though the course 1 or algebra 1 levels. The three key instructional components of the design - content knowledge, reflection on practice, and development of the profession - work together to ensure that teachers leaving the program are fully qualified to meet present and future challenges in teaching mathematics in California public schools.
Factors to Consider

- Are the instructional components (content, reflection on practice, professional growth) of the program logically organized and directly linked to the program philosophy?
- Does the mathematical content include and expand upon the ideas in the K-7 Mathematics Content Standards?
- Is the mathematical content delivered using a variety of instructional strategies?
- Is the reflection on practice guided by the California Mathematics Framework that highlights a balanced approach in the teaching and learning of mathematics?
- Does the program encourage engagement in activities in the broader professional community of mathematics education?
- Does the program meet other criteria specified by local conditions as appropriate to this standard?

**Standard 3: Number Sense**

Each program requires participants to demonstrate an understanding of number sense. This should include, but is not limited to, the study of the real number system, estimation, relative magnitude, multiple representations of numbers, and the Fundamental Theorem of Arithmetic.

**Rationale**

Number sense is requisite to an understanding of the structure of mathematics. It leads to an appreciation of the way different aspects of mathematics are connected and relate to real-world situations. The use of numbers to communicate ideas and information is an essential skill for everyone.

**Factors to Consider**

Does the program require participants to:

- demonstrate conceptual understanding of the algorithms of arithmetic?
- create a variety of representations of a single situation (e.g., geometric, set, algebraic, symbolic, graphical)?
- solve application problems including, but not limited to, reasonableness of answer and estimation, significant number of digits, and scientific notation?
- demonstrate understanding of relative magnitude of both very large and very small quantities?
- explore the development of the real number system through the use of field properties?

**Standard 4: Algebra and Functions**

Each program requires participants to demonstrate an understanding of the development of functions and algebra through an intuitive understanding of the underpinnings of calculus. This should include the study of algebra as language, algebra as process, algebra as structure, and algebra as modeling. Participants should be able to analyze by direct calculation, and through the use of graphing technology, standard functions and how transformations change the graphs of those functions.

**Rationale**

Algebra is important as a means of mathematical communication and a tool for solving real-world problems. Teachers need to understand the continuous development of the ideas of algebra from early elementary through high school. The process of building on students' sense of number and moving them toward the uses of variables and functions requires insight into the connections between algebra, number, and other areas of mathematics.

**Factors to Consider**

Does the program require participants to:

- become fluent in the symbolic language of algebra, including the use and meaning of variables, expressions, statements, and functions?
engage in algebraic processes such as moving from specifics to generalizations, performing operations and their inverses, solving equations and inequalities, and developing algorithms?

- use a variety of mathematical tools (tables, graphs, equations, functions, matrices, vectors) to organize information and model relationships?

- demonstrate knowledge of the characteristics of families of functions (linear, polynomial, rational, exponential, logarithmic, and periodic) and ways to represent them (numeric, symbolic, graphic, verbal)?

- explore the development of functions and algebra through the underpinnings of calculus, including an informal treatment of limits, rates of change, areas under a curve, and continuity?

**Standard 5: Measurement and Geometry**

Each program requires participants to demonstrate an understanding of the elements of geometry. This should include analysis of geometric figures using methods and results from transformational, coordinate, and synthetic geometry; study of the process and systems of measurement; properties and relationships of shape, size, and symmetry in two- and three-dimensional space.

**Rationale for Standard**

Geometry provides a means for visualizing, analyzing, and measuring objects in the physical world, as well as a rich context for the development of mathematical reasoning. Powerful mathematical connections to other mathematical content areas can be made through the use of coordinate and transformational representations.

**Factors to Consider**

Does the program require participants to:

- precisely describe, classify, and compare types of plane and solid figures according to their attributes?

- use the relationships of congruence and similarity?

- examine the proofs of historically important theorems?

- link algebraic and geometric representations using coordinate methods?

- use ratios and proportions to solve problems involving scale factors and similar figures in two- and three-dimensions (perimeter, area, volume)?

- apply transformational techniques of reflection, rotation, translation, and dilation in coordinate and synthetic settings?

- select and use appropriate techniques and tools for measurement?

- determine the level of precision appropriate for particular situations?

**Standard 6: Statistics, Data Analysis, and Probability**

Each program requires participants to demonstrate an understanding of the processes of gathering and analyzing data and the theoretical constructs that underlie both statistics and probability. This should include emphasis on the following essential components: collection, representation, analysis, and interpretation of data; modeling univariate and bivariate data; and applications of chance and probability.

**Rationale**

Probability and statistics are fundamental to many disciplines and careers. There is an increasing need for all citizens to organize, analyze, and interpret data in order to make sense of the world around them.

**Factors to Consider**

Does the program require the participants to:

- demonstrate an understanding and application of concepts, principles, and mechanics of data collection such as sampling techniques and measurement of quantitative and qualitative variables?

- calculate, interpret, and apply of measures of central tendency, dispersion, and relative standing?

- demonstrate conceptual understanding of the properties of the normal distribution?
- demonstrate an understanding of the effects of various modifications of data sets?
- demonstrate an understanding of and be able to approximate the line of best fit and make predictions from it?
- construct, interpret, and judge the appropriateness of graphical and tabular representations of qualitative and quantitative data sets?
- discuss misleading data displays and abuses of statistics?
- plan and conduct experiments and simulations to determine experimental probabilities?
- develop counting and other techniques useful in determining theoretical probabilities including conditional probability, expected value, and odds?

**Standard 7: Mathematical Reasoning**

Each program requires participants to demonstrate a variety of reasoning skills in all of the content areas addressed in this document. This should include, but is not limited to, the ability to make conjectures based on an analysis of examples, construct and critique both informal and formal proofs, deconstruct and use formulas and theorems, use multiple approaches to solve a given problem, and differentiate between inductive and deductive reasoning.

**Rationale**

Reasoning is fundamental to knowing and doing mathematics. It is essential that an emphasis on reasoning pervade all mathematical activity in order to give individuals access to mathematics as a powerful way of making sense of the world.

**Factors to Consider**

Does the program require participants to:

- reason in a variety of mathematical content areas, such as algebra, number, geometry and measurement, and probability and statistics?
- use both inductive and deductive reasoning?
- present both informal and formal proofs in both oral and written forms?
- explore and share multiple ways of solving a given problem?
- solve problems by deconstructing and using formulas and theorems?
- analyze and discuss the reasoning they use?

**Standard 8: Mathematical Content Pedagogy**

Each program requires participants to connect mathematical content knowledge to the practice of teaching school mathematics.

**Rationale**

All mathematics teachers must link content knowledge with effective pedagogy. This linkage gives teachers the versatility to provide all students with access to the concepts and procedures of mathematics. This supports the development of students' mathematical reasoning.

**Factors to Consider**

Does the program require participants to:

- reflect on the transition from being a learner of mathematics to being a teacher of mathematics?
- examine school instructional materials and analyze the connections between the mathematics of the program and the mathematics they will teach?
- reflect on the ways that their knowledge of the continuum of mathematical content can facilitate their students' conceptual understandings?
- adapt the methods modeled throughout this program to appropriate methodologies that take into account the developmental and learning needs of young adolescents?
- reflect on and discuss the following: choosing appropriate tasks; employing meaningful strategies; establishing a positive and supportive environment conducive to learning mathematics; facilitating classroom discourse through effective questioning strategies?
Category II

Program Development and Implementation

Standard 9: Program Coordination

The program is sponsored by one or more organizations that demonstrate a commitment to the mathematical and professional growth of the participants. The program has strong leadership and an administrative structure organized, governed and coordinated with the active involvement of mathematics and mathematics education experts. Program leaders have appropriate authority over the details of program design and implementation.

Rationale

The commitment of sponsoring organizations (school districts, county offices of education, the California Mathematics Project, institutions of higher education, etc.) is indispensable for the effectiveness and durability of the program. The accomplishments of participants in supplemental authorization programs depend in part on the effective coordination of the program by responsible members of these organizations. For participants to become competent in mathematics and the teaching of mathematics, all aspects of their subject matter preparation must be planned thoughtfully and implemented conscientiously.

Factors to Consider

- Is there effective communication and coordination among the sponsoring organizations, the program leadership, and the subject matter specialists responsible for the program?
- Are the responsibilities of each sponsoring organization for program oversight and implementation clearly specified, and a primary contact person is designated for each?
- Are linkages made to provide opportunities for collaboration among a variety of organizations such as school districts, county offices of education, professional development centers, mathematics project sites, college or university mathematics and education departments, and professional organizations?
- Is a program director appointed to assume responsibility for overall direction of the program; the roles, responsibilities and time commitment of the program director are clearly defined and are appropriate to the scope of the program?
- Does the program meet other criteria specified by local conditions as appropriate to this standard?

Standard 10: Program Resources

The sponsoring agencies consistently allocate sufficient personnel time, including support personnel, fiscal resources and space to administer and conduct the program and fulfill standards 3 through 8. Sufficient resources are allocated for program curriculum, instruction, and assessment. Sufficient resources are also allocated for faculty development.

Rationale

A program's resources affect its quality and effectiveness. Lack of resources impedes participants from achieving high standards of quality or competence.

Factors to Consider

- Are adequate personnel resources equitably provided to maintain an effective program?
- Do the program's personnel and participants have access to appropriate buildings, classrooms, offices, professional services, instructional materials (including print material and technology-based instructional tools), and adequate clerical support?
- Does the program meet other criteria specified by local conditions as appropriate to this standard?

Standard 11: Faculty

The persons providing instruction in this program are qualified by experience and formal education to deliver the necessary mathematical content, work with adult learners, model a
variety of pedagogical approaches, engage participants in reflective practices regarding the teaching and learning of mathematics, and demonstrate a variety of assessment practices.

Rationale

Content competency is a necessary component for program faculty. It also is essential that persons involved in providing instruction in mathematics understand the variety of ways that mathematics is learned and use a variety of strategies that will help make mathematics accessible to all learners. Consequently, the instruction in the program will combine significant mathematical content with exemplary classroom practices and promote the implementation of these practices within participants' classrooms.

Factors to Consider

- Do the instructors include some combination of fully certified mathematics teachers, professors of mathematics education, professors of mathematics, and other qualified mathematics educators?
- Are the instructors knowledgeable about the California Mathematics Framework and the Mathematics Content Standards for California Public Schools Kindergarten Through Grade Twelve?
- Do the instructors include people with experience teaching middle or high school students in mathematics classrooms in diverse communities?
- Do the instructors include people with experience delivering professional development for mathematics teachers?
- Do the instructors include people with experience teaching college or university mathematics or mathematics education?
- Are the instructors knowledgeable about equity issues pertinent to mathematics education?
- Do the instructors have experience using a variety of instructional and assessment strategies?

Standard 12: Program Evaluation

The agencies that sponsor the program operate a comprehensive, ongoing system of program evaluation that leads to continuous improvement of the program.

Rationale

To achieve high quality and effectiveness, a program should be evaluated regularly and comprehensively and refinements made based on the evaluation results. The evaluation should be based on the Program Standards as well as local goals. The evaluation should support continued development of the program, and should recognize that both formal and informal evaluations serve useful purposes.

Factors to Consider

- Is the program systematically evaluated on the basis of criteria that are related to the design, rationale, goals and objectives of the program?
- Is evaluative input collected from a variety of stakeholders, including: program participants, graduates, local mathematics teachers, faculty, administrators?
- Is data collected on program participants, graduates and faculty?
- Are adjustments and improvements in all components of the program based on the results of program evaluation, the implications of new knowledge about teaching and learning, and the identified strengths and needs of the participants?

Standard 13: Admissions, Advice, and Assistance

The program has a fair and equitable selection process based upon well-defined criteria. Participants will be admitted whose personal qualities and professional experiences suggest the highest potential for success as a mathematics teacher. The provider makes available to each teacher in the program all requirements, standards, and procedures that affect their progress toward attaining the supplemental authorization in mathematics. Qualified members of the program staff are available to advise teachers about their academic and professional development as the need arises. The program assists candidates who need special assistance and recommends only those candidates who satisfy the requirements of the programs.
Rationale

The program needs a clear application process to examine the eligibility of potential participants and to assist in the selection process. The program has the obligation to provide the teachers with accurate and relevant information and to give teachers appropriate feedback on their progress.

Factors to Consider

- Are the selection criteria and procedures clearly described and available to prospective participants?
- Does the selection process reflect a commitment to achieve a balanced representation of the population?
- Does the program insure that all current and prospective participants receive relevant information about the program and the availability of assistance?
- Does the program encourage participation of members of diverse populations?

Standard 14: Equity

The program promotes educational equity through its instructional, advisement and curricular practices. Each participant in the program acquires knowledge and appreciation of the perspectives and contributions of diverse cultural, ethnic and gender groups related to mathematics. Participants experience classroom practices and use instructional materials that promote educational equity among diverse learners.

Rationale

Students who attend California schools are increasingly diverse. They live in a society that has benefited from the perspectives and contributions of men, women, and many cultural, ethnic and gender groups. Teachers must understand and appreciate the cultural perspectives and intellectual contributions of these groups. They must also be aware of barriers to academic participation and success, and must encourage equitable practices of education during their preparation.

Factors to Consider

- Does the program include faculty role models from diverse cultural and ethnic groups, men and women, and individuals with exceptional needs?
- Does the program include faculty who are concerned about and sensitive to diverse cultural and ethnic groups, men, women, and individuals with exceptional needs?
- Are both men and women and members of culturally and ethnically diverse groups encouraged to enter and complete the program?
- Does the program provide knowledge and enhance understanding and appreciation of the cultural dimensions and context of mathematics as a subject of study?
- Do participants learn about the contributions and perspectives of diverse cultural, ethnic and gender groups related to significant mathematical subjects?
- Do participants examine practices in mathematics education that restrict participation of many groups in mathematics or mathematics related study and careers?
- Does coursework in the program foster understanding, respect and appreciation of human differences, including cultural, ethnic, gender and language variations in the learning of mathematics?
- Does the program have other qualities related to this standard that are brought to the reviewers' attention by the institution?

Standard 15: Assessment of Subject Matter Competence

The program uses multiple measures to assess the subject matter competence of each participant formatively and summatively in relation to the content of standards 3 to 8 and the K-7 Academic Content Standards. The scope and content of each participant's assessment is congruent with the studies the participant has completed in the program. The assessment information is also used to inform the scope, focus and content of the program.

Rationale

An organization that offers a program leading to a supplementary authorization in mathematics has a responsibility to verify the mathematical competence of its participants.
Factors to Consider

- Does the program provide avenues for addressing deficiencies in mathematical background or experience of the participants?
- Does the assessment include a variety of approaches, such as participant presentations, projects, portfolios, observations and interviews, and oral and written examinations?
- Does the assessment encompass the content of standards 3 to 8 and the K-7 Academic Content Standards?
- Is the assessment aligned with the participant's actual studies in the program?
- Is the assessment valid, reliable, equitable, and fair, and does it include provisions for appeals?
- Are the assessment scope, process and criteria clearly delineated and available to participants?
- Does the organization make and retain records regarding each participant's performance in the assessment?
- What are other program qualities, as specified by local conditions, which are appropriate to this standard?
Gender Equity in Teacher Preparation: Findings of the Survey of California Teacher Preparation Programs

Professional Services Division
November 17, 1999

Executive Summary

In Spring 1999, the Professional Services Division of the California Commission on Teacher Credentialing conducted a study to determine the type and quality of education and training that elementary and secondary teacher candidates receive in gender equity. The results of this study were intended to inform the SB 2042 Panel as it considers gender equity in its revision of the program standards for the Multiple and Single Subject Teaching Credentials. The draft report was presented to the SB 2042 Panel on November 16, 1999. The report is presented in this agenda item for Commission consideration.

Fiscal Impact Summary

The Professional Services Division budget supports the costs of this study.

Recommendation

That the Commission accept the draft report entitled Gender Equity in Teacher Preparation: Findings of the Survey of California Teacher Preparation Programs, and authorize staff to put it in final form and distribute it to institutions and other stakeholders.

Background

In Spring 1999, the Professional Services Division of the California Commission on Teacher Credentialing conducted a study to determine the type and quality of education and training that elementary and secondary teacher candidates receive in gender equity. The results of this study are intended to inform the SB 2042 Panel as it considers gender equity in its revision of the program standards for the Multiple and Single Subject Teaching Credentials.

The program standards currently address educational equity in Standard #3, Orientation to Human Development and Equity (p.37), and gender within Standard #19, Capacity to Teach Diverse Students (p.78). As part of the Comprehensive Review of Teaching Credential Requirements (SB 1422), Commission staff completed an analysis of gender equity issues...
in the Commission’s program standards. Individuals and organizations with expertise in
gender equity were invited to develop recommendations regarding teacher education for
gender equity. The American Association of University Women -- California (AAUW-CA)
responded by forming a panel to develop recommendations pertaining to the program
standards. These were presented to the SB 1422 Panel in August 1996, and received by
the Commission in December 1996. Based on the AAUW's recommendations, the SB 1422
Panel recommended that gender equity be addressed in the revision of the program
standards. The Commission referred those recommendations to the SB 2042 Panel.

This study consisted of a survey of institutions and district intern programs that prepare
elementary and secondary classroom teachers. A task force consisting of teacher
educators and gender equity experts developed the survey, which contained questions
regarding coursework, student teaching, faculty preparation and resources, and
undergraduate subject matter preparation. The survey was mailed to deans and directors of
teacher preparation programs, undergraduate deans of arts and sciences, and chairs of
women's studies departments at institutions with approved Multiple Subject and/or Single
Subject Teaching Credential programs. Forty-two out of 74 institutions of higher education
and 4 out of 9 district intern programs submitted responses, for a total of 46 responses.

Survey Findings

The survey consisted of twenty-four questions and was organized into three sections:
institutional definitions of educational and gender equity, professional teacher preparation,
and undergraduate subject matter preparation. For the purpose of reporting the findings,
"institution" refers both to institutions of higher education that offer teacher education and
district intern programs.

The results of the survey revealed some general trends in gender equity education and
training in teacher preparation. Overall, the type and quality of gender equity education and
training varies among institutions. However, specific conclusions cannot be drawn from the
data about all of the institutions of higher education and district intern programs in
California. There were some limitations of the data due to the design of the survey and the
response rates. Most of the questions were open-ended, allowing for multiple responses. In
these cases, categories for reporting the data were developed based on the survey
responses. A few questions listed categories to be checked by the respondents, however,
in some cases the results were unclear due in part to the nature of the questions. The
response rates varied throughout the survey. Due to these limitations, the data are
descriptive only and provide a snapshot of how gender equity is addressed in some teacher
preparation and undergraduate programs in California.

The majority of institutions defined educational and gender equity as equal access to
programs and resources. Gender equity education and training is largely addressed through
both coursework and student teaching, although close to one-quarter of the institutions
address it through coursework only. None of the responding institutions address gender
equity through student teaching alone.

Within coursework, more than four-fifths of the institutions cover gender equity in
coursework related to educational equity/diversity. Other types of courses include
foundations of education, classroom management, general methods, content specific
methods, and student teaching. In general, gender equity is not treated separately from
other areas of educational equity and is quite often infused in the curriculum. Course topics
cover a broad range of areas, including analysis of gender discrimination, gender
discrimination in schools, approaches to achieving gender equity in teaching, and
educational goals for gender equity. Few institutions provided data on classroom hours
spent on gender issues, so it is unknown how much time is dedicated to gender equity in
the professional teacher preparation program. One possible reason may be that gender
equity is infused across more than one course.

Fewer institutions responded to questions pertaining to student teaching, due in part to the
number of institutions that address gender equity through coursework only. Some of the
same topics are covered in student teaching as in coursework. Of those institutions that
address gender equity in student teaching, a higher percentage of institutions included
approaches to achieving gender equity in their topics for student teaching. The majority of
institutions include an analysis of gender equity in classroom and practice teaching
observations. Less than half, however, assess candidates for instructional strategies
related to gender equity. Few institutions provided data about when candidates are
assessed for instructional strategies in gender equity.

Thirty-nine percent of institutions indicated that gender equity education and training is an integral part of their curriculum. For one-third of the institutions, the extent and scope of gender equity education and training depends in part on individual faculty. Recruitment of faculty with specific expertise in gender equity issues varies among institutions. More than one-quarter of the institutions use faculty as a primary resource for providing gender equity education and training, and one-fifth of the institutions use faculty as a major resource for faculty development in gender equity. Other major resources used for faculty development in gender equity include written literature, training, and lectures (guest speakers, conferences, fieldtrips). Very little data was provided on the extent to which these resources are used by faculty.

The program strengths and weaknesses listed by some institutions suggest wide variation in gender equity education and training. The most common areas of strengths listed were faculty, curriculum, and coursework, whereas the areas of resources, curriculum, and topics in curriculum were most frequently listed as weaknesses. Some of the institutional suggestions for improvement include being more explicit in coursework and student teaching, having more faculty dialogue and training, and devoting more time to the topic.

Some respondents recommended improvements for the program standards for Multiple and Single Subject Teaching Credentials, such as being more explicit in the Factors to Consider, focusing more on gender issues, and dissemination of a resource list.

In terms of the gender distribution of teacher candidates, the majority of candidates enrolled in teacher education programs overall and in elementary programs in 1998-99 were females. The distribution of males and females in secondary programs was more even, however, there was a higher percentage of male candidates in math, science, and technology. Institutions did indicate an increase in males in teacher education programs overall and in elementary programs within the last five years.

Fewer institutions responded to the questions pertaining to undergraduate subject matter preparation, because the majority of responses were received from professional teacher preparation programs. In subject matter preparation programs, the highest percentage of respondents address gender equity through the curriculum. The range of topics covered by institutions includes background in gender studies, women's studies, gender issues in schooling, teaching techniques, sexual orientation studies, and gender diversity in materials. As with professional preparation coursework, very few of the responding institutions indicated hours spent on topics.

The results of the survey suggest that there is a need for more specificity in the program standards for the Multiple and Single Subject Teaching Credentials with respect to gender equity, specifically related to program requirements and candidate competencies.

In Fall 1999, a subgroup of the Gender Equity Task Force was convened to develop recommendations for improving gender equity education and training in teacher preparation programs. The Gender Equity Workgroup reviewed and discussed the preliminary results of the survey. The workgroup developed a list of proposed teacher skills and knowledge statements for consideration by the SB 2042 Panel as it develops new program standards for the Multiple and Single Subject Teaching Credentials.
DRAFT
Gender Equity in Teacher Preparation:
Findings of the Survey of California
Teacher Preparation Programs

Author:
Swan, Staff Services Analyst
Professional Services Division

Sacramento, California
November 1999

California Commission on
Teacher Credentialing

November 1999

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Jon Snyder  Regents, University of California
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Sam W. Swofford, Ed.D.  Executive Director

**Gender Equity Task Force**

Vicki Atwood  Legislative Coordinator
Commission on the Status of Women

Carol Barkley  Education Program Consultant
Career Development and Workforce Preparation Division
Department of Education

Arlene Black  Legislative Advocate
American Association of University Women - California

Rosemary Fahey  Single Subject Coordinator
School of Education
Chapman University

Linda Hoff  Director of Teacher Education
Department of Education
Fresno Pacific University

Karen Humphrey  Gender Equity Consultant
Career Development and Workforce Preparation Division
Department of Education

Candace Kelly  Visiting Faculty
School of Communication and Education
California State University, Chico

Doni Kobus  Professor of Teacher Education
CSU, Stanislaus-Stockton

Rae S. McCormick  Multiple Subject Coordinator
Department of Education
Occidental College

Concepción Valadez  Associate Professor of Education
Graduate School of Education
University of California, Los Angeles

Jere Wells  Project Coordinator
District Intern/BTSA Program
Los Angeles Unified School District

**Gender Equity Workgroup**

Arlene Black  Legislative Advocate
American Association of University Women - California

Rosemary Fahey  Single Subject Coordinator
School of Education
Chapman University

Tim Flinders  Middle School Teacher
Miwok Valley School, Petaluma

June Gordon  Assistant Professor
Department of Education
University of California, Santa Cruz
Introduction

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The program standards currently address educational equity in Standard #3, Orientation to Human Development and Equity (p.37), and gender within Standard #19, Capacity to Teach Diverse Students (p.78). As part of the Comprehensive Review of Teaching Credential Requirements (SB 1422), Commission staff completed an analysis of gender equity issues in the Commission's program standards. Individuals and organizations with expertise in gender equity were invited to develop recommendations regarding teacher education for gender equity. The American Association of University Women -- California (AAUW-CA) responded by forming a panel to develop recommendations pertaining to the program standards. These were presented to the SB 1422 Panel in August 1996, and received by the Commission in December 1996. Based on the AAUW's recommendations, the SB 1422 Panel recommended that gender equity be addressed in the revision of the program standards. The Commission referred those recommendations to the SB 2042 Panel.

This study consisted of a survey of institutions and district intern programs that prepare elementary and secondary classroom teachers. A task force consisting of teacher educators and gender equity experts developed the survey, which contained questions regarding coursework, student teaching, faculty preparation and resources, and undergraduate subject matter preparation.

The survey was mailed to deans and directors of teacher preparation programs, undergraduate deans of arts and sciences, and chairs of women's studies departments at institutions with approved Multiple Subject and/or Single Subject Teaching Credential programs. Some institutions submitted multiple responses, which were combined to reflect...
Part I: Findings of the Survey of Teacher Preparation Programs

The survey consisted of twenty-four questions and was organized into three sections: institutional definitions of educational and gender equity, professional teacher preparation, and undergraduate subject matter preparation (see Appendix A). The responses to each question are summarized below. Because most of the questions were open-ended, categories for reporting the data were developed based on the survey responses. Sample responses are provided below for those categories that are not self-explanatory. The category "did not respond" indicates that either no answer was provided, or the answer given was not a response to the question. The percentages listed below are based on 46 responses. Due to the nature of multiple response questions, the percentages do not always add up to 100 percent. "Institution" refers both to institutions of higher education that offer teacher education and district intern programs.

Survey Section 1: Institutional Definitions of Educational and Gender Equity

Question 1: What is your institution's definition of educational equity?

Table 1 lists the categories of responses for this question. The majority of institutions (67%) included equal access to programs and resources in their definition of educational equity. Seven percent of institutions indicated that they did not have an official definition of educational equity, and 20 percent did not respond to the question. Some institutions identified gender, race/ethnicity, age, sexuality/sexual orientation, class/SES, disability, and religion as part of their definition.

<table>
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<th>%</th>
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<td>67</td>
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<td>Equal educational opportunity, absence of discrimination, access to quality education</td>
</tr>
<tr>
<td>9</td>
<td>20</td>
<td>Sensitivity to individual differences</td>
<td>High expectations for all students, belief that all kids can learn, valuation of uniqueness</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>Cultural understanding</td>
<td>Understanding of cultural expectations, providing materials sensitive to all points of view</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Equality of outcomes</td>
<td>Equal achievement of educational outcomes, equal retention</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>No definition</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>20</td>
<td>Did not respond</td>
<td></td>
</tr>
</tbody>
</table>

Question 2: What is your institution's definition of gender equity?

Table 2 summarizes the responses to question #2. Similar to question #1, almost two-
thirds (65%) of the institutions included equal access to programs and resources in their definition of gender equity. Seven percent of institutions indicated that they did not have an official definition of gender equity, and 17 percent did not respond to the question.

**Table 2: Institutional Definitions of Gender Equity**

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
<th>Sample Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>65</td>
<td>Equal access to programs and resources</td>
<td>Equal educational opportunity, absence of discrimination, access to quality education</td>
</tr>
<tr>
<td>7</td>
<td>15</td>
<td>Sensitivity to individual differences</td>
<td>High expectations for all students, belief that all kids can learn, valuation of uniqueness</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>Understanding of gender inequities</td>
<td>Emphasis on gender inequities ingrained in educational institution, curricula, etc., awareness of the unconscious ways teachers work</td>
</tr>
<tr>
<td>5</td>
<td>11</td>
<td>Equality of outcomes</td>
<td>Equal achievement of educational outcomes, equal pay for equal work, zero tolerance to sexual harassment</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>No definition</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>17</td>
<td>Did not respond</td>
<td></td>
</tr>
</tbody>
</table>

**Survey Section 2: Professional Teacher Preparation**

This section of the survey included 19 questions: 1 question related to how gender equity is addressed in the curriculum; 5 questions related specifically to coursework; 5 questions related to student teaching; 4 questions related to faculty preparation and resources; and 4 questions related to program qualities.

**Question 3: Does your program provide gender equity education and training through coursework, student teaching, both, or other?**

Table 3 shows the results for question #3. Almost two-thirds (65%) of the institutions indicated that their programs provide gender equity education and training through both coursework and student teaching. Whereas institutions cover gender equity through either coursework or coursework and student teaching, none cover it through student teaching exclusively. The “other” category includes observations, informal class discussions, and guest speakers. Thirteen percent of the institutions did not respond.

**Table 3: Number of Institutions Providing Gender Equity Education and Training through Coursework and Student Teaching**

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>65</td>
<td>Both</td>
</tr>
<tr>
<td>10</td>
<td>22</td>
<td>Coursework</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
<td>Student Teaching</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>Other</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>Did not respond</td>
</tr>
</tbody>
</table>

**Survey Results Related to Coursework**

**Question 4: Is the topic of gender equity typically covered in coursework specific to gender equity, part of coursework related to educational equity, or included in other general**
Table 4 summarizes the results for question #4. More than four-fifths (83%) of the institutions indicated that the topic of gender equity is typically covered in coursework related to educational equity/diversity. The "other coursework" category includes foundations of education, methods courses, instructional technology, and classroom organization and management. Nine percent of institutions did not respond.

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>83</td>
<td>Coursework related</td>
</tr>
<tr>
<td>10</td>
<td>22</td>
<td>Coursework specific</td>
</tr>
<tr>
<td>17</td>
<td>37</td>
<td>Other coursework</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>Did not respond</td>
</tr>
</tbody>
</table>

**Question 5:** What courses include gender equity education and training? Please list course titles, number of credit hours, and whether they are required. Please attach course syllabi if available.

The responses to this question varied by course title, number of credit hours (quarter or semester), and whether the courses are required or optional. Respondents were also asked whether the courses include specific strategies and techniques for eliminating gender inequity in the classroom. The most common types of courses that include gender equity education and training were the following:

- Multicultural education/cultural diversity
- Foundations of education
- Classroom management
- General methods
- Content specific methods
- Student teaching

All of the most common courses that were listed tended to be required and to include specific strategies and techniques. Consistent with the responses to question #4, the most common type of course listed by institutions was multicultural education/cultural diversity.

**Question 6:** Generally, how does your faculty address gender issues in the curriculum, teach explicitly, infuse in the curriculum, or both?

Table 5 displays the responses to question #6. Four percent of institutions indicated that their faculty address gender equity explicitly in the curriculum. The meaning of the results is unclear, because "teach explicitly" could mean that faculty teach a separate course on gender equity, or they address it explicitly within a course. Eleven percent of institutions did not respond.

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>61</td>
<td>Both</td>
</tr>
<tr>
<td>11</td>
<td>24</td>
<td>Infuse in the curriculum</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Teach explicitly</td>
</tr>
<tr>
<td>5</td>
<td>11</td>
<td>Did not respond</td>
</tr>
</tbody>
</table>

**Question 7:** What topics are covered in gender equity education and training in coursework and approximately how many classroom hours are spent on each?

Table 6 lists the categories of responses for this question. Almost half (48%) of the
institutions included analysis of gender discrimination in their coursework topics; 46 percent included gender discrimination in schools; 43 percent included approaches to achieving gender equity in teaching; and 41 percent included educational goals for gender equity. Twenty-four percent of institutions did not respond. Most institutions responding to this question did not provide data on classroom hours.

**Table 6: Topics in Coursework**

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
<th>Sample Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>48</td>
<td>Analysis of gender discrimination</td>
<td>Definitions of sex and gender, social/psychological factors that promote equality, gender differences in communication</td>
</tr>
<tr>
<td>21</td>
<td>46</td>
<td>Gender discrimination in schools</td>
<td>Recognizing discrimination in school/curriculum, stereotyping/differential treatment of boys and girls, legal issues, textbook evaluation</td>
</tr>
<tr>
<td>20</td>
<td>43</td>
<td>Approaches to achieving gender equity in teaching</td>
<td>Classroom strategies of inclusion, teacher expectations, identifying learning styles</td>
</tr>
<tr>
<td>19</td>
<td>41</td>
<td>Educational goals for gender equity</td>
<td>Equal expectations, equity in employment, role of gender in disciplines</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>24</td>
<td>Did not respond</td>
<td></td>
</tr>
</tbody>
</table>

**Question 8: What books and other curricular materials related to gender equity are used in the course(s)?**

Table 7 contains the results for question #8. A little less than one-third (30%) of the institutions listed multicultural education books; 28 percent listed texts (i.e., textbooks used in coursework); 22 percent listed gender equity books, 20 percent listed articles; and 17 percent listed videos. The “other” category includes AAUW videos and publications, handouts, and a literature review on gender equity in educational computer usage. Twenty-four percent of institutions did not respond.

**Table 7: Types of Books and Materials Used in Coursework**

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>30</td>
<td>Multicultural ed books</td>
</tr>
<tr>
<td>13</td>
<td>28</td>
<td>Texts</td>
</tr>
<tr>
<td>10</td>
<td>22</td>
<td>Gender equity books</td>
</tr>
<tr>
<td>9</td>
<td>20</td>
<td>Articles</td>
</tr>
<tr>
<td>8</td>
<td>17</td>
<td>Videos</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>Children’s literature</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>Research</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Case studies</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Title IX</td>
</tr>
<tr>
<td>14</td>
<td>30</td>
<td>Other</td>
</tr>
</tbody>
</table>
Survey Results Related to Student Teaching

The responses to the following questions reflect a larger non-response rate than do the questions pertaining to coursework. It can be assumed that this is due in part to the number of programs that provide gender equity education and training through coursework only (see question #3).

Question 9: What topics are covered in gender equity education and training during student teaching?

Table 8 lists the categories of responses for this question, which are similar to those in question #7 pertaining to coursework. One third (33%) of the institutions included approaches to achieving gender equity in their topics for student teaching. Forty-six percent of institutions did not respond.

Table 8: Topics in Student Teaching

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
<th>Sample Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>33</td>
<td>Approaches to achieving gender equity in teaching</td>
<td>Classroom management, teacher expectations, how to teach children to avoid gender bias, cooperative grouping</td>
</tr>
<tr>
<td>10</td>
<td>22</td>
<td>Gender discrimination in schools</td>
<td>Curriculum issues, legal issues, textbook evaluation</td>
</tr>
<tr>
<td>8</td>
<td>17</td>
<td>Analysis of gender discrimination</td>
<td>Examples of gender equity and inequity, developmental issues, gender differences in communication</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>Educational goals for gender equity</td>
<td>Equal expectations, equity and access, equity in employment</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>46</td>
<td>Did not respond</td>
<td></td>
</tr>
</tbody>
</table>

Question 10: Does student teaching include specific strategies and techniques for eliminating gender inequity in the classroom?

Table 9 shows the results for question #10. Institutions responded to this question in two ways, either by listing types of strategies or by responding affirmatively or negatively to the question. Seventeen percent of institutions listed teaching approaches for gender equity, and 17 percent listed techniques for raising awareness. Forty-three percent of institutions did not respond.

Table 9: Strategies and Techniques for Eliminating Gender Inequity

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
<th>Sample Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>17</td>
<td>Techniques for raising awareness</td>
<td>Review interactions of student teachers, review lesson plans, monitoring questions/questioning strategies</td>
</tr>
<tr>
<td>8</td>
<td>17</td>
<td>Teaching approaches for gender equity</td>
<td>Techniques to encourage equal participation, complex instruction/cooperative learning</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>Understanding the need for gender awareness</td>
<td>Recognition of problems and how to address them, raise awareness</td>
</tr>
<tr>
<td>7</td>
<td>15</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>
Question 11: What books and other curricular materials related to gender equity are used in student teaching?

The results in Table 10 are similar to those in question #8 pertaining to coursework. Fifteen percent of institutions listed articles; 13 percent listed gender equity books; 13 percent listed texts (i.e., textbooks used in student teaching); and 9 percent listed multicultural education books. The "other" category includes AAUW materials, handouts, student teaching handbooks, and gender equity literature selections. Forty-three percent of institutions did not respond.

Table 10: Types of Books and Materials Used in Student Teaching

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>15</td>
<td>Articles</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>Gender equity books</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>Texts</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>Multicultural ed books</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>Research</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Case studies</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>Videos</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>None</td>
</tr>
<tr>
<td>12</td>
<td>26</td>
<td>Other</td>
</tr>
<tr>
<td>20</td>
<td>43</td>
<td>Did not respond</td>
</tr>
</tbody>
</table>

Question 12: Do classroom and practice teaching observations include an analysis of gender equity?

Table 11 summarizes the responses to question #12. More than half (57%) of the institutions responded yes; 9 percent responded no; 4 percent responded that it varies by instructor or program; and 30 percent did not respond. The category "varies" was added based on the survey responses. Some respondents wrote in a response that was not listed.

Table 11: Number of Institutions that Include Gender Equity in Classroom and Practice Teaching Observations

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>57</td>
<td>Yes</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>No</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Varies</td>
</tr>
<tr>
<td>14</td>
<td>30</td>
<td>Did not respond</td>
</tr>
</tbody>
</table>

Question 13: What are candidates required to demonstrate with respect to gender equity? Are they assessed prior to, during, and/or after their student teaching experience to determine whether they are using instructional strategies that promote gender equity in education?
The responses to the first and second parts of this question are presented separately below in Tables 12 and 13.

**Question 13A: What are candidates required to demonstrate with respect to gender equity?**

Less than one-quarter (22%) of the institutions indicated that candidates must demonstrate ability to meet the educational needs of all their students, and 22 percent require knowledge and implementation of instructional strategies. Almost two-thirds (65%) of the institutions did not respond.

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
<th>Sample Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>22</td>
<td>Educational needs</td>
<td>Effectively meet the educational needs of all students, equitable treatment of boys and girls</td>
</tr>
<tr>
<td>10</td>
<td>22</td>
<td>Instructional strategies</td>
<td>Knowledge and implementation of strategies, inclusive teaching, using cooperative/paired learning</td>
</tr>
<tr>
<td>30</td>
<td>65</td>
<td>Did not respond</td>
<td></td>
</tr>
</tbody>
</table>

**Question 13B: Are they assessed prior to, during, and/or after their student teaching experience to determine whether they are using instructional strategies that promote gender equity in education?**

Less than half (41%) of the institutions indicated that they assess candidates for instructional strategies. ("Yes" was assumed if an institution responded to question #13A.) Eleven percent indicated none, and 37 percent did not respond. Most of the institutions responding to this question did not provide data on when candidates are assessed.

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>41</td>
<td>Yes</td>
</tr>
<tr>
<td>5</td>
<td>11</td>
<td>None</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>Case by case</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>No formal</td>
</tr>
<tr>
<td>17</td>
<td>37</td>
<td>Did not respond</td>
</tr>
</tbody>
</table>

**Survey Results Related to Faculty Preparation and Resources**

**Question 14: What resources does your program use -- including outside expertise -- to provide gender equity education and training?**

Table 14 contains the resources listed by institutions in response to question #14. One-third (33%) of the institutions responded that they use written literature; a little less than one-third (30%) said they use lectures (guest speakers, conferences, fieldtrips); 28 percent use faculty as a resource; and 24 percent use other materials (videos, Internet) as resources for providing gender equity education and training. Twenty percent of institutions did not respond.

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>33</td>
<td>Written Literature</td>
</tr>
</tbody>
</table>
Question 15: Does the scope of gender equity education and training that is offered in your program depend upon the person providing the training, or is it integral to the curriculum?

Table 15 lists the categories of responses for this question. Thirty-nine percent of institutions indicated that gender equity education and training is an integral part of their curriculum; 15 percent indicated that it depends on the person; and 17 percent indicated both. Twenty-two percent of institutions did not respond. For one-third of the institutions, the extent and scope of gender equity education and training depends in part on individual faculty.

Table 15: Scope of Gender Equity Education and Training

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>39</td>
<td>Integral to curriculum</td>
</tr>
<tr>
<td>8</td>
<td>17</td>
<td>Both</td>
</tr>
<tr>
<td>7</td>
<td>15</td>
<td>Depends on person</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>Varies across programs</td>
</tr>
<tr>
<td>10</td>
<td>22</td>
<td>Did not respond</td>
</tr>
</tbody>
</table>

Question 16: To what extent does your program actively recruit faculty who have expertise in gender equity issues?

Table 16 summarizes the results for this question. More than one-quarter (26%) of the institutions indicated that they attempt to recruit expert faculty, and 17 percent indicated that they actively recruit expert faculty (see sample responses below). More than one-quarter (28%) of the institutions did not respond.

Table 16: Extent of Recruitment of Faculty with Expertise in Gender Equity

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
<th>Sample Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>26</td>
<td>Attempt to recruit</td>
<td>Considered a criteria; as appropriate for the position; attempt to recruit faculty with expertise</td>
</tr>
<tr>
<td>11</td>
<td>24</td>
<td>No explicit recruitment</td>
<td>Not actively, no explicit recruitment, not a consideration</td>
</tr>
<tr>
<td>8</td>
<td>17</td>
<td>Active recruitment</td>
<td>Faculty have expertise in equity issues, including gender equity; actively recruit individuals with skills in all areas of diversity</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Recruit to extent possible</td>
<td>To extent possible; every effort is made to recruit faculty with expertise</td>
</tr>
<tr>
<td>13</td>
<td>28</td>
<td>Did not respond</td>
<td></td>
</tr>
</tbody>
</table>

Question 17: What resources related to gender equity education and training are available for faculty development? To what extent are these resources used by the faculty?
Table 17 lists the categories of responses for the first part of the question, which are similar to those in question #14 pertaining to resources for candidates. This question pertains to resources for faculty development. More than one-quarter (28%) of the institutions listed written literature; 20 percent listed faculty as a resource; 17 percent listed training; and 15 percent listed lectures as resources for faculty development in gender equity. Twenty-eight percent of institutions did not respond. Most of the responding institutions did not provide data for the second part of the question.

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>28</td>
<td>Written Literature</td>
</tr>
<tr>
<td>9</td>
<td>20</td>
<td>Faculty</td>
</tr>
<tr>
<td>8</td>
<td>17</td>
<td>Training</td>
</tr>
<tr>
<td>7</td>
<td>15</td>
<td>Lectures</td>
</tr>
<tr>
<td>5</td>
<td>11</td>
<td>Other materials</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>Other</td>
</tr>
<tr>
<td>13</td>
<td>28</td>
<td>Did not respond</td>
</tr>
</tbody>
</table>

Survey Results Related to Program Qualities

Question 18: What are the strengths and weaknesses of your program in terms of teaching candidates about instructional strategies and resources to successfully eliminate gender inequity and bias in the classroom? How could your program be improved?

The responses to the first part of this question are presented below in Tables 18 and 19. Table 18 summarizes the areas of program strengths listed by responding institutions. Almost half (48%) of the institutions responded to this part of the question. The most common areas listed were faculty, curriculum, and coursework.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Sample Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>Faculty expertise, sensitivity</td>
</tr>
<tr>
<td>University/program commitment</td>
<td>Campus commitment to eliminate gender inequity and bias, equity regarded as an important component of program</td>
</tr>
<tr>
<td>Resources</td>
<td>Faculty training, course readings</td>
</tr>
<tr>
<td>Curriculum</td>
<td>Equity in all areas is discussed and addressed vigorously, equity issues infused throughout program</td>
</tr>
<tr>
<td>Topics in curriculum</td>
<td>Instructional strategies, relating children’s literature</td>
</tr>
<tr>
<td>Coursework</td>
<td>Gender equity issues included in several foundations of education courses, literacy courses that promote children’s literature with gender equity themes</td>
</tr>
<tr>
<td>Student teaching</td>
<td>Support provided in the classroom</td>
</tr>
</tbody>
</table>

Table 19 lists the areas of program weaknesses indicated by responding institutions. Almost one-third (30%) of the institutions responded to this part of the question. The most
common areas listed were resources, curriculum, and topics in curriculum.

Table 19: Areas of Program Weaknesses

<table>
<thead>
<tr>
<th>Weaknesses</th>
<th>Sample Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources</td>
<td>Lack of resources, instructional materials</td>
</tr>
<tr>
<td>Curriculum</td>
<td>Not infused in the curriculum, no consistent teaching of strategies, techniques, or resources to address gender equity across program</td>
</tr>
<tr>
<td>Topics in curriculum</td>
<td>Lack of specific focus on issues, little practical classroom strategies</td>
</tr>
<tr>
<td>Coursework</td>
<td>Uneven coverage in coursework depending on instructor’s background, treated anecdotally in some classes</td>
</tr>
<tr>
<td>Student teaching</td>
<td>Implicit or sporadic emphasis during student teaching</td>
</tr>
<tr>
<td>Time constraints</td>
<td>Not enough time to stress CLAD issues and gender and everything else</td>
</tr>
</tbody>
</table>

The following suggestions for program improvement were included in the survey responses:

- Continuous reinforcement of topic
- One or two courses that focus exclusively on gender equity issues
- Make gender equity an institutional mission
- Focus more on student teaching experience, competency
- More time to cover topic
- Clearer standards in the California Standards for the Teaching Profession
- More faculty aware of the issues and how to teach about them from a wide range of perspectives
- More faculty dialogue, identify future resources and needs
- Be more explicit in coursework
- Infuse all programs and work to achieve a consistent emphasis from all faculty
- Focus more on the needs of young girls as they reach upper elementary/adolescence; more on deconstructing media messages and critical literacy
- More thorough look at cultural gender roles in the changing family structure
- More training

**Question 19:** How sufficient is the coverage of educational equity in the Commission's program standards to ensure that candidates are successful at promoting educational equity in the classroom and thus enhancing the performance of all students (on a scale of 1 to 7)?

A total of 37 institutions responded to this question with a mean of 5.2. Because educational equity includes all areas of equity, the results may not provide an accurate assessment of the coverage of gender equity in the program standards.

**Question 20:** How would you improve the Program Standards with respect to gender equity education and training?

Some of the responses related to improving the program standards included the following:

- Be more explicit in Factors to Consider
- Focus more specifically on gender issues
- Gender Equity should be integrated, not added on
- Identify equity areas
- Gender equity is in Standard #19, but is not emphasized enough
- Reference state and national resources
- Disseminate a recommended list of books, readings, articles, and videos
- Provide a standard textbook for all candidates in the program which would address
provide regional K-18 training for strategic implementation of the standards
- Faculty training
- Sufficient/no suggestions

Question 21: Please estimate the percentage of males and females enrolled in your program in the current year (1998-99) as follows: Overall; Elementary; Secondary; and Math/Science/Technology. Has the percentage distribution among males and females changed within the last five years? How?

Table 20 summarizes the results to the first part of this question. Thirty-nine institutions provided data in some or all of the above areas. Seven institutions did not provide any data. Approximately 15 institutions did not provide data in one or more cells. The majority of candidates enrolled in teacher education programs overall and in elementary programs in 1998-99 were females. The distribution of males and females in secondary programs was more even, however, there was a higher percentage of male candidates in math, science, and technology. The distribution of male and female teacher candidates is almost identical to that of male and female teachers in California Public Schools in 1998-99. Based on data from the California Basic Educational Data System (CBEDS), there were 28 percent male and 72 percent female teachers statewide.

Table 20: Percentage Distribution of Males and Females Enrolled in Teacher Education Programs 1998-99

<table>
<thead>
<tr>
<th>Category</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>Mean</td>
</tr>
<tr>
<td>Male</td>
<td>29</td>
</tr>
<tr>
<td>Female</td>
<td>71</td>
</tr>
<tr>
<td>Elementary</td>
<td>Mean</td>
</tr>
<tr>
<td>Male</td>
<td>17</td>
</tr>
<tr>
<td>Female</td>
<td>83</td>
</tr>
<tr>
<td>Secondary</td>
<td>Mean</td>
</tr>
<tr>
<td>Male</td>
<td>43</td>
</tr>
<tr>
<td>Female</td>
<td>57</td>
</tr>
<tr>
<td>Math/Sci./Tech.</td>
<td>Mean</td>
</tr>
<tr>
<td>Male</td>
<td>56</td>
</tr>
<tr>
<td>Female</td>
<td>44</td>
</tr>
</tbody>
</table>

Table 21 displays the results for the second part of question #21. The responses below indicate an increase in males in teacher education programs overall and in elementary programs within the last five years. Some reported modest increases in the number of males overall, whereas most reported a slight increase in the number of male elementary candidates. One institution attributed the increase in males to the number of second or third career candidates entering programs. Geographic location may also be a factor. A little less than one-quarter (24%) of the institutions indicated no change and the same number of institutions did not respond to the question.

Table 21: Change in Percentage Distribution of Males and Females Enrolled in Teacher Education Programs within Last Five Years

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
</table>
Survey Section 3: Undergraduate Subject Matter Preparation

This section includes three questions related to undergraduate subject matter preparation. The non-response rate for the questions in this section was high, because the majority of returned surveys were received from professional teacher preparation programs.

Question 22: In what ways do your undergraduate (subject matter) programs provide gender equity education and training?

Table 22 contains the results for question #22. Thirty-nine percent of institutions responded that they provide gender equity education and training through the undergraduate curriculum. More than half (59%) of the institutions did not respond.

Table 22: Methods of Providing Gender Equity Education and Training in Undergraduate Programs

<table>
<thead>
<tr>
<th></th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>39</td>
<td>Curriculum</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>Self study</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Conferences/lecture series</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Fieldwork</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>Program philosophy</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>Other</td>
</tr>
<tr>
<td>27</td>
<td>59</td>
<td>Did not respond</td>
</tr>
</tbody>
</table>

Question 23: What undergraduate courses include gender equity education and training? Please list course titles, number of semester hours, and whether they are required. Please attach course syllabi if available.

Very little data was provided in response to this question. Similar to question #5, the responses to this question varied by course title, course units (quarter or semester), and whether the courses are required or optional. Respondents were also asked to estimate the percentage of students that take elective courses per semester or quarter. The responses to this part of the question were too inconsistent to draw any general conclusions. The most common types of courses that include gender equity education and training were multicultural education/cultural diversity, foundations of education, and women's studies. Courses in multicultural education and foundations of education tended to be required, whereas women's studies courses tended to be optional.

Question 24: What topics are covered in gender equity education and training in coursework and approximately how many classroom hours are spent on each?
Table 23 summarizes the results for question #24. One-fifth (20%) of the institutions included background in gender studies in their topics for undergraduate programs. Eleven percent of institutions included women's studies, and 9 percent included gender issues in schooling. More than three-fourths (76%) of the institutions did not respond. Most institutions responding to this question did not provide data on classroom hours.

Table 23: Topics in Undergraduate Coursework

<table>
<thead>
<tr>
<th>N</th>
<th>%</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>20</td>
<td>Background in gender studies</td>
</tr>
<tr>
<td>5</td>
<td>11</td>
<td>Women’s studies</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>Gender issues in schooling</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Teaching techniques</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>Sexual orientation studies</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>Gender diversity in materials</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>Other</td>
</tr>
<tr>
<td>35</td>
<td>76</td>
<td>Did not respond</td>
</tr>
</tbody>
</table>

**Conclusion**

The results of the survey revealed some general trends in gender equity education and training in teacher preparation. Overall, the type and quality of gender equity education and training varies among institutions. However, specific conclusions cannot be drawn from the data about all of the institutions of higher education and district intern programs in California. There were some limitations of the data due to the design of the survey and the response rates. Most of the questions were open-ended, allowing for multiple responses. In these cases, categories for reporting the data were developed based on the survey responses. A few questions listed categories to be checked by the respondents, however, in some cases the results were unclear due in part to the nature of the questions. The response rates varied throughout the survey. Due to these limitations, the data are descriptive only and provide a snapshot of how gender equity is addressed in some teacher preparation and undergraduate programs in California.

The majority of institutions defined educational and gender equity as equal access to programs and resources. Gender equity education and training is largely addressed through both coursework and student teaching, although close to one-quarter (22%) of the institutions address it through coursework only. None of the responding institutions address gender equity through student teaching alone.

Within coursework, more than four-fifths (83%) of the institutions cover gender equity in coursework related to educational equity/diversity. Other types of courses include foundations of education, classroom management, general methods, content specific methods, and student teaching. In general, gender equity is not treated separately from other areas of educational equity and is quite often infused in the curriculum. Course topics cover a broad range of areas, including analysis of gender discrimination, gender discrimination in schools, approaches to achieving gender equity in teaching, and educational goals for gender equity. Few institutions provided data on classroom hours spent on gender issues, so it is unknown how much time is dedicated to gender equity in the professional teacher preparation program. One possible reason may be that gender equity is infused across more than one course.

Fewer institutions responded to questions pertaining to student teaching, due in part to the number of institutions that address gender equity through coursework only. Some of the same topics are covered in student teaching as in coursework. Of those institutions that address gender equity in student teaching, a higher percentage of institutions (33%) included approaches to achieving gender equity in their topics for student teaching. The majority of institutions (57%) include an analysis of gender equity in classroom and practice
teaching observations. Less than half (41%), however, assess candidates for instructional strategies related to gender equity. Few institutions provided data about when candidates are assessed for instructional strategies in gender equity.

Thirty-nine percent of institutions indicated that gender equity education and training is an integral part of their curriculum. For one-third of the institutions, the extent and scope of gender equity education and training depends in part on individual faculty. Recruitment of faculty with specific expertise in gender equity issues varies among institutions. More than one-quarter (28%) of the institutions use faculty as a primary resource for providing gender equity education and training, and one-fifth (20%) of the institutions use faculty as a major resource for faculty development in gender equity. Other major resources used for faculty development in gender equity include written literature, training, and lectures (guest speakers, conferences, fieldtrips). Very little data was provided on the extent to which these resources are used by faculty.

The program strengths and weaknesses listed by some institutions suggest wide variation in gender equity education and training. The most common areas of strengths listed were faculty, curriculum, and coursework, whereas the areas of resources, curriculum, and topics in curriculum were most frequently listed as weaknesses. Some of the institutional suggestions for improvement include being more explicit in coursework and student teaching, having more faculty dialogue and training, and devoting more time to the topic.

Some respondents recommended improvements for the program standards for Multiple and Single Subject Teaching Credentials, such as being more explicit in the Factors to Consider, focusing more on gender issues, and dissemination of a resource list.

In terms of the gender distribution of teacher candidates, the majority of candidates enrolled in teacher education programs overall and in elementary programs in 1998-99 were females. The distribution of males and females in secondary programs was more even, however, there was a higher percentage of male candidates in math, science, and technology. Institutions did indicate an increase in males in teacher education programs overall and in elementary programs within the last five years.

Fewer institutions responded to the questions pertaining to undergraduate subject matter preparation, because the majority of responses were received from professional teacher preparation programs. In subject matter preparation programs, the highest percentage of respondents (39%) address gender equity through the curriculum. The range of topics covered by institutions includes background in gender studies, women's studies, gender issues in schooling, teaching techniques, sexual orientation studies, and gender diversity in materials. As with professional preparation coursework, very few of the responding institutions indicated hours spent on topics.

The results of the survey suggest that there is a need for more specificity in the program standards for the Multiple and Single Subject Teaching Credentials with respect to gender equity, specifically related to program requirements and candidate competencies.

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**Part II: Recommendations of the Gender Equity Workgroup**

In Fall 1999, a subgroup of the Gender Equity Task Force was convened to develop recommendations for improving gender equity education and training in teacher preparation programs. The Gender Equity Workgroup reviewed and discussed the preliminary results of the survey. The workgroup developed a list of proposed teacher skills and knowledge statements for consideration by the SB 2042 Panel as it develops new program standards for the Multiple and Single Subject Teaching Credentials.

**Teachers need to know and understand:**

- Sex differences are inherited and gender differences are learned.
- Teacher expectations are shaped by gender bias and result in unequal educational outcomes for girls and boys.
- Types of teacher interactions with students that have historically reflected gender bias.
- Student behavior in the classroom often reflects culturally specific socialization which is often differentiated by gender.
Historical and economic contexts of sexism, racism, and classism and their interaction as it impacts on education and career options.

Multiple historical, social, legal, and political perspectives on controversial issues.

Various legal mandates and responsibilities related to gender equity including, but not limited to, legislation, regulations, policies at the federal, state and local level.

Negative impacts of gender bias, stereotyping and prejudice in K-12 classrooms, and the societal consequences for men and women.

How schools may perpetuate gender bias, stereotyping, and prejudice.

Teachers should be able to:

- Manage instruction in ways that proactively address bias, prejudice, and stereotyping.
- Teach students to recognize bias, stereotypes and prejudice, bullying and harassment, and teach them strategies to address inappropriate behaviors.
- Plan and use instructional strategies, activities, and materials that accommodate diverse communication and learning styles.
- Conduct critical analyses through classroom activities on difficult and controversial issues, including gender bias, stereotyping and prejudice.
- Identify and critique biases, stereotyping, and prejudice in curriculum materials and teach students to recognize the same.
- Be proactive in seeking out curriculum materials that are gender fair.
- Recognize and respond appropriately to student behavior in the classroom that may reflect culturally specific socialization.
- Apply equitable expectations for girls and boys in the classroom while being sensitive to diverse cultural values.
- Examine multiple historical, social, legal, and political perspectives on controversial issues.
- Utilize curricular, instructional, and advisement practices that offer equitable access to career options and encourage non-stereotypical career planning and preparation for girls and boys.
- Analyze and reflect upon their own teaching with respect to gender bias, stereotyping and prejudice.
- Display gender-fair interactions with girls and boys in the classroom, including both verbal and non-verbal communication.
- Apply motivational strategies for both girls and boys to overcome gender stereotyping.
- Analyze how schools may perpetuate gender bias, stereotyping, and prejudice inside and outside the classroom and within the community.

Field Experience:

1. The teacher competencies listed above should be demonstrated in a variety of field experiences during the credential program.
2. Identify and critique evidence of gender stereotyping, bias, and prejudice in society and in the classroom and ways to challenge such biases.
3. Gender considerations should be a component of all field experience.
4. The field experience must include a variety of settings within the school context, including the playground, cafeteria, and other school settings.

Appendix A: Survey of California Teacher Preparation Programs
Please take the time to complete the following questions. You may use additional sheets to complete the survey. Your responses will be kept confidential. The results of the survey will be reported in the aggregate. Your responses are intended to inform the Commission's revision of the program standards; they will not in any way affect the accreditation status of your institution.

Name: ___________________________ Date: _______________________

Position: __________________________

Department: _________________________

Institution/District: ________________________

Address: _____________________________

Phone: __________________ Fax: __________________

Email: ____________________________

1. What is your institution's definition of educational equity?

2. What is your institution's definition of gender equity?

---

Questions Related to Professional Teacher Preparation:

*(If you are not responsible for professional teacher preparation, go to question 22, page 5)*

3. Does your program provide gender equity education and training through coursework, student teaching, or both?

☐ Coursework
☐ Student Teaching
☐ Both
☐ Other ________________________

*If your program provides gender equity education and training in coursework, please answer questions 4 - 8, otherwise, please skip to question 9.*

4. Is the topic of gender equity typically covered in coursework specific to gender equity, part of coursework related to educational equity, or included in general coursework (e.g., a foundations in education course)?

☐ Coursework specific to gender equity
☐ Coursework related to educational equity/diversity
☐ Other Coursework ________________________

5. What courses include gender equity education and training? Please list course titles, number of credit hours, and whether they are required. Please attach course syllabi if available.

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Course Units (Semester or Quarter?)</th>
<th>Is the course required, an option to meet a requirement, or elective?</th>
<th>Does the course include specific strategies and techniques for eliminating gender inequity in the classroom?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. Generally, how does your faculty address gender issues in the curriculum?

☐ Teach explicitly
☐ Infuse in the curriculum
☐ Both

7. What topics are covered in gender equity education and training in coursework and approximately how many classroom hours are spent on each?

8. What books and other curricular materials related to gender equity are used in the course(s)?

9. What topics are covered in gender equity education and training during student teaching?

10. Does student teaching include specific strategies and techniques for eliminating gender inequity in the classroom?

11. What books and other curricular materials related to gender equity are used in student teaching?

12. Do classroom and practice teaching observations include an analysis of gender equity?

☐ Yes
☐ No

13. What are candidates required to demonstrate with respect to gender equity? Are they assessed prior to, during, and/or after their student teaching experience to determine whether they are using instructional strategies that promote gender equity in education?

14. What resources does your program use — including outside expertise — to provide gender equity education and training?

15. Does the scope of gender equity education and training that is offered in your program depend upon the person providing the training, or is it integral to the curriculum?

16. To what extent does your program actively recruit faculty who have expertise in gender equity issues?
17. What resources related to gender equity education and training are available for faculty development? To what extent are these resources used by the faculty?

18. What are the strengths and weaknesses of your program in terms of teaching candidates about instructional strategies and resources to successfully eliminate gender inequity and bias in the classroom? How could your program be improved?

19. How sufficient is the coverage of educational equity in the Commission’s program standards to ensure that candidates are successful at promoting educational equity in the classroom and thus enhancing the performance of all students?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not at all</td>
<td>Sufficient</td>
<td>Completely</td>
<td>Sufficient</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20. How would you improve the Program Standards with respect to gender equity education and training?

21. Please estimate the percentage of males and females enrolled in your program in the current year (1998-99) as follows:

<table>
<thead>
<tr>
<th>Overall</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>Secondary</td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>Math/Science/Technology</td>
<td>Males</td>
<td>Females</td>
</tr>
</tbody>
</table>

Has the percentage distribution among males and females changed within the last five years? How?

Questions Related to Undergraduate Teacher Preparation (Subject Matter Programs):

(If you are not responsible for undergraduate teacher preparation, you may skip this section)

22. In what ways do your undergraduate (subject matter) programs provide gender equity education and training?

23. What undergraduate courses include gender equity education and training? Please list course titles, number of semester hours, and whether they are required. Please attach course syllabi if available.

| Course Title | Course Units (Semester or Quarter?) | Is the course required, an option to meet a requirement, or elective? | Please estimate the percentage of students that take elective courses per semester or quarter. |
24. What topics are covered in gender equity education and training in coursework and approximately how many classroom hours are spent on each?
**Executive Summary**

The purpose of this agenda item is to recommend to the Commission the selection of a contractor to conduct the evaluation plan that was approved previously by the Committee on Accreditation and the Commission. The plan called for an independent contractor to complete a comprehensive formative and summative evaluation of the accreditation policies set forth in Sections 1 - 7 of the *Accreditation Framework* and the accreditation procedures adopted by the Commission and the COA. Upon adoption of the evaluation plan in January, 1999, a "Request for Proposal" (RFP) was prepared to advise prospective applicants that the COA and CCTC are seeking proposals from public and private entities. This agenda item provides information on that "RFP" process and concludes with a recommendation for the selection of an external contractor to conduct the aforementioned evaluation plan.

**Policy Issues to be Resolved**

Is the Commission prepared to approve the staff recommendation and authorize the Executive Director to enter into a contract with the recommended entity to conduct those activities described in this report?

**Fiscal Impact Summary**

In July 1997, the Commission approved a Budget Change Proposal (BCP) to provide resources for the evaluation of the Accreditation Framework. The BCP was submitted to the Department of finance as a budget augmentation starting in the 1998-99 fiscal year. The augmentation was approved by the Department of Finance and approved by the Legislature and the Governor in the Spring of 1998.

**Staff Recommendation**

Staff recommends that the members of the Commission review and discuss the recommendation for the selection of a contractor for the evaluation of the *Accreditation Framework*. Staff further recommends that the Commission approve the recommendation for the selection of an external contractor and authorize the Executive Director to enter into a contract with the proposed entity in accordance with the requirements set out in the
Background

The Accreditation Framework was prepared by the Accreditation Advisory Council and the Professional Services Division of the California Commission on Teacher Credentialing pursuant to Senate Bill 148 by Senator Marian Bergeson (Chapter 1455, Statutes of 1988). On May 7, 1993, the Commission adopted the Accreditation Framework for subsequent implementation under Senate Bill 655 (Bergeson, Chapter 426, Statutes of 1993), which became effective on January 1, 1994.

The Framework addresses the accreditation of colleges and universities that prepare teachers and other educators for professional state certification in California. Accreditation is an assurance of quality in the preparation of professional educators, and is, therefore, important to the Commission, the education profession, the general public, and the accredited institutions.

Sections 1 through 8 of The Framework are based on California Education Code Sections 443709 through 44374.

Section 8, Evaluation and Modification of the Framework, governs the evaluation and modification of the Accreditation Framework. The three pertinent portions of Section 8 are stated below.

A. Evaluation Design. The Commission and the Committee on Accreditation are jointly responsible, in consultation with educational institutions and organizations, for (1) the design of a comprehensive evaluation of (a) accreditation policies and (b) their implementation; and (2) for the selection of an independent evaluator to conduct the evaluation.

2. Formative and Summative Evaluation. The evaluation design will include formative components to produce early and ongoing information and suggestions about the Accreditation Framework and its implementation. The design will also include summative components. The evaluation will include an appropriate sample of institutions and accreditation options, and will be based on comprehensive information collected over a period of time that assures that the major features of the accreditation process have been well tested. It is expected that the formative and summative evaluation will be conducted over a four-year time span, beginning when the first institution is reviewed in accordance with this Framework.

3. Evaluation Report and Recommendations. A comprehensive evaluation report and recommendations will be presented to the Commission and the Committee on Accreditation for their consideration. Among other policy issues, the evaluator will recommend whether Option 3 (General Program Standards) should serve, in addition to Option 1 (California Program Standards), as a basis for determining the comparability of standards under Options 2 or 5.

Accreditation Responsibilities of the CCTC and the COA

Responsibilities of the Commission Related to Accreditation Policies

Pertaining to the accreditation of educator preparation, the authority and responsibilities of the California Commission on Teacher Credentialing are found in Education Code Section 44372 (a-f) and described in the Accreditation Framework.

1. Adopt and Modify the Accreditation Framework. The Commission has the authority and responsibility to adopt an Accreditation Framework, "which sets forth the policies of the Commission regarding the accreditation of educator preparation in California." The Commission may modify the Framework. Modifications occur in public meetings after the Commission considers relevant information provided by the Committee on Accreditation, institutions, accreditation team members, the Commission's staff, and other concerned individuals. The Commission determines when a policy modification takes effect.

2. Establish and Modify Standards for Educator Preparation. The Commission has the
3. **Initial Accreditation of Institutions.** The Commission determines the eligibility of an institution that applies for initial accreditation and that has not previously prepared educators for state certification in California. The Commission accredits institutions that meet the criteria that have been adopted for that purpose by the Commission. Institutional accreditation by the Commission establishes the eligibility of an institution to submit specific program proposals to the Committee on Accreditation.

4. **Allocate Resources Annually for Accreditation Operations.** The Commission annually allocates resources for accreditation operations to implement the *Accreditation Framework*. Consistent with the Commission's general practice, staff assignments to accreditation operations are made by the Executive Director, in accordance with state budgets, laws, and regulations.

5. **Jointly Sponsor an External Evaluation of Accreditation Policies and Practices.** The Commission shares responsibility with the Committee on Accreditation for the design and implementation of a comprehensive evaluation of accreditation policies and the selection of an external evaluator to conduct the evaluation, pursuant to Section 8 of the *Accreditation Framework*.

6. **Review and Sponsor Legislation Related to Accreditation.** The Commission reviews legislative proposals to amend the Education Code related to the accreditation of educator preparation institutions. As the need arises, the Commission sponsors legislation related to accreditation, after considering the advice of the Commission's professional staff, the Committee on Accreditation, educational institutions, and professional organizations.

**Responsibilities of the Committee on Accreditation**

The responsibilities, functions, membership, and appointment of the Committee on Accreditation are set forth in Education Code Section 44373 (a-c) and described in the *Accreditation Framework*.

1. **Comparability of Standards.** The Committee determines whether standards submitted by institutions under Option 2 (National or Professional Program Standards) or Option 5 (Alternative Program Standards), taken as a whole, provide a level of program quality comparable to standards adopted by the Commission under Option 1 (California Program Standards). If the Committee determines that the proposed standards are collectively comparable in breadth and depth, when taken as a whole, to the Commission-adopted standards, the Committee on Accreditation may approve the proposed standards as Program Standards in California.

2. **Initial Accreditation of Programs.** The Committee reviews proposals for the initial accreditation of programs submitted by institutions that have been determined eligible by the Commission. New programs of educator preparation may be submitted under Options One, Two, Four, or Five in Section 3 of the *Accreditation Framework*. If the Committee determines that a program meets all applicable standards, the Committee grants initial accreditation to the program.

3. **Continuing Accreditation Decisions.** After reviewing the recommendations of accreditation teams and the responses of institutions, the Committee makes decisions about the continuing accreditation of educator preparation institutions and programs, consistent with Section 6 of the *Accreditation Framework*. Pertaining to each institution, the Committee makes one of three decisions: Accreditation, Accreditation with Stipulations, or Denial of Accreditation.

4. **Accreditation Procedures.** The Committee recommends appropriate guidelines for self-study reports and other accreditation materials and exhibits to be prepared by the institutions. The Committee also adopts guidelines for accreditation team reports, which emphasize the use of narrative, qualitative explanations of team recommendations. The Committee may provide additional guidance to institutions, teams, and the Executive Director regarding accreditation visit procedures. The procedural guidelines of the Committee are published by the Commission as an
5. **Monitor the Accreditation System.** The Committee monitors the performance of accreditation teams and oversees other activities associated with the accreditation system.

6. **Annual Reports, Recommendations, and Responses.** The Committee presents *Annual Accreditation Reports* to the Commission. *Annual Reports* include standard information about the dimensions and results of the accreditation process. The Committee also advises the Commission about policy changes to improve the quality and integrity of the accreditation process.

7. **Meet in Public Sessions.** The Committee conducts its business and makes its decisions in meetings that are open to the public, except as provided by statute.

8. **Jointly Sponsor an External Evaluation of Accreditation Policies and Practices.** The Committee shares responsibility with the Commission for the design and implementation of a comprehensive evaluation of accreditation policies and the selection of an external evaluator to conduct the evaluation, pursuant to Section 8 of the *Framework*.

### Proposed Plan for Evaluation of the Accreditation Framework

**Criteria for Evaluating the Accreditation System**

When the Committee on Accreditation was formed according to the provisions of the *Accreditation Framework*, this policy document set forth the purposes, functions and attributes of an excellent system of professional accreditation in education. These provisions of the *Accreditation Framework* are summarized on the next page.

**Four Goals, Purposes and Functions of a Professional Accreditation System**

(Pages 3-4 of the *Accreditation Framework*)

- Assure the public, students in the schools, and professional educators that future educators have access to excellence in professional preparation and *practica* in education, and that these components of educator preparation are oriented to the educational needs of future elementary and secondary school students. By integrating accreditation with professional certification, policymakers can ensure that educator preparation is responsive to the critical dynamic needs of elementary and secondary schools.

- Ensure that future educators have actually acquired abilities and perspectives that are essential for fulfilling specified professional responsibilities such as teaching and other services in schools. Professional accreditation contributes to such an assurance by ascertaining and verifying that each candidate’s growing competence is assessed and confirmed by an accredited institution.

- Verify that each educator’s specialized preparation and attainments are appropriate for the authorization(s) of the credential(s) being sought by the candidate. Assuring the appropriateness of professional preparation for future responsibilities is a function of accreditation within a broader system of professional certification.

- Contribute to broader efforts to enhance the personal stature and professional standing of teachers and other educators as members of a profession that has a strong base of specialized knowledge and a demonstrated record of accountability in the preparation and competence of each new member. A significant objective of professional accreditation is to foster needed improvements in the design, content and delivery of professional curricula and *practica*, and in the selection, guidance, supervision and assessment of candidates.
Orientation to Educational Quality. Accreditation policies and practices should focus primarily on the educational quality of educator preparation programs. Accreditation standards, reviews and decisions should focus on significant aspects of quality, and should be designed and implemented to foster excellence in the professional preparation of future educators.

Professional Character of Accreditation. Throughout all phases of an accreditation process, professional educators should hold themselves and their peers accountable for excellence in professional education. Accreditation policies and practices should draw primarily on the professional expertise of participants in the process. Accreditation decisions should draw primarily from consultative procedures leading to consensus judgments on the part of professional participants.

Breadth and Flexibility. Accreditation standards should be drafted so the sponsors of preparation programs can meet the standards in multiple excellent ways. Without stipulating how the sponsors of preparation should carry out their functions, accreditation standards should describe how well they fulfill these functions. Accreditation should be restrictive only by precluding or minimizing the use of poor or substandard practices in professional education.

Intensity in Accreditation. Accreditation reviews should be intensive in addressing issues of quality, should be comprehensive in addressing the full scope of the standards, and should yield sufficient information for reliable judgments and conclusions. Accreditation decisions should be based on reliable information that is sufficient in breadth and depth for the results to be accurate and credible.

Integration with the Certification System. In policy and practice, accreditation should function consistently with the system of professional certification in education. Accreditation decisions about the sponsors of programs should parallel the kinds of decisions to be made about individual educators in the certification system. Accreditation decisions should coincide with the authorizations of credentials to serve in the public schools.

Contributions to Improved Preparation Programs. Accreditation standards, reviews and decisions should contribute to improvements in the professional preparation of educators. The policies, practices and outcomes of a sponsor’s programs should improve in quality as the sponsors strive to meet accreditation standards. Candidates for credentials should have access to preparation offerings that continually improve as a result of the accreditation system.

Efficiency and Cost-Effectiveness of the Accreditation System. The professional accreditation system should fulfill its purposes efficiently and cost-effectively. Review procedures, decision processes and reporting relationships should be streamlined and economical. Participants’ roles should be clearly defined, communications should be efficient, and reviewer training should be cost-effective.

In this recommended plan for evaluation of the Accreditation Framework, the four purposes and seven attributes (above) in the Framework will serve as the primary bases for (1) determining what information and evidence to collect and compile, and (2) making inferences and reaching conclusions about the success of the Accreditation Framework as well as needed changes in it.

Examples of Evaluation Questions

Following are examples of evaluation questions whose answers would enable the COA and the Commission to judge the success of the Accreditation Framework in terms of its original
• How effectively does the new accreditation system provide authentic assurances that future educators have access to excellence in professional preparation in education? How could the system be strengthened in relation to this function?

• How effective has the accreditation system been, during its initial years, in providing credible assurances that educator preparation is responsive to the critical dynamic needs of elementary and secondary schools in California? Could the standards-based process be improved in this regard?

• To what extent have the accreditation reviews provided assurances that future educators are actually acquiring abilities and perspectives that they will need to carry out their subsequent responsibilities in public schools? What changes would make the accreditation reviews more credible in this area?

• Do the accreditation policies, including policies in the Accreditation Framework, support the need for verification that the specialized preparation and attainments of credential candidates are appropriately related to the authorizations of the credentials they are earning? Are there additional steps that would address this need more effectively?

• Is there a consistent pattern of credible evidence that participation in the accreditation system prompts the sponsors of preparation programs to improve those programs, either before or after their accreditation reviews? In what areas of preparation is this evidence most credible, and in which areas is it least credible?

• How well has the new system of professional accreditation embraced the orientation to educational quality that was described in the Accreditation Framework? Could this orientation be intensified? How?

• Is the new accreditation process functioning professionally as much and as well as possible? Are there ways in which the professional character of the process could be enhanced? What are they, and how would they work?

• In practice, is the new accreditation system embracing the values of breadth and flexibility as these were set forth in the Framework? Is the process so thoroughly infused with breadth and flexibility that substandard practices are overlooked or unreported? What could be done if this is happening?

• Has the new accreditation system begun to function with the intensity, comprehensiveness and reliability that the Framework envisioned? Are there specific ways in which the system’s performance could be improved?

• Have institutional self-studies contributed to improvements in educator preparation, or have they inhibited improvements? What should be done?

• Have accreditation team reports contributed to improvements in educator preparation, or have they inhibited improvements? What should be done?

• Has the accreditation process been as efficient and cost-effective as possible? Without compromising the system’s other functions or values, how could it be made more efficient and/or cost-effective?

As the evaluation plan is carried out, the independent contractor will be required to develop specific questions that are related to the specified purposes and attributes of the new accreditation system, and will be required to submit an evaluation design that addresses those questions.

**Scope of Work for an External Evaluation Contractor**

Sections 1 and 2 of the Accreditation Framework provide the following language regarding a joint responsibility of the CCTC and the COA. The CCTC and the COA are to “jointly sponsor an external evaluation of accreditation policies and practices.” The Committee on Accreditation shares responsibility with the Commission for the design and implementation of the system.
of a comprehensive evaluation of accreditation policies and the selection of an external evaluator to conduct the evaluation, pursuant to Section 8 of The Framework.

As stated earlier, Section 8, Evaluation and Modification of the Accreditation Framework, governs the provisions for a full, comprehensive evaluation the Accreditation Framework. Following is a recommended scope of work for the evaluation contractor.

Scope of Work -- Phase I -- Formative Evaluation
(April, 1995 to July 1, 2000)

According to the Accreditation Framework, "the evaluation design will include formative components to produce early and ongoing information and suggestions about the Accreditation Framework and its implementation."

1. Complete a review and analysis of the following areas of Section 2, Functions and Appointment of the Committee on Accreditation.
   - Comparability of Standards
     - Initial Accreditation of Programs
     - Continuing Accreditation Decisions
     - Monitoring the Accreditation System
     - Annual Reports, Recommendations, and Responses

2. Complete a review and analysis of the following two major categories of Section 3, Accreditation Standards.
   - Category 1: Common Standards
     Complete a review and analysis of the utilization of the eight Common Standards for all accreditation visits completed in 1997-98, 1998-99, and 1999-2000. The contractor will review through Spring of 2000, the use of Common Standards by institutions in preparing the Institutional Self-Study Report, the impact of Common Standard Cluster Teams on Accreditation Team Reports, and the administration and organization of the "educational units" of institutions involved in accreditation visits from Fall 1997, through Spring 2000.
   - Category 2: Program Standards
     Complete a review and analysis of the five major options for the utilization of Program Standards for accreditation visits from Fall 1997, through Spring 2000. The contractor will review the number of times each option was selected and will obtain information regarding reasons for selection of the various options for accreditation visits. The contractor will interview institutional representatives, team members, CCTC Consultant staff, and other selected professionals as to the efficacy of using and preference of one set of program standards over other options.

3. Complete a review and analysis of Section 4, Initial Accreditation Policies, and the establishment of procedures by the COA for the initial accreditation of programs, including the review of new programs, the use of national or other professional program standards for initial accreditation, the utilization of alternative program standards, and the approval of experimental and alternative programs.

4. Complete a review and analysis of Section 5, Continuing Accreditation Teams of the Accreditation Framework. The review and analysis will include the membership of the Board of Institutional Reviewers (BIR), the training of members of the BIR, the team structure for accreditation visits, team size, configuration, and expertise. The contractor will study and report on the use of team leaders; cluster team leaders; and team assignments, including Program Cluster Teams and Common Standards Cluster Teams.

5. Complete a review and analysis of Section 6, Continuing Accreditation Policies and the accreditation procedures adopted by the COA to implement continuing accreditation visits from Fall 1997 through Spring 2000. The contractor will review and analyze the
creation and use of the Accreditation Handbook, including guidelines for "Institutional Self-Study Reports," the development and use of preliminary reports, and all procedures for continuing accreditation reviews. The contractor will give particular attention to the development of "Accreditation Team Reports," team recommendations, and accreditation decisions which includes team decisions for Accreditation, Accreditation with Stipulations, and Denial of Accreditation.

6. Complete a review and analysis of Section 7, National Accreditation. The contractor will review and analyze the efficacy of the renewed Partnership with NCATE, and the implementation of merged visits with NCATE teams at selected institutions in California. The contractor will also study and report on actions of the COA to implement procedures to use national accreditation visits in lieu of COA accreditation visits for selected credential program areas.

The Scope of Work for Phase I is to be a formative evaluation of accreditation policies stated in the Accreditation Framework, and the work of the COA since its first meeting in April, 1995, the accreditation procedures established by the COA and the implementation of these procedures.

The contractor's report for Phase I is to be formative in nature, including initial observations and suggestions for use by the COA and the Commission. The Phase I Report will be completed by July 1, 2000, and will be used, in part, to redirect the work of the contractor for Phase II and to assist the COA in making initial decisions regarding the potential need for changes in selected accreditation procedures. The Commission may use the Phase I Report as a basis for needed changes in accreditation policy.

Scope of the Work -- Phase II -- Formative and Summative Evaluation
(July 1, 2000 to June 30, 2002)

According to the Accreditation Framework, "The evaluation design will include formative components to produce early and ongoing information and suggestions about the Accreditation Framework and its implementation. The design will also include summative components. The evaluation will include an appropriate sample of institutions and accreditation options, and will be based on comprehensive information collected over a period of time that assures that the major features of the accreditation process have been well tested. It is expected that the formative and summative evaluation will be conducted over a four-year time span, beginning when the first evaluation is reviewed in accordance with the Accreditation Framework."

Phase II of the evaluation called for in this RFP will be based, in part, from the findings of the period of time for the formative evaluation work completed for Phase I, 1997-2000. The period of time for the comprehensive evaluation of Phase II will be from July 1, 2000, to June 30, 2002. The comprehensive evaluation will include:

- The completion of a review and analysis, for formative and summative purposes, of the Accreditation Framework Section 2, Section 3, Section 4, Section 5, Section 6, and Section 7 as delineated in the Work Plan for Phase I.

- The completion of a review and analysis of the accreditation procedures that were established and implemented by the COA from April, 1995, to July 1, 2000.

- The completion of a study of the accreditation visits conducted by the COA at all institutions from Fall 2000, through June 30, 2002.

- The completion of a study of the establishment of the Board of Institutional Reviewers (BIR), the training of BIR members, assignment of team members, the use of Common Standards and Program Standards cluster teams, the substance of the team reports, and the actions of the COA regarding the team reports.

The contractor will prepare a progress report for presentation to the COA in June, 2001. The progress report will include initial observations on the accreditation activities for 2000-2001 and include any recommendations for changing the activities of the contractor for the evaluation year, 2001-2002.

The contractor will prepare a final summative evaluation report for presentation to the COA and the CCTC. A draft of the report will be presented to the CCTC staff by September 1,
2002 and the final report will be completed and submitted to the COA and CCTC no later than December 1, 2002.

**Required Components of the Evaluation Design**

To produce findings that are accurate and conclusions and recommendations that are credible, the evaluation will need to include the following components. The approved Budget Change Proposal was based on the anticipated cost of these components.

1. Each year, the contractor will be required to collect information at ten or more postsecondary education institutions and school districts that are scheduled for accreditation reviews pursuant to the *Accreditation Framework*. The contractor will collect information by interviewing key institutional personnel, including deans of education, directors of teacher education, administrators of credential programs, professors of classes, supervisors of fieldwork, and individual candidates for credentials insofar as they are participants in the accreditation process. Depending on the size of credential programs at the campus, the number of institutional interviews will vary from five to fifty. The contractor will collect further information from each institution's report to the accreditation reviewers. In most instances, the contractor will collect the information after the accreditation review has taken place. In other cases, the contractor will do so during the period when the accreditation team is at the college or university. The contractor will be responsible for making all prior plans and arrangements for the collection of information.

2. Each year, the contractor will be required to collect information from accreditation teams who conduct the accreditation visits on behalf of the Committee on Accreditation. The contractor will interview the leader of each accreditation team, as well as a sampling (i.e. one to ten) of the other review team members. The contractor will collect further information from the accreditation report that is written by each team of reviewers. Most of the information from the team leaders and members will relate to the conduct of on-site reviews. Additionally, however, the contractor will be required to collect information from team leaders/members pertaining to the quality of the training they received as prospective members of accreditation teams. The contractor will be responsible for making all prior plans and arrangements for the collection of team leader/member information.

3. Each year, the contractor will need to attend and observe some meetings of the Committee on Accreditation. These one and one-half day meetings occur seven or eight times per year. The contractor's confidential meeting notes and the official meeting minutes will serve as important sources of information in the evaluation study. Additionally, the contractor will need to collect further data by interviewing the twelve members of the Committee on Accreditation from time to time.

4. The contractor will be required to attend the meetings of the Commission on Teacher Credentialing that include formal reports by the Committee on Accreditation (one or two meetings per year). At these meetings, the contractor will have opportunities to observe the Committee's reports as well as the Commission's response to the reports. Additionally, the contractor will need to interview selected members of the Commission pertaining to the implementation of the *Accreditation Framework* and their perceptions of it.

5. The contractor will need to interview selected members of the Commission's staff who (a) facilitate accreditation visits each year, and (b) report to the Committee on Accreditation.

6. To evaluate the "comparability studies" that have been completed pursuant to the *Accreditation Framework*, the contractor will be required to collect information from selected members of the twelve expert panels that studied the comparability of national standards for educator preparation with California standards for educator preparation.

7. To evaluate the use of national standards and national review teams at California institutions, the contractor will need to collect information from selected members of the national review teams.
The contractor will develop a series of interview plans or "protocols" that will include the questions to be presented to individuals in each group of participants in the accreditation system. The protocols will need to be "semi-structured" and so all interviewees have opportunities to answer the same questions, so the contractor can reach sound conclusions about the effects of the accreditation system. The interview protocols will also need to be field-tested before they are used, and to be cross-referenced so the responses of different sources can be compared with each other.

9. In addition to collecting information from documents, face-to-face interviews and telephone interviews, the contractor will have to compile some uniform information from all participants in the evaluation study, with the use of standardized questionnaires. For this purpose, the contractor will have to develop questionnaires, which will need to be field-tested to ensure maximum feasibility and satisfactory reliability. The contractor will be responsible for encoding the questionnaire data and for compiling and analyzing it electronically.

10. The contractor will be required to collect, compile and analyze information that relates directly to the important questions that are to be resolved in the evaluation study, including the examples on pages 8-9 of this plan.

**Previous Actions by the Commission and the Committee on Accreditation**

At the April 16-17, 1997 meeting of the Committee on Accreditation, an action agenda item was reviewed regarding the evaluation of both the accreditation policies provided in the Accreditation Framework and the accreditation procedures that have been established by the COA since its first meeting in April, 1995. The agenda item provided the COA with a scope of work for the "formative" and "summative" evaluation activities for an external contractor. The action item also included a staff recommendation to have the COA request that the Commission develop a Budget Change Proposal (BCP) to fund the adopted evaluation plan.

The COA directed staff to discuss the item and proposed action with the Executive Director, and then at the direction of the Executive Director to prepare such a BCP. Staff presented a BCP Concept Paper to the Commission at the July, 1997 meeting of the Commission. The Commission acted to have staff prepare a BCP to propose a budget augmentation to the Department of Finance starting in the 1998-99 fiscal year.

The BCP called for a budget augmentation of $125,000 per year over a period of four years for a total of $500,000. The Department of Finance approved the BCP and the Governor placed the budget augmentation in the Budget Bill for 1998-99, which was approved by the Legislature and signed by the Governor in August, 1998. In October 1998, staff presented the evaluation plan to the COA and it was adopted. Staff brought the COA endorsed evaluation plan including an extended "scope of work" to the Commission for consideration and adoption at its January 1999 meeting and that plan was adopted. Due to the press of other divisional activities, the final request for proposal was not completed until the summer of 1999.

**Proposal Review Activities**

On August 6, 1999, the Requests for Proposals for the Evaluation of the Commission-adopted Accreditation Framework were mailed to potential bidders. The list of bidders included all institutions of higher education in California, the top 150 school districts in California, and the state-developed list of evaluation agencies. Included in this mailing were all organizations that had received previous Commission requests for proposals. The information about this request for proposals was also available on the Commission website. In total, over 250 packets of information were sent to potential bidders and organizations with an interest in this type of work. Included in the bid packet was a copy of the Accreditation Framework and a schedule of accreditation visits from 1997 through 1999. All prospective bidders were invited to return an "Intent to Bid" form so that Commission staff could track the potential bidders. While several agencies called to discuss the request for proposals and two research organizations indicated they had received the information but were unable to respond at this time, staff received three formal intents to bid.

The staff received two proposals by the stated deadline of October 1, 1999. The third entity decided not to pursue a formal proposal. The third potential bid was from a group of faculty
at a California institution of higher education that has accredited credential programs. The institution was unable to develop appropriate mechanisms to ensure that no conflict of interest issues would affect their proposal. The other two bids came from research and evaluation firms. One bid was submitted by the American Institute for Research, Palo Alto, California and the second bid was received from Resources for Learning, Manchaca, Texas. American Institute for Research had previously bid on the Commission’s work on the Teaching Performance Assessment. The principal investigator for the proposal submitted by Resources for Learning, Dr. Linda Wurzbach, has conducted small, highly focused research for the Commission previously.

In accordance with the proposal review process approved by the Commission, a Proposal Review Team was established to read, review, and score the two proposals received. Staff conducted the initial technical review and determined that both proposals met the stated nine requirements (e.g., proposal received on time, correct number of copies received, complete cover page submitted, other state contracting requirements met). The Proposal Review Team consisted of six members, four individuals from outside the agency and two members of the Commission staff, one of whom has budgetary expertise. The members of the team were as follows:

Dr. Robert Monke, Associate Dean, California State University, Fresno  
Dr. James Richmond, California State University, Chico  
Dr. David Wampler, University of California, Davis  
Ms. Kim Breen, West Covina High School  
Dr. Philip Fitch, Consultant, CTC  
Mr. Joe Radding, Director, Business and Information Services, CTC

All non-staff members of the review team are experienced Board of Institutional Review members and two of the four non-staff members are trained in the procedures of the National Council on the Accreditation of Teacher Education. Dr. Wampler served on the original Accreditation Advisory Council. The review team met on November 2, 1999 at the Commission offices. The team members were first oriented to their charge as called for in the approved Request for Proposal plan. Using the point scoring system detailed in the Request for Proposals, the team first determined by individual vote that at least one proposal met the minimum requirements for recommendation. Had the team determined that no proposal was of sufficient merit to warrant a recommendation, the review process would have been concluded and this agenda item would have recommended that the RFP be amended and re-submitted to the field. By unanimous vote, the review team determined that there was at least one approvable proposal. The team then discussed each proposal in detail and all members provided the scores for each proposal that they had independently calculated. Based on the scores provided and the discussion of each proposal, the team unanimously recommended that the contract to evaluate the accreditation process be awarded to American Institute of Research (AIR) of Palo Alto, California. Their proposal earned a mean score of 202 points out of 225 possible.

In general, the Proposal Review Team determined that the AIR proposal was superior in its overall conceptualization of the two-part evaluation task. Its proposal showed a detailed understanding of the credentialing issues facing California and the Commission. It has a team of experienced and highly knowledgeable researchers already employed at AIR and can begin immediately to collect data. The AIR proposal also will make significant use of electronic data collection, including use of the Internet as a means of obtaining data from the educator preparation community. The budget analysis showed that both proposals were acceptable, but the AIR proposal was only $5,000 under the other proposal. The review team felt very comfortable in making its recommendation to award the contract to the American Institute of Research and is confident that they will produce a report of high quality and significant usefulness.

**Recommendation**

The Proposal Review Team unanimously voted to recommend to the Commission that it accept the recommendation to enter into a contract with the American Institute for Research, Palo Alto, California to conduct the evaluation of the accreditation process in accordance with the previously approved "Request for Proposals" published on July 2, 1999 and mailed to the field on August 6, 1999. Staff concurs with the recommendation of the Proposal Review Team and requests that the Commission approve this recommendation and authorize the Executive Director to sign a contract with the American Institute for Research in the amount of $374,970.00. The contract period will commence as soon as practicable and...
end on June 30, 2002.
California Commission on Teacher Credentialing

Meeting of: December 1-2, 1999

Agenda Item Number: PERF-1

Committee: Performance Standards

Title: Update on the Development of the Commission's Teaching Performance Assessment and Review of MSAT Specifications

Information

Prepared by: Bob Carlson, Ph.D., Administrator
Professional Services Division

Summary of an Agenda Report

Update on the Development of the Commission's Teaching Performance Assessment and Review of MSAT Specifications

Professional Services Division
November 17, 1999

Overview of this Report

In June 1999, the Commission approved a contract with WestEd for (a) the development of preliminary teaching performance expectations (TPEs) for Level I teaching credential candidates that will serve as the bases for the SB 2042-required teaching performance assessments, and (b) the review and potential revision of the content specifications for the Multiple Subjects Assessment for Teachers (MSAT). This report describes the larger project of which the WestEd contract is a part, summarizes work completed to date with WestEd, provides an updated timeline for the development of final TPEs and MSAT content specifications.

Relationship to the Commission's Strategic Goals and Objectives

Goal One: To promote educational excellence in California schools.

Objective One: Develop candidate and program standards.

Objective Two: Develop and administer teacher assessments.

Fiscal Impact Statement

The cost of preparing this report is supported from the agency’s base budget.

Summary

In June 1999, the Commission approved a contract with WestEd for (a) the development of preliminary teaching performance expectations (TPEs) for Level I teaching credential candidates that will serve as the bases for the SB 2042-required teaching performance assessments, and (b) the review and potential revision of the content specifications for the Multiple Subjects Assessment for Teachers (MSAT). This report describes the larger project of which the WestEd contract is a part, summarizes work completed to date with WestEd, and provides an updated timeline for the development of final TPEs and MSAT content specifications.
Background

Teaching Performance Assessments

In September 1998, Governor Wilson signed into law Senate Bill 2042 (Chapter 548, Statutes of 1998), sponsored by the Commission. The law will significantly transform the preparation, induction, development, and licensure of teachers in the coming years by making structural changes in the requirements for teaching credentials. One important element of the new law requires that each program of professional preparation for Preliminary (Level I) Multiple Subject and Single Subject Teaching Credentials include an assessment of each credential candidate’s teaching performance. These “teaching performance assessments” must be:

- aligned with the California Standards for the Teaching Profession,
- congruent with state content and performance standards for K-12 students,
- consistent with Assessment Quality Standards to be developed by the Commission, and
- based on a Commission-adopted set of “teaching performance expectations.”

The Commission is required to develop a teaching performance assessment that sponsors of professional preparation programs could use if they choose not to develop their own teaching performance assessments. The teaching performance expectations (TPEs) will be the basis for the newly-required teaching performance assessments. A TPE is a statement describing (a) an integrated set of pedagogical tasks, knowledge, and abilities, that is significantly related to a major segment of a teaching job, and that Preliminary (Level I) Teaching Credential candidates should know or be able to do, and (b) levels of teaching proficiency with respect to that set of tasks, knowledge, and abilities.

The Multiple Subjects Assessment for Teachers (MSAT)

California Education Code Section 44281 requires the Commission to administer subject matter examinations for the purpose of assuring minimum levels of subject matter knowledge for teachers. Additionally, Section 44282(b) states:

A general subject matter examination authorizing teaching multiple subjects shall include an examination of the candidate's knowledge of the following areas: language studies, literature, mathematics, science, social studies, history, the arts, physical education, and human development.

The Commission has used the Multiple Subjects Assessment for Teachers (MSAT) since 1992 to satisfy this provision of the law. Passage of the MSAT is an alternative way that candidates for Preliminary (Level I) Multiple Subject Teaching Credentials, typically used by elementary teachers, can demonstrate subject matter competence. The other way in which candidates can meet the subject matter requirement is by completing a Commission-approved subject matter program at a college or university. The Commission approves such programs on the basis of program standards that were adopted in 1988.

Senate Bill 2042, described above, requires that the Commission’s subject matter examinations, including the MSAT, be consistent with recently adopted state content standards for K-12 students. The Commission has initiated a review of the elementary subject matter program standards and the MSAT content specifications.

Contract with WestEd

In June 1999, at the conclusion of a competitive bidding process, the Commission authorized the Executive Director to enter into a contract with WestEd for (a) development of preliminary TPEs for Level I teaching credential candidates and (b) review and potential revision of the content specifications for the Multiple Subjects Assessment for Teachers (MSAT). The contract calls for WestEd, working with Commission staff and advisory groups, to complete the following tasks for both the TPEs and the MSAT content specifications:

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1 These include the Advisory Panel for the Development of Teacher Preparation Standards (SB 2042 Advisory Panel), the Elementary Subject Matter Task Force, the Assessment Task Force, the Proficiency Levels Task Force, and the Bias Review Committee.

2 Each of these tasks is described more completely in agenda item PERF-2, June 1999.

Task One: Implement Job Analyses

The implementation of the job analyses involves the following activities:

IA: Develop an inventory of pedagogical tasks, knowledge, and abilities (TKAs) and an inventory of subject-matter knowledge, understanding, and skills
Task Two: Develop Preliminary TPEs and MSAT Content Specifications

This task will involve the following activities:

IIA: Create drafts 1 and 2 of preliminary TPEs and MSAT content specifications

IIB: Facilitate analyses of draft 2 materials by an Alignment and Congruence Review Contractor and create draft 3

IIC: Train the Bias Review Committee and facilitate the Committee's review of draft 3 materials

IID: Create a final version of the preliminary TPEs and MSAT content specifications

IE: Prepare draft reports of the job analyses and the development of preliminary TPEs and MSAT content specifications

Future Contracts and Tasks

Because of the complexity of the work involved in studying and developing performance expectations for teaching candidates as well as content specifications for a broad subject matter examination, the Commission plans to award at least three additional contracts for distinct sets of research and development responsibilities. Each of these is described below.

The Alignment and Congruence Review Contractor

The teaching performance assessments required by SB 2042 must by law be (a) aligned with the California Standards for the Teaching Profession (CSTP) and (b) congruent with the K-12 Student Content and Performance Standards. In addition, the assessments should be consistent with the "Assessment Quality Standards" that will be developed by the Commission's Assessment Task Force, reviewed by the SB 2042 Advisory Panel, adopted by the Commission, and used to evaluate all teaching performance assessments. Similarly, the MSAT content specifications must by law be (a) congruent with the K-12 Student Content and Performance Standards adopted by the State Board of Education, and (b) aligned with the CSTP.

Staff plans to release an RFP to select a contractor that will (a) independently analyze the evolving TPEs and the MSAT content specifications at two points during their development, and (b) report on the extent to which they meet the criteria described above. The results of these analyses will be used to make modifications to the TPEs and MSAT content specifications, as necessary, to assure that they are consistent with the above-mentioned policies.

It is expected that this "Alignment and Congruence Review Contractor" will have qualifications such as the following:

- knowledgeable about the California K-12 Student Content and Performance Standards adopted by the State Board of Education;
- knowledgeable about the California Standards for the Teaching Profession (CSTP);
- experience in California K-12 public schools and/or experience in California teacher preparation;
- subject matter knowledge in reading, language arts, mathematics, history, social science, and science;
- strong analysis skills; and
- able to conduct the required analyses and prepare the required reports within the necessary time frames.

To preserve the independence of the alignment and congruence reviews, WestEd will not be eligible to be the Alignment and Congruence Review Contractor. WestEd will facilitate the Alignment and Congruence Review Contractor's independent reviews of the preliminary TPEs and MSAT content specifications by making the appropriate documents available to that contractor, and by allowing time for that contractor's analyses to be conducted and reported. The Alignment and Congruence Review Contractor will also review the TPEs and MSAT content specifications during the work of another contractor, the Validity Study Contractor, described below.

The Validity Study Contractor

The preliminary TPEs and the MSAT content specifications that emerge from the job analyses conducted by WestEd will be the subjects of validity studies following completion of WestEd's work. Staff expects to release an RFP to select a contractor to design, conduct, and interpret studies of (a) the content validity of the preliminary TPEs and (b) the content validity of the MSAT content specifications. We will seek a single contractor for both sets of validity studies because both will involve statewide surveys and other methodologies with overlapping populations of respondents (California educators) that will occur
The Extant Measures Evaluation Contractor

Once the Commission has developed and adopted a final set of TPEs (following the work of the Validity Study Contractor), it will be in a position either to adopt or develop a teaching performance assessment (or assessment system) for use in the preparation and certification of candidates for Preliminary (Level 1) Multiple and Single Subject Teaching Credentials. If existing measures would be valid and available for use by the Commission, their adoption and implementation may be less costly than the development of new measures for use by the Commission. Such extant measures could consist of instruments or systems that are fully developed, or ones that are in development either in California or elsewhere.

Staff plans to issue an RFP for a contractor to search for and evaluate extant assessments of teaching performance for possible adoption and use by the Commission. The final TPEs will serve as the Extant Measures Evaluation Contractor's primary criteria for screening and evaluating the assessment instruments that may be available for possible use by the Commission.

If no suitable extant assessments are found, then the Commission would sponsor the development of a new assessment based on the TPEs and consistent with the Assessment Quality Standards. An assessor training system would also be developed. The assessment and the assessor training system would be field-tested in California, and the results would be used to finalize the assessment and the training system. If an appropriate extant assessment is identified, that assessment and an associated assessor training system would be field-tested in California. Field-test results would be used to improve the assessment materials, as necessary. The work described in this paragraph would be the subject of future RFPs and contracts.

Work Completed and in Process

In the six months since the award of the contract to WestEd, activities IA through IC of the job analysis (Task One; described above) have been completed, and activity ID is in process. Each of these is briefly described below.

**Activity IA:** Develop an Inventory of Pedagogical Tasks, Knowledge, and Abilities (TKAs) and an Inventory of Subject-Matter Knowledge, Understanding, and Skills

As an initial step in the creation of the TPEs, WestEd has developed an inventory of pedagogical tasks, knowledge, and abilities (TKAs) that may be important for competent teaching in California public schools. There are 122 "common TKAs" that may be important for all K-12 teachers regardless of grade level(s) and subject(s) taught, 66 "grade-level-specific" TKAs that may be important for teachers at specific grade-level groupings (K-3, 4-6, 6-8, and/or 9-12), regardless of subject(s) taught, and 71 "subject-specific" TKAs that may be important for teachers of specific subject areas, regardless of grade level(s) taught. The subject areas included are English/language arts, mathematics, history/social studies, and science. The inventory includes TKAs relevant to the teaching of English language learners, and TKAs derived from the Commission's computer/technology standards.

As the first step in the review and potential revision of the MSAT content specifications, WestEd has developed an inventory of subject-matter knowledge, understanding, and skills that may be important for competent teaching of California's K-8 curriculum. The inventory includes a total of 323 knowledge, understanding, and skills statements across the seven subject matter areas assessed on the MSAT:

- Literature and Language Studies
- Mathematics
- Science
- History/Social Studies
- Visual and Performing Arts
- Physical Education
- Human Development

In developing the two inventories, WestEd consulted a variety of state and national documents, and shared draft inventories with the 2042 Advisory Panel, the Elementary Subject Matter Task Force, Commission staff, and classroom teachers. The inventories are the subject of the job analysis surveys.

**Activity IB:** Select Recipients of the Job Analysis Surveys

Several thousand California educators have been selected to participate in the job analysis surveys. For each survey, the categories of survey recipients and the approximate number in each category are provided below.

Pedagogical Job Analysis for Development of TPEs

- 13,000 classroom teachers and school-site administrators at 400 elementary, middle, and high schools;
Subject-Matter Job Analysis for Review and Revision of the MSAT

- 8,000 classroom teachers at 300 elementary and middle schools;
- 800 elementary subject matter program faculty at 31 colleges/universities with Commission-approved elementary subject matter preparation programs;
- 100 district and county curriculum specialists; and
- 300 other California educators selected for their knowledge and expertise in the subject matters of interest.

Activity IC: Develop the Job Analysis Surveys

Working closely with Commission staff, and with input from the 2042 Advisory Panel, the Elementary Subject Matter Task Force, the Assessment Task Force, and teachers and others who participated in pilot tests, WestEd developed the job analysis surveys. The primary elements of the surveys are:

- screening questions to determine that the survey recipient meets survey eligibility criteria,
- background questions about the recipient,
- rating scales, and
- pedagogical TKAs or subject-matter knowledge, understanding, and skills with space for recording the ratings.

Because of variations in screening questions, background questions, and rating scales across categories of survey recipients, and to reduce respondent burden, a number of different forms of the surveys were created. For the pedagogical job analysis, there are 25 different forms; for the subject-matter job analysis, there are 37 different forms. For example, one of the forms of the pedagogical survey for elementary teachers includes (a) one-third of the common TKAs, (b) the grade-level-specific TKAs for grades K-3, 4-6, and 6-8, and (c) the subject-specific TKAs for English/language arts and mathematics. The teacher is asked to rate all of the common TKAs on the form, the set of grade-level-specific TKAs that includes the grade the teacher teaches, and the two sets of subject-specific TKAs. For the subject-matter surveys, each teacher form includes knowledge, understanding, and skills in three of the seven subject areas, and the teacher is asked to rate all of them.

One form of the pedagogical survey and one form of the subject-matter survey are provided in the Appendix.

Activity ID: Distribute the Job Analysis Surveys and Collect the Completed Surveys

At the time this report was prepared, WestEd was completing the process of distributing the job analysis surveys. Most had been mailed, but efforts were still being made to solicit the cooperation of schools, and to select replacements for schools that declined to participate. It is expected that all surveys will be distributed soon, and that the final due date for responses will be late December.

Timeline of Future Work

The timeline below shows future work activities planned and estimated completion dates separately for the development of final TPEs and MSAT content specifications.
facilitate the Committee’s review of draft 3 materials
Create a final version of the preliminary TPEs/MSAT content specifications, and prepare draft reports of the job analyses mid August 2000
present preliminary TPEs (without proficiency levels)/MSAT content specifications to the Commission September 7, 2000
Work with Proficiency Levels Task Force and SB 2042 Advisory Panel to develop preliminary TPE proficiency levels mid-November 2000
Present preliminary TPE proficiency levels to Commission December 7, 2000
Develop and select recipients of the validity surveys December 2000
Distribute the validity surveys and collect the completed surveys February 2001
Analyze and summarize the validity study results and present the results to the SB 2042 Advisory Panel/Elementary Subject Matter Task Force April 2001
Revise TPEs/MSAT specifications based on Panel/Task Force review May 2001
Facilitate analyses of TPEs/MSAT specifications by Alignment and Congruence Review Contractor and Bias Review Committee June 2001
Create final version of TPEs/MSAT content specifications, and prepare draft reports of validity studies August 2001
Present final TPEs/MSAT content specifications to the Commission September 2001

Changes in and Discussion of Project Timeline

In June 1999, when the Commission authorized the Executive Director to sign the contract with WestEd, staff presented an estimated project timeline. In that timeline, the final TPEs and MSAT content specifications would be presented to the Commission for consideration and adoption in December 2000. The current timeline described above results in final TPEs nine months later and final MSAT content specifications five months later than estimated in June. Two factors have contributed to the lengthened timeline.

Development and Distribution of Job Analysis Surveys

First, it took much longer than WestEd and Commission staff anticipated to develop and distribute the job analysis surveys. In the June timeline, staff estimated that the results of the job analysis surveys would be presented to the SB 2042 Advisory Panel and the Elementary Subject Matter Task Force in November 1999. It now appears as though that activity will not be completed until mid-March 2000, a delay of about four months. This has been primarily due to the larger than anticipated number of TKAs that are included in the job analyses. This led to the need for an increased number of survey forms, because no survey recipient could be expected to respond to all of the TKAs. The TKAs were divided among different forms. The increased number of forms led to the decision to have WestEd produce the survey forms themselves, rather than having a professional production house produce the forms. Having the production house produce the larger number of forms than originally expected would have been prohibitively expensive. It took WestEd longer than it would have a professional production house to produce final versions of all the survey forms.

The mailing of surveys, especially to schools, has also taken longer than originally expected. WestEd has been calling the district superintendent in each district in which one or more schools have been randomly selected to receive surveys. WestEd has also been calling school principals. The purpose of the calls is to explain the studies and their importance, and to encourage the district's/school's participation. The increased number of forms required increasing the sample of schools in order to obtain an adequate number of responses to each TKA. Thus, a larger sample of schools had to be redrawn, and a larger number of district and school contacts had to be made. A number of superintendents (on behalf of all selected schools in their districts) and principals (on behalf of their schools) have declined to participate, claiming that there have been too many demands on schools from the state over the last couple of years and that teachers are too busy. When this occurs, new districts and schools have to be contacted, further delaying the mailing of surveys.

To avoid selecting any schools for both the pedagogical and the subject-matter job analyses (i.e., to have a separate sample of schools for each study), WestEd had to finalize the sample for the pedagogical survey before finalizing the sample for the...
subject-matter survey. Thus, delays in the obtaining the first sample delayed the finalization of the second sample. In addition, to include Los Angeles Unified School District schools in the surveys, WestEd had to prepare and submit a research proposal for approval by a district research committee. The proposal had to be approved before WestEd can begin contacting schools in the district. The proposal had to include final surveys. The delay in producing final surveys delayed the submission of a research proposal to LAUSD, and, therefore, the contacting of district schools and the mailing of their surveys.

Development of TPE Proficiency Levels

The second factor that has contributed to the lengthened timeline for the development of TPEs relates to the strategy for the development of TPE proficiency levels. As indicated above, a TPE is (a) an integrated set of pedagogical tasks, knowledge, and abilities, that is significantly related to a major segment of a teaching job, and that Preliminary (Level I) Teaching Credential candidates should know or be able to do, and (b) levels of teaching proficiency with respect to that set of tasks, knowledge, and abilities. The levels of teaching proficiency associated with each TPE are critically important to the reliability and validity of the teaching performance assessments that will be based on the TPEs. Originally, primarily due to time considerations, staff thought that the proficiency levels associated with each TPE could be developed at the same time that the rest of the TPE was developed. Upon further reflection, staff now believe that a better strategy would be to develop preliminary proficiency levels after the preliminary TPE statements are developed. There are two primary reasons for this change. First, the development of the proficiency levels will be challenging enough without introducing the likelihood that the TPE statements will be changing at the same time that the proficiency levels are being developed. This would introduce inefficiency and confusion into the process. Second, working on proficiency levels after the preliminary TPE statements are finalized gives Commission staff, WestEd, the Proficiency Levels Task Force, and the SB 2042 Advisory Panel more time to develop this critical element of the TPEs. This change to the timeline adds about three months to the development of the final TPEs.

Implications for the Development of Teacher Preparation Program Standards

The delay in completing preliminary teaching performance expectations will have a slight impact on the timeline for the development of professional preparation program standards. The SB 2042 Advisory Panel is working with a format for new standards that will ensure that teacher preparation programs and assessments are fully aligned in the future. Staff anticipate that the panel's recommended standards will incorporate the TPEs. Thus, instead of delivering draft standards to the Commission in May 2000 as previously planned, staff expect to present draft standards to the Commission at the September 2000 meeting, at the same time that the preliminary TPEs are presented to the Commission. At that time, staff will seek Commission approval to send the draft standards (including the preliminary TPEs) out for extensive field review. Following field review and panel revisions, final standards will be presented to the Commission for consideration and adoption in February 2001, two months later than originally planned.

Appendix (Not available on-line)

Included in this appendix (not available on-line) are one of the 25 survey forms for the pedagogical job analysis and one of the 37 survey forms for the subject-matter job analysis. Both survey forms are duplicated on white paper in this report. The actual survey form for the pedagogical job analysis, however, included colored pages to facilitate respondents' working through the survey. In the actual version of the attached pedagogical survey form, pages 13-22 (the grade-level-specific TKAs) are blue, and pages 23-30 (the subject-specific TKAs) are green.
California Commission on Teacher Credentialing

Meeting of: December 1-2, 1999

Agenda Item Number: PUB-1

Title: Proposed Amendment to Section 80004 and Addition of Section 80005 of Title 5 Regulations Concerning Single Subject Teaching Credentials and an Authorization for Subject Areas for Service in Departmentalized Classes

Action

Prepared by: Terri Fesperman, Program Analyst
Certification, Assignment and Waivers Division

PUBLIC HEARING
December 2, 1999

Proposed Amendment to Section 80004 and Addition of Section 80005 of Title 5 Regulations Concerning Single Subject Teaching Credentials and an Authorization for Subject Areas for Service in Departmentalized Classes

Introduction
The proposed amendment to Section 80004 and addition of Section 80005 of Title 5 Regulations Concerning Single Subject Teaching Credentials and an Authorization for Subject Areas for Service in Departmentalized Classes are being presented for public hearing. Included in this item are the background of the proposed regulations, a brief discussion of the proposed changes, and the financial impact. Also included are the responses to the notification of the public hearing and a copy of the notification distributed in Coded Correspondence 99-9923 dated October 15, 1999.

Background of the Proposed Regulations
Education Code Section 44225 establishes the powers and duties of the Commission. Subsection (q) allows the Commission to propose rules and regulations to implement these duties. Subsection (e) of that section authorizes the Commission to determine the authorization for credentials. Section 44256 defines the authorization for the Single Subject Teaching Credential. Section 44258.9(b) of the Education Code contains the assignment monitoring authority of the Commission.

The existing content of Title 5 Section 80004 concerning the Single Subject Teaching Credential is either out-of-date or unnecessary. Any reference in this section to the valid period of the credential or dating information is not necessary because it is contained in other sections of regulations (80553, 80413, and 80413.1). The statement currently in Section 80004 does not clearly define the authorization for the Single Subject Teaching Credential.

Prior to 1982, Title 5 Regulations included a subsumption list of subjects authorized under each single subject category. It served as a helpful guide to employers, but proved to be inadequate as it did not contain all the subjects being taught nor could it be changed to add new courses. A new "subsumption" list that provides specificity yet allows flexibility at the local level would be helpful to employing school districts and county offices of education.
In most cases there is a direct match between the curriculum of the courses to be taught and the authorizations listed on credentials. There are, however, specific types of courses that do not fall neatly under any of the current statutory single subjects. These include courses in life skills, leadership, study skills, conflict management, teen skills, study hall, and others. Clarification of which credentials authorize service in these types of classes would be helpful to employing school districts and county offices of education.

Proposed Changes

Section 80004:

- Subsection (a) describes the subject areas and grade level in which the holder of a Single Subject Teaching Credential may serve.

- Subsection (b) clarifies which single subject areas authorize teaching health science.

   In 1980, the professional organization of health educators sponsored a bill to create a separate Single Subject Teaching Credential in Health Science. Prior to January 1, 1981, holders of a Single Subject Teaching Credential in physical education were authorized to teach health science because the credential programs and examinations in physical education included health standards. Regulations were not revised to reflect the change in the physical education credential authorization. The life science subject-matter programs and examinations also include health standards to allow for the dual authorization in life and health science. The single subject area of biological science, which was added in 1995, does not authorize teaching health science as the program and examinations do not include health standards.

- Subsection (c) states that the Single Subject Teaching Credentials in specific subject areas authorize teaching classes that are designated as trade, technical, or vocational.

   The Commission issues Vocational Designated Subjects Teaching Credentials that authorize service in trade, technical, and vocational classes. These credentials require five years of work experience related to the subject listed on the document. Holders of Single Subject Teaching Credentials in agriculture, business, home economics, and industrial and technology education must complete a teacher preparation program including student teaching, and verify subject-matter competence by completing 45 semester units of course work or passing subject-matter examinations in the subject area. There has been some confusion whether trade, technical, and vocational classes can only be taught by an individual holding a Designated Subjects Vocational Teaching Credential. Credential holders in these five trade, technical, or vocational subject areas have completed requirements beyond what is required for the Designated Subjects Teaching Credential.

   The California Department of Education provides special funding for some vocational classes and specific credentials or experience may be a requirement for that funding. The Commission always advises employers to check with the Department before assigning an individual who does not hold a credential that is clearly identified as a vocational credential in a trade, technical, or vocational class. Regardless of the possible funding criteria, these single subject areas authorize serving in a trade, technical, or vocational class.

Section 80005:

- Subsection (a) describes the manner in which an individual may be assigned to teach a subject that falls within the broad single subject areas. The proposed regulation allows an employing agency to determine that an individual may teach a class directly related in content to one of the broad subject areas if the subject is not already listed under another subject area.

- Subsections (a)(1) through (16) lists the broad single subject areas and the specific subject areas that may be taught by the holder of a Single Subject Teaching Credential in the broad category.

- Subsection (b) contains the authorization to teach classes that do not fall within the single subject areas. Service is restricted to the grade level of the teaching credential. Requiring a credential based on a bachelor's degree and a teacher preparation program including student teaching eliminates the holder of an emergency permit or waiver from performing
Financial Impact

California Commission on Teacher Credentialing: None
State Colleges and Universities: None
Private Person: None
Mandated Costs: None

Notice of Proposed Rulemaking Mailing List and Responses

Mailing List

- Members of the California Commission on Teacher Credentialing
- California County Superintendents of Schools
- Credential Analysts at the California County Superintendents of Schools Offices
- Superintendents of Selected California School Districts
- Deans and Directors at the California Institutions of Higher Education with Commission-approved programs
- Credential Analysts at the California Institutions of Higher Education with Commission-approved program
- Presidents of Selected Professional Educational Associations

Also placed on the Internet at http://www.ctc.ca.gov.

As of Wednesday, November 17, 1999, the Commission had received the following seven written responses to the public announcement:

**In Support** | **In Opposition**
---|---
6 organizational opinions | 0 organizational opinion
13 personal opinions | 0 personal opinion

Total Responses: 19

Responses Representing Organizations in Support

1. El Monte Union High School District: Nicasio J. Salerno, Assistant Superintendent
2. Etna Union High School District: Gary F. Potter, Superintendent

Comment: Suggest you re-consider if a Home Ec Teacher can be authorized to teach health, at the 7-12 grade level. It has been my experience in Calif; that the most effective 7-12 health teachers have been Home Ec Tchrs.

Commission Response: The Commission issues a Single Subject Teaching Credential in Health Science that is based on completion of an approved program of course work or passage of the appropriate examination in health science. The home economics program and the examination focus primarily on course work dealing within the specific area of home economics. There is not a broad range of course work in health science in these programs.

3. Healdsburg Unified School District: Melody Graham, Human Resources Manager
4. Inyo County Office of Education: Rebecca Neil, Credential Analyst/Executive Secretary
5. Santa Maria-Bonita School District: Karen Valdez, Personnel Clerk
6. Sunnyvale School District: Susan Pastorini, Director of Human Resources

Responses Representing Individuals in Support

1. C. Brownell, Personnel Clerk, Escondido Charter High School District
2. Michael J. Dutra, Director of Educational Services, Children's Home of Stockton NPS
3. Deidra Hoffman, Superintendent, Castle Rock Elementary School District
5. David Mantooth, Assistant Superintendent, Escalon Unified School District
6. Jeanie Milliken, Director of Teacher Education, Pt. Loma Nazarene University
7. Louis Pastorini, Assistant Superintendent, Santa Clara Unified School District
8. Gladys L. Phillips-Evans, Deputy Superintendent of Adm. Services, Culver City Unified School District
9. Mary Ann Salem, Director of Student Services, Somerset Educational Services
10. Nedra G. Shunk, Director of Liberal Studies, Santa Clara University
12. David R. Stronck Professor of Science Education, California State University, Hayward

Comment: Californians need a system that encourages anyone with a bachelor's degree in science to be able to enter a credential program leading to a single subject teaching credential in that science. For example, a major in any of the biological sciences should on the basis of that bachelor's degree be able to begin education courses leading to a single subject teaching credential in biological science. The Commission should not continue to impose the requirements of prerequisites in subject matter competency for science that require study in all four sciences as well as in more specialized areas.

Commission Response: This is not an issue that is related to these regulations. Staff has forwarded this comment to the appropriate individual at the Commission working with Single Subject Teaching Credential programs in science.

13. Richard L. Swanson, Superintendent/Principal, Owens Valley Unified School District

Staff Recommendation
Staff recommends that the Commission adopt the proposed amendment to Section 80004 and addition of Section 80005 of Title 5 Regulations Concerning Single Subject Teaching Credentials and an Authorization for Subject Areas for Service in Departmentalized Classes.

California Commission on Teacher Credentialing
Division VIII of Title 5 of the California Code of Regulations

Proposed Amendments and Additions to Title 5 Regulations Concerning Single Subject Teaching Credentials and an Authorization for Subject Areas for Service in Departmentalized Classes

Title 5 §80004. Single Subject Teaching Credential Authorization for Service.

A Preliminary Single subject Teaching Credential shall be issued for not more than five years following completion of the requirements specified in Section 80413(a), but prior to completion of the requirements specified in Section 80413(b).

(a) Upon completion of the requirements specified in Section 80413(b) and upon satisfying the Commission that the holder is otherwise qualified, the holder of the Preliminary Credential, or other applicant, shall be issued a Clear Single Subject Teaching Credential. The Single Subject Teaching Credential authorizes the holder to teach the subject area(s) listed on the document in grades twelve and below, including preschool, and in classes organized primarily for adults.

(b) The Clear holder of a Single Subject Teaching Credential shall be issued for five years in the following subject areas are authorized to teach health science:

(1) Health Science,
(2) Life Science, and
Title 5 §80005. Authorization for Subject Areas for Service in Departmentalized Classes.

(a) The holder of a Single Subject Teaching Credential may be assigned to teach the subjects which fall within the broad subject area listed on their document as found in 1 through 16. If a subject is listed below, it may only be taught by the holder of a Single Subject Teaching Credential with the broad subject area listed on their document. The holder of a Single Subject Teaching Credential may be assigned to teach a subject not listed below if the employing agency has determined its subject-matter content is directly related to the broad subject area.

(1) Agriculture: agricultural management, agricultural mechanics, agricultural science, animal science, forestry, horticulture, landscaping, and plant science;

(2) Art: art appreciation, art history, arts and crafts, art theory, calligraphy, cartooning, ceramics, commercial art, costume design, crafts, design, drawing, humanities, illustration, interior decoration, jewelry, leathermaking, painting, photography, sculpture, stagecraft, and yearbook;

(3) Business: accounting, business communications, business English, business mathematics, business management, business marketing, computer concepts and applications, consumer education, data processing, economics, general office occupations, keyboarding, marketing, shorthand, typewriting, and word processing;

(4) English: composition, creative writing, debate, drama, forensics, grammar, humanities, journalism, language arts, language structure, literature, poetry, public speaking, speech, theater arts, and yearbook;

(5) Health: child development, family life, human sexuality, nutrition, sexually transmitted disease education, and substance abuse;

(6) Home Economics: child development, clothing, consumer education, family life, foods, family economics, housing, human development, interior design, nutrition, parenting, and textiles;

(7) Industrial and Technology Education: automotive mechanics, carpentry, computer technology, construction, drafting, electricity, electronics, industrial crafts, industrial design, metals, millwork, photography, plastics, radio and television, technical science/power mechanics, welding, and woods;

(8) Languages Other Than English: courses in culture, grammar, composition, language structure, and literature of the language listed on the document;

(9) Mathematics: basic or general mathematics, algebra, calculus, computer science, consumer mathematics, geometry, mathematical analysis, statistics and probability, and trigonometry;

(10) Music: instrumental music, music appreciation, music theory, and vocal music;

(11) Physical Education: aquatics, dance, fundamental and creative movement, gymnastics, interscholastic sports, motor development or learning, physical conditioning, sports, and weightlifting;

(12) Science: Biological Science: anatomy, biology, botany, ecology, environmental science, evolution, genetics, physiology, and zoology;

(13) Science: Chemistry: chemical reactions, qualitative analysis, quantitative analysis, and structure and stability;
(14) Science: Geoscience: astronomy, cosmology, earth science, forestry, geology, meteorology, oceanography, and paleontology;

(15) Science: Physics: energy, mechanics, and thermodynamics;

(16) Social Science: American government, anthropology, contemporary issues, current events, cultural studies, economics, ethnic studies, geography, government, history, humanities, international government, law, politics, psychology, sociology, United States history, and world history.

(b) The holder of a teaching credential based on a baccalaureate degree and a teacher preparation program, including student teaching or the equivalent, may be assigned, with his or her consent, to teach subject-matter classes which do not fall within or are not directly related to the broad subject areas listed in (a) if the employing agency has determined the teacher has the requisite knowledge and skills. Verification of this decision must be kept on file in the office of the employing agency for purposes of the monitoring of certificated assignments pursuant to Education Code Section 44258.9(b). Such courses may include, but are not limited to, life skills, conflict management, study skills, leadership, teen skills, and study hall. Service in such assignments is limited to the grade level authorized by the teaching credential.

Authority cited: Section 44225(e), Education Code. Reference: Sections 44225(q) and 44258.9, Education Code.

OFFICE OF THE EXECUTIVE DIRECTOR
(916) 445-0184

DATE: October 15, 1999

TO: All Individuals and Groups Interested in the Activities of the California Commission on Teacher Credentialing

FROM: Sam W. Swofford, Ed.D.
Executive Director

SUBJECT: Proposed Amendment to Section 80004 and Addition of Section 80005 of Title 5 Regulations Concerning Single Subject Teaching Credentials and an Authorization for Subject Areas for Service in Departmentalized Classes

**Notice of Public Hearing is Hereby Given**
In accordance with Commission policy, the following Title 5 Regulation is being distributed prior to the public hearing. A copy of the proposed regulations is attached:

Proposed Amendment to Section 80004 and Addition of Section 80005

The public hearing is scheduled for:

**December 2, 1999**
**1:30 p.m.**
California Commission on Teacher Credentialing
1900 Capitol Avenue
Sacramento, California

**Statement of Reasons**
*Purpose/Effect of Proposed Action*
The proposed amendments to Section 80004 would eliminate the existing language and redefine the purpose of the section and propose appropriate content to define the authorization of the Single Subject Teaching Credential with the addition of the subject areas authorized to teach health science and classes designated as trade, technical, and vocational. The proposed addition of Section 80005 would clarify the authorization for the subject areas for service in departmentalized classes including those in statutory single subject areas and classes that do not fall within the single subject areas.

The existing content of Title 5 Section 80004 concerning the Single Subject Teaching Credential is either out-of-date or unnecessary. Any reference in this section to the valid period of the credential or dating information is not necessary because it is contained in other sections of regulations (80553, 80413, and 80413.1). The statement currently in Section 80004 does not clearly define the authorization for the Single Subject Teaching Credential.

Prior to 1982, Title 5 Regulations included a subsumption list of subjects authorized under each single subject category. It served as a helpful guide to employers, but proved to be inadequate as it did not contain all the subjects being taught nor could it be changed to add new courses. A new "subsumption" list that provides specificity yet allows flexibility at the local level would be helpful to employing school districts and county offices of education.

In most cases there is a direct match between the curriculum of the courses to be taught and the authorizations listed on credentials. There are, however, specific types of courses that do not fall neatly under any of the current statutory single subjects. These include courses in life skills, leadership, study skills, conflict management, teen skills, study hall, and others. Clarification of which credentials authorize service in this type of class would be helpful to employing school districts and county offices of education.

Documents Relied Upon in Preparing Regulations
No documents were relied upon in preparing these regulations.

Documents Incorporated by Reference
No documents were incorporated by reference.

Written Comment Period
Any interested person, or his or her authorized representative, may submit written comments on the proposed actions. The written comment period closes at 5:00 p.m. on December 1, 1999. Comments must be received by that time at the California Commission on Teacher Credentialing, attn. Executive Office, 1900 Capitol Avenue, Sacramento, California 95814-4213.

Any written comments received 14 days prior to the public hearing will be reproduced by the Commission's staff for each Commissioner as a courtesy to the person submitting the comments and will be included in the written agenda prepared for and presented to the full Commission at the hearing.

Public Hearing
Oral comments on the proposed action will also be taken at the public hearing. We would appreciate 14 days advance notice in order to schedule sufficient time on the agenda for all speakers. Please contact the Certification Division Director's Office at (916) 445-0234 regarding this.

Any person wishing to submit written comments at the public hearing may do so. It is requested, but not required, that persons submitting such comments provide fifty copies to be distributed to the Commissioners and interested members of the public. All written statements submitted at the hearing will, however, be given full consideration regardless of the number of copies submitted.

Modification of Proposed Action
If the Commission proposes to modify the actions hereby proposed, the modifications (other than nonsubstantial or solely grammatical modifications) will be made available for public comment for at least 15 days before they are adopted.

Contact Person/Further Information
Inquiries concerning the proposed action may be directed to Terri H. Fesperman by telephone at (916) 323-5777 or by electronic mail at [tfesperman@ctc.ca.gov]. Upon request, a copy of the express terms of the proposed action and a copy of the initial statement of reasons will be made available. In addition, all the information upon which this proposal is based is available for
Title 5 §80004. Single Subject Teaching Credential Authorization for Service.

A Preliminary Single subject Teaching Credential shall be issued for not more than five years following completion of the requirements specified in Section 80413(a), but prior to completion of the requirements specified in Section 80413(b).

(a) Upon completion of the requirements specified in Section 80413(b) and upon satisfying the Commission that the holder is otherwise qualified, the holder of the Preliminary Credential, or other applicant, shall be issued a Clear Single Subject Teaching Credential. The Single Subject Teaching Credential authorizes the holder to teach the subject area(s) listed on the document in grades twelve and below, including preschool, and in classes organized primarily for adults.

(b) The Clear holder of a Single Subject Teaching Credential shall be issued for five years in the following subject areas are authorized to teach health science:

(1) Health Science,

(2) Life Science, and

(3) Physical Education if the document was initially issued prior to January 1, 1981.

(c) A teacher who is authorized for single subject instruction may be assigned to teach any subject in his/her field at any grade level; preschool, kindergarten, grades 1 to 12 or in classes organized primarily for adults. This includes all subjects taught in the authorized field and other courses of which the content and prerequisites are related to the authorized field. The holder of a Single Subject Teaching Credential in Agriculture, Business, Home Economics, Industrial Arts, or Industrial and Technology Education is authorized to teach the subject area listed on the document in classes designated as technical, trade, or vocational by the employing agency.

NOTE: Authority cited: Sections 44225 (b) and 44348 44225(e), Education Code. Reference: Sections 44251, 44252, 44225(q) and 44256, 44282, 44347, and 44348, Education Code.

Title 5 §80005. Authorization for Subject Areas for Service in Departmentalized Classes.

(a) The holder of a Single Subject Teaching Credential may be assigned to teach the subjects which fall within the broad subject area listed on their document as found in 1 through 16. If a subject is listed below, it may only be taught by the holder of a Single Subject Teaching Credential with the broad subject area listed on their document. The holder of a Single Subject Teaching Credential may be assigned to teach a subject not listed below if the employing agency has determined its subject-matter content is directly related to the broad subject area.

(1) Agriculture: agricultural management, agricultural mechanics, agricultural science, animal science, forestry, horticulture, landscaping, and plant science;

(2) Art: art appreciation, art history, arts and crafts, art theory, calligraphy, cartooning, ceramics, commercial art, costume design, crafts, design, drawing, humanities, illustration, interior decoration, jewelry, leathermaking, painting, photography, sculpture, stagecraft, and yearbook;

(3) Business: accounting, business communications, business English, business mathematics, business management, business marketing, computer concepts and applications, consumer education, data processing, economics, general office
occupations, keyboarding, marketing, shorthand, typewriting, and word processing;

(4) English: composition, creative writing, debate, drama, forensics, grammar, humanities, journalism, language arts, language structure, literature, poetry, public speaking, speech, theater arts, and yearbook;

(5) Health: child development, family life, human sexuality, nutrition, sexually transmitted disease education, and substance abuse;

(6) Home Economics: child development, clothing, consumer education, family life, foods, family economics, housing, human development, interior design, nutrition, parenting, and textiles;

(7) Industrial and Technology Education: automotive mechanics, carpentry, computer technology, construction, drafting, electricity, electronics, industrial crafts, industrial design, metals, millwork, photography, plastics, radio and television, technical science/power mechanics, welding, and woods;

(8) Languages Other Than English: courses in culture, grammar, composition, language structure, and literature of the language listed on the document;

(9) Mathematics: basic or general mathematics, algebra, calculus, computer science, consumer mathematics, geometry, mathematical analysis, statistics and probability, and trigonometry;

(10) Music: instrumental music, music appreciation, music theory, and vocal music;

(11) Physical Education: aquatics, dance, fundamental and creative movement, gymnastics, interscholastic sports, motor development or learning, physical conditioning, sports, and weightlifting;

(12) Science: Biological Science: anatomy, biology, botany, ecology, environmental science, evolution, genetics, physiology, and zoology;

(13) Science: Chemistry: chemical reactions, qualitative analysis, quantitative analysis, and structure and stability;

(14) Science: Geoscience: astronomy, cosmolology, earth science, forestry, geology, meteorology, oceanography, and paleontology;

(15) Science: Physics: energy, mechanics, and thermodynamics;

(16) Social Science: American government, anthropology, contemporary issues, current events, cultural studies, economics, ethnic studies, geography, government, history, humanities, international government, law, politics, psychology, sociology, United States history, and world history.

(b) The holder of a teaching credential based on a baccalaureate degree and a teacher preparation program, including student teaching or the equivalent, may be assigned, with his or her consent, to teach subject-matter classes which do not fall within or are not directly related to the broad subject areas listed in (a) if the employing agency has determined the teacher has the requisite knowledge and skills. Verification of this decision must be kept on file in the office of the employing agency for purposes of the monitoring of certificated assignments pursuant to Education Code Section 44258.9(b). Such courses may include, but are not limited to, life skills, conflict management, study skills, leadership, teen skills, and study hall. Service in such assignments is limited to the grade level authorized by the teaching credential.

Authority cited: Section 44225(e), Education Code. Reference: Sections 44225(q) and 44258.9, Education Code.
DATE: October 15, 1999

TO: All Individuals and Groups Interested in the Activities of the California Commission on Teacher Credentialing

FROM: Sam W. Swofford, Ed.D.
Executive Director

SUBJECT: Proposed Amendment to Section 80004 and Addition of Section 80005 of Title 5 Regulations Concerning Single Subject Teaching Credentials and an Authorization for Subject Areas for Service in Departmentalized Classes

Notice of Public Hearing is Hereby Given

In accordance with Commission policy, the following Title 5 Regulation is being distributed prior to the public hearing. A copy of the proposed regulations is attached:

Proposed Amendment to Section 80004 and Addition of Section 80005

The public hearing is scheduled for:

December 2, 1999
1:30 p.m.
California Commission on Teacher Credentialing
1900 Capitol Avenue
Sacramento, California

Statement of Reasons

Purpose /Effect of Proposed Action

The proposed amendments to Section 80004 would eliminate the existing language and redefine the purpose of the section and propose appropriate content to define the authorization of the Single Subject Teaching Credential with the addition of the subject areas authorized to teach health science and classes designated as trade, technical, and vocational. The proposed addition of Section 80005 would clarify the authorization for the subject areas for service in departmentalized classes including those in statutory single subject areas and classes that do not fall within the single subject areas.

The existing content of Title 5 Section 80004 concerning the Single Subject Teaching Credential is either out-of-date or unnecessary. Any reference in this section to the valid period of the credential or dating information is not necessary because it is contained in other sections of regulations (80553, 80413, and 80413.1). The statement currently in Section 80004 does not clearly define the authorization for the Single Subject Teaching Credential.

Prior to 1982, Title 5 Regulations included a subsumption list of subjects authorized under each single subject category. It served as a helpful guide to employers, but proved to be inadequate as it did not contain all the subjects being taught nor could it be changed to add new courses. A new "subsumption" list that provides specificity yet allows flexibility at the local level would be helpful to employing school districts and county offices of education.

In most cases there is a direct match between the curriculum of the courses to be taught and the authorizations listed on credentials. There are, however, specific types of courses that do not fall neatly under any of the current statutory single subjects. These include courses in life skills, leadership, study skills, conflict management, teen skills, study hall, and others. Clarification of which credentials authorize service in this type of class would be helpful to employing school districts and county offices of education.

Documents Relied Upon in Preparing Regulations

No documents were relied upon in preparing these regulations.

Documents Incorporated by Reference

No documents were incorporated by reference.

Written Comment Period

Any interested person, or his or her authorized representative, may submit written comments on
the proposed actions. The written comment period closes at 5:00 p.m. on December 1, 1999. Comments must be received by that time at the California Commission on Teacher Credentialing, attn. Executive Office, 1900 Capitol Avenue, Sacramento, California 95814-4213.

Any written comments received 14 days prior to the public hearing will be reproduced by the Commission's staff for each Commissioner as a courtesy to the person submitting the comments and will be included in the written agenda prepared for and presented to the full Commission at the hearing.

Public Hearing
Oral comments on the proposed action will also be taken at the public hearing. We would appreciate 14 days advance notice in order to schedule sufficient time on the agenda for all speakers. Please contact the Certification Division Director's Office at (916) 445-0234 regarding this.

Any person wishing to submit written comments at the public hearing may do so. It is requested, but not required, that persons submitting such comments provide fifty copies to be distributed to the Commissioners and interested members of the public. All written statements submitted at the hearing will, however, be given full consideration regardless of the number of copies submitted.

Modification of Proposed Action
If the Commission proposes to modify the actions hereby proposed, the modifications (other than nonsubstantial or solely grammatical modifications) will be made available for public comment for at least 15 days before they are adopted.

Contact Person/Further Information
Inquiries concerning the proposed action may be directed to Terri H. Fesperman by telephone at (916) 323-5777 or by electronic mail at [tfesperman@ctc.ca.gov]. Upon request, a copy of the express terms of the proposed action and a copy of the initial statement of reasons will be made available. In addition, all the information upon which this proposal is based is available for inspection and copying.

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California Commission on Teacher Credentialing
Division VIII of Title 5 of the California Code of Regulations

Proposed Amendments and Additions to Title 5 Regulations Concerning Single Subject Teaching Credentials and an Authorization for Subject Areas for Service in Departmentalized Classes

Title 5 §80004. Single Subject Teaching Credential Authorization for Service.

A Preliminary Single subject Teaching Credential shall be issued for not more than five years following completion of the requirements specified in Section 80413(a), but prior to completion of the requirements specified in Section 80413(b).

(a) Upon completion of the requirements specified in Section 80413(b) and upon satisfying the Commission that the holder is otherwise qualified, the holder of the Preliminary Credential, or other applicant, shall be issued a Clear Single Subject Teaching Credential. The Single Subject Teaching Credential authorizes the holder to teach the subject area(s) listed on the document in grades twelve and below, including preschool, and in classes organized primarily for adults.

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classes organized primarily for adults. This includes all subjects taught in the authorized field and other courses of which the content and prerequisites are related to the authorized field. The holder of a Single Subject Teaching Credential in Agriculture, Business, Home Economics, Industrial Arts, or Industrial and Technology Education is authorized to teach the subject area listed on the document in classes designated as technical, trade, or vocational by the employing agency.

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(3) Business: accounting, business communications, business English, business mathematics, business management, business marketing, computer concepts and applications, consumer education, data processing, economics, general office occupations, keyboarding, marketing, shorthand, typewriting, and word processing;

(4) English: composition, creative writing, debate, drama, forensics, grammar, humanities, journalism, language arts, language structure, literature, poetry, public speaking, speech, theater arts, and yearbook;

(5) Health: child development, family life, human sexuality, nutrition, sexually transmitted disease education, and substance abuse;

(6) Home Economics: child development, clothing, consumer education, family life, foods, family economics, housing, human development, interior design, nutrition, parenting, and textiles;

(7) Industrial and Technology Education: automotive mechanics, carpentry, computer technology, construction, drafting, electricity, electronics, industrial crafts, industrial design, metals, millwork, photography, plastics, radio and television, technical science/power mechanics, welding, and woods;

(8) Languages Other Than English: courses in culture, grammar, composition, language structure, and literature of the language listed on the document;

(9) Mathematics: basic or general mathematics, algebra, calculus, computer science, consumer mathematics, geometry, mathematical analysis, statistics and probability, and trigonometry;

(10) Music: instrumental music, music appreciation, music theory, and vocal music;

(11) Physical Education: aquatics, dance, fundamental and creative movement, gymnastics, interscholastic sports, motor development or learning, physical conditioning, sports, and weightlifting;

(12) Science: Biological Science: anatomy, biology, botany, ecology, environmental science, evolution, genetics, physiology, and zoology;

(13) Science: Chemistry: chemical reactions, qualitative analysis, quantitative analysis, and structure and stability;

(14) Science: Geoscience: astronomy, cosmology, earth science, forestry, geology, meteorology, oceanography, and paleontology;
(15) Science: Physics: energy, mechanics, and thermodynamics;

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