

Teacher Certification Systems

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The relationship between good teaching and student achievement elevates the importance of teacher quality in the eyes of parents, educators, and policy makers. According to 55% of American parents surveyed in 1998 by Louis Harris and Associates (NEA, 1999), the quality of teachers is “the greatest influence on student learning.” We know from research that good teaching does not happen by accident. While some teachers may have a special gift to help students learn, good teaching encompasses critical elements, such as knowledge of the learning process, child development, teacher experiences, academic ability, and content knowledge. Knowing about these critical elements and having the ability to contextualize them to the learner makes learning a much more meaningful and relevant pursuit, as well as that teacher ideal.

The notion of “highly qualified teachers” is the backbone of recently enacted U.S. federal legislations such as *No Child Left Behind Act of 2001* (NCLB), the *Individuals with Disabilities Education Improvement Act* (IDEA 2004), and the *Higher Education Act* (HEA). The message in all three legislations is loud and clear: all students must progress; special education and general education are interrelated and interdependent; and personnel preparation, particularly teacher preparation, is instrumental in improving performance of all students. These federal policies have far reaching influence and impact beyond the 50 states.

Historically, U.S. federal legislations have had great impact on the direction of education in the Pacific region. For the purposes of this paper, the Pacific region includes Hawai‘i, the U.S.-affiliated Pacific island territories of American Samoa and Guam, the Commonwealth of the Northern Mariana Islands (CNMI), the Federated States of Micronesia (FSM: Chuuk, Kosrae, Pohnpei, and Yap), the Republic of the Marshall Islands (RMI), and the Republic of Palau (ROP).

This region covers a wide area, with many culturally diverse and language groups. The region is also challenged with having many teachers with limited appreciation for the value of diversity, thus they make students feel shame about the cultural values, beliefs and expectations they bring to school. Teachers with appreciation of diversity issues are critical for shaping roles, concepts, attitudes, and expectations.

Creating congruence between federal policies and cultural values, expectations as well as availability of resources present issues and challenges that school systems from the Pacific region must face head on. The differences that are inherent in embedded Western philosophies that underpin federal policies further challenge Pacific state education agencies (SEAs). U.S.-affiliated territories and island nations often feel the pressure to adopt the latest directive coming from the “hand that feeds them,” whether or not it is in their best interest given contextual, cultural, value, and resource differences.

Regardless of the basis of beliefs about education, there is greater agreement and common ground with respect to the issue of teacher quality, though the definition of “highly qualified teacher” and how to get there may be different for these jurisdictions. Teacher certification is one of the indicators of teacher quality (Laczko-Kerr & Berliner, 2002), hence the need to examine its role in student achievement. Other indicators include teacher preparation programs, teacher licensure standards, and professional development for relicensing purposes.

This policy brief reviews current research, policies, and practices in teacher certification systems nationally, internationally, and regionally. It also explores trends and alternative or non-traditional methods for teacher certification and how these play out in different contexts. The purpose is to assist regional policy makers in examining their own teacher certifi-

cation systems, addressing necessary changes, and proposing policy changes to their own legislatures, parliaments, or even governing boards. The discussion is organized in the following sections: (a) why teacher certification, (b) national policies and trends, (c) international context of teacher certification, and (d) teacher certification in the U.S.-affiliated Pacific region.

WHY TEACHER CERTIFICATION

Most experts on teacher quality support the claim that teacher certification correlates positively with student achievement. For example, Darling-Hammond (2000) believes that extant data supports this claim.¹ Many others (Walsh, 2002) dispute the evidence for the value of certification claiming the evidence is equivocal at best.²

Before NCLB came along, the *Elementary and Secondary Education Act* (ESEA) was the “law of the land” in the K–12 arena for many years. Speaking at the 2002 White House Conference on Preparing Tomorrow’s Teacher, Whitehurst (2002) identified these underpinning assumptions of the ESEA:

- Teachers matter.
- Teachers vary in their quality.
- Quality is affected by general knowledge, certification and licensure, experience with subject matter, intensive and focused in-service training, and alignment between teaching training and standard-based reform.

Whitehurst’s (2002) analysis with respect to these assumptions concluded that: (a) teachers matter and differ in effectiveness; (b) the most important influence on individual teacher effectiveness is their general cognitive ability, followed by experience and content knowledge; (c) master’s degrees and accumulation of college credits have little effect, while specific coursework in the subject area is useful, particularly in advanced subjects; and (d) curriculum-focused and reform-centered professional development appears to be important to ensure effective instruction. Whitehurst determined from context studies he reviewed that all teachers can do a better job when supported by good curriculum, good schools, and good state policy. He went on to state that “with the exception of the role of certification, the research findings align well with the provisions of ESEA” (p. 9)

While findings may be inconclusive about the role of certification, they are conclusive about certain teacher qualities and characteristics that seemed to make a difference in student achievement. Walsh (2002) cited research by Ferguson showing that teachers’ verbal ability had a very large effect on student achievement. Research also suggests that students of teachers with strong content knowledge learn more than students of teachers with weak content knowledge. The research

is particularly compelling in subjects such as mathematics and the role of teacher certification is equally compelling in assuring that such skills are taught. The role of certification requirements in motivating and pushing teachers toward acquiring necessary competencies in teaching subjects such as language arts and mathematics cannot be overstated.

Teacher Certification and Licensure

Teacher certification and licensing systems exist to assure the public that a minimum level of competency has been achieved by practicing teachers, thereby ensuring that unqualified people are not practicing the profession. In other words, certification is designed to protect the public from harm. However, unlike other professional fields where licensure governs who does and who does not practice the trade (e.g., lawyers, physicians, cosmetologists), teachers without certification are simply not allowed to use the title “certified teacher.” There are no legal impediments for teaching without certification. The goal of licensing tests is to set a minimum level of competency, allegedly eliminating poor teachers from schools and, in essence, guaranteeing that teachers who pass teacher exams are of high quality. Professions that require licensure make it illegal for someone without a license to practice that occupation (Pyburn, 1990). Teacher licensure seems to be heading in that direction.

Those who defend the process of teacher certification assert that it is an essential component of the development and maintenance of the teaching profession. In that sense, teacher certification means ongoing professional learning. Among many characteristics, a profession is defined as possessing a distinct body of knowledge and exercising control over the education and licensing of its members. Professionalization is defined as the ability to demonstrate formal knowledge and to have autonomy in the workplace (Labaree, 1992).

Wise (1994b) notes that school systems generally use two methods of controlling entry into the teaching profession: professional and popular control. Professional control is the primary means of promoting the teaching profession within the economic sector. In other words, without certification teaching becomes a trade rather than a profession. In specifying standards for certification and through other political mechanisms, the profession controls the quality of teachers who enter the profession. That is, the school systems allow the teaching profession to monitor who becomes a teacher. Furthermore, professional control allows teachers to have input in the design of certification tests and other control measures.

On the other hand, popular control allows public demand to control who is placed in the classrooms, with less concern for their qualifications. Emergency certificates to teach when there are shortages of teachers are an example of popular control.

Researchers (Wise, 1994a; Roth, 1994) on teacher certification cautioned that demand-based policies that allow uncertified teachers in the classrooms can be devastating to the profession.³

On-the-Job Training and Teacher Certification

Researchers (Darling-Hammond, 2000; Howey & Zimper, 1994) have found that on-the-job training is not an adequate way to provide the knowledge and skills required for teachers. They suggest that there is an inadequate amount of supervision and training provided to novice teachers by schools. Principals and veteran teachers who could serve in mentoring roles generally do not have the required skills, training, or time to provide novices with quality on-the-job training and supervision. Furthermore, few school districts have resources needed for training teachers. Articulating the prevailing view, Hawley (1992) suggests that there is a body of subject-matter content and subject-matter method, as well as skills and pedagogical knowledge, that needs to be learned prior to teaching. He and other teacher educators argue that it is unlikely that someone without training in subject-matter methods could get in front of a class of students and be a successful teacher. Thus, this group of scholars rejects the idea that effective teaching can be learned on the job.

Certification and Competency Testing

Conflict in the profession about what is necessary for teachers to know in order for them to be effective challenges teacher certification exams; nevertheless, more states are moving toward requiring such exams that focus on measuring basic skills, content, and pedagogical knowledge (Laczko-Kerr & Berliner, 2002).

Most definitions of teacher competence, from which assessments follow, are the product of three professional organizations: the National Board for Professional Teaching Standards (NBPTS), the Interstate New Teacher Assessment and Support Consortium (INTASC), and the National Council for Accreditation of Teacher Education (NCATE). The National Research Council (NRC) notes that all three sets of standards of quality promoted by these organizations examine teaching in the light of student learning, a relatively new concept (Mitchell, Robinson, Plake, & Knowles, 2001).⁴ Assessing the wide range of knowledge, skills, and abilities and dispositions embodied in proposed teacher standards remains problematic for various reasons that are beyond the scope of this paper. At present, it is probably fair to say that many aspects of teaching cannot be assessed by using multiple choice or essay exams, and if performance tests were used, such testing would be prohibitively expensive.

Certified Teachers and Student Achievement

The most important measure of the success of teacher preparation programs is the academic success of the students. Leibbrand (2000) cited several studies that showed positive impact of fully licensed teachers on student outcomes. For example, a 1996–1997 study conducted by the University of Texas at Austin showed that Texas students performed better on state exams when their instructors were fully licensed in the subjects they taught. Approximately 75% of 3rd graders taught by fully licensed teachers in the field passed all parts of the 1997 state assessment, but only 63% of students passed the exam when fewer than 85% of their 3rd grade teachers were licensed. According to Darling-Hammond (1999), a study conducted by Hawk, Coble, and Swanson found that test scores in mathematics and algebra were significantly higher when students were taught by a certified teacher than by a non-certified teacher.⁵

A review of research suggests that there is sufficient evidence to conclude that: (a) subject-matter knowledge is an important (Golhaber & Brewer, 1996; Monk & King, 1994) but not a sufficient factor in a certified teacher's success, particularly with mathematics and science students in the upper grades; (b) teachers who have training in pedagogy outperform teachers without such training (Ferguson and Womack, 1993); and (c) traditionally certified teachers teaching in their area of certification outperform both certified teachers teaching out-of-field and alternatively certified teachers, particularly with children who are most at risk of school failure and dropping out (Laczko-Kerr & Berliner, 2002).⁶

Traditional Teacher Certification Model

Although state certification systems vary from state to state, they generally share a number of common elements (see Figure 1). Most states now require teachers to successfully complete a 4- or 5-year “certified” or state-approved teacher education program that teaches basic skills and pedagogical knowledge. Many have also adopted nationally developed standards for teachers; most states mandate state tests that certify teachers' competency in the subject matter to be taught. The common elements allow for reciprocity of teacher certification programs across all states, which enables smooth movement of teachers between states.

FIGURE 1
Traditional Certification Model

Traditionally, teachers are licensed after completing a teacher education program at a state-sanctioned college or university. These programs usually expect a significant degree of commitment from prospective teachers, requiring physical attendance at the college or university for classes. The following criteria are typically required for preliminary certification:

- Bachelor's or higher degree
- Approved professional preparation program including student teaching
- Assessment of competency (state-developed tests or Praxis series)
- Completion of special coursework in recommended subject areas (e.g., reading, U.S. Constitution)
- Subject-matter competence (via program or exam)

For professional credential, most states now require completion of a fifth year composed of prescribed education coursework (e.g., education technology, health education, special education).

Source: Roth & Swail, 2000

Alternative Certification Program

In the U.S., the primary purpose of alternative certification is to provide a pathway for people to enter the teaching profession without following the conventional undergraduate 4-year path. Pathways may be different, but alternative certification still involves issuance of teaching licenses to individuals who have not completed a traditional college or university teacher education program. Unlike traditional certification, which places more emphasis on expanding a prospective teacher's grasp of effective pedagogy, alternative methods of certification tend to produce teachers who are able to teach in areas with context-specific needs (Stoddart & Floden, 1995).⁷

Laczko-Kerr and Berliner (2002) cited a 1999 study by Kanstrom and Finn that allegedly found that alternative teacher certification attracts better quality candidates who are more academically able than those who attend traditional certification programs. They also cited a 1991 study by Zumwalt that concluded that teachers of alternative certification programs, such as Teach for America, are more willing to work in rural or urban poor districts than traditionally trained teachers. Furthermore, participants tend to be people who have majored in traditional academic subject matter rather than education.

On the other hand, opponents of alternative teacher certification programs cite research that debunks the belief that subject-matter knowledge is more important than education-related coursework (Darling-Hammond, 2002; Monk and King, 1994). Wilson, Floden, and Ferrini-Mundy (2002), for example, found that teachers in alternative routes tend to have higher dropout rates from both programs of instruction and actual teaching. Research shows that only 33% of the teachers prepared through a short-term alternative program are still teaching 3 years later, compared to 50% of those who went through a 4-year program and 80% of those who went through a rigorous 5-year program (Darling-Hammond, 1999).

Four distinct models of alternative certification programs have emerged from Kwiatkowski's (1999) review of existing programs. They include programs designed to:

1. Increase the number of teachers available in specific subject areas.
2. Increase the number of teachers from underrepresented backgrounds.
3. Bring more teachers to rural or inner-city areas.
4. Decrease the need for emergency certification.

According to Bradshaw (1998), recurring interest in alternative certification seems to be centered on three major issues:

1. A need to address declining numbers of available teachers.
2. A concern with the quality of individuals who choose teaching as a career.
3. A desire on the part of the general public to allow entry into teaching by individuals perceived to have skills needed by the schools.

In order to help states make sense of the sheer numbers of programs that are currently in existence, the National Center for Education Information (NCEI) has developed a hierarchy of criteria that define an "exemplary program."⁸

Emergency Certification

Emergency certificates are typically issued to prospective teachers who have met some, but not all, of the requirements for state certification. Nationally, minimum requirements are often a bachelor's degree and a passing score on a certification exam. Emergency certificates are issued for a limited time period, usually 1 or 2 years. Some states allow for these to be renewed, while other states issue a one-time-only, non-renewable certificate. Emergency-certified teachers are more likely to be hired in already low performing schools, schools that serve low socioeconomic status (SES) students, schools in rural and inner city areas, and for positions that are hard to fill (Laczko-Kerr & Berliner, 2002).

Emergency certification is often justified on the basis of three arguments:

1. There is a teacher shortage requiring that states emergency-certify individuals to provide enough teachers for every classroom. Often, the shortage is reported in subject areas such as mathematics and science and in the service areas for special needs population (e.g., special education and bilingual education, rural or inner-city areas).
2. There are many people who would teach, but do not because standard certification requirements prohibit them from doing so.
3. There is a lack of confidence by state officials and the general public in the quality of the teachers who graduate from colleges of education. Too often, colleges of education are perceived to attract less able students, thus producing under-qualified teachers.⁹

Overall, the research suggests that emergency-certified teachers are probably the least prepared to do well. Leaders of professional teacher organizations staunchly oppose emergency credentialing, claiming that it keeps teaching a quasi-profession, a low-level job one can “fall back on” if better employment is not available. In the following section, we review policies that impact teacher certification and teacher quality.

NATIONAL POLICIES AND TRENDS

The term “policy” refers to a governmental plan stipulating goals and acceptable procedures for pursuing those goals.¹⁰ The U.S. federal policy direction on teacher quality is clearly stipulated in NCLB, IDEA 2004, and HEA. Though these legislations, the federal government exercises stricter control over teacher quality and, within that, teacher certification practices. While states must comply with federal legislations if they want to receive federal funding, they each operate under their own state certification policies enacted by state legislatures or boards of education. This paper will not review state policies but will examine the impact of professional teacher organizations on teacher certification and review some general national trends in teacher certification and licensure practices.

Critical National Policies

Four elements of the highly qualified teacher provisions of NCLB impact policy at the state level. These are: (1) the state’s definition of a “highly qualified teacher,” (2) how states report to parents and the public on classes taught by highly

qualified teachers, (3) completeness and accuracy of highly qualified teacher data reported to the Department, and (4) the steps the states must take to ensure that experienced and qualified teachers are equitably distributed among classrooms with poor and minority children and those with their peers.

Schools are required to have a highly qualified teacher in every classroom by school year 2005–2006 or they will lose federal funding. To meet the highly qualified teacher definition as defined in NCLB, a teacher must:

- Have a bachelor’s degree.
- Be fully state-licensed or state-certified or be on an alternative pathway to certification.
- Demonstrate subject-matter competence in each subject taught.¹¹

Additionally, NCLB calls for several public reporting requirements regarding teacher quality. At the beginning of each school year, districts must notify parents in Title I schools of their right to inquire about the quality of their children’s teachers. Districts must also report to parents whenever their children are being taught by a teacher who is not highly qualified for 4 or more consecutive weeks. NCLB also requires that districts include in annual report cards issued to the public their teacher quality data. Districts must also report to the state their progress toward meeting the Annual Measurable Objectives (AMOs); states must hold accountable districts that do not make this progress. Finally, states and districts must provide high quality professional development, as defined by NCLB, for all teachers and paraprofessionals.

The IDEA 2004 reauthorized the *Individuals with Disabilities Education Act* (IDEA) and incorporated the basic tenets of highly qualified teachers from NCLB for special education teachers. IDEA 2004 also expanded the teacher requirements and qualified them in specific respects.¹²

As well, teacher quality requirements in the *Higher Education Act* (HEA) move the highly qualified teachers’ agenda forward. Specifically, HEA:

- Provides grants to SEAs and partnerships to improve teacher education programs and strengthen teacher recruitment.
- Includes mandatory reporting requirements for states and higher education institutions regarding the quality of teacher education programs, including rates at which recent graduates passed initial teachers’ licensing exams.
- Requires states to implement processes to identify teacher education programs as “low performing,” with specific HEA consequences if a state withdraws support or approval.

Among other things, the HEA reauthorization seeks to align the definition of highly qualified teacher in the HEA with the definition in NCLB and IDEA 2004. It supports

teacher education, including subject-matter competency, data transparency, accountability, and teacher pay for performance.

Role of Professional Teacher Organizations

Teacher quality and professionalization are regulated by federal and state legislation as well as by the profession itself. We have seen in the previous section policies imposed by the federal government on states and their potential to shape state practices and accountability systems. States, through legislative acts or board of education policies, also imposed their own policies to fit their unique situation and goals.

Equally important is the role professional organizations play in shaping teacher quality.

One of the requirements of teacher certification is that teachers complete a state-approved teacher education (SATE) program. A SATE program undergoes an approval process that is professionally regulated by several nationally known non-profit professional organizations, such as NCATE, INTASC, and the Teacher Education Accreditation Council (TEAC). Each organization’s stamp of approval on a teacher education program tells the public that the university went through the approval process and has met all required standards.

INTASC, established in 1987 by the Council of Chief State School Officers (CCSSO), is another professional organization that was set up to enhance collaboration among states interested in rethinking teacher licensing and assessment for

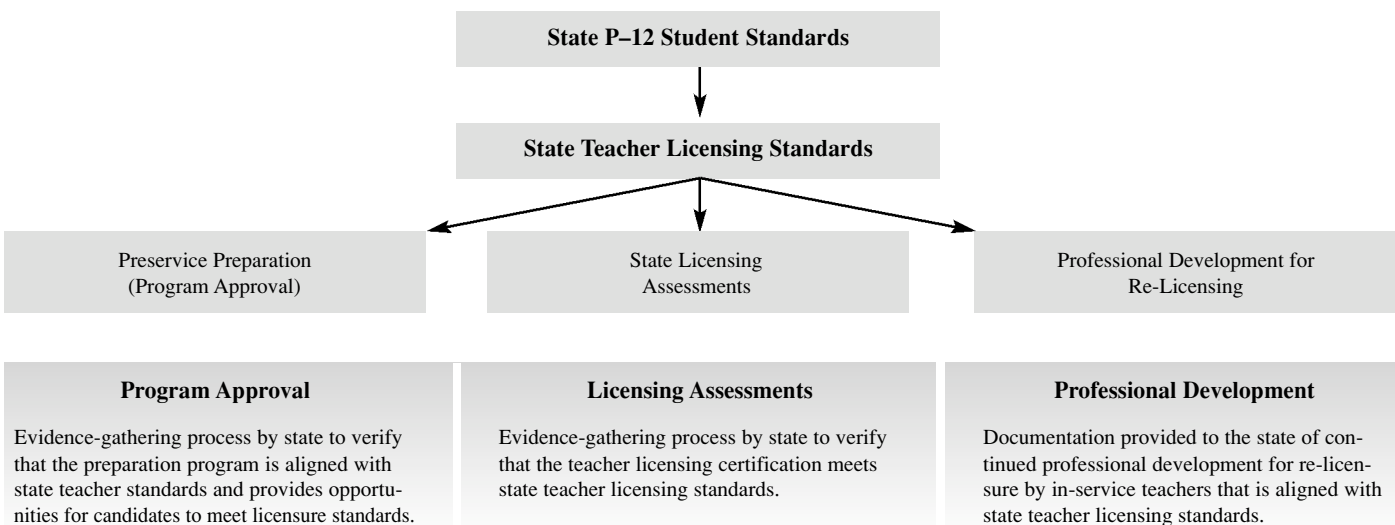
education professionals. A primary goal of INTASC was to formulate a series of principles that define what a teacher should know and be able to do in the classroom. Appendix A lists INTASC’s 10 general principles. For more on these principles, visit www.ccsso.org/intasc.

Through works of these professional organizations, an emerging consensus about what knowledge and dispositions teachers should have, what makes good classroom practice, and what makes a good teacher is made available to states to incorporate into their teacher licensing systems.

Figure 2 illustrates INTASC’s current thinking about a model state teacher licensing system built around what are considered critical components of the system, their alignment, and interrelatedness. INTASC believes that all education policy should be driven by what states want their P–12 students to know and be able to do.¹³

The NBPTS is another professional organization that regulates teacher quality through a national teacher certification process. While state licensing systems set entry-level standards for novice teachers, National Board Certification establishes advanced standards for experienced teachers. Offered on a voluntary basis, National Board Certification complements—but does not replace—state licensing. The NBPTS’s mission is to advance the quality of teaching and learning by: (a) maintaining high and rigorous standards for what accomplished teachers should know and be able to do, and (b) providing a national voluntary system certifying teachers who meet these standards.¹⁴

FIGURE 2
State Teacher Licensing System Model



Source: www.ccsso.org

The NBPTS standards are based on the following five core principles:

- Teachers are committed to students and their learning.
- Teachers know the subjects they teach and how to teach those subjects to students.
- Teachers are responsible for managing and monitoring student learning.
- Teachers think systematically about their practice and learn from experience.
- Teachers are members of learning communities.

Source: www.nbpts.org

National Trends

This section of the paper highlights certain U.S. national trends in selected areas in teacher certification. All data in the following tables comes from CCSSO (2004).

As shown in Table 1, 50 states including the District of Columbia license or certify their teachers based on state-approved teacher standards. The trends show increasing state efforts to ensure quality education through approving standards that help define content knowledge and skills needed by teachers.

TABLE 1
State Standards for Teacher Licensure (Number of States)

Trends	1998	2000	2002	2004
Teacher standards in place	34	42	47	50
Developing/proposed standards	5	4	1	1

State-mandated assessments of new teacher knowledge and skills continue to increase as well. In 2004, all 50 U.S. states and the District of Columbia reported having a written test policy. Additionally, 30 states now use all three forms of assessment—basic skills, portfolio, and subject-matter knowledge—and another 12 use two of these assessment methods. The most frequently used tests are Praxis I and II.

TABLE 2
Teacher Assessment for New Licenses (Number of States)

Trends	2000	2002	2004
Assessment of basic skills	39	41	43
Assessment of subject-matter knowledge in field of teaching	30	30	43
Assessment of professional knowledge of teaching	28	35	35
Written test	44	43	51
Performance assessment	23	22	19

In 2004, 31 states reported having a policy requiring a major in the subject content field of teaching for secondary certification, while 8 states require either a major or minor in the field. Fewer states (19) require a major in the subject area for elementary teachers. Table 3 focuses on content area preparation and not on other requirements teachers must complete for licensure or certification.

TABLE 3
Subject Area Preparation Required for Teacher License (Number of States)

Trends	1998	2000	2002	2004
Major in content field	21	19	22	31
Major/minor in content field	10	13	12	8

As shown in Table 4, the number of states requiring professional development to renew teacher licenses continues to grow. Since 1992, a growth of 17% is documented by CCSSO (2004), indicating a growing interest in professional development as a critical component of state teacher licensure systems.

TABLE 4
Professional Development Requirements for
Teacher License Renewal

Trend	1992	1998	2000	2004
Requiring professional development for license renewal	41	44	47	48

The focus on ensuring teacher quality is evident in other state practices. For example, 31 states now report requiring induction programs for new teachers. More than the majority of those states require successful completion of an induction program for certification and impose consequences that include requiring participants to go through the program for an additional year.

States are also getting more proactive in assessing teacher education programs. In fact, 46 states now require policies to assess teacher education program and to identify low-performing institutions of teacher preparation (CCSSO, 2004).

In this era of accountability for schools and students, low test performance can mean loss of employment for teachers and administrators; for students, such results can lead to retention in a grade level or denial of a high school degree. Given this policy-ridden atmosphere, there are still school systems throughout the U.S. that make regular use of large numbers of under-certified teachers and thus, through their hiring process, virtually guarantee their students will achieve relatively low levels of performance on any assessment. These systems employ emergency teacher certification systems to fill teacher shortages; other systems establish alternative routes to augment traditional routes to get teachers into their classrooms.

Alternative routes to teaching are as variable as traditional ones. There are “exemplary alternative” programs that deserve attention. These programs meet NCEI criteria and tend to mirror traditional programs; that is, both require prospective teachers to earn a bachelor’s degree, successfully complete some type of screening or testing, have field-based practice, maintain an association with a mentor-teacher, and meet standards of high performance. The programs are not a “shortcut,” as they follow a high standard not unlike the traditional process. Appendix B highlights exemplary alternative teacher certification programs.

In Hawai‘i, three alternative certification programs are providing certification paths for teachers in hard-to-fill areas (e.g., rural schools, special education). Teachers pursuing such programs in Hawai‘i are employed by a school district while participating in the program.

TABLE 5
Alternative Teacher Certification in Hawai‘i

Program	Focus Area	Year Started	Operated By
Alternative Program for Shortage Areas (APSA)	Selected fields and geographic areas where shortages exist	1996	BYUH
Respecialization in Special Education (RISE)	Special education	1990	Hawai‘i Dept. of Education (HIDOE)
Alternative licensing program in special education	Special education	1991	HIDOE with Chaminade University

Source: Roth & Swail, 2000

INTERNATIONAL CONTEXT OF TEACHER CERTIFICATION

Teacher certification policies and practices vary greatly both within and between countries. Some countries have strict control over teacher education at the federal level. France is a good example of such a country; it applies the same teacher certification policies within its borders and extends these to its territories and colonies. Even its former colony of Quebec (a province of Canada for the last 150 years) has not strayed much from its teacher certification model.

The European Union is in the process of aligning teacher certification requirements among its members, and the French model has had to change little more than the names of its 4- and 5-year degrees. The French model can thus be studied as the future model of all member countries of the European Union. In addition to France, we will examine teacher certification in Canada and in two independent Pacific island countries, Western Samoa and Papua New Guinea, former colonies of England and Australia, respectively.

French Countries, Territories, and Provinces

The preparation of teachers for primary and secondary school teaching is, and has always been, very similar across all French-speaking countries, territories, and colonies. Ministries of education set the requirements for teacher credentialing and assure university compliance.

In France, prospective teacher candidates must hold a *Licence*, a 3-year university degree that follows 3 years of upper secondary school, 4 years of lower secondary school, and 5 years of primary school. The *Licence* allows candidates to take a very competitive examination that they may (and

generally do) elect to prepare themselves by completing a fourth year of university education in a teacher preparation institute. As well, candidates must present a portfolio and pass an interview. Candidates who are selected are admitted to a year of teacher certification preparation in a university teacher institute. In brief, certified primary teachers in France have successfully completed:

- 12 years of primary-secondary schooling.
- 3 years of university schooling, or 4 years if candidates elect to prepare for their exams there.
- Selection exam, portfolio, and interview.
- 1-year university preparation in a teacher institute.

The French territories—such as French Polynesia (e.g., Marquesas, Tahiti), New Caledonia, and Wallis and Futuna in the South Pacific—follow the same model as France for teacher certification. University programs are offered in Tahiti at the UPF, Université de la Polynésie Française (University of French Polynesia).

In the onetime French colony of Quebec, teacher candidates also undertake 17 years of schooling, not unlike the rigorous French model:

- 11 years of primary-secondary schooling.
- 2 years of college (compulsory postsecondary for university-bound students).
- 4 years of university culminating in a Bachelor of Education degree.

The 4-year BEd program is the *only* route to becoming a teacher in Quebec. It includes more than 700 hours of classroom practice—from observation in the first year to full responsibility for a class in the final year. Students take courses in education (including psychology and the history of education), as well as selected disciplines, particularly mathematics and French where content as well as didactics courses are required. High school teacher candidates must specialize in one or two disciplines by taking a concentration of university courses in these disciplines and their teaching (didactics). In-service university courses for teachers are rare. Teachers who want to pursue their training after credentialing register in a graduate program (master's or doctorate).

Canada

Education in Canada is a provincial matter, while in the United States it is a shared responsibility between the federal and state levels. In general, Canadian provinces must provide education services and teacher training to a relatively small population scattered over a huge geographical area. In the urban areas, high standards for teacher certification can be maintained, whereas in some of the remote areas there are huge challenges in accessing training. Mobility between the

provinces is an ongoing problem as well. Children and teachers who move from one province to another find themselves not fitting into the new system. Teacher certification in one province may not be recognized by another province; children may find themselves pushed back or ahead in grade level because of major differences in school curricula.

Departments of education in each of the provinces control almost all decisions related to the education of children and future teachers. The major teacher associations are the provincial teachers' unions. While they have had a lot of impact on improving the working conditions of teachers (hours, salaries, benefits) and thus drawing more candidates to the field, the unions have had almost no impact on policy decisions in education.

Teacher education can begin directly after high school graduation, after 2 years of postsecondary education (as in Quebec), or upon completion of a bachelor's degree. We will briefly summarize a few of the systems for teacher certification in place in Prince Edward Island, Nunavit, and British Columbia.

In Prince Edward Island, prospective primary or secondary teachers complete a 3-year BA or BS program followed by a 2-year BEd program. Prospective secondary teachers must have majored in a teachable subject in their BA or BS studies. The BEd program at the University of PEI (the only university on the island) consists of 20 courses in education, extended field experiences or practicum, and concentration courses in international, elementary, or secondary education. Graduates are awarded a Certificate 5 (corresponding to a 5-year postsecondary education). Higher-level certificates require additional academic and professional training. For example, the Certificate 6 involves a master's degree in education. In brief, teachers at PEI are required to complete:

- 12 years of primary-secondary schooling.
- 3 years of undergraduate work leading to a BA or BS.
- A minimum of 2 years of studies in education (BEd) for a total of 17 years of schooling.

Nunavit, a vast territory of islands and mainland in the Canadian far North, is home to the Inuit people. English, French, and Inuktituk are the main languages. Nunavit has its own territorial government with a ministry and department of education.

Primary schooling in Nunavit lasts 6 years and secondary another 6 years. Nunavit does not have a university but does have a postsecondary institution, Nunavit Arctic College, which collaborates with southern universities (McGill and Dalhousie) to offer two degree programs. The college has 3 campuses and a network of 24 community learning centers.

Primary (grades 1–6) teacher education is offered through the Nunavit Arctic College network. They appear to involve 2-year programs leading to the Nunavit Arctic College Diploma. Secondary teachers must hold a university degree and teaching certificate. Students who have completed certain diploma

programs at Nunavit Arctic College may transfer to a number of universities in the South to complete their university education.

British Columbia is the most western of the Canadian provinces. Here, students complete 12 years of primary-secondary schooling. Most primary and all secondary teacher candidates then proceed to 5 years of postsecondary university education: a 4-year BA or BS degree followed by 1 year of teacher training or a 5-year BEd program. Both lead to a Professional Certificate. Primary teachers may opt to undertake a 3-year postsecondary course, which leads to the Standard Certificate.

British Columbia has a well-developed system of distance education, which services outlying areas both in the province—particularly the North—and outside the province. A collaboration of postsecondary institutions has created BCcampus, an online central access point for distance learning and support. Thompson Rivers University has recently been given a mandate for public open and distance education as well.

Western Samoa

Primary education in Western Samoa lasts for 8 years and culminates in a Year 8 Certificate. There are two types of secondary school programs: Junior Secondary School (for the weaker students), which lasts 3 years and leads to a Year 11 Certificate; and Senior Secondary School, a 4- to 5-year program leading to either a Western Samoa School Certificate (4 years) or a Pacific Senior Secondary Certificate (5 years). Both English and Samoan are languages of instruction.

Primary school teachers are trained on a part-time basis by the University of Samoa. It is therefore possible that a teacher starts teaching after 11 to 13 years of schooling and pursues in-service training through university centers.

Prospective secondary teachers need to have completed the 13-year diploma to enter the university. The University of Samoa offers either a 1-year teaching diploma or a 3-year diploma in education. The Department of Education at the University of Samoa was created by the merging of the Western Samoa Teachers College and the university in 1997.

Papua New Guinea

The first thing to note is that schooling is not compulsory in Papua New Guinea. This leads to a lack of support for teachers and therefore high teacher dropout rates and a lack of motivation on the part of high school graduates (at the grade 10 or 12 levels) to consider teaching as a career. A 1989 task force recommended that an aptitude-attitude test and/or interview be administered to prospective teachers and that highly motivated

students be selected over the highly qualified. To date, this recommendation has not been applied.

Primary teachers are trained for 3 years at teacher training colleges or undertake in-service education courses. These courses are offered by the University of Papua New Guinea (UPNG) through its Institute of Continuing and Distance Education in university centers scattered around the country or by the Papua New Guinea Education Institute, which offers a Diploma in Education Primary (an upgrading in-service course). However, not all prospective elementary teachers have completed grade 12. The Papua New Guinea Education Institute still offers a 3-year course for grade 10 graduates leading to a certificate in elementary teaching.

Secondary teachers undertake a 4-year BEd degree, as well as participate in in-service activities at the teacher training college. In brief, primary teachers (grades 1 through 8) in Papua New Guinea are required to complete:

- 10 to 12 years of primary-secondary schooling.
- 3 or more years of in-service or preservice training.

Ideally, secondary teachers must complete:

- 12 years of primary-secondary schooling.
- 4 years in a BEd program.

Because the motivation to enter teaching is low, the pool of candidates is also small. Hence, it is difficult to impose more stringent selection criteria such as the requirement of a grade 12 diploma. To add to the problem, the placement of teachers is not a federal or national responsibility but a provincial one. It is hard for a national body to mandate teacher-training requirements when provinces are willing to employ under-qualified teachers.

There has been considerable thought given to the design of courses to improve the teacher training process in Papua New Guinea. The Association of Teacher Education (1990) made the following recommendations:

- Teacher education in both teaching-subject areas and pedagogy should continue uninterrupted over the 3 years of training.
- Student teachers should develop their content knowledge.
- Because of multilingual backgrounds, students' basic skills in English and mathematics are weak. All lecturing staff should play a part in improving them.
- The quality of the community school teacher education program should be improved, in particular by extending the length of the preservice course to 3 years.

Among other scholars, McLaughlin and O'Donoghue (1996) examined possible factors that influence learning of Papua New Guinean educators and in-service teachers at the university. Although the quality of university training is not the major hurdle for teacher credentialing and the quality of

schooling in UPNG, their research highlighted challenges inherent in the UPNG system and suggested strategies to improve UPNG students' success rates.¹⁵

Clearly an in-depth cultural analysis of teaching educators in the Papua New Guinea context needs to be carried out. Such an analysis must be a prerequisite if quality education is to be promoted in the area and the donor aid contributions of developed countries are to have maximum impact.

TEACHER CERTIFICATION IN THE U.S.-AFFILIATED PACIFIC REGION

Since no research on teacher certification or teacher quality in general has been carried out as it relates to the Pacific jurisdiction (excluding Hawai'i), we begin this section of the paper with a discussion of policies and practices that have regional impact.

Policies and Practices

Generally, U.S.-affiliated Pacific territories that maintain close political relationships with the U.S. federal government (such as American Samoa, Guam, and the CNMI) are required to a lesser degree than U.S. states to comply with federal legislations, including NCLB. Their progress is often included in national education reports, and their full participation in most federal initiatives warrants some degree of compliance and accountability to federal policies.

On the other hand, the compact jurisdictions (FSM, RMI, ROP) are marginally receiving NCLB program funds. So while the U.S. Department of Education cannot impose NCLB dictums on these jurisdictions, through such discretionary programs as the Teacher Quality Grant, the U.S. national direction is often encouraged among policy makers who are anxious to please the "hands that feed them." Over time, policies are enacted that mirror those in the U.S. For good or bad, this is happening in the region with respect to NCLB dictums.

While they must address accountability issues when using U.S. federal resources, compact jurisdictions, as independent nations, can also impose their own policies that are contextually appropriate, valuing culturally rich and linguistic differences and aligning with available resources. U.S. laws are generally not binding on the RMI, FSM, or ROP except when specifically stipulated and when they fully participate in certain federal program initiatives.

IDEA is a case in point. Pacific jurisdictions have enjoyed resources from IDEA that remain, for the most part, the only support special education programs receive. Thus, special education programs are shaped and implemented in these jurisdictions according to U.S. specifications and directions.

To the degree that teacher pools can meet teacher certification requirements dictated by IDEA policies, jurisdictions have attempted to comply.

In the area of teacher certification, the range of policy and practice is as variable as the jurisdictions. Generally speaking, the territories (primarily Guam and the CNMI) are more successful in training, attracting, and keeping teachers who meet the NCLB definition of highly qualified teachers. They have more resources to recruit teachers from overseas, pay their relocation costs, and offer higher salaries. These off-island teachers are able to augment local teacher pools, creating higher percentages in the teaching force that meet teacher quality requirements. In policy and practice, teacher candidates generally follow the accepted U.S. model of teacher certification, including:

- 12 years of primary-secondary schooling.
- 4-year college education (includes student teaching).
- Passing score on assessment tests (Praxis series).
- Completion of specialization courses, depending on subject endorsement or area of interest.

American Samoa and ROP policies include a BA degree as minimum requirement for certification. In practice, teachers with AS degrees and high school diplomas form the backbone of their teacher force. The compact jurisdictions of the RMI and the FSM are in the same place with respect to teacher needs and certification. For all of these jurisdictions, the definition of highly qualified teachers, for the purposes of certification, has been based more on the currently available pool of teachers, where they generally tend to be in their education level, and the resources available for teacher training, rather than on what each system might consider as the ideal for their children's education. Thus, in American Samoa, the FSM, the RMI, and the ROP, teacher certification policies call for teacher candidates to follow this model:

- 12 years of primary-secondary schooling.
- 2-year associate's degree (includes one semester of student teaching).
- Passing score on locally developed teacher competency test.
- Completion of specialization courses, depending on subject endorsement or focus area of teaching.

In practice, however, in some of these places, nearly half of the teaching force holds only high school degrees. The teacher quality problem is compounded in some urban centers in these communities where the student-teacher ratio is around one teacher to 40 students.

Table 6 shows the education level of teachers in most of the regions outside of Hawai'i as of 2003.

TABLE 6
Teacher Education Level, 2003

Entity	Total # of Teachers	High School Diploma	Associate's Degree	Bachelor's Degree	Master's Degree	PhD/EdD
Am. Samoa	804	11%	48%	33%	7%	(1)
CNMI	578	0%	1%	82%	17%	(1)
Chuuk	811	43%	46%	9%	1%	
Guam	2,236	5%	4%	68%	23%	5
Kosrae	171	0%	80%	7%	(1)%	
Pohnpei	456	0%	69%	30%	1%	
RMI	630	53 %	38%	8%	1%	
ROP	261	43%	30%	24%	3%	

Source: Camblin & Heine, 2004

A majority of teachers in many of the Pacific jurisdictions have an education level equivalent to that of U.S. para-professional educators. U.S. para-professionals are not allowed to have their own classrooms and are paired with a certified teacher in a supportive working relationship in and out of classrooms.

Limited access to 4-year higher education institutions is a major factor preventing teachers from progressing beyond the 2-year education level in some of the Pacific jurisdictions. While each jurisdiction in the region outside of Hawai'i and Guam has a 2-year postsecondary institution that provides the bulk of its teacher training, both preservice and in-service, teachers have to go off island to attend 4-year institutions in Guam, Hawai'i, or the continental U.S. In the CNMI, the Northern Marianas College offers a 4-year teacher education program leading to bachelor's degree. The BA in teacher education is currently the NMC's only WASC accredited bachelor's degree program.

Practicing teachers with only high school degrees in places such as Chuuk, the outer islands of Yap, the ROP, and the RMI are often issued emergency or provisional certificates that last for many years beyond their limited terms, due to the lack of access and opportunities for a training program 9 months out of the calendar year. In the summer months, in-service teacher education programs are regularly organized by the departments or ministries of education in conjunction with local community colleges. For a majority of teachers, the 3-month period is the only time they can access any professional

development opportunities or coursework leading to certification. Hence, more than 50% of practicing teachers in these jurisdictions are emergency or provisionally credentialed.

As is true nationally, the profession is its own curse. It is not attractive enough, given the comparatively low salaries for teachers and increasing job options. To add to the challenge of developing quality indigenous teachers, the Pacific region's K-12 systems are struggling to maintain quality programs. Thus, high school graduates that feed into the 2-year colleges and potential candidates for the teacher training programs are typically unprepared to complete college-level courses and programs, including the 2-year teacher education program. Most preservice teacher candidates end up taking 4 years to complete a 2-year teacher preparation program, the first 2 years being spent on remediation in language skills and math. This further adds to the shortage of qualified teachers and therefore to a vicious cycle that still remains hard to break.

Roth and Swail (2000) cited a 1996 study by Greenwald, Hedges, and Laine that found that money spent increasing teacher education has the greatest impact on student achievement, compared to lowering student-teacher ratios, increasing teacher salaries, or increasing teacher experience. As shown by research and practice elsewhere, teaching is a profession that requires years of sustained investment in training, a factor that often eludes government officials. When they cannot get qualified teachers overnight, they take expensive approaches that are not necessarily supportive of indigenous teachers or sustainable in nature.

Some popular approaches for dealing with teacher shortages include importation of teachers from neighboring islands, the United States, Japan, the Philippines, and other metropolitan countries. World Teach is a popular program in the RMI and Pohnpei State and one way to deal with teacher shortages in both entities. Although teachers from the program are able to improve the English-speaking abilities of students, most of them are not certified and would not be allowed to teach in their own countries.

Recruiting teachers from overseas entails output of resources for recruitment, travel, housing accommodation while on site, and orientation of new teachers. Moreover, the contract periods for off-island teacher recruits range from 1 year to 2 years, with repatriation expenses after the contract period is over. The overall outlay of resources is high and not sustainable. Once the off-island teacher recruits return home, the system is back where it started as far as teacher capacity. The search for qualified teachers starts all over again.

In the research and analysis of teacher certification and licensing requirements across the United States and other countries, there was no evidence that states are permitting the licensing (emergency, alternative, or traditional) of an individual who does not possess at least a bachelor's degree from an accredited or state-approved institution. Even with policies and trends showing concerted efforts to improve teacher qual-

ity, the fact remains that according to U.S. research and practice, many teachers in the Pacific are either uncertified or unprepared for effective classroom instruction.

Regional Trends

The quality of teachers in Pacific jurisdictions continues to vary from jurisdictions with high percentages of teachers who meet NCLB's requirements (such as Hawai'i, CNMI, and Guam) to those who have a long way to go. However, there is greater awareness and concern for teacher quality. The Teacher Quality Enhancement Grant, which was awarded to the majority of the jurisdictions, is partially responsible for this increased concern and activity in the area of teacher training and professional development.

Despite increased activity and concern in the area of teacher quality, trends over the past 10 years in the compact jurisdictions show a marked decline in the quality of their teaching forces. Between 1994 and 2003, the number of teachers without AS degrees has increased rather than decreased, as shown in Table 7.

TABLE 7

Percent of FAS Classroom Teachers with High School Degree as Highest Education Level

Compact Jurisdictions	1994	1998	2003
FSM ^a	34%	28%	43%
RMI	36%	56%	53%
ROP	13%	5%	43%

^aChuuk only; Kosrae and Pohnpei have no teachers with less than AS degrees; no data was available for Yap.

Source: Palau Ministry of Education-Division of Research & Evaluation; Report on FSM Teacher Certification Workshop, June 1988; Developing a Strategic Plan, RMI Ministry of Education, 2000.

While all jurisdictions have teacher certification systems in place, full implementation of these systems is uneven and inconsistent. Jurisdictions requiring teacher assessments have increased in recent years. Likewise, the use of technology and distance learning to enhance teacher and administrator competency levels has increased over the past 5 years.

Table 8 summarizes trends in Pacific jurisdictions with respect to formal certification and licensure for elementary and secondary teachers and school administrators, development of teacher standards, and assessment of teacher competencies. In short:

- Hawai'i and the ROP have minimum standards for teachers; the RMI and the FSM have developed stan-

dards but are yet to formally adopt and implement them.

- Most of the jurisdictions employ emergency or provisional certificates.
- On the average, the departments of education rather than independent teacher standard boards manage and regulate teacher certification.
- American Samoa, the FSM, and the RMI maintain teacher certification requirements at the associate's degree level for elementary teachers.
- In the same jurisdictions, teacher certification policy might require a BA in the major area for secondary teachers; however, critical shortage of secondary teachers precludes this requirement from being implemented across the board.
- The ROP, Guam, and the CNMI, on the other hand, require a bachelor's degree as minimum requirement for teacher certification.
- Due primarily to teacher retirement, over half of Palau's teachers do not meet Palau certification requirements. The extreme shortage of certified teachers in the ROP has prompted a proposal to reduce certification requirements to an associate's degree in 2008.
- Outside of Hawai'i, the CNMI is the only entity that currently requires the nationally sanctioned Praxis series to assess its teachers' basic knowledge and level of competencies.
- The RMI and the FSM require locally developed teacher assessments—the FSM's National Standardized Test for Teachers (NSTT) and the RMI's Marshall Islands English Language Test (MIELT). The ROP has developed the Palau Achievement Test Series (PATS) but has not administered it yet.
- Only two entities, the CNMI and the FSM, recognize and certify traditional and/or bilingual teachers as separate categories of endorsements.
- Teacher certification policies normally require knowledge of the local language; however, this is hardly enforced on expatriate teachers and limited training is provided to indigenous teachers to increase their formal knowledge of the local language.
- None of the jurisdictions employ alternative teacher certification models.

TABLE 8
Formal Teacher Certification and Licensure Information

	HI	AS	CNMI	GUAM	RMI	ROP	FSM (CK, KOS, PNI, YAP)
General Teacher Licensing Information							
State Standards for Teachers	Yes	No	No	No	Proposed (not yet adopted)	Yes	Developing
Types of Licenses Available	Emergency Credentialed; Provincial Credentialed; Fully Licensed	Provisional Standard Professional	Specialized Basic Standard Professional	Emergency Provisional Professional I & II	Emergency Temporary Provisional Professional, I, II, & III#	Provisional Regular Renewal Permanent	Provisional Basic Intermediate Advanced Master
Teacher Certification Management	Hawai'i Teachers Standards Board (HTSB)	Department of Education	CNMI Public School System	Teacher Certification Advisory Council	Ministry of Education	Teacher Certification Commission	National Department of Education
Initial Teaching Certificate Requirements, Elementary							
Minimum Degree (E)	Bachelor's	Associate's	Bachelor's	Bachelor's	Associate's	Bachelor's*	Associate's
Teacher Assessments for Initial Licensure (E)	Praxis I & Praxis II Subject Assessments	N/A	Praxis I: Pre-Professional Skills Test	Guam Educator's Test of English Proficiency	Marshall Islands English Language Test (MIELT)	N/A**	National Standardized Test for Teachers (NSTT) Written Exam of Teaching Competencies/Classroom Observation*
Initial Teaching Certificate Requirements, Middle Grades							
Minimum Degree (M)	Bachelor's		Bachelor's	Bachelor's	Associate's	Bachelor's*	Associate's
Teacher Assessments for Initial Licensure (M)	Praxis I & Praxis II Subject Assessments	N/A	Praxis I: Pre-Professional Skills Test Praxis II: Subject Assessment	Guam Educator's Test of English Proficiency	MIELT	N/A**	NSTT and Written Exam of Teaching Competencies/Classroom Observations*
Initial Teaching Certificate Requirements, Secondary							
Minimum Degree (S)	Bachelor's	Bachelor's	Bachelor's	Bachelor's	Associate's	Bachelor's*	Associate's
Teacher Assessments for Initial Licensure (S)	Praxis I & Praxis II Subject Assessments	N/A	Praxis I Pre-Professional Skills Test Praxis II: Subject Assessment	Guam Educator's Test of English Proficiency	MIELT	N/A**	NSTT and Written Exam of Teaching Competencies/Classroom Observations**
Special Education Teacher Certification							
Minimum Degree	Bachelor's	Bachelor's	Bachelor's	Bachelor's	Associate's	Bachelor's*	Associate's
Disability Specific Special Education Categories	Mild/ Moderate; Severe/ Profound	N/A	Related Services Providers	Guam Educator's Test of English Proficiency	N/A	N/A	N/A

	HI	AS	CNMI	GUAM	RMI	ROP	FSM (CK, KOS, PNI, YAP)
Indigenous Language or Cultural Education Teacher Certification							
Minimum Degree	N/A	No formal requirement		No formal requirement	No formal requirement	No formal requirement	Not required
Categories	World Languages, Including Hawaiian	N/A	Standard Certificate w/ Bilingual Education Endorsement	N/A	N/A	N/A	Traditional Knowledge/Skills Certification
Teacher Assessments for Initial Licensure	Praxis I & II	N/A	Praxis	N/A	N/A	N/A	
School Librarian/School Counselor Certification							
Minimum Degree	Master's	N/A	Bachelor's	N/A	N/A	N/A	N/A
Teacher Assessments for Initial Licensure	Praxis I & II	N/A	Standard Certificate w/LS or SC Endorsement	N/A	N/A	N/A	N/A
School Administrator Certification							
Minimum Degree	Master's	Master's	Master's	N/A	Associate's (plus min. years of experience)	Bachelor's	
Types of Certification/ Licensure	N/A	Principal Certification	Administrator Professional Certificate	N/A	Administrator I, II, & III*	Provisional Regular Professional Permanent	
State Standards for Administrators	N/A	N/A	N/A	N/A	Yes (proposed)	Yes	
Higher Education Institutions Providing Teacher Education Program							
SATE (State approved Teacher Education) Program	BYUH-Hawai'i; Chaminade University; Hawai'i DOE OHR; City University; HPU; UH-Hilo; UH-Mānoa^ University of Phoenix; Winona State University	American Samoa Community College University of Hawai'i	Northern Marianas College University of Guam	University of Guam	College of the Marshall Islands University of Guam Summer Extension Courses	Palau Community College University of Guam Summer Extension Courses San Diego State University BA Program	College of Micronesia—FSM; University of Guam Summer Extension Courses

#Proposed system; not approved for implementation.

*Current is a bachelor's degree. However, an associate's degree is proposed for 2008 since many teachers are now just high school graduates with few postsecondary education courses. In other words, all teachers who do not have an associate's degree must get one by 2008; **Proposed but not implemented: Palau Achievement Test Series (PATS), Praxis II, Classroom Observation, Teacher Proficiency Assessment Tool. ^ NCATE approved program. N/A—information was not available.

Sources: American Samoa Department of Education, n.d.; FSM National Department of Education, 2003; Guam Board Policy, 1997; Palau Ministry of Education, 2006; RMI Ministry of Education, 2004. *State of Hawai'i Licensing Requirements; State Approved Teacher Education Programs, Hawai'i Teacher Standards Board (2005).*

Challenges

Pacific jurisdictions continue to face unique challenges to creating an enabled educational environment that supports and produces quality teachers. This section will address challenges beyond the everyday obstacles already discussed.

Contextualizing Issues and Teacher Quality. Education policies in the Pacific region are heavily influenced by people and developmental agendas influenced by and dependent upon foreign countries and organizations, many of which have little understanding of the cultures, languages, educational contexts, or even developmental realities of the island environment. Professor Konai Thaman (2003) calls for a culturally democratic education for the Pacific people. By that she means an educational philosophy that recognizes the way a person communicates, relates to others, thinks, and learns.

A review of all teacher certification policies and systems in the Pacific region discussed in this paper reveals that, for the most part, they follow U.S. mainstream thinking and practices. This is expected given the impacts of colonialism over at least the last 50 years. Thus, efforts to successfully integrate indigenous knowledge into the K–12 curriculum or into teacher standards and teacher education programs, expected competencies, and content knowledge are not pursued. Values, knowledge systems, skills, beliefs, and assumptions that are taught to children and teachers all originate in Western contexts. This is particularly true at the secondary level where the medium of instruction is the English language. If language carries with it a particular worldview, then these schools purposefully emphasize Western perspectives.

It is argued that the use of English and the need to excel in English are necessary for success in the interdependent global world. The argument for contextualizing teaching and learning does not negate that reality. On the other hand, the argument is to balance the presence of both languages in teaching and learning. This starts with policies that recognize the importance of the worldview inherent in indigenous languages and require this knowledge for teacher certification as well as for high school graduation.

Social, economic, and cultural contexts of each Pacific jurisdiction require action that takes into account the prevalent need for well-qualified teachers, along with entity-specific needs for teachers who are culturally sensitive and responsive, knowledgeable and skilled, with vested interest and commitment to the children and well-being of the entity. This is especially critical in jurisdictions that are resource-poor, except for their human resource potential.

In the context of rethinking the education movement in the region, the issue of reclaiming policies, standards, and curriculum reflective of contextual standards, values, and practices in the educational setting continues to be a challenge and a source of tension for policy makers. Policies drive standards

(both students' and teachers'), which in turn drive curriculum. How much of these should be traditionally or Western-focused is a question that continues to challenge the thinking of Pacific educators, who have yet to reconcile the fact that indigenous-based curriculum and standards can also be of high quality.

Lawton (1975) defines curriculum as a selection of the best of a culture. Accepting this definition, we would expect the curricula in regional schools to reflect the best of these Pacific island communities and cultures in terms of worthwhile knowledge, skills, beliefs, and values. According to Thaman (2003), curriculum makes assumptions not only about teachers and learners, but also about knowledge, the nature of learning, and the way people behave. Pacific island people's values must provide the foundation upon which decisions about teaching and learning in formal education are based.

In summary, contextualizing policies, standards, and curriculum for students is the first hurdle to overcome, the place to start. This is a call for Pacific educators to wrestle with the status quo in teacher education. Credentialing processes must explore the role of non-formal education and other alternative means that recognize and validate indigenous teachers' knowledge as well as indigenous processes. The role of higher education institutions in the region in contextualizing teacher education is critical.

Access to Quality Teacher Preparation Programs. Teacher preparation programs in the Pacific region are limited by resources and imagination. The geographically dispersed nature of most island communities contributes to the challenge of access to quality teacher preparation programs. Consequently, the pool of qualified teachers is limited and continues to shrink with competitive professions and jobs leading students away from the teaching profession.

Even with extreme shortages of teachers, regional education providers continue to offer teacher training in a traditional mode, setting, and pace. It is not uncommon for teachers to complete a 2-year teacher training program in 10 years. In essence, the choice of providers is limited and when you are "the only game in town," there is little incentive to be on the cutting edge or to offer competitive programs.

Intensive and accelerated teacher training programs that combine distance learning and face-to-face modes are rarely available, if at all. Furthermore, innovative uses of technology to reach teachers in remote locations have not been fully explored. Institutions of higher education seem to be stymied by potential challenges to the use of technology which, in turn, further limit the possibilities and the potential to even offer distance learning programs. Many of the technology challenges are real but there are others that have not yet been documented (e.g., region students learn better in a face-to-face context) but are used to prevent exploring the use of technology in teacher training programs.

Where a jurisdiction has access to a higher education institution, the institution often has multiple demands and inadequate resources to fully serve needs in one particular program area. Consequently, the quality of teacher training programs (preservice and professional development) suffers and their ability to attract and retain quality students is also low. Local institutions of higher education, whether offering 2- or 4-year programs, nevertheless serve an important function and provide the bulk of teacher training available locally.

Lack of Organized Teacher Advocates within the Profession. The growth of teacher professional organizations, organized by teachers to improve teacher quality, is reflective of the level of maturity that teaching as a profession has attained in the U.S. In most Pacific jurisdictions, growth is slower and has reached different levels of maturity depending on contexts, resources, and degrees of political commitment to education.

The lack of organized and effective teacher advocate groups from the ranks of teachers themselves to rally the public cause for quality teachers and to push for solutions to the critical shortage of qualified teachers from the public and providers of teacher education programs is disheartening. Thus, the task of calling universities and local 2-year teacher preparatory institutions to account for the quality of teacher education programs they provide or low number of program graduates they produce is generally left to the government. Individuals and community organizations have not taken on that important teacher advocacy task.

This level of maturity impacts the kinds of pressures exerted from within the profession on the teacher certification and licensure system to improve the system. Thus, for most of the region, the current push for quality teachers and teaching is one that is influenced by government policies and other external forces. The profession itself is not organized well enough to take on the advocacy role that is found in the United States. Demand from the community at large is still not strong enough and seems to follow the level of parental involvement in the school system.

Alignment of Policies with Practice. Policies are often not fully implemented and remain unaligned with school practices. In many cases (the RMI, the FSM, and the ROP), while teacher certification policies have been established, the motivation, professional commitment, or necessary resources to fully implement them are not there. Thus, certificates often expire and accountability for meeting professional course requirements is not enforced.

Having the policy in place is important. The goal of implementing the policy and having current data to show whether practice supports and aligns with policies on the books is a long way from being achieved. Speaking to the

FSM Teacher Certification Workshop in 1998, Dr. Cantero, FSM Deputy Secretary of Health, Education and Social Affairs, lamented to participants:

There is a disturbing discovery between the number of teachers in 1994 versus the number in 1998. We are reporting about 2,071 teachers who were actively on duty in 1994 and the beginning of this year we have about 1,961, which leaves us with a difference of about 110. This is a decline of roughly 5%. . . . Where are our teachers? We have not kept any data on the rate of teachers leaving for higher paid jobs. (p.24)

The ability to maintain and use data may have improved somewhat since 1998. However, consistent and reliable data, including teacher data, from which to formulate policies and improve practices is still a challenge.

Teacher evaluation and assessment policies also exist but are likewise not implemented, and although teacher standards have been established in some cases, they are not embedded in teacher preparation programs or in teacher evaluation and assessment systems. This contributes to low teacher performance and a lack of teacher accountability systemwide.

RECOMMENDATIONS

The combination of great geographic distances and rural contexts and the complexity of the Pacific region's cultural and linguistic landscape calls for innovative approaches to meet unique needs in teacher education. The shortages of well-qualified teachers and higher education opportunities, limited resources, and low student achievement levels can sometimes overwhelm policy makers and numb their sensibilities. Innovative approaches pursued must include hybrid combinations of technology and face-to-face approaches. As well, methods must include intensive and sustained initiatives that strive to produce quality teachers as quickly as possible, focusing on building capacities of local teachers and institutions.

Alternative routes to teacher certification must be sought, taking into consideration what research says about pedagogical efficacy and experiential and field-based training. They must also take into consideration the research consensus that any individual who becomes a teacher must be equipped with the practical and philosophical (whether Western or indigenous or a combination of both) content provided through the higher education process, or some equally credible combination of processes.

Given our review of regional, national, and international research, policy, and practice, we offer the following set of recommendations for the Pacific jurisdictions on the complex issue of teacher preparation and certification.

Ensure teacher knowledge and skills. Teacher preparation programs should endeavor to ensure prospective Pacific teachers are instructed to have:

- Skills in the indigenous language(s) and in English.
- A grasp of situation- and level-specific content.
- Research-based knowledge of child development and different learning styles.
- An understanding of pedagogy that has historically proved effective.
- Knowledge of Western and other worldviews.
- Cultural sensitivity and awareness of diversity issues.
- Knowledge and competence in selected subject matters.

Contextualize learning and teaching. Curriculum must include local worldviews inherent in the culture and language and must inform students about what is important in order to flourish in both local and global contexts. Teachers' knowledge, standards, and performance must align with the expectations of the P-12 curriculum. That is, knowledge, standards, and performance required for teacher certification must be both local and globally competitive.

Create teacher certification models that are unique. The unique contexts of most Pacific jurisdictions require unique approaches that are realistic and involve fewer resources, but are still of high quality and credible. For example, Roth and Swail (2000) recommended exploration of two-plus-two programs that fully utilize capabilities of established local institutions, such as high schools and 2-year colleges, or 2-year colleges in conjunction with online distance learning programs from overseas universities extending the program another 2 years. Harnessing community and cultural experts in teacher education programs has not been fully explored or included as another element of a certification model that is contextually meaningful. If teachers are to teach children to survive in their own environments, they must possess necessary skills to teach them.

Establish online technology infrastructure for teacher preparation and professional development. Technology is moving at an extremely fast pace. While the technology for online teacher preparation and professional development may be expensive for the Pacific initially, in the long run, the investment may be more cost-effective than other options that require travel, lodging, and displacement. Sending teachers off island for professional training does not always guarantee they will return. Hirtle, McGraw-Zoubi, and Lowery-Moore's (1999) studied the use of online education for teacher certification at the post-baccalaureate level. They found that the online alternative certification process was actually more attractive to teachers because of the flexibility possible

through the asynchronous format. Of course, the results will be different for teachers with limited knowledge of English or access to computers, but such barriers can be overcome with adequate support before and while the program is running.

Create public awareness and respect for the teaching profession. The teaching profession must strive to gain the respect of the public. It can do this by policing itself and advocating for credibility among its rank and file. In short, teachers need to hold each other accountable for their performance and for students' achievement. This is a tall order in places where many teachers see their jobs simply as a way to earn money, not as a career that must be continuously improved. The ownership for the profession needs to be nurtured among teachers themselves. Teachers should disallow unprofessional practices by peers, such as regular absenteeism from work, drinking on the job, lack of involvement in student and school activities, and other unprofessional behaviors that downgrade the teaching profession in the public eye. Advocacy for the formation of teacher professional organizations may be a modest way to start. The strength and credibility of the profession rest on such initiatives. It is the job of these organizations to set standards of conduct and performance and to engage public interest in their daily craft.

Eliminate emergency certification programs. While it may be tempting to simply ensure that there is an adult in the classroom, emergency certification perpetuates the status quo and strongly contributes to the bad image of the teaching profession. Research has confirmed that only high standards for teachers result in high standards for children. And it can be done. For example, an alternative program was successfully created in New Jersey that permanently eliminated emergency certification in just 2 years.

Conduct research in teacher education. Research used to formulate teacher education policies in Pacific jurisdictions has been conducted in contexts quite different from the Pacific. Resources must be set aside to enable research to arrive at contextually meaningful solutions. For example, how Pacific teachers can learn effectively must be explored. What is the most effective balance of languages in instruction? What important skills must be passed on to students? What learning styles are dominant in Pacific children? What are effective teaching and teacher training models?

APPENDIX A. INTASC MODEL STANDARDS FOR BEGINNING TEACHERS

The Interstate New Teacher Assessment and Support Consortium (INTASC)
Model Standards for Beginning Teachers

Principle 1	The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he/she teaches and can create learning experiences that make these aspects of subject matter meaningful for students.
Principle 2	The teacher understands how children learn and develop, and can provide learning opportunities that support their intellectual, social, and personal development.
Principle 3	The teacher understands how students differ in their approaches to learning and creates instructional opportunities that are adapted to diverse learners.
Principle 4	The teacher understands and uses a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.
Principle 5	The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.
Principle 6	The teacher uses knowledge of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.
Principle 7	The teacher plans instruction based on knowledge of subject matter, students, the community, and curriculum goals.
Principle 8	The teacher understands and uses formal and informal assessment strategies to evaluate and ensure the continuous intellectual, social, and physical development of the learner.
Principle 9	The teacher is a reflective practitioner who continually evaluates the effects of his/her choices and actions on others (students, parents, and other professionals in the learning community) and who actively seeks out opportunities to grow professionally.
Principle 10	The teacher fosters relationships with school colleagues, parents, and agencies in the larger community to support student learning and well-being.

Source: www.ccsso.org/intasc.html (See site for detailed information about each principle.)

APPENDIX B. EXEMPLARY ALTERNATIVE TEACHER CERTIFICATION PROGRAMS

State	Name of Program	Year First Implemented	No. of Individuals Certified in 1998–1999	Total Number Certified
Arkansas	Alternative Certification	1988	400	1,000
California	University Intern; District Intern	1967,1983	4,573	35,000
Colorado	Alternative Teacher Program	1991	194	618
Connecticut	Alternative Route to Teacher Certification	1988	159	1,489
Delaware	Delaware Alternative Route to Certification/Secondary Ed.	1986; 1997	45	278
Illinois	Teachers for Chicago; GATE: Golden Apple Teacher Education	New programs		
Kentucky	Local District Certification Option; Exceptional Work Experience Certification Option	New programs		
Maryland	Resident Teacher Certificate	1991	55	365
New Jersey	Provisional Teacher Program	1985	1,223	6,925
New Mexico	Alternative Certification Program	New program		
Pennsylvania	Alternative Candidate Certification	New program		
Texas	Alternative Teacher Certification	1985	2,728	29,730

Source: Roth & Swail, 2000

ENDNOTES

¹In an analysis of state-level data, Darling-Hammond (2002) found that the percentage of new teachers who were uncertified in a state correlated negatively with performance on six different state assessments conducted by the National Assessment of Educational Progress (NAEP). These correlations ran from -.40 to -.63. She found equally large positive correlations for the percentage of teachers in a state having regular certification and a major in the field in which they were teaching, again using six NAEP data sets. These correlations ran between +.61 to +.80. A 1985 study by Hawk, Coble, and Swanson found that certification in mathematics had a direct impact on student learning as measured by an achievement test (cited in Darling-Hammond, 2000). From these data, Darling-Hammond asserts with confidence that students achieve better when they have certified teachers as instructors.

²On the other hand, Goldhaber and Brewer (1996) analyzed data from more than 18,000 10th graders who participated in the National Education Longitudinal Study of 1988. After adjusting for students' achievement scores in 8th grade, teacher certification in 10th grade was not significantly related to test scores of 10th graders. Other studies (Miller, McKenna, & McKenna, 1998; Ferguson, 1991) had similar conclusions. Walsh (2002) of the Abell Foundation summarized the dissenters of teacher certification's sentiment by charging that research that seems to support teacher certification is selectively cited while research that does not is overlooked by proponents of teacher certification, including Darling-Hammond.

³Wise and Roth argue that such policies are likely to reduce the quality of teaching, lower the livable wages of teachers, and change resources that are spent on and in schools. In other words, downgrading the importance of certification and training inhibits teaching from meeting one of the criteria by which occupational groups call it a profession.

⁴The standards of competence described relate to teachers' commitment to students and students' learning. The NRC also notes that the standards currently in use "illustrate the wide range of knowledge, skills, abilities and dispositions that contemporary educators believe competent teachers must possess and demonstrate in the classrooms" (Mitchell, Robinson, Plake, & Knowles, 2001, p. 31).

⁵Generally, research needed for understanding the role of teacher certification in student achievement falls into three areas. First is research on the effects of certification regarding teachers' content knowledge, particularly in mathematics and science, as it affects student achievement. Second is research on the effects of certification on pedagogical knowledge and student achievement. The third area focuses on two sub-areas that deal with traditional certification and its alternatives. The first sub-area is the effects of regularly certified teachers teaching in or out of their area of expertise. In this respect, in-field vs. out-of-field teaching performance is compared, such as when an English teacher is assigned to teach algebra. Out-of-field teaching is normally considered teaching without the appropriate certification. The second sub-area is the effects of alternatively certified teachers in comparison to traditionally certified teachers.

⁶The data on these issues, however, is not conclusive and dissenters to all these conclusions exist (see Ballou & Podgursky, 1999; Miller, McKenna, & McKenna, 1998; Peck, 1989)

⁷Proponents and opponents of alternative teacher certification abound. Both cite research studies that support their side of the argument. For example, proponents of alternative certification claim that it is a cost effective way to train teachers who did not or will not enroll in conventional undergraduate or graduate education programs. Such programs tend to be cheaper because they are shorter and provide less instruction, supervision, and assessment of their students.

⁸According to Roth and Swail (2000), "exemplary programs" have the following six conditions:

1. They have been specifically designed to recruit, prepare, and license those talented individuals who already have at least a bachelor's degree.
2. Candidates for these programs pass a rigorous screening process, such as passing entry tests, being interviewed, and demonstrating mastery of content.
3. They are field-based.
4. They include coursework or equivalent experiences in professional education studies before and while teaching.
5. Candidates for teaching work closely with trained mentor teachers.
6. Candidates must meet high performance standards to complete the programs.

⁹Roth and Swail (2000) cited a 1984 study by Williamson et al. that identified three major implications of emergency certification for the teaching profession:

1. A reduction of the profession's ability to maintain teacher standards and improve standards for professional training. Emergency certification may cause a dual system: those who are traditionally certified, and those who are not.
2. A decrease in the number of qualified teachers. Qualified candidates may be discouraged from seeking employment because the positions are filled with unqualified teachers, or they may not seek professional training because they see it as unnecessary.
3. A detrimental effect on the process of turning research into effective practice. Use of emergency certification procedures could potentially undercut what we know about sound instructional practice.

¹⁰See Whitehurst (2002) for more information.

¹¹NCLB's highly qualified teacher requirements for subject-matter competency vary. For example, a new elementary school teacher must pass a state test demonstrating elementary curriculum knowledge (including reading, writing, and math) and teaching skills. A new middle or secondary school teacher must demonstrate competence in each subject taught by passing a state academic subject test or completing a major, or equivalent coursework, in the subject. And a veteran teacher may demonstrate competence by meeting the requirements for a new teacher or a high, objective uniform state standard of evaluation (HOUSSE) set by the state for grade-appropriate content knowledge and teaching skills and aligned with state content and achievement standards.

¹²Teacher quality as addressed in IDEA states that:

- All special education teachers (not merely those who teach core academic subjects) must be certified or licensed as special education teachers, or be in an alternative pathway to such certification.
- Special education teachers who teach core academic subjects also must demonstrate subject-matter competence, as provided in NCLB, subject to limited flexibility.
- Special education teachers at any grade or school level who exclusively teach students assessed against alternative achievement standards may meet the applicable teacher quality requirements for new or veteran teachers as applied to elementary school teachers unless the level of instruction is above elementary-level standards, in which case they must demonstrate subject-matter knowledge appropriate to the level of instruction provided, as determined by the state.
- New special education teachers of multiple subjects who are already highly qualified in math, language arts, or science may demonstrate subject-matter competence in the other subject taught within 2 years using HOUSSE.

¹³INTASC believes that all aspects of a state's education system should be aligned with and organized to achieve the state's policy as embodied in its P-12 student standards. This includes its teacher licensing system. Teacher licensing standards are the state's policy for what all teachers must know and be able to do in order to effectively help all students achieve the P-12 student standards. The teacher licensing standards become the driving force behind how a state's teacher licensing system (program approval, licensing assessments, and professional development) is organized and implemented. Thus, a state's process for approving teacher preparation programs should be designed to verify that a program is aligned with the teacher licensing standards and provides opportunities for candidates to meet the standards. The state licensing assessments should verify that an individual teacher candidate has the knowledge and skills outlined in the licensing standards. The state's professional development requirements for re-licensing should document that in-service practicing teachers are receiving professional development that is aligned with and helping them reach the licensing standards (CCSSO, 2004).

¹⁴According to *www.nbpts.org*, the "National Board Certification, developed by teachers, with teachers, and for teachers, is a symbol of professional teaching excellence. Offered on a voluntary basis, it complements, not replaces, state licensing. While state licensing systems set entry-level standards for beginning teachers, National Board Certification has established advanced standards for experienced teachers."

¹⁵Challenges include:

- Cultural sensitivity toward Melanesians and the inclination and gradual ability by expatriate lecturers to attempt to see through Melanesian eyes (Jordan, 1987) may be necessary for successful and genuine dialogue in the education process at UPNG.
- For the majority of Papua New Guineans undertaking studies at UPNG, additional courses in the English language appear to be essential. Lecturers need to be aware of the frustrating experience students must have in attempting to extract mean-

ing from text. Especially in first-year university courses, selected readings must be appropriate to student ability.

- Longer formal education is more likely to promote better quality teachers (Throsby & Gannicott, 1990), which in turn are the catalysts for the promotion of quality in an education system (Beeby, 1966).
- The cited research aims to assist lecturers to teach more appropriately "out of a Melanesian perspective" (Jordan, 1987, p. 5). For those wishing to improve teacher education in PNG, the research offers an attempt to construct a "grounded representation of day-to-day reality" (Stenhouse, 1979, p. 9). Because such conceptualizations are so contrasting, Papua New Guinean teachers experience a type of academic culture shock during their initial months at the university. In time, students either develop metacognitive skills to promote more complex thinking (McLaughlin, 1991) or resort to tried survival tactics (1995) or a combination of both.
- Traditional illiterate cultures describe learning as a transference of knowledge that is based on inspiration and memory (Lindstrom, 1990). Similarly, Saljo (1987, p. 104) contends: "Acts of learning in a culture which is illiterate by necessity have to be orientated toward reproducing." Associated with this is the conclusion that learning problems in English for these students are not necessarily language code problems but conceptual ones.

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