The Governor's Teacher Scholar Initiative: Can the University of California Bring Highly Qualified Teaching to the State's Poorest Children?

By Jeannie Oakes

California Governor Gray Davis began his tenure in January 1999 announcing that, "My first priority...in fact my first, second, and third priority...is education."¹ Two days following his inauguration Davis called for a special legislative session to enact a sweeping set of initiatives to improve the state's educational system, many of which sought to increase the supply and quality of the state's teacher workforce. One of these initiatives asked the state's most prestigious public university campuses—University of California, Berkeley and University of California, Los Angeles—to help solve one of the most difficult challenges in the current teacher shortage: attracting, preparing, and retaining highly qualified teachers in schools

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Davis' education agenda followed close on the heels of a report from the National Commission on Teaching and America's Future that painted a devastating picture about the status of the state's teacher workforce.² The number of the state's teachers holding emergency permits hovered around 30,000, and many others were teaching out of their subject in critical shortage fields such as mathematics, special education, and ESL. The shortage of qualified teachers was falling disproportionately on the state's rapidly growing population of low-income children of color because their schools have the greatest difficulty attracting and keeping certified and experienced teachers. As many as half of all new teachers (and two-thirds of under-prepared teachers) leave such schools within the first three years. Projections that the state would need between 250,000 and 300,000 new teachers in the next decade made clear that, without a dramatic response, the current circumstances would only worsen.

Given this context, it's not surprising that the California legislature responded to Davis with bipartisan enthusiasm. They met in special session, and quickly passed a raft of measures, among which was the Governor's Teacher Scholar (GTS) program. GTS mandates that UC Berkeley and UCLA offer 15-month programs of study leading to a master's degree and state certification. It also requires that UC provide scholarships from private donations to cover all university fees for the 400 participating students, amounting to about \$7,500 per student per year. In return, program graduates would agree to teach in California public schools populated by low-income students for four years. Although subsequent negotiations allowed UC to spread the program across eight UC campuses, Berkeley and UCLA, the flagship campuses in the system, were expected to lead. The program was signed into law in April 1999—only three months after Davis took office.

Below I provide a brief overview of the GTS program development by the UC campuses. I also offer a preliminary analysis of the policy assumptions on which the program rests. UC's brief prior experience, in the form of UCLA's five-year-old urban teacher education program, provides some insight about the conditions likely to be required for the initiative's success.

The GTS Programs on UC Campuses

By July 1999, the Deans and Directors of Teacher Education at eight UC campuses had endorsed GTS as a way to bring new coherence across their various programs. Although they sought to protect the uniqueness of each campus, the group proposed a set of common principles to guide their work planning and ramping-up GTS. These included:

1. To endorse the planning and implementation by all UC Campuses of the Governor's Teachers Scholars Program.

2. In the tradition of UC, this initiative must have a strong research component.

3. Because the UC educates a relatively small number of teachers, those that we do educate should have the competencies and background to become teacher leaders.

4. Our collaborative efforts should lead to different models at various campuses, and within those models variations of structures, pedagogy, and evaluation procedures, which should inform other institutions about practices that are most effective.

5. To devise a process with all UC education units that respects the autonomy of each campus, but engages in collaboration.

6. To ensure student support to meet the mandates of the legislation each campus as a whole, as well as the Office of the President, and State, must collaborate in securing funding.

7. Appropriate FTE and support staff must be made available in accordance with enrollment figures.

By December 1999, most of the campuses had plans in place for incorporating additional students into their programs during the 2000-2001 academic year. UCLA, with the system's largest existing masters and credential program, would begin with 50; the other campuses with considerably fewer. All 400 would be accommodated somewhere in the UC system in the next five years.

For the most part, the campuses decided against developing new or stand-alone programs, although UC Riverside and UC Irvine may begin new ones in summer 2001. Rather, campuses are expanding their existing programs to accommodate the GTS.UC San Diego is proposing a new M.Ed. as an add-on for its current credential programs, although it will still be possible to stop at the end of the program's first academic year and just get the credential. UC Berkeley's School of Education website advertises the program as a fee-waiver scholarship that can be used in any of its several credential programs by "certain highly qualified candidates who agree to make a binding, four-year commitment to teach in public schools in low-income areas after graduation."3 At UCLA, the GTS program is simply an integral part of its on-going urban-focused M.Ed. and CLAD/BCLAD program-the Graduate School of Education and Information Study's only masters/credential program. The UCLA faculty has framed an application process that asks each new student willing to make the four-year commitment to write an essay in response to the following prompt: "Please discuss how your prior life experiences—academic, professional, volunteer, etc.-demonstrate your commitment to serving educationally underrepresented segments of society. Also, please discuss ways in which social, economic or other disadvantages that you have had to overcome have shaped your own schooling opportunities and experiences." UC Santa Barbara's applicants completed a similar process. As of this writing, it is not clear how many students at each of the campuses will participate.

Policy Assumptions Underlying GTS

The GTS initiative embodies a host of assumptions about teacher preparation and the teaching workforce, but five in particular that are worth examining here.

First is the assumption that the UC campuses are willing and more likely than the CSU campuses or the independent colleges in the state to develop high-quality programs for preparing new teachers for the most challenging urban and rural schools.

Second, housing the program at UC will ensure that the GTS program will attract talented students into teaching, and, thereby, enhance the likelihood of solving the crisis around teacher quality in the state's most challenging schools.

A third assumption is that the incentive of free tuition at a high status campus will significantly increase the pool of highly qualified teacher education candidates who seek careers teaching in low-income minority communities. And more specifically, the program incentives are thought to attract some candidates who might otherwise not consider becoming a teacher at all, while dissuading many who want to teach from skipping teacher education and taking paid teaching positions without certification.

Fourth is that the four-year teaching commitment, when combined with the knowledge and skills gained by highly qualified candidates at a high status campus, will offset the disincentives that currently make certified teachers reluctant to remain in the targeted schools.

Finally, the program also seems to rest on a belief that UC's engagement will have a broad ameliorative impact on the state's teacher crisis—one that extends far beyond the absolute numbers that these GTS teachers add to the teacher workforce. After all, the GTS will, at its peak, produce only 400 teachers per year. The state anticipates that, over the next decade, districts will need to hire at least 26,000 new teachers each year. Only such numbers will compensate for attrition, the large proportion of the teaching force approaching retirement age, a surge in the population of school-aged children, a continuing press for class-size reduction and a booming state economy that seems able to pay for it.⁴ Certainly, the Governor expects more from the UC system than its modest contribution of new teachers.

If all these assumptions hold, they have significance far beyond California, and other states that anticipate increasing teacher workforce problems in the years ahead will surely be watching. While testing these assumptions will require both time and experience, we offer here some initial hunches, given what we know about the impact of past teacher education initiatives and what we're learning now as the GTS is taking shape.

Will faculties at major research universities such as UC embrace this new and more prominent role in teacher education?

Probably so—at least in states like California. Powerful political forces in the environment around universities make participation in such programs more attractive than they may have been in the past. Presidential and gubernatorial campaign platforms feature prominently the goal of providing every American student with qualified teachers This attention both creates and results from crisis-borne urgency that few sectors of society escape. In California the pressure is particularly strong on the UC system. Demographic shifts have made politically potent the palpable gulf between the research university and the growing numbers of Latino residents in the state, especially given their growing political influence in the state legislature

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that controls the university's resources. Increasingly, UC is expected to demonstrate its relevance to all of California's K-12 students.

Concern about the quality of teachers is also high on the agendas of major national civic and philanthropic organizations, including the agencies and private foundations that fund university research (many of whom, just a few years ago, were not the least bit interested in K-12 education or teachers). Several have issued reports urging research universities to marshal their considerable intellectual resources toward solving the problems of teacher supply and quality. This agenda dovetails with a broader interest in rethinking the work of faculty in ways that will allow universities—particularly, but not only land-grant universities—to better connect their university research to relevant public problems.⁵

Only last year, the American Council on Education—the major professional organization of higher education institutions—called on college and university presidents to move the education of teachers to the center of their professional and institutional agendas. The report argues, "it is colleges and universities that must take responsibility for the way teachers are taught, and ultimately the way children are taught" and that Presidents of graduate and research universities have a special responsibility to be advocates for graduate education, scholarship, and research in the education of teachers. It is difficult to identify an area of comparable importance to the society for which so little is invested in research and development as in the education and performance of teachers. Given the professed concern of politicians and the public for improving the quality of education in this country, appropriations for research in teaching and learning are indefensibly inadequate. Presidents can and should be vigorous advocates for dramatic increases in such funding.⁶

Perhaps in response to these environmental pressures and opportunities, UC President Atkinson announced his interest in K-12 teaching just prior to the fall 1998 gubernatorial election. In contrast to UC's usual reluctance to be seen as a teacher education institution, Atkinson reported to the Regents, "The University will also aggressively reach out and expand its teacher preparation programs. We must use our resources to train more teachers, especially in areas such as math and science where there is a shortage of qualified K-12 teachers."⁷ He committed the system to doubling the number of teachers it graduates by 2002-03, attracting a more linguistically and culturally diverse teaching force, and making teaching credential programs more appealing to the pool of UC undergraduates, especially in subject areas where shortages are most acute.

UC President Atkinson also embraced the Governor's GTS program, as well as the much larger bundle of measures through which Davis positioned UC as the central player in the professional development of the state's experienced teachers. Atkinson incorporated an emerging UC agenda of K-12 school improvement, particularly those serving low-income African American and Latino students. He housed the Governor's new teacher programs in the Office of the President alongside UC's new outreach initiatives aimed at increasing the diversity of the state's high school graduates who are eligible for UC admission, and he appointed a former UC Chancellor to lead them. The pressure to increase student diversity, together with the UC Regents' and California voters' bans on affirmative action, tightened the links between placing highly qualified teachers in schools serving low-income Latino and African American students and the UC's own goals. To the extent that other states experience similar pressures, we can expect that their public research universities will respond similarly.

What unique attributes can research universities add to more traditional teacher preparation programs, as all programs seek to deliver high-quality preparation to teachers who will work in challenging schools?

The Governor's spokespersons were quick to point out that the Governor's Teacher Scholar initiative did not imply dissatisfaction with the California State University (CSU) system—the state's largest producer of teachers. Rather, they claimed that the UCs were simply being expected to do their share.⁸ Nevertheless, bringing the UC more centrally into the state's teacher education mission sent a strong signal that responses to state's teacher crisis would benefit from the contributions of state's elite research university. The CSU campuses were gearing up to certify credentialled teachers at an accelerated pace and to credential those currently teaching on emergency permits through web-based programs. Many private institutions, local school districts, and organizations like Teach for America were rushing to get truncated, on-the-job programs up and running. As these "alternate" routes into teaching proliferated, the UC's could help add credibility to the state's claim that its response to the teacher crisis involves teacher quality as well as quantity.

However, this presumes that the UC programs will press the state of teacher education forward. The GTS only has great promise if it prompts UC campuses to use their resources, status, and intellectual capacity to fundamentally reconstruct teacher education. If the UCs do no more than bring a new interest and intensity to the programs and thinking that prevail elsewhere, then little is to be gained from their participation in teacher preparation.

For the initiative to have the intended impact, UC campuses must attract and engage faculty and students who see teaching low-income children as intellectually and socially important work, and they must offer programs tailored specifically to preparing teachers to do more than just survive in highly challenging schools. While UC programs may choose various emphases, each must add new thinking and subject to rigorous inquiry their efforts to prepare teachers with the general knowledge, skills, and dispositions to deal with the multiple barriers to educational success faced by students in educationally disadvantaged schools. Further, the UC campuses must push the boundaries of the subject-specific pedagogies that will make high-quality content accessible to these students. Recognizing that the university can't prepare such new teachers effectively, absent close connections Jeannie Oakes

with schools, the UC campuses will need to develop a collaborative, school-based approach.

Moreover, given that our dissatisfaction with most schools serving poor children goes far beyond a shortage of qualified teachers, both the teacher educators and the new teachers they prepare will also need the skill and commitment to help these schools change in fundamental ways. Little of this will be achieved if the UC programs simply replicate teacher-education-as-usual. In a sense, both the university and K-12 schools face a similar challenge, and it would be the height of unfairness, not to say foolishness, to expect K-12 schools and teachers to respond to their challenges without expecting the university and its teacher educators to respond similarly.

Currently UCLA is the only program in the UC system that focuses specifically on preparing teachers to work in schools in low-income neighborhoods of color, and there are important lessons in its experience. UCLA's teacher education program pushes its agenda beyond the formidable challenge of preparing teachers with the knowledge, skills, and experiences to teach academic content to children whose lives are challenged by poverty and racism. It also takes the position that a hopeful, democratic future for all Californians depends on whether all such students learn and experience academic rigor and social justice in school. This perspective leads faculty to attend to the values and politics that pervade education, as well as the more technical issues of teaching and organizing classrooms. The curriculum also engages students in asking critical questions about how conventional thinking and practice came to be, and who in society benefits from them. And, finally, faculty and students pay particular attention to schooling inequalities associated with race, social class, language, gender and other social categories, and they seek alternatives to the inequalities as an integral part of their practice. Importantly, every aspect of this program is embedded in and the subject of the university's research mission.

The structure of UCLA's coursework, fieldwork, cohorts, partnerships, and residencies aims to help teachers understand how learning is a social and cultural activity. Because in a multicultural society there can be no distinction between teacher education and multicultural education, issues around diversity are integrated into all elements of teacher education—including learning theory, curriculum and instruction, classroom management, assessment and testing, grouping, and the school culture. To the degree that the UCLA tenure-track and clinical faculty can, we try to replicate in our own teaching, research, and service activities the values and actions we would like our students to struggle for when they become teachers. We structure activities so that students learn, first hand, that the interactions that promote learning must draw from and build on the knowledge, language, and cultures that students—K-12 students or prospective-teachers—bring with them to school.

Our experience at UCLA has taught us that programs with perspectives and practices so countervailing to the status quo of teacher education are extraordinarily

hard to develop and even more difficult to sustain. Neither university departments seeking to satisfy all of the standards of traditional research universities nor K-12 schools grappling with extraordinary test-based accountability pressures are particularly hospitable to such divergent programs. Yet, we've also become convinced that unless teacher education initiatives like UC's GTS attempt such approaches they are unlikely to be powerful in preparing teachers for the state's most troubled K-12 schools. It remains to be seen whether the GTS will trigger such innovations across the UC campuses.

Will those qualified for admission to graduate programs in highly competitive research universities also be those most likely to solve the teaching problems in such schools?

Certainly, the legislature intended the programs to attract "talented individuals into the teaching profession."⁹ And President Atkinson has positioned the program as "aimed at attracting more highly qualified students into the teaching profession."¹⁰ In fact, the GTS must meet the UC campuses' rigorous Graduate Education Division's entrance requirements for masters programs. Consequently, participants will likely score higher on traditional measures of academic ability— Graduate Record Examination scores, undergraduate GPA, and attendance at highly ranked undergraduate institutions—than students in other teacher education programs. Since teacher quality has often been measured in these traditional ways (although more often by SAT scores prior to college, than by measures of undergraduate experience), by definition the GTS participants will be "more highly qualified."

But, this definition begs a more serious question about the mix of background experiences, prior knowledge, abilities, commitment, and pre-service teacher education that will yield the highest quality teachers for students in the state's lowest income communities of color. Our UCLA experience suggests that such teaching requires qualities that go far beyond high scores on measures of academic promise. Students must be specially qualified and motivated to work with linguistically and culturally diverse students. That means attracting a diverse group of students, many of whom have a deep personal commitment to give back to the communities in which they grew up.

However, both the ban on affirmative action and good sense dictate that students not be selected to participate in GTS simply because they are themselves students of color or because they grew up in low-income communities. Rather, the challenge is to identify the knowledge and competencies that these teachers will require, and then recruit and select for those qualities as rigorously as for the traditional academic criteria. For example, programs can seek students with knowledge of a language commonly spoken in California's immigrant communities, an academic background in ethnic studies or urban studies, paid or volunteer work experience in schools, neighborhood centers, local churches, or other activity that yields street knowledge of schools and communities. These are just a few of the types of criteria that can identify prospective teachers who are both highly qualified according to traditional measures and knowledgeable and sophisticated about the schools, students, and families where they will teach.

Of course, not all GTS participants will or should be those with first-hand experience with low-income communities of color. The UC programs must also find ways to prepare white and middle class students to work knowledgeably and respectfully with students, families, and neighborhoods that bear little resemblance to the ones they grew up in.

Will prospective teachers see the status and scholarships that come with programs such as GTS as an attractive alternative to opportunities to begin without formal preparation?

For middle class students who can afford to defer a salary for a year or more and who see teaching as a long-term career goal, probably so. Most would prefer to avoid the bruising experiences of unprepared new teachers if they can afford to. However, the scholarships will do little to offset the real costs of full-time graduate study. Consequently, they are unlikely to stem the flow into teaching of those whose financial burdens aren't sufficiently eased by a scholarship that covers fees, but includes no other income or housing benefits. Neither are these programs likely to be attractive to young people who simply want to teach for a year or two (or even four, as stipulated by the GTS program) as a public service or until they settle on a more permanent career.

Moreover, whether deserved or not, teacher preparation carries with it the reputation of being largely irrelevant to teaching, generally, and particularly unhelpful in preparing teachers for the most challenging schools. If GTS programs do not shed this reputation by offering dramatically different types of preparation, prospective teachers will likely be tempted by the promise of an immediate paycheck and the on-the-job training that district internships and minimalist part-time programs offer.

Will these incentives offset the reluctance of new, highly qualified teachers to choose to work in challenging urban and rural schools at all?

Historically, financial incentives, in themselves, have been weak magnets for attracting teachers to schools where they perceive the conditions to be too difficult to teach well. For example, past programs offering extra pay to Los Angeles teachers who chose to teach in the city's most impoverished neighborhoods did little to attract highly qualified teachers to those schools. It's hard to imagine that many prospective teachers will judge a \$7,500 fee waiver as adequate compensation for four-years of extraordinarily difficult work—particularly if jobs in urban and rural districts pay less then easier assignments in suburban schools. However, since the GTS is being offered at the same time that the state is experimenting with other

incentives, such as housing subsidies, teachers in high-cost areas like San Francisco and Los Angeles may find teaching in low-income neighborhoods more attractive. More compelling for prospective teachers, however, is likely to be the attraction of doing important and professionally satisfying work. UCLA's urban-focused program, for example, currently attracts nearly twice the applicants that it can accommodate—even though prospective students know they will be required to spend two years studying and teaching in some of the city's most difficult schools. They tell us they are attracted to two things: the program's focus on social justice for urban children and its reputation for being academically rigorous. We suspect that many prospective teachers find such program characteristics more attractive than the scholarship, and that a great number will find the combination especially appealing.

Will such programs reduce the flow of teachers out of such schools?

The most able teachers are typically the ones who leave first. In fact, the majority of early leavers include individuals with higher IQs, GPAs, and standardized test scores and those with academic majors or minors along with an education degree.¹¹ They may stay a year or two from a sense of commitment or mission, but the many other career options available to them usually prove too tempting.

To promote teacher retention as well as preparation, the program will simultaneously work to develop cultures at the participating schools that are hospitable to UC-educated teachers and their expertise, and that support these teachers in their early years of teaching and create capacity for teacher learning in school communities. If the GTS hopes to lower the rates of new-teacher turnover, the UC campuses must link their credential program with a supportive "induction" program for graduates. Preliminary studies of UCLA's teacher retention rates find that after four years, 86 percent of our first-year cohort remains either in teaching (73 percent) or education-related fields (13 percent). Of those still teaching, 80 percent are in urban schools. Ninety-three percent of our second class remains after three years. We believe that the combination of a clear urban agenda, school-based residencies, and continuing support in the first years of teaching explains much of the program's holding power.¹²

However, even if programs are successful at attracting good teachers into these schools and supporting them in their first years of teaching, they can not provide the conditions that teachers require to teach well—the ultimate factor in many teachers' decisions to leave urban schools. Working together, UC teacher education faculties and students, along with their partner schools, must work for more comprehensive change than simply providing qualified teachers to schools who have trouble attracting and keeping them. Ultimately, what matters most to teachers will be the chance to work in small, personalized schools with reasonable teaching loads; time to connect in meaningful ways with students, their families, and their communities; adequate teaching materials; facilities kept in good repair; and

support from administrators. These are the basics that will keep the GTS participants in their schools for their four-year term and beyond.

Will such programs have any impact on teacher preparation and teacher quality more generally?

Most see UC's most important contribution to teacher education in terms of traditional research—i.e., by advancing innovative models for preparing a new generation of qualified, competent teachers. And, although several UC scholars voiced concern that the mandated program sets a worrisome precedent of government dictating the substance of faculty work, many also have recognized research possibilities in the program. For example, the group most directly affected, the Deans of Education Schools and Directors of the Teacher Education, saw the GTS as an opportunity to continue developing exemplary teacher education models for the state and country. They agreed early on to use the program to promote a culture of research and inquiry in teacher education, and to consider their efforts as "test beds" for ideas and initiatives that could be researched, evaluated, and disseminated to others.¹³

There is some evidence that UC teacher education programs have been influential at other institutions. But that influence has come most often through channels less formal and rational than a dissemination of research-proven models suggests. One reason is that UC programs—regulated like others in the state by the California Commission on Teacher Credentialling (CCTC)—have not been dramatically different from the state's other teacher education programs. Moreover, because UC programs are relatively smaller than others, often somewhat more generously resourced, and seen as attracting more capable students, other institutions don't typically see the innovative practices that UC has developed as relevant to their own programs.

Rather, UC's influence is felt through the relationships that its tenure-track and clinical faculty in teacher education have with other teacher educators. Through joint work on policy committees and accreditation teams and in professional organizations, faculty from UC, CSU, and the state's independent colleges learn from one another in quite informal ways, as members of communities of professional teacher education practice. Further, as UC Ph.D. graduates assume faculty positions in other programs, they bring with them theories and practices from the programs at the UC campuses where they apprenticed as teacher educators.

For example, four UC campuses spent a number of years in the mid-1990s developing, researching, and reporting on a set of "experimental programs" made possible with waivers from many standard CCTC regulations. These programs included two-year graduate programs; teaching residencies; a joint mathematics-focused program between a UC and CSU campus; and a specialized urban teacher education program. These models have not, to my knowledge, been adopted wholesale by any other California institutions. However, countless traces of these

programs can be found on campuses where professional relationships exist between local faculty and their UC counterparts. Innovative research-based practices in teacher education seem to travel through people, rather than through any formal research and dissemination strategy. This experience suggests an approach to improving the practice of teacher education that is quite different from that of research, development, and dissemination. Jean Lave and Etienne Wenger's work on communities of practice might be far more instructive in this regard than currently popular discussions of replication and scaling up, and far more helpful than the scores of studies documenting failed efforts to use traditional dissemination approaches to spread promising practices.¹⁴Finally, the teacher-graduates themselves are likely to carry much of the ongoing impact of the UC programs into K-12 schools. Soon after entering their own classrooms, many UCLA graduates are finding their way into positions of influence in their schools and school districts. As time goes on, the cumulative effects of their competencies, their social justice perspectives, and their professional learning experiences and relationships will be felt increasingly.

If this analysis is correct, then the influence of the GTS will only be as great as professional relationships and coalitions permit. Unfortunately, nothing in the GTS program seeks specifically to build those relationships. In fact, restricting the GTS to high-status Berkeley and UCLA (and eventually the other UC campuses) may have exacerbated tensions around the hierarchical status relationship between UC and CSU campuses. This structure may inhibit, rather than promote, the professional relationships through which new approaches to teacher education could spread. Policymakers might do well to consider relationship-building components of the GTS such as faculty exchanges, residencies on UC campuses for CSU teacher education faculty, and regional teacher education partnerships. Ultimately, such relationships will depend upon current stakeholders in schools, universities, communities, and statehouses nurturing a nascent political will that is energized by coalitions that support the education of poor and minority children with a comprehensive set of education reform policies.

Notes

- 1. Governor Gray Davis, "State of the State Address," January 6, 1999.
- 2. Shields, Patrick M., Esch, Camille E., Humphrey, Daniel C., Young, Viki M., Gaston, Margaret, & Hunt, Harvey. (1999). *The Status of the Teaching Profession: Research Findings and Policy Recommendations*. A Report to the Teaching and California's Future Task Force. Santa Cruz, CA: The Center for the Future of Teaching and Learning.

See for example the Kellogg Foundation's interest in promoting "community-connected" universities.

^{3. &}lt;www.ucb.edu>.

^{4.} Shields et al., The Status of the Teaching Profession.

^{6.} American Council on Education President's Task Force on Teacher Education. (1999). To

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Touch the Future: Transforming the Way Teachers are Taught. An Action Agenda for College and University Presidents. Washington, DC: American Council on Education.

- 7. Richard Atkinson, October 1998.
- 8. EdSource, California Governor's Budget: Clarifying Complex Education Issues, March 1999 (<www.edsource.org>).
- 9. ACSA analysis of AB 2x at ACSA Online-Legislation (<www.acsa.org>).
- 10. Richard Atkinson, 2000-2001 Budget Request to the Legislature, University of California, 2000.
- 11. See, for example, Richard Murnane, Staffing the nation's schools with skilled teachers, In E. A. Hanushek and D. W. Jorgenson (Eds). *Improving America's Schools: The Role of Incentives*, Washington, DC: National Academy Press, 1996, pp. 241-258.
- 12. Quartz et al., Too Angry to Leave: Supporting New Teachers Commitment to Transform Urban Schools, paper presented at the annual meeting of the American Educational Research Association, New Orleans, April 2000.
- 13. Minutes of the UC Deans and Directors of Teacher Education meeting, July 1999.
- 14. See, for example, Etienne Wenger, Communities of Practice, Cambridge University Press, 1998, and Andy Hargreaves, Ann Lieberman, Michael Fullan, & David Hopkins, International Handbook of Research on Educational Change, Boston, MA: Klewer Academic Publishers, 1998.