This policy brief explores the role of community colleges in addressing the national shortage of K-12 teachers. It provides a summary of recent studies that highlight the prominent contributions of community colleges to the preparation of teachers (Boggs and Bragg estimate that 40% of the nation's teachers have completed at least a portion of their undergraduate science and mathematics work at community colleges). The brief also profiles a number of state and national initiatives designed to strengthen the role of community colleges in teacher preparation. One example is the 1998 National Science Foundation conference on the Integral Role of the Two-Year College in the Science and Mathematics Preparation of Prospective Teachers. The conference report called on community colleges to take a more aggressive role in recruiting, provide pre-teaching experiences and professional development opportunities for practicing teachers, and strengthen undergraduate courses for prospective teachers. Attention is called to the importance of developing effective partnerships between two-year and four-year institutions, with the desired outcome of developing college transition policies and programs that support transfer students through the completion of their education degrees. (Contains 37 references.)

(RC)
Community Colleges and K-12 Teacher Preparation

SERVE Policy Brief

Walter Moore
Community Colleges and K-12 Teacher Preparation

INTRODUCTION

As we move rapidly into the twenty-first century, it is very clear that the eyes of the nation are on teachers. Parents are becoming much more demanding of teachers and critical of them as well. Very few conversations can occur among educators without a discussion of some of the issues surrounding teachers and teaching and the impact a really good teacher has on students. Since the publication of the "Report of the National Commission on Teaching and America's Future," September 1996, these discussions have become quite heated. There are reports about the teacher shortage; recruiting and keeping good teachers; the licensure issue, including national certification; preparation and continuing education, including how teachers feel about the quality of their preparation programs; the impact of a really great teacher on students; how the public feels about the teacher quality issue; and new policy initiatives relating to teachers.

Whether talking with local school personnel, policymakers, parents, or national educational leadership, the message is clear: Teacher quality is a national priority. A sidebar in Quality Teachers for the 21st Century by the Education Commission of the States says it best: "Assuring teacher quality—the next frontier for improving the nation's public schools." The shortage of highly qualified teachers is becoming more critical each year. The goal of having a competent, caring, and qualified teacher in every classroom by 2006 has been set and apparently accepted by the educational community.

COMMUNITY COLLEGES

Community colleges enroll more than 10 million students or roughly 44 percent of all undergraduates in the United States. More than 400,000 associate degrees were awarded during the 1996-97 session, with almost 10,000 of them being in education (American Association of Community Colleges), and this figure could be understated since many students who receive a general associate degree enter teacher preparation programs. Nationally, attention is being focused on the role of the community college in the education and re-education of the United States society. Community colleges have become complex and comprehensive institutions, having undergone a major shift in their purpose and mission. They continue to focus energy on the academic function and on providing minorities, non-traditional, and disadvantaged groups with access to a quality higher education. However, they have also expanded their vocational

Part of the answer to the shortage and quality issues is understanding and increasing the role of the community college in the preparation of K-12 teachers. Available information clearly documents that community colleges are actively involved in the preparation of teachers, though in most cases, the process is not coordinated from the state level. With respect to community college contributions to the teacher shortage and quality issues, the following policy implications should be brought to the forefront of the improvement initiative.
operation, remedial education function, economic development function, and involvement in community service. Thomas Bailey and Irina Averianova, in a document produced by the Community College Research Center, project that community colleges will expand their missions to the extent the expansions relate back to and are supportive of their core academic and service activities.

The core academic and service activities of community colleges are described by Dr. Olon E. Ray, Executive Director of Mississippi's State Board for Community and Junior Colleges. Ray states: “Our mission is to enhance education and training for all Mississippians, promote positive leadership, and create partnerships with business, industry and other entities that share the commitment and values we embrace. Our assignment is to create ideas and translate vision while providing products and services that have a positive impact on education and training in our state.” Mississippi’s mission statement is in line with those of other states. Community colleges serve their communities by improving opportunities for and quality of education in those communities, both directly and indirectly. Teacher training is certainly a part of that service.

In 1985 Florida completed a statewide study focusing on the role of the community college in teacher education, and Illinois published a similar one in 1991. Additionally, a 1984 report (Teacher Education in Arizona) from the Governor’s Taskforce on Teacher Education in Arizona has a small section on community college involvement in teacher education. Recommendations derived from these studies include the importance of faculty communication, possible use of community college faculty in monitoring student teachers, and cooperation between community colleges and four-year institutions in providing practicing teachers with continuing education opportunities.

State statutes mandated the Florida study (Florida State Department of Education, 1985). Findings included information clearly showing that community colleges were fully involved in teacher education activities, but that involvement had not occurred as a result of planning and coordination at the state level. It had “just happened” because future teachers enrolled in the community college program; the quality of the program was directly proportional to the quality of the people at the local level who operated the program. At that time, almost 49 percent of Florida’s teachers who finished their teacher training at Florida universities had attended a Florida community college. As would be expected because of the lack of state coordination, the teacher education curricula varied greatly from community college to community college.

The purpose of the Illinois study (Illinois Community College Board, 1991) was to determine how the community college system could be more effectively involved in the teacher preparation program. Recommendations included placing emphasis on teacher shortage areas, improving articulation with four-year institutions, and encouraging minority and other underrepresented groups to enter teacher preparation programs. Although the focus was neither on teacher education nor specifically aimed at helping community colleges improve student transfer to four-year institutions, the Illinois Board of Higher Education, in cooperation with other state education groups, began the Illinois Articulation Initiative in 1993 (Policy Initiatives, 1999). This
voluntary cooperative has a goal of making transfer from one Illinois college to another as easy as possible without loss of credits. A review of the Illinois Articulation Initiative on the Internet shows that a large number of majors have clearly defined course requirements, and transfer to another Illinois institution is promised but not guaranteed. Education is one of those areas.

Fourteen years after the Florida report was released, George Boggs and Sadie Bragg stated in Leadership Abstracts that, “Community colleges have long played an important, if not widely recognized, role in preparing teachers.” They remind us that more than one-third of the students taking science, mathematics, and technology courses are enrolled in community colleges. They estimate that 40 percent of the nation’s teachers have completed at least a portion of their undergraduate science and mathematics work at community colleges, and they further highlight a report from the fourth largest school district in the nation, Miami-Dade County, showing that approximately 70 percent of their teachers received all of their mathematics and science training from the local community college. Even with all of this information, they surmise that neither community colleges, teacher preparation institutions, nor K-12 educators realize the essential role that community colleges play in teacher preparation. Cooperation and support of all is necessary if community colleges are to realize their potential role in helping overcome the shortage of quality teachers.

The Education Commission of the States (ECS), recognizing that few resources existed to help policymakers understand the key role community colleges play in provision of post-secondary education, developed a Handbook on Community Colleges, which was released at its 1998 annual meeting. Now, the U.S. Department of Education has awarded a $750,000 grant to ECS to launch The Center for Community College Policy; one of the key issues the Center will address is that of providing additional training to teachers. This is a policy initiative focused on policies related to additional training needed by teachers (at all levels).

The National Science Foundation (NSF) has been and is currently providing leadership in the teacher preparation process by focusing on the role of the community college in this critical task, particularly in the science, mathematics, and technology areas. Through their NSF Collaboratives for Excellence in Teacher Preparation program, they have awarded at least 17 grants to cooperative ventures involving community colleges, K-12 education, and four-year colleges (National Science Foundation, 1999). In March 1998, NSF convened a conference, The Integral Role of the Two-year College in the Science and Mathematics Preparation of Prospective Teachers. The report from this conference called on community colleges to take a more aggressive role in recruiting, provide pre-teaching experiences for their students and professional development opportunities for practicing teachers, strengthen undergraduate courses for prospective teachers, and coordinate their efforts with four-year institutions (Dec. 1998, 4-6). A statement by Luther Williams, NSF’s Assistant Director for Education and Human Resources, sums it up. “The resources of the nation’s community colleges must be utilized fully if the need for a teaching force well prepared in science, mathematics, engineering, and technology is to be met” (Dec. 1998).

Tronie Rifkin, writing for the State Education Leader, reports that only 20-29 percent of community college students transfer to a four-year college. However, this figure may be misleading since many community college students are in programs that are completed after two years. He continues, stating that more recent studies confirm that once a community college student makes the transfer to the four-year institution, he or she graduates at about the same rate as students who began at the four-year institution. Therefore, ease of transition becomes a major issue. Development of partnerships with K-12 educational programs and four-year colleges/universities is becoming more of a necessity each day, to the point that for the third year in a row, in 1999 the College Board sponsored a national conference on developing effective partnerships between two-year and four-year colleges/institutions. The Office of Community Relations within the College Board is developing a best practices document to provide information on model transition programs. “In order to succeed, community colleges must work in collaboration with four-year colleges and universities and elementary and secondary schools” (Haver and Watson). Rifkin makes these policy recommendations when developing transition procedures: streamline articulation, promote collaboration, foster curriculum development, bolster student services, build technical support, and provide for research and evaluation (19).

Future science teachers who begin their teacher preparation programs at community colleges will take the basic science courses at the community college. Many elementary teachers will take their only science courses at the community college. According to Susan Loucks-Horsley, Rodger Bybee, and Ellen Wild, how and what they are taught will “influence the way these
teachers will understand and think about both the content they will teach and the way they will teach it" (1). They further state that one of the most important jobs of the community college is the preparation and ongoing staff development of K-12 science teachers. “The best professional development is seamless, from the community college to the four-year college to ongoing development opportunities, where teachers learn by doing, through inquiry, and are given ample support to develop throughout their professional careers. Community colleges can play an important role in this continuum of professional learning” (Loucks-Horsley, Bybee, and Wild 134). Furthermore, community colleges can lead the way in improving the preparation of science and mathematics teachers; this is particularly true in these two areas because the basic courses are taught at the community college level (Haver and Watson 34).

The Office of Educational Research and Improvement (OERI) in the United States Department of Education has funded Recruiting New Teachers, Inc. (RNT) to conduct “a national study of community college programs that both encourage and enable prospective teachers to complete the baccalaureate degree and link to teacher preparation.” RNT expects to identify programs where there is collaboration among K-12, community colleges, and four-year institutions “across the country that provide pathways to teaching careers.” RNT has completed a review of the literature that should be available for publication soon (Recruiting New Teachers, 1998).

The revised edition of the Missouri Directory of Approved Professional Education Programs reports a rigorous process whereby two-year colleges in Missouri are approved by the Missouri State Board of Education to offer professional courses in teacher educa-

tion which may be transferred to any four-year institution and will be accepted as partial fulfillment of the certification requirements of the state. A review of the approved two-year colleges’ course offerings indicates that there are as few as four and as many as eight education courses offered; most colleges offer adolescent and child psychology, children’s literature, physical education for children, art for children, introduction to teaching, and music for elementary teachers.

The AT&T Foundation funded a cooperative project between 1991 and 1994 (Marquardt, et al.) involving two districts, two professional teacher organizations, a community college, and a college of education in the area around Jacksonville, Florida. Its purpose was to restructure the teacher education program at the University of North Florida, help the elementary schools increase achievement, and reduce the attrition rate of beginning teachers. The project included (1) a clinical curriculum which began at the community college and extended all the way through the first year of teaching, (2) six instructional strategies, and (3) seven professional norms. Preliminary results were reported as follows: the teacher preparation program at the university has been significantly restructured, and the climate of the elementary schools has improved (achievement data had not been evaluated).

Educators continue to wrestle with the problem of finding and employing sufficient numbers of minorities to be reflective of the racial and ethnic backgrounds of their students. As early as 1988, Jennifer Curry wrote, “Community colleges have the students, support services, and articulation mechanisms in place to play a critical role in the development of a multi-ethnic teaching force. However, the potential contributions of the community college sector must be integrated into a sequence of recruitment, retention, training, and job placement efforts involving all segments of higher education” (1). She further reported that two major problems could prohibit the community colleges from actually reaching their potential in this area: “high rates of student attrition, especially among minority students, and low rates of successful transfer to four-year colleges” (1). To overcome these problems, Curry says the college must be supportive, the teacher education curriculum must include some education courses, dual admissions and working articulation agreements must be in place, and adequate financial aid must be available. Two years later, after an extensive review of the literature, Vivian Morris supported these findings by Curry and expanded them to include the need for recruitment to begin in middle schools, solid mentoring for each student throughout the college life, expanded hands-on instruction, and evaluation and modification as needed (Morris 34-36).
The approach at Kent State University and Cuyahoga Community College is slightly different (Anglin, et al. 6-11). Kent State has committed to preparing approximately 20 minority teachers each year; in order to do this, they have developed a partnership with Cuyahoga whereby they recruit outstanding teacher candidates from the community college. At the time this paper was presented to the Forty-Second Annual Meeting of the American Association of Colleges of Teacher Education in 1991, the partnership was in its third year. The following are some lessons they had learned.

- Sign a formal agreement. Governance is not the same at the two institutions, and a clear message from the top should indicate that this partnership is a priority and is expected to work.
- Have a boundary spanner. This person is the go-between; he or she bridges the gap between the two institutions.
- Institute joint program planning. Seeking admissions to the four-year institution and losing 20-30 credits in the transfer is not the way to ensure success of the partnership. Also, this brings about the necessary curriculum changes at the community college.
- Provide adequate student support systems. Transfer to a four-year program can be extremely difficult. Faculty mentors, financial aid advisors, and other counseling are critical.
- Develop an appropriate community college pre-teacher education curriculum. It should include preparatory courses in teacher education as well as practicum experiences.
- Provide employment assurances. If the student finishes the program successfully, prior work with participating school districts should include potential job placements.

Additional sources of information are available, but they typically relate to one or two community colleges forming a partnership with four-year teacher preparation institutions and working out their problems so that prospective teachers can benefit from the community college program. They also report major problems with formulation and implementation of those agreements. Institutional norms are hard to change.

MISSISSIPPI COMMUNITY COLLEGE SURVEY
Information relative to the involvement of Mississippi community colleges in teacher preparation was collected through a questionnaire sent to the college presidents. Nothing in the data received shows any major variation from the conclusions that can be drawn from national research. Highlights from the interpretation of these data are as follows:

- The academic curriculum at the community colleges was reported as basically the same for all students; however, roughly 29 percent of the community colleges indicate that their curriculum is specially designed to prepare students to enter the teacher preparation program at a four-year institution. Many of them are taking other actions to improve their students' chances of success in teacher education at the four-year institution.
- Research-based teaching strategies and integration of technology into the instructional program are highly valued at all community colleges.
- All community colleges are required to sign an articulation agreement with four-year institutions; however, there appears to be minimal communication between community college staff and teacher preparation staff in the four-year institution.
- Staff development is being provided to K-12 educators, mostly in the vocational area; however, only 36 percent of the community colleges indicate that staff development for K-12 educators is a high priority.
- Data from fall 1997 and spring 1998 indicate that roughly 23 percent of the community college transfers are enrolled in teacher education programs at a four-year institution in Mississippi.
- Community colleges believe that they provide a solid academic background to their students. Data confirms that there is little difference between the grade point averages of transfer students and students who have attended the four-year institution for all four years.
- Roughly half of the community colleges provide limited professional education coursework to their students and believe that this is an important role of the community college. The others, while believing strongly in the quality of their academic programs, have accepted the general rule in Mississippi that teacher education occurs during the students' junior and senior years at a four-year teacher education institution.
Community colleges believe that they have a clear role in recruitment, and most report that their staff promotes teacher education as a career.

Eight community colleges report having a training program for assistant teachers.

Half of the community colleges provide practicum experiences for teacher education students.

Because of the teacher shortage in Mississippi, particularly in the minority area, it seems clear that active participation by community colleges in planning for and providing quality involvement in the teacher preparation program could make a great difference in how quickly the teacher shortage is resolved. It could also have a significant impact on the quality of the teacher preparation program. Collaboration does not occur on a large scale unless leaders at the community colleges, four-year institutions, and at the state level make this a part of the institutional vision. Furthermore, the role of the community college as a provider of staff development to educators and assistance to teachers in their first years of teaching could be extremely valuable. However, none of this will happen unless leaders come forth who are willing to make this a priority and to work through the problems that evolve as the plan is implemented.

CONCLUSIONS

Community colleges will continue to have an impact on the preparation of K-12 teachers. How effective that impact is depends on educators' and politicians' understanding why and how that impact occurs and being willing to provide leadership at all levels—leadership that sets aside institutional issues and supports the development of real partnerships among community colleges and four-year teacher preparation institutions. The information collected and included in this policy brief clearly shows that policymakers need to consider the following:

1. The community college is playing an active, if not coordinated, role in the preparation of teachers. The quality of and structure for that involvement, except for a few instances, is not a state priority and is, therefore, based strictly upon the people who are involved—faculty and administration at the community college/four-year institution. Consequently, state leaders in community colleges, four-year institutions, and K-12 education need to understand and accept the impact that community colleges have on the preparation of teachers and make the improvement of that involvement a state priority and a part of their collective visions. The state should take the steps necessary to ensure that the community college becomes a real partner in the preparation of K-12 teachers.

2. Since almost 50 percent of the college/university enrollment at any given time is comprised of individuals at community colleges, the quality of the programs at community colleges is extremely important. Students need excellent programs not only to prepare them for the next step, but also to keep their interest in learning at a high level so that they will be more prone to continue their education and expand their love of learning. Leadership should direct community college personnel and four-year teacher education institution personnel in each community college service area to work cooperatively to ensure that the coursework at the community college provides the prerequisite skills and experiences required for success in the teacher education program.

3. Articulation, or lack of it, has a tremendous impact on the transfer of community college students to four-year institutions. Once community college students make the transfer, they tend to graduate at about the same rate as those who attended the four-year institution all four years. Community colleges and four-year institutions must sit down together to work out agreements and programs so that transfer is expected, encouraged, and simple, but not costly. Students must know before they take a course that it will be accepted and they will not lose their money or their time.

4. Community college leadership should ensure that the programs being provided for students who are enrolled in teacher preparation programs provide, at a minimum, practicum experiences in K-12 situations, introductory teacher education courses, mentors, and excellent academic background in content areas. Community college teaching strategies, including integration of technology, should be up-to-date and focused on helping students master objectives, enabling them to utilize what has been learned, and keeping them excited about learning.

5. Community colleges should expand their involvement in recruitment of students, particularly minority students, into teacher education programs. The most effective recruitment will begin while the student is still in secondary school.

6. Community colleges should expand the professional development opportunities they make available to K-12 teachers, particularly in the science, technology, and mathematics areas. This focus should not be just on high school teachers.
The federal government is very interested in teacher education and the role of community colleges in teacher preparation and is putting a considerable amount of money into expanding the role of community colleges in teacher education. The state and all groups involved in the preparation of teachers should take advantage of available federal dollars to ensure that there is a seamless path from high school to teacher licensure—a path that integrates the strengths of community colleges and the four-year teacher preparation institutions and meets the need for many well-trained teachers.

The expanded role of the community college into remedial education, economic development, vocational education, provision of access to higher education, and service learning makes it more difficult to focus on the basic academic mission that once was their bread and butter. Community colleges play a crucial role in the education of many K-12 teachers. Institutional turfdom and philosophical differences must be set aside; there must be leadership from all areas of education focused on creating a teacher preparation program that integrates the strengths of the community college and the four-year institution and meets the need for two million well-trained teachers.

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