

**MULTIPLE MISSIONS OF COMMUNITY
COLLEGES: CONFLICTING OR
COMPLEMENTARY?**

Thomas R. Bailey
Community College Research Center
Teachers College, Columbia University

Irina E. Averianova
Community College Research Center
Teachers College, Columbia University

October 1998

Supported by the Alfred P. Sloan Foundation

For additional copies, please contact—

Community College Research Center
Institute on Education and the Economy
Teachers College, Columbia University
525 West 120th Street, Box 174
New York, NY 10027
(212) 678-3091 / (212) 678-3699 fax

ABSTRACT

From their beginnings in the early 1900s, community colleges have undergone a significant shift in their purpose and mission. Starting primarily as junior colleges with an emphasis on academics, the colleges are now complex institutions taking on a broad array of educational, social, and economic functions. Many community college advocates hail the comprehensiveness of these institutions, arguing that the ever-expanding mission meets a commitment to serve the changing needs of the community. But critics suggest that the colleges have abandoned educational missions that should form the foundation of a democratic society and squandered effort and resources in an attempt to “be all things to all people.”

This paper clarifies the underlying assumptions of both sides in this controversy and reports preliminary findings from a national study of the missions of community colleges. In the long run, additional missions and activities will successfully be carried out by community colleges when they are functionally associated with the core activities of the college and therefore can be carried out in the colleges more efficiently than by other organizations. That is, efforts at expanding missions will be successful to the extent that they are built on complementarities or economies of scope between core college functions—teaching academic and vocational courses—and other activities.

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INTRODUCTION

From their beginnings in the early 1900s, community and junior colleges have undergone a significant shift in their purpose and mission. Starting primarily as junior colleges with an emphasis on academic education, the colleges are now complex institutions taking on a broad array of educational, social, and economic functions. Many community college advocates hail the comprehensiveness of these institutions, arguing that the ever-expanding mission is an expression of a commitment to serving the changing needs of the community. But critics suggest that the colleges have lost their way, abandoning missions that should form the foundation of a democratic society, and squandering effort and resources in an attempt to “be all things to all people.”

Several emerging factors make an analysis of the optimal mix of functions in the community college particularly important at this time. Community colleges represent an immense public investment. More restricted public budgets have already put pressure on the colleges and indeed, the discussion of multiple missions often takes place in the context of fiscal pressures—should funds be spent on a new transfer guidance center or hiring staff to solicit training contracts from local businesses. Inefficient efforts to pursue too many goals may waste much of this money. Moreover, our society looks to community colleges to provide special access to higher education for many people who face economic and social problems. Critics of the community college argue that the proliferation of activities threatens that basic objective. And finally, technological and economic factors have changed the market for educational services. A growing number of for-profit competitors are beginning to take on some of the traditional functions of community college and as the colleges expand into new areas, they

often enter fields already crowded with providers. A better understanding of the relative strengths and weaknesses of community colleges in providing particular services can help the development of an educational system that is efficient within the broader constraints defined by the access, equity, and broad educational goals of society.

Advocates of both sides of this controversy have compelling arguments. On the one hand, it seems logical that excellence can best be achieved with a precise focus and a clear sense of mission. This is particularly true for educational institutions that work with students with serious educational and social problems. Other missions will probably bring higher status and more resources; thus the more difficult social objectives will inevitably be de-emphasized. On the other hand, community colleges have strengths and resources that give them some potential advantages in providing many of the functions that they have more recently taken on. And in many cases, the colleges can use strengths and skills built up in one function to build a solid foundation for new activities.

We do not try in this paper to resolve this controversy. Rather, we have two objectives. Our first is to clarify some of the underlying assumptions and to suggest a framework and a set of questions that can move us closer to a concrete analysis of the optimal set of missions for the colleges. Despite the passionate and long-standing controversy, little of the discussion is based on concrete evidence of the benefits or costs of combining missions and activities. Indeed, even convincing measurements of the relative magnitude of the various functions are scarce. Although we have information on the growth of various individual functions, most conclusions about the competition among those roles are based on logical arguments and inferences, rather than empirical data and information.

Our second objective is to report some preliminary findings from a national study of the missions of community colleges. This project will involve intensive fieldwork in ten community colleges and five public, non-selective four-year colleges, in five states. The project is designed to explore the extent to which the different functions and missions in the colleges are actually integrated or come into conflict. Although the data are still being collected, we can use the information that we already have in conjunction with our framework to begin to develop insights into the nature and consequences of the multiple roles of the colleges.

The paper starts with a brief discussion of conflicting-missions controversies in private firms, secondary schools, and four-year colleges. We then outline the arguments that have been used for and against the expansion of the mission of community colleges beyond its initial emphasis on academic preparation for transfer. In the following section we discuss what we see as the underlying issues that need to be addressed in order to come to a more systematic conclusion and we use our data to begin to explore those issues. We end by outlining a program for additional research.

CONFLICTING MISSIONS IN BUSINESSES AND EDUCATIONAL INSTITUTIONS

All organizations need to choose the combination of activities that they will pursue. The business world seems to bounce between shedding all functions that lie outside of a firm's "core competency" and searching for alliances or targets of acquisition that provide "synergy" or "economies of scope." For example, comprehensive super bookstores like Barnes and Noble have driven out smaller specialty book stores. At the same time, so called "category killers" in

retailing, such as Home Depot, have taken business away from both small neighborhood specialty stores and comprehensive department stores. In effect, Home Depot is comprehensive within its niche. Technological change also creates pressures on focussed strategies. Television broadcast companies have scrambled to get into cable and Internet communications.

Cross-subsidization of one function by another is also common in business, but any situation in which there is cross subsidization creates opportunities for specialist firms to move into profitable sectors. In the regulated telephone industry, long-distance customers subsidized local users, but with deregulation, specialist long-distance companies could lower long distance rates, taking business from ATT. Deregulation had the same effect on the airline practice of charging higher rates on popular routes in order to lower prices on sparsely traveled routes. Comprehensive service firms in law and business services are constantly spinning off specialty operations, often when employees leave to set up their own firms.

These few sentences cannot possibly do justice to the complexity of organizational issues in the private sector, but it is safe to say that focussed and broader strategies are pursued both successfully and unsuccessfully. The interesting questions do not involve whether firms will combine or separate functions but rather the conditions under which they will pursue which strategy.

All educational institutions are also searching for an appropriate focus. Many critics have taken aim at the comprehensive high school. Influential analyses of secondary education during the 1980s decried the development of the “shopping mall high school,” that had lost its focus and was unclear about its mission (Powell, Farrar, & Cohen, 1985). Many reformers are now calling for smaller high schools that have a particular focus or theme. Career academies, in

which the high school curriculum is organized around a particular occupational or educational theme, are growing all across the country. In New York City, career magnet schools, also organized around particular themes are oversubscribed as parents and students look for alternatives to the large impersonal neighborhood comprehensive schools. Other research has suggested that one of the advantages of Catholic schools is their clearer focus and sense of mission (Bryk, Lee, & Holland, 1993). Thus, current thinking in secondary schools suggests a move away from comprehensiveness.

But the same cannot be said for four-year colleges and universities. To be sure, there has been a long-standing controversy about the conflict between research and teaching in post-secondary education (Boyer, 1990, Cross, 1993). But complaints about teaching quality have not led to any significant shift in the values of higher education professional development and advancement. Other analysts of higher education have pointed out the potential conflict between a strategy that emphasizes pursuing prestigious activities such as federally-funded research and academic journal publication on the one hand and efforts aimed at maximizing the quality of service to the student-customer. Institutions that try to increase their prestige level must take resources from efforts to serve their customers (Brewer, Gates, & Goldman, 1998). But none of these analysts have questioned the comprehensiveness of the university. All of the most successful and selective universities are extremely complex organizations made up of dozens of schools, research institutes, departments, and other sub-organizations. Universities and their faculty enter into contracts with corporations, engage in various types of technical assistance and consulting, work on pure research as well as practical technological development, conduct extension and mid-career education, and perform many other functions. The land-grant universities in

particular have been engaged in agricultural extension for more than a century. These extension programs are considered one of the most successful examples of partnerships between universities and the private sector and many analysts believe that these partnerships are partly responsible for the phenomenal productivity of the agricultural sector. Moreover, universities such as Cornell, the University of Michigan, and the University of Wisconsin that are heavily involved with agriculture also have high prestige liberal arts and academic programs. Some of the functions of universities are challenged on specific grounds—should faculty or universities engage in proprietary research for corporations?—but no one has called for the dismantling of the comprehensive university or the wholesale shedding of functions in search of a university “core competency.”

Although four-year institutions of higher education may be considered bastions of liberal arts instruction, they also have an extensive and probably growing vocational emphasis. In the 1993-4 school year, 37 percent of all bachelor's degrees were awarded in business, health, and education, while only 28 percent were awarded in social sciences, history, religion, philosophy, biology, physical sciences, English, mathematics, and foreign languages.¹

These examples illustrate the complexity of the problem of organizational design. In all organizations, there are centralizing and fragmenting forces. Certainly, under some circumstances some objectives can be advanced by either focussing or by taking on more functions. Moreover, some objectives or interests of different constituencies are served by one approach while others are best addressed by another. One of the main objectives of this paper is to work towards

¹ These data are calculated from the Integrated Postsecondary Education Data System (IPEDS).

a conceptualization that can help sort out the underlying forces that push the community college towards focus or comprehensiveness.

PERSPECTIVES ON THE CONTROVERSIES ABOUT COMMUNITY COLLEGE FUNCTIONS

In this section, we will review some of the current arguments about the missions and functions of the colleges. These missions include academic, education, occupational preparation, remedial education, customized training and other economic development activities, and community service.

The Collegiate or Academic Function

Many community college analysts and supporters still consider providing transferable liberal arts education as the core function of the colleges. It is through this function that community colleges realize their mission as the nation's primary site of equal access to higher education (Eaton, 1994, 1988; Cohen & Brawer, 1996; Brint & Karabel, 1989).

The collegiate community college is an extraordinary way for a democratic society to provide the best of higher education to as many people as can reasonably benefit. It is a profound statement of the unique value this country assigns to the individual and of its faith in the future. As a collegiate institution, the community college is unparalleled in providing, sustaining, and expanding educational opportunity and accomplishment within the society. (Eaton, 1994, p. 5)

Some critics question the occupational and especially the community service roles of the colleges to the extent that those multiple roles detract from the effectiveness of this collegiate function.

Gradually, however, the primacy of this mission was lost in the growth of a variety of additional educational and quasi-educational programs and services, thus transforming community colleges, in Eaton's (1994) opinion, as a crucial site of higher educational opportunity to an ambiguous site of quasi-educational opportunity.

In most discussions on the decline of academic function, the major cause of this process is perceived to be the expansion of vocational education. The argument about academic versus vocational function has become more common as the vocational role of community colleges began to accelerate in the 1960s. Liberal arts enrollments and transfer rates began a steady, ongoing decline during 1960s and 70s as course offerings narrowed and the institutional goals of the community college and its relationships with external organizations began to reflect the primacy of the college's vocational function (Cohen & Brawer, 1996). Studies from 1980s and 1990s suggest that transfer rates for those entering community college soon after high school linger around 20-25 percent (Grubb, 1991; Adelman, 1989). Concern about transfer rates made thirty states establish guidelines for the reinforcement of this function of the community colleges (Eaton, 1994). Community college staff in these and other states continue to search for better articulation policies between 2- and 4-year institutions (Bender, 1990).

Various studies marshal evidence for the negative impact of vocational education on transfer rates. According to this view, an accent on vocationalism draws the students into programs that largely do not encourage transfer. At the

same time, vocationalism demoralizes the academic programs that encourage transfer (Dougherty, 1994). Advocates of the academic function of community colleges state that emphasis on career programs reduced transfer programs to introductory courses. Brint and Karabel (1989) think that this function has changed the entire mission of community colleges and turned them into vocational schools for low and middle class occupations thus limiting students' opportunities for advancement. An institution established to "level up" disadvantaged segments of society has leveled down the critical literacy skills required for the degree programs. Clark (1960), in his classic work on the community college suggested that the colleges played a functional role in adjusting (down) the expectations of students so that they would be consistent with the realities of the labor market. As the mission of the community colleges evolved to meet a broader range of needs, the earlier emphasis on liberal education and on the transfer function appeared to take a back seat to the newer demands: vocational mission "eclipsed" the emphasis on transfer and liberal education (Wechsler, 1968; Katsinas, 1994).

Vocationalism, designed to prepare students explicitly for work, is perceived to be in conflict with selective academic education. This perception, for instance, serves as a major argument of the opponents of the merge reform disputed now in Louisiana. Resisting the legislative decision to create a 50-college system which would unite all two-year schools the technical colleges fear that they will be turned into "academic" institutions, while community-college advocates see the "vo-techs" as a menace to quality education. Eaton argues that it is only under the dominance of academic function that the coexistence of these two facets of community college's mission is possible. Collegiate orientation will also ensure overall comprehensiveness of the community college with its long-

standing commitment to transfer, vocational, and community-based education and training (Eaton, 1994). Lucas (1996) maintains that the academic orientation, which is directed primarily towards transfer of students, is the particular niche of community colleges and the basis of their legitimacy. The conviction of the advocates of the collegiate function, however, cannot disguise the steadily increasing strength of vocationalism in the community college's orientation and its transformation into a "collegiality" of its own.

The Vocational Function

While some of the critics advocate shoring up the academic mission of the community college by de-emphasizing subsidiary functions (Wechsler, 1968; Pincus, 1994; Dougherty, 1994; Brint & Karabel, 1989), others (Blocker, Plummer, & Richardson, 1965; Grubb, 1996) promote an emphasis on the vocational mission. A growing number of policy makers and business leaders look to occupational education at the community college as a key site for building the work force for the next century (Chronicle of Higher Education, May 1, 1998). Indeed, Leitzel and Clowes (1991) consider vocationalism to be the most important distinctive niche of community colleges within the system of higher education. Clowes and Levine (1989) argue that career education is the only viable core function for most community colleges.

According to Grubb, the colleges and their role in society are not served well by the continued criticism of the vocational function and a strong emphasis on transfer and academics: "One implication for community colleges is that they need to take their broadly defined occupational purposes more seriously ... They are not academic institutions ... even when many of their students hope to transfer to four-year colleges" (Grubb, 1996, p. 83). He argues that: (1) The emphasis on

academic education implies that there is only one valued postsecondary institution, defined by the research university; (2) community colleges cannot win the academic battle because they are not selective, (3) community colleges mostly fail in large transfer numbers, therefore their clientele is left with outcomes of uncertain academic value.

The distinction between the academic and occupational functions of the colleges is further obscured by the apparently increasing number of vocational students who transfer to four-year colleges. The growing role of community colleges in training workers, serving business needs, and broadening access to higher education through vocational education has brought some states to considering the possibility of granting some community colleges the right to offer four-year baccalaureate degrees in vocational programs that universities decline to offer. Drawing on data from a 1986 survey of over 7500 community college students, Palmer (1990) points out that 60 percent of all vocational community college students were in program areas that were also offered in four-year colleges. The discussion in Arizona about offering four-year degrees at community colleges has attracted particular attention. "I see the need emerging in Arizona and across the country for an incremental increase in scope of the community-college mission," says Donald E. Puyear, executive director of the State Board of Directors for Community Colleges of Arizona (*Chronicle of Higher Education*, January 16, 1998).

Strong financial pressures also push the colleges towards an emphasis on the vocational mission. According to Cohen and Brawer (1975), job training has always been supported by ample funds. Further increase in this support is expected in the near future from computer giants Microsoft Corporation and Apple who expressed their interest in helping community colleges to meet

employers' increasing demands for workforce training in information technology. Other companies have unveiled similar programs recently in an effort to help fill a nationwide shortage of workers with computer skills (Chronicle of Higher Education, November 14, 1997).

Community colleges have increasingly turned to workforce development as state funding and academic enrollments have leveled off or declined. An emphasis on training to enhance the competitiveness of the state's economy has proved to be a convincing argument in state capitals. "We have a keen need to adequately train a work force and have jobs created," said Louisiana Senator John L. Dardenne advocating his plan of merging all two-year state schools into one system (Chronicle of Higher Education, May 1, 1998).

The growing effort to integrate academic and vocational education is another reason why the distinction between the academic and occupational missions of the college could potentially be blurred. More ambitious forms of integration would provide a strong academic base for all occupational programs while academic skills can be effectively taught through applications to specific content areas (Grubb, Davis, & Lum 1990; Perin 1999; Adelman, 1989). According to this perspective, occupational programs may provide the best vehicle for teaching the academic skills needed to transfer. The supporters of integration point to cognitive (vocational context enhances academic skills learning) and motivational (concrete occupational contexts can give students a reason to learn academic skills) benefits. Analysts also contend that the narrow vocational training is no longer adequate for the contemporary workplace and that workforce preparation therefore needs to include a strong academic foundation (Berryman & Bailey, 1992). Thus, students planning to transfer and those

expecting to work after completion of a terminal occupational degree need much the same set of skills.

Contract Education and other Economic Development Activities

Expansion of community colleges ' functioning into business area which Dougherty and Bakia (1999) called "the new economic role" of the community college introduces still further challenge to the original mission of this institution. Grubb and his colleagues contend that these new functions, which he refers to as the entrepreneurial college, are potentially in conflict with the functions of the traditional college. The basic purposes of the community colleges, such as commitment to quality of teaching, to equity and nontraditional students, and to a range of academic as well as occupational offerings are less important in the entrepreneurial college (Grubb et al., 1997). Contract training is also a drain on the limited resources, as only 42 percent of the total revenues received by colleges for contract education comes from the employers, while the remainder is taken primarily from state and local funding and student tuition (Lynch, Palmer, & Grubb, 1991).

Secondly, contract education is not well integrated into the other functions of the community college. Contract education has the potential to strengthen the communication between employer and education providers, yet this potential is not realized (Grubb, et. al. 1997). As a result, contract education is isolated from regular vocational programs, does not involve regular community college faculty (Lynch, Palmer, & Grubb, 1991; Jacobs, 1992), and is mainly focused on the needs of business rather than education. Similarly, Dougherty and Bakia (1999) point to the possibility of a growing contradiction between new and old functions of community college and a loss of its educational ethos. They perceive that the

growing economic roles may weaken the commitment to traditional educational values and erode the traditional functions of transfer and remedial education.

At the same time, some community college personnel suggest that contract training and other non-credit functions could enhance the credit programs. Relationships with businesses developed through entrepreneurial functions could be useful in enhancing the core occupational programs. Indeed, Jacobs and Teahen (1997) suggest that "the traditional credit instruction becomes stronger and grows when the Shadow College (Jacobs's term for the non-credit services of the colleges) exists and its potential is maximized."

Remediation

Remedial education is an increasingly important function of community colleges. According to Grubb and Kalman (1994), estimates indicate that between 25 and 78 percent of community college students are enrolled in some kind of remedial course. And according to the US Department of Education, remedial or developmental education is encroaching on efforts and resources and shortchanging other programs (McGrath & Spear, 1991). This trend is likely to increase as public four-year colleges and universities, struggling to cut costs and refurbish their image in the eyes of legislators, are dropping the task of remediation and leaving it to two-year colleges. A number of state and large urban public college systems in Florida, California, Massachusetts, Georgia, Texas, Virginia and New York City are considering or have begun to implement policies that would locate all remediation within the community college sector (Shaw, 1997).

Many community college administrators and scholars, though, argue that, given the problems in secondary schools and the social mission of the colleges,

remediation must continue to be central to the activities of the colleges. Cohen and Brawer (1996) point out that community colleges are the only post-secondary institutions willing to continue to provide this increasingly necessary function. In Langhorst's (1997) vision of lifelong education at community colleges, remediation is a necessary consequence of providing access for nontraditional students.

However, the trend towards contracting with private companies to provide remediation may reduce the community college's direct participation in this activity (Dougherty, 1998). Remedial education is becoming big business as companies, such as Kaplan and Sylvan Learning Systems, are designing, overseeing, and in some cases teaching remedial courses for the students of some colleges. The representatives of these companies say that they can speed up the remedial process and save money. More colleges will become interested in this option if these companies can provide the instruction for less money. Still other educators are concerned that a significant shift to short-term remediation contracted to specialized firms will make it even more difficult to improve the quality and raise the retention rates of remedial programs.

Community Service Function

Controversy has long surrounded the community service function of the community college. Unfortunately, participants in this controversy are often unclear about their conceptions of this function. In some cases community service might involve providing space for activities or teaching fitness and purely avocational courses. In other cases, it appears that authors see all activities outside of the core degree granting courses as falling into a community service category (thus this would include contract training and economic development functions).

One particularly controversial area concerns using the college's facilities, staff, and resources to address a variety of social problems.

Whatever the definition, strong beliefs are held by those on both sides of the debate. On the one hand, some commentators contend that the community college should take a wide and aggressive view of its activities. Indeed, it should seek a variety of ways to serve the community (Boone, 1992; O'Banion & Gillett-Karam, 1997). On the other hand, this function has drawn sharp criticism from analysts who see that it conflicts with the basic educational missions. In an early articulation of this perspective, Cohen and Brawer (1975) stated that the community college is not a house for independently functioning agents of community uplift but a school. "The colleges would do better to accept the idea of no growth and use the time to improve what they have. The repeated calls for a 'new mission' are a debilitating diversion" (p. 164). Similarly, the Committee for Economic Development (1994) stated that "schools are not social service institutions and they should not be asked to solve all our nation's social ills and cultural problems. State and community agencies, not the school, should pay and provide needed social services" (p. 2).

Even the advocates of a broader social role for the colleges, such as O'Banion and Gillett-Karam (1997), recognize the lack of reliable sources of funding for college social service activities and that faculty are already overwhelmed with dealing with underprepared students. Since present resources are not even sufficient to support present priorities, then without new sources of funding, it will be difficult to expand much into activities that address community needs.

UNDERLYING ISSUES AND ASSUMPTIONS: A FRAMEWORK FOR ANALYZING THE CONFLICTING-MISSIONS CONTROVERSY

In this section we return to some of these arguments and identify the underlying elements that create conflict or on the contrary, suggest that multiple functions might be complementary. We draw on material from our fieldwork to illustrate some of these points.

One of the most common arguments is that new functions will draw resources away from the traditional core activities of the colleges. This is a potentially serious problem in a period of fiscal restraint when state and local governments are putting pressure on colleges to reduce the costs of all of their activities. During the 1980s, federal funding decreased for higher education while enrollments increased. This change has put state governments in a position of having to pay more for higher education at the same time that the public has become increasingly resistant to increased taxes. Yet at the same time, the states expect more from the community colleges. "Community colleges for the most part are the most underfunded segment in higher education," said Representative Cindy Empson, chairwoman of Kansas Committee on Community College Governance. "They've grown beyond a community role to fulfill a statewide role. It's time the state recognizes these colleges and funds them accordingly" (The Chronicle of Higher Education, November 14, 1997). But unless this additional funding is forthcoming, trying to spread a fixed level of resources over a larger number of activities will eventually lead to a reduction in quality. Thus in their analysis of community college financing, Breneman and Nelson (1980) after predicting growing fiscal pressures on the colleges, argued that the "most fundamental choice facing community colleges is whether to emphasize the community based learning center concept, with an emphasis on adult and

continuing education and community services, or to emphasize transfer programs, sacrificing elsewhere if necessary ... It may no longer be possible to have it both ways" (p. 114).

The underlying assumption of this argument though is that resources are limited. But in many cases, community colleges introduce new programs or functions precisely because they are expected to generate new resources. Many non-credit programs, both in community service and in economic development, draw on special state or federal funds. For example, many states provide resources for skill upgrading for particular companies. These resources do not come out of the normal funds available for the core activities. Thus, in one of the Texas colleges that we have studied, the participation of the college in "Smart Jobs" and "Skills Development" programs generated over \$10 million. Several of the colleges that we have visited have received federal resources to fund advanced technology centers, tech prep programs, job training for disadvantaged students, and many other activities. Furthermore, if the colleges are involved in high-profile activities that are perceived to make the state's labor force more competitive, then state legislatures may be more willing to provide more base funding. And many community college officials hope that customized training will generate revenues and in-kind assistance (such as equipment) directly from the private sector (Dougherty & Bakia, 1999).

Thus, a proliferation of roles will reduce resources available for each role if resources are fixed or if any of the new roles require cross-subsidization from the traditional roles. Moreover, new roles may actually generate surpluses, thereby increasing resources available for the core activities. Indeed, many focussed programs at universities are explicitly designed to generate surpluses to

support less marketable educational functions. The executive education programs at business schools are the most obvious example.

The pattern of short-term and long-term costs and revenues for each function is another factor that will determine the extent to which additional functions will draw resources away from core activities. It may be possible that a new function may absorb resources in the short term while generating a surplus or at least paying its own way sometime in the future. Questions about this will be different than those about programs that will never generate revenues equal to their costs. The latter requires a permanent cross subsidization while the former needs some venture capital.

Therefore, the expansion of institutional missions and functions, even in an era of public fiscal restraint, does not necessarily imply that traditional activities will lose resources. This is an empirical question and despite the extensive discussions about the dangers of role proliferation, we know of no systematic attempt to measure the effects of particular community college functions on the resources available for other functions. In order to do this, analysts will have to gather data on the short- and long-term costs and the amount and sources of revenues for each function.

In addition to financial resources, there are more intangible resources that could also be spread too thin if the colleges take on many functions. Managerial attention is one important possibility. If presidents are focussing on building up the economic development functions, then they have less time to spend on enhancing the transfer programs. At one college in Florida that we visited, we did find that the build up of the welfare-to-work program absorbed an inordinate amount of time of some of the college's top administrators. The dean for Workforce Development also had responsibility for the academic programs of the

college, but she said that she was devoting over one half of her time working on the welfare program. Because of the heavy involvement of some administrators into workforce programs, this college decided to start time-determination project to keep a more accurate track of the labor investment into designated programs. The leadership's perceived priorities, however they are articulated, can have an influence on the energy and enthusiasm with which the staff approaches a problem.

A similarly intangible factor has to do with clashes between institutional cultures. Critics of economic development activities in community colleges point out that officials in these colleges often state that they are trying to serve their customers as businesses do, rather than as educators. The interests of businesses are not the same as society's interest in having a broadly educated population. The culture of education presumably promotes inquiry, imagination, skepticism, and a search for a deeper understanding of society, while a business culture emphasizes skills necessary to achieve results. These may not be the same. Notions about changes in the nature of work suggest that businesses increasingly want workers with characteristics generally associated with an academic education, but there are still many workplaces where this is not characteristic.

Critics of the growth of remediation and community service activities in community colleges make a similar point. If the college is particularly associated with programs for students with serious educational or employment problems, then students may have more trouble seeing the community colleges as sites of educational excellence and employers may be skeptical about the skills and abilities of graduates. Some research has shown that training and wages subsidy programs that are strongly identified with underprepared clients tend to be looked at skeptically by employers. Vocational education in high school has also taken

on a stigma as a place for students who are not successful in regular programs. The point here is that perceptions about some activities may influence perceptions about the entire institution even if there is little concrete relationship between the activities. But like the managerial-attention argument, the cultural-clash criticism is difficult to assess.

So far we have emphasized the arguments that suggest that additional functions may reduce commitment or resources devoted to the traditional missions of the community college. But additional functions, in most cases, also generate additional revenue and can actually increase the resources available for core activities. Nevertheless, this does not explain why community colleges should take on new activities. New functions that could pay for themselves could also be carried out by other organizations. Activities that can create surpluses would be particular targets for competitors—if a community college is using surpluses from customized training to pay expenses for degree programs, then a private firm would have a strong incentive to provide the training without using it to cross-subsidize other activities and therefore charge a lower price. (Of course, if the public sector were subsidizing the contract training, then the college would still be buffered from competition.) Even if new activities do not generate surpluses (and therefore are less likely to attract competitors); the colleges still have coordinating overhead costs that stand-alone organizations would not have to incur.

If we assume that a college has two functions and that R_1 and R_2 represent the revenues generated by each function and C_1 and C_2 represent the costs associated with the two functions, then the alternatives can be illustrated by the following equations:

$R_1 \geq C_1$ and $R_2 \leq C_2$, but $R_1 + R_2 \geq C_1 + C_2$ Cross-subsidization

In this case, program 1 generates a surplus that is used to pay for program 2 which, on its own, would not pay for itself. This situation creates a strong incentive for an alternative institution to provide program 1. This may explain why private firms such as Kaplan have been so interested in providing remediation. Apparently, remediation generates a surplus at many colleges, which is used to subsidize other activities. Thus, Kaplan could potentially charge less and still generate a profit.

Alternatively, each program could pay for itself:

$R_1 \geq C_1$ and $R_2 \geq C_2$ Independent programs

In this case, although each program pays for itself, there is no financial reason why both should be done by the same institution. Thus if the revenues for one or both are higher than the costs, then other providers may have an incentive to enter this market.

Finally, the case that is most favorable for the community college is the one in which programs are complementary:

$R_1 < C_1$ and $R_2 < C_2$, but $R_1 + R_2 \geq C_1 + C_2$ Complementarity

In this case, standing alone, the costs of the programs would exceed their revenues, but by combining them, the joint revenues exceed the joint costs. These are the types of situations that the colleges, and the public that is financing the college's operations, need to find. Potential competitors do not have an incentive to offer any of these services and both programs benefit from being offered jointly with the other.

This discussion of the underlying factors that determine the extent to which missions and functions conflict or reinforce each other suggests a series of questions that can help determine the optimal mix of activities at the community colleges from the points of view of the individual colleges, the public, and the students:

1. What is the magnitude of the various missions carried out by the colleges?
2. What is the funding source for each mission?
3. Do the activities pay for themselves, require a cross-subsidy from other activities, or generate a surplus? This needs to be answered for both incremental costs as well as fixed costs such as space and administrative overhead.
4. If any activity does not pay for itself, are the extra costs expected to be permanent or temporary?
5. What are the relevant competitors for each activity, especially those that can pay for themselves or generate a surplus?
6. To what extent is managerial attention focused disproportionately on any particular function?

In the long run, additional missions and activities will successfully be carried out by community colleges, not necessarily because they can generate surpluses, but because they are functionally associated with the core activities of the college and therefore can be carried out in the colleges more efficiently than by other organizations. That is, successful efforts at expanding missions will probably be built on complementarities or economies of scope between core college functions—teaching academic and vocational courses—and other activities. Below we will review the arguments for complementarities raised either explicitly or implicitly in our earlier discussion of the relationship between

the various missions of the colleges and develop some insights from our fieldwork.

Integration of academic and vocational education: Advocates of integration argue that it could strengthen both the academic and vocational missions of the colleges. Integration can be done either at the program level or at the course level. Program integration is the easiest to do and it involves primarily having occupational students take core academic courses that also meet requirements for the academic/transfer students. The college's ability to do this is often determined by state regulations having to do with whether credit for particular courses can also count towards completion of a four-year degree. In some states, courses required for occupational degrees or certificates cannot be transferred. This thwarts any efforts at program-level integration.

Course-level integration is much more ambitious. Such efforts are based on the idea that both academic and occupational instruction can be more effective if they are carried out together. Occupational students need to have a strong academic foundation and a better understanding of the academic material which can be achieved if it is learned in the context provided by the occupational setting. This can be done in a variety of ways, but typical approaches involve interdisciplinary courses or explicit pairing of specific academic and vocational courses. Our own fieldwork has found very few examples of this course-level integration. Research carried out by Dolores Perin (1999), in which she specifically sought such models, suggests that they are indeed rare. Moreover, in many cases in which the professors try to carry out integrated instruction, they do it at a rudimentary level.

Integration of remediation with core academic and vocational programs education: If remediation is best accomplished as a stand-alone

function, taught in the abstract without a specific context, then it may be most efficiently carried out by specialized organizations. But if deficiencies in basic skills can be more effectively addressed within the context of broader coherent programs of study in either vocational or academic areas, then it may be important to keep remediation within community colleges. But our research suggests that this type of integrated instruction in remediation is rare—indeed, we have found only a few examples of it in the five colleges that we have visited so far (two of those colleges had four campuses each). It should be noted, however, that the legislative regulations in many states prevent this kind of integration by requiring students to complete developmental courses before they are eligible to enroll in any regular credit course. On the other hand, for most of the colleges, the remediation programs were a main source of student enrollment. Of course, if students are not prepared for college level work, something must be done to help them get up to an appropriate level. Thus, the core programs would at least be operating at a much lower level without remediation. Notwithstanding this argument, it has been proved that segregation of remedial education from the professional or degree-oriented content will significantly decrease the motivation of most of the students to go through developmental courses and will eventually result in higher dropout rates.

Coordination between degree programs, customized training, and technical assistance: Community colleges may be particularly well prepared to provide technical assistance if those substantive areas are already included in core degree programs. We have certainly found examples in which the colleges have drawn on expertise from their core programs to design customized training. In some cases, the core faculty also teach in these programs, often as extra work taking place in the evening or on weekends. In some cases, customized programs

are actually organized as degree-granting programs and are formally incorporated into the core activities of the college. On the other hand, customized training, for the most part, remains a small and separate activity. In our sample, it accounts for well under five percent of the college's revenues and it usually has little to do with the degree programs. Often these programs are much shorter than regular credit-bearing courses and the contractor rarely sees a need for general education components. In many cases, the colleges must find teaching staff for the programs outside of their permanent faculty. Thus in most cases, the most important overlap between the customized programs and the regular college offerings comes through joint use of buildings and sometimes equipment.

Multiple benefits to relationships with local businesses and other institutions: When community colleges develop relationships with local businesses through customized training or other activities, those relationships may also be useful for other activities. These might include providing support, assistance, internships and job placement for the regular degree programs. Community colleges that provide assistance in implementing new technology may then be able to provide the training necessary to use that new technology. Although we did find examples of all of these types of activities, political support was the most important benefit of stronger ties with business. Engaging in politically popular activities such as workforce development can build political support for all of the college's functions. Since community colleges are funded primarily by state and local public funds, this form of political cross-subsidization may be more important than economic cross-subsidization based on generating surplus revenues through charging fees for economic and workforce development functions. Indeed, in one case in Texas, with the strong and active support of local businesses, a college was able to double its local tax support. Through its work

with a large regional company, a college in New England was able to convince the state legislature to purchase an extra building and provide on-going funding for maintenance and operations. That building has now become the base for several credit and non-credit programs designed to serve local and regional businesses.

Student recruitment and demand: Students who get to know the colleges through one function, such as customized training or welfare programs, may be more likely to enroll in other programs offered by the colleges. Moreover, many college students enter school without a clear idea about what they want to do. A comprehensive institution gives students a chance to explore a variety of options. One college in Florida with a large welfare program was able to recruit many of the graduates of that program into their regular degree programs. Out of 400 students enrolled in the college as welfare recipients, 40 percent were in vocational certificate programs and 20 percent in AS two-year degrees. In Texas, three quarters of the students who completed a customized training program in computers ended up in the degree program. Continuing and adult education has always been emphasized by the community college practitioners as a powerful way for recruitment through exposing nontraditional student populations and their families to college opportunities. We have already discussed the importance of remediation as a source for prospective students.

Orientation towards a more competitive educational market: Over the last few years, more private firms have looked to the educational marketplace for potential business opportunities. Although it is not clear yet exactly what influence this will have on community colleges, they are already facing new competitors. Working with businesses in customized training and economic development projects may help the colleges to learn to adjust to the new market

context (Jacobs, 1987). It is difficult to evaluate the strength of this influence. The colleges that we have visited have made some reforms to make their core programs more flexible and convenient. Awareness of the competitive educational market underlines the thrust of the administration of many colleges to change the whole culture of the institution towards customer-oriented functioning. However, this move away from a traditional delivery of educational services often meets the opposition of the full-time tenured faculty perpetuating traditional schedules and formats.

CONCLUSION

Community colleges are increasingly taking on a variety of functions. By trying to respond to any emerging educational needs often ignored by other institutions, community colleges have undergone a profound shift in their original niche in higher education. Community colleges are still crucial providers of educational opportunity and access for minorities and other disadvantaged groups to higher education. They have developed and extended their vocational function because both employers and students look to them to provide a wide range of skills increasingly needed in the labor market. They provide remedial education because the clientele they serve is the most likely to be lacking basic literacy skills necessary both for academic and vocational education. As publicly funded institutions, they are expected to provide a variety of community services. They need to develop entrepreneurial functions in search of new revenues to make up for increasingly scarce state resources. These functions of community colleges contribute to a unique face of this educational institution and define its unprecedented social and economic significance. No other institution has demonstrated so much flexibility in adapting to the community's needs. Each of

the functions is justified by the existing demand and serves certain groups of consumers.

However, within the context of one institution, these functions are in conflict if they are based on insufficient resources or are not properly integrated. And critics continue to call for a sharper focus and viable determination of the college's core competencies and market niches. Whether the community colleges choose to focus on a junior college model, a vocational training model, or another model, they should focus on doing less, doing it for fewer students, but doing it better than they have been doing (Phelan, 1997).

Community colleges are probably not going to significantly restrict their activities. There is too much enthusiasm and political support for many of their new functions and the trend in the last decades has clearly been towards comprehensiveness. But even within the broad framework of comprehensiveness, each institution needs to decide how to focus its efforts. Moreover, our research so far reveals that few colleges have achieved anywhere close to the potential for integrating their diverse activities. As a result, they are not taking advantage of possible complementarities and economies of scope.

So far, much of the extensive discussion about community college missions has been based on logical arguments and speculation. Words such as "could" and "may" dominate the controversy. Few analysts have documented the benefits or disadvantages of combining a variety of activities or have been able to show the extent to which these activities are integrated or not. To be sure, researchers and administrators face difficult data and methodological problems. Nevertheless, it is only with this type of information and analysis that the colleges will be able to arrive at a clear understanding of the most effective and appropriate mix of activities and functions.

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