Center for American Progress

Re-imagining Community Colleges in the 21st Century

A Student-Centered Approach to Higher Education

Brian Pusser and John Levin   December 2009

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Executive summary

Contemporary community colleges are on the brink of crisis, facing both praise and criticism on so many dimensions that it is difficult to make an overall assessment of their legitimacy. Each of the primary missions of community colleges faces a broad spectrum of challenges, made more complex by misapprehensions about the various roles of community colleges, lack of clear and consistent data on outcomes, and the relative weakness of the institutions and their students in state and federal political and policymaking processes. And the diversity of inputs and outputs in community colleges defies easy categorization. Their identity in the media, in the policy community, and in the institutions themselves is problematic, contingent upon perspectives and contexts.

Community colleges provide benefits to an array of constituents, but we argue that their primary responsibility is to students. There is an essential need for community colleges to re-imagine several critical areas in order to serve these students and improve institutional and student performance on a number of fronts: in curricula, including vocational and occupational education, developmental education, and university transfer education; in the structural and procedural norms that shape everyday activities; and in the political life of these institutions.

The transformation and recovery of the institutions begins with a more nuanced understanding of the needs and potential of the diverse student body that community colleges serve and leads to re-envisioning the institution. A student-centered approach to each of the colleges' primary missions will enable institutional leaders and constituents, in collaboration with policymakers, to improve outcomes for all students and achieve synergies between and among the three fundamental areas of community college activity: developmental education, vocational-occupational education, and university transfer.

Re-imagining community colleges necessitates recognizing the connection between students who attend these institutions and the advanced learning and working environments beyond the community college. We try to bridge a gap between the two conditions with a direct approach that fits form to function: one that enables institutions to better understand a function and then to construct appropriate forms—or structures—for those functions. To do this, we think of community colleges as institutions with multiple missions and also imagine community colleges with organizational and governance structures that are aligned with multiple functions.

These functions must focus on students. Placing students at the center of the institution requires re-imagining community colleges as sites of equitable opportunity and outcomes. Political leaders and policymakers will need to move past normative understandings of community colleges and their students and expect no less of these institutions and no less for their students than the best that is offered to students at any level of postsecondary education. To accomplish this, we offer a number of recommendations for transformation in vocational and occupational education and training, developmental education, and the transfer function. We also suggest specific institutional, state, and federal policies that will facilitate that transformative change:

- **New approaches to training and credentialing.** Rapidly shifting demand for skills in state and national labor markets calls for new approaches to sub-baccalaureate training and credentialing. States and federal legislation should support innovative, credit-based training programs that respond to student and industry needs, while allowing students to build credit-based platforms for future training and degree attainment. Legislation should also support data collection and assessment of student credit and noncredit course-taking patterns to assist institutional adaptations in this area.

- **Funding for colleges and financial support for students.** Community colleges suffer from a lack of the financial resources needed to serve their students and other constituents. This problem is brought into focus when comparing community colleges' per student allocations to similar programs in four-year institutions. The increase in the maximum Pell grant available under Section 101 of H.R. 3221 is a welcome addition to the pool of financial aid available to eligible community college students. But students in community colleges need new and more comprehensive forms of aid if national goals for degree attainment are to be realized. This section of the bill could be strengthened through the creation of an additional financial support program modeled after the "Post 9/11 G.I. Bill." The additional aid would include student stipends for full-time or part-time community college attendance and allowances for books and supplies. This form of aid would be a bold step for legislators, but in order to improve our position in global rankings of degree production, we will need to do more to approach the amount and forms of aid offered by those nations we are measured against.

- **Policies to promote developmental education.** States have for too long failed to develop clear policies on responsibility for developmental education. States must institute clear policies that support innovative uses of data, as they require collaboration between their elementary-secondary and postsecondary systems to improve K-12 preparation and to align standards for high school graduation with college readiness. The goal should be to significantly reduce the need for postsecondary remediation through early assessment, intervention, and continuous accountability at all levels of state educational systems.

- **Higher transfer rates to four-year colleges.** Despite considerable effort already generated in legislatures, the policy community, and institutions, levels of transfer from com-

munity colleges to four-year institutions can be improved. Legislation that has focused on articulation, outreach, and finance should be augmented with policies covering more sophisticated data collection, common course numbering, institutional policy alignment across segments, joint-baccalaureate programming and technology-mediated information systems for students seeking transfer and baccalaureate attainment.

- **More modern infrastructure and technology.** Section 351 of H.R. 3221 the Student Aid and Fiscal Responsibility Act offers considerable federal assistance for construction, renovation, and modernization of community college facilities, including information technology facilities. The language in the bill that supports expansion of computer labs and instructional technology training facilities should be broadened to include building institutional information technology systems such as student record data management centers, information portals for student outreach, and course and credit articulation. Extending support to institutional information management systems would be consistent with Section 503 of the bill, which calls for increasing students' electronic access to information on transfer credit, and Section 505, which calls for developing improved data systems and data-sharing protocols as well as increasing states' abilities to collect and analyze institutional level data.

- **Better data collection.** Section 504 of H.R. 3221 includes language requiring states that seek eligibility for funding to have "a statewide longitudinal data system that includes data with respect to community colleges." Community college data collection could be significantly enhanced if the bill specifically called for data on student enrollments in credit and noncredit courses as well as developmental education programs. These data could be used for improved outcomes in community college developmental education programs, and would also have considerable utility for collaborative efforts with elementary-secondary systems designed to reduce the need for remediation at the postsecondary level.

- **Common standards for assessing student learning and institutional effectiveness.** Given the significance of developmental education in community colleges and the increasing mobility of students, federal legislation providing funding and guidelines for states to develop common standards for assessing students' developmental needs would enhance student progress and increase institutional effectiveness. Such legislation should also provide incentives for collaboration between elementary-secondary and postsecondary systems in the development of common assessment standards.

The rapid pace of change in the education arena requires innovative approaches to institutional practices at every level. New competition and new opportunities demand that community colleges re-imagine their goals and practices to better serve student needs. That process will require that policies specific to the various domains of the community college—transfer, occupational, and developmental activities—place students first. Institutional policies should also focus on new forms of collaboration with four-year institutions, community-based organizations, and business and industrial partners.

The essential functions of America's community colleges

Community colleges in the United States have been described many ways over the years, as "democracy's college," the "open door college," and the "people's college." It would now seem appropriate to add "the crisis college" to that list. Many community colleges today face a funding crisis, enrollment growth that strains capacity, unsustainable rates of developmental education, unpredictable shifts in labor market demand, growing competition for enrollments and revenue from for-profit providers, and a loss of leadership of daunting proportions through retirements.[1]

But perhaps more important is that community colleges acutely experience crises in the broader political economy, including global recession, the continuing privatization of the public sector, and the changing character of the knowledge economy of the 21st century. This is because they are predominantly public institutions with student bodies that are generally less affluent than other institutional types, have low endowments, and are exceptionally dependent on legislative support.[2]

Postsecondary education, and community colleges in particular, will require significant reorganization in the coming decades in order to be as effective going forward as they have been since their emergence in the latter part of the 19th century.

We revisit in this report the essential functions of community colleges with a specific interest in transformation through innovation and imagination. Our contention is that each of the primary missions faces an array of challenges, made more complex by misapprehensions about the various roles of the colleges, lack of clear and consistent data on outcomes, and the relative weakness of community colleges and their students in state and federal political and policymaking processes. Yet community colleges are extraordinarily important sites of opportunity for individuals, communities, and the nation. It is therefore imperative that the institutions and their constituents, policymakers, scholars, practitioners, representatives of business and industry, and other stakeholders collaborate in support of the renewal of these essential institutions.

Community colleges provide benefits to an array of constituents, but their primary responsibility is to students, and re-inventing these colleges can only take place with the needs and realities of students as the lodestar for transformation. A more nuanced understanding of the needs and potential of the diverse array of students that community colleges serve should be at the core of the essential changes in curricula, vocational education,

provision of developmental education, general education and transfer function, structural and procedural norms that shape everyday activity, and political life of these institutions.

Many of the assumptions made about community college students and the institutions that serve them bear little resemblance to reality. Community college students have varying life circumstances, the overwhelming majority is at an economic level where they must work, and half of community college students work full time and can be considered workers who attend college, not students who work. The recognition that these are the students who attend community colleges should give a distinctly different perception of community colleges than is customarily held.

Community colleges are also multipurpose institutions, and students have diverse goals, including short-term continuing education, retraining, critical intellectual development, certificate and degree attainment, and post-baccalaureate credentialing. A student-centered approach to re-envisioning each of the colleges' primary missions will enable institutional leaders, in collaboration with policymakers and constituents, to improve outcomes for all students and achieve synergies between the three fundamental areas of community college education—developmental, occupational, and academic transfer.

Imagining the ways to achieve a new community college for the 21st century includes altering present learning platforms for greater flexibility, reconsidering the ways in which we identify students' needs, and revising our understanding of the evolving needs of learners. This new vision requires returning to earlier tenets of community colleges, such as the principles evident in the 1947 President's Commission on Higher Education,[3] which conceives of community colleges as local institutions, intimately connected to communities with the purpose of preparing students for a future—employment and personal well-being.

This re-imagining is in larger terms about recognizing the connection between students who attend community colleges and the advanced learning and working environments beyond the community college. We need to bridge the gap between these two conditions and fit the form to the function. To do this, we must recognize that community colleges are institutions with multiple missions and that they need organizational and governance structures that fit these multiple functions.

This is not only a process of focusing on students' current perceptions and aspirations. We should also develop new institutional cultures and activities to reshape the norms of community college student outcomes and reconsider the foundations of the politics and policies that shape community colleges today. It is essential to contemplate why America's best-prepared and wealthiest students rarely enroll in community colleges and why so few community college students transfer to elite higher education.[4] Why are their aspirations and postsecondary destinations so significantly different from each other's? Using community colleges to help raise student aspirations while meeting their short and long-term educational goals is a political economic necessity and a paramount issue of social justice.

The challenge of transformation

Change in community colleges has historically occurred at the margins, through assistance to student populations, which has made a difference to individuals but not to large groups, institutions, or systems. Practitioners and policymakers are used to doing more or less of the same in higher education, depending on the resources available. They are accustomed to thinking of higher education institutions as fixed organizations that contribute to the stability of the postsecondary system. The traditions and continuity are both a strength and a weakness. A steady state approach to inputs and ideas protects the status quo, but it does not easily improve outcomes, such as baccalaureate attainment rates.

A student-centered approach will bring a much-needed consistency to community colleges' various functions. The primary functions of community colleges currently vie with one another for status and the resources that go to the most legitimate institutional functions. Policymakers rarely endorse or challenge a community college as a whole; they instead focus attention on specific aspects of institutional mission.

The vagaries of policy attention tend to limit long-range planning in the colleges as each new legislative initiative symbolically, and sometimes practically, "rebrands" the college as a site of transfer, or workforce development, or, more recently, as a baccalaureate-granting institution. This leads to a piecemeal approach to transformation—one that neglects the contexts of the college's role in its own community, its unique student population, and the synergies that can be obtained through planning.

The combination of new revenue generation strategies designed to offset shortfalls in state budgets over the past decade and market-centered, revenue-based approaches to programs and curricula have shifted community colleges' mission from one based on service to students and communities to one increasingly based on service to the needs of business and economic development. Three decades ago the community college was an educational, social, and vocational institution.[5] Those elements can all be found in the contemporary community college, but the vocational goal of preparing students for the "knowledge economy of the 21st century" has become more central, arguably at the expense of providing students more complex preparation for fulfilling lives.

At the same time, community colleges are more important today to the process of achieving social justice and economic equity in the United States than ever before. The community college has become the institution of choice for an increasingly diverse and traditionally underrepresented group of postsecondary students, including students of various abilities, socioeconomic statuses, ages, race-ethnicities, and national origins. A central question that needs to be addressed is whether as a nation we can preserve the community college's traditional range of functions, including community building, transfer, vocational education, and economic development, in order to give the new wave of entrants into postsecondary education opportunities similar to those afforded to earlier generations of community college students.

Community colleges are the most inclusive public postsecondary institutions and have long served communities that otherwise would not have local access to postsecondary education, and student populations that have not been able to realize the opportunities for personal development and social mobility afforded to others. These colleges have served as a refuge and a site of transformation for a significant population of students who, for a variety of reasons, cannot attend any other type of postsecondary institution.

The community college is unique in the postsecondary arena. Due to its open access and low tuition policies, it depends on public funding more than any other type of postsecondary institution. As a result, it has been challenged to preserve low tuition while providing broad access to high-quality education and training. It is interesting that community colleges are now charged with a central role in increasing the number of college graduates under the rationale that the United States is falling behind global competitors. The test that community colleges face is to meet their own goals, which may require local, state, and federal support at levels comparable to what is provided throughout the highest performing educational systems internationally. Comparing America's community colleges with institutions in Western Europe or anywhere else—however much short-term political support it may generate at home—will likely only turn attention from more central questions.[6]

Multiple missions, multiple understandings

Community colleges find themselves facing both praise and criticism on so many dimensions that it is difficult to make an overall assessment of their legitimacy in the broader U.S. political economy. The diversity of inputs and outputs in these institutions defies easy categorization. The identity of the colleges in the media, in the policy community, and in the institutions themselves varies depending on standpoint and context. They are at times characterized by their students—demographics, academic background—by their curricula and programs—academic, vocational, remedial, continuing education—by their utility for communities, states, and in meeting national goals—economic development and workforce preparation—and more recently by their effectiveness.[7]

The very same educational outcome can be described in dramatically different ways at community colleges. For example, with regard to student success, it is often noted that community colleges have increased access to postsecondary education, particularly for populations that have no other choice for education and training. At the same time, it is probably more often noted that only 50 percent of students in credit programs persist in community colleges beyond even the most meager measures,[8] including nine months of attendance before departure from course work.[9] What's more, some analysts say that the costs of community college attendance for students and states are reasonable; others argue that what the colleges deliver is of questionable worth.

How do such disparities in perspective come about? First, given the unique nature of community colleges' multiple missions, scholars and policymakers may reasonably disagree on the nature and the effectiveness of the institution. Second, community colleges are different entities to different people; they are multipurpose institutions. Perhaps most important, community colleges' many purposes lead to multiple identities, both within the institutions and for those observing from outside. Many of those identities are likely to be poorly understood by external actors at any particular time given the complex and conflicting demands on the institutions.

Perhaps no statistic has brought more negative publicity to community colleges over the years than the percentage of students who transfer to four-year colleges and complete baccalaureate degrees. It is instructive that the estimates of this number vary widely, ranging from 8 percent to 25 percent depending on definition, data source, cohort, and other variables.[10] These estimates are not surprising if we think of the community college as a

nonselective, open-access institution that has no academic requirements for student entry and in many jurisdictions has few academic requirements for entry into for-credit, college-level coursework. These estimates of transfer and completion may even be seen as laudable, given that the percentages suggest large numbers of students do transfer to universities from community colleges and complete degrees. Yet those levels of baccalaureate completion for beginning community college students have been seen in some quarters as far too low and have led to calls for shifts in institutional culture, new leadership, greater resources, and much greater oversight and accountability.[11]

The rate of transfer and baccalaureate completion is a validation of effectiveness for those who argue for community colleges as sites of opportunity. Yet the performances of many community colleges are clearly unacceptable for those who expect rates of baccalaureate completion from beginning community college students equivalent to completion rates for entering students at selective four-year colleges. One perspective is not necessarily preferable to another. But this lack of clarity on the purposes, functions, and performance of the institutions, and our lack of consensus over what community colleges do and how well they do it, is politically untenable and does a disservice to all of the institutions' constituents.

The policy prescriptions going forward would be simpler if community colleges were not capable of achieving consensus on their efficacy at any level. But there are high-performance programs within community colleges that can meet any educational measurement standards of success applied to the most successful forms of undergraduate education, including course and program completion rates, degree completion rates, employment rates, and economic return rates. Many such programs are found in the health sciences areas, including training for nursing, physician assistants, radiologic technicians, and physical and occupational therapists. Indeed, these are widely acknowledged as high-performing programs where average success rates on nationally certified examinations have reached as high as 98 percent with exceptionally high rates of employment upon program completion.

It is useful in making sense of community colleges' diverse mission to understand that these institutions are divided entities, sites where many of the nation's aspirations collide with the realities of our economic and political commitments to our fundamental beliefs about education and our educational institutions.

The community college
as a divided entity

The President's Commission on Higher Education conceptualized the community college in 1947 and distinguished it from its predecessor, the junior college, in order to frame its functions as oriented toward employment as well as education. [12] Community colleges become part of the national strategy for economic development and global competitiveness by the 1980s; under the Clinton administration, they were viewed as a vehicle for the preparation of a technological workforce.[13]

That call for a national workforce development strategy is more pronounced today, with community colleges taking center stage. But individuals and their communities have been diminished during the evolution of community colleges. The President's Commission of 1947 viewed the community college as designed to serve its community: "Its dominant feature is its intimate relations to the life of the community it serves."[14] The report went on to recommend that "the community college must prepare its students to live a rich and satisfying life, part of which involves earning a living."[15]

The community college's essential practical accomplishment has been its contribution to the rapid growth of U.S. postsecondary education, to the point where 6.5 million students—39 percent of all students—attend community colleges in credit-bearing courses and an estimated 3.6 million engage in continuing and noncredit education annually.

Community colleges have served as gateways to university and four-year college baccalaureate programs to the extent that some state public universities rely upon community colleges for more than 60 percent of their students who complete baccalaureate degrees. These institutions also serve as primary occupational pathways. Workforce training at the sub-baccalaureate level has been and continues to be a source of labor for local, state, and national economies, and the community college has been the dominant formal educational role in this domain. Community colleges have also served with distinction in the education of new immigrants, particularly in English language training, affording pathways to citizenship and further education for this sizable population.

Total student enrollment at community colleges, 1976–2007

In thousands
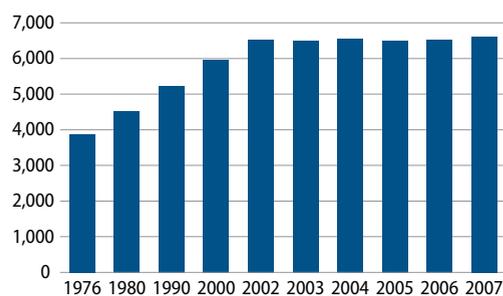
Source: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS), "Fall Enrollment in Colleges and Universities" surveys, 1976 and 1980; and 1990 through 2007 Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90), and Spring 2001 through Spring 2008. (This table was prepared October 2008 and can be found at http://nces.ed.gov/programs/digest/d08/tables/dt08_227.asp)

Community colleges' multiple missions make it difficult to comprehend the institutions in their totality, and they also challenge the institutions' overall effectiveness. A review of the research on these institutions suggests that despite many decades of effort, few synergies have emerged between colleges' key domains of developmental education, vocational training, and transfer for baccalaureate attainment. Restructuring each of these domains around student needs, in light of emerging organizational models and new technologies, will yield better outcomes in each of these arenas and for the colleges' public good and social justice missions. Reconceptualizing the core functions of community colleges begins with a review of the ways in which we understand their students.

The challenge of understanding student needs

Central to a great deal of policymaking and much of the research on community colleges is a profound misunderstanding of community college students, who are inaccurately defined and generally referred to as a rather homogenous group.[16] Some student characteristics—ethnicity, age, and employment status—are well documented. But other student patterns of behavior, their aspirations, development, resources, life circumstances, and college experiences are inadequately explored.[17]

The institutions today are considerably different than the ones portrayed in the research and policy arenas of the 1960s, indelibly marked as sites for "cooling-out,"[18]—and as sites of academic and administrative crisis in the 1980s and 1990s.[19] Student demographics have shifted dramatically. Most notably, students of color now comprise almost 40 percent of public community college students, and part-time student enrollment exceeds 60 percent of total enrollment. Community college students who work full time constitute 41 percent of the total student population,[20] and close to 50 percent of community college students are over the age of 24.[21]

Earlier conceptions treated the community college as either a junior college with transfer to university as the primary goal, or a vocational institution with job training as the fundamental mission. There is now a growing awareness that the community college is a multipurpose institution and that students' goals are multivariate, including short-term continuing education, retraining, critical intellectual development, and postbaccalaureate credentialing. A sizable percentage of community college students—perhaps over 10 percent—already possess baccalaureate degrees. And "reverse transfer" is now widely acknowledged, as university students increasingly use community colleges for their course work, moving back and forth from one institution to another.[22]

Researchers, policymakers, and institutional leaders have traditionally understood and categorized student abilities, appropriate placements, and likelihood of success on the basis of academic preparation without an accompanying assessment of individual student life contexts. Community college students should be classified on the basis of the degree to which a student is at risk of departure from the institution (dropping out), or jeopardizing the opportunities to meet his or her educational and life aspirations.[23] Just as postsecondary education is most effectively seen as a progression through various programs and institutions with more or less efficient transitions, so too are current and

prospective community college students best understood as navigating a broader set of life transitions that incorporate their efforts, as well as those of institutional actors, to access and achieve student success.

A reconceptualizion of our understanding of students entails the deconstruction of traditional typologies of community college student aspirations: vocational or transfer, in which students and programs are either oriented to the workplace or further education. The increasing specialization in the literature on community colleges reinforces this framework.[24]

The vocational and transfer categories encompass certain community college students, but they have not served community college scholars or practitioners particularly well for a variety of reasons. First, they assume a level of intentionality that is far less consistent and more nuanced than the categorizations imply.[25] Students often declare aspirations and courses of study on the basis of incomplete information about community colleges and the students' own potentials. Second, given the fluidity of student demand, these typologies serve to support a static and counterproductive approach to identifying student potential that reduces community colleges' ability to understand, nurture, and serve their students effectively. Third, the inability to identify individual students holistically due to

Demographics of students in community colleges
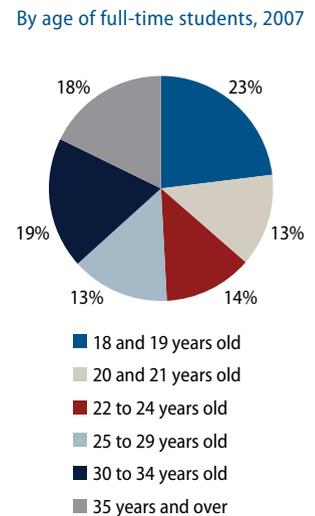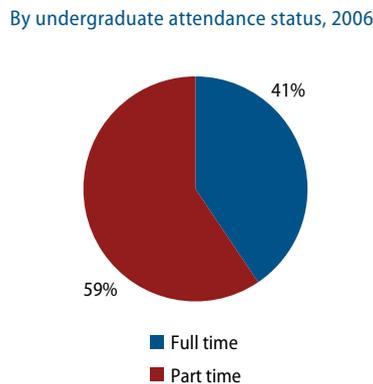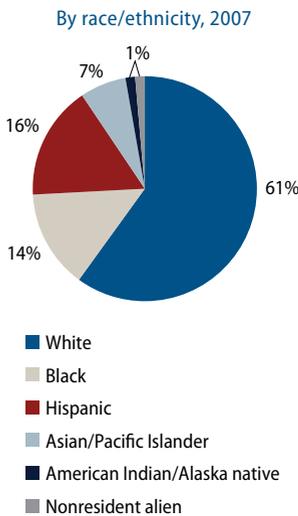
By race/ethnicity, 2007

- White
- Black
- Hispanic
- Asian/Pacific Islander
- American Indian/Alaska native
- Nonresident alien

Source: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS), "Fall Enrollment in Colleges and Universities" surveys, 1976 and 1980; and 1990 through 2007 Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90), and Spring 2001 through Spring 2008. (This table was prepared October 2008 and can be found at http://nces.ed.gov/programs/digest/d08/tables/dt08_227.asp) . n=6,617.9 (thousands).

By undergraduate attendance status, 2006

- Full time
- Part time

Source: U.S. Department of Education, National Center for Education Statistics, 2006 Integrated Postsecondary Education Data System, Spring 2007. N = 6,518,291.

By age of full-time students, 2007

- 18 and 19 years old
- 20 and 21 years old
- 22 to 24 years old
- 25 to 29 years old
- 30 to 34 years old
- 35 years and over

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, Spring 2008; Enrollment in Degree-Granting Institutions Model, 1973-2007; and U.S. Department of Commerce, Census Bureau, Current Population Reports, "Social and Economic Characteristics of Students," 2007.

inadequate data collection systems, resources, and personnel prevents the community college from providing information, building demand, and matching resources to student needs with the sophistication brought to bear in other service and commercial arenas. Finally, this categorization ignores the fastest growing sector of community colleges—developmental education, which includes remedial education, basic skills, and English as a Second Language programs.

Practitioners are not likely to improve practice or alter fundamental structures without aligning the purposes of community colleges with the realities of their students' lives, aspirations, and potentials. And policymakers can do little to alter the trajectory of the institution without matching accurate definitions and conceptions of students to expectations for community colleges.

Not all community colleges are the same, and student populations differ from one community college to another, but we can speak generally about themes that cut across large numbers of institutions and apply to the population of community college students nationally. Community college students have varying academic skills and preparation; the majority require further education in basic skills, language, mathematics, writing, and critical thinking (reasoning).

Community college students also have varying life circumstances. The overwhelming majority are at an economic level where they must work both to carry on day-to-day and to attend college; half of community college students work full time—if we include noncredit students—and can be considered workers who attend college, not students who work. Many community college students can be viewed as at-risk of dropping out of courses and programs. But the reasons for departure are varied and include problems with finances and time—not enough money to attend college given other expenses and not enough time to cover all personal responsibilities, such as child or family care and work demands. Furthermore, those who drop out may return, and their behaviors constitute "stopping out," rather than noncompletion.

Those community college students who are first-generation college attendees may have little concrete understanding of college and postsecondary education. They may also lack knowledge of the social and cultural behaviors and tools that are needed to persist in college. and may be unaware of the structures of postsecondary education and of the educational and career pathways that they can follow to both further education and productive employment.

Community college students, particularly those who have delayed postsecondary entry from high school, confront personal developmental prospects in their encounters in college to the extent that their ideological, vocational, and social views and understandings will alter as they increase their interactions and engagement in their community college. This shapes their career and occupational aspirations, which are often not well developed when they first enter the community college.

Large numbers of students are noncredit, and engaged in short-term programs and individual courses that cover such areas as English as a Second Language, external certification training, and remedial education. By some estimates there are over 3 million of these students, many of whom are disconnected from the mainstream of the institution, in a form of "shadow college."[26] They have considerably different relationships and interactions with the community college than students in credit-bearing courses and programs.

New approaches to understanding students

The on-the-ground view of community college students recognizes that they are diverse, different from four-year college and university students, and a population with limited assets and life prospects.[27] They are a disadvantaged population, socially and educationally. Indeed, 80 percent or more of community college students could be acknowledged as disadvantaged, with academic background and income status at the forefront of these disadvantages.

Community college practitioners recognize the condition of their student body, but a number of pressures suppress their actions, including reliance upon state funding for programs and services, inadequate resources to meet the multiple needs of students, private sector demands for a specific kind of workforce, government and policy expectations for providing open access and upward social and economic mobility for large and diverse populations, and social legitimacy of measurable outcomes comparable to other postsecondary institutions. Some community colleges, such as the Community College of Denver in Colorado, use case management approaches to work with students, treating students as those in need of substantial personal support and direction. Others, such as Borough of Manhattan Community College in New York and Edmonds Community College in Washington rely upon a host of support programs that are tailored to their students, particularly to the most disadvantaged group.

Yet these institutions do not compromise on expectations for student progress.[28] The ability to use more nuanced measures of individual student disadvantage in concert with assessments of academic preparation opens up quite different opportunities to offer appropriate information, relevant student services, financial support, academic and workplace skill development, family services, and other services. But progress with their student populations is an arduous path and a slow process. There are effective programs at community colleges that produce outcomes that benefit disadvantaged populations, but these programs rely upon a few mechanisms to excel, including a cadre of committed and experienced faculty who direct and mentor students and organize programs and curricula to fit their population and the goals of the program.[29]

Such mechanisms, which are products of institutional history and culture, are not easily achieved or available to all colleges and in all program areas. More reasonable and achievable approaches require fitting program practices and interventions to student characteristics and to program goals. These practices and interventions will be different

for each curricular area—university transfer, occupational, developmental—in order to match the different student populations and the goals of the program.

Developmental education programs can be oriented to self-paced learning to correspond to the needs and makeup of large numbers of developmental students, and practices within these programs can be aimed at comprehensive student development, not just cognitive development. Hands-on instructional practices in vocational education involve students in apprenticeship-like conditions and expose them to real world working conditions, which matches student characteristics and needs as well as program goals. Effective practices focus on career development and skills development. At the same time, support from counseling and advising has become critical to student progress in university transfer, as have high expectations from faculty and specific instructional practices such as learning communities and group work.

All of these program practices and interventions suggest that program, course, and curricular structures as well as staffing may not come from the same model or function in the same way across curricular areas. That is, the organization of these three broad curricular areas might have to be differentiated, indeed almost separate from each other, in order to achieve optimal results for students. In the following sections we review major issues that face these specific instructional areas as well as practices that are recognized for addressing these issues for each program type.

Vocational and occupational education and training

Vocational education—also known as career, occupational, and technical education—holds "the potential to bridge education and training, providing a route from short-term programs in the mainstream of education" to the labor market.[30] The American Association of Junior Colleges, now the American Association of Community Colleges, articulated in 1964 the principal twin missions of community colleges as expansion of opportunities through comprehensive programs embracing job training and education for university transfer. Vocational education programs helped diversify the mission of the community college and initiated an increase in postsecondary enrollments, but there was considerable debate among scholars, and among some practitioners, about directing students toward skilled work in the sub-baccalaureate labor market.

The integration of vocationally oriented education with training and academic education aimed at university transfer resulted in a largely homogenized institution in such areas as curricular structures and processes (for instance, semester length courses, grading, instructional practices, and learning objectives), labor force (for instance, similar employment requirements and working conditions), governance and management (for instance, decisions about student admissions, departmental structures), treatment of students (for instance, counseling services), and financing (for instance, funding driven by full time

student equivalencies). The problem is that while the policies, practices, and structures were similar, the intended outcomes were not.[31]

The 1970s began a surge in vocational-occupational program enrollments in community colleges as well as an expansion of curriculum. Community colleges' vocational and occupational orientation led to new sources of revenue and stronger connections with local and state economic and political leaders.[32] The institution became known as a route for entry into occupational and professional programs.[33]

In the 1980s, community colleges became more entrepreneurial in seeking new resources, while at the same time increasingly serving as instruments of the state in workforce development.[34] Calls for a "new" vocationalism—tied to a new information and global economy—arose in the late 1980s and intensified into the 21st century as policymakers continually publicized political slogans such as "economic competition," "globalization," a "new economy," "high-tech" jobs, and "economic development."[35] Community colleges increasingly found themselves "very much out of the shadows and at the 'top of the workforce policy agenda.'"[36]

Career pathway programs and systems of accountability continued to develop over the next two decades, along with considerable diversity in state-level policy implementation and local implementation of practice.[37] At least 2.3 million workers were enrolling each year in noncredit, job-related programs offered by higher education institutions at the turn of the 21st century,[38] and the demand for vocationally oriented courses revealed a continuing need for community colleges to provide long-term occupational skills training, which has been found to lead to better long-term outcomes for students.[39]

Changing technologies and labor force needs mean that advanced skills training beyond high school levels is becoming not only preferred in policy and practice but also required by employers.[40] There is considerable pressure upon community colleges to serve as the employment preparation institution for a diverse population that includes dislocated workers, high school dropouts, baccalaureate, and higher degree attainers who seek practical training for jobs, and traditional-aged students entering college directly from high school. Among this population are nonnative English speakers, student with disabilities, and new immigrants.

The most recent and prominent postsecondary vocational training initiative is President Obama's proposed American Graduation Initiative, a targeted effort to enhance the workforce development function in service of national and global economic competitiveness. The president appeared at Michigan's Macomb Community College in mid-July of 2009, in the shadow of America's failing auto industry, and outlined his goals for a new American Graduation Initiative, and his belief that "community colleges are an essential part of our recovery in the present—and our prosperity in the future."[41]

The president invoked transformative moments in American higher education such as the Morrill Acts and the GI Bill, and announced an ambitious goal: that by 2020 America will have the highest proportion of college graduates in the world. To accomplish this he outlined a program to build "the foundation for a 21st century education system here in America, one that will allow us to compete with China and India and everybody else around the world." President Obama announced, "through this plan, we seek to help an additional 5 million Americans earn degrees and certificates in the next decade." The president's juxtaposition of training, certificate completion, degrees, and college graduation reflects a broader conflation of the purposes of community colleges in political and policy arenas.

The president stressed the importance of job training, the need for the nation to compete in a global economy, and the importance of education. He invoked a man named Joe, a displaced worker who earned an associate's degree to become a mechanic in a hospital, and introduced a woman named Kellie who left a job as a forklift operator, returned to school, and emerged as an apprentice pipe fitter. The president also offered his sense of some of the fundamental benefits of community college attendance. He suggested that community colleges would play a key role in the national recovery from recession and in its future economic success. He noted with regard to the changing nature of the 21st century economy, "But we also have to ensure that we're educating and preparing our people for the new jobs of the 21st century. We've got to prepare our people with the skills they need to compete in this global economy."

The president also articulated a clear educational outcome that he expected from community colleges in describing another goal of the initiative: "It will reform and strengthen community colleges like this one from coast to coast so they get the resources students and schools need—and the results workers and businesses demand." As if to underscore the centrality of education for economic development he went on to say, "We'll fund programs that connect students looking for jobs with businesses that that are looking to hire. We'll challenge these schools to find new and better ways to help students catch up on the basics, like math and science that are essential to our competitiveness. We'll put colleges and employers together to create programs that match curricula in the classroom with the needs of the boardroom."

President Obama has usefully turned attention to the importance of community colleges. The success of the American Graduation Initiative and similar efforts to increase the effectiveness of other community college functions will depend on whether they can be implemented effectively in light of the historical, contextual, organizational, and structural challenges presented by the multiple missions and diverse student characteristics.

Community college vocational and occupational programs have faced numerous challenges and issues, including a lack of firm evidence of effectiveness and a lack of accountability, a challenging sub-baccalaureate labor market, a need for greater federal and state involvement and oversight, support for students, and potentially competing missions

between vocational education and academic education within the community college. The area, then, is both problematic for the advancement of the community college and prominent for policymakers and legislators who pin their hopes on the community college to direct workforce development for the nation.[42]

Insufficient evidence of effectiveness and a lack of accountability

Student preparation and career placement have been lauded as a noble idea, but there is little evidence that community colleges are particularly successful with this task.[43] Indeed, few community colleges have clear, consistent, and well developed connections to the labor market or a sufficient understanding of changing demands in the labor market, how skills development should be measured, or how student preparation should be communicated to future employers. As a result, there is little empirical evidence that sub-baccalaureate job-training programs, such as welfare-to-work initiatives, increase students' employment or earnings in general. There is insubstantial evidence to show how well occupational programs prepare students for employment and place them in careers, primarily because few community colleges are able to track students' job placements or advancements reliably.[44] Community colleges do not have tools to assess whether vocational and occupational programs are teaching students the skills employers require, let alone the lifetime learning skills that students need to navigate a rapidly changing U.S. economy.[45]

Two areas for addressing effectiveness are program design and accountability. The development of a conceptual framework for community college vocational and occupational programs is essential not only for program coherence and operational efficiency but also for the design and implementation of a system of program assessment and evaluation. A thorough framework identifies administrative duties, program procedures, educational programming and curricula, financial plans, and community networking strategies. Community colleges may also create structured program design at the level of curriculum integration. For example, some community colleges purposefully design their courses so that technically oriented students can take an ordered sequence of basic skills, academic, and vocational classes at the same time. Other community colleges offer ways for students to learn skills through hands-on problem solving in a controlled but realistic setting. Community colleges also partner with local businesses while offering students introductory courses in their field of interest, individual student advisors, individualized learning plans, and internships.[46]

One of the challenges in improving the accountability of vocational, occupational, and technical education programs is determining who counts as a "completer."[47] The standard measure of success is the completion of an associate degree or a 30- to 60-credit vocational certificate. But large numbers of students leave vocational and occupational programs without these types of credentials, and substantial numbers of students simply enroll in vocational and technical classes in order to learn specific skills and then drop out of courses once they have met their objectives.[48]

Lohman and Dingerson found that 56 percent of community college noncompleters left their programs while enrolled in trade courses and an additional 25 percent left after completing trade courses. The majority of students who left their programs before completing a certificate or degree did so because of trade-related factors—for example, the needed skills were acquired—suggesting that large numbers of students never intended to receive a credential in the first place. This is the case with Los Angeles Trade and Technical College's fashion design students who are employed as quickly as they acquire the skills expected by the local industry.[49] Program and institutional effectiveness and accountability may therefore not be addressed adequately until community college practitioners devise rigorous criteria about what constitutes student success in vocational and occupational education.

Community colleges will need to better conceptualize and communicate the success markers and program outcomes they are working toward so that the programs can be monitored and evaluated. These programs can be complex systems, and accountability measures should be similarly nuanced. Faculty and administrators must not only design accountability measures for program and student performance but also for other facets of these programs, including curriculum, teaching, counseling, administration, and business partnerships. Statewide effectiveness markers—especially those based on ill-defined concepts of "degree completion"—cannot effectively measure the outcomes of a program that simultaneously prepares some students for the labor market, helps others acquire a new job, and assists still others in upgrading their skills or completing the requirements necessary for an associate degree.

A challenging sub-baccalaureate labor market

The sub-baccalaureate labor market poses several challenges for vocational and occupational education programs. Employers in this market are frequently small businesses that hire few workers, offer low salaries, and provide few opportunities for advancement. Small businesses are not always well informed about the supply of educated labor and may have little communication with local community colleges.[50] Small businesses also tend to be more dependent on flexible and multiskilled employees who are able to cross occupational boundaries in order to accomplish a job inexpensively and with fewer resources.

This sub-baccalaureate labor market is not stable, and colleges that offer specific business- and industry-focused programs do so at their peril. This is even the case for programs aimed at large businesses and industries, and poses a problem for community colleges that invest in attempting to train for specific employers. The case of the Washington State community colleges' fitting their programs to Boeing Corporation is a bittersweet example: whenever there is a production downturn, trained employees are laid off and students in community college programs face reduced prospects for jobs in the industry.[51]

One strategy community colleges use to respond to the labor market and its dynamic conditions is integrating the academic and vocational curricula. One approach is to rely upon co-operative education practices. This may involve alternate semesters with academic coursework, on-the-job internships, or formal work,[52] or it may provide practical or work-based experiences after a largely academic program is completed. Clinical or professional work-based learning programs—integrated curriculum in classrooms and laboratories on campus—are also prevalent, primarily in health-based fields. And another common form of curricular integration involves increasing requirements for basic skills and general education competencies in vocational and occupational courses, including more advanced forms of integration that combine academic and vocational coursework into a hybrid curriculum where vocational and academic faculty and staff collaborate on the development of student learning outcomes, program design, and instruction.[53]

Need for greater governmental involvement and collaboration

Several researchers recommend that community colleges act as pivotal institutions in a career ladder linking secondary, postsecondary, and regional job training programs into a single, progressive, coherent, and sequential system with no redundant or competing parts.[54] This is meant to maximize the effectiveness of community college vocational and occupational education. They stress, in particular, the importance of institutional connections to local employers and regional job markets, and the need to integrate the academic and occupational curricula into programs in order to provide students with the broad set of skills and knowledge needed in the world of work.[55]

A functioning and equitable career pathway program with a full student support system requires expansive community networking, state and local government oversight, and vastly increased financial support.[56] A number of such partnerships have led to positive outcomes over the past decade. One example is Washington's Bridges to Opportunity project, which brought together institutional leaders, state boards, and legislators in support of innovative programs to build vocational occupations skills and educational attainment through community colleges.[57] Implementing new vocational and occupational education reforms, and ensuring accountability for these redesigned programs, can make a difference where there is extensive involvement from federal and state policymakers and funders.

Lack of funding and administrative support

Finding adequate and secure funding is perhaps the greatest obstacle in implementing vocational and occupational programs. There is limited federal and state funding for community colleges, which means that program administrators have to cultivate and coordinate multiple sources of funding from diverse constituents and donors. This is a difficult

task as it necessitates expensive human capital investment, the long-term benefits of which are more difficult to articulate than those of inexpensive, outsourced, or short-term work-force training initiatives provided by the private sector.[58]

Vocational and occupational programs are complicated and expensive to design, administer, and sustain. Simply initiating a program takes commitment from community college administrators willing to secure adequate funding from multiple sources, find competent leaders to coordinate programs, and help initiate and cultivate relationships between faculty and staff and among community partners. Evidence drawn from a study of Modesto Junior College in California illustrates that considerable initiative and time commitment is required from administrators and faculty in order to develop and sustain a workforce program.[59]

Need for more individualized student support

There is clearly a broad array of students in vocational and occupational programs in community colleges. They range in academic backgrounds, age, socio-cultural background, and employment and domestic status, as well as in their goals. Health sciences students in associate degree programs are primarily full-time students, although the majority work, they have specific career aspirations, and they have competed to gain entry to the program by qualifying and demonstrating that they are not academically deficient. Students in short-term certificate programs such as plumbing and pipefitting or welding and fashion merchandising are substantially different from health sciences degree students in academic backgrounds and other characteristics.

The needs of these students differ, and students in these certificate programs will not persist without considerable support. Essential support services include counseling, mentoring, help with financial aid or scholarship applications, access to childcare, and internship and job placement services. Students should also be interviewed and assessed upon entry into an educational institution or specific program in order to determine educational, financial, and social needs. Entry interviews and/or assessments can help guide placements for basic academic skills, learning disabilities, financial aid, child care, job placement, social services such as welfare, unemployment, or job training assistance, housing, and academic counseling.

Students are not usually aware of all of the services available to them or the requirements for program completion. Organizing support services and clearly communicating recommendations for individual students has become an acclaimed innovation for aiding student performance and program completion.[60] An important component of this process has been the development of an individualized student plan that includes short-term and long-term career goals.[61]

Competing missions of vocational and general education

There is also a deeper challenge at the heart of vocational and occupational education, one that is often overlooked in policy discussions: its potential to compete with and overshadow the general education mission of community colleges. John Dewey pointed out in 1916 that vocational education is often narrowly conceived as mere occupational training and cautioned that educational institutions could become mere appendages to business concerns or the whims of the labor market. He worried that the larger mission of American education—to create free, educated, and responsible citizens—would become lost in the pursuit of purely economic concerns.

Scholars have addressed the implications of Dewey's argument and sounded an alarm to practitioners and the public alike.[62] Yet many community colleges and policymakers ignored these pleas, choosing instead to promote and develop additional vocational programs and business collaborations to ensure greater support—financial and otherwise—from local businesses and industries. Indeed, community college leaders and researchers lauded collaboration with the private sector as a means to provide underfunded community colleges with a continuous stream of enrollments and, frequently, additional financial support.[63] But absent in these arguments were discussions of education as a noneconomic goal,[64] or conversations about what is lost when vocational and occupational programs give priority to economic and labor market concerns and ignore the provision of the lifelong skills development, critical reasoning and knowledge necessary to participate in society.[65]

A key to understanding the contemporary tension between vocational and general education will be the ability of faculty, institutional leaders, and policymakers to agree on new standards for credit attainment in community colleges.[66] It will be extremely valuable for students in vocational programs to build credit through completing courses that build technical skills and incorporate elements of general education given the shifting demands of the knowledge economy and the attendant shifts in labor market opportunities. The collaboration between institutions and legislators in Ohio that supported the passage of the Career and Technical Credit Transfer Policy led to the development of courses that build essential labor market skills while offering credit toward an associate's degree. Such programs benefit community colleges on a number of levels, as they require new approaches to data collection on course-taking patterns and stronger alliances between curriculum developers throughout the colleges.

Developmental education

There is likely no issue that is more problematic for community colleges than developmental education. Community colleges are organized and governed as part of the postsecondary sector, but it is clearly the case that not all of those who enter are prepared to begin

postsecondary education.[67] Large numbers of students have insufficient prior academic preparation or have faced life challenges that leave them semesters short of performing at a postsecondary level.

Community colleges must enable all students to take their rightful places in the public sphere, and to become critical thinkers and engaged citizens capable of claiming places in the broader political economy and making contributions to the wider society.[68] This means that community colleges must help remediate students, provide them with training for certificates and credentials, and offer postsecondary education preparatory to baccalaureate attainment. For community colleges to aspire to less than that shortchanges the students and it compromises the future of the institution and its missions.

Community colleges educate more students in the developmental and remedial areas than any other postsecondary sector. There are reliable estimates that this area will only increase in importance and attention over the next decade, as states increasingly retrench from providing remedial education in four-year institutions and new learners find their way to community colleges.[69] What has not been addressed in detail is the degree of challenge that developmental students face in meeting their goals at the community college and the stress that underprepared students place on the colleges. That stress is derived in part from the particularities of this curricular area and its students.

These programs' traditional goal has been to assist students who arrive at the community college unprepared for college-level coursework until they are ready to commence that level of work and to supplement student learning in programs so that students can persist and complete courses and programs. The goal in some developmental areas has been for students to complete developmental courses or programs including English as a Second Language and programs that include adult high school and general equivalency diplomas.

Policymakers look to community colleges to be the main, if not the sole, providers of developmental education, arguing that they are the most cost-efficient and appropriate places to provide this instruction.[70] Community colleges have now had several decades of experience with developmental students, but problems persist. There continues to be limited movement of students from one level to another—from, say, writing paragraphs to writing essays, or from pre-algebra to algebra—and weak student performances in subsequent courses.[71] Many developmental students do not persist in college beyond two academic terms. Yet developmental education and basic skills can be necessary for personal achievement and advancement as well as the eventual completion of college-level courses.[72]

A number of issues and conditions have prevented community colleges from living up to the expectations of policymakers and scholars. But there is little clarity on whether poor out-

Percentage of public community colleges offering remedial services

Academic year
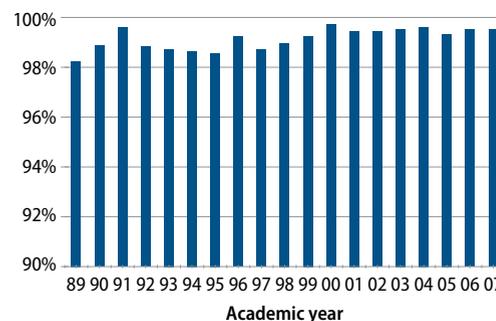
Source: U.S. Department of Education, National Center for Education Statistics, 1989-90 through 2007-08 Integrated Postsecondary Education Data System, "Institutional Characteristics Survey," and Fall 2000 through Fall 2007 (public, two-year institutional data)

comes are due to the specific programmatic or curricular structure, student services offered or not offered, to instruction, a specific campus culture, attitudes toward developmental education, or other factors.[73] For example, community college faculty and administrators may express a preference for a developmental theory for education preparation, but in practice developmental education courses may simply take shape as "skill and drill" sessions that attempt to provide students with the reading, writing, and mathematical skills and knowledge they should have gained in grades 5-12. Such an approach has yielded poor results.[74]

No unified framework for providing developmental education

The lack of a unified framework for assessing, providing, and evaluating developmental education programs is arguably the most problematic of the numerous challenges faced by developmental educators.[75] Some of this results from the expectations for student outcomes in developmental education. There is a lack of consensus among practitioners about ideal student outcomes.[76]

Should basic skills programs be evaluated by the number or percentage of students passing one course and moving onto the next level, by the percentage of students moving on to college-level academic or vocational and occupational courses, or by the percentage of students who began at a basic skills level and eventually transfer or earn a degree? Alternately, should developmental education programs take into account the specific educational and socio-economic barriers that students must overcome when stakeholders assess a program's effectiveness?[77] In either case, evidence suggests that community colleges have much to gain, and may reduce the need for remediation, by partnering with elementary-secondary systems to align high school completion standards with standards of college readiness.[78]

Organizational structures that fail to promote collaboration

There is continued debate whether developmental courses should be provided through a centralized or stand-alone administrative structure, through a centralized or mainstreamed model, or through various departments on a community college campus.[79] Centralized programs house developmental education in a specific department on campus and assign responsibility for teaching precollege academic courses to a specific group of administrators and faculty members. Centralized programs may provide their own student support services, or they may send students to outside counseling, tutoring, or other campus services. Centralized programs provide students with a specific location at the community college where they can take courses, seek academic advice or counseling, and participate in other types of student support services or groups. This can be an effective approach because developmental education faculty are hired specifically to teach in that division— in contrast to disciplinary faculty who may be asked to teach developmental courses—and as such are more likely to have a vested interest in their courses and students.[80]

Decentralized programs, on the other hand, seek to embed developmental courses into various departments on a campus, crossing disciplinary lines and support service areas. They may be organized, for example, as a "developmental learning community" where faculty members are not designated as developmental instructors like they would be in the centralized approach.[81] Rather, faculty come from various departments and teach both developmental and higher-level courses. Decentralized programs also take developmental theory—for example, theories of student development—into account when designing pedagogical practices and curricula.[82] For example, as several researchers point out, developmental courses and programs are particularly effective when they account for the diversity of the student population and use pedagogical techniques that are sensitive and specific to the needs of this population.[83]

Whether an institution uses a centralized or decentralized approach, scholars argue that cross-campus collaboration is a necessary consideration in the development of effective developmental education programs. Providing campus members with a clearly defined set of guiding principles that cut across departments, units, and disciplines encourages collaboration and campus-wide respect for the assessment, principles, and goals of developmental education.[84] Also noted is the importance of senior-level administrators' promotion and support for collaborative projects since these administrators have the ability to implement change and institute a reward structure.[85]

One method of encouraging collaboration includes the creation of campus networks among basic skills faculty, administrators, and support services personnel.[86] Formal networks—such as collaborative basic skills committees—allow faculty, counselors, and other support personnel to understand what is or will be expected of basic skills students in other areas of their academic life. Counselors have an opportunity to inform instructors of the academic and life challenges faced by the majority of basic skills students, and faculty and administrators can work collectively on improving curriculum and instruction.[87] In a report on innovative approaches to assessment applied at St. Louis Community College, building developmental assessment metrics emerged as an opportunity to increase collaboration between institutional researchers, departments, and content area faculty.[88]

Inconsistent student assessment and placement

The ways in which community college students are assessed and placed are not consistent across the country.[89] Assessment examinations are accepted and widely utilized on community college campuses, but the types of assessments vary considerably from institution to institution. Furthermore, scholars, practitioners, and policymakers cannot agree on the best way to assess and place incoming students. And students may be advanced to a higher level before they have acquired the skills necessary to succeed.[90]

Both practitioners and scholars argue that ensuring appropriate assessment and placement of incoming students is critical to improving developmental education instruction at community colleges. Academic advising helps incoming students clearly define their educational goals and construct a plan to achieve those goals.[91] Appropriate academic advising and educational planning have been found to be a significant component in moving students along curricular sequences and supporting the pursuit of academic goals.[92] Several researchers note the importance of accurate student assessment and placement as an effective practice.[93]

Some community colleges and community college systems require that students take placement examinations in order to determine their placement in either college-level classes or remedial courses, and others use "subjective assessment" to place their students.[94] Orientation programs can provide students with useful programmatic information and can help them acclimate to the campus culture and environment.[95] Orientation programs break up the campus and its components into smaller, more easily understood pieces of information that are less intimidating for students. Orientations are particularly helpful for the students whose academic progress and attainment are most "at-risk." They help contribute to student attainment and retention by building a support network that counteracts negative stereotypes associated with developmental and remedial education and reinforcing the college's commitment to help students achieve their educational aspirations.[96]

The challenge of program assessment

Evaluating the effectiveness of developmental education programs is another major challenge for community colleges. As Perin pointed out, effective evaluations of community college developmental programs must be systematic and continuous; they must be reported to stakeholders both inside and outside the college, and they must inform decision making.[97] Yet few community colleges evaluate their developmental education programs in this manner. And community colleges often do not have the capacity to assess, measure, and retrieve effective feedback from students on their views and experiences in basic skills courses even though student feedback has become essential in evaluating and improving developmental education.[98]

Assessment of basic skills programs and courses is a critical element in developing and improving effective practices for both practitioners and scholars. Program assessment and evaluation can occur in the context of the entire program by assessing basic skills faculty's classroom practices, reviewing changes in students' attitudes toward higher education, or measuring students' achievement levels.[99] The evaluation of classroom practices is especially beneficial to community college faculty, as it can provide useful information about how instructors can augment their teaching. If the results are widely distributed, these can inform policies and practices at both the classroom and administrative levels.[100]

Prior research suggests that assessment efforts should begin with a review of program or course goals and objectives, followed by the adoption of measures that can determine how well a program or course achieves these goals.[101] Also important in assessing the overall effectiveness of developmental programs is how well a campus addresses the academic, social, and economic barriers facing the majority of developmental students. These programs should be assessed regularly and systematically so that administrators can monitor progress and alter or adjust programs as necessary to remain focused on stated goals.[102]

It is also essential that findings be communicated broadly and clearly to faculty, administrators, and staff once assessments and evaluations have been completed.[103] Communicating assessment and evaluation results may help to create a sense of ownership among those who are directly involved in the program, provide an avenue for feedback, and allow for the ongoing monitoring and adjusting of pedagogy, practices, and processes.[104]

Student issues

Community college faculty often differentiate between two groups of developmental education students: Those from poor or ineffective high schools who did not receive sufficient instruction, and those who had access to adequate instruction in high school but did not sufficiently benefit.[105] Students enrolled in developmental education courses are diverse in age, and in their social, socioeconomic, academic, and ethnic backgrounds, and they may have widely divergent learning preferences, goals, and needs. Developmental education students, similar to the community college population at large, often have other commitments and responsibilities.[106] Many of the students who require remedial or developmental courses are recent high school graduates; others are adult learners who have been out of school for some time; and others are immigrants or refugees.[107]

There has often been a stigma attached to students classified as "remedial" because developmental education programs are part of the community college but viewed largely as adjunct to the important work of community colleges. Students' placement in developmental education programs, regardless of how useful they might be for their academic performance, may have a negative effect on their self-esteem and morale.[108] That is, students in developmental courses perceive themselves as "less than" those students who are able to enroll directly in college-level courses,[109] and experience frustration when they are required to take several developmental education courses before they are allowed to enroll in college-level classes.[110]

This frustration, as well as the time it takes to reach college-level proficiency, may explain why students who were required to take remedial courses were less likely to reach their degree objectives that those who by-passed remedial coursework.[111] In response, Chaffey College in California has over a 10-year period elevated the role of developmental education in the

college and expunged the terms "basic skills" and "remedial education" from its lexicon. The college also has Success Centers that support all students at whatever level of curriculum.[112]

Building a faculty for developmental education

Students in developmental education classes frequently complain that they are asked to participate in nonengaging classroom activities, such as "skills and drills" approaches to learning mathematics and English. Faculty are blamed for these instructional practices.[113] Bundy opines that faculty have a responsibility to understand developmental education pedagogy, saying, "This does not require that everyone be an expert in teaching reading, writing, or math, but it does mean that teachers should be trained in the fundamentals of teaching these essentials."[114]

Yet faculty in developmental education courses may be new or part-time instructors and are at times under or only moderately equipped with training in pedagogy or curricular design for the developmental classroom.[115] Community college academic leaders often hire new instructors with master's or doctoral degrees in prestigious disciplines such as literature rather than a graduate degree in developmental education or pedagogy. These new faculty may provide excellent instruction in their discipline, but many have not been exposed to specific developmental education pedagogy, developmental curriculum development, or techniques for identifying and teaching students with learning disabilities, which are all valuable skills that can be used to improve student learning.

Community colleges clearly need to provide training and professional development for faculty who teach developmental courses. But insufficient funding means that few community colleges host regular professional development seminars, and even fewer community colleges pay for their developmental instructors to attend conferences focused on improving developmental education.[116] Community colleges that do provide professional development opportunities in order to meet the needs of students enrolled in developmental programs have found better levels of faculty satisfaction and improvements in student persistence.[117]

Another challenge for developmental education programs in community colleges is the high percentage of instructors who have part-time faculty appointments.[118] Part-time faculty are viewed as less engaged or invested in a particular college's developmental education program than full-time faculty. This can negatively affect developmental education students who may become discouraged by a slow rate of progress in developmental education courses and frustrated with nonengaging classroom activities, but have little access to additional help from their part-time instructors.[119] A heavy reliance on part-time faculty may decrease a developmental education program's ability to implement innovative instructional practices, as part-time faculty typically are not compensated or rewarded for such work, and are provided with few opportunities for professional development.

Developmental faculty are also more likely to be Caucasian, while many developmental students are from other racial or ethnic groups.[120] Cultural insensitivity can have a deleterious effect on a student's academic and personal development, and the implementation of culturally sensitive practices—learned through in-service training or professional development seminars—is regarded as a best practice in developmental education.[121] Hiring developmental education faculty who have a background in or have undergone training in developmental education partly reduces the need for professional development in this area, but even those faculty whose graduate coursework included developmental education pedagogy can benefit from regular in-service training sessions and opportunities to expand their knowledge of basic skills students and instructional practices. City College of San Francisco has responded to both of these needs—hiring faculty with backgrounds in developmental education and providing in-service professional development.[122]

University transfer education

Community colleges have included transfer to four-year colleges and universities among their primary missions since the practice's formal emergence in the early 20th century.[123] According to B.K. Townsend, transfer education was the central mission in the early junior college concept, where students took the first two years or less of an undergraduate degree and transferred to a four-year institution to complete the baccalaureate degree.[124] This mission continues, but there has been considerable scholarly attention to a critique of the efficacy of community colleges' social democratic function in recent years.[125] There has also been growing concern in the policy community over transfer outcomes.[126]

Renewed interest in the transfer function is a result of several shifts in the political economy that shapes community colleges: the decline of need-based financial aid, rising tuition, and the reduction of remedial education at four-year colleges and universities.[127] Estimates suggest that 40 percent of all first-time freshmen in 2006 began their postsecondary education in community colleges, with the majority of this population expressing an intention to complete a bachelor's degree.[128] Yet these data are somewhat ambiguous as students' intentions at community colleges are often misreported or misinterpreted.[129] State governments have increasingly promoted the transfer function of community colleges as a cost-effective way to promote access to the baccalaureate degree.[130] Large numbers of students move from universities and four-year colleges to community colleges, but the common view is that transfer is from community colleges to four-year institutions only—a process defined as vertical transfer.[131]

There are large numbers of students who aspire to transfer from community colleges, but many do not take the steps needed to transition successfully to a four-year institution.[132] A report by the California Postsecondary Education Commission found that only 22 percent of community college students tracked over a five-year period transferred to one of California's public universities, and 52 percent of students left the community college

system without transferring or earning a degree. The community college transfer rate in California appeared relatively stable, but the transfer rate did not increase at the same rate as student enrollment.[133]

What's more, transfer rates were not consistent among socioeconomic, racial, and ethnic groups. Low-income students and those of African-American, Native American, or Latino descent transferred to four-year colleges and universities at significantly lower rates than their White, Asian, or more affluent peers.[134] There is clearly a significant opportunity gap between outcomes for the population defined as White and Asian and those defined as Hispanic (Latino), Black, and Native.[135]

Researchers, policymakers, and practitioners have acknowledged that community colleges "are not being fully utilized as gateways" for transfer to four-year institutions.[136] They are a major pathway, but community college outcomes—that is, actual transfer of students from community colleges to four-year institutions—do not measure up.[137] In response, community colleges have designed transfer programs to serve specific groups of students, often those from underrepresented backgrounds in various disciplines. These approaches have had some success in combination with student support services, but they have not altered overall institutional performance in transfer from community colleges to four-year colleges and universities.

Transfer education is the community college's most recognized function, yet these programs are not performing at an optimal level by the measures used in other postsecondary sectors. Some researchers and policymakers have underlined failed policy as the key contributor;[138] others have pointed to inadequate resources,[139] including a heavy reliance upon part-time faculty;[140] and still others have called for a greater integration of college practitioners and institutional research into the transfer process.[141]

Lack of curricular alignment and articulation

Community colleges face transfer-related challenges at the institutional and policy levels,[142] and these ultimately affect students and student outcomes.[143] Cuseo argued that problems related to curricular alignment and articulation between community colleges and universities are among the major barriers to transfer.[144] Many academic courses offered in community colleges are not transferable, and some four-year institutions refuse to accept transfer courses that are not identical to their own.

Four-year institutions rarely consider the effects on community colleges and transfer students when they modify their curricula; these changes may affect a student's ability to transfer, but too often little or no information is provided to community colleges when such curricular decisions are made. College deans or department chairs at the senior institutions, especially those in high demand disciplines, do not always adhere to articula-

tion agreements among community colleges and four-year colleges. The lack of cohesion and communication between community colleges and four-year colleges in designing clear, easy-to-follow articulation agreements creates significant obstacles for students who intend to transfer from one institution to another.[145] But Gross and Goldhaber found that the strength of state policies on transfer does not correlate with rates of transfer.[146] The key predictors of transfer in their research were a student's family resources and levels of preparation, as well as the level of spending on student services and the percentage of tenured faculty at the community college.

Some four-year college and university policies do act as barriers to transfer. These policies include requiring transfer students to take standardized tests before entering the university, giving transfer students low priority in course registration, completing transcript analyses after transfer students have already enrolled in their first semester of classes at the four-year institution, and denying academic honors to community college transfer students. All of these policies can hinder students' transfer progress, and some may even discourage transfer students from applying or transferring to specific four-year institutions. Community colleges have little control over these practices and policies, but there is no doubt that they affect transfer rates, and many community colleges are working collaboratively with four-year institutions to address these policies and ease students' transitions from community colleges to four-year colleges.[147]

Providing students with clear and easy-to-understand information about the prerequisites and other necessary courses required for transfer can arguably reduce student confusion and minimize the incidence of enrolling in non-transferable courses.[148] Visible and vigorous transfer center staff, and high expectations for transfer students at community colleges can help to provide students with the information and skills they need to transfer.[149]

Colleges can also work to improve the accessibility of transfer information by making it available to students and their families over the Internet.[150] Kozeracki and Gerdeman found that requiring faculty to use e-mail and the Internet in their courses can facilitate student exposure to the types of computer programs and software that they will need to use regularly at four-year institutions.[151] Such practices within community colleges may serve to narrow the digital divide between students at community colleges and four-year institutions by providing community college students with the type of information technology skills that will be required in four-year and university classes.[152]

Improving institutional alignment between community colleges and four-year colleges has also been shown to improve transfer. The development of common course numbering systems and common expectations for lower-division curricula across state institutions can greatly ease the transfer of courses from one institution to another.[153] Joint admission and concurrent enrollment programs were also shown to help facilitate transfer, and stronger articulation agreements between institutions can help to reduce barriers.[154]

Developing pre-major articulation agreements in addition to institutional articulation agreements can help to reduce student confusion, as well as the possibility that students have to repeat courses already taken. The California Postsecondary Education Commission suggested creating "faculty curriculum committees by academic discipline to negotiate articulation agreements for academic majors."[155] These articulation agreements may resolve issues students encounter when attempting to transfer into academic departments at four-year institutions, such as math and sciences programs, which traditionally have highly selective admissions requirements.

According to Kisker, information sharing and collaboration between community colleges and other institutions can improve transfer and sustain improved transfer rates over time. Partnerships can go beyond formal articulation agreements and help to raise students' awareness of the opportunities available to them after attending a community college, and legitimize the community college as a "viable and important path to the baccalaureate." Engaging high schools in partnerships also provides a useful way for identifying potential students and may help students start thinking about the requirements for transfer earlier on in the process.[156]

Greater information about student progress after transfer also allows for more effective assessment and analyses of articulation agreements, which can then be used to improve practices and processes. Creation of systems that track and assess students' transfer and retention rates in different disciplines would provide community colleges and their faculty and administrators with information about how these students fare upon transfer. This information may also help colleges assess the progress they have made in their efforts to increase student transfer.[157]

University feedback on transfer students' achievement, adjustment, and satisfaction compared to students who started at the university or those who transferred from a different institution could provide community colleges with information about how their transfer faculty and staff might work to bolster the transfer process as a whole. Cuseo proposed that assessments of the effectiveness of four-year college and university entrance tests and course placement procedures for transfer students be conducted to provide community colleges with useful feedback about how to prepare students for such procedures.[158]

There is little attention in the literature to the development of university and community college joint baccalaureate programming, co-location of university programs on a community college campus, or stand-alone baccalaureate programs offered by community colleges. Yet such programs are advancing in several states. These practices—particularly the community college as a baccalaureate degree-granting institution—provide alternate avenues to achieving goals similar to those reached by transferring to a university or four-year college.[159] Yet there is resistance to community colleges as baccalaureate degree-granting institutions. One reason is that transfer structures and institutional interests have deep roots and that universities rely upon community college transfer students to meet a number of aspects of their missions.

Insufficient resources

The concerns about funding for community colleges and the effect of budgets on the transfer function have been raised for decades, but little has changed either to increase state support or to decrease the burden on students. State system coordinators as recently as 2008 noted the decline in their resources at a time when more resources were required.[160] Such a reduction in funding for community colleges comes when the proclaimed need for more baccalaureate degree recipients is dire and about to escalate.[161] This, of course, places the transfer function of community colleges in a state of peril; rates of baccalaureate attainment will not advance—or could even retreat—if four-year institutions don't have space to accommodate eligible transfer students or if the students themselves cannot afford to continue on at these institutions.

Students who plan to move to four-year institutions are often sidetracked by insufficient resources along the way, including the lack of available financial aid. Indeed, the well-documented shift "from need-based to merit-based financial aid makes it increasingly difficult for low-income students to qualify for financial aid…There is also limited or no portability of financial aid for students transferring from one institution to another."[162] Few scholarships are designated specifically for transfer students, and the difference between tuition and fees at a community college and a four-year institution can be daunting for many students. Transfer students are also frequently notified of their acceptance to a university after the deadline to file for financial aid has passed, forcing these students to delay entering the university or pay tuition and fees out of pocket. And many transfer students must work while in college, which causes difficulties when four-year and university curricular requirements and course offerings are not aligned with student work patterns or demand full-time study.

Inequitable transfer outcomes

Another challenge to re-imagining transfer stems from the disparities in transfer rates between various student cohorts.[163] The majority of students who transfer are not representative of the overall community college population: They are more likely to be from a higher socioeconomic class and have parents who attended college, and less likely to be African American, Native American, or Latino.[164] The role of gender in transfer has also changed over the past three decades. Male students were more likely than females to transfer in the 1970s and 1980s. But recent research indicates that more women than men now transfer to four-year institutions or earn community college degrees or credentials.[165] According to Hagedorn, this finding may be explained in part by the fact that more women than men complete the lower-division English requirements necessary to transfer.[166]

African-American, Latino, Native American, and low-income students are especially underrepresented in science, technology, engineering, and math, also known as STEM disciplines.[167] Students from these groups—especially low-income students—have faced a

number of obstacles that hinder transfer and degree completion, including a need to work to support themselves or their families, which may make completion of STEM courses more difficult and slow their progress toward transfer or a community college degree.[168]

Likelihood of transferring to a university is also affected by how well a student integrates into the community college's academic and social environment.[169] Academic and social integration can include meeting with faculty outside of class; participating in study groups; becoming involved in learning communities; meeting with counselors, advisers, or tutors; and joining a student club or organization.[170] Flowers found that community college students were often much less involved in these types of activities than students at four-year institutions.[171] This is likely due to other responsibilities, particularly for commuter students who hold jobs outside of college and/or take care of families. The lack of out-of-class involvement is also due to the high percentage of part-time faculty on community college campuses who are not compensated or rewarded for holding extra office hours, leading student organizations, and so forth.

Academic and social engagement can play a critical role in promoting student transfer. Laanan noted that workshops or orientation sessions that inform students on the transition to a four-year institution can be effective in facilitating academic transfer.[172] Such workshops may include descriptions of college life at four-year universities, and may include information about how administrative offices work on campus. Workshops that provide students with exposure to particular types of computer software were also effective in helping students because they exposed students to the types of technology they will need to be familiar with upon arrival at a university.[173] The need for student exposure to computer technology is evident, and organized workshops would promote student engagement and serve to better prepare community college students for technologically oriented classes at universities.

Student peer mentoring programs also demonstrated positive results in improving student engagement and transfer. Mentoring programs connect incoming community college students with more experienced peers who are available to answer questions and explain specific concepts that can help facilitate students' understanding of course material and assist in their transition to community college life.[174] Federal programs fund this practice at many community colleges, but community college practitioners note that these support programs accommodate fewer than 10 percent of students.[175]

Quality advising can play a key role in improving transfer. Zamani showed that the courses students take, and the sequence in which they take them, appear to affect transfer outcomes.[176] Students take courses that are not transferable, which prolongs the path to transfer, or do not take the appropriate English, mathematics, and science courses needed to transfer in a timely manner. Ineffective or unavailable academic advising or counseling leads to unproductive course taking. Research on students in California found that counseling helps students obtain the information they need about course modules, deadlines,

and prerequisites that can ultimately help them transfer, and that counseling programs targeting students from backgrounds that traditionally exhibit lower levels of transfer and degree completion may increase overall transfer rates among these groups.[177]

Student affairs practitioners, often overlooked in student academic outcomes, also affect student transfer. Culp specifically examined the role of student affairs practitioners in improving advising for community college students.[178] She noted the importance of partnerships between faculty and student affairs practitioners in encouraging students to remain enrolled and accomplishing their educational goals. She further posited that student affairs practitioners and faculty can work together to utilize technology in ways that can provide useful information to improve student retention and transfer. Santa Monica College's Adelante program for underrepresented populations—particularly Latino students—is an example of one long-term initiative that has contributed to Latino students' high transfer rates to four-year colleges and universities.[179]

The role of power and politics in re-imagining community colleges

Another step in conceptualizing the transformation of community colleges requires a student-centered assessment of the role of the institutions beyond academe in the broader political economy of the United States. This evaluation calls for an acknowledgment that community colleges are nested in state and federal political contests over postsecondary costs and benefits. To the extent that aspects of the institutions are under performing or if they are seen as failing to meet the demands placed upon them, they will lack legitimacy in the political arena. The strengths and weaknesses of community colleges in political competitions over policy, resources, and autonomy can be understood by applying a three dimensional view of power relations to the postsecondary arena.[180]

When measuring the political salience of the various functions of a particular institution, the one-dimensional question that political scientists and policymakers ask is, "whose interests are served?" In the case of community colleges, each of their primary functions can be linked to distinct constituencies with quite different roles and bases of support in the wider political economy. The direct beneficiaries of developmental education are the students who receive that education. The broader society gains from a better educated populace. The business community benefits from more employment-ready students emerging from basic skills programs. Yet basic skills students are part of a diverse, fragmented, time-stressed, and disproportionately low-income group—one that is not well-positioned to lobby its own cause in state or federal policymaking venues. Basic skills students and their allies therefore have limited leverage to pursue greater resources and institutional accountability, or to expedite the transformation of secondary school training and assessment that is essential to reduce the need for developmental education at the postsecondary level.

Business groups and a myriad of social welfare organizations similarly support adult students at some remove from the secondary system, learners in ESL programs, and recent immigrants. The allies of basic skills students—and of community colleges in general—have been most effective at keeping tuition relatively low to enhance access, and less successful in ensuring the types of institutional and systemic transformations that would guarantee both access and success.

Students are also the direct beneficiaries of occupational-vocational education. Business and industry at the local and national level—and those investors and others who gain most from the nation's economic development—comprise a formidable political interest

group—one that can do much to constrain or advance the transformation of this sector of the community college. For-profit universities serve at once as educational providers and as representatives of business and industry. The transfer function brings together a political coalition of students, parents, and dependents, as well as the four-year colleges that are the primary sites for transfer and those occupations, professions, and national economic development projects that benefit from higher levels of baccalaureate attainment throughout the labor force.

A two-dimensional view adds what Bachrach and Baratz defined as,[181] "the mobilization of bias" to an understanding of power and policymaking.[182] This view suggests that an institution's legitimacy in the political arena and the degree of freedom it can exercise in shaping policy are determined to a large extent by the normative understanding of its appropriate role and effectiveness. The model also points to the importance of interest groups in constructing normative beliefs about institutions. Community colleges have been guided throughout their histories by performance expectations and regulations that are in many cases shaped by four-year institutions.[183] Local, state, and national business interests have also been highly influential in shaping popular and political understandings of the role of community colleges. And it's not surprising that those groups have helped build a vision and the capacity for community colleges to serve as primary sites for occupational-vocational training and economic development.[184]

One example of the shift in normative understandings of the role of community colleges can be found in political contests over where to locate the responsibility for basic skills training in the postsecondary sector. The debate has changed over time as more politically powerful institutions have moved away from developmental education. The focus today is less on where to locate developmental education than it is a contest over how many resources to allocate to community colleges as the primary sites for developmental education. At the same time, community colleges have embraced the provision of developmental education and rely on revenue for that purpose.

There is a strong meta-narrative in the political arena that suggests community colleges are failing to meet expectations for the transfer function. This is a normative belief rooted in part in the view that the outcomes achieved by those who begin in community colleges should mimic those at four-year colleges. This is particularly true with regard to the transfer function. For example, it is not often noted that transfer from community colleges to four-year institutions is quite effective where there are significant resources and levels of student preparation are high. The fact that those conditions do not prevail throughout community colleges does not diminish the potential of the transfer function; on the contrary, it should suggest that we give more attention to the policy processes that are instrumental in shaping resource allocation for individuals, communities, and the institutions that serve them.

There are some signs that the meta-narratives in the policy arena that shape each of the primary functions of community colleges are beginning to shift through research and politi-

cal action. President Obama's confident and laudatory address at Macomb Community College, and his commitment of resources to the American Graduation Initiative, is a key step in shifting both the implementation and the normative understanding of workforce development through community colleges. It would be of enormous help to these colleges for the president and other political leaders to embrace and support a new understanding of basic skills development and the transfer function as well.

A three-dimensional approach to power and policy requires that we also re-imagine the terrain of political contest. The combination of historical allocations of resources—and legitimacy and the normative understandings of institutional potential and performance that follow—have facilitated a process through which "the bias of the system can be mobilized, recreated and reinforced in ways that are neither consciously chosen nor the intended result of particular individual's choices."[185] This calls for recognition of a latent conflict between those with the power to transform community colleges and the fundamental interests of students in those colleges. Embracing that conflict in our research on the political economy of community colleges and the policies that shape them is an essential step to understanding the outcomes of the various functions at many community colleges. It also allows for a degree of reframing of expectations for the colleges and of our understanding of success for the unique population that accesses these institutions. It is to that vision that we now turn our attention.

Re-imaging the functions of community colleges

A student-centered understanding of community colleges

Transformation through a student-centered perspective begins with the realization that community college students constitute an extremely diverse and in many cases vulnerable population. Adopting a typology of students based on their degree of risk of failing to achieve their own educational goals—let alone socially optimal outcomes—requires that we move outside of normative visions of student entrepreneurship and beyond neoliberal notions of rational actors, informed consumers, and market mechanisms as drivers of change.[186]

A student-centered approach calls for a commitment to understanding many of the matriculates of community colleges as individuals poorly prepared by prior training and guidance, and deserving of significant political, economic, and personal support. This approach demands that political leaders and policymakers, as well as community college administrators and stakeholders in the institutions, create a buffer between vulnerable students, communities, and institutions, and the interest groups that shape postsecondary policies in traditional ways that have too often been aligned with other, more powerful constituencies.

If we are to position community colleges and their students as effective and globally competitive agents of economic development, we must reconsider the degree of support we provide them. Michigan's No Worker Left Behind program, which provides up to two years of free tuition for targeted programs of study, is an excellent example of putting significant resources behind bold visions. The Western European nations that currently outdistance the United States in metrics such as the percentage of the population holding degrees also outdistance this nation in many cases in their commitment to using tax revenues for individual and institutional support in the educational process.

It has been a very long time since the tax structure was used as a tool for increasing support for postsecondary education, but community colleges have existed far longer than the anti-tax movement in the United States, and they will likely outlast it. This is not to simply advocate a more liberally funded "business as usual" approach to community colleges and their students. Rather, it is to say that innovations in such areas as assessment, information management, delivery technologies, and individualized pedagogical strategies will require vision and funding. One of the key advantages that enable for-profit institutions to succeed is their access to capital markets. Beyond increases in annual support, public

postsecondary institutions also need access to capital for innovation, and political support for the initiatives that produce that capital. America's community college students deserve no less, particularly in light of the significant populations of historically underserved individuals in these institutions.

A student-centered re-imagining of basic skills education

A new approach to basic skills education in community colleges would be one that sees development not through a deficit model, but as an opportunity for growth and preparation. This begins with a redesigned and standardized assessment process, one that incorporates outreach and interventions in the elementary-secondary system along with such innovations as summer academies to improve student skills and build awareness of the challenges in postsecondary education. For adults and others accessing the colleges after breaks in the educational process, assessments, as well as the developmental practices that follow, need to recognize each individual's unique needs and vulnerabilities. New assessment procedures should evaluate readiness for postsecondary curricula and for postsecondary educational success writ large. This calls for linking assessment of scholastic readiness with measures of student economic self-sufficiency and knowledge of financial aid options. Assessment should also be linked to the creation of student portfolios and maps to goal completion that include recognition of individual challenges, such as dependent parents or children, demanding work schedules, lack of computer access or literacy, constraints on health or ability, and family educational histories.

Assessment of college readiness should also be linked to positive affirmations through the use of peer mentors and others available for regular counseling and advising on campus and online. Partnerships with local elementary-secondary systems provide opportunities for building success networks, and, perhaps most important, for collaborative efforts between educational sectors and state and national governance systems to reduce the need for remediation at the postsecondary level. The policy community can play an essential role in developing collaborations to address college readiness through the reauthorization of the No Child Left Behind Act. However one attributes the responsibility for the high rates of postsecondary remediation, and there are many different perspectives about where the burden of transformation should be placed, those who pay the largest price are the students who arrive at the portals of postsecondary education unprepared to succeed academically and personally. We should at the very least begin to systematically collect information on the degree to which students are moving toward college readiness throughout the elementary-secondary system.

Basic skills education needs to be more finely nuanced going forward. Colleges will benefit from exchanging semester-based, classroom-centered skills development courses for learning modules, self-paced programs, and learning communities. All of these can be created virtually as well as on campuses, and new technologies can enable a more incremental

and fine-grained approach to student development. Again, these programs need to be customized for a wide range of students, including working adults, nontraditional learners, and students in a variety of state and federal support programs. These programs need not be place-bound; students will benefit where these programs are delivered in community centers and workplaces, at the facilities of partner four-year institutions, and online.

The transformation of basic skills education will also require revitalizing the faculty in developmental education programs. Resources can be effectively devoted to hiring full-time faculty with experience working with diverse student populations and to enable community colleges to engage in new forms of professional development that offer faculty opportunities to learn more effective pedagogy for developmental courses.[187]

Credit attainment is central to student success in community colleges and beyond.[188] We extend that argument to basic skills courses. The traditional view that students who are in basic skills courses are by definition not college ready and therefore not eligible for course credit is one that has outlived whatever usefulness it had. That paradigm has required students to work their way out of educational limbo, caught between secondary and postsecondary education, with no route back and a slow path forward. The boundaries between secondary and postsecondary coursework should be reconstructed for basic skills classes in ways that are mindful of standards and our obligations to students on developmental pathways. Creating hybrid courses that build skills while enabling students to garner college-level content should be the goal for developmental programs going forward.

A student-centered re-imagining of vocational education

Just as our vision for re-imagining basic skills entails reconceptualizing the relationship between secondary and postsecondary education, our understanding of vocational-occupational education requires reconsideration of the relationship between students and the labor market. President Obama stressed in his speech at Macomb Community College that his plan for workforce development would ensure that students would be well prepared for high-demand jobs of the 21st century. That is an important goal for students who earn certificates and associate degrees in community colleges. Yet achieving that ambition will require new perspectives on those processes and on our understanding of vocational education throughout the postsecondary system.

Fundamental to this transformation is the recognition that the labor market is a dynamic entity, one with constantly shifting opportunities and requirements. Over the past century and with the best of intentions, community colleges have trained and retrained workers for positions that no longer exist in myriad industries that have vanished. There are a number of reasons why many students returning to the community colleges have been particularly vulnerable to shifts in the labor market, including opportunity costs that limit the time available for training and credentialing, insufficient

preparation for postsecondary coursework, and limited access to information about labor markets and returns on various levels of education.

Course credit is also central to re-imagining vocational education, along with the college-level critical thinking and content acquisition that enable students to build useful platforms for future coursework should they need to return to learning between spells in the workforce. The shifting demands of the labor market and lack of credit attainment in many vocational-occupational programs can lead to a revolving door of skills training and retraining that poorly serves students and communities.

The problem is compounded by the underutilization of federal workforce development assistance programs such as the Workforce Investment Act. The complexity of federal assistance programs and the varying forms of implementation have led to uneven outcomes and uncertainty. The current consideration of the renewal of WIA holds considerable promise, but only if legislators take to heart the need to simplify the process of obtaining assistance and better align the federal program with state and institutional initiatives.

A student-centered re-imagining of the transfer function

Perhaps no mission of the community college better embodies the tension between sociopolitical aspirations and institutional performance than the transfer function. On the one hand we honor incremental student progress in community colleges, as opposed to focusing on certificate and degree attainment. But we also need to recognize that the disparities in baccalaureate attainment between those students who begin at the community college and those students who attend selective four-year institutions threaten to undermine the legitimacy of community colleges and the state postsecondary systems in which they are nested. Simply put, the goal for the rate of community college transfer and subsequent baccalaureate completion should be equivalent to the rate of completion for those students who begin in four-year institutions.

A number of admirable state and national projects are currently devoted to increasing transfer and baccalaureate completion, but the normative political understanding of transfer from community college—that it is a function for a distinct subpopulation of the colleges—must change in order for major transformation to occur. Students who transfer to four-year institutions will continue to be those who are better prepared and better financed unless community colleges are organized and funded to support credit-course taking patterns that at least open pathways to the baccalaureate for every student who does not already hold the degree.

Policymakers and institutional leaders make a number of different assumptions about community college students' intentions. The default assumption at a four-year institution is that a student will complete a baccalaureate degree. The goal is clear, though often

unmet. There are many obstacles to instilling a similar ethos in community colleges and their students, but they are not insurmountable. Development and job training—as well as certificate and degree attainment—are essential parts of the community college missions, but all of those processes can be linked, through the attainment of college-level course credit, to pathways to transfer and baccalaureate attainment.

Federal and state policy recommendations

Federal policies

The House of Representatives passed the Student Aid and Fiscal Responsibility Act of 2009 in September 2009 and referred it to the Senate. It offers significant support to community colleges and their students. A number of policy initiatives that would support the re-imagining of the community colleges are included in the House version of the bill. Some aspects of the bill would be strengthened by modification in the Senate and we focus our attention there.

Financial aid

The increase in the maximum Pell grant available under Section 101 of H.R. 3221 is a welcome addition to the pool of financial aid available to eligible community college students. But students in community colleges need to be provided with new and more comprehensive forms of aid in order to realize national goals for degree attainment. This section of the bill could be strengthened through the creation of an additional financial support program modeled after the "Post 9/11 GI Bill." The additional aid would include student stipends for full-time or part-time community college attendance and allowances for books and supplies. This form of aid would be a bold, but necessary, step for legislators. Improving our position in global rankings of degree production will require the federal government to approach the amount and forms of aid offered by other nations.

Facilities

Section 351 of H.R. 3221 offers considerable federal assistance for construction, renovation, and modernization of community college facilities, including information technology infrastructure. The Senate could broaden the language in the bill that supports expansion of computer labs and instructional technology training facilities to include building student record data management centers, information portals for student outreach, and course and credit articulation. Extending support to institutional information management systems would be consistent with Section 503 of the bill, which calls for increasing students' electronic access to information on transfer credit, and Section 505, which calls for developing improved data systems and data-sharing protocols as well as increasing states' abilities to collect and analyze institutional level data.

Data collection

Section 504 of H.R. 3221 includes language requiring states that seek eligibility for funding to have "a statewide longitudinal data system that includes data with respect to community colleges." This section should be strengthened—and community college data collection significantly enhanced—by specifically calling for data on student enrollments in credit and noncredit courses as well as developmental education programs. These data could be used to improve outcomes in community college developmental education programs and would have great utility for collaborative efforts with elementary-secondary systems designed to reduce the need for remediation at the postsecondary level.

Professional development for faculty

H.R. 3221 includes provisions for improving teacher excellence in the elementary and secondary schools, including funding from the Secretary of Education for the creation of career ladders and professional development activities. Similar funding should be made available to community colleges seeking to create career ladders and develop more effective community college developmental education faculty members and to community college faculty seeking professional development and training in the pedagogy of developmental education. This can be accomplished through a revision of this provision or through additional language in Title V of the American Graduation Initiative.

Assessment

Federal legislation providing funding and guidelines for states to develop common standards for assessing students' developmental needs would enhance student progress and increase institutional effectiveness, particularly given the significance of developmental education in community colleges and the increasing mobility of students. Such legislation should also provide incentives for collaboration between elementary-secondary and postsecondary systems in the development of common assessment standards.

State policies

Funding allocations for post secondary education

Community colleges across the nation suffer from a lack of the financial resources needed to most effectively serve their students and other constituents. This problem is brought into focus when comparing the per student allocation to similar programs in community colleges and four-year institutions. State legislators should seek to more equitably distribute state funding, beginning with the allocation of resources to community college students in university transfer programs.

Innovation in training and credentialing

Rapidly shifting demand for skills in state and national labor markets calls for new approaches to sub-baccalaureate training and credentialing. States should fund innovative, credit-based training programs that respond to student and industry needs, while allowing students to build credit-based platforms for future training and degree attainment. Legislation should also support data collection and assessment of student credit and noncredit course-taking patterns to assist institutional adaptations in this area.

Standards alignment

States have for too long failed to develop clear policies on responsibility for developmental education. States must institute clear policies that support innovative uses of data, as they require collaboration between their elementary-secondary and postsecondary systems to improve K-12 preparation and to align standards for high school graduation with college readiness. The goal should be to significantly reduce the need for postsecondary remediation through early assessment, intervention, and continuous accountability at all levels of state educational systems.

Transfer levels

Despite considerable effort in legislatures, the policy community and institutions more needs to be done to improve levels of transfer from community colleges to four-year institutions. Legislation that has focused on articulation, outreach, and finance should be augmented with policies covering more sophisticated data collection, common course numbering, institutional policy alignment across segments, joint-baccalaureate programming, and technology-mediated information systems for students seeking transfer and baccalaureate attainment.

Institutional policies

The rapid pace of change in the education arena requires innovative approaches to institutional practices at every level. New competition and new opportunities, such as those afforded by H.R. 3221, demand that community colleges re-imagine their goals and practices to better serve student needs. That process will require that policies specific to the various domains of community college transfer, occupational, and developmental activities place students first. Institutional policies should also focus on new forms of collaboration with four-year institutions, community-based organizations, and business and industrial partners.

Conclusion

"Any time students can get more education and improve their worldview and their earning power, they win. But a couple of things go on in community colleges that I philosophically oppose. We are sometimes too reactive to the business community and build programs to fill a pipeline and put people into jobs that maybe they didn't want, weren't interested in, or that are dead end. So I believe that it's very important to always put the student first as you're developing or revising programs so that you give them economic pathways and academic pathways, so that when they leave us, they still can go further if they choose to . . . Everybody here philosophically agrees that promoting high skills, high wage jobs is our primary goal; however, we have some programs that frankly, if I were president, I wouldn't be offering. But I think that's true of every community college in the country."[189]

Our primary goal for transforming the community colleges echoes the words of the Community College of Denver associate dean quoted above—put students first. The myriad constituencies of community colleges and the multiple and conflicting demands that emerge from those groups have not always shaped the political economic terrain of community colleges in ways that ensure optimal outcomes for all students. The student-centered perspective begins with recognizing the distinctive character of the student cohort in community colleges and the unique needs of individuals seeking support at the colleges.

Innovative evaluation and assessment techniques that allow data to be combined with practitioner-driven assessments must be in the forefront of the process of re-imagining and transforming the colleges.[190] As one example, investments in emerging technologies will enable community colleges to sort student records with sophisticated demographic analyses, something like online retailers use in determining the products of most interest to their customers. Factors such as age, personal histories of educational attainment, prior course-taking patterns, test scores, and current employment status would offer information to counselors and advisers who work with students in confidential processes to individualize student programs as they map their futures in postsecondary education. A critical step for policymakers in this direction would be to support thoughtful consideration of universal record data at the state and national levels.

Putting students first in the arena of vocational and occupational education demands a similar paradigm shift at the institutional, state, and national levels. Community college students deserve the opportunity to obtain short-term training and certification to

enhance their employment status and at the same time position themselves for additional education and future credentialing, including baccalaureate degree attainment. Doing so requires community colleges to reinvent the role of credit attainment in the process of vocational training and workforce development. This will not only benefit students—it will benefit communities and the nation. Meeting the demands of global economic competition requires that more community college students develop greater degrees of critical thinking and more general education. Vocational and occupational programs will need to provide more effective pathways to associates and baccalaureate degree completion in order to meet President Obama's goal of 5 million new college graduates by the year 2020.

New forms of outreach, articulation, assessment and course delivery will be required to enable students from all areas of community colleges to transfer to four-year institutions. Improved forms of access such as technology-mediated information portals and tutorials can help build sustained interactions with students before, during, and after spells of attendance. The Virginia Education Wizard—created by Virginia's Community Colleges—is one example of an innovative, web-based approach.

Enhanced outreach to local secondary schools, workplaces, and community-based organizations is also essential to helping students build transfer aspirations and position themselves to make effective use of contemporary courses and programs mindful that their aspirations may shift over time and that they may take courses throughout their lives. Again, credit attainment is a key to effective scaffolding as students move through courses and programs.

There is a significant social justice component to honoring students' immediate needs through community college attendance while also positioning them for the possibility of future degree attainment. It will be increasingly difficult to sustain a system that is more effective at facilitating transfer for the best prepared and most affluent community college students than for others. We will need to extend the high level of success achieved with the one cohort to others throughout the student body.

One of the keys to reconceptualizing developmental education will be to enable students, institutions, and policymakers to recognize the process as an essential outcome in its own right, rather than solely as a means to achieve the goal of additional course completion at the community college. This will require rethinking developmental education, moving away from the "deficit model" of remediation, and embracing this area as a central and essential function of the colleges.

Institutions will benefit in turn from innovative approaches—such as quality circles for developmental education—based on collaborations between students, faculty and administrators throughout the college. This process can be facilitated by turning more attention to developmental education as a core element of institutional activity reviews. Developmental course delivery should also be made available in more formats, especially those such as self-paced instruction and open entry-open exit, learning communities,

extension of instruction beyond the classroom through project-oriented curriculum, and integration of developmental areas with vocational areas, such as English as a Second Language and Construction Management.

Perhaps most important, putting students first will require re-imagining community colleges as sites of equitable opportunity and equitable outcomes for all. Political leaders and policymakers will need to move past normative understandings of community colleges and their students, and expect no less of the institutions and their students than the best that is offered to students at any level of postsecondary education. It is an ambitious vision, but one that is well within reach.

About the authors

John Levin is the Bank of America Professor of Education Leadership and the director and principal Investigator of the California Community College Collaborative. The California Community College Collaborative has recently completed an investigation of program practices in California community colleges. Levin's books in this decade, Globalizing the Community College (Palgrave, 2001), Community College Faculty: At Work in the New Economy (Palgrave MacMillan, 2006), with Susan Kater and Richard Wagoner, Non-Traditional Students and Community Colleges: The Conflict of Justice and Neo-Liberalism (Palgrave MacMillan, 2007), and Community Colleges and Their Students: Co-Construction and Organizational Identity (Palgrave Macmillan, 2009), with Virginia Montero-Hernandez, are empirically based examinations of community colleges. He is currently working on two research projects on university faculty, one in the United States and one in Mexico.

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