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ABSTRACT

This report presents the findings of a national study initiated by the Ford Foundation to examine the policies affecting community college transfer, including obstacles to transfer and successful models for overcoming those obstacles. The first part of the document outlines current changes in higher education and identifies factors that encourage as well as discourage transfer. The factors promoting transfer identified in the report include: (1) action at the federal and state level; (2) collaboration between community colleges and baccalaureate institutions; (3) targeted efforts within colleges and universities; (4) increased role of faculty; and (5) effective administrative leadership. Case studies of seven states (California, Florida, Michigan, New York, Texas, Virginia, and Washington) demonstrate the complexities of transfer and the differences among states in both policy and practice. The authors provide recommendations for improved practice in the areas of: (1) financial aid; (2) academic issues; (3) admission and registration; (4) transfer practices; (5) incentives; and (6) remedial education. (Contains 20 tables, 7 figures, and 36 references.) (KS)

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REPORT ON TRANSFER FOR THE FORD FOUNDATION

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BY JULIE YEARSLEY HUNGAR
AND JANET LIEBERMAN

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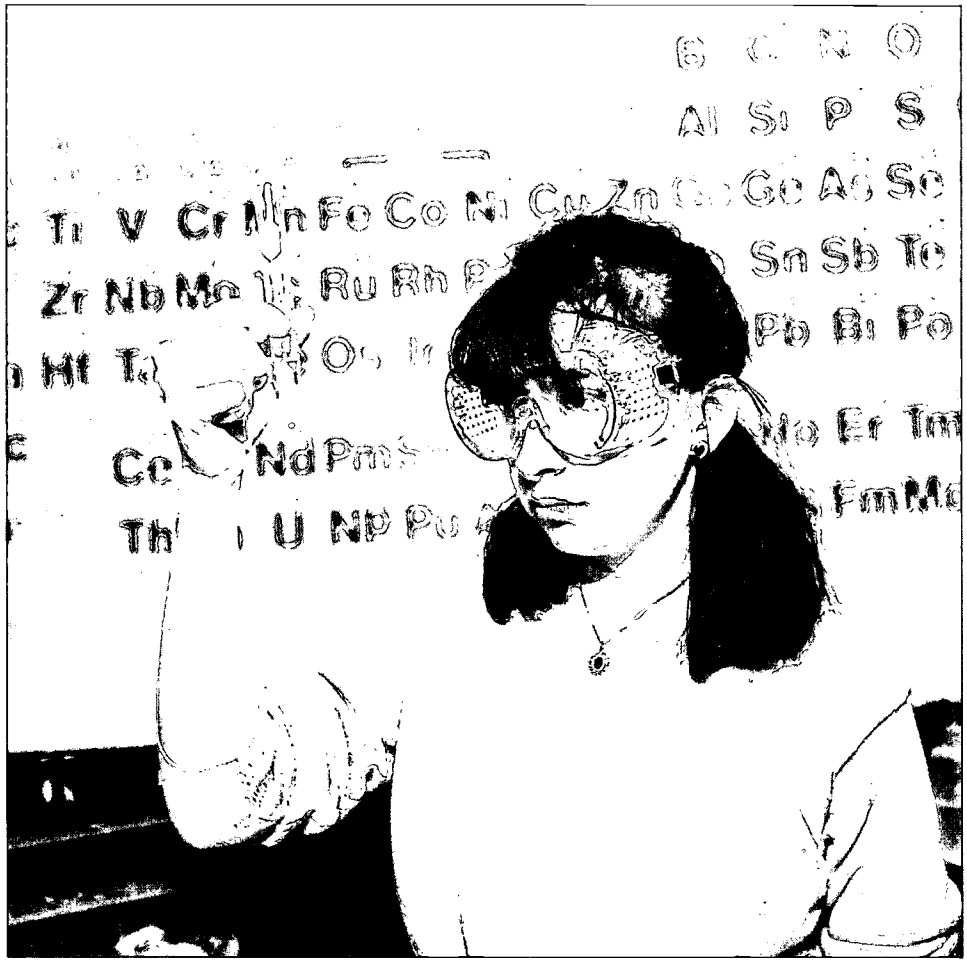


THE BACKGROUND

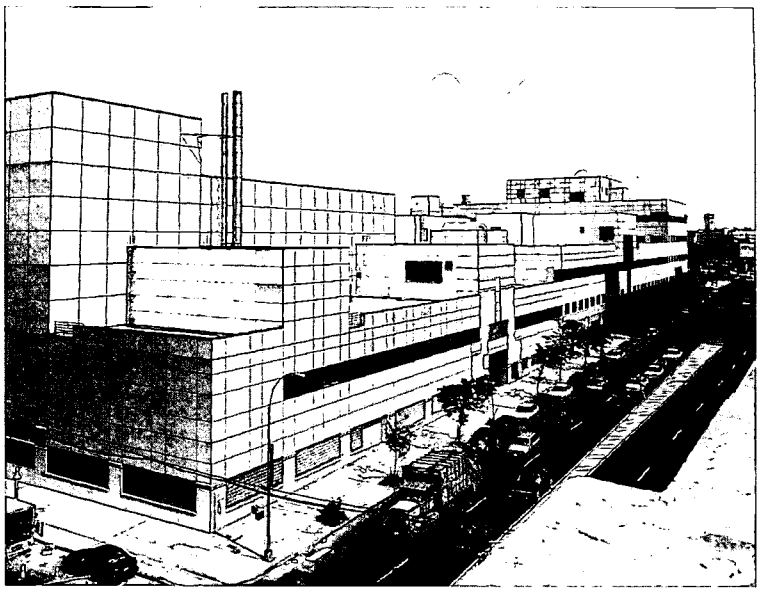
In the past three decades, the American road to equality grew wider through opportunities in public education. More recently, that road expanded to include higher education, as advanced skills became vital in the race to the future. Yet today, with competition even tougher, an increasing number of roadblocks create detours for low-income students. The contradiction between obvious need and national benefit prompts a study of the current state of affairs. The community needs to know what's happening and why, and educators need to know how to remedy the situation. What follows is an analysis of the turf, an explanation of how it is changing, and recommendations for further change.

Community colleges stand in the middle of this shifting road, and two-year college students hold the highest stakes in smoothing out the bumps that impede their progress. As the economic and social value of a baccalaureate degree increases, transfer from two- to four-year institutions becomes the vehicle for success.

Recent decisions about higher education at the national and state levels reinforce the importance of community college transfer. Committees in both houses of the 1998 Congress raised questions about whether problems in transferring credits from one institution to another were lengthening students' time to degree completion and increasing the cost of higher education (Council for Higher Education Accreditation, 2000). As a result, the reauthorization of the Higher Education Act included a provision directing the Department of Education to study the relationship of accreditation to transfer.

Major changes in university admissions policies in a number of states also direct attention to transfer. These changes, ending special admissions for minority students, have already affected enrollment trends. Eliminating remedial courses at the university level is another bar to entrance for students with inadequate skills.

As a result, transfer emerges as central to educational access and equity. The nation needs a route to middle class status for minorities and immigrants. Transfer opportunities are the way to achieve this goal; they also spur economic development by increasing the education level of the nation's work force.



Despite exemplary programs for promoting transfer, such as Exploring Transfer at Vassar College, various measurements of the transfer rate have found a constant rate of 20 to 25 percent over the past twenty years. Given that over half of all minority students in higher education are in community colleges, this raises concern about opportunities for the underserved. Unfortunately, it is difficult to get an accurate picture of transfer nationwide. Individual state agencies use different baselines to calculate the transfer rate for their state, making comparisons impossible. Few institutions or states follow students longitudinally to ascertain educational outcomes.

Purely in economic terms, the college transfer function of community colleges is the best bargain in higher education. It is a bargain for the student and her family, for every business that needs educated employees, for taxpayers, and for society at large. It costs far less for a student to gain a bachelor's degree when the first two years are spent at the community college. Escalating four-year college costs and the erosion of financial aid grants increase this advantage.

Because they are less expensive for both students and the taxpaying public, community colleges offer solutions to some of the pressing problems facing higher education. Two-year colleges can help meet the coming bulge

in high school graduates that threatens to overwhelm baccalaureate institutions in the next decade. Especially in urban centers, the community college serves large numbers of under-achieving groups such as African Americans and immigrants. As a result, it offers the means to reduce the striking gap in bachelor's degree attainment between these groups and the white majority, and closing that gap will increase the nation's educational level. For business and industry, community colleges can increase the pool of well-educated employees currently in short supply.

Recognizing the economic advantage of the bachelor's degree spotlights the importance of increasing opportunities for under-represented students to acquire the degree. As the proportion of these groups in the population increases, the health of our nation demands their participation in the move to the middle class.

Of all the issues facing higher education in the year 2000, transfer from the community college to the senior college may be the most critical for the future. It may also be the subject where there is the least definitive and comparable data, but the greatest opportunity to make a real difference in the social and economic welfare of the country. This will require concerted change in policy and practice at the national, state and institutional level.

For all of these reasons, in 1999 the Ford Foundation initiated a study of policies affecting community college transfer. The task was to analyze the current state of transfer on a national basis, to look both at obstacles to transfer and at some successful models for overcoming the obstacles, and to make recommendations for improvements in policy and practice.

The report that follows outlines current changes in higher education, analyzes available data as well as noting data needed, and describes the reality of the transfer process. It identifies factors that discourage students as well as examining efforts to promote transfer. Case studies of seven states demonstrate the complexities of transfer and the differences among states in both policy and practice. Finally, the report recommends policy changes to reduce some of the barriers.

The goal of this study is to promote a change in public policy that responds to society's changing needs. The report summarizes our findings and recommendations. It is intended to inform policy makers about the significance of transfer and to embed transfer in new patterns of public investment.

To gather data for this report, the authors and a group of advisers (see addendum) used several venues:

1. We conducted a broad-scale research of existing literature relevant to the topic. We initiated inquiries on transfer rates and policies in individual states.
2. We met one-on-one with recognized investigators who have surveyed aspects of the transfer problem: Richard Richardson, James Merisotis, Kay McClenney, Byron McClenney, Joni Finney, Jane Wellman, Carol Stoel, Anne-Marie McCartan and others.
3. We held a major conference on December 1, 1999, with speakers who had investigated transfer issues and offered both information and recommendations. Among the speakers were Clifford Adelman, Byron McClenney, Arnold Mitchem, Michael Nettles, Gary Orfield and Jacqueline Woods.
4. During October, November and December of 1999, writers and advisory group members met with educational leaders in California, Washington, and Virginia.
5. In February, 2000, we convened a second small conference of national researchers and policy advocates: Joni Finney, Anne-Marie McCartan, Byron and Kay McClenney, Jamie Merisotis, Carol Stoel and Jane Wellman. The purpose of this meeting was to elicit policy recommendations to improve the transfer rate.
6. As a result of this meeting, we commissioned the Education Commission of the States (ECS) to conduct a nation-wide survey of transfer policies. Information from the survey and ECS analysis of the data have been used in preparing this report. (ECS plans to use the results to begin a national database that they will update and expand. This will help fill the gap in comparable data on the subject of transfer, as an outcome of the project.)
7. We conducted telephone and in-person interviews with higher education officials in the case study states.
8. We shared aspects of the report with the advisory group members (participants in the February 2000 meeting.)

An important caveat accompanies this report. Because of renewed interest in transfer throughout the country, it is a moving target, and the information presented here is essentially a snapshot. We conducted our research over the period from 1999 through October 2000. Even as this material went into publication, information about new transfer-related activities was emerging.

THE TERRAIN

Avenues of progress from two-year to four-year colleges grow in importance as the national economic need for college graduates escalates. At the same time, shifts in the higher education landscape make baccalaureate attainment increasingly difficult. One such shift is the rising cost of higher education and the prevailing policy of relying on student debt to finance college expenses. Another is the increasing emphasis on higher standards, leading to "rising junior" tests required in several states and to reduced opportunities for developmental education in others. Still another is the elimination by some states of affirmative action in university admission policies. These changes point to the need for creative policy solutions that will increase transfer opportunities for community college students.

A major issue in educational change today is distance learning. Courses offered through television, videocassette or online have a potentially powerful impact on the two-year student's ability to amass credentials for transfer. Technology expands opportunity but it also introduces challenges. For low-income students, foreseeable issues include affordable access to technology and assurance of quality programs. The latter requires careful attention from accrediting bodies. Although many people have already earned degrees entirely through off-campus study, the full impact of this factor is still not known.

THE ROLE OF THE COMMUNITY COLLEGE IN BACCALAUREATE EDUCATION

Providing the lower division courses for a bachelor's degree was the primary purpose of the first junior colleges. Vocational education was added as a component early on, and adult education and remediation were also included. In the 1940s the title gradually changed to community colleges, reflecting their broader mission, but college transfer remained a central focus.

The balance in emphasis between the academic and vocational functions has fluctuated over the years. Today there is considerable variation in emphasis from state to state and even within states. Concern over the shortage of trained employees often places career education in the spotlight. Nevertheless, in recent years appreciation for the value of the transfer role has grown among educators, legislators and other policy makers. This represents a shift in public perception.

Over 5.4 million students enroll for credit in the nation's more than 1,100 community colleges (American Association of Community Colleges, "Factsheet," 2000). They comprise 44 percent of the total number of undergraduates and 46 percent of first-time college students. When they enroll, 42 percent of them indicate their intent to achieve at least a bachelor's degree (Coley, 2000).

A similar proportion enroll in vocational and technical courses leading to degrees or certificates, which in most cases do not receive transfer credit at four-year schools. Such students often decide later to seek a bachelor's degree and may need to repeat coursework to complete lower division baccalaureate requirements. Many colleges now encourage technical students to take college transfer courses along with their technical program to smooth the path to transfer. Some institutions have developed transfer agreements for technical studies.

The remaining students give a variety of reasons for enrolling. Many eventually move to a degree program after discovering that they have academic abilities and interests they did not recognize or have confidence enough to state when they first enrolled.

But that's where the good news ends. Since the 1980s policy makers have been concerned that only about 20 to 25 percent of community college students transfer to four-year colleges and universities. Results of studies over the last two decades suggest that the rate may fluctuate one or two per-

centage points, but the fundamental proportion remains the same (Cohen and Sanchez, 1997). The facts suggest a lost opportunity.

For minority students, community colleges are an especially significant avenue to a bachelor's degree. Fifty-five percent of Hispanic, Asian/Pacific Islander and Native American students and forty-six percent of African American students in higher education are in community colleges (ERIC, 2000). Unfortunately, the record of degree attainment for all of these groups except Asian Americans is much lower than for the majority white population (Cuccaro-Alamin, 1997). In fact, among all beginning students who seek a bachelor's degree, those who begin at a four-year institution are much more likely than community college entrants to achieve the degree within five years. A number of studies have focused on this fact (e.g., Zwerling, Brint and Karabel) and have concluded that minorities are better served by beginning their college education at a four-year school.

For those concerned with educational equity, however, these data strengthen the urgency of reducing barriers to transfer. The community college remains the only practical choice for those who are unable to relocate because of jobs, income, or family responsibilities. Two-year institutions also generally offer lower tuition, smaller classes, and a more student-centered approach to learning than larger, four-year schools. Finally, poor preparation in K-12 has left many students of color and those from low-income families with inadequate preparation to meet the entrance standards of four-year public institutions, especially those with selective admissions policies.

Among community college students who transfer, 70 percent acquire degrees over time, the same as the rate for all students (Adelman, "Traditional Transfer," 1999, p. 4). While only about one-fourth of those who are eligible to transfer from a community college to a four-year school actually do so, those who make the leap perform as well as those who entered the four-year school as freshmen. According to Adelman, "The classic form of transfer is an extremely effective route to bachelor's degree completion" (*Answers in the Tool Box*, 1999, page viii.)

Transfer works best for students who earn an A.A. degree at the community college. According to a U.S. Department of Education study, "43 percent of associate's degree completers had received a bachelor's degree by 1994, compared with 17 percent among those who transferred without any credential" (McCormick and Carroll, 1997, p. 38).

INCREASING AND CHANGING ENROLLMENT

More students today recognize the importance of a college education for their future economic welfare. Hard evidence of this comes from the increasing percentage of high school graduates who enroll in college. In 1997, 67 percent of high school graduates enrolled in college, compared to 50 percent in 1977 (U.S. Bureau of Labor Statistics, 1998). This trend is expected to continue.

Combine this change in public perception and student behavior with the arrival of the "baby boom echo," and it becomes evident that this growth will have a serious impact on college enrollments. Taking the "middle alternative forecast," the 1999 *Almanac of The Chronicle of Higher Education* predicts a likely increase of 1.3 million high school graduates between 2000 and 2005 ("Projections of College Enrollment," 1999). For higher education, the growth forecast is 627,000 students during the same period.

Demographics of the population growth complicate the picture. As of 1996, minority students constituted 31 percent of community college enrollment (ERIC, 2000). Population forecasts suggest that "by 2015 there should be an additional 500,000 Hispanic undergraduates and 200,000 African American undergraduates" if they enroll in numbers proportionate to their share of the college-age population (Carnevale, Summer 1999, p. 10). If these predictions are borne out, the proportion of students of color in higher education will jump to 37 percent (Coley).

Community colleges, especially in urban areas, already reflect this change. At LaGuardia Community College in New York City, students come from 100 different countries and speak as many languages. A high proportion of these students needs remediation, including language instruction. Typically, such students are the first members of their families to attend college. They tend to come from low-income families and need substantial financial aid to pursue "the American Dream."

Numbers and family background are not the only changing elements in college enrollment. The old concept of the student who graduates from high school and enrolls as a full-time college student no longer gives an accurate picture. Part-time attendance is the norm for nearly two-thirds of community college students. Only about one-third are less than 22 years of age, and another third are over 30 (Institute of Higher Education Policy, *Opportunity Endangered*, 1995).

Another "non-traditional" type of student behavior is increasing: students transferring with credits from a variety of institutions, including courses taken via technology or from industry and proprietary schools. In fact, while 40 percent of students attended more than one institution in the early 1970s, by the end of the 80s the proportion had risen to 54 percent (Adelman, *Answers in the Toolbox*, 1999). Enrollment data from 2000 are likely to show more than 60 percent of students now moving at least once and often several times during their college career. These new patterns point to the centrality of transfer in the picture of the future.

THE IMPORTANCE OF TRANSFER

A college education confers both economic and social benefits, benefits that accrue to individuals and to the public at large. A report from The Institute for Higher Education Policy demonstrates and provides supporting data for some of the most tangible benefits (Merisotis, 1998). (See Chart 1.) By extension, the report lays the groundwork for the value of transfer as a low-cost, student-friendly route for the first two years of college.

Among the public economic benefits cited in the report are the following:

- increased tax revenues. In 1994, "persons with at least some college paid 71 percent of all federal income taxes, despite the fact that they accounted for only 49 percent of all households" (p. 12).
- increased productivity. The report notes that higher education levels in the workforce receive credit for most of the nation's productivity increases.
- increased consumption. "Educational attainment has been correlated with higher consumer spending in a range of categories, from housing to food to transportation" (p. 12).

CHART 1

The Array of Higher Education Benefits

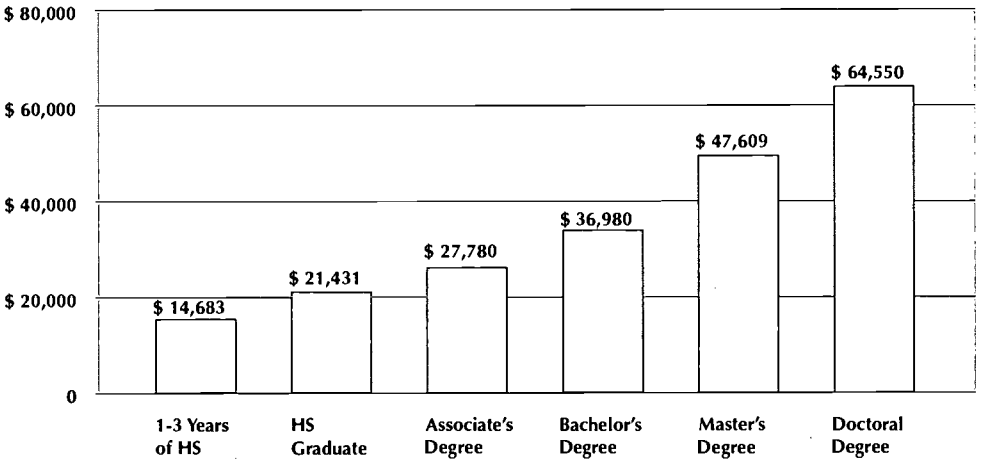
	Public	Private
Economic	Increased tax revenues	Higher salaries and benefits
	Greater productivity	Employment
	Increased consumption	Higher savings levels
	Increased workforce flexibility	Improved working conditions
	Decreased reliance on government financial support	Personal / professional mobility
Social	Reduced crime rates	Improved health / life expectancy
	Increased charitable giving / community service	Improved quality of life for offspring
	Increased quality of civic life	Better consumer decision making
	Social cohesion / appreciation of diversity	Increased personal status
	Improved ability to adapt to and use technology	More hobbies, leisure activities

Ample evidence points to the need of the nation's economy for more highly trained workers. Congress increased special immigration quotas in 2000 in response to the technology industry's claims of a shortage of skilled workers. According to the Washington Software Association, there are eight software job openings for every bachelor's degree graduate in the U.S., and every state has a shortage (Washington Software Association Website, 2000).

For individuals, the economic gain is well documented. Census Bureau figures for 1996 show that holders of the bachelor's degree earned 73 percent more than those who only graduated from high school, with similar gaps for each level of education (Merisotis, 1998). (See Graph 1.) College-educated people receive better fringe benefits and have lower unemployment rates, greater financial assets, better working conditions, and greater job mobility. (See Graph 2.) Anthony P. Carnevale, vice president of the Educational Testing Service, notes, "In 1959, only 20 percent of workers between the ages of 30 and 59 needed at least some college; today that number is 56 percent" (Summer 1999, p.10).

GRAPH 1

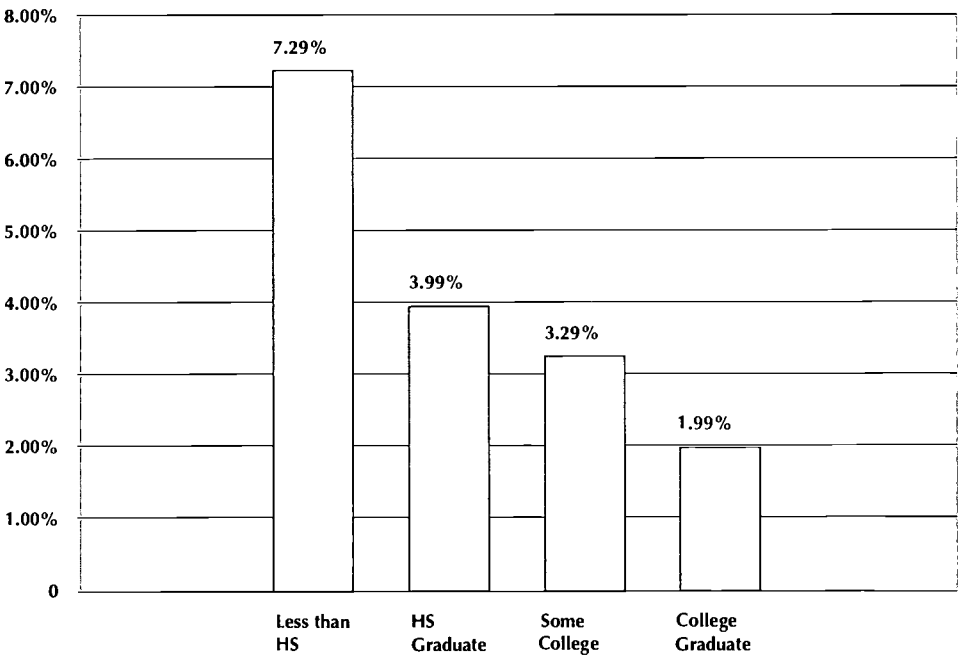
Average Annual Earnings by Educational Attainment, 1995



Source: Bureau of the Census, 1996

GRAPH 2

Unemployment Rate of U.S. Population 25 Years and Older by Educational Attainment, January 1998



Source: Bureau of Labor Statistics, 1998

TABLE 1

Presidential Election Voting Rates for the Population Ages 25 to 44 by Educational Attainment: Selected Years 1964–92

Year	1–3 Years of HS	4 Years of HS	1–3 Years of college	4 Years or more of college
1964	60.5%	75.5%	82.9%	86.2%
1976	38.5%	57.8%	67.4%	78.5%
1984	29%	49.1%	62.1%	74.7%
1988	26.3%	47.4%	61.7%	75%
1992	26.3%	49.8%	66.9%	78.5%

Source: National Center for Education Statistics, The Condition of Eductation, 1996.

TABLE 2

Health Characteristics of Adults by Educational Attainment: 1990

	1–3 Years of HS	4 Years of HS	1–3 Years of college	4 Years or more of college
Exercise or play sports regularly	29.7%	37%	48.5%	55.8%
Told more than once that they had high blood pressure	21.5%	15.7%	12.8%	12.4%
Smoke cigarettes daily	37.4%	29.6%	23%	13.5%

Source: National Center for Education Statistics, The Condition of Eductation, 1994.

The public benefits from its college-educated citizens in social terms as well: reduced crime rates, increased charitable giving and community service, and increased participation in civic responsibilities. (See Table 1.) For individuals, more education leads to better health and life expectancy, better quality of life for their children, better decision-making as consumers, and more leisure pursuits. (See Table 2.)

The advantages of a college education combined with the lower cost and greater accessibility of the community college make a powerful argument for assisting more people to use the community college as part of their route to a degree. Yet this is clearly not happening.

DETOURS

A look at recent events suggests that opportunities for upward mobility through advanced education are diminishing. As noted earlier, three factors in particular are raising the barriers, especially for the poor, minorities, and those with the poorest preparation from the public schools. These factors are 1) the increased cost of higher education coupled with decreased financial aid, 2) a new emphasis on standardized test performance as a gateway to further study, and 3) prohibitions against special race-sensitive admissions policies.

FINANCIAL AID

For over a decade, as the cost of college has increased, states have increasingly shifted financial responsibility for higher education costs from taxpayers to students. Students' share of the cost at public four-year institutions rose 27 percent between 1988-89 and 1996-97 (American Association of State Colleges and Universities, quoted in Trombley, Winter 2000). Tuition increases for public higher education institutions averaged 7.9 percent each year from 1989-90 to 1997-98 (Redd, 1998), far higher than increases in the cost of living and family income. For example, the total increase in the cost of living from 1990 to 1996 was 15.4 percent. Median household income grew even more slowly during that period, increasing only 13.8 percent (Trombley, Winter 2000). While the rate of tuition increases has slowed since 1998, it is still going up faster than the cost of living.

At the same time, federal support for higher education has been shrinking. Student financial aid has moved from a system featuring need-based grants to one in which loans are the predominant means of support. When Congress first enacted financial aid for college students, the largest proportion consisted of Pell Grants, which are given outright. Between 1980 and 1998, the value of the Pell Grant award shrank 24.2 percent (Trombley, Winter 2000).

In addition, regulations passed in 1992 effectively reduced the number of community college applicants eligible for the Pell Grant by three percent (Institute for Higher Education Policy, *Opportunity Endangered*, 1995, p. 6). An unanticipated and unintended effect of the new rules was to restrict severely the eligibility of independent -- that is, self-supporting -- students. An estimated 60,000 students were eliminated from the Pell Grant program following the rule change (Institute for Higher Education Policy, *Impact of Federal Financial Aid Policy Changes*, 1995). The change hit community college students most heavily because they are older on average than students at four-year schools and much more likely to be self-supporting.

With reductions in the Pell Grant, students have become increasingly dependent on loans to finance their education. "Loans accounted for just 20 percent of federal assistance in 1976, but in 1999 they make up more than three-quarters of it" (ibid.) As a result, the average college graduate owes $14,000 in student loans by the time she completes the degree (Trombley, Winter 2000). Between 1992-93 and 1993-94, community college borrowing rose twice as fast as that for all students, demonstrating the effect of the 1992 rule change (Institute for Higher Education Policy, *Opportunity Endangered*, 1995).

Leveraging Educational Assistance Partnerships (LEAP) is another section of the federal aid program whose funding has been cut. LEAP provides funds to states for need-based grants if the states match at least 50 percent

of the funding. The $50 million LEAP appropriation for 1997-98 was a reduction from $72 million in 1995-96 (Student Aid Alliance, 2000).

A number of studies have examined the effects of financial aid on student persistence in achieving a bachelor's degree. Researcher Laura Walter Perna summarized previous studies whose findings suggest that "financial aid eliminates the negative effects of inadequate financial resources and provides low-income students with equal opportunity to complete their degrees" (1997, p. 31). Her study focused on effects of different types of aid, finding that aid that influenced persistence most strongly was in the form of grants only or of work-study. Perna also cites a study by The College Board showing that receiving aid in the form of loans has a negative effect on bachelor's degree completion.

As costs rise and aid declines, the federal government is ignoring the needs of those least able to pay. Recently "the Clinton Administration proposed, and Congress approved, a massive tuition tax credit program that benefits middle- and upper-income families but offers little help to low-income students" (Trombley, Winter 2000, p. 5).

So the vaunted open door to the community college is becoming harder to slip through for those at the lowest economic level. Yet educational opportunity is more important than ever, as technology and information become the gateway to economic opportunity and middle-class status.

RISING STANDARDS AND REMEDIATION

Adding to financial stringency, new policies in several states have recently raised the bar for students seeking to transfer from community colleges. Raising standards in schools acquired a political valence and state and national publicity. With state legislators pushing to reduce expenditures, this rationale opened a way to limit access to college. The focus of college admissions shifted to accepting only those students who need little or no remediation, effectively reducing both diversity and expenses in one policy.

One form this has taken is the so-called "rising junior" test. In Florida, students must pass the College Level Academic Skills Test (CLAST) to receive an associate degree and be eligible for junior standing at a state university. Recent changes exempt students with a 2.5 grade point average from the test, and those who fail the test now may only earn up to 30 credits at a university before they must pass the test.

Texas requires a similar test, the Texas Academic Skills Program (TASP). This differs from the Florida test in that students take it prior to enrolling in college. If they do not pass, they take a developmental sequence to prepare for re-taking the test. They are required to pass the test by the time they have taken 60 semester hours. In 1997 the rules were revised to allow for alternative tests and other avenues to baccalaureate study.

Another way of raising the bar is that adopted by the City University of New York (CUNY) regents at the urging of Mayor Giuliani. They closed the doors of the city's famed four-year institutions to students who do not have college-level skills in English or mathematics (Marcus, 2000). For the first time since open admissions were adopted over 30 years ago, entrants must pass a standardized test. Furthermore, in 2001, even the city's community colleges will be closed to students whose test scores indicate they will need more than one year of remediation to do college work.

Massachusetts has already limited remedial instruction at its public universities to a maximum of five percent of freshmen. The California State University system plans to reduce remedial courses, and a number of other states have expressed interest in the CUNY plan. These measures effectively increase community colleges' responsibility for developmental education and ultimately discourage minority students from applying to college.

Yet equitable access to education requires providing remediation for students who are most poorly served by public education. One of the two most important variables Adelman found in analyzing bachelor's degree attainment was "Academic Resources" (*Answers in the Toolbox*, 1999, p. 3). He defines this as "a composite measure of the academic content and performance the student brings forward from secondary school into higher education. This measure is dominated by *the intensity and quality of secondary school curriculum*" (ibid.; italics in the original). This points directly to the importance of remediation, since large numbers (often as high as 80 percent) of community college students arrive with deficits resulting from poor prior education.

Responsible educators, particularly reading experts, maintain that attacking the problem at age 18 is too late. Students who need help can be identified as early as the third grade, and instruction in the early years is not just cheaper but also more effective. A body of educational opinion maintains that agencies should put money and support into pre-school and kindergarten, where basic concepts are formed.

With students for whom English is a second language the problems are entirely different, and the current practice of merging those students into the remediation numbers confuses the issues. Widespread variation in educational practices and the politics of this issue complicate matters further.

The issues in mathematics may be clearer. Adelman's data support the widely held view that passing seventh grade algebra is the gateway to college admission. Many schools do not offer algebra in the seventh grade; in fact many intermediate school students have not mastered the study of fractions.

The educational emphasis repeatedly turns to the earlier years. When the citizenry accepts the premise that every student should have the opportunity to gain a bachelor's degree, the pendulum may swing to support earlier mastery, and the current controversy on remediation in college admissions will be history. Until that time, generations of students will need help. In the interim, a significant population will require special programs to become eligible for college admission.

DIVERSITY

At the four-year level, special admissions policies that have provided opportunity for under-prepared students of color are under attack. In 1995, the regents of the University of California banned consideration of race or ethnicity in college admissions. This action was followed in 1998 by voter approval of an initiative giving the regents' action the force of law. The legislature also guaranteed admission to at least one campus of the University of California for the top four percent of high school graduates, although not necessarily to the campus of their choice.

In Texas, where a federal court struck down the system of affirmative action in admissions, the state responded by guaranteeing a seat in the public university of the student's choice to the top ten percent of graduates from the state's high schools. Washington state voters have approved an initiative modeled on California's, but without any guarantees for college admission.

In Florida, a similar initiative was proposed but abandoned when the governor enacted regulations to curtail racial preference. Instead, the top 20 percent of high school graduates would be guaranteed college admission. A number of other states are considering this percentage approach.

These policy changes have affected minority enrollments differently from state to state. In California, African American and Latino applications to the UC system dropped after the restrictions were approved but before they took effect. Since implementation, applications and admissions to the most selective institutions, UC Berkeley, UCLA, and UC San Diego, have dropped precipitously (Orfield and Miller, 1998). The overall percentage of minorities gaining admission to universities has not declined, however. The slack has been taken up by enrollments at less prestigious state schools. This phenomenon has already acquired its own term, "cascading."

Both minority applications and enrollment declined at the University of Washington, the state's flagship institution, after that state's initiative took effect. The number of African American high school students accepted in 1999 showed a drop of 36 percent from the previous year (Washburn, 1999). Latino enrollment was down 30 percent and Native American 15 percent. Asian American enrollment increased by six percent and Caucasian by eight percent. Since the initiative's passage, the University president has called for expanded outreach activities in an effort to restore the losses.

On the other hand, early data from Texas on the state's substitute strategy show that in the two years the program has been in place and after an initial drop, the percentage of minority enrollment has been restored to the 1996 levels (*The Chronicle of Higher Education Almanac*, Texas, 2000). The state's highly segregated high schools deserve some of the credit; many are all black or all-Latino, so students from these groups make the top regardless of the adequacy of their high school education. In Florida, official figures showed level enrollment of African American and Hispanic students in Fall 2000, but there has not been enough time to measure the full effect of the policy (Goldschmidt, Interview, 2000).

The rollback of affirmative action in freshman admissions to four-year institutions may serve to elevate the significance of community college transfer. Recruiting community college students is one positive strategy for universities that are genuinely committed to increasing their diversity. It is a way to promote degree attainment among minorities without focusing on race, because of the large pool of students of color in community colleges, especially in urban areas.

Projections of growth in the pool of minorities eligible for higher education mask the fact that, except for Asians, college enrollment by ethnic minority groups lags behind their proportion of the total population. Currently 30 percent of the nation's African Americans and 22 percent of Hispanics between 18 and 24 are in postsecondary education compared with 41 percent of whites in that age group (Trombley, Spring 2000).

Many educational leaders express concern about the gap both in college enrollment and in degree attainment among students of color. One example is Richard McCormick, president of the University of Washington. Reporting on the university's efforts to reverse results of the recent initiative, he cites three significant reasons to preserve diversity in higher education: social justice; social and economic health; and educational excellence (Seattle *Times*, March 19, 2000).

William Bowen and Derek Bok plead the case for expanding diversity in colleges and universities in their book *The Shape of the River* (1998). Based on their study, they conclude that special admission policies benefit not only the recipients but also their fellow students and society at large. They argue for the importance both in college and the rest of life of learning to "'work effectively' and 'get along well' with people from different races and cultures" (p. 220). Citing results from the Mellon Foundation-funded "College and Beyond" database, they note that whites as well as blacks in the study favored giving more emphasis to racial and ethnic diversity than they found in their college experience.

Discussing the value of diversity in the workplace, Anthony Carnevale writes, "Structural changes in the economy suggest that more U.S. workers will need to learn to value diversity during their college years if they are to be successful on the job" (Spring 2000, p. 10). He goes on to point out the importance of turning out more college graduates from minority groups not only for the sake of equity but also to meet the requirements of "the new American Workforce."

This becomes apparent when put in the context of the population's changing face. It is imperative that the growing ranks of non-white Americans both contribute to and benefit from the country's prosperity. Carnevale's advice is: "Improve access to college for students of all races, ages and income backgrounds" (p. 10).

ROADBLOCKS

The question of how many students actually move from community college to four-year school is central to any examination of obstacles to transfer. Attempts to answer the question are fraught with difficulty. One is deciding which students to count as potential transfers. Community college students have many reasons for being there, not all of them related to earning a bachelor's degree. Once enrolled, students often change direction. After initially declaring the intent to earn a vocational degree, many students discover that a four-year degree is desirable. Others may already have a bachelor's degree and are seeking a marketable skill. Some come back from a university to pick up one or two required courses and return, without completing a transfer degree but having met their needs. Should some or all of these students be counted as potential transfers?

The other major stumbling block to a common transfer rate is simply the lack of available data. There is no national transfer database. Among states which publish transfer rates, and in some cases even within states, there is a myriad of different definitions for measurement. Many states do not gather transfer data at all.

With renewed interest in the subject, means of ascertaining the transfer rate have received considerable attention. In 1989, the Ford Foundation, The American Council on Education, George Mason University and the University of California at Los Angeles supported the Transfer Assembly project (Jones, 1991). The project set out to develop a valid definition and process for calculating the transfer rate. The National Effective Transfer Consortium was a group of 28 community colleges that sponsored another

effort to define and measure transfer (Berman, 1990). Still other researchers have published studies on the transfer rate using Department of Education student databases (National Center for Academic Achievement and Transfer, 1993).

These studies, regardless of their definition, produce a transfer rate that ranges between 20 and 25 percent. The Transfer Assembly data are perhaps the most useful because they were gathered annually between 1990 and 1997 and report figures from a large number of colleges. The database began with 48 colleges in 1990 and by 1997 had grown to 419 colleges in 20 states (Cohen and Sanchez, 1997).

The Transfer Assembly defines transfer eligibility as "all students entering the community college in a given year who have no prior college experience and who complete at least 12 college-credit units within four years" (op. cit., p. 2). The transfer rate is the percentage of eligible students who transferred within four years of entering college. For the first three years of data collection, the transfer rate hovered at well over 23 percent. Since 1993, as the number of participating colleges has grown, the transfer rate has declined slightly, remaining at 22 plus percent.

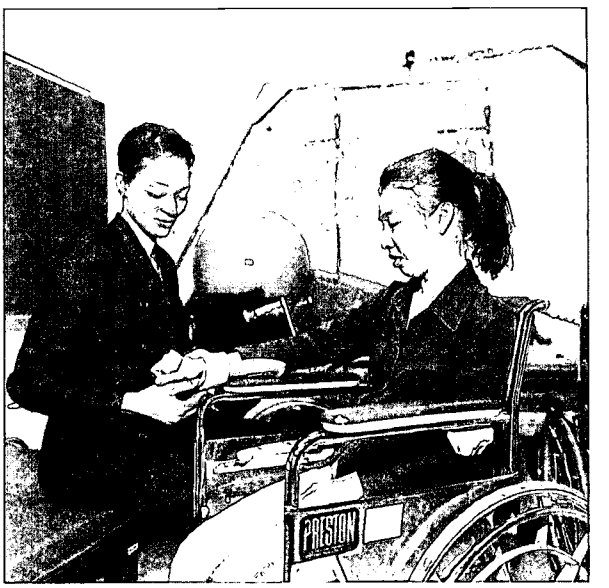
The study published by the U.S. Department of Education used a different base of calculation (McCormick and Carroll, 1997). It compared all students entering post-secondary education for the first time in 1989-90, regardless of credits earned, with those who had transferred within five years. The results are similar to the Transfer Assembly rate: by 1994, 21.8 percent of this population had transferred to four-year institutions.

McCormick and Carroll also studied those who specified a bachelor's degree as their goal. The transfer rate for this group, which represented 25.5 percent of all those in the study, was still only 39 percent. As the authors note: "Even when one defines prospective transfer narrowly, less than half such students had made a direct transition to a 4-year institution within 5 years of college entry" (1997, p. 31).

A new player has entered the transfer-tracking picture. In September of 2000, the National Student Loan Clearinghouse announced it was removing "Loan" from its title and offering a number of new services (National Student Clearinghouse, 2000). These include providing colleges with information, for a fee, on the institutions a student has enrolled in before, during and after attending the institution using the service. The clearinghouse gathers enrollment data for some 40 million students across the nation, so it offers the possibility of a much more accurate record of student movement

throughout higher education. New York is one state that has contracted for this information. When their data come in, officials there expect to see higher transfer numbers as out-of-state transfers are reported.

As cited above, 42 percent of students enrolling in community college specify the intent to earn a bachelor's degree. Further evidence for community college students' degree expectations is provided in a study of participants in the federal Student Support Services (TRIO) program (Chaney, Muraskin, Cahalan, and Rak, 1997). These students qualify for assistance by virtue of their low income and other risk factors: most are the first in their family to attend college; a large percentage of them are students of color; some students have disabilities. Among the group studied, two-thirds aspired to a bachelor's degree or higher when they entered community college. Taken together, these data suggest the existence of a significant group of people who may have intended to transfer but failed to do so.



Also noted earlier are data showing that students who make the leap from community college to four-year school perform as well as students who begin at a baccalaureate institution. Why then are the transfer numbers not greater? What happens to all those who enter community college seeking at least a bachelor's degree, take courses to that end and then fail to achieve the goal?

One way to answer these questions is to look at the many obstacles to transfer and how they are inter-twined. Using the example of a typical student may suggest the impact of this network of obstacles. Take the hypothetical situation of a single mother in her late 20's. (Well over 50 percent of all college students today are women, and the percentage is even higher in community colleges.)

Although she did not do well in high school, our student has developed enough confidence through her entry-level job that she has set her sights on a professional career. She decides to enroll in the local community college and reduces her workweek to 20 hours. To pay for tuition and help support herself and her child, she applies for financial aid.

If she applies for aid any later than February or March prior to the fall term when she intends to enroll, she may be too late for some if not all

forms of aid. That means she must postpone her entry for a year and reapply for aid, earlier the next time. Because she is self-supporting, she will have to meet stringent eligibility rules for a Pell Grant. If she is ineligible for federal aid, however, she may still qualify for some form of state or institutional assistance.

Assuming that she is eligible, she will find that about one-fifth of her aid is a grant which does not need to be repaid. The rest is in the form of 1) loans that will have to be repaid as soon as she leaves college and 2) work-study, which might pay less than part-time work for her previous employer. To continue receiving aid, she must maintain passing grades and a class load of at least 12 credits.

When she applies to enroll at the college, she will take a battery of entrance tests. The results are likely to identify deficiencies that require her to take developmental courses in English and mathematics, since she has been out of school for over ten years and was not a strong student then. There is a time limit on financial aid, set by each institution within federal and state guidelines. She may have only enough quarters of aid to enable her to take these non-college-level courses for no more than one or two terms and still finish her associate's degree.

Our student meets with a counselor to help her decide what major to pursue. The counselor encourages her to consider a teaching career, since it will enable her to be home when her child is out of school. She doesn't know which of the state's universities offering education degrees she will be able to attend, so the counselor encourages her to work toward an Associate of Arts degree. This provides the best assurance of having all of her credits accepted when she transfers.

For her first quarter, she enrolls in developmental math and English and also a college-level course in Native American anthropology that is on the college's list as meeting the social science requirement. The English course turns out to be taught in a crowded language lab with minimal individual instruction. It does not help her with the anthropology course, which requires considerable writing. She earns mostly D's and considers dropping the course, but realizes that this will jeopardize her financial aid. She worries that the low grade will affect her acceptance into a four-year school, but a classmate tells her about the college tutoring service. With the help she receives there she pulls her final grade up to a C.

At the beginning of her second year at the college, our student feels confident that she can make it in a university and decides which one to apply to.

She discovers that this university has reduced the list of courses that meet the social science requirement, and her anthropology course has been stricken from the list. This means that none of the credits from her first quarter will count toward transfer, nor will the additional ten credits of developmental courses she took in her second quarter. The university also requires an additional English course for junior standing as an education major.

As she adjusts plans for her second year at the community college, she realizes that her abilities and interests actually lie in the direction of computer technology. She has developed considerable skill in this area on her job. As she studies the requirements for this major at the four-year institution of her choice she discovers that she should have taken more science and math courses rather than the distribution requirements of the A.A. degree. This further lengthens the time she must spend to enter the upper division courses in her chosen major. She is fortunate that she made the discovery at the beginning of her second year, because the first course in a required three-quarter science sequence is only offered in the fall quarter.

She is a determined young woman, and she persists through the nearly three years it takes her to complete her A.A. degree and the pre-requisites for her major. This puts her into the cohort shown to be most likely to transfer and then to complete a bachelor's degree.

The next challenge is to gain admission to the four-year school, which may have filled its quota of transfers for the year. Of course, if she lives in a state that requires a test at the end of the second year of college, she will have to pass that first. If accepted by the university, she still may be denied entrance into the major she has chosen because there are no openings or the grade-point average for admission has been raised. Even then, she may need more than two years to complete a bachelor's degree because of complications in scheduling some courses required for the degree.

There is always the problem of money, for by the time our young woman reaches the university, she can expect a tuition increase, if she hasn't already had one. She will be growing more anxious about the mounting debt from her student loans. Should she find that she needs to stop out of college and go back to work to recoup her finances, she will have to begin repayment of her loans.

Though hypothetical, this story is quite typical of the experience for community college students who succeed in transferring. In fact, it is happier than many students' stories, which do not end in a successful leap across the barriers to a four-year institution.

If we try to categorize the obstacles these students face, one way to sort them is into financial and academic issues. Under the financial heading come the complexities of applying for aid, the shrinking aid pool and increasing dependence on loans, the ever-increasing cost of education, and the difficulty of balancing school and work as well as family responsibilities.

On the academic side, the list includes inadequate preparation, need for developmental courses and advising, lack of transfer agreements, the complicated articulation of courses and credits, differing course requirements for core and major, and the absence of agreements reserving space for transfer students in desirable university programs. Moreover, university requirements often change during a student's journey to the associate degree.

To complicate the picture further, these obstacles are not separate but are inter-twined. They can form a jungle-like network entangling the student who doesn't have the resources to cut through them. Lack of money is a fundamental issue and underlies others, such as poor health and lack of childcare. A student may drop out because the course he is pursuing does not match his abilities, and he can't afford to start all over because his aid is running out. He may have additional expenses that require him to work more hours on his part-time job. If he doesn't carry a full course-load he will lose his aid, and if he drops out to recoup his finances he will have to begin repaying his student loans. Discouragement because of inadequate study skills or changed university requirements may combine with family pressures to tip the scales toward going to work full-time.

Students have many reasons for dropping or stopping out of college, some entirely personal. But this litany of typical obstacles commonly faced by community college students shows how many of the obstacles are institutional or governmental. And it is within the power of the institutions and of state and federal policy makers to eliminate these obstacles. Some suggested approaches follow.

PAVING THE WAY

The potential benefits of increasing the transfer rate have long been apparent to many educators and funders. Educational leaders, foundations and government agencies have expressed interest in increasing the progress of students from community colleges to baccalaureate institutions. The basis for this interest is the recognition that community colleges offer access to higher education for nearly half of all college and university enrollees and more than half of all students of color. Thus, "if the country's major commitment to access, equity, and quality is to be met primarily through its community colleges, the path from these institutions to four-year schools needs to be wide, direct, and uncluttered" (National Center for Academic Achievement & Transfer, 1991, p. 4).

Over the past 20 years, foundations have funded a number of efforts identifying barriers and promoting practices to smooth the transfer student's path. The Ford Foundation's Urban Community College Transfer Opportunities Program stimulated colleges to develop innovative methods for getting more students through the transfer pipeline. Later another Ford project, the National Urban Partnership, funded broad educational collaboratives in 16 cities. Again, increasing the transfer rate was one aim of the program.

Attention to transfer by institutions as well as foundations has produced exemplars of best practices, providing models that merit replication. One of these is Vassar's Exploring Transfer, a model program for community college students that has proven highly successful in promoting transfer since 1985. Ford was a major source of funding for the program, which

also received support from other foundations as well as individuals and corporations.

Exploring Transfer is essentially a mini-college experience. Community college faculty nominate students who have academic promise but whose aspirations are limited. The chosen students live on the Vassar campus for five weeks and participate in a rigorous liberal arts program of study. They earn Vassar credit for two courses developed and team-taught by one faculty member from Vassar and one from a participating community college.

Over the first ten years of the program, 64 percent of program graduates who reported their career trajectory went on to four-year schools, including Vassar and other prestigious institutions. Their academic records after transfer are exemplary; a number have achieved graduate degrees, including at least five PhDs (Lieberman and Hungar, 1998).

The Vassar model was replicated at five other liberal arts schools, and those at Bucknell University and Smith College continue to operate. They report equal and in some cases even higher rates of success among participants. Like Exploring Transfer, the replications seek a mix of students of color and white students, usually from low-income and first-generation college families.

A collaboration between Santa Ana College and the University of California at Irvine created a similar program, with comparable results. The Summer Scholars Transfer Institute invites 150 students to attend a two-week summer program on the Irvine campus, living in university dorms along with program faculty, counselors and UC student teaching assistants. Over the program's first five years, transfers of African American and Latino students from Santa Ana to the UC system have doubled (Featherstone, 1999).

Leaders of these programs attribute their success to a constellation of elements: intensive faculty involvement, high academic quality and expectations, a residential experience on a prestigious four-year campus, strong academic support and peer counseling. The Santa Ana project demonstrates the

model's potential for scaling up in numbers and working with large public institutions. It is also important to note that students participate in these programs at no cost; the institutions fund them with assistance from foundations, endowments, individual and corporate donors.

The Community College of Denver offers another approach to increasing transfer. Beginning in the mid 1980s, President Byron McClenney (now president of Kingsborough College in New York) led a multi-pronged effort to improve students' academic outcomes with an emphasis on under-achieving students of color. A cornerstone is integrating developmental education into the college program, supported by an emphasis on teaching critical skills across the curriculum. College policies emphasize faculty development and rewards to support the high priority of skill development. Clear exit competencies enable students and faculty to know the goals, and reaching the established competencies is stressed throughout the college's programs.

Starting from a 1986 baseline in which 17.5 percent of Denver students had graduated and transferred within three years of entrance, the percentage reported in 1999 has increased to 43 percent. By 1998, completion of developmental courses became a predictor of success, indicated by either graduation or transfer. "Cohort tracking showed no significant difference in student success on the basis of race, ethnicity, age, or gender" (Community College of Denver, 1999). Students of color were 54 percent of the student population but made up 55.5 percent of transfers.

One more avenue to enhancing transfer is worth noting. Santa Monica College, third largest in California, sends by far the highest number of students to the state's four-year schools. In Fall 1997, 517 Santa Monica students transferred to University of California campuses, compared to 383 for the next-highest feeder college (University of California, 1999). Under-represented minorities made up 20 percent of the total transfers. (This does not include Asian Americans, who made up nearly one-third of the total.) Santa Monica attracts students from surrounding areas with its focus on transfer. Counseling is at the heart of the college's transfer effort. The transfer and counseling centers are combined, rather than separate as in most colleges, so there is no "transfer ghetto" (Nannini, Interview, 1999). The large counseling staff includes transfer experts, providing "intensive orientation, sophisticated tracking efforts, and UC application workshops" among transfer-directed activities (Leovy, 1999, p. A1).

A three-year study of participants in the federal Student Support Services (TRIO) program reinforces the role of support services in student retention

(Chaney et al., 1997). Among the TRIO participants, 62 percent were still in college after three years. A comparable group of students from the Beginning Postsecondary Study with characteristics similar to the TRIO students had a 55 percent retention rate. TRIO students used college services, including tutoring, advising and counseling, more than comparison students.

Many community colleges offer special transfer programs. The major thrust of this report is to examine policy issues rather than to catalog exemplary programs. One important aspect of policy, however, is to discern programs that merit support at the policy level. The programs described here demonstrate key elements of effective transfer efforts: faculty involvement, academic rigor, basic skills and counseling support.

Like the obstacles cited in the previous section, solutions to the transfer dilemma are inter-twined. They need to be addressed separately, however, because they reside in different policy arenas. Financial aid, one of the most critical factors, involves federal and state policies. Other solutions are embedded in the practices of baccalaureate institutions and how they evaluate community colleges and their students. A third set resides in the practices of community colleges themselves in preparing their students for admission to the baccalaureate level.

For illustration, consider the perspective of a community college president who wants to increase student transfers. She believes in the college's transfer mission, and she understands that it requires leadership not only inside the college but also within her region's higher education community and at state and national levels. What should she do? A look at her options suggests the priorities described below.

Financial support for students is a major challenge. She spends a good deal of time seeking private funds for the college scholarship program, but some of her effort also goes into lobbying for more state and federal student aid. She helps to shape the political agenda of the American Association of Community Colleges (AACC). This includes increasing the Pell Grant maximum in order to reduce the current weighting toward student loans. Then she talks to members of her state's Congressional delegation to build support for the AACC position. She also urges AACC to work for restoration of the pre-1992 definition of an independent student, to enable more self-supporting students to qualify for aid. And she suggests that the whole process for applying and giving out aid needs to be simplified.

This savvy president is intrigued by an idea she heard Arnold Mitchem put forward. As president of the Council for Opportunity in Education, he

promotes the federal TRIO program, which funds a successful student support program for high-risk students on her campus. Mitchem would like to see the TRIO allocation increased to give financial aid to eligible students who are not currently receiving adequate support. He suggests the funds should go to colleges on a matching basis. This would effectively increase the value of her college's private scholarship funds.

At the state level, our college president's actions depend on whether or not her state provides need-based student aid. If it does, she will collaborate with her presidential colleagues and the state coordinating agency to influence policy makers and legislators. If not, her task will be to share her knowledge of other states' policies to show how her state will benefit by enabling more students to attain degrees.

While working on state policy issues, she will also be concerned about the general level of support for community colleges. She knows that although state funding for community colleges has gone up for the past six years, it has still not redressed the declining share of state support that began in 1980 (Phelan, 2000).

Significant as the financial factor is in promoting transfer, the president understands that working with the four-year institutions in her region is equally important. If she is lucky, she lives in a state with collaborative working arrangements between two- and four-year institutions. Students who earn an associate's degree or complete their general education requirements at her college will have all their credits accepted by their major program at the state's baccalaureate schools. She will make sure that her college is represented effectively on the council that oversees transfer agreements. She will be vigilant in monitoring observance of the policy by the four-year schools and in assuring the quality of instruction in her college's transfer courses.

If the state does not have a positive articulation climate, the college president will be responsible for developing and maintaining individual articulation agreements with as many baccalaureate institutions as possible. At least, she will want such agreements with the universities that the majority of her college's students seek to attend. She will try to expand these

agreements beyond credit for the general education core to include acceptance of pre-requisites for courses in specific majors.

Securing articulation agreements will be smoother if she is from one of the states that have a common course numbering system for higher education. If her state provides for concurrent enrollment in a community college and a four-year institution, she will be sure that advisers inform students of this as an incentive to transfer.

Our president knows her job involves cultivating good relationships with the influential four-year schools in her region. The senior institutions usually have more clout with legislators, but community colleges have their own partisans, and making common cause can help move the agendas of both groups. This may be difficult, however, as the two are competitors for state dollars and lower-division students.

She is all too familiar with the attitude common among faculty at four-year institutions that community colleges are inferior academically. As a consequence, they may resist acceptance of courses from the two-year schools. Senior faculty also are jealous of their freedom to make changes in course and major requirements. Articulation agreements require constant attention to keep up with and, occasionally, to protest such changes.

To counter-act university elitism, she promotes collaboration between her faculty and those at the nearest university. This not only results in increased mutual respect among faculty, but it also creates a faculty support network at the university for transfer students.

Our college president sees Vassar's Exploring Transfer program as a promising model, and she sets out to find grant funding for a similar partnership with her liberal arts alma mater. Like all community colleges, her college enrolls many capable students who lack confidence in their ability and knowledge of the opportunities open to them. She wants such students to experience life on a four-year campus, and she knows the liberal arts education will challenge and stimulate them.

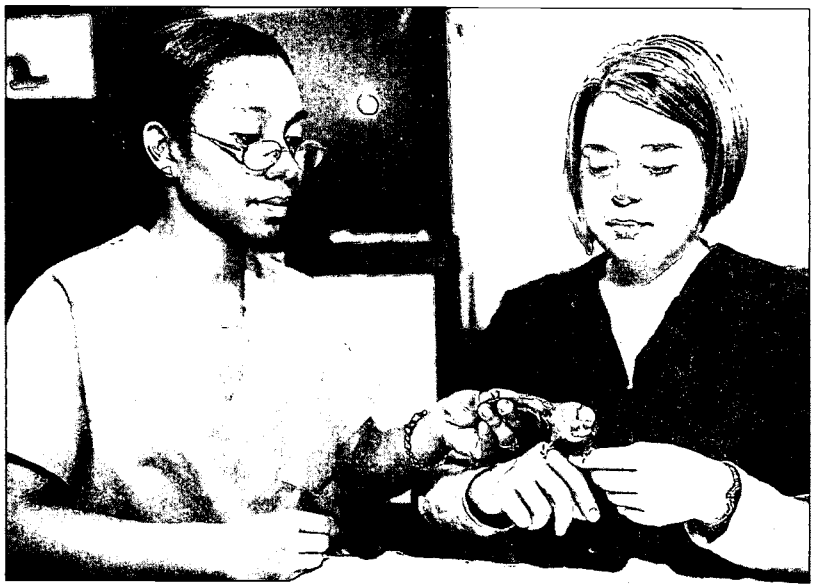
While attention to external policies and practices is important, this president also knows that her most powerful avenue for promoting transfer is through the faculty and programs of her own institution. With her faculty and staff she adapts the Community College of Denver model as a means to increase student retention and associate degree completion. Effective developmental education is a priority throughout the institution and across the curriculum.

Another priority is an intensive counseling intervention process that helps keep students in school and making progress. Counselors and advis-

ers are thoroughly trained in helping students prepare for transfer and are evaluated and rewarded based on student satisfaction with their services. Accurate transfer information is widely available both in the transfer center and online, with access at student kiosks across campus. The student information system is tied into the state's other higher education institutions so that transfer information is current.

The actions described here reflect the thinking of educators and policy makers interested in increasing the transfer rate. These educators are convinced that adopting policies and promoting best practices can make a difference. This requires action at the federal and state level, collaboration between community colleges and baccalaureate institutions, and targeted efforts within the colleges and universities. It also requires that faculty play a major role in this effort, and the effective administrative leader must involve them, enable them to recognize their importance, define their roles, and support them in making changes necessary to accomplish the goal.

CASE STUDIES



Any effort to address policy changes that improve the transfer rate must confront the great variation in transfer policies and practices from one state to the next. Most states address some factors affecting transfer effectively but their systems have weaknesses in other areas. Financial aid, research, and information dissemination can and should be addressed at the federal level. Other policy areas can best be analyzed and addressed on a state-by-state basis.

In an effort to describe policies and practices that support and impede transfer, this report provides individual case studies of the transfer practices in seven states: California, Florida, Michigan, New York, Texas, Virginia and Washington. Six of the states, excluding only Virginia, rank in the top seven for highest community college enrollment. (Illinois is the other state in the top seven.) The states studied are all in the midst of significant changes in policies relating to transfer and have flagship institutions that set precedents for their peers. They also represent the broad range of variation in statewide coordination, transfer policies and collection of transfer data. Together they offer a representative picture of the patchwork of higher education policies influencing transfer positively and negatively.

The survey of transfer policy conducted by the Education Commission of the States for this project has been a valuable source of information. Other major sources include extensive interviews with and materials from educators and policy makers in the case-study states and the on-line *Almanac of The Chronicle of Higher Education.*

Charts at the end of the case studies highlight the information on transfer from each of the states. Note that where a transfer rate is listed, it is the figure provided by that state's higher education office. The figures are not comparable, as each of the reporting states uses a different definition for transfer. The only state that provided the Transfer Assembly rate was Washington, which reports a 27 percent transfer rate using the Transfer Assembly definition. Like the other states in the study, Washington also has its own definition, which is the one given in the chart.

CALIFORNIA

SYSTEM

The public higher education system in California includes 33 four-year and 109 two-year institutions. Private non-profit and for-profit institutions add 183 four-year and 75 two-year schools to the total (*Almanac*, California, 2000).

Nine of the public four-year institutions are in the University of California (UC) system; 24 are part of the California State University (CSU). All have as their mission teaching, research and public service, but the UC schools emphasize research and graduate programs and have more restrictive admission standards than the state universities. For the community colleges, the charge is to provide "transfer, general education, vocational training, and basic skills instruction to state residents" (Academic Senate for California Community College, 1996, p. 1).

Enrollment in public two-year institutions totaled 1,149,700 in 2000, more than double the 514,700 students enrolled in the public four-year system (*Almanac*, 2000). The California community college system enrolls nearly three times as many students as the next-largest system, Texas, and makes up almost one-fifth of the national total (Coley, 2000).

GOVERNANCE

Each of the three segments of public higher education has its own governing body; the governor appoints all members. One board of regents governs

the UC system; a board of trustees controls the State Universities; and a board of governors supervises California's community colleges. Each of the state's 72 community college districts also has its own board, elected by district voters.

The three sectors are fairly autonomous. This is particularly true for the University of California Regents, whose autonomy is stipulated in the state constitution and has survived several court challenges (Hickey, Interview, 2000). When language in higher education laws requires a given action of CSU and the community colleges, it "requests" this of the UC system. The UC regents generally follow legislature requests, of course; they receive a significant portion of their budgets from the state.

The California Postsecondary Education Commission (CPEC), a 16-member citizen board appointed by the governor, serves as a planning and coordinating agency and advises lawmakers and the governor on higher education.

FUNDING

Historically, higher education has enjoyed strong support in California. Both UC and CSU derive their basic funding from the state legislature. Most community colleges were originally supported chiefly by local tax levies. Then passage of Proposition 13 in the late 1970s severely reduced local property tax revenues, effectively increasing the need for state support. As a consequence, "Within two years, the state's share of community college revenues increased from 42 percent to nearly 80 percent" (Cohen and Brawer, 1996, p. 139).

In the economic downturn of the 80s, state support declined. One casualty was the tradition of low tuition at the four-year level and no tuition for community colleges. Although community college students now pay tuition, it is still the lowest in the nation, averaging $392 per year, (*Almanac*, 2000), compared to the national average of $1500. Average four-year school tuition is $2609.

Since the mid-90s the legislature has begun to increase funding again. State appropriations for 2000 operations totaled $7.7 billion, up 7 percent from the previous year (*Almanac*, 2000). Expenditures for that year were nearly twice that sum, $14.2 billion.

ADMISSIONS

In 1991 the state legislature amended the Higher Education Code to enhance transfer for community college students. The act, SB 121, stated, "Community college students must have access to a viable and efficient transfer agreement program to the California State University and the University of California for upper division work toward a baccalaureate degree" (California Educational Code, 1998). To that end, it called for both UC and CSU governing boards to ensure "adequate upper division places for community college transfer students in all undergraduate colleges or schools" (ibid.).

The Code called on CSU to maintain a ratio of 60 percent upper-division enrollment, and for UC to increase enrollment to the 60 percent level by the 1995-96 academic year. CSU, the traditional route for transfer students, had surpassed the legislative goal for several years. By Fall 1995, 69 percent of CSU enrollees were upper division students. UC, the more selective of the two systems, had reached 60 percent by Fall 1995.

Transfer-ready community college students can find space somewhere in a public four-year institution (Atkinson, Interview, 1999). It may not necessarily be the student's first choice, or he may not find space in his chosen field. The UC schools in Berkeley, Los Angeles and San Diego are the state's most-sought-after universities; they do not have space for all eligible transfer students. At other universities, space may be restricted in the most popular majors.

In their efforts to respond to the legislative mandate, both UC and CSU have changed the mix of upper- and lower-division transfers admitted. Upper division transfers are defined as students who have maintained a 2.0 grade point average and completed 56 transferable units. Both systems have increased the number of these students admitted and decreased the number of lower-division transfers (Education Commission of the States Survey [ECS], California, 2000).

DIVERSITY

Minority students comprise 51 percent of public two-year college enrollment and 52 percent of those in public four-year schools (*Almanac*, 2000). Prior to 1996, the California legislature had encouraged higher education

institutions to increase enrollment of students of color. In that year, passage of Proposition 209 eliminated affirmative action in college admission policies. This law did not affect community college students directly, because there are no barriers to community college admission. It has, however, had a chilling effect on minority applications to the universities, particularly the most selective. *Community college transfer to UC institutions decreased seven percent between 1994 and 1998*. The greatest declines were among African-American, Asian and Filipino students (California Postsecondary Education Commission, 1999).

Efforts to reverse the decline include the UC-Berkeley Biology Transfer Consortium and UCLA's Community College Outreach program, both directed at community college students from underrepresented groups. The Biology Consortium brings community college students to campus for a summer research program and a pre-transfer science seminar. UCLA offers a six-day on-campus summer residential program that teaches students who are entering a community college how to transfer when they are ready.

TRANSFER POLICY

SB 121, the 1991 amendment to the Higher Education Code, made a strong statement regarding the importance of transfer as a means of access to higher education for Californians. The statute emphasizes that "a viable and effective student transfer system is one of the fundamental underpinnings of public postsecondary education in California," and that the community colleges' primary role is "to prepare students for upper division access to the California State University and the University of California" (California Postsecondary Education Commission, 1996, p. 2). It also calls for community college transfers to receive high priority for admission and access to majors of their choice.

Because of the high degree of independence among the segments of higher education, implementing these policies is complex. SB 121 called for the three systems to implement system-wide transfer agreement programs. It also directed universities and community colleges to develop articulation agreements for undergraduate programs with lower-division prerequisites. CPEC reports that "hundreds of these agreements have been signed in recent years" (1996, p. 8). These agreements, made between individual institutions, mainly involve only specific courses or major requirements.

There is no statewide course numbering system as such, but the California Articulation Numbering System (CAN) is a mechanism for registering courses that have been accepted as equivalent. CAN is managed by a council representing CSU, the community colleges, and the independent colleges and universities. UC opted out of the system in 1990 and has not participated since, citing lack of faculty involvement as a major reason.

Under the CAN system, course articulation is defined as "the written agreement. . .between two institutions to accept and use a specific course that has been completed on a sending campus to meet a specific course requirement on a receiving campus" (California Articulation Numbering System, 1995). The receiving institution faculty determines whether or not a course will articulate. Each institution may keep its own course prefix and number, and a common CAN number will be appended to it.

Interviews with people who work with students comment that on the one hand the CAN system is helpful for many students, especially if they have a good advisor. For many others, it is also cumbersome, time-consuming, and discouraging, and it is costly in terms of staffing. It does not include all transfer courses at all institutions. Agreements on individual courses are negotiated with each campus independently rather than with all of the CSU or UC system. Furthermore, the system is not kept up-to-date by all two- and four-year campuses. *System autonomy is so strong that articulation problems exist even between campuses of the same community college district.*

A 1988 legislative mandate led to creating another layer to the transfer system, the Intersegmental General Education Transfer Curriculum (IGETC). The academic senates of the state accept IGETC as satisfying UC and CSU general education requirements. Again, community college educators consider it too complicated to be useful for the majority of potential transfer students. As Mark Edelstein, president of Diablo Valley College, wrote, "Attempts to simplify the transfer process through CAN and IGETC took years to develop, never achieved their potential, and have tended to become more rather than less complicated over time" (1999, p. 4).

The Articulation System Stimulating Interinstitutional Transfer Project (Project ASSIST) provides an online statewide database of all articulation agreements between state colleges and universities. Students and their advisors use the system to help them plan for transfer. On the whole, however, articulation for transfer remains an extremely cumbersome process attempting to hit a constantly moving target. For many community college students, the complexities of the transfer process can be overwhelming.

Efforts to overcome barriers to transfer include funding of transfer centers and other campus-based programs to provide students with information and encouragement. Information on transfer is available online in transfer centers at all colleges, and counselors and advisors are available to give individual assistance. The depth of commitment to this function varies from campus to campus. For many two-year colleges with high numbers of minorities and non-native speakers, resources are necessarily focused on developmental efforts rather than on transfer.

A new approach to facilitating transfer, through direct faculty involvement, began in 1999. The program, entitled Inter-segmental Major Preparation Articulated Curriculum (IMPAC), will receive $550,000 a year, beginning in 2000 and continuing for five years. Its goal is to create the infrastructure for bringing faculty together in like disciplines across system lines to break down barriers to transfer. The project has the support of the academic senates from the three systems, UC, CSU and community colleges. Those involved with the project are optimistic about its potential for improving the transfer process because, unlike CAN, it is faculty-driven.

Projections for growth in the number of college-age students intensify the spotlight on transfer. Educators are talking about Tidal Wave II, a repeat of the massive increases in students in the 1980s. The Postsecondary Education Commission has projected a 36 percent increase in the number of students seeking admission to college by 2010 (CPEC, 1999).

Attention from legislators, including a special appropriation to the community college system for transfer enhancement, has added to the focus on transfer. In 1997 UC President Richard Atkinson and Community College Chancellor Thomas Nussbaum signed a Memorandum of Understanding that committed the UC system to an increase of a third in the number of students transferring to the UC by 2005. UC and CSU have established specific numerical targets for transfer. Future legislative funding will be tied to progress toward the goals. It is too early to know the effect of these agreements.

TRANSFER DATA

Collection of transfer data in California, as in most other states, is difficult. The Education Commission of the States survey found that the number of different definitions for transfer is "one of the key obstacles for making

progress on transfer and for understanding [transfer] data" (ECS, California, 2000). *The community colleges have seven different definitions for transfer.*

Although the state does not calculate a transfer rate, two- and four-year institutions report total numbers of transfers for fall and for the academic year to CPEC. Between 1987 and 1995 the number of community college transfers to the UC system grew steadily, reaching a peak of 10,900 students in 1994-95 (California Postsecondary Education Commission, 1999). Since then the number has declined each year; in 1998-99 there were 10,160. The high-water mark for transfers to CSU was 48,700 in 1995-96; by 1998-99 the numbers decreased to 45,000. According to the ECS survey, the proportion of new transfers in the total student population also dropped. In 1994-95, 14.7 percent of CSU students and 6.7 percent of UC students were new transfers; in 1998-99, the percentage at CSU was down to 12.8 and at UC to 5.9. CPEC does not calculate a transfer rate, although with the increasing focus on transfer, this will be reviewed (Hickey, Interview, 2000).

FINANCIAL AID

The 2000-01 appropriation for student financial aid includes $503.6 million for Cal-Grants, the state's major aid program (Michel, Interview, 2000). Cal-Grant funding will increase significantly over the next five years, reaching $1.2 billion by 2006. The largest element in the program is a new entitlement award for all California high school graduates who meet the need criteria and the relevant entrance requirements and who enroll in a college or university within a year of leaving high school. Community college transfers up to the age of 24 years are also guaranteed awards. The award program is limited only by the total amount of the legislative appropriation, calculated to serve 31 percent of the state's high school graduates. The age limits are intended to provide an incentive for students to go to college within a short time of completing high school.

For students who do not meet the time limitations, including the large number of community college students who are over 24, there is a program of competitive grants. Of these 22,000 competitive (non-entitlement) grants, 11,000 will be reserved for community college students who are not eligible for the guaranteed awards.

In 2001 state will begin funding merit scholarships requiring no means test (Hickey, Interview, 2000). This was proposed by Governor Gray Davis and approved by the senate after the governor compromised by agreeing to expand the Cal-Grant program (Trombley, Fall 2000).

Cal-Grants are limited to four academic years of support. Both the UC and CSU systems have separate state financial aid programs for students eligible for Cal-Grants but who applied after funds were gone. These funds do not have the same time limitations. The UC fund, which totaled $145 million in 1998-99, derives from a portion of student fees (Carter, Interview, 2000). CSU receives a general fund appropriation augmented by some fee revenues; this totaled $123 million, $17 million of which was in the Equal Opportunity Program, reserved for low-income and disadvantaged students (Robinson, Interview, 2000). Students may receive aid from these sources as long as they are making satisfactory progress toward a degree and meet the needs test. Low-income community college students may have their tuition waived through the Board of Governors' fee waiver program.

COMMENTS

California has by far the largest as well as one of the oldest of the nation's community college systems. It has long enjoyed a transfer mandate, and until recently public higher education was tuition free. While tuition remains low in comparison to other states, the size, independence and variety among the three higher education systems militate against an easy transfer process. As Warren Fox, director of the state's Higher Education Commission, noted, transfer works well for large numbers of students, but not for everyone who could and wants to be served (Fox, Interview, 1999). Ongoing efforts to address the problems underscore transfer's importance to the higher education system.

The rollback of affirmative action admissions policies for California's selective universities has added impetus to transfer efforts and is generating some promising new programs. A massive new state financial aid program should increase motivation for low-income and minority students and increase their number in the pipeline to baccalaureate degrees.

FLORIDA

SYSTEM

Florida's public higher education system includes 10 four-year and 28 two-year institutions. In addition, there are 44 four-year and three two-year private non-profit schools, and 19 four-year and 38 two-year proprietary schools. The public four-year schools enrolled 214,000 students in 1999-2000, while public two-years served 320,000, 55 percent of all the state's undergraduates (*Almanac*, Florida, 2000). The private institutions enrolled another 124,000.

Florida's baccalaureate institutions are all part of a single system that does not officially differentiate the roles and missions of the institutions. After considerable discussion in recent years, the Board of Regents has announced a five-year plan that includes establishing a three-tiered system. Three institutions would constitute the top tier of research institutions: the University of Florida (Gainesville), Florida State (Tallahassee) and the University of South Florida (Tampa). The discussion has also raised the possibility of establishing a state college system to increase access.

State universities enrolled 214,000 and community colleges enrolled 320,700 in 1999-2000 (*Almanac*, 2000). Higher education enrollment is projected to grow by almost 41 percent by 2010, prompting concern over how to meet this accelerating tide (Florida Postsecondary Education Planning Commission, 1999). The legislature has endorsed the Postsecondary Education Planning Commission's plan to increase access and efficiency. One of the measures the Commission proposed is to allow

community colleges to offer four-year degrees and to share facilities with universities (*Almanac*, 2000).

Florida's community colleges serve the traditional multi-functional mission. They vary in size from 98,000-student Miami-Dade, one of the nation's largest, to smaller colleges in rural areas of the state serving as few as 3,000 students (*Florida Community College System Fact Book*, 2000). The Postsecondary Education Planning Commission (PEPC) reaffirmed in 1990 "that the state's community colleges should remain the primary point of access for students pursuing a baccalaureate degree" (PEPC, 1999, p. 4).

GOVERNANCE

The Board of Education, which is composed of the governor and his cabinet, has authority over all educational sectors. It focuses chiefly on K-12 education while promulgating some rules for higher education. A Board of Regents appointed by the governor oversees the State University System (SUS). The State Board of Community Colleges, also governor-appointed, regulates the public two-year schools. In addition, each college has its own board of trustees.

The Florida Postsecondary Education Planning Commission functions as a coordinating body. PEPC is an 11-member citizen board, plus one student member, appointed by the governor with approval of three members of the State Board Education. Preparing a master plan every five years for all of public higher education is one of its major responsibilities. All of this is expected to change in 2003. In 2000, Governor Jeb Bush proposed and the legislature passed a law dissolving the current system of boards. The law calls for a task force to recommend a new governance structure for higher education that will create a seamless K-16 system. Under the governor's plan all sectors would be controlled by a single board of education, with each university also having its own board (Rogers, Interview, 2000).

Although Florida came rather late to the two-year college concept, it was one of the first states to develop a statewide plan for community colleges. The plan outlined new institutions to be formed and called for a statewide coordinating agency and a smooth articulation process. Passed by the legislature in 1957, the law made the two-year schools "an integral part of the higher education system...and the majority of students graduating from high school began to plan to attend their own local community col-

leges prior to attending four-year colleges or universities" (Witt, Wattenbarger, Gollattscheck and Suppiger, 1994, p. 146).

FUNDING

The state legislature appropriated $2.7 billion for higher-education operations in 1999-2000, an increase of 11 percent over the previous year (*Almanac*, 2000). Actual expenditures totaled $3.7 billion. The bulk of community college funding comes from the state appropriation, although local school districts also provide some funds.

The legislature sets all tuition and fees. Average tuition for public two-year institutions is $1,300, compared to a national average of $1,500. Average tuition for four-year institutions is $2,022, also comparatively low (*Almanac*, 2000). Tuition in both sectors increased more than $200 following a 1999 PEPC proposal to bring tuition levels closer to the national average. The report also proposed increasing the differential between two- and four-year schools. The Commission recommended maintaining current support levels and keeping students' share of the cost at less than 40 percent (PEPC, 1999).

ADMISSIONS

Funding for the State University System has been based on a legislatively mandated enrollment planning process since the late 1970s. In 1989 the legislature specified that "First-Time-in-College (FTIC) enrollment in a given year shall not exceed 15 percent of the number of the previous year's Florida public high school graduates" (PEPC, 1999, p. 17). The percentage was increased to 16.97 in 1994. Since then the SUS Board of Regents has requested an increase to 20 percent and has set a goal of 25 percent in their five-year plan for 1998-2003.

The Postsecondary Education Planning Commission recommends abandoning this method of calculating university enrollment limits. The percentage-of-high-school-graduates figure does not reflect the actual number of qualified applicants. Instead the Commission proposes allowing all qualified students to enroll in the institution of their choice. Since the percentage quota system caps university admissions, it has effectively promoted

community college attendance. Community college leaders have expressed concern that the change proposed would undermine the state's strong two-plus-two system by encouraging well-qualified students who now begin at a community college to opt instead for a university.

Florida's community colleges maintain the open door policy common across the nation. Beginning in the early 1980s, however, the legislature mandated a "rising junior" test, the College Level Academic Skills Test (CLAST). For community college students, passing the CLAST was prerequisite to receiving an associate of arts degree and pursuing a bachelor's degree. Florida was the first state to use the "rising junior" test this way. Witt et al. noted that whatever the pros and cons of this practice, it "does interfere with student progress, particularly with minority students, and to that extent is contrary to the community college philosophy" (1994, p. 235).

In the mid-90s, noting that 90 percent of students passed the CLAST, legislators exempted students from taking it if they earned at least a 2.5 grade-point average in the required college mathematics and English courses. Even if students fail the test, they may gain entrance to a university and earn up to 30 credits. Theoretically, however, they must pass the CLAST before they can earn a bachelor's degree.

Earning an A.A. degree does not assure entrance to a Florida university. In the 90s the acceptance rate for A.A. transfers to the SUS averaged 85 percent. A report from the Florida Articulation Coordinating Committee report states, "Admission of A.A. transfer students will be impeded if they apply only to a limited access program and are not accepted into that program" (2000, p. 1). The number of applicants has been declining slightly but steadily; it dropped from 19,900 in 1992 to 18,900 in 1998. Many educators have suggested that the CLAST would have a dampening effect on transfer.

DIVERSITY

Minority students make up 33 percent of the enrollment in Florida's public two-year colleges and 32 percent in the public four-year universities (*Almanac*, 2000). In 1999, opponents of affirmative action proposed an initiative modeled on California's Proposition 209, banning special admission policies for minority applicants to state universities. In order to prevent a potentially divisive initiative campaign in an election year, Governor Jeb Bush announced a new policy eliminating race-based special admissions for students of color. The SUS Board of Regents approved the policy in February 2000. After surviving court tests by the NAACP and the National Organization of Women as well as criticism from the U.S. Office of Civil Rights, it was implemented in July 2000.

The new policy guarantees admission to at least one of the 10 state universities to high school students who graduate in the top 20 percent of their class. It does not eliminate minority scholarships or special efforts by the universities to recruit minorities. Enrollment of African-American and Hispanic students held steady in Fall 2000, although it is too early to know the full effect of the change (Goldschmidt, Interview, 2000).

TRANSFER POLICY

Since the legislature first adopted a higher education plan including the community colleges, their role in providing access to the baccalaureate has been refined and solidified. Florida now has one of the nation's strongest transfer policies. By law, all public postsecondary institutions must accept the common general education core and the A.A. degree as equivalent to the first two years of a bachelor's degree. According to a PEPC report, the system works because of "the continued assurance to state universities, through common placement testing, the CLAST and the Statewide Course Numbering System, that the transferring community college graduates have achieved an adequate level of academic preparation" (1999, p. 29). Institutions belonging to the Independent Colleges and Universities of Florida also recognize the general education core and the A.A. degree.

The Articulation Coordinating Committee has developed an agreement on statewide articulation of the Associate in Science degree in five discipline areas. The State Board of Education approved this in Fall 1999. The

State University System is exploring additional upper division programs to articulate with the A.S. degree. The Articulation Coordinating Committee is also considering articulation for some technical degrees.

In addition to the general education core, the A.A. degree, and a statewide course numbering system, there are also common calendars, high school and college transcripts, test dates and data analysis of student grades and state reports. Computer systems are coordinated; software is integrated; there are common data banks, shared resources and joint facilities. Community colleges and universities all have transfer manuals available for students, and most have special offices for transfer and articulation.

In 1998 the legislature directed the community colleges and four-year institutions to collaborate in developing a computer-assisted student advising system. The Florida Academic Counseling and Tracking System (FACTS) now offers students a full range of services on line, including admissions, transcripts, degree audits, registration and fee payment, and information on degree programs throughout the state.

A legislatively mandated Articulation Coordinating Committee oversees articulation and transfer policies. It is chaired by the deputy commissioner of education and includes administrators representing community colleges and four-year public and independent institutions. This group monitors adherence to articulation policies and adjudicates problems that arise.

TRANSFER DATA

Despite a remarkably thorough set of policies promoting transfer, Florida is 44th nationally in the number of bachelor's degrees produced. An NCHEMS report analyzing this situation gave as a primary explanation "state policies that influence the movement of students through the postsecondary delivery system" (Cited in PEPC, 1999, p. i). In 1998 the legislature directed the Postsecondary Education Planning Commission to review the effectiveness and efficiency of the "2 + 2" system. Among other recommendations, the commission called for a competency-based articulation system and development of transfer performance indicators including transfer rates for both colleges and universities.

The Board of Education provides annual follow-up data on community college students who complete an A.A. degree. For the 24,780 A.A. recip-

ients in 1997-98, 74 percent continued their education in the year following graduation. Of this group, 81 percent were enrolled in a state university, 7 percent were in state independent institutions, and the remainder were continuing at either a community college or vocational/technical institution (Graunke, Interview, 2000).

The record for retention and graduation of students who transfer with A.A. degrees actually exceeds the performance of those who began at the baccalaureate level at every time period, verifying Adelman's findings on this subject. After two years in the university system (having already completed two years for the A.A. degree), over 31 percent of transfers have graduated, according to the Articulation Coordinating Committee May 2000 report. Among native students after four years in the system, not quite 26 percent have graduated. Comparable figures after the equivalent of six years are: 68 percent of transfers have earned bachelor's degrees while 60 percent of native students have done so.

The Articulation Coordinating Committee report shows that community college transfers average the same cumulative grade point as students who began as freshmen in SUS schools. It also notes a marked increase in A.A. degrees in 1997-98, "possibly brought on by the first year of community college performance-based funding for degree completers" (2000, p. 6).

FINANCIAL AID

Analyzing the impact of Florida's financial aid policies, the Postsecondary Education Planning Commission states that the low-tuition/low-aid policy presents a disproportionate hardship for low-income students. "The likelihood for baccalaureate degree completion differ[s] dramatically according to family income (over 80 percent for those above $63,806 and less than 10 percent for those below $21,258)" (1999, p. 6). Increasing the disparity, state spending for non-need-based student aid ($76 million) is more than double that for need-based aid (not quite $34 million) (Almanac, 2000). The largest portion of aid goes to the merit-based Bright Futures Scholarship Program, which saw a 60 percent increase in funding in 1998-99, its second year.

The Commission suggests the system should adhere to "statutory policy that state financial aid be distributed primarily on the basis of need"

(1999, p. 6). A PEPC survey of A.A. graduates provided support for this recommendation with the finding that the most common reason students gave for dropping out after transferring was the cost of education.

COMMENTS

Florida has developed a comprehensive transfer system: a common course numbering system, acceptance of the general education core and the A.A. degree for transfer at the junior level to both public and private baccalaureate institutions, and a statewide computerized student data and advising system. Nevertheless, a low rate of baccalaureate degree production compared to national averages, particularly among minorities, suggests the need for change. Tuition is relatively low, but so is need-based state financial aid, leaving the poorest families at a disadvantage in sending their members to college. Higher education governance is currently in a state of suspension, as the governor has declared he will abolish all existing higher education boards and has appointed a commission to design a new system.

MICHIGAN

SYSTEM

Michigan's public higher education system includes 15 four-year and 29 two-year institutions (*Almanac*, Michigan, 2000). There are 60 private four-year and seven private two-year schools. Within the state system there is no codified distinction among the 15 senior institutions as to size and scope of programs. Three of them, however, are recognized as the highest-ranking research institutions: the University of Michigan, Michigan State University and Wayne State University.

Enrollment in public four-year institutions is 263,000 students and in public two-year institutions is 195,000 attendees. Private institutions serve another 91,000 students (*Almanac*, 2000).

GOVERNANCE

Technically, the State Board of Education coordinates policy and planning for higher education, but its main focus is on K-12 education. The eight Board members are elected statewide for eight-year terms. In 2000 higher education services were transferred from the State Board to an Office of Postsecondary Services in the State Department of Career Development, which is directly under the governor. The office includes a Community Colleges Services Unit whose chief responsibility is managing the Perkins vocational and technical education funds. Another unit provides statutory

oversight for independent postsecondary schools. There is no coordinating authority for the baccalaureate level.

A number of Michigan's higher education boards are elected rather than appointed by the governor. The regents for the three major research universities are elected statewide, and local districts elect the community college boards. A bill that would change the state constitution to give the governor power to appoint the university regents failed to pass in the 2000 legislature but will be reintroduced in 2001 (*Almanac*, 2000). The governor appoints the other university boards.

Essentially, the boards have full authority for their institutions. Michigan's constitution grants autonomy to the state's higher education institutions, specifically identifying the University of Michigan, Michigan State and Wayne State Universities as independent entities. This provision has withstood numerous challenges, and higher education remains almost entirely decentralized. The state attorney general reaffirmed the constitutional right of public universities to be independent of legislative intrusion in a 1998 opinion (*Almanac*, 1999). It was prompted by some legislators' efforts to prevent the universities from using state funds for abortion services and benefits to employees' domestic partners.

FUNDING

According to T*he Chronicle of Higher Education*, "Only about 56 percent of the operating budgets at public colleges in Michigan are financed by state revenues; most of the remainder must come from tuition. Michigan is intent on moving closer to the national average — a two-thirds, one-third split — according to legislators and higher-education officials" (*Almanac*, 2000, p.1). Legislators appropriated $2 billion for higher-education operating expenses in 2000, a one-year increase of 10 percent. Expenditures during that period were $5.6 billion, nearly three times the state contribution. For 2001, all of higher education is expected to receive a 9 percent increase in state funding, along with a requirement to hold tuition increases to 4 percent.

Community college tuition averages $1,679, higher than the national average of $1,500. Average tuition at public baccalaureate institutions is $4,277; the University of Michigan is highest, at $6,920. Each institution sets its own tuition, but legislators frequently tie increased allocations to requirements for holding tuition in line with inflation.

ADMISSIONS

With the high degree of autonomy universities enjoy, they are free to establish their own admissions criteria. The University of Michigan and Michigan State University are the most selective institutions.

DIVERSITY

Seventeen percent of public two-year students and 17.5 percent of public four-year students are minorities (*Almanac*, 2000). The University of Michigan has faced two federal lawsuits claiming its special admissions policy for minorities is discriminatory. After numerous postponements, oral arguments for the undergraduate suit were scheduled for November 2000, but no court date had been set. The case against the law school was scheduled to go to trial in January 2001. The university is vigorously defending both suits (Peterson, Interview, 2000). Despite the suits, the university has not changed its admissions policies, and early data suggest that minority applications have remained steady.

In June of 2000, the American Civil Liberties Union sued the state of Michigan for using scores on a standardized state test as the sole basis for granting the new merit-based scholarships. "The ACLU maintains that the Michigan test is flawed because students in poor schools rarely receive the same amount of preparation for the tests as students from wealthier districts and private schools" (Christian, 2000). Research by a University of Michigan faculty member found that one in three white students taking the test received a scholarship. Comparable numbers for blacks were one in 14 and for Hispanics, one in five.

TRANSFER POLICY

Transfer policy at the state level can be described briefly: the legislature and the governor "encourage colleges and universities to develop transfer and articulation policies and practices" (Education Commission of the States Study, Michigan, p. 2). *There are no state policies, requirements or incentives relating to transfer.*

For the past 25 years most state colleges and universities have subscribed to an agreement with the Michigan Association of Collegiate Registrars and Admission Officers (MACRAO). Jim Folkening, director of the Office of Postsecondary Services, describes this as a "gentlemen's agreement" (Interview, 2000). Implementation is ultimately contingent on the decision of the department chair. Acceptance of credits varies from one institution to another depending on institutional funding and space; the independent colleges tend to be somewhat more adaptable than the public institutions. Numerous inter-institutional agreements are based on the common denominator of the Associate of Arts degree. A few agreements provide acceptance of Associate of Applied Science credits and degrees for transfer.

Some of the state's public institutions, including the University of Michigan and Wayne State University, have elected not to sign the MACRAO agreement. Nevertheless, according to Glen Stevens, executive director of the Presidents Council of the State Universities of Michigan, all of the state's institutions cooperate to assure that the voluntary system works well. Stevens says there is a "high likelihood" that students who complete the A.A. degree will be accepted at a state university as having completed all their general education requirements (Interview, 2000). Thomas Bernthal, president of the Michigan Community College Association, echoes the view that transfer works well for Michigan students (Interview, 2000).

This view is also shared by community college leaders Peter Boyse, president of Delta College (Interview, 2000), and Jacquelyne Hodges, dean for enrollment management and student services at Detroit's Wayne Community College (Interview, 2000). At Wayne Community College, 64 percent of enrollees are students of color, chiefly African-American, and 75 percent enter with the expressed intent to transfer to a four-year college or

university. Wayne State University and the University of Michigan's Dearborn campus are among the top five institutions to which these students transfer. According to Hodges, even though neither university has signed the MACRAO agreement, students from the community college experience few problems in transferring their general education credits to either one. Faculty from Wayne Community College and the University of Michigan meet annually to discuss academic and articulation issues. The university also provides detailed information on student performance after transfer.

TRANSFER DATA

Michigan has no common definition of a transfer student and does not gather data on transfer between two- and four-year schools. The State Department of Management and Budget does require community colleges to report on the performance of their students at the five baccalaureate institutions that receive the largest number of their transfers (Bernthal, Interview, 2000). Because there is no requirement that the four-year institutions provide this information, colleges must depend on cooperation from the receiving institutions. Gathering the data is difficult and success is uneven, but no fiscal consequences attach to the reporting process. A statewide study conducted some 30 years ago reported that transfer students performed as well as those who began at the four-year level, matching other studies which have shown similar results (Packwood, Interview, 2000).

Wayne Community College has recently contracted with the National Student Clearinghouse to learn where and how many of their students transfer, both inside and outside the state. They will begin receiving nation-wide follow-up data from the Clearinghouse in February 2001 (Hodges, Interview, 2000).

FINANCIAL AID

All state-funded financial aid has been need-based; for 1999-2000 the amount allocated was $96.4 million (*Almanac*, 2000). For 2000-2001, however, $115 million has been earmarked from the state share of the

tobacco settlement for merit scholarships. Need-based aid will increase to $127 million.

COMMENTS

The exceptional degree of institutional independence and reliance on voluntary agreements mean that there is no central repository of transfer policies or data in Michigan. Leaders of both the community colleges' and the university presidents' groups say a high degree of voluntary cooperation supports transfer well. The fact that educators at the community colleges verify this perception suggests that the voluntary system is effective.

NEW YORK

SYSTEM

Of 312 higher education institutions in New York state, 44 are public four-year and 36 are public two-year schools. Two systems govern the public colleges and universities: the State University of New York (SUNY) and the City University of New York (CUNY). The SUNY system includes 34 senior institutions and 30 community colleges (SUNY, 2000). CUNY, which serves the five boroughs of New York City, has 13 baccalaureate and graduate schools and six community colleges (CUNY, 2000).

Institutions within the two systems run the gamut from comprehensive universities to specialized colleges and graduate-level institutions for law and medicine. Some institutions award both associate's and bachelor's degrees.

SUNY is in the process of a mission review by all its colleges and universities. The process has called on the institutions to make changes and to set specific performance measures for improving student learning. When the reviews are completed, each president and the SUNY chancellor will sign a formal memo of understanding confirming approval of the revised mission.

CUNY originated in 1847 as the Free Academy, the nation's first tuition-free college. Its mission, by law, is to "remain responsive to the needs of its urban setting and maintain close articulation between senior and community college units. ...The legislature's intent is that The City University be supported as an independent and integrated system of higher education... [committed to] academic excellence and...equal access and opportunity

for...all ethnic and racial groups and from both sexes" (CUNY, 2000). Financial problems led to the elimination of free tuition in 1976.

Enrollment in public four-year institutions in 2000-01 is 326,000 and in public two-year colleges, 241,500 (*Almanac, New York*, 2000). The community college enrollment is the fourth largest in the nation.

GOVERNANCE

All segments of education, K-12, community college and baccalaureate, come under the umbrella of the New York State Education Department. A Board of Regents comprised of sixteen members elected by the legislature governs the department. Its main functions relating to higher education are accrediting college and university programs, setting standards for teachers and students, and allocating state and federal financial aid.

The SUNY and CUNY systems each have their own governing board. Of 16 SUNY trustees, the governor appoints 15 with approval from the Senate. The one student member is the president of the state Student Assembly. The governor also appoints ten of the 15 voting members of the CUNY board. New York City's mayor appoints the other five, one from each of the five boroughs, as well as one student representative.

Under pressure from Governor Pataki and New York Mayor Giuliani, the governing boards of SUNY and CUNY made a number of significant changes in the 1997-98 academic year. In 1997 CUNY trustees voted to allocate funding for new faculty positions to campuses' based on graduation rates and other efficiency measures. The following year, they eliminated nearly all remedial classes for students at CUNY's senior institutions (*Almanac, New York*, 1999).

Also in 1998, SUNY trustees changed the budgeting procedures, allowing the colleges to keep tuition and fees rather than having them redistributed by the central administration. They also developed financial incentives to improve student achievement and faculty productivity.

FUNDING

The state legislature appropriated nearly $3.1 billion for higher education operations in 2000-01 (Almanac, 2000). This represented an increase of 2

percent over the previous budget. Actual expenditures were $6.7 billion. For CUNY, funding comes not only from the state -- about 53 percent of the total -- and from tuition -- 38 percent -- but also from New York City, which pays about 9 percent of the total funding. The city's contribution to the community colleges is three times more than that to the senior institutions, constituting one-fourth of the total funding for the two-year schools (CUNY, 2000).

Community college tuition averages $2,542, $1000 higher than the national average. Tuition at the senior institutions averages $3,905 (*Almanac*, 2000).

ADMISSIONS

The CUNY Board of Trustees passed a new admissions policy in 1999, to be fully phased in by September 2001, requiring that "all students who are admitted into a baccalaureate program will have to demonstrate that they are not in need of remediation prior to enrolling in classes" (CUNY, 2000). Students who have graduated from a New York high school within one year must now take either the SAT or the ACT. Test results combined with various elements of their high school record produce a score on the admissions index. Each baccalaureate school has a committee to review applications that are below the cut-off point for that school if "the student appears to have potential to succeed at that college" (ibid.). Each institution also has criteria for admitting students other than recent high school graduates.

For students who fail to meet the entrance requirements, CUNY offers special immersion programs during the summer. Currently each senior college also partners with a city community college to give remedial classes for students accepted provisionally at a senior institution but lacking some skills. A yearlong immersion option is also available.

Beginning in Fall 2001, community college admissions will also be restricted. Enrolling students will need to demonstrate that they can achieve college level work after no more than a year of remedial courses.

SUNY has one common admissions process, but each institution sets its own admissions policy, including cut-off scores for the SAT or ACT and high school rank and grade point. The cut-off point is often flexible, depending on available space, and the institutions maintain a wait list of

students who are admissible but less qualified and who may be accepted as space is available (Murray, Interview, 2000).

DIVERSITY

Statewide, minorities comprise 38 percent of New York's public four-year population and 32 percent of community college students (*Almanac*, 2000). Across the CUNY system, more than 70 percent of undergraduates are minorities.

Predictions of a drop in minority enrollments in CUNY have come from those opposed to the new admission policy. The policy first took effect in Spring 2000 at four institutions, Baruch, Brooklyn, Hunter and Queens Colleges. Three more, John Jay, New York Technical and State Island, implemented the policy in the fall. It will be in effect at all CUNY schools by Fall 2001. Fall 2000 saw only slight enrollment shifts: while white and Asian enrollments were somewhat higher and black and Hispanic enrollments somewhat lower, all of the changes were less than two percent (Crook, Interview, 2000). The increase in white enrollment reversed a trend of steady decline since 1982, while other ethnic groups' numbers had remained relatively flat in the 90s (CUNY, 2000).

TRANSFER POLICY

New York has no general policy on transfer and articulation, nor is there a common general education core curriculum or course numbering system. Articulation agreements are negotiated between individual institutions. Within the CUNY system there is a general mandate requiring articulation agreements, but it is up to the institutions to develop and implement them. Some agreements between SUNY institutions provide for automatic acceptance in an upper-division program for students completing an accepted program at a two-year institution. SUNY also has a Guaranteed Transfer Program for students who have been denied admission at all four of their choices for transfer to either SUNY or CUNY baccalaureate schools. If students have an A.A. degree and apply by the spring or fall deadline, they are assured of acceptance at one of their choices. They are not guaranteed their first choice of school or of program.

TRANSFER DATA

A transfer student is defined as one "who terminates enrollment (with or without a degree) in one degree-granting institution and subsequently enrolls in another, usually with advanced standing credits" (Education Commission of the States Survey, New York, p. 2).

A comprehensive student unit record system enables both SUNY and CUNY to track students who transfer to public institutions within the state. SUNY has calculated transfer results for full-time, first-time students entering associate degree programs beginning with Fall 1994. Among students who earned an associate degree by 1998, 10.2 percent had transferred to another SUNY institution within that time, and an estimated 3.2 percent had transferred elsewhere. (The latter estimates are from only some of the two-year schools.) Among the same cohort who had left without earning an associate degree, 13.2 percent had transferred within SUNY and an estimated 5.7 percent had transferred elsewhere. (The SUNY transfer rate listed in the summary chart is the sum of these two numbers.) The transfers also include students who transferred to other two-year institutions, although this is probably a small percentage (Regan, Interview, 2000). In the future, SUNY will have firmer data on New York students who transfer to private institutions or out of state, through a contract with the National Student Clearinghouse.

The CUNY Student Data Book for Fall 1998 provides transfer patterns for first-time freshmen entering associate programs in Fall 1992. The cohort includes all students who entered an A.A., A.S. or A.A.S. degree program, earned any number of credits, and transferred within six years. Students transferred from either the system's six community colleges or the four baccalaureate institutions that also offer associate degrees. The average transfer rate for the total group was 16.9 percent. Transfers from associate programs at three of the four baccalaureate institutions, however, registered rates from 23.4 to 27.2 percent.

The system does not calculate a rate based on the Transfer Assembly definition, although that would probably produce higher percentages, since it is based on the student cohort that has completed at least 12 credits before transferring.

Data on graduation rates of transfer entrants show considerable disparity between SUNY and CUNY schools. When figures for both systems were aggregated, the average completion rate for all students who entered

college full-time in 1990 seeking bachelor's degrees was 61 percent within four years and 66 percent within six years (New York State Office of Higher Education, 1998). When broken out by system, the percentages for SUNY graduates were 65 percent in four years and 69 percent in six years; for CUNY, they were 39 and 50 percent. Part of the disparity may be due to the fact that 50 percent of the students in the CUNY sample were African American, Hispanic, or resident aliens, groups that generally have lower rates of completion. They made up less than 10 percent of transfer entrants who went on to SUNY.

FINANCIAL AID

The state allocated over $622.5 million for need-based student financial aid in 2000-01, an increase of $20 million over the previous year's funding (CUNY, 2000). The increase allows for larger awards and makes 30,000 more students eligible by raising the maximum family income from $50,500 to $80,000. The state also has a fund for merit-based scholarships, which was increased to $11 million.

COMMENTS

New York is an important bellwether state as its population is one of the largest in the country, and the CUNY system has a history of providing education for the underprivileged. The current restrictive regulations represent a change from the open admissions policy, but the future impact on the transfer rate is undetermined. Although overall enrollment may decline, it is possible that the percentage of students who transfer may increase as the basic skills level of the entering population increases.

The SUNY and CUNY offices are aware of the need for more specific student data and are improving their systems for tracking students from the state's community colleges to the universities, with assistance from the National Student Clearinghouse. Potential coordination of data from high schools, two-year colleges and four-year institutions would facilitate long-term planning.

TEXAS

SYSTEM

Texas supports 41 public four-year and 68 two-year institutions. Private higher education includes 57 four-year and 29 two-year schools. The senior public institutions are organized in several systems, the two largest being the University of Texas and the A&M system. More recently the legislature has designated Texas Tech, the University of Northern Texas, and the University of Houston as systems. The two most-prestigious universities are the University of Texas at Austin and Texas A&M at College Station. Two other institutions, Texas Tech and the University of Houston, are currently seeking state support to achieve comparable status (*Almanac, Texas*, 2000).

Texas Southern University, a single-campus entity, and Prairie View A&M are historically black colleges still serving a predominantly black student population. Bias complaints against the state have led to agreements to create new academic programs and improve facilities at both institutions (*Almanac*, 2000).

Enrollment in public four-year institutions is 413,000 and slightly higher, 432,000, in the public two-year colleges. The private sector enrolls another 123,000 students (*Almanac*, 2000). Seventy percent of the state's first-time students are now enrolled in a community college (Leidig, Interview, 2000). The number of students in the two-year system is second only to that of California.

GOVERNANCE

Public higher education in Texas is fairly decentralized. A board of trustees appointed by the governor controls each four-year system. Universities have the standard three-tiered mission of teaching, research and public service, and no specific state policies define the degree of emphasis or level of responsibility for undergraduate, graduate and research activity.

The Texas Higher Education Coordinating Board (HECB) is an 18-member citizen board, also appointed by the governor. It has policy-making, regulatory and planning responsibilities, including final authority on new degree programs. It also manages all federal and some state financial aid programs. The Board has just completed a major 15-year plan driven by demographic changes in the state population.

FUNDING

The state appropriated $4.1 billion to operate higher education in 2000, a one-year increase of 16 percent (*Almanac*, 2000). Expenditures were $8.3 billion, double the amount appropriated. One additional source of money is the Permanent University Fund, a $7.7 billion state fund from oil-land leases that benefits 17 universities, largely those in the U.T. and A&M systems. Sizeable private funds also go into public university coffers; U.T.-Austin has one of the largest endowments in the nation. As an example, the $233,000 salary of its president includes $66,000 from the state and $167,000 from private donations (*Almanac*, 2000).

Texas students pay relatively low tuition, both at the four-year level — $2,432 — and the two-year level — $889.

ADMISSIONS

As a result of the 1996 court decision in *Hopwood*, which struck down race-based admission policies in Texas higher education, the legislature adopted a new admission policy. It grants automatic admission to any state institution, including the flagship schools, to all students graduating in the top ten percent from a Texas high school. For other students, each institution sets its own admission policies. These may differ even within systems. U.T.-Austin

and Texas A&M at College Station have the highest admission standards; most other institutions set standards in response to regional needs.

Like Florida, Texas requires students to pass a basic skills test before receiving junior standing at a state university. Students take the Texas Academic Skills Program (TASP) test prior to entering college, either two- or four-year. If they fail, they may complete developmental courses before re-taking the test. They must pass the test by the time they have earned 60 semester credits. The process was revised in 1997 to permit taking certain other tests or using SAT or ACT scores. Students may also qualify if they still fail after completing the developmental sequence but pass a college-level course in that skill. Data from before and after instituting the TASP reveal no changes in retention rates, and higher education enrollments have been increasing for all ethnic groups (McDonough, Interview, 2000).

DIVERSITY

At public four-year schools, minority students make up 35 percent of the total enrollment (*Almanac*, 2000). Forty-three percent of the students in community colleges are minorities. The public universities are seeking to neutralize the effect of *Hopwood* on minority enrollment at the selective institutions. U.T.-Austin has mounted strong recruiting efforts and increased financial aid, and by 1999 had nearly restored freshman enrollment of minorities to pre-1996 levels. In addition, the state attorney general has rescinded his predecessor's ruling against race-exclusive scholarships. Restoration of minority scholarships is in abeyance, however, until the conclusion of the *Hopwood* appeal process. College leaders view financial aid as "their best tool for recruiting minority students" (*Almanac*, 2000, p. 2).

TRANSFER POLICY

Transfer has received considerable attention in recent years, and the legislature has enacted new policies designed to make transfer work more smoothly. Beginning in 1998, the state's Higher Education Act has required each institution to develop a core curriculum of at least 42 semester credits, with assistance from an advisory committee comprised of a majority of faculty members. Students who successfully complete the core curriculum at any of

the public institutions may transfer these courses to any other state institution and their credits will be accepted for the receiving institution's core. If they earn less than 42 credits, they must receive transfer credit for those they have completed. Since the policy has only been in effect for a year, it is too early to assess its impact. While there have been reports of some problems for students transferring, on the whole the policy appears to be working (Leidig, Interview, 2000).

Further provisions require institutions to participate in developing curricula for common fields of study, again with advice of a predominantly faculty advisory group. Students completing the courses that meet the agreed-upon curricula must recieve full credit for lower-division requirements if they transfer to another institution offering the same degree program.

This is the more controversial element of the policy, in that it directly interferes with an area that university faculty generally see as their prerogative. The process for developing the field of study agreements involves a committee half of whose representatives come from the university level and half from community colleges. Faculty members comprise a majority of each committee, with administrators making up the remainder. Although selected faculty are involved in developing the agreements, getting the word out and gaining acceptance from most four-year faculty has so far been problematic (Leidig, Interview, 2000).

The Coordinating Board has accepted three of these field-of-study agreements under the statutory guidelines. They cover the fields of business, early childhood and middle grades education certification. Efforts to forge an agreement for the criminal justice field failed, and progress has been slow and difficult for one in music.

The state administrative code stipulates a financial penalty to any institution requiring a student to repeat a course that should have been accepted as transferring. According to the ECS survey, "Although transfer has been greatly improved in recent years, courses in the major are still not guaranteed to transfer. In addition, the funding formula system rewards institutions based on enrollment, which in effect serves to encourage community colleges to retain students as long as possible and encourage universities to enroll students as freshmen and not as transfers" (Education Commission of the States Study, Texas, p. 4).

Transfer policy requires institutions to make information available to students on their core curriculum in terms of the Texas Common Course Numbering System. They must also evaluate their core curriculum and

report on their review to the Coordinating Board. It is too early to demonstrate results from the new policies, but Texas educators recognize them as substantive improvements.

Julie Leidig, director of instructional programs for the Community and Technical Colleges of the HECB, suggests that 2000 may be the year of transfer. Because 70 percent of first-time students are in community colleges and the current emphasis is on technical education, the two-year schools are in the spotlight. "Closing the Gap," the Coordinating Board's 15-year plan completed in October 2000, sets a goal of serving 500,000 additional students by 2015. If this ambitious goal is to be met, one of the key strategies must be increasing the transfer rate (Leidig, Interview, 2000).

For students in vocational and technical fields, some institutions offer technical degrees and accept community college credits toward these degrees. There is administrative provision for concurrent enrollment in high school and community college, and both the school and college receive state funding for students in such programs.

TRANSFER DATA

All receiving institutions report directly to the sending institutions on the number of students transferring annually. A transfer rate study by the Coordinating Board calculates a rate based on students who have earned 15 semester hours and are no longer enrolled in the community college (Texas Higher Education Coordinating Board, 1998). For this cohort entering college for the first time in 1993, just fewer than 34 percent had transferred to a senior institution by 1997. Combined with another 55 percent still enrolled in community college, the persistence rate for this group was 87.5 percent.

The Texas Community College Instructional Administrators organization has been concerned about improving the collection of transfer data. They have initiated a statewide survey to gather more accurate information on the current status of transfer. The survey should be completed in 2001.

FINANCIAL AID

All student financial aid grants, currently totaling $74.6 million, are based on need (Kornrum-Byrne, 2000). A new program initiated in 1999 has

increased the amount available for grants for students who both meet the means test and also complete the college preparatory curriculum in high school. There are no additional eligibility requirements, such as grade-point average, for these grants. This program has increased college enrollment of Hispanic students, who previously had low participation rates in higher education.

One concern for transfer students is the widespread practice by four-year institutions of "front-loading" their aid packaging. Aid packages for first- and second-year students are heavily weighted toward outright grants. By the third year, a smaller proportion of aid is in the form of grants and a larger proportion in the form of loans. This can be a significant barrier, especially for poor students who can anticipate no family assistance in paying back loans. Sharon Cobb, financial aid officer for the Coordinating Board, believes this is a common practice elsewhere in the country as well as in Texas (Interview, 2000).

COMMENTS

Focused recruiting and increased financial aid have enabled Texas to counter-act the effects of the *Hopwood* decision ending university affirmative admission policies. The state legislature has been active in passing transfer-related laws that promote articulation but also involve faculty heavily in developing and monitoring agreements. Texas has a statewide course numbering system and data system. Concurrent enrollment in high school and college is permitted. The fact that 70 percent of first-time college students are in the state's two-year system is promoting the exemplary transfer policies, which should begin to improve the transfer rate, already a healthy 34 percent.

VIRGINIA

SYSTEM

In Virginia's public higher education sector there are 15 four-year and 24 two-year institutions, as well as 40 four-year and 13 two-year private institutions (*Almanac*, Virginia, 2000). The public four-year system is unusually diverse. It includes Research I, land grant, large regional and small liberal arts institutions. Two universities, Virginia State and Norfolk State, are historically black institutions. Four institutions are recognized as the most selective, but no definitions are codified to describe or limit institutional roles. The elite public institutions are the University of Virginia, William and Mary, Virginia Tech and James Madison.

Community colleges serve the traditional role of college transfer, vocational and technical and basic skills education. Public four-year enrollment is 171,000; public two-year enrollment is 130,400 (*Almanac*, 2000). Altogether, another 63,000 study in private institutions.

GOVERNANCE

A board of visitors appointed by the governor and approved by the Senate governs each public four-year school. The community colleges are a single entity, the Virginia Community College System, governed by a board that is also appointed by the governor and approved by the Senate. Individual community colleges have small lay advisory boards.

The State Council of Higher Education for Virginia (SCHEV) is an 11-member board, selected the same way as the other boards. Its functions include recommending higher education policy, capital and operating budget planning, enrollment projections, and financial aid management.

FUNDING

State funding for operations was $1.4 billion in 1999-2000, a 14 percent increase from the previous year and slightly less than half of total expenditures, which were $3.5 billion (*Almanac*, 2000). A Blue Ribbon Commission on Higher Education met for 18 months and published a report of its deliberations in February 2000. The commission recommended that all public higher education institutions sign performance contracts outlining goals that they would agree to meet over a six-year period. In return, the legislature would agree to a set amount of funding for the period, enabling colleges to predict their funding. The plan is also intended to increase the institutions' accountability for state funds. Selected institutions will be invited to begin developing performance contracts in 2001, but the contracts have not yet been tied to funding.

Average tuition at community colleges was $1,159 (SCHEV, 2000), well below the national average of $1,500. Four-year institutions charged an average of $4,160. The 2000-01 state budget allocates $75 million to maintain tuition at present levels (*Almanac*, 2000).

ADMISSIONS

The Boards of Visitors of the senior institutions have the power to establish admission standards. This is true for admission of transfers as well as first-time freshmen. State code directs each four-year school to develop a policy regarding transfer admissions, but there is no monitoring of this provision. Individual institutions have signed dual enrollment agreements. The agreements commit the four-year school to grant provisional acceptance to students if they successfully complete a given number of credits at the community college first (Education Commission of the States, Virginia, 2000). Such agreements do not always hold, however, when senior institutions decide to change entrance standards.

DIVERSITY

Twenty-four percent of students in Virginia's public four-year institutions are minorities (*Almanac*, 2000). The figure for the public two-year institutions is 25 percent. Although there has been a gradual increase in the number of Virginians who are Hispanic, the minority population is still largely African American.

The state's flagship institution, the University of Virginia, has a student body that is ten percent African American. The school boasts "the highest black graduation rate of any large public college" (Schmidt, 1999, p. A40). In the fall of 1999, however, a group opposing affirmative action in admission policies accused the university of illegal racial preferences. Concerned about the threat of legal action, the board ended the practice of allowing extra points on the admission index for black applicants. The University has maintained a commitment to a diverse student body, however, and both geographic and ethnic diversity remain factors in the make-up of those admitted from among qualified applicants (Hampton, Interview, 2000).

TRANSFER POLICY

In 1991 a statewide task force developed the State Policy on Transfer and the State Council of Higher Education approved it. Although it is codified neither in statute nor in regulations, the policy changed the climate, increasing recognition of transfer as part of the role of both community colleges and four-year universities (McCartan, Interview, 2000).

The policy calls for "public four-year colleges and universities [to] accept as meeting their general education requirements the general education included in an A.A. or A.S. [degree] from one of the state's public two-year colleges - with some exceptions" (Education Commission of the States Survey, Virginia, 2000, p. 2). The exceptions include the stipulation that at four-year colleges with upper-division general-education requirements, students are required to fulfill those requirements after transfer. Also, the A.S. degree in General Studies that most state community colleges offer is not automatically accepted as a transfer degree. Nine such programs have been designated "transfer oriented" and are accepted as meeting general education requirements.

In addition, individual institutions have program-specific articulation agreements. These are usually for programs with clearly specified lower division requirements or for "technical" programs such as engineering and nursing whose students often choose to go on for a baccalaureate degree. Faculty are heavily involved in developing these program-to-program agreements.

Information on transfer courses is available for students via transfer guides that each institution publishes as called for by the State Policy on Transfer. The guides are also available on the Web. They list equivalencies for courses that transfer to between 80 and 100 percent of the public four-year universities; however, the list is somewhat out of date.

Oversight of transfer policy issues is the responsibility of the State Committee on Transfer, staffed jointly by the community college system and the state council. Committee members represent the two-year, four-year, and independent institutions; one member represents the K-12 system, and the community college and higher education offices each have one staff member who participates.

While the state does not have a policy regarding concurrent enrollments between two- and four-year schools, a number of agreements between institutions allow for this. One such agreement allows students who have completed a specific number of community college credits to enroll concurrently at George Mason University. The major beneficiaries of this agreement are students at nearby Northern Virginia Community College, the state's largest.

Dual high school and community college enrollment is an accepted practice on the basis of institution-to-institution agreements. In 1997 the State Committee on Transfer established guidelines calling for four-year institutions to accept dual enrollment credits as equivalent to other community college credits. In practice however, two of the most highly selective universities encourage high school students to use Advanced Placement rather than dual credit courses.

A difficulty for transfer students is that many community college degrees require 65 or more semester credits, while most universities will not accept more than 60. In other cases, major pre-requisites are not offered at the two-year institution, and two-semester courses required by the two-year college may not be accepted as such in transferring.

TRANSFER DATA

Virginia higher education institutions have had performance indicators since 1996. Indicators for community colleges include the number of students transferring and, for the four-year institutions, the number of transfer students enrolled. A 1997 proposal by the governor to establish performance funding did not pass the legislature, but higher education funding strategies are under legislative study.

The Council of Higher Education has developed a student-specific data system. Institutions submit an Annual Admissions Data File that enables the Council to create a variety of reports. They are able to report total transfer numbers for students transferring with one credit, 15 or more credits, 30 credits and with a transfer degree.

Using these data, a transfer rate was extrapolated in 1995 and in 1999 (McHewett, Interview, 2000). It compared all community college graduates in the spring term that had enrolled in a state four-year institution the following term. In the two reporting periods, an average of 21 percent of the two-year graduates had transferred. When separated by degree type, however, 50 percent of those receiving transfer degrees had transferred. Recipients of occupational/technical degrees transferred at a rate of nine percent. The Council of Higher Education is currently developing a common statewide measure for a transfer rate. The Transfer Assembly method will be among those considered.

FINANCIAL AID

State appropriations for need-based financial aid to students attending Virginia institutions totaled $67.4 million in 1999-2000 (Andes, Interview, 2000). Non-need-based aid of $37.2 million provided tuition grants for students attending independent institutions in the state. The need-based figure includes $825,000 in financial incentives for minority students to transfer to traditionally white institutions and for white students to transfer to historically black universities.

One problem concerning aid relates to the 65-credit degree programs at some two-year schools. Students who stay to complete the full degree and who may also have spent some time taking developmental courses may well spend three years or more at the community college. Some state aid grants

continue only as long as the time prescribed to complete a degree; others allow 1.25 times the normal degree period, or if combined with federal dollars, 1.5 times. This is often not enough time for a student in a rigorous baccalaureate program, particularly if he or she has taken three years to earn the community college degree (McCartan, Interview, 2000).

COMMENTS

Virginia appears to be making a concerted effort both to track and to improve the transfer rate. Like California, Florida, Michigan, Texas and Washington, Virginia faces legal challenges to the affirmative action admissions policies at the University of Virginia, which recently changed its sheltered admission provision for minorities.

The state is providing new policies that show increasing recognition of transfer's importance, encouraging articulation agreements and providing a vehicle for seeing that they are working. The state is also active in providing student data and promoting statewide agreement on terms and definitions. The state aid system presents some obstacles for community college students, although there is a special fund to encourage minority students to attend mostly white universities.

WASHINGTON

SYSTEM

Washington state supports six public baccalaureate-level institutions: two research universities, the University of Washington (UW) and Washington State University (WSU); three regional universities, Western, Central and Eastern Washington Universities; and one regional college, The Evergreen State College (TESC). All have teaching, community service, and, except for TESC, research as their mission. Research is emphasized more heavily at the UW and WSU, and those institutions have by far the most extensive graduate programs.

At the two-year level, the state supports 28 community colleges and five technical colleges. The community colleges have the common responsibilities of academic transfer courses, vocational and technical programs, basic skills and community service. The technical colleges do not offer college transfer degrees, but they provide general education and developmental courses to support associate degrees in technical fields.

Enrollment in public four-year institutions is 89,300 (*Almanac, Washington*, 2000). The community college system enrolls 185,000 students, placing it seventh in size in the nation. There are also 27 private four-year and five private two-year institutions, which enroll another 41,000 students.

GOVERNANCE

Each baccalaureate institution has its own board of regents appointed by the governor. The governor also appoints the members of the Higher Education Coordinating (HEC) Board, which is charged with recommending funding and tuition appropriations, setting admission standards, approving new graduate programs and administering the state financial aid program. The baccalaureate institutions are relatively autonomous.

Community and technical colleges are more closely coordinated than the senior institutions. They come under the umbrella of the State Board for Community and Technical Colleges (SBCTC), whose nine members are appointed by the governor. In addition, each college district has its own board of trustees, also appointed by the governor. While the State Board respects the independence of the local boards, the legislature looks to the State Board to present a common legislative agenda, including budget and enrollment requests; to approve new programs; and to monitor and gather data for the colleges' performance of state mandates.

FUNDING

The legislative appropriation for higher education operating expenses was $1.2 billion in 2000-20001, an increase of eight percent. Expenditures were nearly $3 billion (*Almanac*, 2000). Each baccalaureate institution has its own budget development process and funds are allocated separately by the legislature, after recommendation by the HEC Board. Funding for the community and technical colleges also comes primarily from the legislature. The SBCTC receives a single biennial budget and enrollment appropriation, which it apportions to the individual colleges. No local taxes are levied for community colleges.

Tuition is set by the legislature after recommendations from the HEC Board. It is $1,591 per year at the two-year schools, slightly above the national average. Tuition is $2,733 at the regional universities and $3,524 at the research schools.

ADMISSIONS

The HEC Board sets admissions standards for the baccalaureate institutions. The standards include completion of the standard 15 Carnegie units

from high school and a numerical score based on high school grade point average (GPA) and test scores. This index gives three times as much weight to the GPA as to test scores. The minimum score is higher for the UW and WSU than for the other four schools. Each institution is permitted to admit up to 15 percent of its enrollment from students who fall below the index but who have at least a 2.0 GPA and at least 12 of the required Carnegie units.

If an institution receives more applicants than it can accept, the HEC Board allows it to establish higher admission standards. This has been the case for many years at the UW, the state's flagship school, located in Seattle, the state's largest city. In addition to a higher index, other factors are taken into consideration in the selection process. In recent years WWU (like the UW located on the populous west side of the state in Bellingham) has also raised entrance standards due to high demand for space.

Associate of Arts degree holders with a satisfactory grade-point average are guaranteed entrance to the senior institution of their choice. In the late 80s when the University of Washington did not have space for all transfer applicants in Fall Quarter, students were advised to complete one more quarter at the community college. For these students, the university agreed to stretch the number of community college credits accepted toward a bachelor's degree from 90 to 105.

DIVERSITY

Minorities make up nearly 21 percent of the enrollment in the state's public four-year institutions and close to 19 percent of community college enrollments (*Almanac*, 2000). Prior to 1998, the legislature had encouraged higher education institutions to increase minority enrollments. In that year, state voters passed an initiative modeled on the 1996 California referendum prohibiting the use of race in college admissions.

The major effect of the new law was at the University of Washington, which is both the most-selective public institution and also the most conveniently located for a large proportion of the state's minority population. Until 1998, the UW increased enrollment of students of color by using the HEC Board's allowance for admitting 15 percent of students who fell below the entrance. After the 1998 initiative passed, the University eliminated these special admits for minorities, and enrollment dropped 36 percent

among African Americans, 30 percent among Hispanics, and 15 percent among American Indians (Washburn, 1999).

The university is engaged in a broad range of efforts to restore these enrollments within the confines of the new law. On-going outreach efforts such as placing university admissions advisors in middle and high schools have been expanded. Another effort is increased collaboration with community colleges in the Seattle metropolitan area and in the heavily Hispanic farming communities of the Yakima Valley. At this writing, Hispanic enrollments had not rebounded.

Currently the state's baccalaureate institutions are collaborating on a legislative funding request for efforts to improve the pipeline for students from high school through community college and university.

TRANSFER POLICY

The Higher Education Coordinating Board, working with the four-year schools and the college board, has responsibility for transfer policy. Two agreements form the cornerstone of the policy: the Direct Transfer Agreement and the Associate Degree Agreement. These agreements date from 1970, when the community college presidents worked with the state's public and private baccalaureate institutions to organize the Intercollege Relations Commission (ICRC). Its charge was to develop policies and procedures for articulation and transfer of community college courses to four-year schools.

The Commission developed a statewide transfer policy in 1984 and the Direct Transfer Agreement in 1987 (Intercollege Relations Commission, 1996). This agreement assures Washington residents admission to a participating four-year school if they 1) transfer directly from community college, 2) have completed core admission requirements, and 3) have at least a 2.00 grade-point average in college transfer courses. (The UW requires a 2.75 GPA).

In addition, there is an Associate Degree Agreement that specifies common requirements for the degree and guarantees that students completing the A.A. degree have satisfied general education requirements at participating baccalaureate institutions. The Associate Degree Guidelines are revised as needed by the ICRC. Eight of the state's independent colleges and universities also participate in the ICRC and accept the agreement.

College-level courses taken at the community college are accepted at the same value as at the receiving institution. Up to 15 credits of otherwise non-transferable vocational/technical courses may transfer as part of an approved Associate degree. Some inter-institutional agreements also provide for accepting certain two-year technical degrees.

In 1998, a joint two-year/four-year faculty committee began developing an Associate of Science degree that was approved in 2000 and incorporated in the ICRC agreement. Students earning the A.S. degree will be accepted in the major program at the four-year level and complete the remainder of their general education requirements at the upper division.

The transfer agreement does not include a common course numbering system. ICRC members share information on equivalent or parallel courses on a discipline basis, and these are accepted toward pre-requisites and requirements at the baccalaureate institution. All institutions contribute information to a statewide list of these transfer course equivalencies that the ICRC publishes. College advisors use it to assist students in planning their A.A. program.

The agreements under the state transfer policy, combined with the lower tuition at the community colleges, offer the major incentive for transfer. An additional incentive for students wanting to attend the University of Washington or Western is the assurance of admission priority.

The Washington legislature followed Minnesota's lead in developing its Running Start program, which encourages high school juniors and seniors to take some or all of their graduation requirements at a public community college or university. State funding follows the student in proportion to the number of credits taken in each setting. By the time they graduate from high school, Running Start students may also have earned an A.A. degree from a community college.

TRANSFER DATA

The community and technical colleges have a comprehensive student record system; the baccalaureate schools each have their own system. All public four-year institutions report transfer numbers at least annually to the State Board for relay to the individual colleges. The University of Washington also informs colleges annually about the GPAs of transfer students compared with students who entered the university as freshmen. The

reporting process has been changed recently to meet federal student privacy guidelines.

The community/technical college board office reports transfer data to the Transfer Assembly and also tracks transfers using its own definition. The Transfer Assembly counts students who enter community college with no prior college experience, earn at least 12 credits and transfer to a four-year institution within four years of entering college. Using this definition, Washington reported a 27 percent transfer rate for the cohort beginning Fall 1994 and transferring by Fall 1998 (Seppanen, August 2000). The breakdown by ethnicity using this method was 19 percent for African Americans, 28 percent for Hispanics, 22 percent for Native Americans, 31 percent for Asian/Pacific Islanders, and 28 percent for Whites.

The state has its own transfer definition that serves as a community college performance indicator. This defines transfers as students who have earned 30 credits in a community college, have declared intent to transfer, and have left the community college. Using this definition, 47 percent of students who entered a Washington community college in 1994 had transferred by 1998 (Seppanen, July 2000). (This is the figure cited in the summary chart.) The ethnic breakdown shows Asian and white Americans right at the average, 47 percent. The remaining groups, representing a small percentage of the total, are Latino/Hispanics, 42 percent; Native Americans, 40 percent; and African Americans, 34 percent. These figures represented steady and significant improvement for African Americans and Native Americans over the previous three years.

Incentive to increase the transfer rate has come from the state legislature, which now requires all higher education institutions to set performance goals in specific areas. One performance goal for community colleges is to increase the number of transfers. During the 1997-99 biennium, colleges that did not meet the goals (set by them within parameters established by the State Board) were penalized up to two percent of their budget allocation. In the next legislative session the connection between accountability and funding was removed; now only performance reporting is required.

FINANCIAL AID

The HEC Board administers Washington's financial aid program. The legislative appropriation for need-based grants was $80,240,000 for 2000-

2001 (LaMar, Interview, 2000). HEC Board staff coordinate with federal guidelines and requirements in an effort to maximize student awards and avoid duplication.

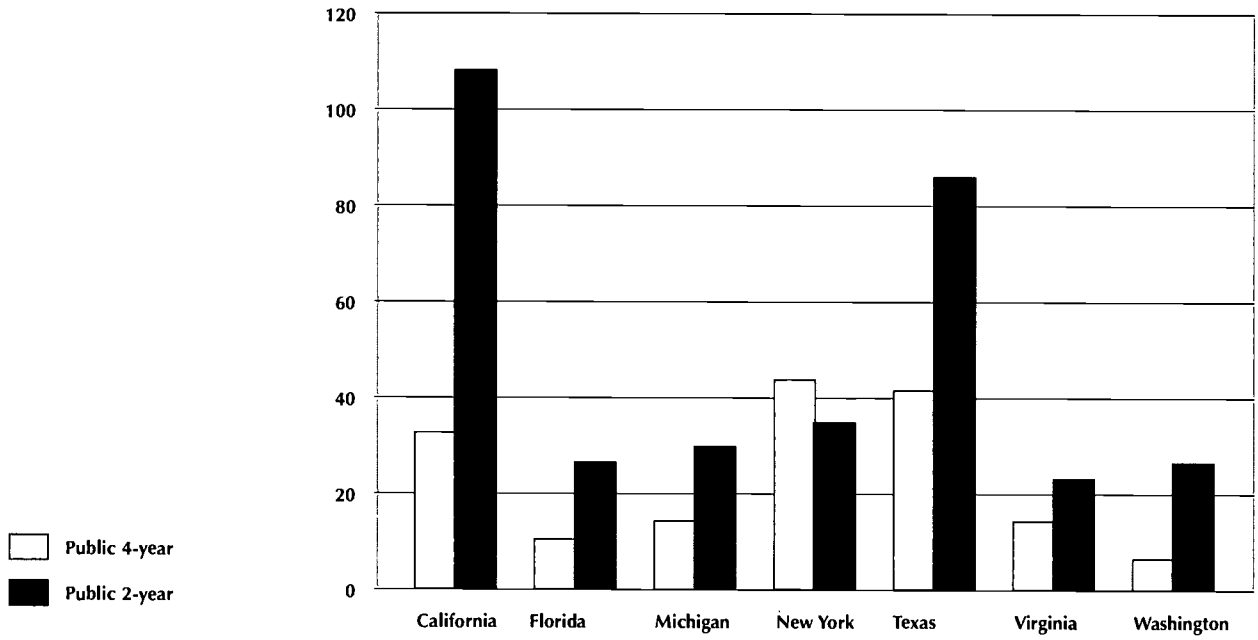
COMMENTS

Unfortunately, Washington followed California's example in passing an initiative prohibiting the use of race in college admissions. As a consequence, minority enrollment dropped, forcing the University of Washington to eliminate its race-based special admissions policy and design other ways to restore the balance. One element was closer collaboration with community colleges.

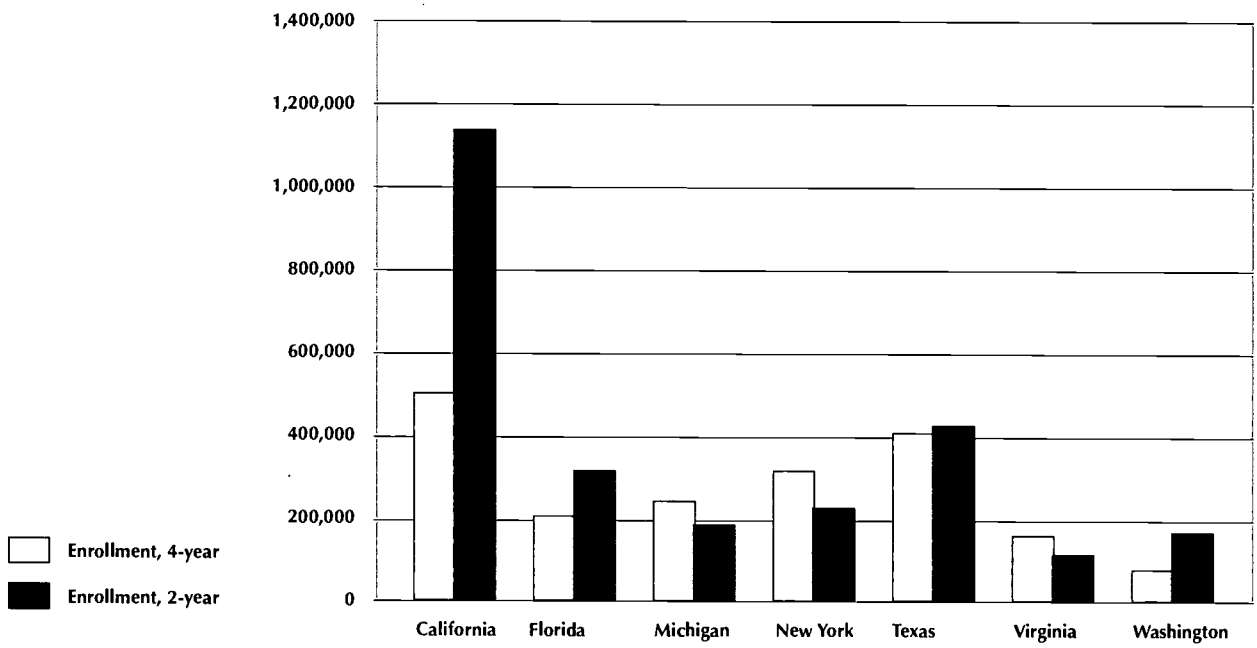
Reporting on transfer rates is well designed and documented, encouraged by the fact that increasing the transfer rate is one of the system's legislative accountability measures. Washington's long-standing transfer agreements are exemplary for other states. A key to their success is that while the legislature directed institutions to improve the transition process, they left it to the institutions to collaborate in developing and maintaining the agreements. Faculty have a voice in agreement provisions, and oversight of the agreements by a voluntary organization facilitates cooperation.

CHARTS OF CASE STUDY INFORMATION

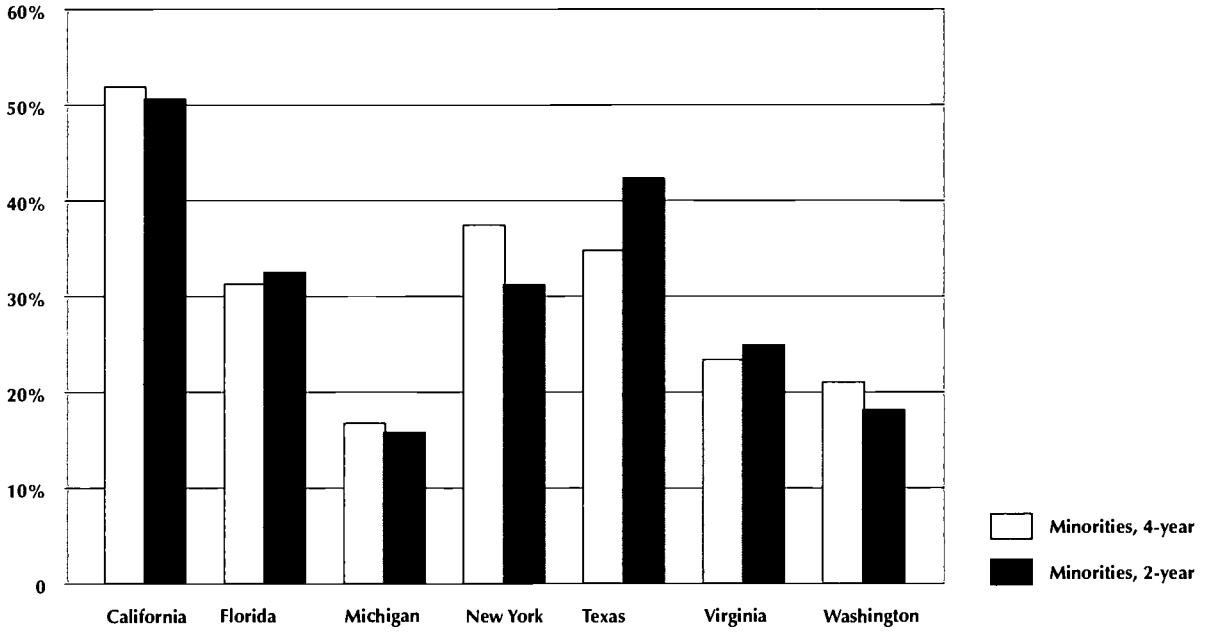
Number of 4 and 2 Year Institutions



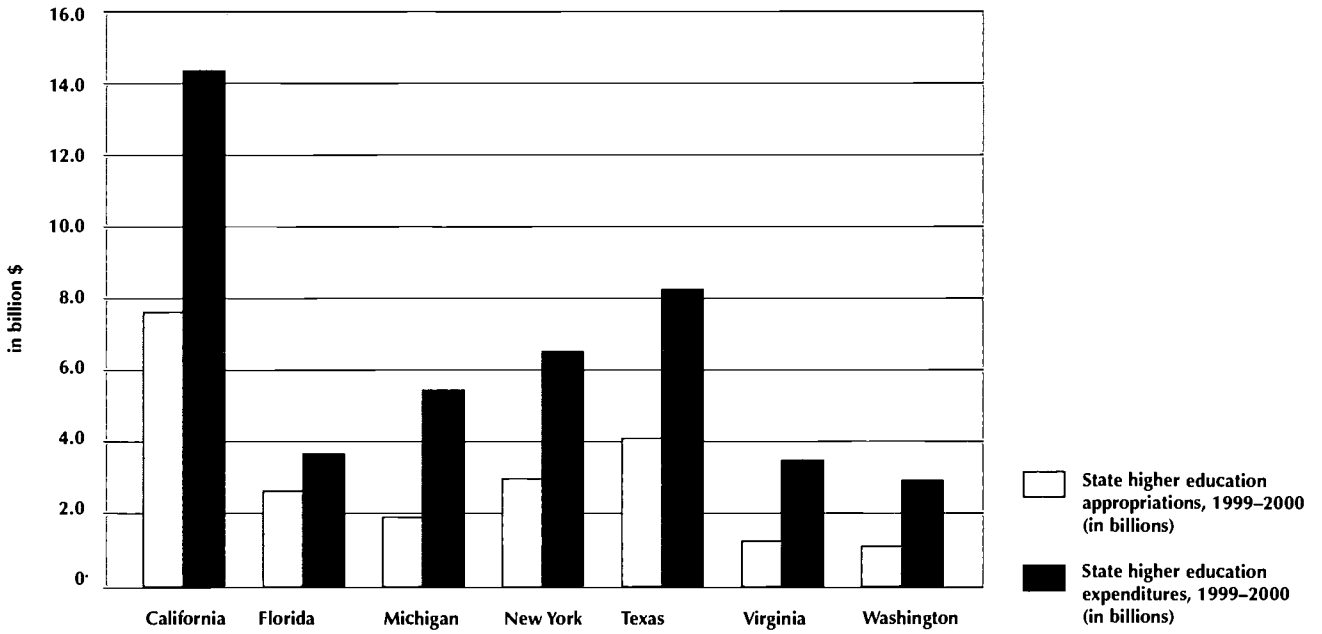
Enrollment of 4 and 2 Year Institutions



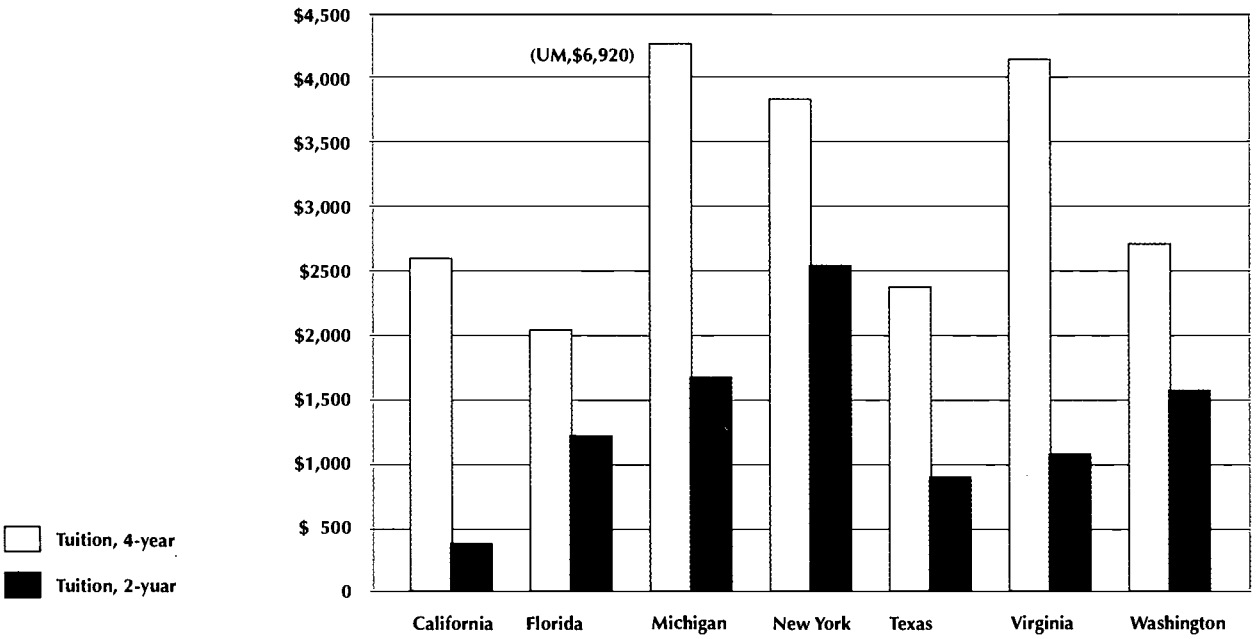
Percentages of Minority Students



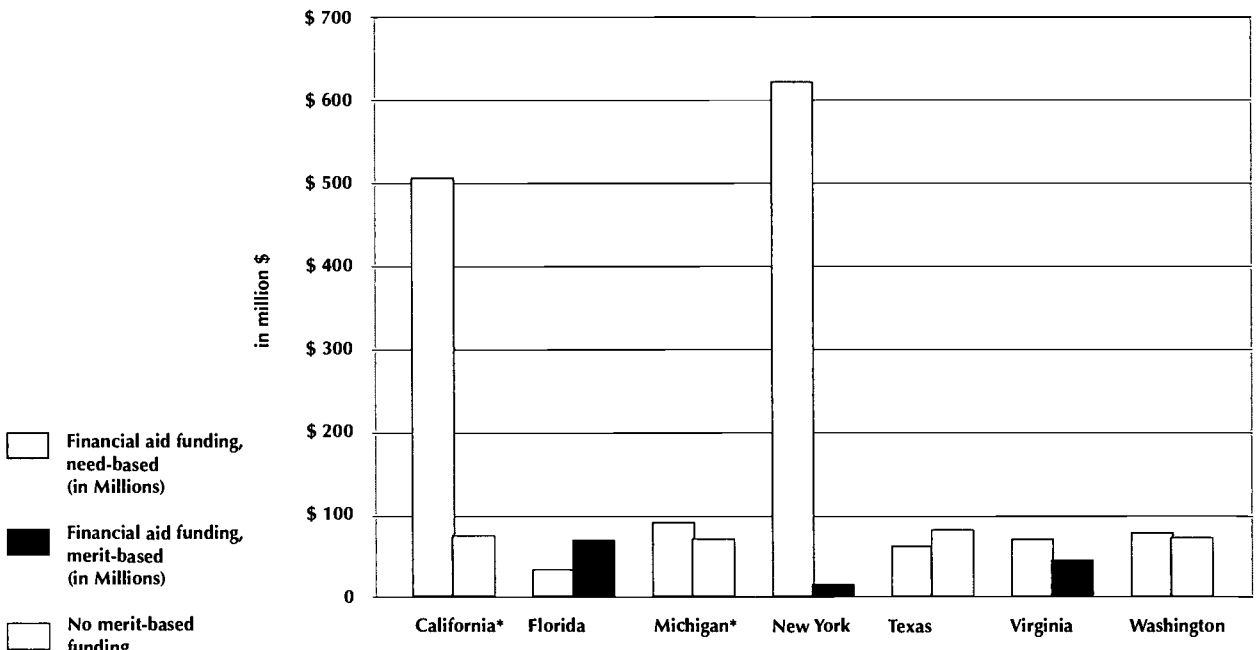
Budget for Higher Education



Tuition Levels



Financial Aid Funding, 1999–2000



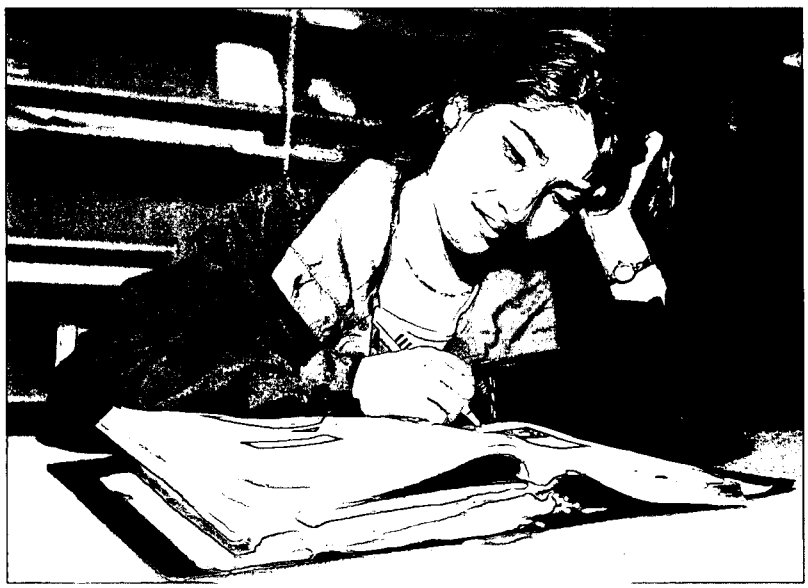
* California will begin merit-based aid in 2001–2002.
Mchigan will begin merit-based aid in 2000–2001.

Summary of State Data

	California	Florida	Michigan	New York	Texas	Virginia	Washington
Public 4-years	33	10	15	44	41	15	6
Public 2-years	109	28	29	36	68	24	28
Enrollment, 4-year	514,700	214,000	263,000	326,000	413,000	171,000	89,300
Enrollment, 2-year	1,150,000	320,700	195,000	241,500	432,000	130,400	185,000
Minorities, 4-year	52%	32%	17.5%	38%	35%	24%	21%
Minorities, 2-year	51%	33%	17%	32%	43%	25%	19%
State higher education appropriations 1999-2000 (in billions)	$7.7	$2.7	$2.0	$3.1	$4.1	$1.4	$1.2
State higher education expenditures, 1999-2000 (in billions)	$14.2	$3.7	$5.6	$6.7	$8.3	$3.5	$3.0
Tuition, 4-year	$2,609	$2,022	$4,277	$3,905	$2,432	$4,160	$2,733
Tuition, 2-year	$392	$1,300	$1,679	$2,542	$889	$1,159	$1,591
Transfer: coordinating agency	No	Yes	No	No	Yes	Yes	Yes
statewide articulation agreements	Yes (IGETC)	Yes	No	No	Yes	Yes	Yes
individual articulation agreements	Yes	Yes	Yes	Yes	Yes	Yes	N/A
common general education core	Yes (IGETC)	Yes	No	No	Yes	Yes	Yes
common course numbers	No	Yes	No	No	Yes	No	No
transfer rate reported*	No	74%	No	CUNY 17% SUNY 19%	34%	50%	47%
Statewide student data system	Yes	Yes	No	Yes	Yes	Yes	No
Financial aid funding, need-based (in millions)	$504	$34.0	$96.4	$622.5	$74.6	$67.4	$80.2
Finanicial aid funding, merit-based (in millions)		$76.0		$11.0	$0.0	$37.2	

*Transfer rates are based on individual state definitions and are not comparable.

IMPROVING THE TRANSFER ROAD

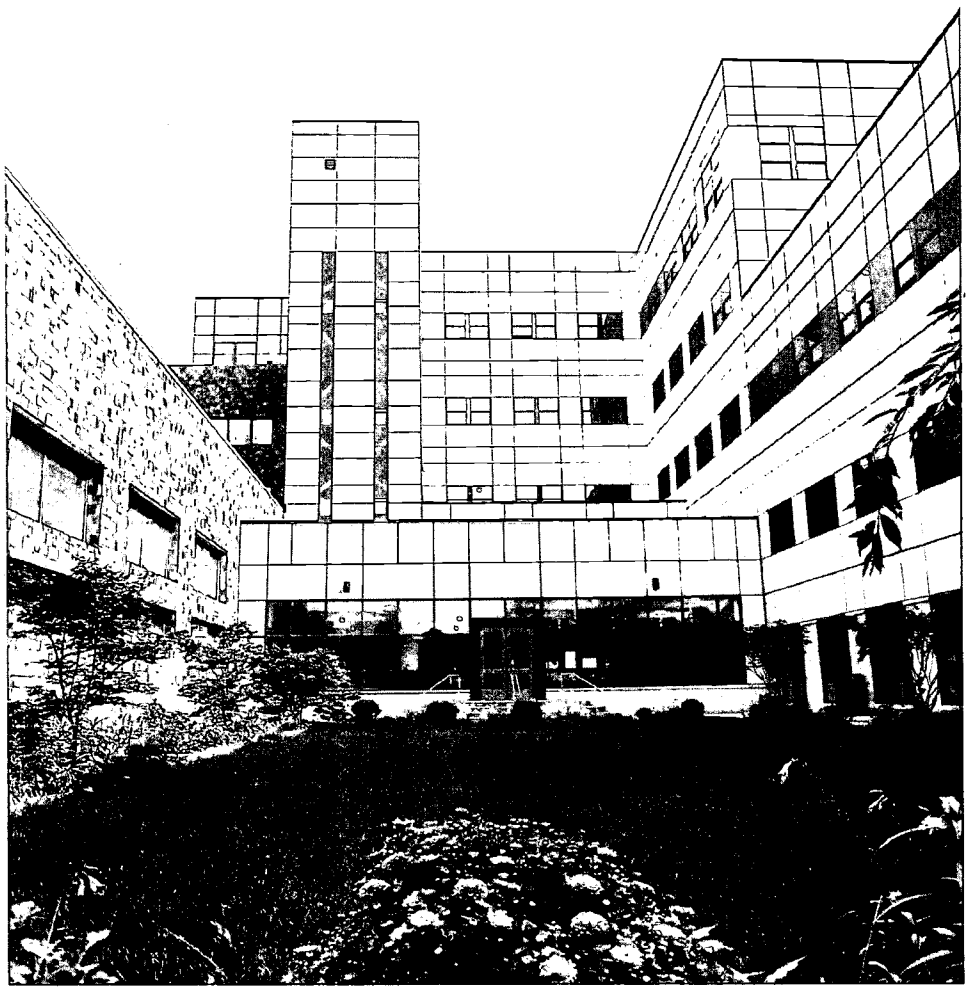


Researchers and practitioners have learned much in the last twenty years about transitions and transfer routes on the road to a college degree. Yet we still "do not know enough about articulation and the pool of transfer students" (Bernstein, 1999). The preceding study provides current information as a basis for recommended reforms. Seeking to "connect problems with solutions" (Richardson, Bracco, Callan and Finney, 1998), we suggest changes in policy and practice for the various agencies with a role in transfer.

Experience tells us the strands are intertwined and mutually dependent. Therefore we suggest a broad reform agenda. It calls for concerted action by legislators, policy makers, faculty and administrators. Its cornerstones are financial support, academic preparation, articulation, and counseling. Levers for moving the agenda are legislation, coordination, accountability and funding. Nothing less than a comprehensive attack on the roadblocks to transfer will make a real difference in the number of students who reach their destination.

Fulfillment of the community college transfer mission is not only important for the individual student, but it is also an indicator of the effectiveness of the individual college. Despite the difficulty of establishing a valid transfer rate, we think it is useful for setting performance objectives, as some state legislatures have done recently.

As success in moving students from two- to four-year colleges is recognized as a cost-effective, responsive strategy that broadens the impact of public education, it is a particularly appealing arena for policy makers (Alfred, Ewell, Hudgins and McClenney, 1999). Two-year campuses are usually cheaper, more convenient and more accessible than four-year schools and so are the first choice for most minority students. The impact on educational equality and social justice of improving articulation and transfer warrants national attention. The intractable transfer rate of 20 to 25 percent reinforces the recognition that colleges and policy makers are neglecting opportunities for expanding diversity of senior colleges and promoting national economic growth.



BASIC CONDITIONS

Analysis of major state community college systems reveals a wide variety of practices and a confusing array of data about transfer. Despite these complexities, examples of best practices and the uncommon sense of a number of educational leaders provide promising recommendations for positive change. The recommendations rest on a number of basic conditions. We know that

1. Enrollment drives community college policy.
2. Completion of the two-year program and transfer may serve as an accountability factor for both two- and four-year institutions.
3. Financial aid is the single most important factor in a student's decision to transfer.
4. Academic preparation is a key to degree acquisition.
5. The more credits a student acquires at a community college, the more likely she is to acquire a four-year degree.
6. Transfer students who complete effective developmental or remedial coursework may perform as well as or better than students who did not require remediation.
7. The typical pattern for most college students is transferring vertically, but there is a growing trend toward horizontal transfer and multi-institution attendance patterns.
8. On a national level, the transfer rate has been very steady, but there is a wide range among different institutions, suggesting that some strategies work better than others.

9. Special programs like Vassar's Exploring Transfer and Santa Ana's Summer Scholars Institute significantly increase the transfer rate for underprivileged and minority students.
10. Because of the broad variations in practice, policy recommendations may be easiest to implement at the state level.

State level action carries its own complications, however. The most effective legislative action may be to mandate cooperation between two- and four-year sectors and then to give a coordinating body of institutional representatives responsibility for designing and monitoring agreements. This is the approach used in Washington State in the 1970's, and the system developed over time has worked well. Other states in the study that have recently adopted a similar approach are Florida, Texas and Virginia. In Michigan, coordination is voluntary. Educational leaders are mindful of the possibility for legislative intervention, but the constitutional independence of the universities makes that less threatening, and the voluntary approach appears to work.

California's legislature has promulgated a number of systemic measures for improving articulation. This has resulted in a bureaucratic maze that functions well for those able to work through it but loses many others. Last year the legislature funded a new effort focussed on bringing faculty together to create a framework for academic solutions to transfer problems.

Among levers available to the state, providing money for new policies and programs as well as for students is the most powerful. Our first recommendations, therefore, are directed toward ways the state and also the federal government can improve transfer prospects directly through funding. Equally important, however, are the proposals relating to academic issues, which focus on supporting collaboration between two- and four-year institutions and on exemplary programs and practices to that end.

The recommendations, which follow, represent conclusions drawn from the literature, discussions with educators and policy makers, data gathered by the Education Commission of the States, and original presentations from scholars (Adelman, Finney, Byron and Kay McClenney, Merisotis, Mitchem, Nettles, Orfield, Richardson and Wellman). The array of recommendations is not prioritized. It is intended to offer a wide range of options so that different agencies and constituencies could choose the reforms most suitable to their goals and capacities. In reality, the elements of the transfer picture are so inter-twined that intervention at any level will

bring the whole spectrum of issues into play. The over-arching recommendation is at the conclusion, entitled "A Paradigm for Foundation Intervention." It suggests a framework for assisting states in selecting those actions which best meet their circumstances and priorities.

FINANCIAL AID

Although there are varied opinions on the order of importance of these issues, there is general agreement that financial aid and concerns about monetary support are the most important factors for students' educational choices. Recommendations for changes in this area at the federal and state level include the following:

1. Increase need-based financial aid and reduce students' reliance on personal loans. In particular, aid should be increased for independent and part-time students.
2. Make information about financial aid more widely available, directing special informational efforts toward poor people. Clear information should also be available regarding availability of financial aid for baccalaureate study so community college students know they can include transfer in their planning.
3. Design financial aid programs that promote longer stay at community college to encourage students to earn an A.A. degree (Illinois model: state aid increases with more credits from community college before transfer).
4. Extend time limits on aid for students who need extra time to complete their degree, as is the case with many community college students. State and federal aid agencies should consider funding remediation courses outside of the regular financial aid time limits.
5. Simplify the financial aid application process and provide literature that publicizes and explains it.
6. Give financial aid officers more flexibility to address individual students' needs.
7. Increase the allocation for TRIO to provide direct financial aid to TRIO-eligible students and require a portion of the funds to be reserved for the first two years, with matching funds provided by the institutions.
8. Promote and fund scaling up of model programs that have proven successful in increasing transfer.

9. Increase funding for pre-college programs: College Now, College Discovery, and high school-college collaborative programs, as earlier preparation increases motivation and success.
10. Gather information on what programs work and why. The federal government should know more about the role of financial aid in education. Collect information regarding effects on students who work while in school; formulas for recognition of financial responsibilities/burdens of students; what programs are working and why.
11. Bring activists who know the reality together with researchers to produce research that reflects the real life of those who need aid, to counter-act the common view of those on aid as lazy or morally bankrupt.

Two recommendations fall to the higher education institutions to implement:

12. Strengthen efforts to disseminate information about financial aid, including sending financial aid officers to high schools.
13. Modify front-loading policies at the four-year level so that grant money is available for transfer students rather than forcing them to rely on loans at the transition point.

ACADEMIC ISSUES

Another important cluster of transfer policies concerns academics. Implementation of these recommendations will require state-sponsored initiatives and incentives to generate cooperation among two- and four-year institutions.

1. Promote collaboration between two- and four-year faculty to develop articulation and transfer agreements, preferably on a statewide basis. These should include giving junior standing for students with A.A./A.S. degrees, accepting a common general education core, and agreeing on lower division courses acceptable in the major field at transfer. Provide academic allowances to faculty as incentives to serve on transfer councils.
2. Develop statewide course numbering systems on the Florida and Texas models to facilitate transfer.
3. Approve an associate degree awarded upon completion of the general edu-

cation requirements (after completion of 60 quarter credits) as qualification for transfer.

4. Create a state-level articulation body that will deal with all aspects of articulation and transfer.
5. Support special academic programs that give community college students experience at a baccalaureate institution, e.g., Summer Scholars Institute at UC Irvine and Exploring Transfer at Vassar, and discipline-based programs such as the Biology Transfer Consortium at U.C. Berkeley that support articulation for majors as well as general education.
6. Assign responsibility for developmental education to community colleges, provide adequate funding to mount effective programs, and hold colleges accountable for measurable results.
7. Offer four-year degrees on community college campuses and allow community college students to cross-register with neighboring senior institutions.
8. Develop agreements for transferring credits from career education programs such as nursing, computer science and criminal justice.

ADMISSION AND REGISTRATION

Admission and registration policies and practices also offer opportunities to promote transfer. Changes in this area focus particularly on ways four-year institutions can ease the path to transfer. Recommendations include the following:

1. Create programs that permit cross-registration, joint enrollment and joint admissions at four-year institutions for community college students.
2. Provide university admissions representatives in the schools on a weekly basis beginning with ninth grade and continuing through community college (University of Washington model).
3. Increase university outreach efforts at community colleges with high minority enrollments to offset rollbacks in special admissions programs.
4. Give transfer students priority in admission to four-year schools and guarantee admission to selective state institutions for a percentage of community college students.

TRANSFER PRACTICES

Since data show that earning an associate's degree correlates with success at the baccalaureate level, these recommendations focus on encouraging students to prepare for transfer and retaining them until they complete the A.A. degree:

1. Develop policies and support practices that encourage program/degree completion at the community college.
2. Commit counselor positions that "intrusively" address transfer at an early stage in community college students' education (Muraskin, 2000).
3. Promote constructive working relationships between two- and four-year faculty to assist students in the transition to the university.
4. Promote transfer for students in career programs by developing common course numbering and cross listing for courses that can be applied to both vocational and academic tracks.
5. Publicize transfer opportunities through recruitment and orientation programs and information provided in print and online.
6. Create partnerships between community colleges that have effective transfer programs and those with low numbers so institutions can learn from each other.
7. Create statewide record systems to learn rates and patterns of transfer, retention and degree completion. Use the National Student Clearinghouse to provide data on students who attend colleges out of the state.
8. Develop profiles of transfer students that challenge misconceptions and show success stories to educate the public and legislators.

INCENTIVES

Changes in state policies and financial support levels will be necessary to provide capacity for improvements and incentives for implementing them. These changes could include financial rewards for carrying out recommendations listed above, such as developing general education core, full transfer of community college degrees, common course numbering systems, and dual enrollment and admissions. Additional recommendations for incentives include the following:

1. Reward two-year colleges for increasing transfer numbers and our-year schools for number of transfers accepted and graduated.

2. Make funding for community colleges more comparable to the formula for undergraduate education at baccalaureate institutions.
3. Revise enrollment-driven funding policies to provide financial incentives for increased transfer numbers and support special programs promoting transfer.
4. Provide financial incentives for collaboration among segments of higher education within the state.
5. Limit percentage of part-time faculty to assure maximum faculty contact for students and faculty involvement in improving transfer.

REMEDIAL EDUCATION

Unfortunately, no analysis of the current problems in increasing the number of students who acquire a bachelor's degree is complete without some discussion of the role of K-12 and remedial education. More and more, reformers and authorities are looking for ways that higher education and public school systems can cooperate to solve some of the persistent problems. That hope is the rationale behind the current standards issue and the long delayed emphasis on teacher education.

Recognizing the vacuum in coordinating efforts, the Education Commission of the States recently announced a program to provide grants to states to develop new approaches to coordinate the work of higher education and public schools. Leading up to this new effort was a report that urged state lawmakers to ensure "that the curriculum of teacher preparation programs are aligned with state standards for school children and that colleges train teachers who can help children meet those standards" (Basinger, 2000).

Members of the National Center on Education and Economy have suggested ending formal high school at the tenth grade and allowing students to attend community college or an individualized high school program. The implications of this suggestion are overwhelming, yet several states have already entered this area with positive results. The success of the Middle College model and exemplary transitional programs reinforces the value of reconfiguring high school.

Addressing the problems of K-12 education and the resultant inability of high school graduates to qualify for higher education requires a massive effort. The options for reform are obvious and multifaceted, but the key is improved instruction in the basic skills at the earliest possible level. Effective preparation for college begins with these steps:

1. Creating an early intervention level with a public parent-child program in mathematics and reading readiness delivered through telecommunication for children aged two to four.
2. Providing a national pre-school program, free and available for four-year-olds, to begin teaching them to read, write and calculate.
3. Developing tested and approved curriculum taught in English for all kindergarten children.
4. Increasing the number of paraprofessionals and teacher assistants at the early childhood level.
5. Identifying children with real disabilities by the third grade and providing help to overcome their limitations.
6. Teaching reading as a subject area through the tenth grade, in addition to English composition and literature.
7. Training all teachers to deliver skill instruction and offering that training in the academic content area are rather than education courses.
8. Introducing higher education opportunities at the fifth grade (College Bound, e.g.)
9. Using the community college as a site for training teachers at the high school level.
10. Requiring a clinical year in teacher training programs.

Accepting the premise that developmental/remedial education is the province of the community college, a number of recommendations follow:

1. Train all content-area teachers to be remedial teachers. Make all college faculty responsible for knowing developmental principles.
2. Assess developmental student outcomes and follow-up data and evaluate effectiveness of instruction.
3. Support curriculum and faculty development to improve developmental courses and programs.
4. Employ technology judiciously to augment classroom instruction.
5. Have college instructors teach remediation in high schools (College Now Program).
6. Have high school students go to college for instruction (College Connection).
7. Encourage textbook publishers to add "extra help" sections.

A PARADIGM FOR FOUNDATION INTERVENTION

While redesigning K—12 schooling is fundamental to the total effort for educational equity, the major thrust of this study is to identify policies and practices that can make a difference in student success at the two- and four-year level. This report offers an ambitious set of proposals. Many states and institutions employ some of them, but there is universal need for improvement. The question becomes how to convince states and institutions to develop a broader attack on the problems of transfer.

A group of educators who have given considerable thought to transfer issues believe that the most promising avenue for change is action at the state level. They recommend a program to encourage formation of state transfer consortia. The basic premise is that improving transfer requires a somewhat different set of actions in each state. States need encouragement and support for assessing their particular transfer picture and designing a comprehensive effort to fill in the gaps.

The program, preferably administered by a non-governmental agency, would start with these basic policy objectives:

1. Maximize bachelor's degree achievement.
2. Eliminate achievement gaps among poor and minorities.
3. Promote transfer-directed student behavior.
4. Maximize efficiency.

The first step would be inviting state governors to form teams to attend a meeting explaining the initiative. Teams would have to include representatives from the governor's office, the legislature, coordinating boards, and two- and four-year institutions. The meeting would be a call for project proposals and would include assistance for the teams in preparing them. The purpose of the projects would be to create a state transfer agenda responding to the program objectives through changes in policy and practice that fit the state's needs.

The program panel would select a given number of projects for funding. To be chosen for funding, proposals would need to show real participation by policy makers representing all the players from the team and would have an appropriate home with one of the team's organizations. A workshop would provide technical assistance for the teams whose proposals are chosen. Teams would decide what the initiative would look like for their state, identifying:

- Progress the state has already made;
- Available data and data needed;
- Promising strategies; and
- Accountability/performance measures.

Once the agenda-building stage is completed, a possible next phase would involve analysis of the projects as to their potential for effecting change. The most promising projects would be eligible for implementation funding.

Such a program could challenge each state to implement all of the recommendations presented above that were not already in effect in that state. Admittedly, this would be a demanding reform effort. Given the pressing need to scale up educational opportunities for the sake of equity, justice, and national need, and given the partially unfulfilled promise of the community college to meet that need, this is reform that cannot wait.

SUMMARY OF RECOMMENDATIONS

The table below summarizes transfer problems and recommended changes. It also identifies the agencies or groups who should take responsibility for designing and implementing the changes.

A Paradigm for Foundation Intervention

PROBLEM	RECOMMENDATION	AGENCIES
General lack of leadership, financial support; different needs in each state for solving transfer problems	Mount a major program to support states in assessing transfer and setting agendas appropriate to the states for major transfer reform.	Foundations, states

Financial Aid

PROBLEM	RECOMMENDATION	AGENCIES
Deep indebtedness from student loans	Increase amount of grant aid.	Federal, state
Difficulty for independent students to qualify for aid	Eliminate restrictions on Pell Grants for independent students.	Federal, state
Extra time non-traditional students need to earn degree	Extend time limits for aid.	Federal, state
Students' confusion/lack of knowledge about aid	Disseminate aid information more widely, simplify process.	Federal, state, colleges
Lack of funding for effective transition programs	Scale up successful efforts.	Federal, state, foundations
Lack of information/misinformation about effects of financial aid on students & degree acquisition	Sponsor research on students and aid.	Federal, state, foundations

Academic Issues

PROBLEM	RECOMMENDATION	AGENCIES
Difficulty for students transferring courses/credits from 2- to 4-year colleges	Promote agreement between 2 & 4-yrs. on AA, gen. ed. & major courses.	States, 2-& 4-yr. colleges, foundations
Lack of communication between 2- & 4-yr. faculty	Involve faculty from both sectors in articulation efforts.	2- & 4-yr. colleges
Lack of coordination of transfer policies	Empower statewide body to coordinate transfer.	States
Lack of academic programs giving under-served students a 4-yr. experience	Support faculty-led collaborative programs using proven models.	States, 2 & 4-yr. colleges, foundations
Inaccessibility of 4-yr. programs	Enable 2-yr. colleges to offer 4-yr. degrees & cross-registration.	States, 2-& 4-yr. colleges
Transfer obstacles for students in career programs	Develop transfer paths for technical degrees.	2- & 4-yr. colleges
Confusion about course portability	Develop statewide course numbering system.	States, 2- & 4-yr colleges
Students lacking basic skills	Commit funds, methods, assessment to developmental education.	States, 2 year colleges

Admission and Registration

PROBLEM	RECOMMENDATION	AGENCIES
Bureaucratic barriers to transfer for first-time and under-prepared students	Permit cross-registration, joint enrollment and admissions at 4-yr. schools.	2- & 4-yr. colleges
Lack of early awareness of educational opportunities	Send university admissions officers to middle & high schools & 2-yr. colleges.	4-yr. colleges
Reduced minority enrollment due to elimination of special admissions	Increase university outreach efforts at 2-yr. colleges with high minority enrollments.	4-yr. colleges
Lack of space for transfers in top state universities	Guarantee admission to selective state universities for a percentage of 2-yr. transfers.	4-yr. colleges

Transfer Practices

PROBLEM	RECOMMENDATION	AGENCIES
Students who do not achieve their goal of an A.A. degree.	Increase efforts to retain students until program completion.	2-year colleges
Students who need but do not seek counseling	Provide adequate counselors for intrusive counseling program.	2-year colleges
Difficulty of adjusting to 4-year study	Promote faculty contacts to develop paths between 2- & 4-year study.	2- & 4-yr. colleges
Some colleges with very low transfer rates	Create partnerships with effective transfer colleges.	2-yr. colleges
Unnecessary duplication of courses between career and academic programs	Cross-list comparable technical and academic courses.	2-yr. colleges
Student lack of knowledge of transfer opportunities and routes	Promote transfer via recruiting, orientation, counseling.	2- & 4-yr. colleges
Lack of data on transfer, persistence, degree acquisition	Develop statewide student record systems.	States

Incentives

PROBLEM	RECOMMENDATION	AGENCIES
Lack of incentives for institutions to promote transfer	Reward 2 & 4-yr schools for increasing transfer & graduation.	State
Lack of incentives for 2 & 4-yr. collaboration	Provide financial and statutory incentives for collaboration.	State, college trustees
Inadequate funding for 2-yr. transfer efforts	Fund 2-yr. colleges at same formula as 4-yr. undergraduate support.	State
Lack of support for special retention programs	Revise funding policy to support special programs.	State
Limited student access to faculty	Limit percentage of part-time faculty.	State, trustees, administrators

Remedial Education

PROBLEM	RECOMMENDATION	AGENCIES
Inadequate educational foundation, especially for the poor, minorities	Provide effective early education programs and increase trained staff in reading, writing, mathematics.	Federal, state, K-12 schools foundations
Poor reading skills among high school graduates	Require the teaching of reading through tenth grade.	State, K-12 schools
Inadequate teacher training	Train all teachers in skill instruction; require clinical year in teacher training.	Education colleges
Failure to develop motivation for college attendance in middle & high school	Introduce higher education opportunities from fifth grade on.	K-12, 2 & 4-yr colleges
Need for improved developmental education at 2-yr colleges	Train all faculty to be developmental educators.	2-yr. colleges
Lack of information on effectiveness of college developmental programs	Assess student outcomes and effectiveness of developmental programs.	2-yr. colleges
Ineffective curriculum and instruction	Support curriculum and faculty development to improve instructional effectiveness. Employ technology to augment classroom instruction.	2-yr. colleges

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