



# Community Colleges: Doorways for a Global Workforce

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CHANGES IN TECHNOLOGY AND  
DEMOGRAPHICS ARE DRIVING  
CHANGES IN COURSE OFFERINGS  
— AND WHO PAYS FOR THEM.

**W**here does a middle-aged worker whose job has been sent offshore go to train for a new job? How can a person with an inadequate education prepare for a career that requires significant math skills? How does a company retrain its existing workforce for new technology?

The answer to all of these questions is enrollment in one of America's 1,732 community colleges. They are an increasingly important source for vocational education and for workforce retraining. Partnerships with business, industry, and government abound to meet both general and local employment needs.

In addition to their traditional role as a stepping stone to a four-year degree, community colleges annually grant more than 450,000 associate degrees and nearly 200,000 two-year certificates, according to the National Profile of Community Colleges.

The impetus for upgrades in employment skills comes from many sources. Changing technology is most often cited, but demographic shifts are another critical factor. Baby boomers and their future long-term needs for health care are driving significant demand

for additional healthcare workers. While many of these jobs still require bachelor's and advanced degrees, numerous critical positions will be filled by people with skills gained in two-year institutions.

Five of the 30 fastest growing occupations are in some of the health and fitness fields that will be needed to support an aging population, and they require an associate degree or other postsecondary education — exactly the level of training provided by community colleges. (See Chart A) In fact, the National Profile reports, 65% of new health care workers get their training at community colleges.

A corollary of the “Graying of America” investment theme is that the low birth rate in the native population will increase the need for young immigrants to provide direct services and care to the aging native population. Community colleges play an important part in educating immigrants and other members of minority groups. More than half of Hispanic college students are enrolled in community colleges. Similarly, 46% of the undergraduate students of African and Asian descent attend community colleges.

President Bush called attention to the significance of community colleges in his 2004 State of the Union address. He called for granting \$250 million to help the schools provide additional vocational training to prepare the workforce for growing industries. While these funds are a welcome additional resource, they are being offset by reductions in other federal training funds and by reduced allocations from the state and local governments that have provided half of the colleges' revenue.

### Paying the Bills

The relatively low cost of community colleges makes them particularly valuable to the regions and the commuting populations they serve. The average cost to attend a community college in the 1999-2000 school year was \$9,100, of which loans and grants paid approximately 20%. The cost of attendance includes

tuition, fees, books, room and board or commutation costs. (See Chart B, page 4)

Part-time students account for 63% of community college enrollment. As a result, a smaller percentage of their tuition is paid from federal and state grants and loans than is paid for students enrolled in four-year colleges. The majority of the federal funding that supports community colleges comes in the form of student aid, such as Pell grants to needy students, student loans, and veterans benefits. Problems for many part-time students are that aid is dependent on the number of credit hours for which they enroll and there are limits on applying aid to repeated classes and certain remedial coursework. Employer reimbursements for education provide assistance to many part-time students. Federal tax credits, such as the Hope Credit and Lifetime Learning Credit, can offset the costs of training and retraining for many employed people who are enrolled in community colleges. However, the lack of resources for initial tuition payments and books remains a barrier for low-wage workers who need training but lack time to take a course load that would qualify for student aid. To the extent that adequate preparation of the

workforce is a national or state priority, finding ways to overcome financial aid barriers for community college students will advance the overall goals of maintaining a competitive workforce. (See Chart C, page 4)

Adults make personal and economic sacrifices to attend community college, and that pays off: Studies show a 16% increase in earnings after attaining a one-year certificate and a 36% increase with an associate degree.

For many students, however, there are hidden costs to this achievement — paying for non-credit courses to overcome inadequate high school preparation. The need for remediation in math, writing, and reading is a clear problem in maintaining workforce competitiveness; 36% of students entering community college require at least one remedial course. This reflects the often cited problems of inadequate secondary school preparation for college-level studies, particularly in schools with significant minority populations. The historic open admission policies of community colleges are a second chance at success for underprepared high school graduates and others who obtained only a GED.

CHART A: FASTEST GROWING OCCUPATIONS REQUIRING AN ASSOCIATE DEGREE OR POSTSECONDARY VOCATIONAL AWARD 2000-2010

RANK	OCCUPATION	EMPLOYMENT (IN THOUSANDS OF JOBS)	PERCENT CHANGE	MOST SIGNIFICANT SOURCE OF EDUCATION OR TRAINING
2	Computer support specialists	490	97	Associate degree
6	Desktop publishers	25	67	Postsecondary vocational award
13	Medical records and health information technicians	66	49	Associate degree
18	Physical therapy assistants	20	45	Associate degree
20	Fitness trainers and aerobics instructors	64	40	Postsecondary vocational award
23	Occupational therapy assistants	7	40	Associate degree
24	Veterinary technologists and technicians	19	39	Associate degree
28	Dental hygienists	54	37	Associate degree

Source: 2002-03 edition, Occupational Outlook Handbook, 2000-2010

**Partnerships for Learning**

Some employers are picking up at least part of the bill. An American Association of Community Colleges survey found that 45% of the employers that contract with community colleges for worker training had provided remedial training for their workers. This expense is a direct measure of how deficiencies in basic skills affect productivity and profits.

Local economic development efforts have become a key part of the community college mission. Contract training ranges from preparing a workforce to meet the needs of a specific employer moving into an area to offsetting the impact of loss of a major employer, such as Boeing in Seattle.

Workforce training programs in Maryland’s 16 community colleges target manufacturing and technology companies and support apprenticeships in trades and crafts. Grants in New York this year will provide training for 8,300 private sector employees in subjects that include wholesale distribution, lean manufacturing, culture and customs for global business, and care of laboratory animals.

Partnerships with technology companies have resulted in a growth of professional certificates being offered by community colleges. Certification for the products of CISCO, Microsoft, Oracle, and other leading information technology companies are becoming increasingly important as proof of competence to potential employers and for maintenance of skills in fields with extremely short product life cycles.

Many schools are expanding their ability to reach people who need this training by offering distance learning that eliminates geographic barriers.

For example, a computer engineer in New York can get a certificate in web site design from a community college in Austin, Texas, while being reimbursed by an international media company.

**Looking Ahead**

Low costs and policies of openness that welcome a diverse student body of working adults are significant drawing cards for community colleges. The

president’s proposal of \$250 million in federal funds for business partnerships is a good first step in supporting these schools. However, the greatest impact likely will come from traditional sources of revenue — state governments, tuition, and local businesses that need to prepare

for the next generation of technology, for healthcare needs, and for the distance learning required for workforce development. In the face of global competition, community colleges are one of the most cost-effective local investments. ❖

[Studies show a 16% increase in earnings after attaining a one-year community college certificate and a 36% increase with an associate degree.]

CHART B: COMPARISON OF ANNUAL COLLEGE COSTS FOR FULL-TIME STUDENTS BY INSTITUTION TYPE, 1999-2000 ACADEMIC YEAR

	Average total cost	AVERAGE NET PRICE (COST MINUS ALL GRANTS AND LOANS)			
		All students	Low-income students	Middle-income students	High-income students
<b>PRIVATE NOT-FOR-PROFIT:</b>					
Research and doctoral	\$29,300	\$18,000	\$10,900	\$15,900	\$23,600
Comprehensive and baccalaureate	\$22,200	\$11,600	\$7,300	\$11,000	\$16,300
<b>PUBLIC FOUR-YEAR:</b>					
Research and doctoral	\$13,600	\$8,900	\$5,700	\$9,100	\$11,300
Comprehensive and baccalaureate	\$11,200	\$6,900	\$4,500	\$7,300	\$9,300
<b>PUBLIC TWO-YEAR COMMUNITY COLLEGE</b>					
	\$9,100	\$7,000	\$5,700	\$7,500	\$8,400

Sources: U.S. Department of Education, National Center for Education Statistics, 1992-93 and 1999-2000 National Postsecondary Student Aid Study (NPSAS:93 and NPSAS:2000). What Students Pay for College: Changes in Net Price of College Attendance Between 1992-93 and 1999-2000, Laura Horn, Christina Chang Wei, and Ali Berker.

CHART C: COLLEGE STUDENTS USING SCHOLARSHIPS, GRANTS, AND LOANS

TYPE OF INSTITUTION	% RECEIVING FINANCIAL AID	% RECEIVING GRANTS	% TAKING OUT LOANS
Private not-for-profit four-year	85	67	60
Public four-year	62	46	40
Public two-year community college	38	33	7*

\*23% had taken out a federal student loan at some time, either in the 1999-2000 academic year or earlier.

Source: U.S. Department of Education, National Center for Education Statistics, Student Financing of Undergraduate Education: 1999-2000 (NPSAS:2000).